



UNIVERSITY OF MASSACHUSETTS

Amherst – Boston – Dartmouth – Lowell – Worcester – UMassOnline

FY 2009 Annual R&D Expenditures Expanded Version

(With Comparative Data and FY 2008 NSF Rankings)

UMass President's Office
Office of Institutional Research
April 2010

Preface

The *FY 2009 Annual Research and Development Expenditure Report (Expanded Version)* presents information on the research and development expenditures for the University of Massachusetts System. It is based on data that our five campuses provide to the National Science Foundation (NSF) through its annual Survey of Research and Development Expenditures at Universities and Colleges. In addition to the FY 2009 data, this report also provides trend data in many cases. Additional highlights for the UMASS System as well as UMass Campuses based on NSF rankings and comparative data can also be found in this expanded version. Please note that rankings data as well as data for all U.S. institutions is for the prior fiscal year FY 2008 (most recent available).

A Note on the Definition and Criteria For ‘R&D Expenditures’ - According to the National Science Foundation Survey of Research And Development Expenditures, “(*Separately budgeted*) *R&D Expenditures* include all funds expended for activities that are specifically organized to produce research outcomes. These activities are either commissioned by an agency external to the institution or are separately budgeted by an organizational unit within the institution. *Expenditures* are funds actually spent by an institution during its fiscal year. *Separately budgeted R&D equipment purchased from current funds* includes all research equipment purchased under sponsored research project awards” (www.nsf.org). The NSF R&D Expenditures data do not include research monies expended in any training or education activities.

With regard to this report, please note the following:

- Date for *Federal Obligations for Science and Engineering Research and Development to Systems of Universities and Colleges, Ranked by Total Amount Received, By Agency* (Appendix P, Page 94) is for FY 2007 as FY 2008 data was unavailable at the time of publication of this report.
- Following the implementation system-wide of ERP research administration software in 2007, significant improvements have been made to the methodology used to gather, analyze, and report R&D Expenditures data. Although variations at the aggregate level are not overly significant, there might be a slight impact of possible methodological inconsistencies for trended data at the sub-category levels. Comparison to data from prior years should be made with this awareness, as campuses are currently in the process of reviewing their methodology.

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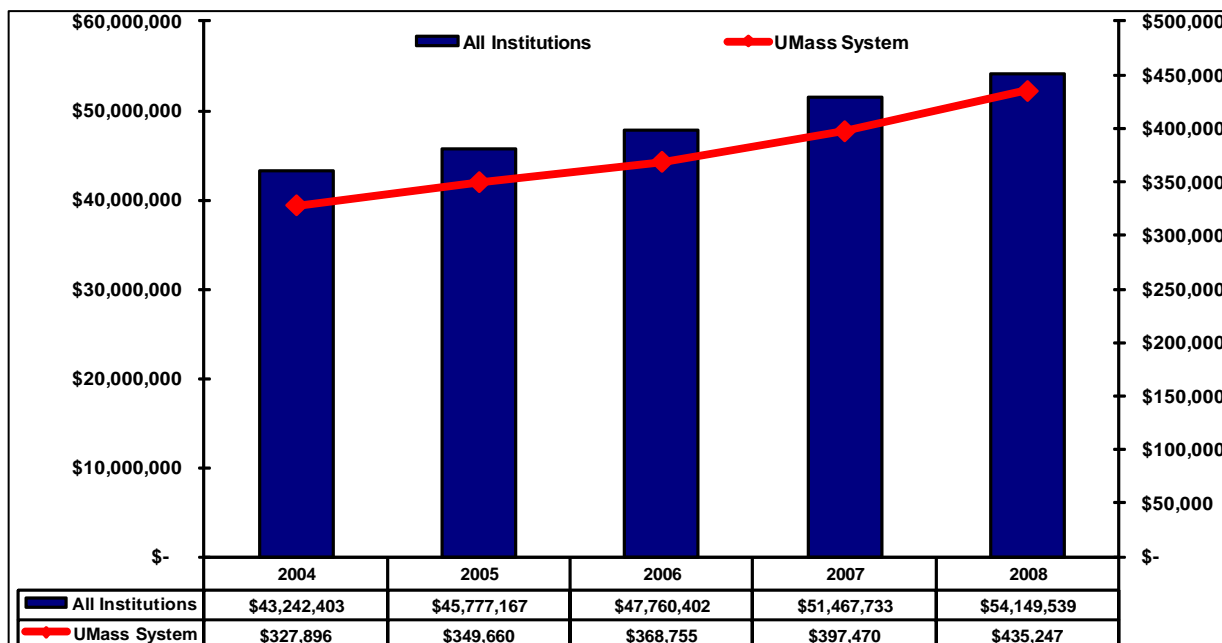
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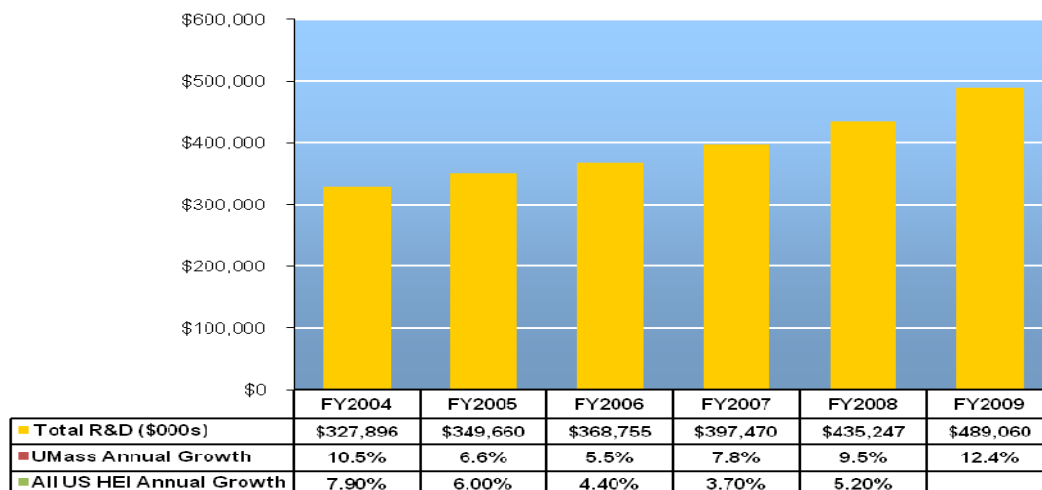
EXECUTIVE SUMMARY

- UMass Total R&D Expenditures** - Total FY2009 R&D expenditures for the University of Massachusetts System was reported at \$489.1 million, which represents a 12.4% increase from the FY2008 total of \$435 million.
- UMass versus All U.S. Institutions - Total R&D Expenditures and Growth** - Between FY2004-FY2008, the UMass System has shown higher annual growth rates in total R&D Expenditures in comparison to all U.S. Institutions. In comparison to the national annual



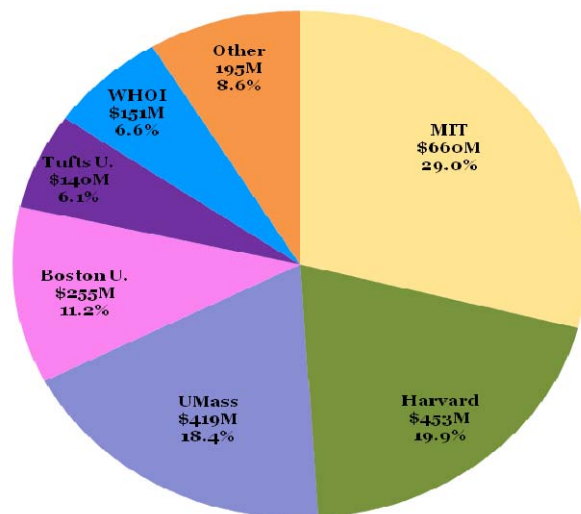
*R&D Expenditures: UMASS versus All U.S. Institutions
As Percent of all MA Institutions, FY2004-FY2008*

growth rates of 7.9%, 5.9%, 4.3%, 3.7%, and 5.2% respectively, the UMASS System reflected annual growth rates of 10.5%, 6.6%, 5.5%, 7.8%, and 9.5% for the same years.



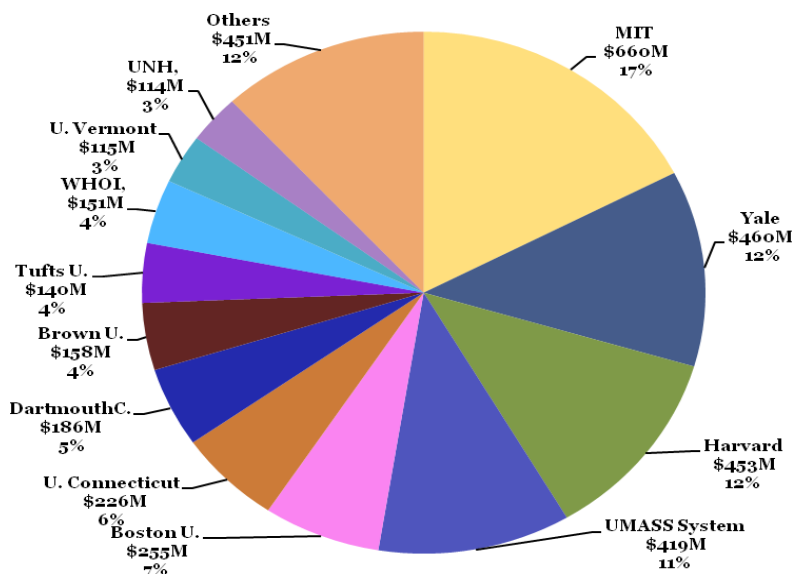
*Total R&D Expenditures: UMASS System (FY2004 – FY2009)
With Comparative Annual Growth for UMASS and All U.S. Institutions (FY2004 - FY2008)*

- **UMass Science & Engineering R&D Expenditures as Percent of MA Institutions** - Based on FY 2008 data, the UMASS System comprises over 18% of the total Science and Engineering R&D Expenditures for Massachusetts institutions. (*Appendix B*).



*S&E R&D Expenditures: UMASS System and Select Institutions
As Percent of all MA Institutions, FY 2008*

- **UMass State Ranking in Science and Engineering R&D Expenditures** - Among Massachusetts colleges and universities, UMass ranks 3rd in S&E expenditures. UMass, MIT, Harvard and BU together account for 79% of the academic science and engineering R&D expenditures in the state. (Rankings based on FY 2008 data).
- **UMass Total R&D Expenditures as Percent of New England Institutions** – Based on FY 2008 data, the UMass System comprises 11% of the total R&D Expenditures for New England institutions.



*Science and Engineering R&D Expenditures: UMASS System and Select Institutions
As Percent of All New England Institutions*

- **UMass R&D Expenditures by Funding Source (FY 2009).** In terms of funding sources for Science and Engineering research, 58% is from the federal government, 25% is from institutional sources, 3% is from state and local government, 6% is from industry and 8% is from other sources (e.g., private foundations).
- **UMass Areas of Funding Growth.** Between the reporting cycles FY 2008-09, industry sponsorship dropped slightly by 1.7%, institutional funding increased 52%, other funding increased 18.2%, and federal funding stayed almost level from the prior year.
- **Life Sciences comprise more than half of all R&D Expenditures at UMass.** At \$275 million, Life Sciences constitute more than half of UMass' total R&D expenditures (56.1%). The FY 2009 distribution of R&D expenditures by field is:

Life Sciences	56.1%	Social Sciences	4.1%
Physical Sciences	7.0%	Non Sciences/Engineering	4.2%
Engineering	15.7%	Psychology	2.7%
Computer Sciences	4.3%	Mathematical Sciences	0.7%
Environmental Sciences	4.4%	Other Sciences	0.7%

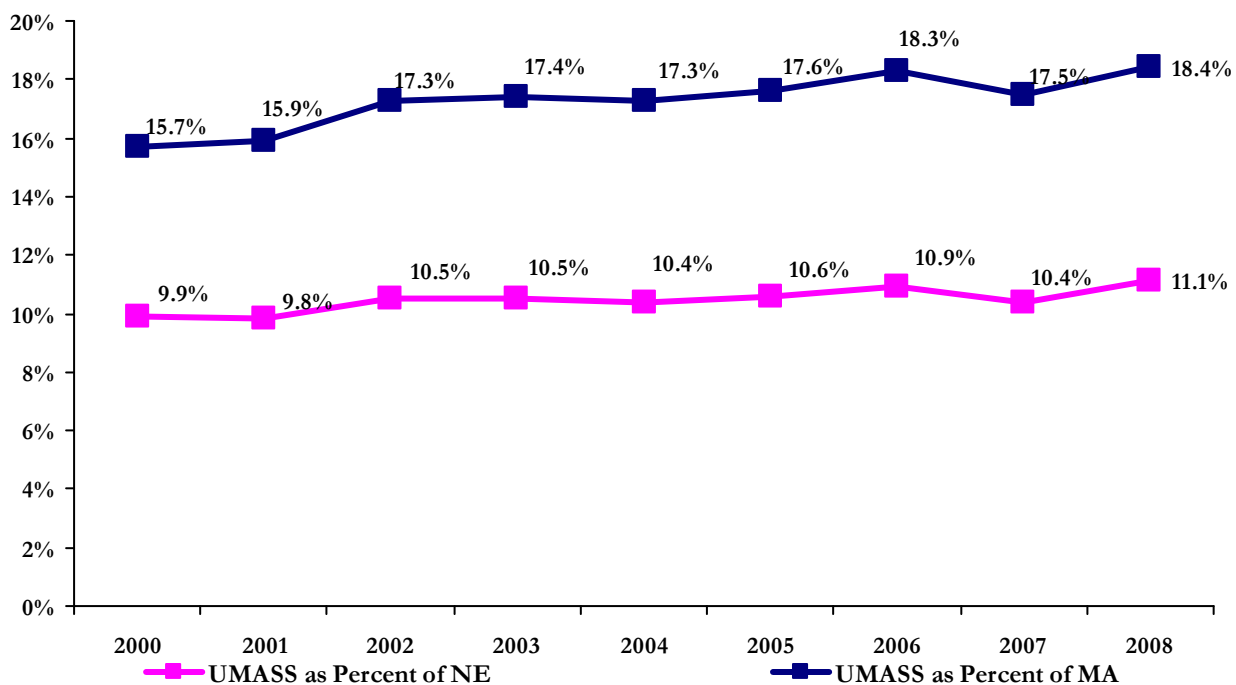
- **UMass Federal Obligations for Science and Engineering R&D Expenditures increases by nine percent.** In FY 2007¹, total federal obligations in Science and Engineering R&D for the UMass System were at approximately \$218.21 million. This reflects a 9.5% increase from FY 2006, when total federal obligations to the UMass System were at \$199.3 million. (Appendix P).

¹ Please note that the data is for FY 2007 and not FY 2008. At the time of publication of this report, FY 2008 data was unavailable.

Additional Highlights for UMASS and UMASS Campuses

I. UMass Science and Engineering R&D Expenditures Percent of All New England and Massachusetts Institutions

- The University of Massachusetts Science and Engineering R&D Expenditures has grown consistently over the past few years. In FY 2000, UMass R&D Expenditures in Science and Engineering constituted 15.7% of all of Massachusetts R&D Expenditures as compared to 18.4% in FY 2008, reflecting a 2.7% increase in percentage points. *[Appendix A1]*.
- The University of Massachusetts Science and Engineering R&D Expenditures has also grown as a proportion of total Science and Engineering R&D Expenditures for all New England institutions. In FY 2000, UMass R&D Expenditures in Science and Engineering constituted 9.9% of all of New England R&D Expenditures as compared to 11.1% in FY 2008 *[Appendix A1]*.



UMASS Science and Engineering R&D Expenditures as Percent of New England and MA

- When compared to the New England region and the State of Massachusetts, UMass performance in Science and Engineering R&D Expenditures vary by field. The top field in this arena has been Math and Computer Sciences (where UMass R&D Expenditure is at 17.8% of that of the New England institutions and 24.6% of that of all Massachusetts institutions). This is followed by Psychology where UMass R&D Expenditures is at 14.9% of the total New England division and 27.4% of Massachusetts; Life Sciences, where UMass is at 11.7% of New England and 22.3% of

Massachusetts; Social Sciences, where UMass is 10.8% of New England and 16.7% of Massachusetts. [Appendix A2].

II. NSF Research and Development Expenditures Rankings Based on FY 2008 and Past Trends

UMass System Ranking

- The UMass System ranked 16th (of 59) in terms of Federal Obligations for Science and Engineering R&D to Systems of Universities and Colleges (FY2007)². [Appendix P].

UMass Campuses – Science and Engineering R&D Expenditures Rankings

- UMass Amherst ranked 105th nationally in total S&E R&D Expenditures from a total of 679 institutions nationwide [FY2008, Appendix B].
- UMass Medical School ranked 99th nationally in total academic S&E R&D Expenditures [FY2008, Appendix B].
- UMass Lowell ranked 192nd of 679 institutions nationally in total S&E R&D expenditures [FY2008, Appendix B].
- UMass Boston ranked 209th of 679 institutions nationally in total S&E R&D expenditures [FY2008, Appendix B].
- UMass Dartmouth ranked 238th of 679 institutions nationally in total academic R&D expenditures [FY2008, Appendix B].

UMass Campuses – Prominent Rankings

- UMass Amherst has consistently ranked among the top 20 universities and colleges in total R&D Expenditures in the Computer Science field (FY 2003-2008). In FY 2008, UM Amherst ranked 18th among the first 100 institutions. [Appendix F].
- UMass Boston has consistently ranked among the first 100 institutions for academic R&D Expenditures in the Social Sciences over the past five years. In FY 2008, UM Boston ranked 74th [Appendix M].
- From FY 2005-FY 2008, UMass Dartmouth's ranking has ranged between 67th -72nd among the first 100 institutions, for total academic R&D Expenditures in the Environmental Sciences. In FY 2008, UMass Dartmouth ranked 72nd. [Appendix H].

² Please note that the data for *Federal Obligations for Science and Engineering R&D to Systems of Universities and Colleges* is for FY 2007 and not FY 2008. At the time of publication of this report, FY 2008 data was unavailable.

- UMass Medical School's ranking for colleges and universities Total R&D Expenditures in Life Sciences has consistently been high over the past five years. In FY 2008, UMass Medical School improved its ranking to 68th from 75th (from FY 2007) among the first 150 institutions in this category. *[Appendix I]*.

Additional Rankings

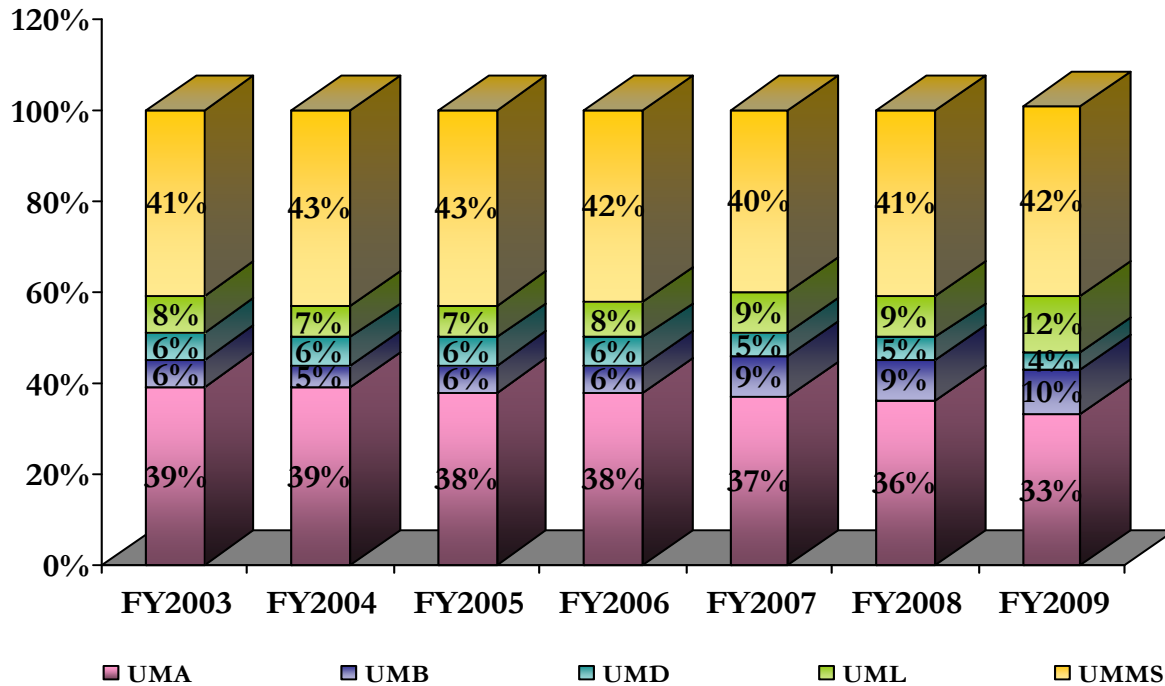
- UMass Amherst has consistently ranked among the first 100 universities and colleges in R&D Expenditures in Engineering over the past five years. UM Amherst's ranking in this field has significantly increased, from 83rd in FY2003 to 46th in FY2008. *[Appendix G]*.
- UMass Amherst has consistently ranked among the first 100 universities and colleges for R&D Expenditures in Mathematical Sciences. In FY 2008, UMass Amherst ranked 50th, an improvement from FY 2007, when UMass Amherst ranked 53rd. *[Appendix J]*.
- UMass Amherst has consistently ranked among the first 100 institutions for R&D Expenditures in the Physical Sciences. In FY 2008, UM Amherst ranked 65th among the top 100 institutions. *[Appendix K]*.
- In FY 2008, UMass Boston ranked 44th and UMass Amherst ranked 73rd among the first 100 universities and colleges in R&D Expenditures in Psychology. *[Appendix L]*.

A. TOTAL R&D EXPENDITURES

A. TOTAL R&D EXPENDITURES FY2003-FY2009

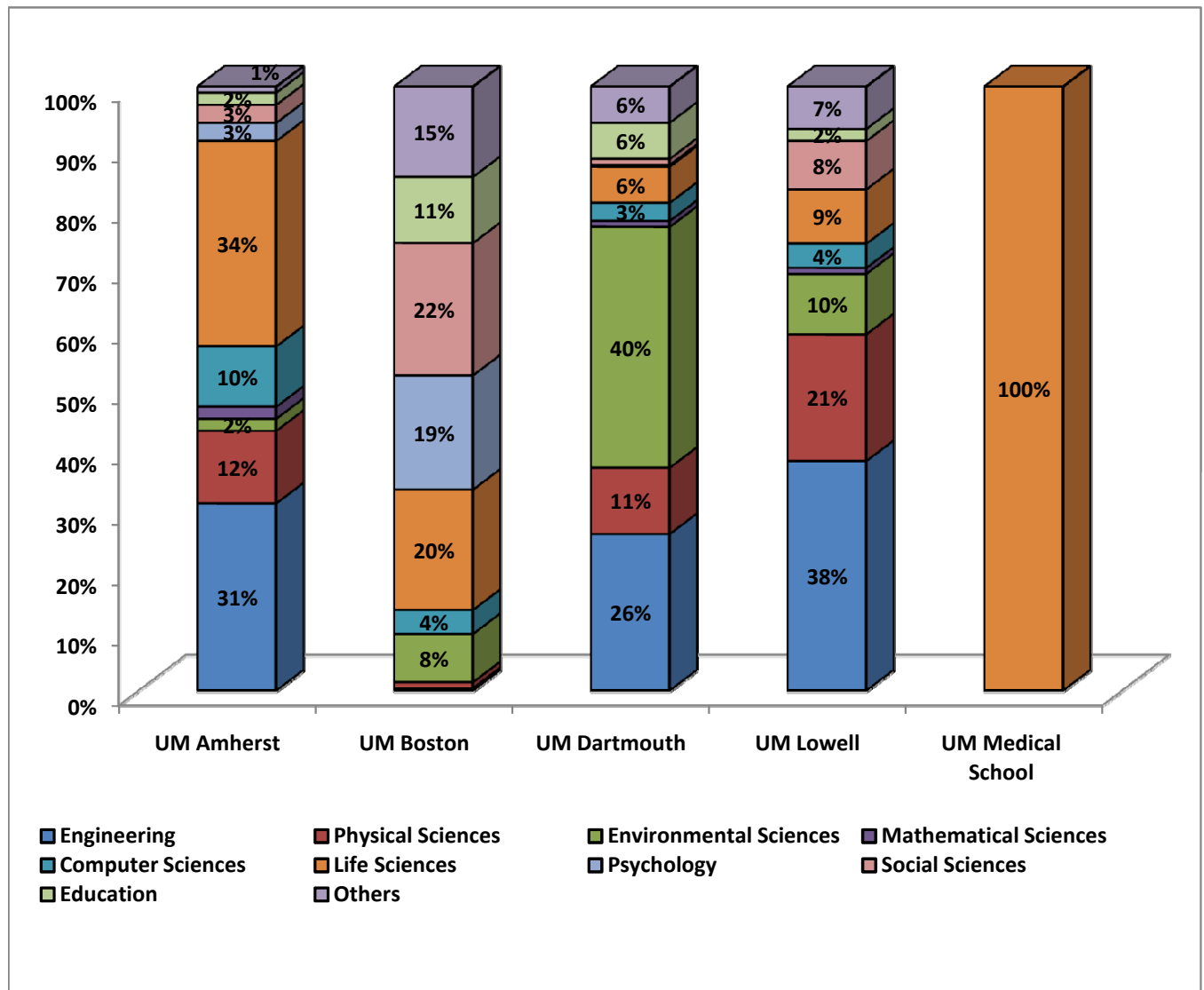
1. Total FY2009 R&D Expenditures for the University of Massachusetts System was reported at \$489.1 million, which represents a 12.4% increase from the FY2008 total of \$435.2 million.
2. A majority of UMass Campuses reported an increase in growth between FY2008-FY2009.
3. Within the UMass System, a little over two-fifths (42%) of the total R&D Expenditures is attributed to the UMass Medical School and over one-third (33%) to UMass Amherst.
4. The other campuses (UMass Boston, UMass Dartmouth and UMass Lowell) have gradually increased their proportion of the System Total R&D Expenditures, from 20% to 25% (FY2003-FY2009).

**UMASS Campuses - Total R&D Expenditures
(As a Percent of UMass System)
FY2003-FY2009**



5. R&D expenditures activities at UMass campuses vary by field. In FY2009, while UMass Amherst's top three R&D Expenditures areas were Life Sciences (34%), Engineering (31%), and Physical Sciences (12%), UMass Boston's concentration was primarily in the Social Sciences (22%), Life Sciences (20%), and Psychology (19%). UMass Dartmouth's major areas of concentration were in the fields of Environmental Sciences (40%) and Engineering (26%), and for UMass Lowell, Engineering (38%) and Physical Sciences (21%). The UMass Medical School had 100% of its R&D Expenditures in the Life Sciences.

UMass Campuses: Total R&D Expenditures by Field (FY2009)

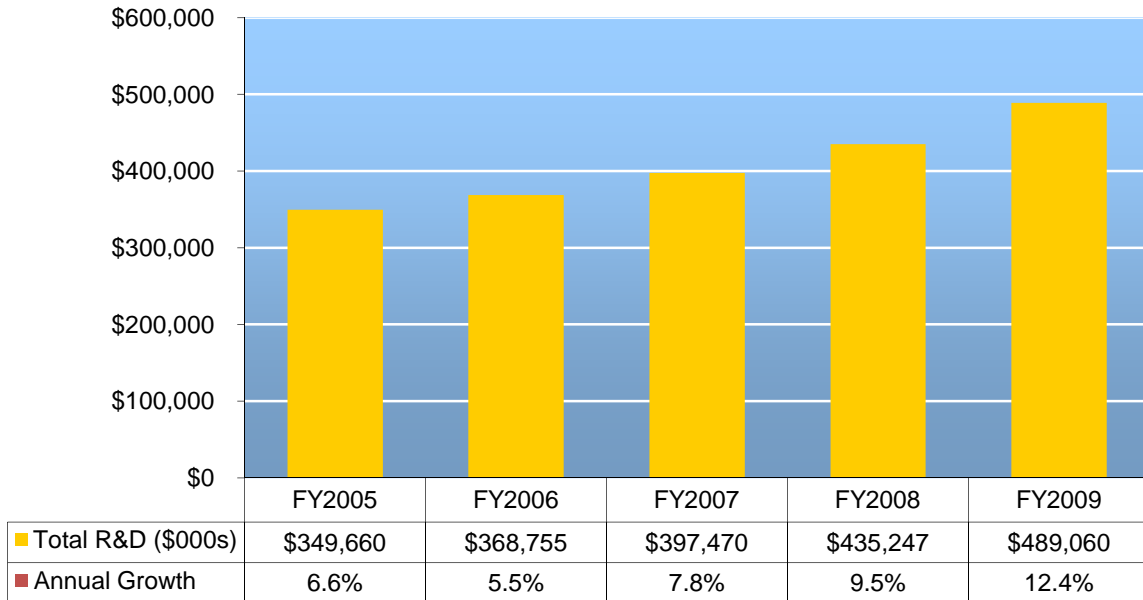


A. TOTAL R&D EXPENDITURES

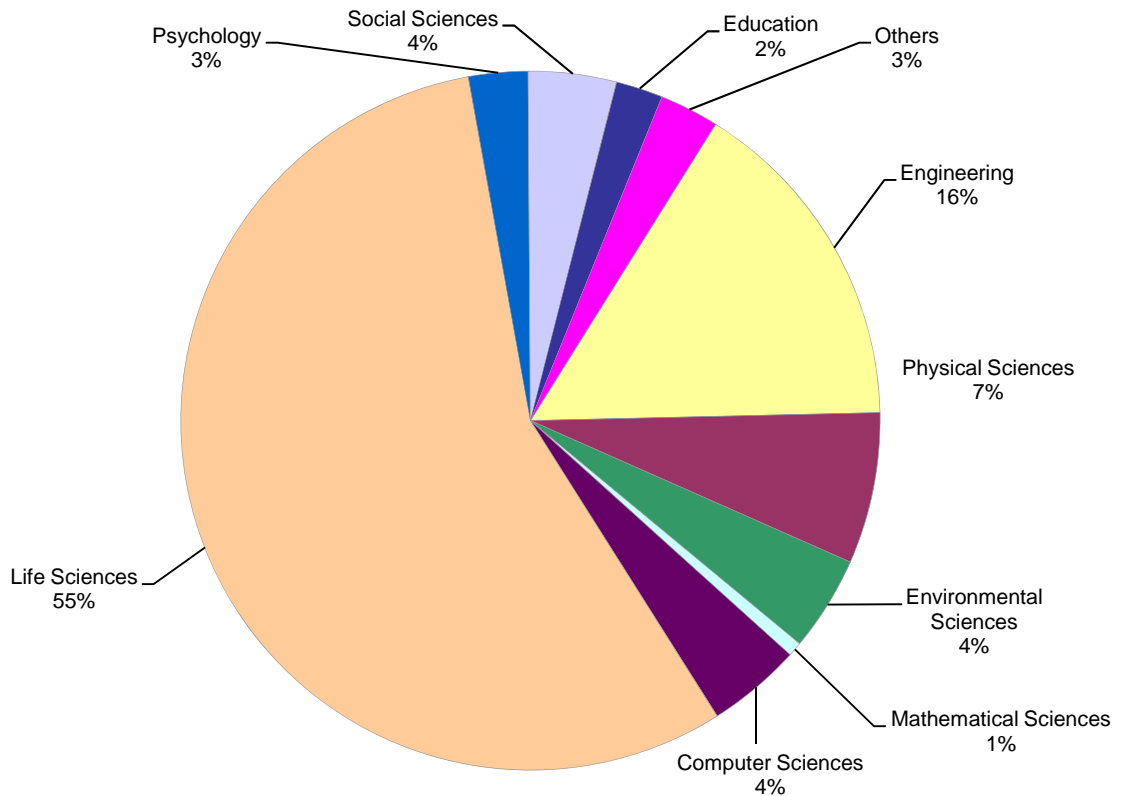
DATA AND CHARTS

UMass System

Total R&D Expenditures FY2005 - FY2009

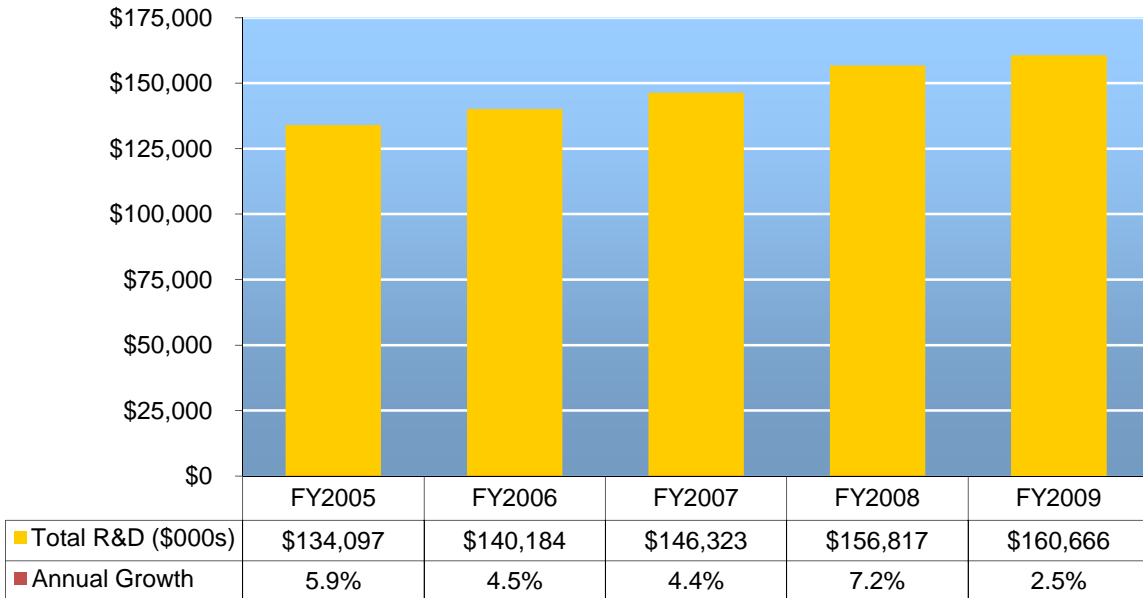


Total R&D Expenditures FY2009

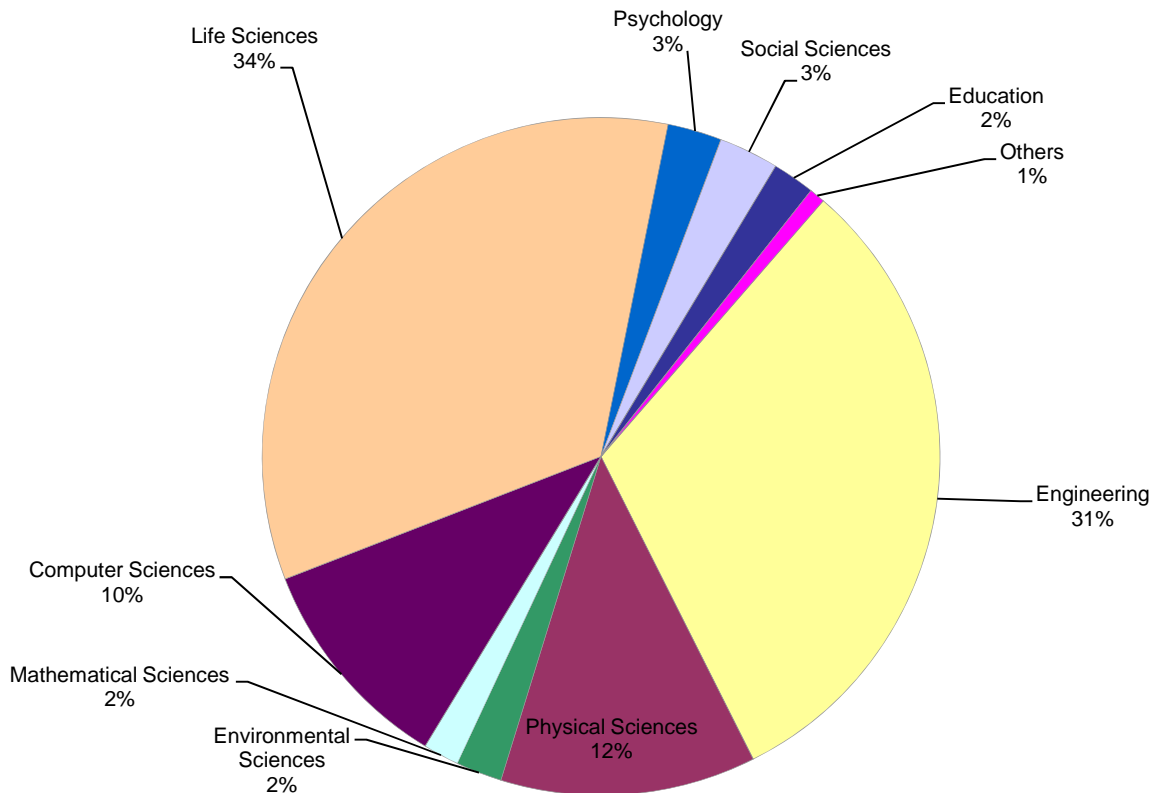


Amherst

Total R&D Expenditures FY2005 – FY2009

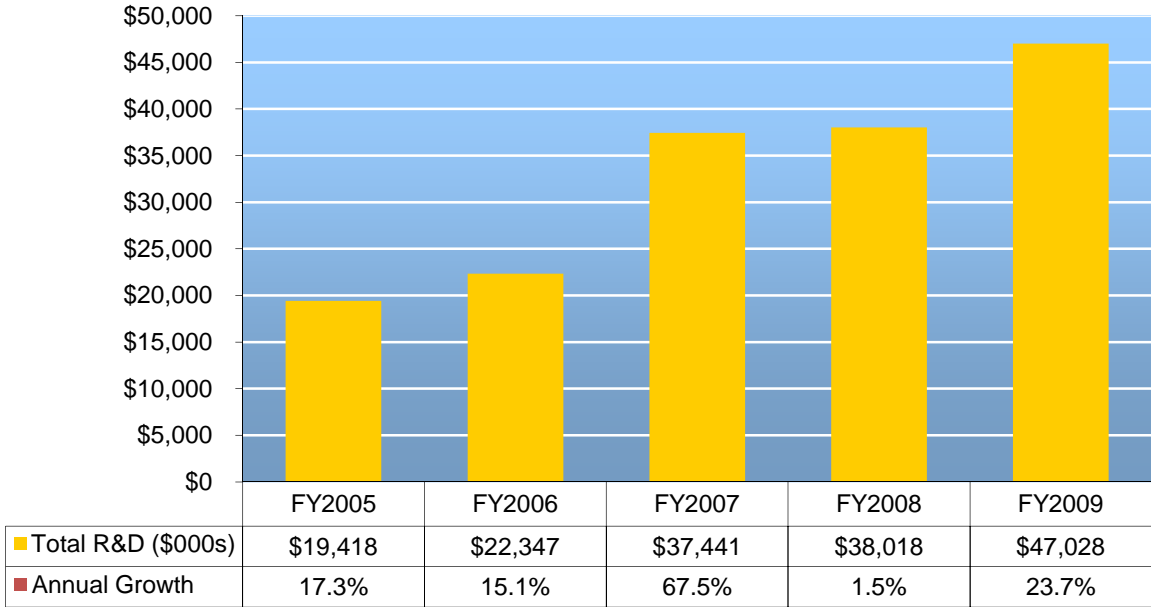


Total R&D Expenditures FY2009

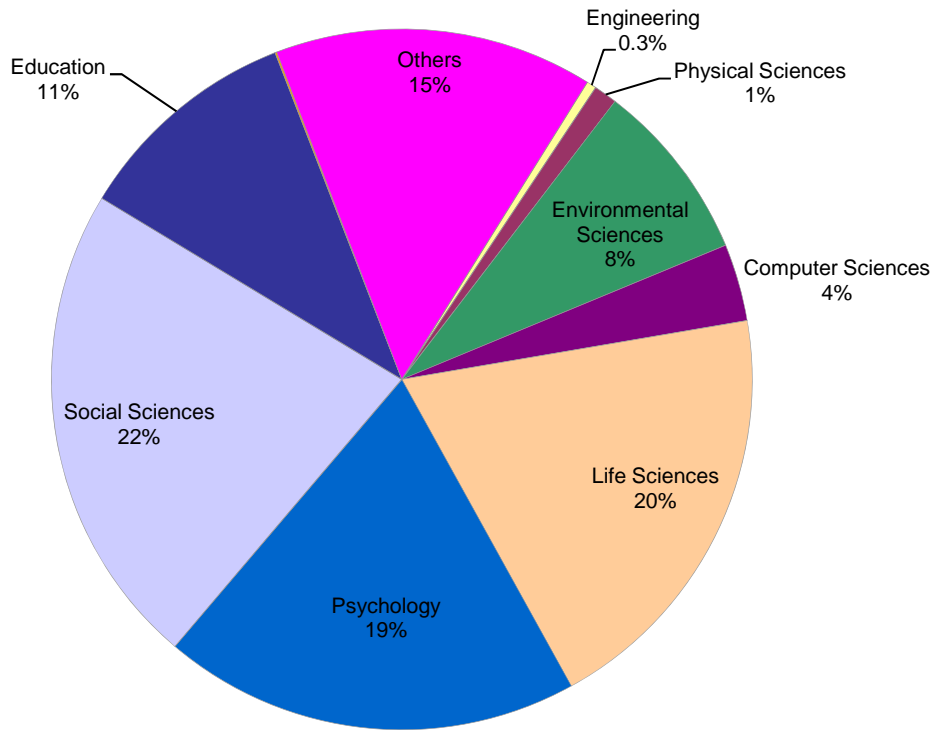


Boston

Total R&D Expenditures FY2005 – FY2009

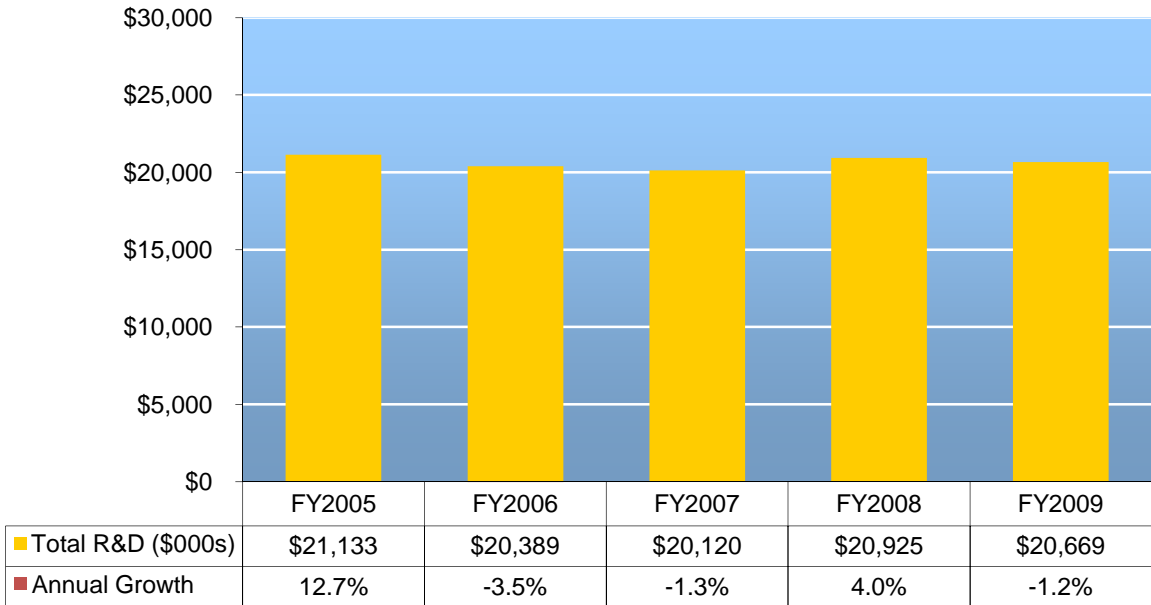


Total R&D Expenditures FY2009

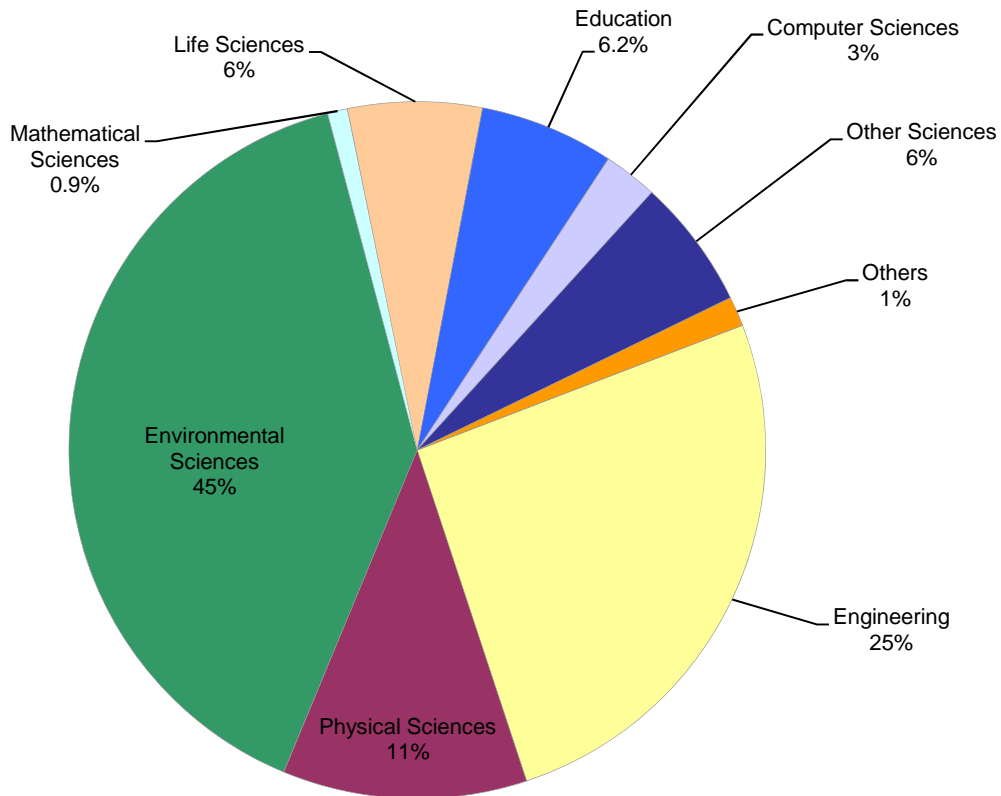


Dartmouth

Total R&D Expenditures FY2005 – FY2009

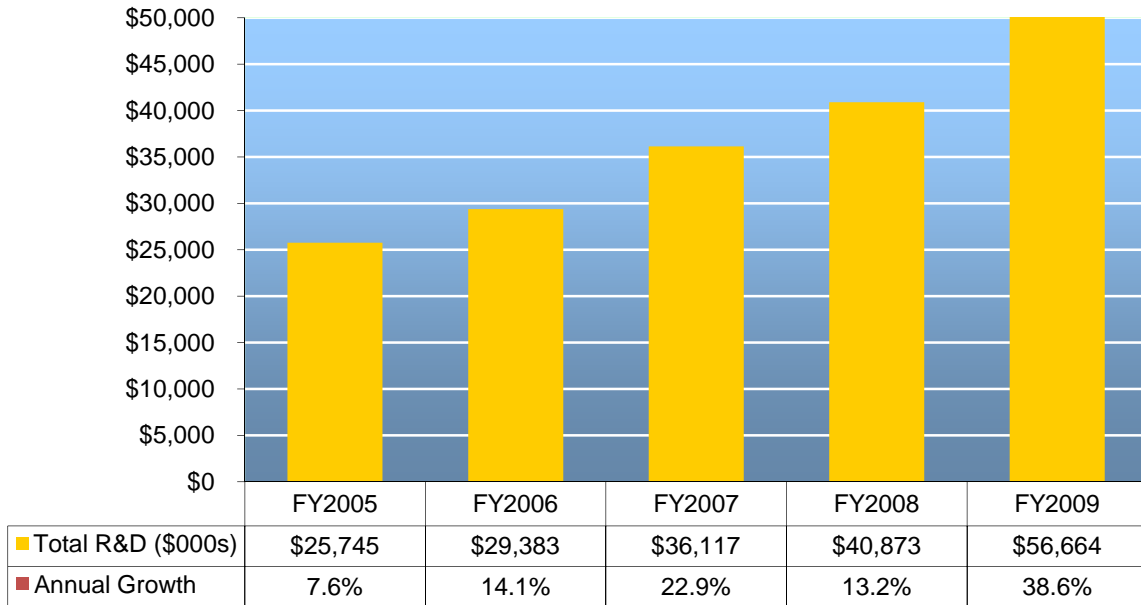


Total R&D Expenditures FY2009

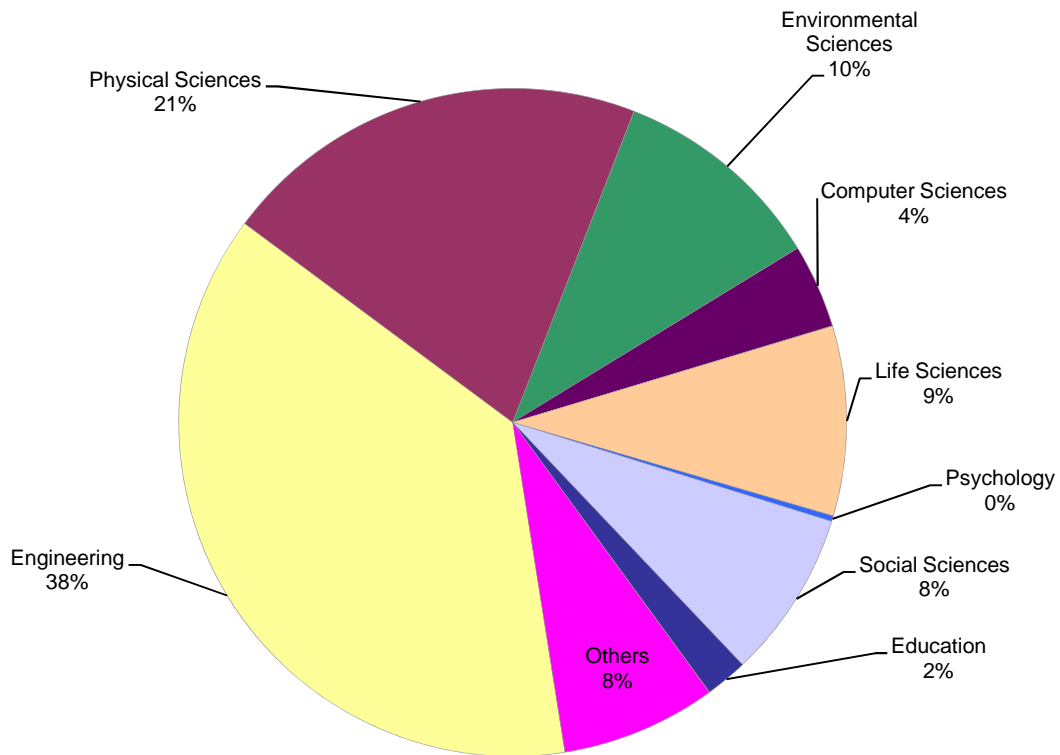


Lowell

Total R&D Expenditures FY2005 – FY2009

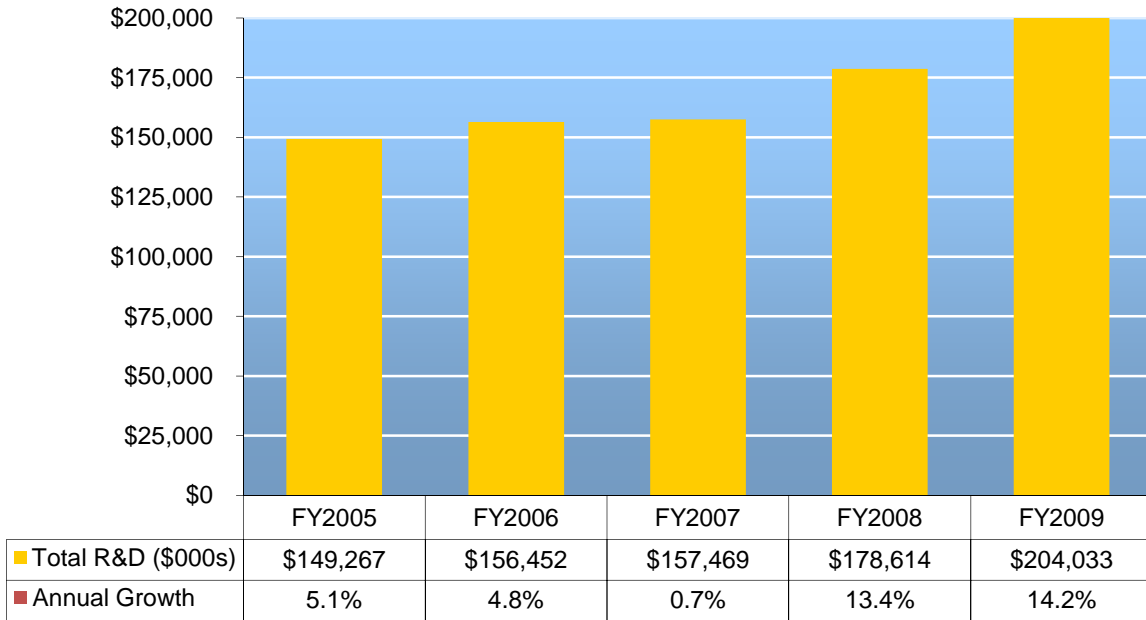


Total R&D Expenditures FY2009



Worcester

Total R&D Expenditures FY2005 – FY2009

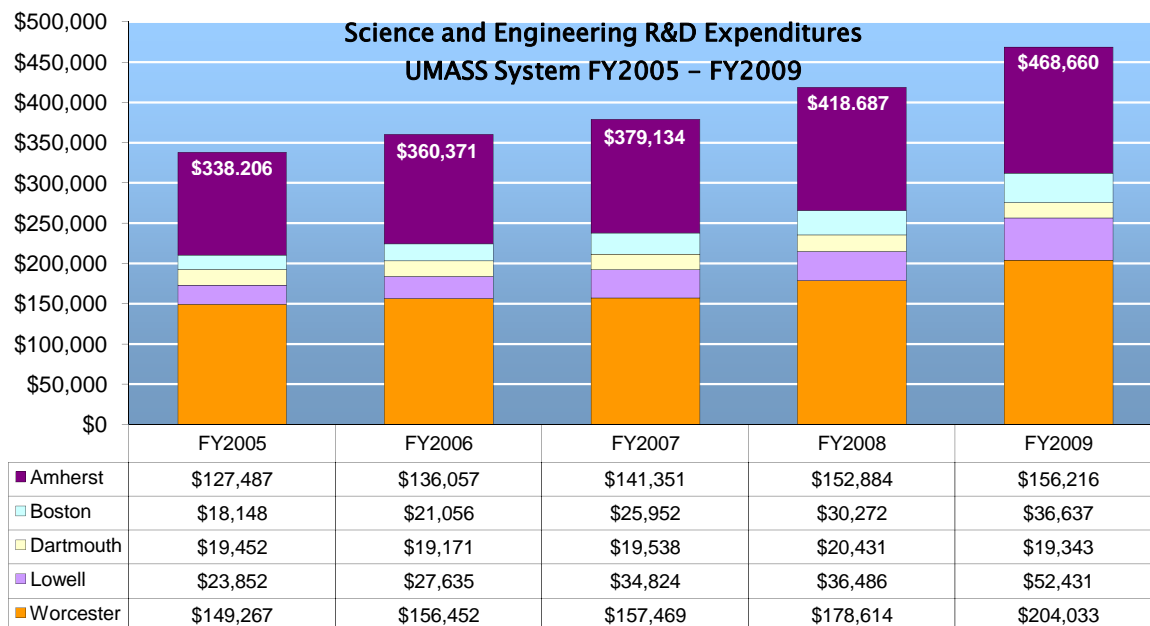


All of Worcester's R&D
expenditures are in the Life
Sciences.

**B. SCIENCE AND ENGINEERING
R&D EXPENDITURES**

B. 1. SCIENCE AND ENGINEERING R&D EXPENDITURES BY FIELD

1. There has been consistent growth in Science and Engineering R&D Expenditures over the past five years on a majority of UMass campuses. Overall, between FY2005 and FY2009, growth has ranged from 23% to over 120%. Two campuses (UMass Lowell and UMass Boston) reflected growth of over 100%; two campuses (UMass Amherst and UMass Medical School) and the UMass System aggregate reflected double-digit growth, and UMass Dartmouth saw a small decline of -1%.



2. UMass Amherst reflects its strength in Computer Sciences, comprising 79% of the entire UMass System's R&D expenditures in this field, at \$17.8M. In FY2008, UMass Amherst ranked 18th among the first hundred institutions in total R&D Expenditures in the field of Computer Science (NSF Survey Rankings, Appendix F).

3. UMass Boston comprises the highest proportion of R&D Expenditures in the Non-Sciences and Engineering field. In FY2009, 22.1% of the total R&D Expenditures activities in UMass Boston occurred within the non-sciences field. At \$10.4M, this comprises 51% of all of the Non-Sciences and Engineering R&D Expenditures for the UMass System.

4. UMass Dartmouth's prominence (among the UMass campuses) in Environmental Sciences is reflected by the fact that it comprises 38%, or \$8M of the total R&D Expenditures in this field. UMass Dartmouth has consistently ranked among the first hundred institutions for R&D Expenditures in the Environmental Sciences (NSF Survey). In FY2008, UMass Dartmouth ranked 72nd in this field (Appendix H).

5. Over one-third (38%) of UMass Lowell's R&D Expenditures in FY2009 were in the field of Engineering. At \$21.3M, this comprises 28% of the System R&D Expenditures in Engineering. Prominent areas within this field for the UMass Lowell campus include Mechanical Engineering (\$3.7M) Metallurgical Engineering and Materials Sciences (\$3.5M) and Electrical Engineering (\$3.6M).

6. For the UMass Medical School, 100% of R&D Expenditures is in the Life Sciences field. At \$204M, this comprises almost three-fourth's (74%) of the System total R&D Expenditures in the Life Sciences.

Total R&D Expenditures By Field FY2009

FIELD	UMA FY2009	% of UMA Total	% of Field	UMB FY2009	% of UMB Total	% of Field	UMD FY2009	% of UMD Total	% of Field	UML FY2009	% of UML Total	% of Field	UMW FY2009	% of UMW Total	% of Field	System FY2009	% of Total
Engineering (Total)	\$ 50,123	31.2%	65.1%	\$ 209	0.4%	0.3%	\$ 5,325	25.8%	6.9%	\$ 21,341	37.7%	27.7%	\$ -			\$ 76,998	15.7%
Aeronautical & Astronomical	\$ -			\$ -			\$ -	0.0%	#DIV/0!	\$ -			\$ -			\$ -	0.0%
Bioengineering/Biomedical	\$ -			\$ -			\$ 28	0.1%	20.6%	\$ 108			\$ -			\$ 136	0.0%
Chemical	\$ 20,593	12.8%	97.1%	\$ -			\$ -			\$ 620	1.1%	2.9%	\$ -			\$ 21,213	4.3%
Civil	\$ 6,607	4.1%	76.2%	\$ -			\$ 808	3.9%	9.3%	\$ 1,253	2.2%	14.5%	\$ -			\$ 8,668	1.8%
Electrical	\$ 15,267	9.5%	76.0%	\$ 205	0.4%	1.0%	\$ 914	4.4%	4.6%	\$ 3,691	6.5%	18.4%	\$ -			\$ 20,077	4.1%
Mechanical	\$ 6,982	4.3%	61.7%	\$ -			\$ 598	2.9%	5.3%	\$ 3,737	6.6%	33.0%	\$ -			\$ 11,317	2.3%
Metallurgical & Materials	\$ -		0.0%	\$ -			\$ 890	4.3%	20.2%	\$ 3,516	6.2%	79.8%	\$ -			\$ 4,406	0.9%
Other	\$ 674	0.4%	6.0%	\$ 4	0.01%	0.0%	\$ 2,087	10.1%	18.7%	\$ 8,416	14.9%	75.3%	\$ -			\$ 11,181	2.3%
Physical Sciences (Total)	\$ 19,577	12.2%	57.3%	\$ 507	1.1%	1.5%	\$ 2,342	11.3%	6.8%	\$ 11,766	20.8%	34.4%	\$ -			\$ 34,192	7.0%
Astronomy	\$ 3,940	2.5%	100.0%	\$ -			\$ -			\$ -			\$ -			\$ 3,940	0.8%
Chemistry	\$ 9,534	5.9%	67.1%	\$ 355	0.8%	2.5%	\$ 1,937	9.4%	13.6%	\$ 2,382	4.2%	16.8%	\$ -			\$ 14,208	2.9%
Physics	\$ 6,076	3.8%	37.9%	\$ 152	0.3%	0.9%	\$ 405	2.0%	2.5%	\$ 9,384	16.6%	58.6%	\$ -			\$ 16,017	3.3%
Other	\$ 27			\$ -			\$ -			\$ -			\$ -			\$ 27	0.0%
Environmental Sciences (Total)	\$ 3,543	2.2%	16.5%	\$ 3,919	8.3%	18.2%	\$ 8,183	39.6%	38.1%	\$ 5,856	10.3%	27.2%	\$ -			\$ 21,501	4.4%
Atmospheric	\$ -			\$ -			\$ -			\$ -			\$ -			\$ -	
Earth Sciences	\$ 2,665	1.7%	31.2%	\$ 10	0.0%	0.1%	\$ -			\$ 5,856	10.3%	68.6%	\$ -			\$ 8,531	1.7%
Oceanography	\$ 8	0.0%	0.1%	\$ 2,861	6.1%	25.9%	\$ 8,183	39.6%	74.0%	\$ -			\$ -			\$ 11,052	2.3%
Other	\$ 870			\$ 1,048	2.2%	54.6%	\$ -			\$ -			\$ -			\$ 1,918	0.4%
Mathematical Sciences (Total)	\$ 2,753	1.7%	85.4%	\$ 16	0.0%	0.5%	\$ 194	0.9%	6.0%	\$ 262	0.5%	8.1%	\$ -			\$ 3,225	0.7%
Computer Sciences (Total)	\$ 16,738	10.4%	78.8%	\$ 1,678	3.6%	7.9%	\$ 518	2.5%	2.4%	\$ 2,310	4.1%	10.9%	\$ -			\$ 21,244	4.3%
Life Sciences (Total)	\$ 54,733	34.1%	19.9%	\$ 9,237	19.6%	3.4%	\$ 1,286	6.2%	0.5%	\$ 5,206	9.2%	1.9%	\$ 204,033	100.0%	74.3%	\$ 274,495	56.1%
Agricultural	\$ 23,088	14.4%	97.8%	\$ -			\$ 531	2.6%	2.2%	\$ -			\$ -			\$ 23,619	4.8%
Biological	\$ 23,323	14.5%	23.0%	\$ 3,020	6.4%	3.0%	\$ 711	3.4%	0.7%	\$ 1,531	2.7%	1.5%	\$ 72,851	35.7%	71.8%	\$ 101,436	20.7%
Medical	\$ 7,237	4.5%	6.3%	\$ 3,493	7.4%		\$ -			\$ -			\$ 104,417	51.2%	90.7%	\$ 115,147	23.5%
Other	\$ 1,085	0.7%	3.2%	\$ 2,724	5.8%	7.9%	\$ 44	0.2%	0.1%	\$ 3,675	6.5%	10.72%	\$ 26,765	13.1%	78.0%	\$ 34,293	7.0%
Psychology (Total)	\$ 4,157	2.6%	31.0%	\$ 9,049	19.2%	67.4%	\$ 62	0.3%	0.5%	\$ 151	0.3%	1.1%	\$ -			\$ 13,419	2.7%
Social Sciences (Total)	\$ 4,592	2.9%	23.0%	\$ 10,544	22.4%	52.9%	\$ 183	0.9%	0.9%	\$ 4,606	8.1%	23.1%	\$ -			\$ 19,925	4.1%
Economics	\$ 1,615	1.0%	57.9%	\$ 1,155	2.5%	41.4%	\$ -	0.0%	0.0%	\$ 17	0.0%	0.6%	\$ -			\$ 2,787	0.6%
Political Science	\$ 862	0.5%	22.3%	\$ 3,000	6.4%	77.5%	\$ 11	0.1%	0.3%	\$ -	0.0%	0.0%	\$ -			\$ 3,873	0.8%
Sociology	\$ 1,285	0.8%	58.6%	\$ 856	1.8%	39.1%	\$ 49	0.2%	2.2%	\$ 1	0.0%	0.0%	\$ -			\$ 2,191	0.4%
Other	\$ 830	0.5%	7.5%	\$ 5,533	11.8%	50.0%	\$ 123	0.6%	1.1%	\$ 4,588	8.1%	41.4%	\$ -			\$ 11,074	2.3%
Other Sciences (Total)	\$ -			\$ 1,478	3.1%	40.4%	\$ 1,250	6.0%	34.1%	\$ 933	1.6%	25.5%	\$ -			\$ 3,661	0.7%
TOTAL, SCI & ENG FIELDS	\$ 156,216	97.2%	33.3%	\$ 36,637	77.9%	7.8%	\$ 19,343	93.6%	4.1%	\$ 52,431	92.5%	11.2%	\$ 204,033	100.0%	43.5%	\$ 468,660	95.8%

Total R&D Expenditures By Field FY2009

FIELD	UMA FY2009	% of UMA Total	% of Field	UMB FY2009	% of UMB Total	% of Field	UMD FY2009	% of UMD Total	% of Field	UML FY2009	% of UML Total	% of Field	UMW FY2009	% of UMW Total	% of Field	System FY2009	% of Total
Education	\$ 3,246	2.0%	30.6%	\$ 4,919	10.5%	46.3%	\$ 1,288	6.2%	12.1%	\$ 1,165	2.1%	11.0%	\$ -			\$ 10,618	2.2%
Law	\$ 155	0.1%	100.0%	\$ -	0.0%	0.0%	\$ -			\$ -	0.0%	0.0%	\$ -			\$ 155	0.0%
Humanities	\$ 239	0.1%	11.7%	\$ 679	1.4%	33.3%	\$ 10	0.0%	0.5%	\$ 1,109			\$ -			\$ 2,037	0.4%
Visual and Performing Arts	\$ 20	0.0%	29.0%	\$ 34	0.1%	49.3%	\$ 8	0.0%	11.6%	\$ 7	0.01%	10.1%	\$ -			\$ 69	0.01%
Business and Management	\$ 680	0.4%	41.7%	\$ 577	1.2%	35.4%	\$ 19	0.1%	1.2%	\$ 355	0.6%	21.8%	\$ -			\$ 1,631	0.3%
Comm., Journalism & Library Sci	\$ 110		84.6%	\$ 12	0.0%	9.2%	\$ -		0.0%	\$ 8	0.0%	6.2%	\$ -			\$ 130	0.0%
Social Work	\$ -		0.0%	\$ 42		100.0%	\$ -		0.0%	\$ -		0.0%	\$ -			\$ 42	
Other Non-Science and Engin.	\$ -		0.0%	\$ 4,128	8.8%	72.2%	\$ 1	0.0%	0.0%	\$ 1,589	2.8%	27.8%	\$ -			\$ 5,718	1.2%
TOTAL, NON-SCI & ENG FIELDS	\$ 4,450	2.8%	21.8%	\$ 10,391	22.1%	50.9%	\$ 1,326	6.4%	6.5%	\$ 4,233	7.5%	20.8%	\$ -			\$ 20,400	4.2%
TOTAL, SCI & ENG FIELDS	\$ 156,216	97.2%	33.3%	\$ 36,637	77.9%	7.8%	\$ 19,343	93.6%	4.1%	\$ 52,431	92.5%	11.2%	\$ 204,033	100.0%	43.5%	\$ 468,660	95.8%
GRAND TOTAL	\$ 160,666		32.9%	\$ 47,028		9.6%	\$ 20,669		4.2%	\$ 56,664		11.6%	\$ 204,033		41.7%	\$ 489,060	100.0%

Source: Campus NSF surveys. All dollars are in thousands.

Note: % of Total is the percentage each field represents of total campus or system R&D expenditures in all fields.

% of Field is the percentage of the UMass system's expenditures in a particular field represented by that campus.

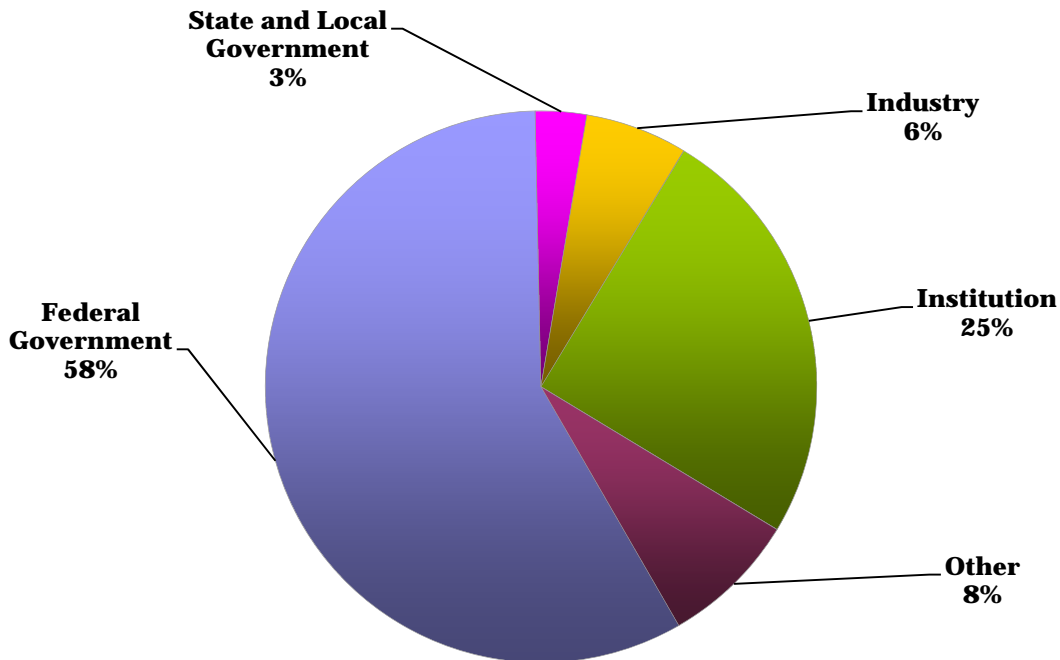
B. 2. SCIENCE AND ENGINEERING R&D EXPENDITURES BY SOURCE OF FUNDS

1. In FY 2009, the largest source of R&D Expenditure Funds for the UMass System was the Federal Government (58%), followed by Institution (25%), Other (8%), Industry (6%), and State and Local Government (3%).

2. The UMass System generally reflects national trends in terms of the overall distribution R&D Expenditures by source of funds, with some interesting variations within each category of funds. In both instances, the largest source of funds is the federal government, followed by institutional funds. For comparison purposes, FY 2008 data by source of funds was analyzed. For the UMass System, in FY 2008, 66% of Science and Engineering R&D Expenditures were funded by the federal government, as compared to 55% for all public U.S. institutions. Similarly, R&D Expenditure funds from institutional sources for the UMass System was at 18% as compared to 24% for all U.S. public institutions. For the UMass System, state and local funds comprised 3% of all Science and Engineering R&D expenditures, as compared to 9% for all U.S. public institutions. (NSF Survey, FY 2008 data for UMass and All US Public Institutions).

UMass Science and Engineering R&D Expenditures by Source of Funds

(FY2009)



**Science and Engineering R&D Expenditures by Source
FY2005 – FY2009**

	Total R&D Expenditures								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$127,487	\$136,057	\$141,351	\$152,884	\$156,216	\$28,729	22.5%	\$3,332	2.2%
Boston	\$18,148	\$21,056	\$25,952	\$30,272	\$36,637	\$18,489	101.9%	\$6,365	21.0%
Dartmouth	\$19,452	\$19,171	\$19,538	\$20,431	\$19,343	-\$109	-0.6%	-\$1,088	-5.3%
Lowell	\$23,852	\$27,635	\$34,824	\$36,486	\$52,431	\$28,579	119.8%	\$15,945	43.7%
Worcester	\$149,267	\$156,452	\$157,469	\$178,614	\$204,033	\$54,766	36.7%	\$25,419	14.2%
System	\$338,206	\$360,371	\$379,134	\$418,687	\$468,660	\$130,454	38.6%	\$49,973	11.9%

	Federal R&D Expenditures								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$66,921	\$69,642	\$71,974	\$79,736	\$80,163	\$13,242	19.8%	\$427	0.5%
Boston	\$6,326	\$8,610	\$9,152	\$12,001	\$13,536	\$7,210	114.0%	\$1,535	12.8%
Dartmouth	\$9,852	\$9,515	\$11,456	\$13,087	\$9,667	-\$185	-1.9%	-\$3,420	-26.1%
Lowell	\$17,608	\$18,741	\$20,045	\$22,406	\$23,083	\$5,475	31.1%	\$677	3.0%
Worcester	\$130,680	\$136,141	\$131,226	\$145,113	\$145,834	\$15,154	11.6%	\$721	0.5%
System	\$231,387	\$242,649	\$243,853	\$272,343	\$272,283	\$40,896	17.7%	-\$60	0.0%

	State & Local Government R&D Expenditures								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$3,873	\$5,684	\$5,638	\$4,699	\$5,439	\$1,566	40.4%	\$740	15.7%
Boston	\$2,481	\$1,662	\$1,207	\$701	\$949	-\$1,532	-61.7%	\$248	35.4%
Dartmouth	\$5,039	\$5,069	\$2,210	\$1,641	\$1,312	-\$3,727	-74.0%	-\$329	-20.0%
Lowell	\$180	\$601	\$969	\$1,088	\$1,466	\$1,286	714.4%	\$378	34.7%
Worcester	\$139	\$35	\$0	\$895	\$5,265	\$5,126	3687.8%	\$4,370	488.3%
System	\$11,712	\$13,051	\$10,024	\$9,024	\$14,431	\$2,719	23.2%	\$5,407	59.9%

**Science and Engineering R&D Expenditures by Source
FY2005 – FY2009**

	Industry-Sponsored R&D Expenditures								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$4,724	\$5,934	\$5,195	\$8,182	\$8,505	\$3,781	80.0%	\$323	3.9%
Boston	\$0	\$0	\$275	\$552	\$333	\$333	NA	-\$219	-39.7%
Dartmouth	\$1,252	\$1,680	\$762	\$807	\$816	-\$436	-34.8%	\$9	1.1%
Lowell	\$4,755	\$4,423	\$5,222	\$6,299	\$6,772	\$2,017	42.4%	\$473	7.5%
Worcester	\$8,018	\$9,465	\$16,266	\$15,192	\$14,090	\$6,072	75.7%	-\$1,102	-7.3%
System	\$18,749	\$21,502	\$27,720	\$31,032	\$30,516	\$11,767	62.8%	-\$516	-1.7%

	Institutional R&D Expenditures								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$42,887	\$45,773	\$48,755	\$49,556	\$50,647	\$7,760	18.1%	\$1,091	2.2%
Boston	\$6,731	\$7,007	\$11,122	\$13,048	\$15,993	\$9,262	137.6%	\$2,945	22.6%
Dartmouth	\$3,305	\$2,907	\$4,855	\$4,253	\$7,164	\$3,859	116.8%	\$2,911	68.4%
Lowell	\$1,309	\$3,870	\$8,588	\$6,693	\$21,110	\$19,801	1512.7%	\$14,417	215.4%
Worcester	\$1,583	\$2,377	\$1,385	\$2,626	\$20,916	\$19,333	1221.3%	\$18,290	696.5%
System	\$55,815	\$61,934	\$74,705	\$76,176	\$115,830	\$60,015	107.5%	\$39,654	52.1%

	Other R&D Expenditures								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$9,082	\$9,024	\$9,789	\$10,711	\$11,462	\$2,380	26.2%	\$751	7.0%
Boston	\$2,610	\$3,777	\$4,196	\$3,970	\$5,826	\$3,216	123.2%	\$1,856	46.8%
Dartmouth	\$4	\$0	\$255	\$643	\$384	\$380	9500.0%	-\$259	-40.3%
Lowell	\$0	\$0	\$0	\$0	\$0	\$0	NA	\$0	NA
Worcester	\$8,847	\$8,434	\$8,592	\$14,788	\$17,928	\$9,081	102.6%	\$3,140	21.2%
System	\$20,543	\$21,235	\$22,832	\$30,112	\$35,600	\$15,057	73.3%	\$5,488	18.2%

Source: Campus NSF surveys. All dollars are in thousands.

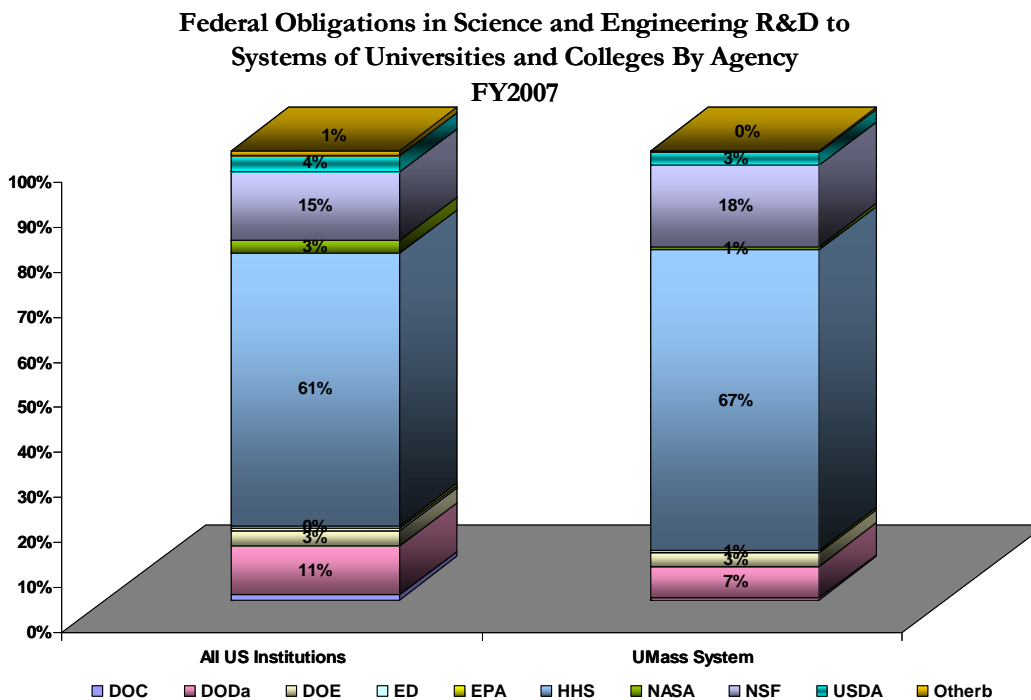
**Science and Engineering R&D Expenditures
Percent Basic Research FY2009**

FY09 Basic Research as a Percent of:		
	Federal R&D	Total R&D
Amherst	70%	70%
Boston	55%	53%
Dartmouth	94%	89%
Lowell	74%	74%
Worcester	66%	49%

Source: Campus NSF surveys.

B. 3. FEDERAL OBLIGATIONS IN SCIENCE AND ENGINEERING R&D TO SYSTEMS OF UNIVERSITIES AND COLLEGES BY AGENCY (FY 2007 data)

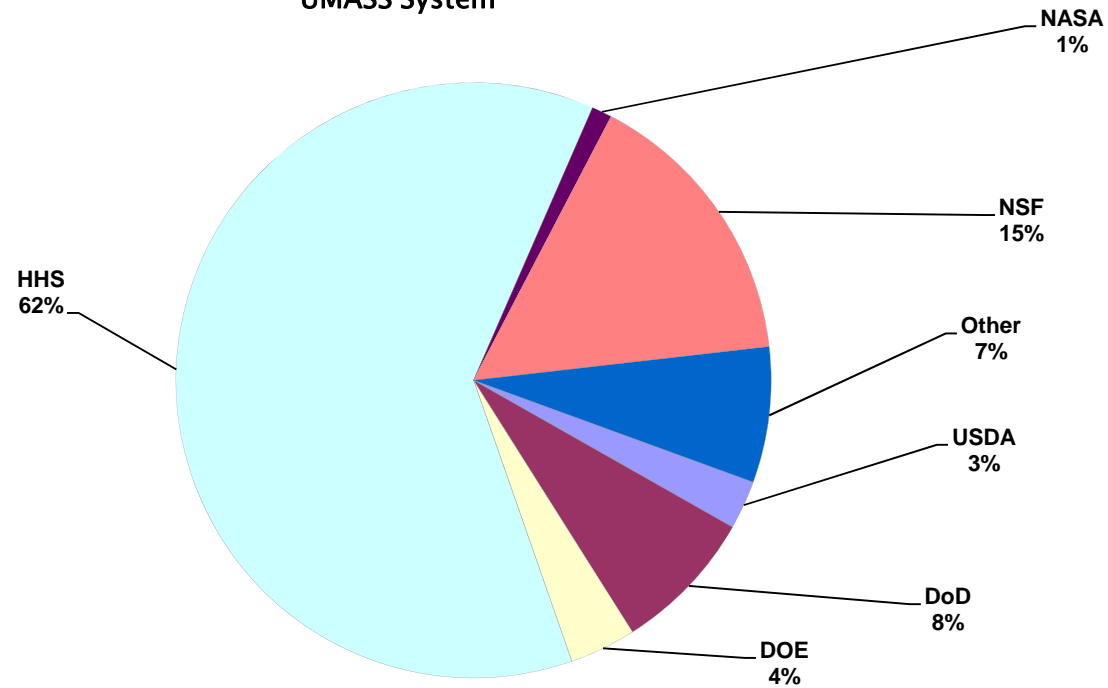
1. In FY 2007, total federal obligations in Science and Engineering R&D for the UMass System was at approximately \$218.21 million.
2. This reflects a 9% increase from FY 2006, when total federal obligations to the UMass System was at \$244 million. (*Appendix P*).
3. In FY 2007, the largest proportion of federal obligations in Science and Engineering R&D Expenditures to the UMass System came from the Department of Health and Human Services (67%), followed by the National Science Foundation (18%), Department of Defense (7%), Department of Energy (3%), Department of Agriculture (3%), NASA (1%), and Environmental Protection Agency (1%).
4. The UMass System shares somewhat similar trends to all All Systems of universities and colleges in its composition of federal obligations in Science and Engineering R&D Expenditures funds. Based on FY 2007 data (*Appendix P*), in both instances, the largest source of all federal obligations for Science and Engineering R&D funds (close to two-thirds) come from the Department of Health and Human Services (61% for All Systems and 67% for the UMass System); similarly, for the UMass System, federal obligation monies from the NSF comprised 18% of total federal obligations as compared to 15% for all Systems; Department of Energy obligations were at 3% for both the UMass System as well as All Systems. Department of Defense obligations for all Systems was at 11% compared to 7% for the UMass System.



DOC - Department of Commerce; DOD - Department of Defense; DOE - Department of Energy; ED - Education Department; NASA - National Aeronautics and Space Administration; EPA - Environmental Protection Agency; HHS - Health and Human Services; NSF - National Science Foundation; USDA - United States Department of Agriculture.

PLEASE NOTE: The data and analysis on this page is based on FY 2007 figures. At the time of publication, FY 2008 data for Federal Obligations in Science and Engineering R&D To Systems Of Universities and Colleges By Agency was not available from NSF.

**Science and Engineering R&D Expenditures
by Federal Government Agency Sources FY2009
UMASS System**



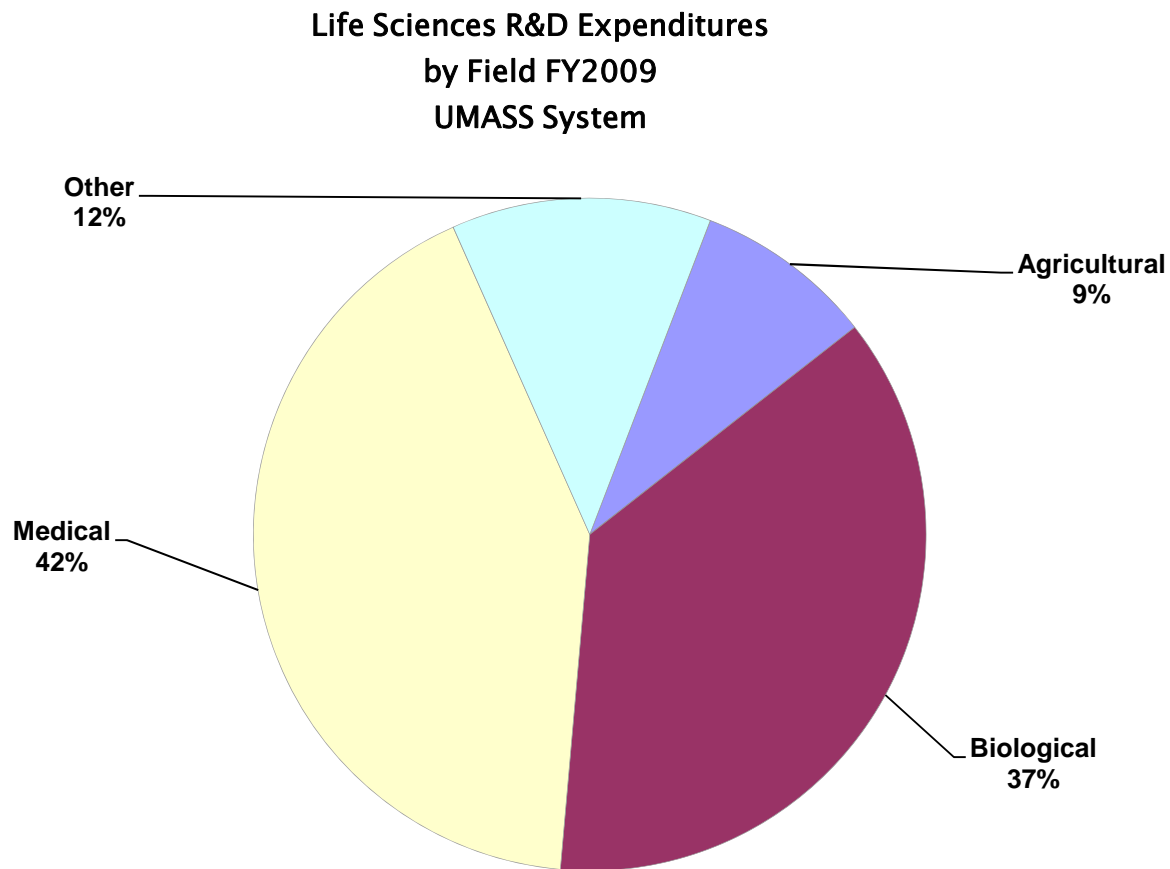
	Total Federal \$	USDA	% of Campus Total	DoD	% of Campus Total	DOE	% of Campus Total	HHS	% of Campus Total	NASA	% of Campus Total	NSF	% of Campus Total	Other	% of Campus Total
Amherst	\$ 80,163	\$ 6,559	8.2%	\$ 8,330	10.4%	\$ 7,737	9.7%	\$ 17,637	22.0%	\$ 1,856	2.3%	\$ 33,945	42.3%	\$ 4,099	5.1%
Boston	\$ 13,536	\$ 23	0.2%	\$ 138	1.0%	\$ 87	0.6%	\$ 2,606	19.3%	\$ 46	0.3%	\$ 2,368	17.5%	\$ 8,268	61.1%
Dartmouth	\$ 9,667	\$ 639	6.6%	\$ 1,775	18.4%	\$ -	0.0%	\$ 703	7.3%	\$ 127	1.3%	\$ 1,449	15.0%	\$ 4,974	51.5%
Lowell	\$ 23,083	\$ -	0.0%	\$ 11,097	48.1%	\$ 460	2.0%	\$ 4,993	21.6%	\$ 350	1.5%	\$ 4,128	17.9%	\$ 2,055	8.9%
Worcester	\$ 145,834	\$ -	0.0%	\$ -	0.0%	\$ 1,513	1.0%	\$ 142,603	97.8%	\$ 617	0.4%	\$ 438	0.3%	\$ 663	0.5%
System	\$ 272,283	\$ 7,221	2.7%	\$ 21,340	7.8%	\$ 9,797	3.6%	\$ 168,542	61.9%	\$ 2,996	1.1%	\$ 42,328	15.5%	\$ 20,059	7.4%

Source: Campus NSF surveys. All dollars are in thousands.
Note: HHS includes NIH

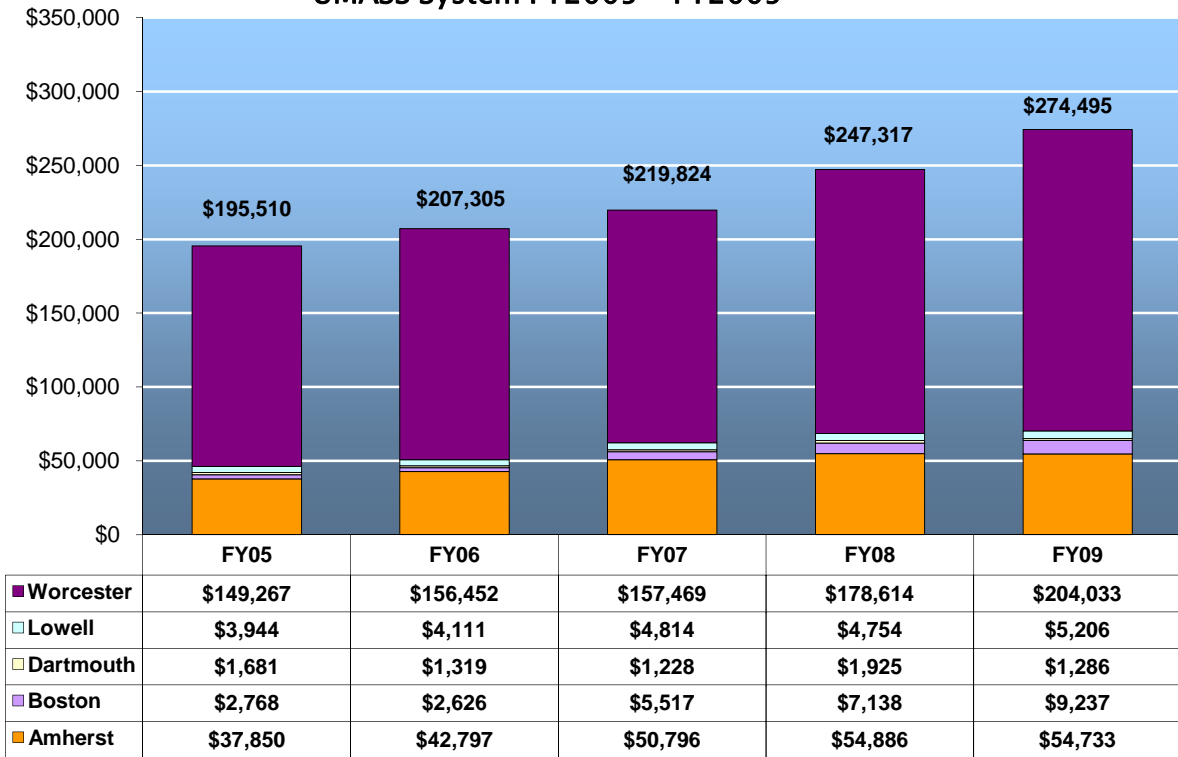
C. LIFE SCIENCES
R&D EXPENDITURES

C. LIFE SCIENCES R&D EXPENDITURES

1. In FY 2009, R&D Expenditures in the Life Sciences for the UMASS System was at \$275 million, comprising approximately well over half (56.1%) of total R&D Expenditures.
2. This represents a 40.4% increase from FY 2005, and a 11% increase between FY 2008-09.
3. In FY 2009, 42% of all of the R&D Expenditures in the Life Sciences was within the Medical Sciences, followed by Biological Sciences (37%), Agricultural Sciences (10%), and all Other (11%).
4. At the System level, the largest growth has been within the Medical Sciences, with FY 2008-09 R&D Expenditures increasing by 16.5%, followed by Medical Sciences (13.4%) and Life Sciences (12.5%).



Life Sciences R&D Expenditures UMASS System FY2005 – FY2009



Source: Campus NSF surveys. All dollars are in thousands.

**Life Sciences R&D Expenditures by Field
FY2005 – FY2009**

	Life Sciences R&D Expenditures								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$37,850	\$42,797	\$50,796	\$54,886	\$54,733	\$16,883	44.6%	-\$153	-0.3%
Boston	\$2,768	\$2,626	\$5,517	\$7,138	\$9,237	\$6,469	233.7%	\$2,099	29.4%
Dartmouth	\$1,681	\$1,319	\$1,228	\$1,925	\$1,286	-\$395	-23.5%	-\$639	-33.2%
Lowell	\$3,944	\$4,111	\$4,814	\$4,754	\$5,206	\$1,262	32.0%	\$452	9.5%
Worcester	\$149,267	\$156,452	\$157,469	\$178,614	\$204,033	\$54,766	36.7%	\$25,419	14.2%
System	\$195,510	\$207,305	\$219,824	\$247,317	\$274,495	\$78,985	40.4%	\$27,178	11.0%

	Agricultural								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$17,017	\$19,183	\$20,795	\$24,478	\$23,088	\$6,071	35.7%	-\$1,390	-5.7%
Boston	\$0	\$0	\$0	\$0	\$0	\$0		\$0	
Dartmouth	\$1,180	\$744	\$739	\$602	\$531	-\$649	-55.0%	-\$71	-11.8%
Lowell	\$0	\$0	\$0	\$0	\$0	\$0		\$0	
Worcester	\$0	\$0	\$0	\$0	\$0	\$0		\$0	
System	\$18,197	\$19,927	\$21,534	\$25,080	\$23,619	\$5,422	29.8%	-\$1,461	-5.8%

	Biological								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$16,309	\$17,996	\$22,757	\$22,823	\$23,323	\$7,014	43.0%	\$500	2.2%
Boston	\$1,417	\$1,439	\$2,345	\$3,384	\$3,020	\$1,603	113.1%	-\$364	-10.8%
Dartmouth	\$190	\$263	\$465	\$970	\$711	\$521	274.2%	-\$259	-26.7%
Lowell	\$1,036	\$885	\$1,378	\$1,477	\$1,531	\$495	47.8%	\$54	3.7%
Worcester	\$58,543	\$61,571	\$56,562	\$63,980	\$72,851	\$14,308	24.4%	\$8,871	13.9%
System	\$77,495	\$82,154	\$83,507	\$92,634	\$101,436	\$23,941	30.9%	\$8,802	9.5%

**Life Sciences R&D Expenditures by Field
FY2005 – FY2009**

	Medical								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$1,804	\$3,191	\$5,401	\$6,575	\$7,237	\$5,433	301.2%	\$662	10.1%
Boston	\$0	\$0	\$2,984	\$2,934	\$3,493	\$3,493		\$559	19.1%
Dartmouth	\$0	\$0	\$0	\$0	\$0	\$0		\$0	
Lowell	\$2,886	\$0	\$0	\$0	\$0	-\$2,886	-100.0%	\$0	
Worcester	\$69,314	\$76,250	\$82,470	\$93,501	\$104,417	\$35,103	50.6%	\$10,916	11.7%
System	\$74,004	\$79,441	\$90,855	\$103,010	\$115,147	\$41,143	55.6%	\$12,137	11.8%

	Other Life Sciences								
	FY05	FY06	FY07	FY08	FY09	5-Year Change FY05 - FY09		1-Year Change FY08 - FY09	
						\$	%	\$	%
Amherst	\$2,720	\$2,427	\$1,843	\$1,010	\$1,085	-\$1,342	-55.3%	\$75	7.4%
Boston	\$1,351	\$1,187	\$188	\$820	\$2,724	\$1,537	129.5%	\$1,904	232.2%
Dartmouth	\$311	\$312	\$24	\$353	\$44	-\$268	-85.9%	-\$309	-87.5%
Lowell	\$22	\$3,226	\$3,436	\$3,277	\$3,675	\$449	13.9%	\$398	12.1%
Worcester	\$ 21,410	\$18,631	\$18,437	\$21,133	\$26,765	\$8,134	43.7%	\$5,632	26.7%
System	\$ 25,814	\$25,783	\$23,928	\$26,593	\$34,293	\$8,510	33.0%	\$7,700	29.0%

Source: Campus NSF surveys and WebCASPAR. All dollars are in thousands.

APPENDICES A-P

**Appendix A1: UMass Science and Engineering R&D Expenditures as Percent of
US, New England, Massachusetts Figures: FY 2003–2008**

(Dollars in Thousands)

Division and state	2003	2004	2005	2006	2007	2008
United States	40,100,324	43,257,915	45,799,461	47,751,211	49,553,959	51,908,726
New England	3,046,288	3,333,767	3,450,621	3,603,898	3,652,809	3,787,403
Connecticut	594,507	649,245	669,923	691,998	691,408	731,711
Maine	83,935	99,108	96,569	120,038	137,425	128,090
Massachusetts	1,821,924	2,000,120	2,079,548	2,122,756	2,171,596	2,271,757
New Hampshire	252,210	277,201	287,472	315,394	307,074	302,008
Rhode Island	187,131	192,326	199,709	230,104	230,281	236,627
Vermont	106,581	115,767	117,400	123,608	115,025	117,210
U. MA Worcester	148,823	142,073	149,267	156,452	157,469	178,614
U. MA Amherst	113,512	120,788	127,487	136,057	141,351	152,884
U. MA Lowell	22,783	22,163	23,852	27,635	34,824	36,486
U. MA Dartmouth	16,476	18,074	19,452	19,171	19,538	20,431
U. MA Boston	15,793	15,460	18,148	21,056	25,952	30,272
UMass System Total	317,387	318,558	338,206	360,371	379,134	418,687
As % of US	0.8%	0.7%	0.7%	0.8%	0.8%	0.8%
As % of New England	10.4%	9.6%	9.8%	10.0%	10.4%	11.1%
As % of MA	17.4%	15.9%	16.3%	17.0%	17.5%	18.4%

**Appendix A2: UMass Science and Engineering R&D Expenditures as Percent of
US, New England, Massachusetts Figures by Field: FY 2008**

(Dollars in Thousands)

	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
United States	51,908,726	2,800,251	31,215,160	2,089,127	3,932,989	928,539	1,940,457	1,045,542	7,956,661
New England	3,787,403	351,655	2,114,972	144,030	325,992	80,782	123,560	109,263	537,149
Connecticut	731,711	14,930	592,914	9,136	34,095	26,928	9,766	8,054	35,888
Maine	128,090	23,354	54,976	2,770	4,410	1,545	13,553	6,223	21,259
Massachusetts	2,271,757	211,325	1,106,922	103,972	256,489	43,796	79,634	54,178	415,441
New Hampshire	302,008	58,520	157,900	6,447	11,150	3,417	8,101	18,059	38,414
Rhode Island	236,627	37,755	105,141	19,672	18,201	3,323	12,406	16,730	23,399
Vermont	117,210	5,771	97,119	2,033	1,647	1,773	100	6,019	2,748
U. MA Worcester	178,614	-	178,614	-	-	-	-	-	-
U. MA Amherst	152,884	3,892	54,886	21,001	16,708	4,440	3,929	-	48,028
U. MA Lowell	36,486	3,499	4,754	1,738	8,526	313	2,048	430	15,178
U. MA Dartmouth	20,431	10,016	1,925	1,719	2,175	14	225	143	4,214
U. MA Boston	30,272	3,128	7,138	1,114	584	7,255	7,113	3,838	102
UMass System Total	418,687	20,535	247,317	25,572	27,993	12,022	13,315	4,411	67,522
As % of US	0.8%	0.7%	0.8%	1.2%	0.7%	1.3%	0.7%	0.4%	0.8%
As % of New England	11.1%	5.8%	11.7%	17.8%	8.6%	14.9%	10.8%	4.0%	12.6%
As % of MA	18.4%	9.7%	22.3%	24.6%	10.9%	27.4%	16.7%	8.1%	16.3%

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2001–08

		(Dollars in Thousands)							
Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
	All institutions	32,823,937	36,405,220	40,100,324	43,257,915	45,799,461	47,751,211	49,553,959	51,908,726
1	Johns Hopkins U., The ^a	999,246	1,140,235	1,244,132	1,375,014	1,443,792	1,499,977	1,554,103	1,680,927
2	U. CA, San Francisco	524,975	596,965	671,443	728,321	754,444	796,149	842,840	885,182
3	U. WI Madison	604,143	662,101	717,044	763,875	798,099	831,895	840,672	881,777
4	U. MI all campuses	600,523	673,724	780,054	769,126	808,887	800,488	808,731	876,390
5	U. CA, Los Angeles ^b	693,801	787,598	849,357	772,569	785,625	811,493	823,083	871,478
6	U. CA, San Diego	556,533	585,008	646,508	708,690	721,035	754,766	798,896	842,027
7	Duke U.	375,133	441,533	520,191	520,871	630,752	657,080	781,843	766,906
8	U. WA	589,626	627,273	684,814	713,976	707,519	778,148	756,787	765,135
9	U. PA	469,852	522,269	564,635	596,756	654,982	676,052	648,247	708,244
10	OH State U. all campuses	390,652	432,387	496,438	518,088	608,923	652,329	720,206	702,592
11	PA State U. all campuses	458,066	492,739	533,427	600,139	625,764	644,182	652,144	701,130
12	Stanford U.	482,906	538,474	603,227	671,046	714,897	679,196	687,511	688,225
13	U. MN all campuses	462,011	494,265	508,557	526,270	548,873	594,877	624,149	682,662
14	MA Institute of Technology	435,495	446,786	485,764	543,448	580,742	600,748	614,352	659,626
15	Cornell U. all campuses	443,828	496,123	554,760	575,554	606,804	648,802	641,936	653,996
16	U. CA, Davis	432,396	456,653	482,145	511,757	546,978	573,002	600,508	642,519
17	U. Pittsburgh all campuses	348,792	400,200	409,684	461,693	522,448	530,162	558,566	595,627
18	U. CA, Berkeley	446,273	474,746	507,186	525,598	554,551	546,035	552,365	591,770
19	U. FL	347,892	386,316	429,734	447,146	530,734	565,491	592,835	584,170
20	TX A&M U.	407,041	436,681	456,235	456,809	479,735	492,955	543,888	582,365
21	Washington U. St. Louis	406,642	416,960	474,328	489,565	531,846	547,674	572,775	563,967
22	U. TX M. D. Anderson Cancer Ctr.	212,746	262,145	315,169	353,034	383,780	457,696	496,539	558,503
23	Columbia U. in the City of New York	354,497	405,403	437,669	468,484	535,424	529,945	545,995	548,704
24	U. AZ	367,128	390,827	454,941	478,680	530,233	535,847	531,753	545,869
25	U. CO all campuses	365,472	399,818	436,761	482,992	517,067	512,794	527,587	535,556
26	U. NC Chapel Hill	303,576	370,806	390,542	416,727	441,033	443,790	477,231	525,843
27	GA Institute of Technology all campuses	306,533	340,347	364,190	410,799	425,386	440,898	472,591	522,136
28	U. Southern CA	340,597	372,397	414,099	426,665	445,036	450,173	508,138	519,543
29	U. IL Urbana-Champaign	390,863	427,174	493,581	506,041	499,711	476,198	473,890	501,279
30	U. TX Austin	295,104	320,966	343,854	343,886	410,981	431,398	446,765	493,294
31	Yale U.	321,514	354,243	387,644	422,828	431,618	460,075	448,671	487,285
32	Northwestern U.	257,933	282,154	319,722	358,947	387,242	419,985	443,345	483,881
33	Harvard U.	372,107	401,367	408,707	454,495	447,196	453,156	451,276	453,028
34	Baylor C. of Medicine	381,461	411,924	461,763	476,075	458,694	462,375	438,280	449,301
35	Emory U.	236,997	271,238	323,224	311,685	333,665	345,989	398,383	441,222
36	Purdue U. all campuses	254,917	285,778	309,476	365,779	364,986	372,958	415,172	429,988
37	Vanderbilt U.	186,504	208,305	276,074	318,335	350,433	376,893	399,149	422,622
38	Case Western Reserve U.	198,253	219,042	250,674	231,800	323,618	369,264	372,374	416,077
39	IN U. all campuses	259,899	299,080	337,669	384,168	307,137	355,004	386,654	411,939
40	U. AL Birmingham, The	231,702	255,053	284,497	310,950	318,536	331,436	351,457	404,615
41	U. MD College Park	267,383	324,980	321,899	325,648	338,648	354,244	359,760	395,037
42	LA State U. all campuses	268,911	287,363	314,446	341,634	361,688	355,465	378,906	391,234
43	U. TX Southwestern Medical Ctr. Dallas	222,376	263,958	276,692	314,403	320,800	333,237	341,090	390,349
44	U. MD Baltimore	239,007	266,822	297,271	317,293	304,396	405,260	358,851	379,407
45	U. Rochester	234,261	261,601	285,768	312,303	345,337	366,658	373,247	375,218
46	VA Polytechnic Institute and State U.	216,323	232,560	247,807	268,752	289,994	321,722	366,960	373,281
47	NC State U.	299,259	290,018	286,025	292,720	302,596	330,936	331,662	366,137
48	Scripps Research Institute, The	NA	NA	NA	307,910	330,170	367,375	360,511	366,047
49	U. Chicago	194,125	225,264	247,322	272,390	293,970	305,301	322,488	357,278
50	MI State U.	265,946	289,787	321,410	325,438	333,735	358,097	360,852	356,767
51	U. GA	272,298	284,660	299,748	313,160	316,806	323,843	332,612	350,299

Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2001–08

		(Dollars in Thousands)							
Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
52	U. NE all campuses	223,964	247,948	276,424	299,550	333,126	333,243	336,468	349,220
53	U. Cincinnati all campuses	192,895	216,652	254,101	276,326	286,036	294,150	375,852	344,046
54	SUNY Buffalo all campuses	186,829	226,959	240,180	258,952	267,271	297,909	314,837	338,300
55	U. KY all campuses	211,721	236,275	272,062	297,610	306,653	323,958	331,606	336,669
56	U. IL Chicago	233,098	259,852	291,507	312,768	318,279	332,176	342,421	335,138
57	U. CA, Irvine	179,866	209,469	234,656	257,024	276,763	300,229	309,554	324,552
58	Rutgers, The State U. NJ all campuses	236,793	258,829	278,763	296,534	309,531	308,204	311,612	323,404
59	NY U.	190,722	222,978	241,593	259,333	276,198	284,164	297,867	310,699
60	OR Health & Science U.	136,785	158,729	197,178	254,447	266,687	272,174	287,430	301,396
61	Mt. Sinai School of Medicine	176,946	185,335	203,853	212,786	225,293	273,216	269,451	296,380
62	CO State U.	161,144	178,845	187,054	214,886	236,211	253,992	288,497	295,235
63	U. IA	255,348	288,808	292,035	312,914	334,144	346,357	363,243	293,564
64	U. South FL	171,550	197,894	213,249	240,021	259,218	285,941	272,661	278,419
65	WA State U.	107,937	146,862	175,181	171,735	182,677	196,391	210,010	276,806
66	CA Institute of Technology	215,085	220,004	240,664	261,098	265,364	270,269	285,488	272,881
67	U. HI Manoa	156,976	161,823	179,285	236,368	230,651	249,635	266,447	271,835
68	SUNY Albany	70,119	67,493	120,655	203,977	259,708	274,354	309,221	270,414
69	AZ State U.	118,763	123,016	145,591	152,164	166,923	201,955	224,352	259,503
70	U. VA all campuses	149,547	182,340	206,199	228,532	235,058	238,754	229,653	257,651
71	Boston U.	172,031	192,612	224,841	240,867	246,520	255,615	249,279	255,022
72	U. UT	197,597	216,707	223,739	230,146	244,691	248,168	247,794	253,891
73	SUNY Stony Brook all campuses	168,487	184,045	200,330	213,547	212,289	234,635	268,282	252,745
74	U. TN all campuses	161,898	188,261	217,389	228,760	255,699	249,072	243,184	250,188
75	Wayne State U.	175,984	199,007	214,642	225,475	226,331	220,731	235,186	249,210
76	Rockefeller U.	145,571	166,603	192,143	192,222	198,719	215,417	233,917	247,505
77	U. MO-Columbia	174,782	177,011	205,212	217,550	220,718	215,240	228,654	244,639
78	U. Miami	153,772	171,319	177,709	194,446	209,572	213,516	210,534	241,775
79	U. of Medicine and Dentistry NJ	162,417	178,156	190,763	209,134	239,778	245,771	236,834	230,347
80	U. CT all campuses	164,366	172,003	190,341	211,236	219,982	215,184	224,679	225,904
81	IA State U.	179,196	188,664	199,566	211,996	209,545	221,998	217,158	224,368
82	U. KS all campuses	156,467	172,131	173,024	181,192	190,105	195,947	202,129	215,364
83	MS State U.	146,939	158,652	165,922	191,352	179,825	189,917	206,207	210,951
84	Carnegie Mellon U.	144,882	188,191	186,351	205,149	200,297	212,506	197,143	210,619
85	U. CA, Santa Barbara	116,372	131,795	149,130	151,325	165,014	174,429	191,204	203,719
86	U. TX Health Science Ctr. San Antonio	115,154	129,616	133,304	137,039	142,375	150,040	160,282	201,323
87	Wake Forest U.	98,343	111,634	130,405	133,753	185,152	183,129	185,609	199,915
88	U. NM main campus	156,619	150,598	158,239	170,085	178,703	181,223	177,430	197,630
89	Yeshiva U.	148,230	157,124	177,236	183,253	193,104	189,416	192,199	197,311
90	U. TX Health Science Ctr. Houston	125,439	138,380	149,294	147,328	152,631	175,154	191,724	197,252
91	Clemson U.	123,885	134,840	152,986	158,585	175,127	179,840	211,760	195,195
92	Princeton U.	149,411	164,408	179,951	188,373	202,380	188,165	188,732	194,757
93	U. OK all campuses	148,695	169,373	174,466	158,578	173,663	178,719	176,825	192,070
94	Medical U. SC	116,687	132,030	150,551	163,179	178,086	176,055	184,624	189,369
95	OR State U.	153,925	161,735	167,631	170,286	180,309	189,606	189,368	188,056
96	Dartmouth C.	109,096	126,839	155,795	173,266	179,094	200,277	192,846	186,938
97	FL State U.	113,817	134,351	152,277	168,132	172,858	185,633	189,565	182,314
98	U. TX Medical Branch	102,722	129,534	153,122	166,798	174,254	179,915	183,492	180,026
99	U. MA Worcester	111,221	132,729	148,823	169,090	176,349	156,452	157,469	178,614
100	U. SC all campuses	109,973	123,108	121,410	121,671	122,212	153,737	158,857	172,378
101	Medical C. WI	83,857	96,700	108,608	139,235	143,540	147,140	158,171	165,529
102	Brown U.	91,636	109,482	125,090	130,741	138,262	157,926	152,619	157,670
103	George Washington U.	73,805	86,288	92,454	103,473	107,715	113,982	126,110	157,145
104	Tulane U.	99,761	102,998	117,709	123,677	138,959	114,397	137,107	153,242

Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2001–08

(Dollars in Thousands)									
Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
105	U. MA Amherst	97,976	109,332	113,512	120,788	127,487	135,272	141,351	152,884
106	Woods Hole Oceanographic Institution	91,029	99,964	104,223	114,087	117,517	121,888	137,410	150,720
107	U. Louisville	72,857	80,974	88,522	110,653	128,347	135,873	151,226	148,936
108	VA Commonwealth U.	99,180	109,619	126,451	132,839	146,105	149,256	134,453	148,655
109	Auburn U. all campuses	106,347	108,775	117,000	125,705	132,203	126,522	140,629	146,984
110	UT State U.	121,359	121,621	138,862	153,616	131,624	138,670	140,243	146,128
111	Georgetown U.	99,228	105,668	117,713	126,320	123,938	118,558	137,775	142,623
112	WV U.	71,311	84,985	104,748	108,002	115,398	122,134	133,590	139,770
113	Tufts U.	105,806	109,291	112,609	126,432	131,028	128,965	130,826	139,528
114	NM State U. main campus	86,963	103,078	108,613	93,329	125,427	164,994	148,120	138,427
115	KS State U.	94,030	106,804	112,733	119,306	123,398	123,746	123,900	137,543
116	U. CA, Santa Cruz	64,253	70,967	78,448	94,297	105,617	114,126	124,856	135,261
117	U. CA, Riverside	94,455	111,936	112,468	110,627	122,221	124,820	128,057	129,605
118	U. DE	77,491	85,157	100,706	109,985	110,339	114,985	118,245	125,179
119	OK State U. all campuses	90,311	94,987	103,079	103,915	99,436	100,323	101,112	121,226
120	MT State U. Bozeman	69,593	78,211	91,503	97,696	109,465	112,428	116,999	120,155
121	U. AR for Medical Sciences	51,921	45,046	63,677	74,063	91,516	107,871	108,551	117,440
122	ND State U. all campuses	64,882	72,105	91,812	102,115	103,011	103,778	106,208	115,513
123	U. VT	75,597	88,602	104,994	114,120	115,693	121,841	113,195	115,421
124	U. NH	87,879	93,222	96,415	103,935	108,378	115,117	114,228	113,877
125	U. Central FL	79,287	66,351	89,880	103,261	102,702	107,996	111,595	108,067
126	Uniformed Services U. of the Health Sciences	23,247	28,630	30,604	89,999	78,694	67,716	71,307	106,179
127	U. AR main campus	78,303	83,063	82,277	88,918	98,138	99,271	101,109	102,784
128	U. AK Fairbanks all campuses	110,195	116,279	128,916	132,212	139,488	153,470	151,782 e	102,761
129	U. NV, Reno	59,229	66,721	80,553	83,552	95,579	98,917	95,809	102,073
130	Drexel U.	27,698	44,465	69,548	76,120	88,049	96,687	96,575	100,911
131	U. CA Office of the President ^b	NA	NA	NA	90,233	97,245	128,770	118,910	100,034
132	Thomas Jefferson U.	88,936	102,974	109,083	112,078	107,388	106,986	107,288	99,275
133	U. of Notre Dame	46,096	52,371	59,803	74,255	71,266	78,553	77,467	97,171
134	FL International U.	44,291	47,654	52,175	63,545	76,678	63,567	90,903	95,706
135	U. ME	64,070	62,149	68,923	81,216	75,066	93,153	96,135	95,042
136	Temple U.	60,182	63,850	71,327	76,055	83,062	79,736	85,394	92,486
137	U. MS all campuses	58,410 i	71,893 i	85,378	79,867	91,913	93,471	108,244	90,095
138	NJ Institute of Technology	62,747	69,138	73,664	74,998	76,920	77,583	88,699	89,792
139	Rush U.	70,219	79,394	89,196	89,254	83,693	83,194	84,370	89,513
140	U. Houston	51,567	59,707	63,455	60,962	80,731	75,662	73,542	84,490
141	Naval Postgraduate School	47,559 i	54,291 i	61,025	56,184 i	51,343	56,780	63,392	83,314
142	U. ID	67,496	76,758	85,213	93,246	91,009	86,863	83,390	81,532
143	U. Dayton	41,343	46,554	52,943	63,734	67,445	69,080	74,005	81,275
144	TX A&M U. System Health Science Ctr.	40,859	49,636	55,031	64,170	73,162	76,109	77,957	79,687
145	NM Institute of Mining and Technology	28,392	36,309	37,186	38,476	56,134 i	73,792	83,742	79,437
146	GA State U.	38,960	44,564	45,653	45,415	50,262	52,690	51,387	77,709
147	U. RI	50,835	53,347	61,818	60,947	60,252	70,696	76,237	77,457
148	Rensselaer Polytechnic Institute	45,010	45,955	50,777	56,907	65,571	70,576	77,238	77,295
149	U. WY	41,632	41,632 e	60,054	60,054 e	83,449	89,414	79,700	74,720
150	Rice U.	42,675	48,169	52,367	60,872	63,102	66,564	71,435	74,254
151	George Mason U.	32,881	38,849	44,980	46,210	42,630	50,381	58,252	72,542
152	San Diego State U.	58,332	64,302	67,053	66,710	73,887	73,777	65,810	69,974
153	U. OR	36,881	43,723	44,604	51,956	52,657	57,153	61,694	67,378
154	Southern IL U. Carbondale	43,207	53,604	53,018	53,953	57,434	74,520	64,703	67,094
155	U. MD Baltimore County	29,641	36,323	42,906	49,403	58,467	65,718	66,968	66,802
156	Old Dominion U.	24,659	29,223	30,324	34,819	47,006	49,966	52,134	66,538

Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2001–08

		(Dollars in Thousands)							
Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
157	U. AL Huntsville, The	43,731	48,353	46,595	49,259	54,601	59,231	70,027	65,396
158	U. ND all campuses	19,692	33,973	41,803	49,595	46,798	56,074	63,036	65,027
159	Northeastern U.	34,467	38,540	42,931	47,283	63,514	66,495	71,502	59,911
160	U. Toledo	16,278	24,825	24,123	27,708	32,351	30,493	52,448	59,583
161	U. TX Dallas	15,684 e	26,198	30,748	31,274	43,111	44,198	46,477	59,300
162	SUNY Binghamton	18,992	21,343	23,090	25,405	25,769	29,635	35,462	59,017
163	MI Technological U.	29,613	30,005	30,264	35,670	40,188	43,081	55,294	58,763
164	U. LA Lafayette	32,073	47,796	43,769	55,218	44,620	47,308	52,075	58,667
165	U. MT-Missoula, The	33,535	39,367	43,562	51,078	54,685	52,903	55,755	58,032
166	TX Tech U.	69,918	82,785	92,515	57,592	56,623	58,591	57,878	57,902
167	Medical C. GA	52,191	51,705	56,398	58,808	67,278	61,174	60,001	57,085
168	St. Louis U. all campuses	32,442	35,444	41,189	41,189 e	47,356	48,133	54,265	56,644
169	C. of William and Mary all campuses	35,829	39,858	43,974	49,420	50,146	52,025	49,854	55,090
170	U. NV, Las Vegas	27,008	30,527	42,205	45,429	48,343	57,031	56,034	50,775
171	Brandeis U.	52,818	47,122	50,841	51,498	54,136	57,017	56,831	49,797
172	Charles R. Drew U. of Medicine and Science	36,717	48,839	49,888	51,994	43,231	47,188	52,118	49,224
173	U. TX El Paso	21,889	23,684	27,185	25,440	26,825	32,161	39,965	48,906
174	Wichita State U.	16,142	18,842	22,401	29,948	32,726	31,873	47,398	47,853
175	Wright State U. all campuses	32,033	30,962	34,860	38,052	40,328	47,711	49,713	47,770
176	SD State U.	19,717	20,085	27,652	30,962	32,042	33,275	39,033	47,758
177	U. Southern MS	20,286	25,685	35,049	35,908	37,881	39,163	47,135	47,088
178	U.S. Air Force Academy	5,323	25,589	27,198	29,998	29,438	10,547	14,504	44,297
179	U. MD Biotechnology Institute	41,627	43,673	45,140	47,725	56,135	59,297	61,757	43,213
180	U. Memphis, The	29,445	33,625	38,728	44,120	49,961	43,715	44,359	43,183
181	U. TX Arlington	17,486	15,097	15,102	19,003	28,971	29,267	32,734	43,005
182	Jackson State U.	25,663	25,445	28,843	31,641	35,876	38,273	36,888	42,739
183	FL Atlantic U.	25,111	23,995	25,946	23,767	27,388	28,896	38,598	41,788
184	U. WI Milwaukee	23,492	24,933	27,259	28,268	32,748	34,033	40,023	41,285
185	Boston C.	30,768	31,754	32,158	32,158 e	31,588	35,659	39,261	40,796
186	U. MD Ctr. for Environmental Science	36,635	38,501	38,344	39,631	41,022	40,146	40,720	40,556
187	San Jose State U.	22,709	25,003	28,323	29,268	32,886	34,687	34,241	38,521
188	Syracuse U. all campuses	42,476	45,870	48,846	58,276	62,020	36,100	36,396	38,455
189	OH U. all campuses	27,146	36,601	37,527	38,704	43,229	38,000	38,671	38,108
190	Desert Research Institute	29,697	29,465	31,757	34,783	34,570	38,511	40,238	38,045
191	Lehigh U.	29,058	22,687	29,211	32,048	36,709	33,469	36,537	37,156
192	U. MA Lowell	20,656	22,827	22,783	22,163	23,852	27,635	34,824	36,486
193	U. MO-Rolla	28,799	32,222	35,999	41,242	38,337	37,384	30,395	36,477
194	Howard U.	30,148	35,387	37,577	41,404	41,609	36,465	38,020	36,419
195	SUNY Upstate Medical U.	17,294	22,326	25,931	32,090	34,931	37,181	39,699	36,359
196	Loma Linda U.	24,183 i	23,996	26,296	29,651	29,898	32,451	28,020	35,890
197	U. PR Medical Sciences Campus	23,913	29,089	31,124	34,092	35,809	38,424	38,863	35,570
198	Loyola U. Chicago	37,156	37,607	37,581	36,134	40,551	37,669	34,940	34,568
199	CUNY The City C.	17,099	17,103	17,712	25,947	28,992	30,316	32,840	34,452
200	Meharry Medical C.	14,984 i	20,508	25,427	27,507	29,105	32,878	33,218	34,152
201	CO School of Mines	23,654	26,515	29,162	27,087	26,499	28,729	29,939	34,050
202	U. TX San Antonio	11,331	11,115	13,654	15,738	22,429	30,259	30,542	33,106
203	U. AL, The	33,133	37,130	34,187	35,132	34,531	35,129	36,382	32,846
204	SUNY Health Science Ctr. Brooklyn	31,626 e	31,153 i	30,680 i	30,207 i	29,732	31,064	29,809	32,299
205	NY Medical C.	24,283	25,222	30,492	33,521	32,460	34,397	34,365	31,644
206	Eastern VA Medical School	26,250	28,572	32,801	33,798	33,721	33,013	31,453	30,777
207	CUNY Hunter C.	19,964	25,905	32,704	34,931	33,024	31,308	27,046	30,402
208	Southern IL U. Edwardsville	1,270	14,043	17,100	18,973	20,883	23,737	26,904	30,333
209	U. MA Boston	11,672	13,121	15,793	15,460	18,148	21,056	25,952	30,272

Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2001–08

(Dollars in Thousands)									
Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
210	NC Agricultural and Technical State U.	15,629	15,353	17,304	19,534	22,936	23,698	24,044	28,781
211	U. South AL	9,865 e	17,692	19,371	20,096	19,431	19,308	25,883	28,466
212	U. North TX Health Science Ctr. Ft. Worth	11,035	12,893	15,388	18,520	22,325	25,124	28,187	28,179
213	U. MO-Kansas City	18,795	24,060	31,104	31,968	30,780	26,016	26,870	27,509
214	U. Southern ME	4,479 i	7,592 i	10,705 i	13,818 i	16,931 i	20,045	34,799	27,232
215	U. Akron all campuses	22,266	28,080	27,953	27,488	26,888	28,440	27,138	27,182
216	Morehouse School of Medicine	19,670	23,956	27,154	33,317	30,652	28,378	27,886	27,077
217	Portland State U.	16,838	17,683	21,433	21,433 e	28,940	28,763	26,025	27,007
218	Creighton U.	17,674	18,982	24,116	25,451	27,022	25,615	28,374	26,872
219	SUNY C. of Environmental Science and	27,854	26,337	26,783	19,419 i	12,054	17,954 i	23,854	26,359
220	Northern AZ U.	14,657	17,263	17,446	19,967	22,870	27,632	26,566	25,820
221	Stevens Institute of Technology	13,855	13,855 e	18,334 i	22,814	22,997	25,848	25,684	25,743
222	Brigham Young U. all campuses	19,171	21,228	22,557	23,565	23,961	25,973	26,653	25,664
223	Miami U. all campuses	12,804	13,279	13,727	15,377	18,026	19,229	23,729	25,052
224	TX Tech U. Health Science Ctr.	NA	NA	NA	19,827	18,697	22,013	21,006	24,716
225	Rochester Institute of Technology	11,416	13,500	17,197	19,423	21,068	22,107	20,961	24,018
226	FL A&M U.	23,865	31,147	23,503	31,408	26,400	34,293	16,541	24,012
227	Kent State U. all campuses	11,316	12,868	14,549	12,712	11,045	11,076	19,001	23,293
228	U. SD	5,546	8,368	11,148	15,523	18,681	22,613	21,473	22,742
229	U. PR Rio Piedras Campus	10,341	9,736	11,473	12,417	20,546	21,609	21,379	22,662
230	IL Institute of Technology	14,722	19,909	25,744	22,948	25,498	22,646	22,955	22,538
231	Marshall U.	7,218	11,285	15,070	20,221	22,321	18,385	22,519	22,423
232	U. NC Charlotte	7,905	8,773	12,599	17,425	16,042	18,463	22,165	21,869
233	San Francisco State U.	5,223 e	14	12,500	42,903	23,655	27,333	20,069	21,191
234	Hampton U.	9,158	11,067	18,673	31,645	42,969	28,705	24,017	21,089
235	U. PR Mayaguez Campus	18,627	19,939	20,029	16,686	20,492	21,080	19,813	20,763 i
236	ID State U.	8,847	10,119	12,243	14,385	19,700	16,754	19,887	20,728
237	Air Force Institute of Technology	8,311	9,243	12,454	13,001	14,666	18,783	16,801	20,497
238	U. MA Dartmouth	9,488	15,030	16,476	18,074	19,452	19,171	19,538	20,431
239	Catholic U. America, The	17,539	22,883	24,475	23,610	21,489	17,662	19,919	20,375
240	U. NC Wilmington	10,307	14,568	12,762	14,381	20,617	13,609	17,064	20,100
241	Mercer U. all campuses	15,337	12,998	14,996	18,437	20,042	19,529	18,096	19,624
242	Southern Methodist U.	8,948	9,774	9,890	10,432	11,839	12,475	13,381	19,530
243	LA Tech U.	9,986	12,110	15,055	16,118	15,832	15,276	14,166	19,406
244	U. of the VI	8,645 i	13,981	15,762	17,874	16,735	17,495	17,842	18,099
245	Clarkson U.	8,322	8,322 e	7,466	14,703	13,826	16,143	16,976	17,654
246	U. LA Monroe	7,373 i	6,611 i	5,849 i	5,086	5,524	4,376	4,674	16,997
247	U. CA, Merced	na	na	na	na	4,468	7,527	10,945	16,802
248	SD School of Mines and Technology	6,922	9,692	10,853	10,626	13,347	12,589	14,480	16,503
249	East Carolina U.	10,535	11,513	12,520	13,296	14,240	14,061	15,970	16,192
250	U. North TX	14,224	13,227	13,990	11,958	12,617	14,819	14,207	15,932
251	Teachers C. Columbia U.	9,676	10,409	9,603	9,684	10,669	11,411	12,585	15,198
252	Albany Medical C.	12,836	13,104	13,394	15,562	15,465	16,227	15,029	15,108
253	CA State U. Long Beach	3,995	8,026	13,732	9,877	9,594	10,322	13,867	14,971
254	Tuskegee U.	9,539	9,965	10,067	11,519	10,966	11,651	14,329	14,963
255	Northern IL U.	9,028	10,366	12,368	11,687	11,239	16,627	16,710	14,948
256	Worcester Polytechnic Institute	9,348	10,493	12,357	14,045	14,679	14,483	13,409	14,912
257	CA State Polytechnic U. San Luis Obispo	12,193	14,002	13,598	9,417	11,235	12,529	14,517	14,866
258	Western MI U.	14,976	19,023	21,571	13,912	17,518	18,005	17,182	14,617
259	U. Tulsa	12,553	11,603	11,527	15,375	12,740	12,358	14,735	14,270
260	Cleveland State U.	12,986	13,855	14,112	16,888	15,884	14,496	15,948	14,131
261	TX A&M U. Kingsville	6,919	8,208	10,203	11,102	13,389	13,343	13,794	13,519

Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2001–08

		(Dollars in Thousands)							
Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
262	CA State U. Northridge	6,190 e	10,619	11,638	10,305	8,767	7,490	12,412	12,793
263	Polytechnic U.	8,277	10,915	11,271 i	11,627	15,295	14,479	14,216	12,674
264	Morgan State U.	2,390	1,674	7,493	8,580	9,544	13,523	11,257	12,336
265	U. MO-St. Louis	10,084	11,519	12,819	12,429	12,056	11,713	10,907	12,297
266	Rosalind Franklin U. of Medicine and Science	8,037	8,645	9,923	10,614	11,920	10,981	12,199	12,128
267	TN State U.	12,791	15,262	14,306	15,255	14,669	14,096	12,475	12,090
268	TX State U. San Marcos	8,884	8,109	7,621	9,130	7,261	7,034	7,890	11,792
269	TN Technological U.	9,347	9,823	9,609	8,779	9,312	9,575	12,226	11,742
270	Alcorn State U.	7,370	5,809	7,619	7,622	6,256	6,593	9,056	11,665
271	TX A&M U. Corpus Christi	5,606	9,124	10,281	12,266	8,845	12,654	11,933	11,662
272	CUNY Queens C.	4,595	6,718	6,430	6,819	6,876	7,432	9,186	11,377
273	Boise State U.	6,153	6,446	7,583	9,126	9,162	7,848	10,947	11,222
274	U. Denver	12,944	10,539	9,949	12,500	11,716	10,581	9,833	11,029
275	Prairie View A&M U.	11,297	10,444	11,193	10,989	11,810	11,444	12,019	10,786
276	Bowling Green State U. all campuses	5,028	5,327	7,336	8,271	9,746	9,912	9,120	10,712
277	Marquette U.	7,236	9,807	11,385	9,652	10,338	10,445	9,744	10,373
278	U.S. Military Academy	5,577 i	6,006 i	6,435 i	6,864 i	7,293 i	7,722 i	8,167	10,123
279	Baylor U.	2,698	3,868	4,203	5,242	6,364	6,133	8,951	9,867
280	U. AR Little Rock	2,088	2,088 e	24,284	4,127	4,345	9,331	9,598 i	9,866
281	CA State U. San Bernardino	1,906	3,740	7,576	8,755	8,905	11,120	8,323	9,703
282	Duquesne U.	5,003	5,955	6,848	8,082	8,096	8,345	8,850	9,542
283	Villanova U.	5,380 i	5,481 e	6,479 i	7,477 i	8,475 i	9,473 i	10,473	9,484
284	Oakland U.	7,397	6,869	6,175	6,616	6,505	9,169	8,872	9,465
285	Northeastern OH Universities C. of Medicine	4,532	4,525	4,364	5,601	5,703	5,294	4,984	9,165
286	MO State U.	1,550	1,888	1,423	2,935	6,367	5,188	9,320	9,042
287	AL A&M U.	11,977 i	15,717	36,856	17,429	16,075	14,431	13,672	8,959
288	CA State U. Los Angeles	5,557	7,933	7,073	8,728	10,130	8,956	10,053	8,957
289	Tarleton State U.	6,607	7,871	8,534	7,194	8,512	8,069	9,151	8,857
290	U.S. Naval Academy	3,140	2,324	3,451	5,985	6,623	6,850	7,973	8,849
291	Humboldt State U.	5,714 i	5,871 i	6,028 i	6,185 i	6,342 i	6,500	7,087	8,808
292	FL Institute of Technology	6,195	6,669	8,004	7,801	7,539	7,684	6,985	8,642
293	Western KY U.	4,165	5,281	4,263	5,729	6,607	8,701	10,402	8,425
294	VA State U.	5,066	7,144	7,209	5,953	5,048	8,189	8,170	8,282
295	Universidad Central del Caribe	6,943	7,103	8,274	9,797	9,181	8,790	9,446	8,243
296	East TN State U.	8,222	11,701	12,971	7,788	8,098	7,943	8,020	8,237
297	DE State U.	2,494	3,162	3,944	4,678 i	5,412	7,016	7,418	8,052
298	Ball State U.	3,071	4,008	3,878	7,483	8,490	8,625	7,913	8,031
299	CA State U. Fresno	4,531	9,398	13,558	15,211	13,498	9,749	5,297	7,967
300	Norfolk State U.	3,984	4,967	4,532	6,200	6,758	5,144	6,491	7,893

e = estimated; data were not provided by institution; prior-year data were used or current-year estimates were reported. i = imputed. na = not applicable; institution did not exist or did not exist as a separate entity. NA = not available; institution was not surveyed separately. ne = not eligible; institution did not meet the criteria for inclusion.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$845,396 in total R&D expenditures in FY 2008.

^b See Appendix A, Technical Notes, for changes in reporting between FY 2003 and FY 2004.

NOTE: Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges,
Ranked by FY 2008 Expenditures: FY 2001–08**

(Dollars in Thousands)

Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
	All institutions	19,244,082	21,873,227	24,770,506	27,644,009	29,209,385	30,128,621	30,458,168	31,231,220
1	Johns Hopkins U., The ^a	879,741	1,022,510	1,106,971	1,229,426	1,277,292	1,307,453	1,362,836	1,425,100
2	U. WA	435,103	487,059	565,602	625,218	606,317	650,394	620,375	614,069
3	U. MI all campuses	396,117	444,255	516,818	521,339	554,516	565,739	577,201	592,768
4	Stanford U.	384,468	426,620	483,540	541,667	574,675	540,069	534,787	509,477
5	MA Institute of Technology	304,319	330,409	356,206	427,552	457,235	476,362	476,318	495,008
6	U. CA, San Diego	343,276	359,383	400,100	465,629	463,946	463,807	475,708	490,963
7	U. PA	351,996	397,587	415,631	435,343	465,284	478,773	449,687	482,321
8	U. WI Madison	304,009	345,003	396,231	434,423	477,582	491,810	469,076	474,440
9	U. CA, San Francisco	277,489	327,393	371,697	418,944	438,988	464,660	467,402	472,642
10	U. CA, Los Angeles ^b	312,858	366,762	421,174	461,145	469,889	483,873	488,846	471,932
11	Columbia U. in the City of New York	317,928	356,749	385,529	406,576	453,188	451,187	459,748	461,029
12	U. Pittsburgh all campuses	268,571	306,913	345,625	394,444	420,305	422,316	441,357	456,172
13	Duke U.	218,109	261,356	306,864	347,896	376,568	414,419	459,122	451,317
14	U. CO all campuses	308,643	340,466	377,941	414,986	449,366	448,350	442,303	437,393
15	PA State U. all campuses	245,951	284,706	301,094	347,996	358,569	367,215	370,789	406,528
16	Washington U. St. Louis	284,928	303,441	357,364	371,043	400,699	408,402	424,451	393,918
17	Harvard U.	300,414	336,607	348,620	399,764	395,906	403,458	392,103	383,330
18	Yale U.	250,702	274,304	296,713	330,837	332,702	348,500	349,027	374,551
19	U. NC Chapel Hill	221,615	254,571	280,678	304,204	320,294	329,215	346,672	373,098
20	U. MN all campuses	264,289	295,301	293,266	307,677	319,771	326,170	337,966	364,137
21	Cornell U. all campuses	240,466	270,578	320,868	339,107	365,694	390,043	367,094	358,944
22	U. Southern CA	246,207	266,645	300,195	312,589	330,126	333,378	355,084	348,713
23	OH State U. all campuses	161,092	177,883	198,488	284,675	294,053	315,914	313,242	335,121
24	Vanderbilt U.	146,230	172,858	221,979	261,484	281,694	300,423	312,178	331,296
25	U. TX Austin	195,184	219,158	231,996	235,281	254,529	273,147	289,331	324,287
26	Case Western Reserve U.	158,852	181,888	205,452	195,525	212,485	306,980	304,742	305,483
27	U. AL Birmingham, The	194,625	216,221	245,217	261,664	288,434	292,962	269,006	303,084
28	Emory U.	170,317	186,083	228,255	243,248	266,868	267,894	271,445	291,126
29	U. Chicago	155,566	183,830	201,129	229,102	245,679	253,471	261,870	284,616
30	GA Institute of Technology all campuses	143,836	165,680	203,582	237,483	245,130	257,751	260,230	281,184
31	U. AZ	199,484	211,772	259,074	283,956	292,811	301,619	269,941	277,897
32	U. Rochester	166,945	195,298	208,148	231,193	257,497	278,399	280,132	276,268
33	U. CA, Davis	154,937	176,644	208,327	221,937	240,003	248,190	256,994	268,957
34	U. IL Urbana-Champaign	195,316	214,323	266,487	275,896	289,985	264,645	253,612	266,912
35	Scripps Research Institute, The	NA	NA	NA	236,989	272,969	268,533	267,073	265,657
36	Northwestern U.	158,129	178,607	200,316	230,593	244,113	249,980	249,411	264,984
37	Baylor C. of Medicine	234,394	259,475	302,764	312,669	300,638	287,679	263,146	262,498
38	Mt. Sinai School of Medicine	109,344	125,979	152,719	185,249	191,326	224,911	221,397	253,319
39	U. CA, Berkeley	208,080	217,297	238,206	268,830	290,960	261,718	251,043	249,163
40	TX A&M U.	149,382	163,488	177,119	173,705	212,923	206,242	228,363	245,607
41	CA Institute of Technology	193,554	199,944	219,097	244,187	249,371	248,591	253,657	243,624
42	U. MD College Park	145,515	194,095	183,206	180,943	196,008	209,764	218,973	236,417
43	Boston U.	150,771	171,438	203,947	219,054	228,842	238,560	232,115	235,153
44	OR Health & Science U.	111,671	130,231	164,221	206,219	217,145	223,204	227,441	232,208
45	U. FL	135,421	167,108	194,958	221,898	231,699	248,322	240,819	230,999
46	U. IA	155,249	180,743	197,260	209,865	216,354	216,521	222,944	229,903
47	U. Cincinnati all campuses	128,049	150,166	185,261	194,965	202,654	201,742	253,833	221,186
48	U. VA all campuses	122,868	152,358	173,442	188,121	198,606	203,778	198,256	219,429
49	CO State U.	101,308	112,650	117,151	162,074	154,245	182,648	210,746	208,925
50	U. TX Southwestern Medical Ctr. Dallas	131,820	155,258	177,196	200,888	202,057	196,621	191,687	201,480
51	NY U.	129,897	149,995	166,033	181,441	191,782	189,276	194,303	199,363

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges,
Ranked by FY 2008 Expenditures: FY 2001–08**

(Dollars in Thousands)

Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
52	U. IL Chicago	125,109	143,183	168,063	192,825	198,163	203,875	208,881	196,520
53	U. TX M. D. Anderson Cancer Ctr.	94,053	117,633	122,869	150,529	160,953	182,028	190,508	194,889
54	U. HI Manoa	97,716	110,882	143,580	187,035	190,137	202,419	208,196	194,508
55	IN U. all campuses	116,781	132,759	153,625	166,913	171,528	170,635	173,828	186,711
56	U. CA, Irvine	101,735	115,548	133,873	150,995	161,524	169,983	169,912	178,299
57	Purdue U. all campuses	98,151	107,477	129,199	144,090	150,351	157,438	165,637	176,592
58	U. UT	127,253	142,625	152,112	161,119	168,652	174,888	174,719	171,737
59	Carnegie Mellon U.	97,463	137,967	157,583	172,858	173,902	185,389	168,486	170,978
60	U. South FL	58,826	84,108	106,102	126,906	142,580	153,737	158,442	169,911
61	U. MD Baltimore	99,091	117,017	126,156	141,221	129,270	186,160	164,211	169,026
62	U. Miami	111,803	121,171	130,863	141,943	156,059	150,408	147,535	165,986
63	SUNY Buffalo all campuses	96,595	121,376	129,794	143,865	151,890	153,152	148,989	157,578
64	U. KY all campuses	86,239	100,426	120,003	129,887	142,794	151,238	154,688	154,811
65	MI State U.	112,359	122,595	133,820	143,473	156,461	169,116	170,350	152,907
66	LA State U. all campuses	94,625	97,928	99,143	112,169	132,679	144,389	150,282	150,298
67	Wake Forest U.	78,021	91,738	108,467	120,075	141,685	139,549	141,467	146,298
68	U. MA Worcester	79,453	93,992	109,082	126,162	130,680	136,141	131,226	145,113
69	Yeshiva U.	107,800	114,268	128,894	151,520	160,894	153,785	147,941	143,866
70	Rutgers, The State U. NJ all campuses	77,156	91,205	110,041	128,655	137,609	129,456	135,933	140,399
71	U. NE all campuses	69,232	82,728	96,627	115,833	129,216	139,113	138,338	136,317
72	VA Polytechnic Institute and State U.	77,384	82,976	98,143	95,669	109,842	119,994	128,796	135,578
73	U. NM main campus	109,505	104,252	106,541	112,299	129,557	127,907	123,039	134,783
74	NC State U.	95,875	91,981	96,157	103,586	109,128	131,262	131,056	131,412
75	U. TX Health Science Ctr. Houston	88,545	98,676	107,481	106,737	112,509	122,870	131,879	129,277
76	AZ State U.	56,616	64,407	71,741	79,877	94,545	109,893	114,632	125,558
77	Princeton U.	78,620	97,724	104,011	111,435	120,042	117,845	119,171	125,102
78	U. KS all campuses	74,494	82,663	92,888	101,920	110,768	115,522	115,670	122,401
79	U. of Medicine and Dentistry NJ	86,054	90,235	105,495	121,812	143,239	140,923	126,101	122,061
80	U. TX Medical Branch	64,682	78,100	93,039	102,491	117,235	120,408	118,173	122,009
81	U. TX Health Science Ctr. San Antonio	71,153	83,761	86,683	89,662	95,125	95,110	95,610	121,758
82	Dartmouth C.	69,844	87,255	106,034	123,109	122,329	140,430	128,164	121,306
83	U. TN all campuses	78,611	88,344	100,486	109,357	121,004	133,334	126,998	120,289
84	U. CT all campuses	70,013	93,326	111,654	127,609	134,347	124,837	123,513	119,915
85	George Washington U.	51,757	58,729	68,959	78,192	78,779	75,209	87,624	119,100
86	Woods Hole Oceanographic Institution	75,670	78,458	84,410	100,456	100,747	101,631	112,754	117,587
87	Wayne State U.	79,448	95,910	102,963	114,700	120,581	118,042	114,364	115,904
88	OR State U.	84,854	91,683	100,499	104,276	109,030	116,586	110,267	113,614
89	Medical C. WI	64,003	76,241	83,026	100,547	102,859	100,128	107,200	111,602
90	U. CA, Santa Barbara	76,828	78,370	88,422	92,248	103,955	106,169	111,848	111,601
91	Georgetown U.	93,626	75,342	88,463	95,852	100,328	92,268	105,304	111,590
92	FL State U.	57,075	70,456	87,985	102,967	105,747	110,358	113,681	110,618
93	Tulane U.	55,669	64,824	82,118	87,917	94,628	84,052	98,473	109,152
94	SUNY Albany	46,671	40,497	76,038	94,712	103,941	103,835	105,776	108,747
95	U. MO-Columbia	68,435	77,742	84,211	90,304	96,038	101,732	108,328	108,131
96	SUNY Stony Brook all campuses	93,265	108,122	112,452	123,124	125,781	112,973	111,241	106,419
97	MS State U.	65,493	77,521	79,837	82,205	84,465	94,073	106,662	105,327
98	U. GA	66,913	78,086	93,884	96,348	102,966	92,652	103,256	102,817
99	IA State U.	62,024	71,419	82,297	92,235	98,005	104,553	97,112	102,771
100	Medical U. SC	60,543	75,803	92,893	103,494	108,196	104,057	101,402	102,187
101	U. SC all campuses	51,983	53,403	63,044	71,856	65,095	89,294	89,000	98,576
102	WA State U.	48,660	61,138	70,653	74,944	80,222	81,324	78,505	97,668
103	Tufts U.	71,669	73,236	78,942	92,997	98,200	95,964	91,379	95,620
104	VA Commonwealth U.	57,315	65,028	81,201	89,066	97,322	97,576	90,137	95,369

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges,
Ranked by FY 2008 Expenditures: FY 2001–08**

(Dollars in Thousands)

Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
105	Brown U.	58,367	68,215	81,445	84,126	90,857	96,922	95,023	95,145
106	U. OK all campuses	60,264	69,388	75,318	81,048	87,776	90,880	86,422	91,578
107	U. AK Fairbanks all campuses	55,287	66,169	72,607	75,269	89,637	98,330	94,305 i	90,280
108	U. VT	48,810	58,280	70,832	79,015	79,879	82,519	90,049	89,717
109	UT State U.	74,251	79,393	95,494	107,945	92,660	96,242	90,832	88,884
110	NM State U. main campus	61,124	70,314	75,368	76,396	91,247	101,849	100,773	86,636
111	U. DE	41,830	48,183	69,493	76,583	74,721	79,640	82,539	84,628
112	U. NH	45,223	50,829	59,463	67,917	78,653	86,416	81,027	83,769
113	Naval Postgraduate School	45,884 i	52,172 i	58,463	50,771 i	43,079	54,528	62,434	82,302
114	Rockefeller U.	55,362	67,559	75,303	82,535	85,552	93,742	86,728	81,557
115	U. MA Amherst	49,576	54,770	60,839	65,452	66,921	69,176	71,974	79,736
116	Thomas Jefferson U.	64,881	79,217	85,348	92,296	86,171	82,551	81,545	76,034
117	U. Louisville	25,116	38,978	39,924	54,476	67,104	70,481	76,479	72,711
118	MT State U. Bozeman	34,857	39,986	53,283	58,874	71,604	75,362	75,765	70,386
119	U. CA, Santa Cruz	29,201	32,901	38,213	53,196	62,301	66,390	68,204	69,742
120	WV U.	29,440	49,394	60,586	60,819	62,489	63,764	65,699	68,147
121	Uniformed Services U. of the Health Sciences	10,105	10,294	9,527	62,408	50,016	39,461	37,275	67,345
122	U. of Notre Dame	29,801	33,285	41,220	48,650	51,072	55,710	53,974	66,812
123	U. NV, Reno	31,386	39,958	47,756	50,787	60,329	64,476	62,713	66,165
124	U. MS all campuses	39,451 i	50,795 i	62,140	59,787	67,603	67,717	77,526	65,799
125	Drexel U.	20,159	30,232	49,271	54,963	62,606	68,499	66,795	65,198
126	U. Dayton	34,102	40,191	47,327	56,647	58,782	56,779	60,089	64,515
127	NM Institute of Mining and Technology	13,255	18,864	15,434	13,853	30,877 i	47,901	69,050	64,322
128	U. AR for Medical Sciences	34,219	27,491	41,681	53,249	59,053	66,127	60,836	62,035
129	Temple U.	41,643	44,577	51,309	50,456	53,987	50,904	54,452	58,686
130	Clemson U.	48,560	47,174	62,552	61,065	56,829	56,268	53,905	56,535
131	U. Central FL	22,342	29,929	47,749	44,020	40,013	37,974	49,359	55,771
132	U. OR	32,232	37,177	36,127	43,634	43,564	46,583	49,467	55,190
133	Rice U.	35,682	39,739	43,706	51,157	54,735	53,880	54,279	54,959
134	Auburn U. all campuses	40,097	42,432	45,374	49,565	51,319	45,540	54,949	54,748
135	U. CA, Riverside	25,713	32,305	40,409	40,981	52,919	58,023	56,129	53,780
136	KS State U.	33,998	43,988	53,313	56,088	58,821	52,649	47,654	52,984
137	FL International U.	23,940	32,057	40,860	47,913	51,328	45,894	52,141	52,838
138	U. MD Baltimore County	23,695	29,376	34,164	37,548	43,377	44,830	49,461	50,561
139	George Mason U.	25,992	31,890	38,510	39,758	36,475	35,911	46,588	50,392
140	U. RI	43,161	45,453	51,942	48,590	42,132	46,898	52,561	50,377
141	ND State U. all campuses	15,207	21,414	37,940	45,375	46,060	45,418	45,475	50,038
142	St. Louis U. all campuses	28,117	31,215	36,989	36,989 e	44,757	45,183	47,704	49,434
143	Rensselaer Polytechnic Institute	25,894	26,490	32,295	36,651	42,338	44,690	48,924	47,109
144	U. AL Huntsville, The	30,625	35,660	35,558	39,607	42,358	44,636	48,415	47,068
145	U. ND all campuses	15,743	25,004	28,336	36,349	32,092	38,848	44,610	46,620
146	U. ID	26,548	33,465	42,861	48,565	47,212	47,018	46,144	45,301
147	U.S. Air Force Academy	5,009	8,163	12,599	15,739	15,165	9,678	14,301	43,787
148	Charles R. Drew U. of Medicine and Science	27,415	39,259	39,407	40,430	41,207	44,394	48,580	43,291
149	U. Houston	21,876	31,455	32,556	34,468	37,262	38,559	40,116	43,162
150	U. Southern MS	18,061	22,398	31,653	32,075	34,941	34,577	42,645	42,540
151	U. NV, Las Vegas	15,681	22,367	32,511	28,013	35,942	42,772	48,597	41,505
152	OK State U. all campuses	25,636	31,100	37,748	43,345	36,637	37,943	36,958	41,051
153	Rush U.	37,301	44,756	49,834	51,706	49,150	45,044	39,601	40,942
154	U. ME	23,873	23,732	28,901	36,513	28,951	41,394	41,963	40,931
155	NJ Institute of Technology	23,274	27,550	30,535	30,995	35,716	35,489	41,330	40,087
156	Medical C. GA	21,116	23,317	28,280	35,841	41,910	41,555	40,609	39,486
157	Brandeis U.	30,031	29,006	33,722	38,041	39,788	41,184	41,358	38,204

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges,
Ranked by FY 2008 Expenditures: FY 2001–08**

(Dollars in Thousands)

Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
158	Northeastern U.	23,532	24,295	26,895	30,659	36,524	36,071	36,028	36,497
159	San Diego State U.	23,621	25,223	28,084	30,092	35,328	35,351	33,139	36,267
160	Jackson State U.	22,750	21,721	25,607	28,806	30,472	30,783	30,980	35,221
161	Howard U.	27,848	33,949	36,137	40,086	40,020	34,959	33,996	34,630
162	U. MT-Missoula, The	19,194	22,612	27,220	34,478	36,433	33,039	33,855	34,407
163	TX A&M U. System Health Science Ctr.	18,384	22,417	26,729	30,283	32,949	35,214	35,004	33,044
164	Loma Linda U.	19,462 i	20,114	22,675	26,631	26,855	28,788	24,666	32,350
165	U. AR main campus	23,172	27,588	27,071	31,088	33,496	31,926	37,016	31,531
166	Meharry Medical C.	14,822 i	20,453	24,195	26,159	27,408	30,914	31,263	31,035
167	Desert Research Institute	22,018	22,760	23,265	26,235	28,655	30,407	30,752	30,703
168	MI Technological U.	17,620	17,973	17,667	18,735	19,760	18,757	28,193	29,868
169	U. Toledo	6,701	8,996	10,928	13,229	15,521	16,534	31,863	29,201
170	U. PR Medical Sciences Campus	19,433	23,931	25,845	28,063	29,863	31,199	31,955	28,481
171	U. WY	20,017	20,017 e	23,186	23,186 e	29,351	25,844	25,537	28,372
172	Old Dominion U.	15,280	17,170	18,882	21,377	24,463	27,506	25,694	28,298
173	U. TX El Paso	16,167	16,457	18,116	16,900	15,378	19,331	21,018	26,902
174	GA State U.	13,575	18,967	22,218	25,845	25,204	24,968	24,569	26,257
175	C. of William and Mary all campuses	15,288	18,007	21,992	26,049	26,898	29,121	25,983	25,645
176	SUNY Health Science Ctr. Brooklyn	22,860 e	23,011 i	23,162 i	23,313 i	23,466	25,184	23,232	25,299
177	Morehouse School of Medicine	18,127	21,919	24,382	23,331	24,213	25,156	23,230	24,985
178	Syracuse U. all campuses	30,036	32,704	34,559	43,162	46,945	25,299	24,894	24,207
179	U. AL, The	22,183	26,900	26,241	25,329	24,393	22,847	27,744	23,394
180	SUNY Upstate Medical U.	8,815	13,404	16,652	22,650	23,275	27,247	27,933	23,117
181	NY Medical C.	18,344	19,318	23,387	25,103	25,242	26,579	26,101	23,107
182	Loyola U. Chicago	26,474	27,678	28,107	29,150	30,584	25,420	24,794	23,034
183	U. MA Lowell	11,196	14,932	15,821	16,655	17,608	18,741	20,045	22,406
184	U. MO-Rolla	11,929	15,749	18,142	20,218	21,772	22,351	18,256	22,353
185	Stevens Institute of Technology	8,094	8,094 e	13,783 i	19,473	18,626	22,501	22,809	22,182
186	San Jose State U.	14,301	15,777	18,935	20,363	21,160	23,197	22,609	22,173
187	FL A&M U.	22,477	21,592	18,273	24,994	22,378	24,902	14,502	22,154
188	Lehigh U.	13,961	13,519	16,215	19,400	21,061	18,248	22,116	22,044
189	CUNY The City C.	13,022	13,319	13,456	19,711	22,289	21,408	21,776	21,739
190	U. TX San Antonio	8,012	7,111	9,982	11,644	15,924	20,277	20,545	21,523
191	U. TX Dallas	7,049 e	11,624	14,530	15,733	19,933	19,954	17,783	21,383
192	Wright State U. all campuses	15,417	16,070	18,733	20,599	20,527	22,430	22,229	21,315
193	Boston C.	20,123	22,827	22,907	22,907 e	17,801	18,344	20,336	21,099
194	SD State U.	8,456	9,115	11,441	13,447	13,914	12,788	16,729	20,912
195	Hampton U.	8,377	10,058	18,417	31,443	42,792	28,584	23,836	20,910
196	U. TX Arlington	9,413	7,848	7,884	10,498	17,654	19,006	19,774	20,721
197	CO School of Mines	12,314	13,230	16,314	16,550	15,501	20,543	18,248	20,072
198	U. North TX Health Science Ctr. Ft. Worth	6,562	7,770	9,927	13,259	17,037	19,183	19,203	19,818
199	TX Tech U.	22,967	28,202	31,776	23,181	22,071	22,278	22,874	19,698
200	IL Institute of Technology	10,917	11,277	13,900	14,903	16,493	19,121	19,731	18,888
201	Portland State U.	11,341	11,914	13,276	13,276 e	18,580	18,797	17,054	18,743
202	Marshall U.	5,980	9,502	12,802	17,104	18,660	15,360	18,412	18,492
203	NC Agricultural and Technical State U.	11,937	11,953	12,226	13,487	16,348	15,885	15,362	18,405
204	OH U. all campuses	12,898	17,677	20,406	20,831	20,736	19,573	18,605	18,204
205	U. MD Biotechnology Institute	16,742	16,701	19,989	24,436	31,276	32,005	30,375	17,952
206	FL Atlantic U.	14,099	15,566	17,517	14,662	15,956	19,952	18,037	17,642
207	U. SD	3,534	5,830	8,308	12,849	15,448	17,308	16,683	17,569
208	Eastern VA Medical School	11,389	13,077	15,431	17,530	19,969	19,399	20,620	17,499
209	Southern IL U. Carbondale	10,868	10,789	12,078	15,557	16,975	20,108	17,724	17,499
210	Brigham Young U. all campuses	11,659	12,900	16,564	17,129	16,878	17,309	17,118	17,128

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges,
Ranked by FY 2008 Expenditures: FY 2001–08**

(Dollars in Thousands)

Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
211	U. WI Milwaukee	11,089	11,461	13,704	13,670	15,893	15,867	18,368	16,895
212	U. PR Rio Piedras Campus	6,013	4,971	6,760	8,093	14,301	16,881	16,114	16,811
213	U. MO-Kansas City	8,176	10,795	14,232	15,696	16,960	15,965	16,542	16,765
214	U. South AL	8,276 e	15,922	17,638	17,832	16,538	15,147	16,400	15,746
215	U. Memphis, The	11,012	14,072	14,985	14,078	15,125	15,964	17,765	15,393
216	U. Southern ME	2,046 i	3,969 i	5,892 i	7,815 i	9,738 i	11,662	19,656	15,138
217	Catholic U. America, The	13,308	17,925	18,864	18,927	16,252	13,264	15,324	15,020
218	CUNY Hunter C.	10,922	14,573	17,047	18,836	18,544	18,472	15,768	14,978
219	SUNY Binghamton	6,392	8,959	8,981	10,414	10,494	12,213	13,991	14,402
220	Rochester Institute of Technology	5,612	7,868	11,630	12,415	11,620	14,581	13,225	14,370
221	U. NC Wilmington	7,242	9,950	8,957	9,951	10,665	9,884	11,362	13,949
222	SD School of Mines and Technology	4,417	6,950	8,222	8,366	10,752	9,834	11,232	13,866
223	Wichita State U.	5,726	6,687	10,619	11,796	9,589	16,302	18,086	13,485
224	Northern AZ U.	9,616	10,873	10,900	12,754	14,547	14,305	12,409	13,298
225	U. MA Dartmouth	4,928	7,142	8,718	9,199	9,852	9,516	11,456	13,087
226	ID State U.	3,837	4,738	6,746	8,416	12,087	11,661	11,911	13,002
227	U. of the VI	6,288 i	10,620	10,772	11,598	12,213	12,518	12,561	12,770
228	CA State U. Long Beach	2,910	4,944	12,126	8,351	8,577	8,368	11,856	12,702
229	Kent State U. all campuses	8,158	9,427	9,278	9,093	7,619	8,198	9,801	12,476
230	U. LA Lafayette	12,130	12,925	14,455	15,850	16,159	11,596	10,712	12,426
231	U. MD Ctr. for Environmental Science	12,105	13,080	12,654	13,824	13,853	12,860	13,365	12,019
232	Mercer U. all campuses	9,076	8,607	8,018	9,613	11,235	11,741	11,075	12,012
233	U. MA Boston	2,546	4,837	5,579	5,412	6,326	8,610	9,152	12,001
234	Northern IL U.	4,264	4,980	6,892	6,824	7,897	11,696	13,034	11,566
235	Tuskegee U.	7,259	7,703	7,660	8,904	8,478	8,971	11,033	11,522
236	U. PR Mayaguez Campus	9,015	8,865	9,596	7,539	10,786	10,645	11,164	11,461 i
237	Morgan State U.	2,390	1,674	6,232	7,227	8,126	12,199	9,992	10,978
238	Miami U. all campuses	3,324	4,021	4,312	5,132	8,014	7,874	8,964	10,872
239	East Carolina U.	5,188	6,030	7,565	9,399	10,967	10,657	10,354	10,807
240	Creighton U.	7,275	6,594	9,413	13,745	12,683	10,505	11,716	10,722
241	U. NC Charlotte	5,145	5,850	7,981	13,816	10,362	10,792	11,887	10,635
242	Southern Methodist U.	5,587	6,026	5,940	6,752	8,415	9,303	10,304	10,612
243	Albany Medical C.	8,562	8,901	9,677	11,849	11,525	11,152	9,521	10,239
244	San Francisco State U.	4,561 e	13	6,089	37,056	12,457	17,255	11,896	10,143
245	Worcester Polytechnic Institute	4,506	5,013	5,966	8,489	9,424	10,193	9,545	9,977
246	Alcorn State U.	7,370	5,809	7,582	7,622	5,396	5,706	7,874	9,525
247	U.S. Military Academy	4,810 i	5,180 i	5,550 i	5,920 i	6,290 i	6,660 i	7,043	9,293
248	U. Akron all campuses	8,672	9,537	9,348	10,284	10,246	11,433	11,210	9,272
249	SUNY C. of Environmental Science and	4,355	4,630	5,177	6,499 i	7,821	7,831 i	7,842	9,239
250	U. Denver	9,248	8,386	8,268	9,839	9,017	8,543	7,694	9,212
251	Boise State U.	3,962	4,173	6,321	7,642	8,447	7,448	9,924	9,124
252	TX Tech U. Health Science Ctr.	NA	NA	NA	7,604	6,730	9,713	8,765	8,995
253	CUNY Queens C.	3,484	5,516	5,062	5,820	5,443	6,422	7,238	8,940
254	CA State U. Los Angeles	5,365	7,728	6,882	8,094	9,797	8,672	9,819	8,848
255	Western MI U.	6,192	9,913	12,131	8,313	11,987	11,214	10,254	8,591
256	U.S. Naval Academy	3,140	2,324	3,169	5,341	5,987	6,487	7,575	8,463
257	Clarkson U.	4,286	4,286 e	4,833	6,434	6,890	8,280	7,587	8,269
258	Air Force Institute of Technology	1,671	2,609	6,418	4,664	4,934	5,212	6,681	8,244
259	U. North TX	5,401	6,015	6,320	5,499	7,003	8,343	7,192	8,241
260	MO State U.	443	79	371	1,863	5,166	4,615	8,740	7,747
261	Prairie View A&M U.	7,094	7,712	7,886	7,965	8,464	9,067	9,217	7,659
262	Teachers C. Columbia U.	5,617	5,939	5,572	6,256	6,187	6,770	7,655	7,622
263	CA State Polytechnic U. San Luis Obispo	6,153	5,968	3,820	2,616	5,743	6,461	5,391	7,603

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges,
Ranked by FY 2008 Expenditures: FY 2001–08**

(Dollars in Thousands)

Rank	Institution	2001	2002	2003	2004	2005	2006	2007	2008
264	TN State U.	10,210	11,218	10,280	11,277	10,446	10,216	8,475	7,576
265	U. LA Monroe	2,436 i	2,048 i	1,660 i	1,271	1,051	1,743	1,194	7,429
266	CA State U. Northridge	3,182 e	6,786	6,460	6,521	5,719	5,200	7,339	7,381
267	Universidad Central del Caribe	6,622	6,470	7,183	8,498	8,543	8,206	8,672	7,304
268	Norfolk State U.	3,952	4,902	4,404	6,054	6,055	4,621	5,998	7,287
269	DE State U.	2,222	2,819	3,636	4,342 i	5,048	6,506	6,487	7,097
270	Marquette U.	3,309	3,565	4,409	6,046	6,979	7,566	6,842	7,075
271	Rosalind Franklin U. of Medicine and Science	6,256	5,638	6,783	7,843	9,974	9,507	7,689	6,936
272	Clark Atlanta U.	14,354	15,325	12,367	13,075	11,346	10,008	7,905	6,784
273	FL Institute of Technology	2,614	3,646	5,204	5,575	5,170	6,138	5,570	6,706
274	Western KY U.	3,294	3,493	3,125	4,400	4,915	7,079	8,225	6,536
275	LA Tech U.	2,242	3,487	6,113	4,718	5,336	5,769	4,151	6,399
276	U. NC Greensboro	2,803	3,340	2,704	3,267	3,876	5,211	5,256	6,336
277	U. Tulsa	7,341	6,806	8,439	11,240	8,969	7,964	7,851	6,331
278	NC Central U.	2,439 i	3,270 i	4,101 i	4,932 i	5,763 i	6,597	4,337	6,323
279	SC State U.	1,988 e	1,998	2,198	2,418	2,587	2,587	2,587	6,252
280	Polytechnic U.	4,063	4,918	4,789 i	4,660	8,623	7,486	6,329	6,050
281	TX A&M U. Corpus Christi	2,357	3,127	4,581	5,685	4,572	7,798	6,609	6,015
282	VA State U.	4,246	6,895	6,964	5,655	2,668	5,813	7,604	5,973
283	Bowling Green State U. all campuses	2,395	2,829	4,378	5,318	6,418	5,408	6,299	5,918
284	U. HI Hilo	NA	8,499	5,082	4,217	8,998	7,678	7,610	5,877
285	Ponce School of Medicine	3,736	3,720	6,270	9,179	6,715	5,022	6,594	5,707
286	U. MD Eastern Shore	5,626	5,718	4,862	5,041	5,432	4,367	3,288	5,648
287	Southern U. and A&M C. all campuses	5,709 i	5,000 i	4,291 i	3,581	3,539 i	3,496	4,375	5,593
288	AL A&M U.	8,883 i	10,710	30,343	12,023	12,005	7,537	8,467	5,566
289	U. GU	3,355	4,183	5,818	9,205	8,265 i	7,324	6,867	5,550
290	U. MO-St. Louis	4,321	4,755	4,978	4,618	4,470	5,046	4,240	5,424
291	Villanova U.	4,293 i	4,551 e	5,456 i	6,361 i	7,266 i	8,171 i	9,077	5,388
292	Oakland U.	5,318	4,903	4,470	5,559	5,599	6,205	5,386	5,357
293	U. AK Anchorage all campuses	3,390 i	4,244 e	5,316	6,721	7,470	6,333	4,967	5,258
294	TN Technological U.	1,124	1,695	1,539	2,564	3,515	3,601	6,076	5,094
295	Cleveland State U.	3,986	4,649	3,611	6,380	7,206	5,159	5,097	5,027
296	CA State U. Fullerton	3,581 i	4,434	3,140	3,979	3,570	4,083	3,792	4,980
297	East TN State U.	3,572	3,908	4,642	4,412	5,015	4,713	4,864	4,911
298	U. CA, Merced	na	na	na	na	2,816	3,135	3,119	4,852
299	Humboldt State U.	2,616 i	2,603 i	2,590 i	2,577 i	2,564 i	2,548	2,510	4,723
300	Tarleton State U.	4,094	5,216	5,698	5,208	6,386	5,488	4,852	4,701

e = estimated; data were not provided by institution; prior-year data were used or current-year estimates were reported. i = imputed. na = not applicable; institution did not exist or did not exist as a separate entity. NA = not available; institution was not surveyed separately. ne = not eligible; institution did not meet the criteria for inclusion.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$788,800 in federally financed R&D expenditures in FY 2008.

^b See Appendix A, Technical Notes, for changes in reporting between FY 2003 and FY 2004.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix D: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by all S&E R&D Expenditures for the First 150 Institutions, Ranked by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
	All institutions	51,908,726	31,231,220	3,417,995	2,870,147	10,434,984	3,954,380
1	Johns Hopkins U., The ^a	1,680,927	1,425,100	6,694	39,183	86,669	123,281
2	U. CA, San Francisco	885,182	472,642	27,623	46,476	158,133	180,308
3	U. WI Madison	881,777	474,440	36,830	20,796	270,406	79,305
4	U. MI all campuses	876,390	592,768	4,953	40,696	192,650	45,323
5	U. CA, Los Angeles	871,478	471,932	22,600	47,096	186,194	143,656
6	U. CA, San Diego	842,027	490,963	30,649	49,878	141,291	129,246
7	Duke U.	766,906	451,317	19,320	152,073	90,965	53,231
8	U. WA	765,135	614,069	10,634	74,002	40,965	25,465
9	U. PA	708,244	482,321	17,192	50,894	61,327	96,510
10	OH State U. all campuses	702,592	335,121	99,329	127,604	102,631	37,907
11	PA State U. all campuses	701,130	406,528	67,916	99,074	125,995	1,617
12	Stanford U.	688,225	509,477	13,557	59,645	53,178	52,368
13	U. MN all campuses	682,662	364,137	62,266	28,605	123,238	104,416
14	MA Institute of Technology	659,626	495,008	802	87,220	10,586	66,010
15	Cornell U. all campuses	653,996	358,944	75,460	25,544	123,011	71,037
16	U. CA, Davis	642,519	268,957	56,078	33,575	215,037	68,872
17	U. Pittsburgh all campuses	595,627	456,172	14,807	12,397	83,439	28,812
18	U. CA, Berkeley	591,770	249,163	43,969	41,568	168,035	89,035
19	U. FL	584,170	230,999	111,114	31,811	175,266	34,980
20	TX A&M U.	582,365	245,607	124,139	43,421	157,163	12,035
21	Washington U. St. Louis	563,967	393,918	15,331	13,580	88,979	52,159
22	U. TX M. D. Anderson Cancer Ctr.	558,503	194,889	149,429	40,625	100,042	73,518
23	Columbia U. in the City of New York	548,704	461,029	9,958	12,724	48,349	16,644
24	U. AZ	545,869	277,897	31,370	11,325	186,912	38,365
25	U. CO all campuses	535,556	437,393	6,043	17,971	44,440	29,709
26	U. NC Chapel Hill	525,843	373,098	23,911	9,900	118,934	0
27	GA Institute of Technology all campuses	522,136	281,184	15,517	55,592	168,333	1,510
28	U. Southern CA	519,543	348,713	6,905	58,328	105,597	0
29	U. IL Urbana-Champaign	501,279	266,912	36,930	20,722	161,848	14,867
30	U. TX Austin	493,294	324,287	20,318	42,513	80,872	25,304
31	Yale U.	487,285	374,551	4,245	12,692	23,330	72,467
32	Northwestern U.	483,881	264,984	4,280	15,103	151,759	47,755
33	Harvard U.	453,028	383,330	2,088	14,446	0	53,164
34	Baylor C. of Medicine	449,301	262,498	3,505	20,051	68,290	94,957
35	Emory U.	441,222	291,126	7,029	9,961	55,678	77,428
36	Purdue U. all campuses	429,988	176,592	50,145	63,843	137,708	1,700
37	Vanderbilt U.	422,622	331,296	402	7,434	58,008	25,482
38	Case Western Reserve U.	416,077	305,483	14,286	4,873	57,782	33,653
39	IN U. all campuses	411,939	186,711	6,836	22,223	132,605	63,564
40	U. AL Birmingham, The	404,615	303,084	296	10,182	67,623	23,430
41	U. MD College Park	395,037	236,417	26,148	11,140	109,100	12,232
42	LA State U. all campuses	391,234	150,298	89,055	18,767	108,652	24,462
43	U. TX Southwestern Medical Ctr. Dallas	390,349	201,480	49,262	22,960	34,701	81,946
44	U. MD Baltimore	379,407	169,026	18,178	40,670	103,337	48,196
45	U. Rochester	375,218	276,268	10,918	27,151	38,572	22,309
46	VA Polytechnic Institute and State U.	373,281	135,578	100,311	20,475	96,331	20,586
47	NC State U.	366,137	131,412	113,385	41,311	79,840	189

Appendix D: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by all S&E R&D Expenditures for the First 150 Institutions, Ranked by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
48	Scripps Research Institute, The	366,047	265,657	1,610	22,811	55,827	20,142
49	U. Chicago	357,278	284,616	7,608	7,025	29,650	28,379
50	MI State U.	356,767	152,907	47,068	10,955	128,808	17,029
51	U. GA	350,299	102,817	43,312	5,001	188,166	11,003
52	U. NE all campuses	349,220	136,317	8,801	16,328	157,690	30,084
53	U. Cincinnati all campuses	344,046	221,186	20,493	7,513	77,348	17,506
54	SUNY Buffalo all campuses	338,300	157,578	16,823	21,433	96,916	45,550
55	U. KY all campuses	336,669	154,811	48,013	9,253	98,723	25,869
56	U. IL Chicago	335,138	196,520	11,987	9,015	94,521	23,095
57	U. CA, Irvine	324,552	178,299	16,691	17,111	68,775	43,676
58	Rutgers, The State U. NJ all campuses	323,404	140,399	36,474	12,216	102,424	31,891
59	NY U.	310,699	199,363	6,126	7,005	40,420	57,785
60	OR Health & Science U.	301,396	232,208	4,569	16,612	25,229	22,778
61	Mt. Sinai School of Medicine	296,380	253,319	2,488	13,811	7,115	19,647
62	CO State U.	295,235	208,925	12,860	18,068	43,938	11,444
63	U. IA	293,564	229,903	9,122	6,433	32,549	15,557
64	U. South FL	278,419	169,911	28,840	22,501	57,121	46
65	WA State U.	276,806	97,668	48,653	6,923	110,854	12,708
66	CA Institute of Technology	272,881	243,624	1,979	5,340	6,771	15,167
67	U. HI Manoa	271,835	194,508	17,578	26,921	28,132	4,696
68	SUNY Albany	270,414	108,747	56,121	25,560	45,761	34,225
69	AZ State U.	259,503	125,558	22,856	16,126	84,065	10,898
70	U. VA all campuses	257,651	219,429	1,140	6,414	18,780	11,888
71	Boston U.	255,022	235,153	576	6,343	0	12,950
72	U. UT	253,891	171,737	1,374	14,466	51,106	15,208
73	SUNY Stony Brook all campuses	252,745	106,419	29,990	5,396	103,869	7,071
74	U. TN all campuses	250,188	120,289	48,222	17,247	50,416	14,014
75	Wayne State U.	249,210	115,904	10,338	12,719	74,893	35,356
76	Rockefeller U.	247,505	81,557	242	2,060	147,196	16,450
77	U. MO-Columbia	244,639	108,131	15,715	2,140	107,782	10,871
78	U. Miami	241,775	165,986	5,376	24,715	15,590	30,108
79	U. of Medicine and Dentistry NJ	230,347	122,061	12,440	17,174	53,930	24,742
80	U. CT all campuses	225,904	119,915	10,295	9,564	68,006	18,124
81	IA State U.	224,368	102,771	44,000	13,373	56,908	7,316
82	U. KS all campuses	215,364	122,401	5,881	3,342	74,579	9,161
83	MS State U.	210,951	105,327	34,178	8,525	62,921	0
84	Carnegie Mellon U.	210,619	170,978	3,633	15,274	13,900	6,834
85	U. CA, Santa Barbara	203,719	111,601	4,184	15,542	41,024	31,368
86	U. TX Health Science Ctr. San Antonio	201,323	121,758	4,983	5,567	50,406	18,609
87	Wake Forest U.	199,915	146,298	18,795	14,362	7,058	13,402
88	U. NM main campus	197,630	134,783	4,328	6,922	48,143	3,454
89	Yeshiva U.	197,311	143,866	0	1,731	39,505	12,209
90	U. TX Health Science Ctr. Houston	197,252	129,277	15,040	7,519	26,698	18,718
91	Clemson U.	195,195	56,535	24,188	13,573	97,131	3,768
92	Princeton U.	194,757	125,102	1,459	5,746	51,947	10,503
93	U. OK all campuses	192,070	91,578	17,590	13,934	56,408	12,560
94	Medical U. SC	189,369	102,187	1,428	13,106	66,737	5,911
95	OR State U.	188,056	113,614	37,823	3,373	29,928	3,318
96	Dartmouth C.	186,938	121,306	4,904	6,376	39,690	14,662

Appendix D: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by all S&E R&D Expenditures for the First 150 Institutions, Ranked by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
97	FL State U.	182,314	110,618	9,787	638	52,386	8,885
98	U. TX Medical Branch	180,026	122,009	6,668	6,403	28,640	16,306
99	U. MA Worcester	178,614	145,113	895	15,192	2,626	14,788
100	U. SC all campuses	172,378	98,576	2,039	3,435	53,077	15,251
101	Medical C. WI	165,529	111,602	701	2,380	35,732	15,114
102	Brown U.	157,670	95,145	713	2,768	54,807	4,237
103	George Washington U.	157,145	119,100	4,607	2,538	11,099	19,801
104	Tulane U.	153,242	109,152	8,309	1,084	19,455	15,242
105	U. MA Amherst	152,884	79,736	4,699	8,182	49,556	10,711
106	Woods Hole Oceanographic Institution	150,720	117,587	427	2,744	12,543	17,419
107	U. Louisville	148,936	72,711	12,300	2,390	41,541	19,994
108	VA Commonwealth U.	148,655	95,369	14,534	9,440	24,380	4,932
109	Auburn U. all campuses	146,984	54,748	2,719	3,841	81,243	4,433
110	UT State U.	146,128	88,884	26,933	4,089	20,019	6,203
111	Georgetown U.	142,623	111,590	1,331	1,736	11,694	16,272
112	WV U.	139,770	68,147	4,649	4,782	60,591	1,601
113	Tufts U.	139,528	95,620	926	11,058	11,387	20,537
114	NM State U. main campus	138,427	86,636	17,186	1,995	30,707	1,903
115	KS State U.	137,543	52,984	41,367	3,922	31,338	7,932
116	U. CA, Santa Cruz	135,261	69,742	6,866	4,279	36,229	18,145
117	U. CA, Riverside	129,605	53,780	6,577	5,829	51,147	12,272
118	U. DE	125,179	84,628	7,318	5,058	23,003	5,172
119	OK State U. all campuses	121,226	41,051	31,776	4,372	43,072	955
120	MT State U. Bozeman	120,155	70,386	24,619	6,459	18,691	0
121	U. AR for Medical Sciences	117,440	62,035	8,292	4,020	27,075	16,018
122	ND State U. all campuses	115,513	50,038	34,783	1,037	25,976	3,679
123	U. VT	115,421	89,717	267	2,330	18,753	4,354
124	U. NH	113,877	83,769	1,509	6,074	16,422	6,103
125	U. Central FL	108,067	55,771	5,664	16,037	30,595	0
126	Uniformed Services U. of the Health Sciences	106,179	67,345	0	0	34,106	4,728
127	U. AR main campus	102,784	31,531	46,292	7,566	15,399	1,996
128	U. AK Fairbanks all campuses	102,761	90,280	1,353	0	0	11,128
129	U. NV, Reno	102,073	66,165	5,918	1,747	27,525	718
130	Drexel U.	100,911	65,198	5,870	2,138	20,044	7,661
131	U. CA Office of the President	100,034	101	40,551	298	49,195	9,889
132	Thomas Jefferson U.	99,275	76,034	6,440	7,986	4,267	4,548
133	U. of Notre Dame	97,171	66,812	930	10,971	18,458	0
134	FL International U.	95,706	52,838	6,432	5,497	30,939	0
135	U. ME	95,042	40,931	10,140	3,228	39,512	1,231
136	Temple U.	92,486	58,686	5,121	5,595	17,672	5,412
137	U. MS all campuses	90,095	65,799	201	1,223	16,434	6,438
138	NJ Institute of Technology	89,792	40,087	4,918	4,078	30,871	9,838
139	Rush U.	89,513	40,942	22	10,997	34,544	3,008
140	U. Houston	84,490	43,162	9,160	4,136	23,288	4,744
141	Naval Postgraduate School	83,314	82,302	542	415	0	55
142	U. ID	81,532	45,301	21,394	908	11,948	1,981
143	U. Dayton	81,275	64,515	9,049	4,968	2,093	650
144	TX A&M U. System Health Science Ctr.	79,687	33,044	1,415	3,431	32,328	9,469
145	NM Institute of Mining and Technology	79,437	64,322	3,665	5,990	5,197	263

Appendix D: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by all S&E R&D Expenditures for the First 150 Institutions, Ranked by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
146	GA State U.	77,709	26,257	22,584	677	24,721	3,470
147	U. RI	77,457	50,377	7,728	5,568	13,784	0
148	Rensselaer Polytechnic Institute	77,295	47,109	10,078	4,337	13,134	2,637
149	U. WY	74,720	28,372	5,993	1,951	37,071	1,333
150	Rice U.	74,254	54,959	465	2,470	9,026	7,334

i = imputed.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$845,396 in total R&D expenditures in FY 2008.

NOTE: Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix E: Science and Engineering R&D Expenditures at all Universities and Colleges Without a Medical School, Ranked by all R&D Expenditures, by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
	All institutions	16,651,696	8,925,895	1,820,757	1,007,290	3,962,409	935,345
1	MA Institute of Technology	659,626	495,008	802	87,220	10,586	66,010
2	U. CA, Berkeley	591,770	249,163	43,969	41,568	168,035	89,035
3	TX A&M U.	582,365	245,607	124,139	43,421	157,163	12,035
4	U. TX M. D. Anderson Cancer Ctr.	558,503	194,889	149,429	40,625	100,042	73,518
5	GA Institute of Technology all campuses	522,136	281,184	15,517	55,592	168,333	1,510
6	U. IL Urbana-Champaign	501,279	266,912	36,930	20,722	161,848	14,867
7	U. TX Austin	493,294	324,287	20,318	42,513	80,872	25,304
8	Purdue U. all campuses	429,988	176,592	50,145	63,843	137,708	1,700
9	U. MD College Park	395,037	236,417	26,148	11,140	109,100	12,232
10	VA Polytechnic Institute and State U.	373,281	135,578	100,311	20,475	96,331	20,586
11	NC State U.	366,137	131,412	113,385	41,311	79,840	189
12	Scripps Research Institute, The	366,047	265,657	1,610	22,811	55,827	20,142
13	U. GA	350,299	102,817	43,312	5,001	188,166	11,003
14	Rutgers, The State U. NJ all campuses	323,404	140,399	36,474	12,216	102,424	31,891
15	CO State U.	295,235	208,925	12,860	18,068	43,938	11,444
16	WA State U.	276,806	97,668	48,653	6,923	110,854	12,708
17	CA Institute of Technology	272,881	243,624	1,979	5,340	6,771	15,167
18	SUNY Albany	270,414	108,747	56,121	25,560	45,761	34,225
19	AZ State U.	259,503	125,558	22,856	16,126	84,065	10,898
20	Rockefeller U.	247,505	81,557	242	2,060	147,196	16,450
21	IA State U.	224,368	102,771	44,000	13,373	56,908	7,316
22	MS State U.	210,951	105,327	34,178	8,525	62,921	0
23	Carnegie Mellon U.	210,619	170,978	3,633	15,274	13,900	6,834
24	U. CA, Santa Barbara	203,719	111,601	4,184	15,542	41,024	31,368
25	Clemson U.	195,195	56,535	24,188	13,573	97,131	3,768
26	Princeton U.	194,757	125,102	1,459	5,746	51,947	10,503
27	OR State U.	188,056	113,614	37,823	3,373	29,928	3,318
28	U. MA Amherst	152,884	79,736	4,699	8,182	49,556	10,711
29	Woods Hole Oceanographic Institution	150,720	117,587	427	2,744	12,543	17,419
30	Auburn U. all campuses	146,984	54,748	2,719	3,841	81,243	4,433
31	UT State U.	146,128	88,884	26,933	4,089	20,019	6,203
32	NM State U. main campus	138,427	86,636	17,186	1,995	30,707	1,903
33	KS State U.	137,543	52,984	41,367	3,922	31,338	7,932
34	U. CA, Santa Cruz	135,261	69,742	6,866	4,279	36,229	18,145
35	U. CA, Riverside	129,605	53,780	6,577	5,829	51,147	12,272
36	U. DE	125,179	84,628	7,318	5,058	23,003	5,172
37	OK State U. all campuses	121,226	41,051	31,776	4,372	43,072	955
38	MT State U. Bozeman	120,155	70,386	24,619	6,459	18,691	0
39	ND State U. all campuses	115,513	50,038	34,783	1,037	25,976	3,679
40	U. NH	113,877	83,769	1,509	6,074	16,422	6,103
41	U. AR main campus	102,784	31,531	46,292	7,566	15,399	1,996
42	U. AK Fairbanks all campuses	102,761	90,280	1,353	0	0	11,128
43	U. CA Office of the President	100,034	101	40,551	298	49,195	9,889
44	U. of Notre Dame	97,171	66,812	930	10,971	18,458	0
45	U. ME	95,042	40,931	10,140	3,228	39,512	1,231
46	NJ Institute of Technology	89,792	40,087	4,918	4,078	30,871	9,838
47	U. Houston	84,490	43,162	9,160	4,136	23,288	4,744

Appendix E: Science and Engineering R&D Expenditures at all Universities and Colleges Without a Medical School, Ranked by all R&D Expenditures, by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
48	Naval Postgraduate School	83,314	82,302	542	415	0	55
49	U. ID	81,532	45,301	21,394	908	11,948	1,981
50	U. Dayton	81,275	64,515	9,049	4,968	2,093	650
51	NM Institute of Mining and Technology	79,437	64,322	3,665	5,990	5,197	263
52	GA State U.	77,709	26,257	22,584	677	24,721	3,470
53	U. RI	77,457	50,377	7,728	5,568	13,784	0
54	Rensselaer Polytechnic Institute	77,295	47,109	10,078	4,337	13,134	2,637
55	U. WY	74,720	28,372	5,993	1,951	37,071	1,333
56	Rice U.	74,254	54,959	465	2,470	9,026	7,334
57	George Mason U.	72,542	50,392	5,513	835	10,844	4,958
58	San Diego State U.	69,974	36,267	8,058	889	17,863	6,897
59	U. OR	67,378	55,190	911	1,434	6,274	3,569
60	U. MD Baltimore County	66,802	50,561	1,719	951	12,134	1,437
61	Old Dominion U.	66,538	28,298	5,335	3,757	29,148	0
62	U. AL Huntsville, The	65,396	47,068	789	1,868	9,132	6,539
63	Northeastern U.	59,911	36,497	1,618	12,296	9,500	0
64	U. TX Dallas	59,300	21,383	18,040	5,969	6,667	7,241
65	SUNY Binghamton	59,017	14,402	8,207	3,274	27,662	5,472
66	MI Technological U.	58,763	29,868	617	4,893	22,730	655
67	U. LA Lafayette	58,667	12,426	10,370	0	19,681	16,190
68	U. MT-Missoula, The	58,032	34,407	2,535	1,079	15,857	4,154
69	TX Tech U.	57,902	19,698	16,840	3,970	13,336	4,058
70	C. of William and Mary all campuses	55,090	25,645	3,830	1,360	19,859	4,396
71	U. NV, Las Vegas	50,775	41,505	3,313	943	5,014	0
72	Brandeis U.	49,797	38,204	0	0	2,126	9,467
73	U. TX El Paso	48,906	26,902	1,348	3,495	17,161	0
74	Wichita State U.	47,853	13,485	5,115	3,507	24,859	887
75	SD State U.	47,758	20,912	13,637	2,339	1,243	9,627
76	U. Southern MS	47,088	42,540	947	2,254	422	925
77	U.S. Air Force Academy	44,297	43,787	0	510	0	0
78	U. MD Biotechnology Institute	43,213	17,952	1,471	334	22,873	583
79	U. Memphis, The	43,183	15,393	3,408	493	22,715	1,174
80	U. TX Arlington	43,005	20,721	1,606	6,334	14,344	0
81	Jackson State U.	42,739	35,221	0	2,063	5,455	0
82	FL Atlantic U.	41,788	17,642	3,587	1,106	16,637	2,816
83	U. WI Milwaukee	41,285	16,895	6,014	592	15,145	2,639
84	Boston C.	40,796	21,099	957	887	8,111	9,742
85	U. MD Ctr. for Environmental Science	40,556	12,019	4,117	0	20,341	4,079
86	San Jose State U.	38,521	22,173	12,435	593	1,319	2,001
87	Syracuse U. all campuses	38,455	24,207	4,047	1,757	6,691	1,753
88	OH U. all campuses	38,108	18,204	1,948	3,791	12,726	1,439
89	Desert Research Institute	38,045	30,703	2,971	664	1,659	2,048
90	Lehigh U.	37,156	22,044	8,752	2,100	3,616	644
91	U. MA Lowell	36,486	22,406	1,088	6,299	6,693	0
92	U. MO-Rolla	36,477	22,353	41	2,850	9,414	1,819
93	CUNY The City C.	34,452	21,739	3,115	3,018	3,595	2,985
94	CO School of Mines	34,050	20,072	385	13,593	0	0
95	U. TX San Antonio	33,106	21,523	8,739	517	2,327	0
96	U. AL, The	32,846	23,394	3,791	3,394	2,267	0

Appendix E: Science and Engineering R&D Expenditures at all Universities and Colleges Without a Medical School, Ranked by all R&D Expenditures, by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
97	CUNY Hunter C.	30,402	14,978	4,573	169	7,078	3,604
98	Southern IL U. Edwardsville	30,333	2,668	1,742	487	24,977	459
99	U. MA Boston	30,272	12,001	701	552	13,048	3,970
100	NC Agricultural and Technical State U.	28,781	18,405	91	218	10,067	0
101	U. North TX Health Science Ctr. Ft. Worth	28,179	19,818	821	620	5,057	1,863
102	U. Southern ME	27,232	15,138	1,652	159	10,283	0
103	U. Akron all campuses	27,182	9,272	1,972	3,247	10,028	2,663
104	Portland State U.	27,007	18,743	1,809	642	3,625	2,188
105	SUNY C. of Environmental Science and Forestry	26,359	9,239	1,346	1,007	13,421	1,346
106	Northern AZ U.	25,820	13,298	3,819	3,480	5,223	0
107	Stevens Institute of Technology	25,743	22,182	724	2,267	570	0
108	Brigham Young U. all campuses	25,664	17,128	973	3,856	2,034	1,673
109	Miami U. all campuses	25,052	10,872	2,069	398	10,967	746
110	Rochester Institute of Technology	24,018	14,370	811	3,452	4,131	1,254
111	FL A&M U.	24,012	22,154	219	1,639	0	0
112	Kent State U. all campuses	23,293	12,476	1,471	343	8,216	787
113	U. PR Rio Piedras Campus	22,662	16,811	40	3	5,801	7
114	IL Institute of Technology	22,538	18,888	273	2,720	552	105
115	U. NC Charlotte	21,869	10,635	2,967	5,792	2,475	0
116	San Francisco State U.	21,191	10,143	3,391	367	6,357	933
117	Hampton U.	21,089	20,910	0	0	179	0
118	U. PR Mayaguez Campus	20,763 i	11,461 i	2,650 i	585 i	3,006 i	3,061 i
119	ID State U.	20,728	13,002	397	3,561	3,585	183
120	Air Force Institute of Technology	20,497	8,244	27	80	12,146	0
121	U. MA Dartmouth	20,431	13,087	1,641	807	4,253	643
122	Catholic U. America, The	20,375	15,020	3	924	4,264	164
123	U. NC Wilmington	20,100	13,949	798	100	5,253	0
124	Southern Methodist U.	19,530	10,612	311	5,924	2,088	595
125	LA Tech U.	19,406	6,399	1,667	485	10,826	29
126	U. of the VI	18,099	12,770	3,187	2,142	0	0
127	Clarkson U.	17,654	8,269	2,068	2,921	4,396	0
128	U. LA Monroe	16,997	7,429	5,374	367	3,211	616
129	U. CA, Merced	16,802	4,852	6,917	6	4,047	980
130	SD School of Mines and Technology	16,503	13,866	1,084	154	1,136	263
131	U. North TX	15,932	8,241	232	1,059	5,278	1,122
132	Teachers C. Columbia U.	15,198	7,622	0	0	0	7,576
133	CA State U. Long Beach	14,971	12,702	828	447	359	635
134	Tuskegee U.	14,963	11,522	0	0	0	3,441
135	Northern IL U.	14,948	11,566	12	592	2,778	0
136	Worcester Polytechnic Institute	14,912	9,977	8	1,033	3,462	432
137	CA State Polytechnic U. San Luis Obispo	14,866	7,603	3,292	413	1,412	2,146
138	Western MI U.	14,617	8,591	1,328	2,402	1,492	804
139	U. Tulsa	14,270	6,331	978	6,651	310	0
140	Cleveland State U.	14,131	5,027	4,955	61	3,088	1,000
141	TX A&M U. Kingsville	13,519	3,364	1,426	141	7,881	707
142	CA State U. Northridge	12,793	7,381	2,819	151	1,937	505
143	Polytechnic U.	12,674	6,050	2,355	2,258	121	1,890
144	Morgan State U.	12,336	10,978	755	369	234	0
145	U. MO-St. Louis	12,297	5,424	69	113	6,170	521

Appendix E: Science and Engineering R&D Expenditures at all Universities and Colleges Without a Medical School, Ranked by all R&D Expenditures, by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
146	TN State U.	12,090	7,576	45	228	4,241	0
147	TX State U. San Marcos	11,792	2,146	1,806	884	5,397	1,559
148	TN Technological U.	11,742	5,094	4,500	376	1,772	0
149	Alcorn State U.	11,665	9,525	2,140	0	0	0
150	TX A&M U. Corpus Christi	11,662	6,015	3,037	43	161	2,406
151	CUNY Queens C.	11,377	8,940	833	1,247	357	0
152	Boise State U.	11,222	9,124	302	644	1,152	0
153	U. Denver	11,029	9,212	252	361	921	283
154	Prairie View A&M U.	10,786	7,659	2,599	39	441	48
155	Bowling Green State U. all campuses	10,712	5,918	707	2,113	1,370	604
156	Marquette U.	10,373	7,075	277	317	1,549	1,155
157	U.S. Military Academy	10,123	9,293	0	0	765	65
158	Baylor U.	9,867	3,220	518	1,835	2,978	1,316
159	U. AR Little Rock	9,866	4,108	2,338 i	1,144 i	592 i	1,684 i
160	CA State U. San Bernardino	9,703	4,447	2,732	1,774	750	0
161	Duquesne U.	9,542	4,377	115	170	4,760	120
162	Villanova U.	9,484	5,388	2,632	795	0	669
163	Oakland U.	9,465	5,357	51	816	3,045	196
164	MO State U.	9,042	7,747	419	876	0	0
165	AL A&M U.	8,959	5,566	1,474	96	652	1,171
166	CA State U. Los Angeles	8,957	8,848	1	43	0	65
167	Tarleton State U.	8,857	4,701	3,405	151	600	0
168	U.S. Naval Academy	8,849	8,463	0	386	0	0
169	Humboldt State U.	8,808	4,723	1,457	1,105	1,334	189
170	FL Institute of Technology	8,642	6,706	515	1,322	0	99
171	Western KY U.	8,425	6,536	484	766	639	0
172	VA State U.	8,282	5,973	47	0	2,190	72
173	DE State U.	8,052	7,097	343	612	0	0
174	Ball State U.	8,031	3,423	660	1,333	2,615	0
175	CA State U. Fresno	7,967	3,684	2,337	98	1,687	161
176	Norfolk State U.	7,893	7,287	10	0	0	596
177	U. NC Greensboro	7,876	6,336	671	316	306	247
178	SC State U.	7,608	6,252	73	0	852	431
179	Nova Southeastern U.	7,545	4,294	1,215	0	110	1,926
180	Clark Atlanta U.	7,486	6,784	0	0	484	218
181	U. AR Pine Bluff	7,238	3,788	293	0	3,114	43
182	Wesleyan U.	7,076	4,133	249	38	2,063	593
183	U. HI Hilo	6,916	5,877	614	7	0	418
184	Embry-Riddle Aeronautical U.	6,864	4,572	1,486	806	0	0
185	Fordham U.	6,844	2,774	215	0	3,325	530
186	AR State U. main campus	6,816	4,542	1,689	0	585	0
187	Stephen F. Austin State U.	6,742	3,606	1,352	126	1,302	356
188	Southern U. and A&M C. all campuses	6,701	5,593	1,069	0	20	19
189	CUNY Graduate Ctr.	6,579	4,304	347	0	200	1,728
190	NC Central U.	6,323	6,323	0	0	0	0
191	U. AK Anchorage all campuses	6,270	5,258	389	0	0	623
192	Lincoln U. (Jefferson City, MO)	6,263	4,574	1,689	0	0	0
193	Western WA U.	6,240	3,100	326	30	2,660	124
194	Grand Valley State U.	6,178	610	577	0	2,930	2,061

Appendix E: Science and Engineering R&D Expenditures at all Universities and Colleges Without a Medical School, Ranked by all R&D Expenditures, by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
195	IL State U.	6,111	3,996	315	631	1,169	0
196	U. GU	6,106	5,550	133	423	0	0
197	CA State U. Fullerton	6,096	4,980	524	263	329	0
198	MT Tech of the U. MT	6,051	4,694	1,200	157	0	0
199	U. of the Pacific	5,946	1,213	2,017	2,716	0	0
200	U. MD Eastern Shore	5,917	5,648	75	163	0	31
201	U. TX-Pan American	5,865	3,768	1,102	168	275	552
202	CA State U. Monterey Bay	5,784	3,596	1,954	160	0	74
203	U. DC	5,629	4,211	1,020	0	391	7
204	U. TX Brownsville	5,500	4,371	622	0	432	75
205	Alfred U. all campuses	5,478	1,110	2,685	1,357	326	0
206	C. Charleston	5,397	3,943	89	0	1,336	29
207	Xavier U. LA	5,253	4,280	696	0	124	153
208	James Madison U.	5,235	3,650	269	0	388	928
209	Clark U.	5,120	2,878	0	0	1,435	807
210	Morehouse C.	5,021	4,650	0	0	0	371
211	West TX A&M U.	5,008	2,242	1,801	214	0	751
212	U. Baltimore	4,700	674	2,819	74	23	1,110
213	Lamar U.	4,692	2,692	1,613	153	25	209
214	KY State U.	4,671	3,849	203	14	593	12
215	Rowan U.	4,658	2,709	1,290	123	37	499
216	Central MI U.	4,580	1,390	171	105	2,282	632
217	Wellesley C.	4,561	3,083	320	41	0	1,117
218	CA State U. Sacramento	4,386	3,299	710	8	207	162
219	Eastern MI U.	4,341	2,381	106	487	1,001	366
220	U. West FL	4,337	3,426	747	0	13	151
221	OR Institute of Technology	4,296	1,250	60	2,986	0	0
222	Smith C.	4,237	3,429	25	0	373	410
223	Milwaukee School of Engineering	4,156	1,465	7	2,054	500	130
224	Williams C.	4,084	1,837	0	0	906	1,341
225	CUNY Brooklyn C.	4,056	3,329	0	438	289	0
226	U. NC Asheville	4,039	1,619	1,926	146	176	172
227	TX Southern U.	4,027	3,955	4	17	0	51
228	Langston U.	4,025	3,489	536	0	0	0
229	WV State U.	4,016	2,723	965	50	250	28
230	Santa Clara U.	3,986	3,796	0 i	0 i	0 i	190 i
231	Kettering U.	3,689	2,035	593	677	0	384
232	Gallaudet U.	3,679 i	3,530 i	63 i	0 i	0 i	86 i
233	Appalachian State U.	3,586	1,485	418	1,173	243	267
234	TX Christian U.	3,568	2,685	135	687	61	0
235	St. Cloud State U.	3,543	883	297	1,506	857	0
236	CA State U. Dominguez Hills	3,506	3,036	313	41	0	116
237	CUNY Herbert H. Lehman C.	3,498	2,689	0	480	329	0
238	Albany C. of Pharmacy	3,486	582	1,211	1,433	260	0
239	Claremont Graduate U.	3,482	858	83	0	683	1,858
240	Rose-Hulman Institute of Technology	3,478	463	0	71	0	2,944
241	Southern CT State U.	3,448	1,039	1,639	14	756	0
242	U. TX Tyler	3,393	1,771	1,279	133	94	116
243	Amherst C.	3,364	1,194	0	75	1,417	678

Appendix E: Science and Engineering R&D Expenditures at all Universities and Colleges Without a Medical School, Ranked by all R&D Expenditures, by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
244	FL Gulf Coast U.	3,344	2,719	494	0	0	131
245	Calvin C.	3,343	1,855	11	212	1,143	122
246	Palmer C. of Chiropractic	3,340	1,640	0	0	1,479	221
247	Western Carolina U.	3,329	2,225	332	2	529	241
248	Ft. Valley State U.	3,311	3,297	14	0	0	0
249	Pomona C.	3,288	1,016	0	0	2,193	79
250	U. WI Stevens Point	3,233	1,410	153	78	692	900
251	U. North FL	3,158	1,702	675	50	317	414
252	American U.	3,150	1,494	0	1,656	0	0
253	St. Francis U. (Loretto, PA)	3,147	3,147	0	0	0	0
254	Sam Houston State U.	3,049	1,625	194	79	1,151	0
255	Mt. Holyoke C.	3,044	1,947	0	0	88	1,009
256	CUNY C. Staten Island	3,027	1,191	1,024	492	203	117
257	Central WA U.	3,025	2,174	420	137	263	31
258	Harvey Mudd C.	3,005	1,637	0	169	463	736
259	Elizabeth City State U.	2,979	2,979	0	0	0	0
260	Bryn Mawr C.	2,974	1,180	291	0	1,503	0
261	CUNY John Jay C. of Criminal Justice	2,964	2,162	21	27	91	663
262	U. Northern IA	2,960	858	1,149	0	896	57
263	U. WI La Crosse	2,949	1,329	335	505	495	285
264	La Salle U.	2,920	2,714	0	0	206	0
265	CA State U. East Bay	2,870	1,287	778	10	309	486
266	Fisk U.	2,851	2,851	0	0	0	0
267	Long Island U. all campuses	2,825	2,094	124	294	231	82
268	Barnard C.	2,823	2,411	5	0	59	348
269	U. Richmond	2,823	1,864	0	637	303	19
270	Morehead State U.	2,822	1,788	219	0	668	147
271	Oakwood C.	2,737	2,271	0	0	0	466
272	New School, The	2,703	980	166	0	0	1,557
273	Midwestern U. (Chicago, IL)	2,697	543	46	161	1,928	19
274	DePaul U.	2,675	2,240	44	86	123	182
275	Fairfield U.	2,651	237	106	115	1,912	281
276	Colgate U.	2,562	1,235	0	0	1,095	232
277	Union C. (Schenectady, NY)	2,557	930	369	718	540	0
278	U. TX of the Permian Basin	2,556	229	12	0	1,781	534
279	Central State U.	2,553	2,376	66	111	0	0
280	Sul Ross State U.	2,542	1,094	513	0	437	498
281	Black Hills State U.	2,539	2,148	325	24	34	8
282	AL State U.	2,461	2,461	0	0	0	0
283	Macalester C.	2,457	528	90	93	1,573	173
284	West Chester U. PA	2,454	2,015	207	100	0	132
285	Albany State U.	2,441	896	1,362	0	0	183
286	U. Hartford	2,427	1,028	824	15	121	439
287	Arcadia U.	2,426	462	1,021	943	0	0
288	Tougaloo C.	2,381	1,936	0	0	92	353
289	Towson U.	2,357	936	905	477	39	0
290	Murray State U.	2,335	588	594	74	1,079	0
291	Southeastern LA U.	2,302	1,045	259	78	920	0
292	Seton Hall U.	2,290	1,374	0	307	0	609

Appendix E: Science and Engineering R&D Expenditures at all Universities and Colleges Without a Medical School, Ranked by all R&D Expenditures, by Source of Funds: FY 2008

(Dollars in Thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
293	Fairmont State U.	2,289	1,718	470	81	20	0
294	Eastern WA U.	2,277	596	1,161	0	92	428
295	TX Woman's U.	2,253	1,146	465	13	467	162
296	SUNY C. of Optometry	2,238	1,982	0	99	22	135
297	St. Joseph's U.	2,215	1,486	22	0	211	496
298	CUNY York C.	2,210	2,160	0	15	35	0
299	Hope C.	2,198	972	0	0	339	887
300	Bucknell U.	2,193	1,539	160	164	330	0

i = imputed.

NOTES: The source for medical schools is the list of accredited M.D.-granting U.S. medical schools approved by the Association of American Medical Colleges. Tied institutions are ranked alphabetically. Table shows top 300 institutions.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix F: Total and Federally Financed R&D Expenditures in the Computer Sciences at Universities and Colleges, Ranked by FY 2008 Total for the First 100 Institutions: FY 2005–08

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
	All institutions	1,405,992	1,438,225	1,420,788	1,468,330	1,022,511	1,017,424	1,015,240	1,030,769
1	Carnegie Mellon U.	106,527	117,865	99,279	101,128	97,313	109,615	89,678	87,561
2	U. Southern CA	88,861	93,573	78,502	77,270	82,915	86,580	72,227	72,327
3	U. TX Austin	39,405	41,897	37,688	74,399	31,461	33,842	34,545	70,746
4	U. IL Urbana-Champaign	104,792	81,675	73,848	68,781	78,081	55,422	50,005	42,933
5	Johns Hopkins U., The ^a	69,653	70,268	76,125	66,728	68,146	69,254	75,277	62,302
6	GA Institute of Technology all campuses	54,788	47,560	52,455	56,761	39,080	30,541	32,105	34,484
7	U. CA, San Diego	65,271	64,466	55,791	46,709	44,146	43,245	36,886	29,680
8	PA State U. all campuses	28,576	32,371	41,862	46,489	21,739	24,196	31,582	35,184
9	MA Institute of Technology	44,693	49,500	45,762	46,100	30,628	33,158	30,102	32,396
10	U. MD College Park	29,641	37,605	33,720	32,180	17,715	21,554	19,385	17,159
11	OH State U. all campuses	35,998	33,693	29,255	27,766	12,778	14,854	12,349	9,955
12	U. HI Manoa	18,922	21,252	34,176	24,677	18,767	21,057	33,735	24,134
13	U. Chicago	10,879	18,144	22,037	23,998	10,841	17,490	21,334	22,643
14	OR Health & Science U.	18,630	16,702	20,850	23,094	16,063	13,687	17,324	18,888
15	Cornell U. all campuses	27,601	28,081	23,304	19,935	16,403	16,418	14,468	10,545
16	U. WI Madison	14,454	14,624	14,827	18,244	11,791	11,600	10,830	12,542
17	Stanford U.	19,610	21,922	19,959	18,141	17,397	18,647	17,432	14,604
18	U. MA Amherst	18,160	17,404	17,660	17,808	9,841	8,523	9,084	9,867
19	U. CA, Los Angeles	15,734	15,992	16,005	16,362	11,740	12,510	11,858	12,289
20	U. MN all campuses	13,987	16,060	15,951	15,090	9,501	10,190	9,704	7,541
21	U. UT	16,457	15,020	16,273	14,521	9,973	11,171	9,948	9,950
22	U. AK Fairbanks all campuses	10,245	6,216	6,176	14,488	8,674	4,432	4,251	14,451
23	U. AL Huntsville, The	8,079	8,615	10,742	14,436	6,840	7,335	7,790	10,998
24	Clemson U.	2,260	10,226	3,730	12,530	710	540	545	2,858
25	U. CA, Santa Barbara	10,537	10,671	11,821	12,367	8,664	8,345	8,470	7,703
26	VA Polytechnic Institute and State U.	9,005	10,032	10,662	12,268	3,003	3,691	3,610	4,162
27	U. TN all campuses	9,386	9,256	8,662	12,159	4,911	6,564	6,098	7,478
28	Purdue U. all campuses	9,523	8,232	10,597	11,934	5,449	4,732	6,233	7,139
29	U. CA, Irvine	11,506	11,699	10,787	11,927	6,728	6,505	6,630	7,046
30	SUNY Buffalo all campuses	9,214	9,657	8,522	10,666	4,881	5,128	3,726	4,398
31	U. LA Lafayette	7,967	6,037	9,496	10,331	402	552	1,006	1,972
32	U. NC Chapel Hill	11,214	11,764	11,422	10,225	8,378	9,454	8,944	7,097
33	MS State U.	7,313	8,824	8,664	10,006	4,000	5,688	5,789	7,270
34	TX A&M U.	8,070	6,574	7,560	9,994	3,924	3,840	4,025	4,184
35	FL State U.	11,675	8,565	9,206	9,724	4,892	4,523	5,156	6,573
36	IN U. all campuses	8,370	12,397	12,373	9,698	4,749	6,545	5,078	4,691
37	U. NE all campuses	7,726	7,460	8,512	9,648	4,784	4,357	5,040	6,095
38	Brown U.	7,568	8,839	9,841	9,458	4,683	5,313	5,622	4,868
39	Columbia U. in the City of New York	9,613	9,174	9,331	9,446	8,476	8,085	8,114	8,520
40	Princeton U.	9,199	9,779	9,771	9,302	5,629	6,644	6,404	6,468
41	AZ State U.	5,877	10,409	10,076	9,293	3,149	3,782	4,350	4,694
42	U. TX Dallas	8,340	6,631	7,020	9,019	3,478	2,613	2,753	2,874
43	Drexel U.	2,027	6,763	8,034	9,009	1,684	5,040	6,190	6,618
44	U. CO all campuses	7,295	7,641	8,497	8,998	6,485	6,612	6,775	6,820
45	U. PA	8,203	7,166	7,202	8,776	5,739	5,227	5,602	6,388

Appendix F: Total and Federally Financed R&D Expenditures in the Computer Sciences at Universities and Colleges, Ranked by FY 2008 Total for the First 100 Institutions: FY 2005–08

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
46	U. CA, Davis	4,921	7,795	6,743	8,535	3,662	4,135	4,218	4,775
47	George Mason U.	5,977	5,791	6,829	7,953	5,874	4,484	6,061	7,284
48	U. IL Chicago	12,999	12,594	13,067	7,913	6,344	4,786	4,503	4,657
49	Wright State U. all campuses	4,524	6,499	6,990	7,885	1,592	1,480	1,237	862
50	SUNY Stony Brook all campuses	4,695	8,366	6,423	7,841	3,242	3,103	3,704	4,742
51	CA Institute of Technology	12,199	9,136	10,492	7,324	12,157	8,904	9,552	7,164
52	Syracuse U. all campuses	8,247	3,439	7,587	7,259	4,559	2,798	3,878	4,105
53	NJ Institute of Technology	3,757	4,944	6,045	7,112	940	1,782	2,053	2,457
54	U. MI all campuses	5,888	7,190	6,946	6,851	4,231	4,707	4,828	4,484
55	U. AL, The	4,018	6,467	7,682	6,732	1,910	3,685	6,130	4,287
56	Rockefeller U.	4,459	4,968	5,942	6,720	0	0	0	0
57	Rutgers, The State U. NJ all campuses	7,600	8,814	7,329	6,584	3,412	4,732	3,721	2,174
58	U. VA all campuses	6,940	6,151	6,466	6,427	6,180	5,643	5,896	5,300
59	Rice U.	8,490	9,732	7,179	6,380	7,928	8,690	6,415	5,538
60	U. Houston	5,893	5,441	6,066	6,361	2,761	2,695	3,942	3,662
61	Washington U. St. Louis	7,154	7,262	6,993	6,245	3,491	3,600	3,683	4,260
62	Naval Postgraduate School	5,170	3,573	7,600	6,212	4,913	3,543	7,482	6,154
63	NC State U.	4,428	4,907	5,072	6,083	3,543	3,888	3,445	4,149
64	U. NC Charlotte	4,051	4,154	5,753	5,792	2,106	1,868	2,380	2,513
65	IA State U.	5,818	7,508	5,115	5,616	2,350	3,223	3,131	3,315
66	U. Memphis, The	1,566	2,977	3,561	5,313	0	759	953	2,339
67	U. Pittsburgh all campuses	4,013	4,688	4,608	5,176	3,084	3,743	3,883	4,375
68	NY U.	6,461	5,175	5,483	5,143	5,664	4,156	4,090	4,685
69	Dartmouth C.	3,862	4,821	5,243	5,028	2,480	3,071	3,718	3,591
70	U. MD Baltimore County	588	1,345	3,684	4,678	489	1,015	2,848	3,668
71	U. TX San Antonio	3,299	3,189	3,466	4,598	3,171	2,985	3,185	3,631
72	Duke U.	3,678	3,927	3,786	4,558	3,380	3,122	2,861	3,320
73	U. FL	4,498	5,479	4,108	4,278	2,985	3,655	2,876	3,007
74	U. AZ	7,904	5,971	3,687	4,054	5,640	3,545	2,384	3,045
75	FL International U.	4,525	4,201	5,788	4,052	3,030	3,132	4,155	3,523
76	LA State U. all campuses	3,120	3,139	3,767	3,984	1,123	1,376	2,102	2,197
77	MI State U.	4,062	3,921	3,477	3,709	2,022	2,151	1,716	1,658
78	Rensselaer Polytechnic Institute	2,314	3,079	3,606	3,691	1,929	2,490	2,996	2,995
79	U. OR	2,730	3,341	2,829	3,616	2,576	3,105	2,576	3,307
80	U. WA	1,986	1,328	1,766	3,550	1,901	1,135	1,417	1,597
81	U. CA, Santa Cruz	1,890	2,285	3,054	3,538	1,376	1,494	1,252	1,498
82	U. TX El Paso	1,361	1,837	1,962	3,458	856	1,553	1,854	2,530
83	Yale U.	4,766	4,940	3,621	3,414	3,857	4,059	3,145	3,088
84	U. NM main campus	3,889	3,798	3,525	3,234	3,496	3,484	3,265	3,012
85	U. of Notre Dame	2,797	3,346	2,466	3,184	2,700	3,172	2,368	2,360
86	Old Dominion U.	2,517	2,306	2,241	3,112	573	976	1,025	974
87	UT State U.	682	804	3,191	3,037	502	405	1,284	1,259
88	Air Force Institute of Technology	1,408	3,074	1,988	2,996	543	661	797	1,439
89	OR State U.	2,687	3,664	3,128	2,927	2,386	3,387	2,794	2,691
90	U. TX Arlington	0	0	1,675	2,885	0	0	1,039	1,253
91	Wayne State U.	1,578	1,447	2,259	2,879	730	781	1,175	1,708
92	SUNY Albany	3,529	2,964	1,943	2,805	2,064	1,630	1,553	1,564
93	Portland State U.	2,587	3,519	2,407	2,779	2,011	2,790	1,930	2,411

Appendix F: Total and Federally Financed R&D Expenditures in the Computer Sciences at Universities and Colleges, Ranked by FY 2008 Total for the First 100 Institutions: FY 2005–08

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
94	U. Rochester	3,152	2,714	2,405	2,778	2,911	2,259	1,947	1,949
95	U. KY all campuses	3,801	3,354	2,942	2,731	2,102	1,688	1,397	1,551
96	U. CT all campuses	3,326	3,662	2,592	2,717	2,427	1,616	1,645	1,724
97	U. GA	3,045	3,406	3,029	2,693	684	763	779	583
98	U.S. Military Academy	0 i	0 i	1,245	2,488	0 i	0 i	1,052	2,381
99	Northeastern U.	2,456	2,089	2,551	2,453	1,546	1,196	1,639	1,670
100	KS State U.	3,214	1,783	1,754	2,373	2,497	1,323	1,023	1,454

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$64,253 in total and \$60,159 in federally financed R&D expenditures in the computer sciences in FY 2008.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix G. Total and Federally Financed R&D Expenditures in Engineering at Universities and Colleges, Ranked by FY 2008 total for the First 100 Institutions: FY 2005–08

		(Dollars in Thousands)							
Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
	All institutions	6,746,205	7,093,038	7,525,147	7,956,661	4,132,959	4,306,931	4,461,673	4,705,391
1	Johns Hopkins U., The ^a	430,954	467,230	535,222	619,406	418,846	444,407	518,939	585,140
2	GA Institute of Technology all campuses	285,572	294,466	309,986	346,745	167,523	180,755	180,240	197,139
3	PA State U. all campuses	221,800	235,614	235,341	258,515	142,985	149,236	150,402	170,676
4	MA Institute of Technology	206,567	220,043	216,475	218,937	149,267	164,846	159,443	150,679
5	TX A&M U.	147,173	161,735	164,434	183,338	53,371	56,189	52,215	58,127
6	U. MI all campuses	154,398	151,656	161,738	171,124	109,615	106,816	115,360	118,230
7	U. TX Austin	140,263	152,094	155,968	163,879	79,927	93,513	95,189	99,410
8	U. CA, Berkeley	152,283	147,875	152,752	161,514	65,576	56,280	53,721	47,832
9	Purdue U. all campuses	121,148	118,109	153,503	154,791	45,171	47,901	57,411	63,164
10	VA Polytechnic Institute and State U.	112,951	127,349	146,402	152,049	47,963	50,769	54,422	61,416
11	OH State U. all campuses	131,921	134,920	160,353	149,077	49,554	44,879	46,179	48,196
12	Stanford U.	155,844	148,688	142,796	148,776	122,807	115,675	106,318	106,570
13	U. IL Urbana-Champaign	125,457	125,371	124,954	139,103	76,794	71,447	73,746	83,821
14	AZ State U.	50,515	71,479	85,658	102,486	28,693	32,424	31,214	37,739
15	NC State U.	81,772	96,066	91,114	102,459	34,210	45,609	40,967	39,334
16	SUNY Albany	86,371	102,548	125,065	99,995	1,571	2,412	2,668	2,452
17	U. MD College Park	88,338	88,321	87,869	97,332	56,512	54,277	54,231	56,049
18	U. WI Madison	92,982	92,933	93,286	93,405	59,727	59,398	56,200	53,391
19	U. CA, San Diego	72,963	83,480	87,877	92,934	38,580	36,983	37,232	37,965
20	U. FL	80,555	92,963	94,295	90,274	40,621	46,049	44,468	42,567
21	U. CA, Santa Barbara	73,812	76,923	83,778	88,081	48,922	48,695	48,914	48,921
22	U. Rochester	82,903	99,801	97,183	83,632	71,224	85,329	81,962	69,100
23	Cornell U. all campuses	75,275	77,191	77,677	81,269	45,734	47,959	48,755	48,743
24	U. WA	71,696	75,361	81,085	80,599	60,275	59,319	60,997	60,347
25	U. Dayton	65,671	65,789	70,309	77,596	57,837	54,635	57,400	62,168
26	NM State U. main campus	73,977	99,689	81,705	76,857	59,959	73,156	64,294	59,470
27	Clemson U.	78,417	81,309	111,828	72,483	29,959	30,347	29,777	26,125
28	U. CA, Davis	56,758	59,204	65,634	71,975	23,597	22,036	24,857	24,104
29	U. MN all campuses	51,168	55,130	63,524	71,621	25,979	26,797	31,190	36,108
30	Northwestern U.	62,017	64,791	66,841	71,289	43,150	44,630	43,746	45,842
31	Carnegie Mellon U.	54,469	56,824	56,929	67,566	44,801	44,793	45,295	52,106
32	UT State U.	54,754	55,850	63,442	67,248	51,039	51,990	54,034	54,622
33	SUNY Buffalo all campuses	39,663	47,833	55,548	62,169	23,985	23,497	26,526	34,803
34	MS State U.	41,012	47,812	56,428	58,642	25,040	30,992	38,912	40,379
35	U. CA, Los Angeles	55,335	52,088	52,600	56,907	32,944	29,380	27,739	27,917
36	U. TN all campuses	49,943	48,400	50,101	56,053	21,385	26,807	27,704	28,201
37	IA State U.	48,153	51,726	52,354	53,186	25,002	26,903	25,501	27,948
38	U. Southern CA	53,863	49,447	51,100	53,082	37,387	33,722	31,819	31,411
39	U. AZ	56,001	80,160	58,235	52,942	26,512	26,188	24,279	23,978
40	Princeton U.	57,952	55,548	52,077	52,821	35,543	35,084	33,883	38,195
41	Rensselaer Polytechnic Institute	46,969	48,242	50,061	52,424	27,801	27,750	28,455	28,766
42	NM Institute of Mining and Technology	26,299 i	45,194	54,510	51,369	14,345 i	30,084	43,690	40,594
43	U. KY all campuses	44,346	44,236	46,912	48,676	18,548	19,908	21,032	24,132
44	Case Western Reserve U.	42,557	40,322	37,685	48,511	22,390	25,617	25,844	28,753
45	Auburn U. all campuses	33,685	32,797	38,587	48,256	17,668	18,192	25,799	25,368

Appendix G. Total and Federally Financed R&D Expenditures in Engineering at Universities and Colleges, Ranked by FY 2008 total for the First 100 Institutions: FY 2005–08

		(Dollars in Thousands)							
Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
46	U. MA Amherst	25,838	40,106	42,730	48,028	9,992	17,557	17,723	20,887
47	U. DE	37,008	39,573	43,038	47,417	27,724	31,145	34,066	37,061
48	U. CO all campuses	35,436	36,721	42,758	46,629	27,713	29,544	31,985	33,125
49	NJ Institute of Technology	40,508	39,941	50,986	45,384	21,265	19,505	23,650	21,822
50	Columbia U. in the City of New York	30,452	37,522	41,069	42,213	24,662	30,308	32,606	33,657
51	LA State U. all campuses	42,684	40,937	43,661	42,144	11,030	12,359	12,822	10,527
52	U. NE all campuses	30,675	33,702	34,785	40,541	12,237	15,769	16,105	18,007
53	U. CA, Santa Cruz	28,366	32,173	35,536	40,378	23,424	27,235	27,906	30,784
54	CA Institute of Technology	41,459	36,864	46,334	39,920	38,735	34,531	38,220	33,544
55	MI State U.	26,366	28,519	32,816	39,486	9,945	11,287	12,666	14,881
56	Duke U.	33,932	35,192	39,903	39,047	21,449	23,808	27,665	27,063
57	U. VA all campuses	34,472	35,682	34,894	38,725	27,108	29,835	29,662	31,507
58	Vanderbilt U.	33,207	33,424	37,124	38,258	26,736	26,887	29,865	31,426
59	U. ND all campuses	21,320	27,784	31,074	37,803	13,871	17,074	20,257	25,583
60	Wichita State U.	28,691	21,884	35,218	36,734	7,137	9,296	9,295	8,083
61	U. CA, Irvine	33,921	35,222	33,953	36,368	14,385	14,037	13,518	16,489
62	U.S. Air Force Academy	21,237	4,703	7,811	36,159	10,879	4,587	7,654	35,649
63	MI Technological U.	24,151	25,626	33,149	35,948	11,134	10,697	17,070	18,595
64	Rutgers, The State U. NJ all campuses	30,604	25,245	29,011	35,572	11,756	10,479	12,967	17,876
65	U. UT	28,886	33,209	32,890	35,354	16,713	20,441	19,283	17,543
66	U. of Notre Dame	14,885	15,950	16,239	34,997	10,505	10,613	11,422	28,049
67	U. Central FL	27,224	28,886	29,071	34,876	9,456	10,955	13,370	17,055
68	U. PA	27,645	32,779	31,213	33,568	17,784	20,982	20,842	22,938
69	Old Dominion U.	26,428	23,991	24,343	32,855	17,191	16,591	13,636	16,883
70	U. Cincinnati all campuses	26,177	26,983	35,473	32,826	13,554	12,023	16,182	15,177
71	Drexel U.	39,569	36,733	36,660	32,184	26,609	24,716	25,009	20,154
72	FL State U.	28,956	32,761	32,704	31,425	23,583	26,979	26,896	24,902
73	U. South FL	32,717	35,778	34,351	30,841	17,026	17,460	17,262	15,930
74	Woods Hole Oceanographic Institution	21,044	21,630	26,511	30,541	20,208	20,572	21,581	25,395
75	Rice U.	17,969	22,197	26,528	29,222	14,593	16,751	19,085	20,815
76	CO State U.	24,975	25,088	27,282	28,825	14,615	17,753	19,049	17,977
77	U. IA	31,707	34,071	36,823	28,342	12,734	13,539	17,505	19,192
78	U. MO-Columbia	22,220	15,872	25,937	28,058	6,220	7,690	9,134	9,643
79	U. SC all campuses	26,308	25,085	25,084	27,530	14,545	16,498	16,453	18,470
80	WV U.	26,933	25,023	28,128	27,505	18,371	17,309	17,899	16,993
81	U. MO-Rolla	28,728	27,932	24,220	27,480	15,685	16,009	13,972	16,720
82	Boston U.	25,074	24,972	26,454	26,912	23,350	22,783	23,802	23,984
83	SUNY Binghamton	9,057	11,256	15,794	26,785	3,304	4,230	4,107	4,341
84	WA State U.	25,876	24,591	22,757	26,703	14,341	13,476	11,143	12,337
85	SUNY Stony Brook all campuses	22,114	23,488	36,611	25,675	11,206	10,343	10,663	10,582
86	Lehigh U.	26,183	24,017	25,934	25,330	12,849	10,806	14,244	13,422
87	U. CA, Riverside	25,713	28,721	26,530	25,165	14,951	18,279	16,795	15,164
88	U. AL Huntsville, The	26,672	28,136	34,710	24,823	21,398	21,756	23,873	16,217
89	Harvard U.	21,191	22,851	21,587	24,572	19,287	19,811	17,812	19,455
90	U. TX Arlington	19,612	17,957	19,629	24,473	11,521	11,153	10,998	11,158
91	Northeastern U.	22,529	26,894	25,833	23,323	13,775	16,776	13,714	14,777
92	OR State U.	21,768	23,907	22,802	23,029	14,898	16,314	14,373	14,857

Appendix G. Total and Federally Financed R&D Expenditures in Engineering at Universities and Colleges, Ranked by FY 2008 total for the First 100 Institutions: FY 2005–08

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
93	U. OK all campuses	17,259	19,442	20,141	22,819	6,493	7,594	7,584	7,533
94	U. AR main campus	21,418	21,676	21,388	22,604	8,658	8,004	8,418	9,005
95	U. TX Dallas	12,243	15,026	19,349	22,520	1,805	3,740	3,829	5,052
96	U. Pittsburgh all campuses	20,254	21,254	20,606	21,971	15,454	14,809	14,365	14,835
97	KS State U.	17,634	18,837	19,450	21,214	8,370	8,244	8,080	9,826
98	U. NM main campus	23,607	16,394	17,018	21,075	18,492	11,413	11,730	15,339
99	U. ME	12,511	14,906	17,656	21,018	4,670	6,594	8,087	9,125
100	OK State U. all campuses	20,641	19,247	17,409	20,596	10,831	11,764	11,162	12,294

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$566,596 in total and \$540,682 in federally financed R&D expenditures in engineering in FY 2008.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix H: R&D Expenditures in the Environmental Sciences at Universities and Colleges, Ranked by all FY 2008 Environmental Sciences for the First 100 Institutions: FY 2005–08 and by subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
	All institutions	2,554,886	2,601,611	2,724,313	2,800,251	422,239	955,578	1,051,452	370,982
1	U. CA, San Diego	125,519	127,469	132,814	144,932	7,441	37,382	99,977	132
2	TX A&M U.	89,551	69,531	112,571	129,148	5,651	4,744	110,524	8,229
3	Woods Hole Oceanographic Institution	96,473	100,258	110,899	120,179	0	0	120,179	0
4	CO State U.	82,240	84,894	94,391	106,137	33,695	72,442	0	0
5	U. WA	84,864	92,110	91,765	100,028	22,794	5,992	62,579	8,663
6	U. CO all campuses	106,955	90,831	90,889	80,804	32,219	45,158	76	3,351
7	U. HI Manoa	60,485	60,612	65,677	71,276	2,472	12,441	52,481	3,882
8	U. WI Madison	72,681	82,589	77,397	66,517	50,481	5,710	3,550	6,776
9	U. NH	48,313	55,726	55,684	56,760	16,985	15,453	24,322	0
10	Columbia U. in the City of New York	60,939	57,799	55,503	56,202	7,301	391	44,081	4,429
11	PA State U. all campuses	44,968	52,793	55,506	55,537	13,716	32,397	9,424	0
12	U. Miami	48,091	49,485	49,346	52,829	26,192	0	20,776	5,861
13	U. TX Austin	38,858	37,600	43,269	47,150	142	38,061	7,129	1,818
14	Johns Hopkins U., The ^a	42,281	40,256	42,422	46,864	9,442 i	3,978 i	14,873 i	18,571 i
15	OR State U.	41,170	40,829	39,634	42,497	1,822	2,224	13,177	25,274
16	U. IL Urbana-Champaign	38,638	41,592	38,715	41,051	2,994	37,583	11	463
17	U. MD Ctr. for Environmental Science	41,022	40,146	40,720	40,556	0	4,619	35,937	0
18	LA State U. all campuses	34,890	33,543	34,402	37,549	0	9,238	23,166	5,145
19	U. SC all campuses	20,960	32,413	33,752	36,626	0	7,853	9,237	19,536
20	Desert Research Institute	29,248	35,776	38,402	36,340	9,888	26,452	0	0
21	U. AK Fairbanks all campuses	75,857	80,804	80,102 i	35,448	6,850	15,154	10,552	2,892
22	U. OK all campuses	32,729	33,264	33,058	35,358	22,806	12,552	0	0
23	C. of William and Mary all campuses	31,777	34,649	34,262	35,053	0	629	34,185	239
24	U. CA, Davis	26,354	26,234	28,464	29,243	1,425	3,163	5,455	19,200
25	MA Institute of Technology	27,444	27,267	26,227	28,828	6,780	11,408	7,111	3,529
26	Rutgers, The State U. NJ all campuses	29,835	28,649	28,785	28,596	149	2,380	14,667	11,400
27	U. MD Baltimore County	15,900	22,118	27,373	27,483	0	27,483	0	0
28	U. South FL	34,191	32,230	29,032	26,903	1,112	3,544	21,094	1,153
29	U. CA, Santa Barbara	27,685	29,108	28,111	26,262	0	3,929	21,934	399
30	U. RI	23,764	26,121	26,520	26,259	4	2,856	22,609	790
31	SUNY Stony Brook all campuses	22,078	22,512	24,042	25,164	363	7,771	16,164	866
32	Harvard U.	25,250	26,616	27,733	24,988	3,974	3,129	20	17,865
33	U. CA, Santa Cruz	18,801	20,173	22,427	23,896	0	5,058	16,946	1,892
34	U. NC Chapel Hill	23,272	22,258	22,030	23,346	0	15,562	7,784	0
35	Stanford U.	25,124	19,803	23,208	21,205	0	11,036	5,054	5,115
36	FL State U.	23,976	25,531	22,816	20,724	8,769	7,223	4,732	0
37	San Jose State U.	14,693	17,949	16,678	20,366	244	312	19,740	70
38	Princeton U.	17,771	17,909	18,373	20,179	4,559	4,212	0	11,408
39	U. ME	20,311	20,470	20,872	19,855	0	6,935	12,920	0
40	U. NV, Reno	9,576	10,074	10,760	19,835	30	13,336	0	6,469

Appendix H: R&D Expenditures in the Environmental Sciences at Universities and Colleges, Ranked by all FY 2008 Environmental Sciences for the First 100 Institutions: FY 2005–08 and by subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
41	AZ State U.	11,476	12,277	13,553	18,198	0	18,198	0	0
42	U. AZ	11,666	11,388	13,265	17,431	3,355	11,737	0	2,339
43	Duke U.	12,523	13,530	14,772	17,211	0	4,011	5,740	7,460
44	U. Southern CA	20,274	18,225	18,778	16,597	0	11,793	4,646	158
45	GA Institute of Technology all campuses	14,359	16,422	15,847	16,119	11,753	4,020	142	204
46	CA Institute of Technology	15,739	16,357	16,044	15,927	0	15,927	0	0
47	U. MD College Park	11,841	13,893	14,422	15,782	4,395	11,387	0	0
48	U. NV, Las Vegas	15,133	18,069	18,846	15,750	0	15,750	0	0
49	Cornell U. all campuses	6,006	6,383	6,457	15,749	0	6,158	270	9,321
50	U. KS all campuses	12,224	15,204	14,235	15,328	44	15,251	33	0
51	NC State U.	15,976	13,223	14,700	15,178	0	182	3,071	11,925
52	U. MN all campuses	11,494	14,474	13,953	14,927	0	7,694	2,590	4,643
53	U. WY	10,393	11,328	11,411	14,577	5,899	6,839	0	1,839
54	U. GA	13,694	14,521	13,491	14,102	0	4,789	9,313	0
55	U. Southern MS	13,806	14,362	15,147	13,952	0	394	13,558	0
56	U. Central FL	14,866	14,513	16,494	13,484	13,484	0	0	0
57	U. CA Office of the President	11,877	14,439	16,990	12,903	0	0	0	12,903
58	U. MD Biotechnology Institute	11,297	12,285	14,058	12,869	0	0	12,869	0
59	U. CA, Riverside	13,010	13,679	15,074	12,852	1,242	2,302	0	9,308
60	Naval Postgraduate School	10,585	14,604	16,684	12,816	6,091	0	6,725	0
61	MI Technological U.	8,399	8,238	12,428	12,229	0	2,125	0	10,104
62	U. NC Wilmington	8,027	7,479	10,052	12,068	0	825	11,231	12
63	U. DE	12,229	12,532	12,388	11,990	0	1,179	10,792	19
64	Hampton U.	87	16,791	15,945	11,440	11,012	0	428	0
65	Brown U.	6,604	7,998	7,535	11,192	61	7,112	38	3,981
66	U. MI all campuses	9,828	11,285	11,897	11,154	0	11,154	0	0
67	U. CA, Berkeley	9,425	9,996	10,574	10,893	50	10,843	0	0
68	U. CA, Los Angeles	14,038	11,098	10,083	10,872	4,764	4,430	0	1,678
69	U. AL Huntsville, The	7,759	8,898	11,470	10,709	9,727	36	0	946
70	OH State U. all campuses	10,399	9,336	9,896	10,567	0	10,567	0	0
71	MS State U.	4,659	5,017	9,150	10,273	622	4,329	5,261	61
72	U. MA Dartmouth	9,528	9,565	10,116	10,016	0	0	10,016	0
73	U. CT all campuses	9,004	8,869	8,486	9,935	0	39	9,896	0
74	U. UT	8,810	8,129	7,912	9,427	2,738	6,689	0	0
75	U. FL	9,486	10,281	10,113	9,225	0	5,651	3,124	450
76	U. ND all campuses	6,510	8,745	11,128	8,846	4,132	4,238	0	476
77	U. TN all campuses	5,191	4,791	4,207	8,754	37	2,317	0	6,400
78	IA State U.	6,429	6,422	7,051	8,641	0	8,641	0	0
79	Boston C.	6,444	7,432	8,114	7,837	0	770	0	7,067
80	TX Tech U.	7,423	6,454	6,331	7,570	374	2,076	0	5,120
81	George Mason U.	9,321	12,601	9,522	7,564	6,779	785	0	0
82	U. WI Milwaukee	7,001	7,466	8,209	7,326	0	289	6,436	601
83	VA Polytechnic Institute and State U.	10,332	5,876	7,910	7,257	0	7,055	0	202
84	WV U.	7,117	7,374	6,894	7,221	0	7,221	0	0
85	U. MS all campuses	0	317	7,129	7,119	0	2,620	4,499	0

Appendix H: R&D Expenditures in the Environmental Sciences at Universities and Colleges, Ranked by all FY 2008 Environmental Sciences for the First 100 Institutions: FY 2005–08 and by subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
86	Old Dominion U.	4,223	4,731	5,094	6,653	0	0	6,653	0
87	CO School of Mines	2,427	1,759	4,956	6,629	0	6,629	0	0
88	U. CA, Irvine	5,034	5,689	5,492	6,399	0	0	0	6,399
89	TX A&M U. Corpus Christi	3,950	5,511	5,996	6,277	41	107	5,488	641
90	Purdue U. all campuses	5,757	6,210	5,547	6,118	2,487	1,243	0	2,388
91	U. Chicago	5,155	4,848	6,414	5,612	0	5,612	0	0
92	U. VT	786	539	527	5,551	0	410	0	5,141
93	SUNY Albany	7,060	6,760	4,465	5,489	3,901	1,588	0	0
94	IN U. all campuses	3,987	4,671	5,491	5,473	0	5,313	0	160
95	U. TX El Paso	2,876	3,484	5,370	5,418	142	2,845	0	2,431
96	U. PR Mayaguez Campus	5,011	4,681	5,199	5,401 i	0 i	712 i	4,689 i	0 i
97	U. NM main campus	4,486	4,453	5,411	5,325	1,255	4,069	0	1
98	U. NE all campuses	4,095	4,470	5,002	5,136	0	5,136	0	0
99	CA State U. Monterey Bay	2,786	3,372	6,482	5,112	59	1,645	1,152	2,256
100	San Francisco State U.	5,388	7,607	6,892	4,785	0	332	4,453	0

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

nec = not elsewhere classified.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$25,579 in total R&D expenditures in the environmental sciences in FY 2008.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix I. R&D Expenditures in the Life Sciences at Universities and Colleges, Ranked by all FY 2008 Life Sciences for the First 150 Institutions: FY 2005–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
	All institutions	27,605,070	28,803,932	29,838,248	31,215,160	2,994,274	9,769,389	17,271,319	1,180,178
1	U. CA, San Francisco	728,403	770,485	820,239	862,987	0	28,737	834,250	0
2	Johns Hopkins U., The ^a	674,083	702,207	692,380	738,962	0	193,509	515,915	29,538
3	Duke U.	528,719	553,834	669,354	655,202	0	195,438	456,079	3,685
4	U. CA, Los Angeles	585,436	609,514	612,248	649,978	0	22,217	627,761	0
5	U. PA	528,225	546,624	525,729	590,059	985	193,597	379,389	16,088
6	U. WI Madison	488,831	508,034	541,332	567,870	43,160	197,663	321,053	5,994
7	U. Pittsburgh all campuses	449,147	458,627	489,305	523,296	0	17,845	491,881	13,570
8	U. WA	485,173	541,524	513,821	515,172	15,915	94,134	395,723	9,400
9	U. MI all campuses	492,195	481,245	480,044	506,766	9,350	155,944	268,745	72,727
10	Washington U. St. Louis	477,021	490,846	515,165	506,555	0	188,393	311,924	6,238
11	U. MN all campuses	403,919	434,861	455,889	499,348	74,247	82,842	331,263	10,996
12	U. TX M. D. Anderson Cancer Ctr.	344,804	402,469	434,713	491,639	0	155,657	335,982	0
13	U. CA, San Diego	381,402	404,236	446,301	476,841	26	39,126	436,302	1,387
14	U. CA, Davis	404,872	425,934	441,417	471,685	130,719	153,424	187,542	0
15	Baylor C. of Medicine	458,694	462,375	438,280	449,301	0	232,675	216,626	0
16	Yale U.	374,599	402,060	397,064	429,517	1,178	137,533	290,806	0
17	U. FL	370,708	390,097	418,136	419,207	152,030	108,957	134,669	23,551
18	Cornell U. all campuses	376,860	411,148	409,577	410,883	50,769	98,354	247,625	14,135
19	Stanford U.	392,129	389,093	407,985	410,123	0	24,884	385,239	0
20	OH State U. all campuses	340,909	373,349	397,652	408,489	73,086	92,979	237,099	5,325
21	U. NC Chapel Hill	339,452	349,179	371,745	407,159	0	202,094	177,160	27,905
22	Emory U.	319,795	330,039	362,271	402,767	0	169,553	229,505	3,709
23	U. TX Southwestern Medical Ctr. Dallas	320,800	333,237	341,090	390,349	0	167,722	221,557	1,070
24	U. AL Birmingham, The	297,702	312,118	333,758	386,099	0	95,407	287,606	3,086
25	U. MD Baltimore	304,396	405,260	358,851	379,407	0	56,911	303,526	18,970
26	Columbia U. in the City of New York	363,922	367,877	380,740	370,822	0	137,777	229,095	3,950
27	Scripps Research Institute, The	330,170	367,375	360,511	366,047	0	366,047	0	0
28	Northwestern U.	270,379	300,157	316,703	352,348	0	84,026	254,808	13,514
29	Case Western Reserve U.	268,303	312,695	316,777	350,088	0	97,029	245,934	7,125
30	Vanderbilt U.	275,664	303,452	320,632	341,388	0	138,769	190,912	11,707
31	U. Southern CA	249,108	256,515	321,959	329,680	0	19,373	299,687	10,620
32	Harvard U.	324,112	312,303	314,166	316,229	0	147,579	168,385	265
33	U. CO all campuses	282,598	287,983	294,574	299,433	11	62,004	223,472	13,946
34	Mt. Sinai School of Medicine	225,293	273,216	269,451	296,380	0	88,261	208,119	0
35	U. Cincinnati all campuses	244,581	251,055	322,426	293,448	0	66,194	218,125	9,129
36	IN U. all campuses	208,902	227,786	261,002	286,197	0	96,292	178,299	11,606
37	U. AZ	278,726	253,309	275,212	269,947	69,561	86,242	110,682	3,462
38	U. IL Chicago	239,554	257,615	268,553	268,277	0	67,204	188,239	12,834
39	U. Chicago	214,274	216,635	232,868	267,789	0	109,060	153,323	5,406
40	U. Rochester	231,559	234,547	246,393	260,232	0	59,346	193,412	7,474
41	NY U.	223,974	229,797	237,400	254,203	0	96,221	137,910	20,072
42	LA State U. all campuses	229,568	225,097	243,300	253,623	78,623	105,891	67,144	1,965
43	OR Health & Science U.	226,827	236,976	244,734	253,072	0	109,918	130,091	13,063

Appendix I. R&D Expenditures in the Life Sciences at Universities and Colleges, Ranked by all FY 2008 Life Sciences for the First 150 Institutions: FY 2005–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
44	U. KY all campuses	214,451	230,681	240,818	244,384	59,626	69,542	107,203	8,013
45	U. GA	222,793	224,426	231,955	243,797	100,466	94,825	43,617	4,889
46	U. of Medicine and Dentistry NJ	239,778	245,771	236,834	230,347	0	101,646	128,701	0
47	U. IA	265,701	274,029	284,969	230,220	0	45,144	149,048	36,028
48	Rockefeller U.	185,329	198,779	216,284	227,568	0	215,435	12,133	0
49	SUNY Buffalo all campuses	191,492	212,496	213,681	225,238	0	58,158	157,120	9,960
50	U. NE all campuses	232,085	221,599	220,180	222,586	56,815	105,256	53,589	6,926
51	PA State U. all campuses	198,841	200,986	202,986	219,814	81,270	48,039	90,505	0
52	MA Institute of Technology	165,968	172,631	191,916	218,413	0	195,572	14,170	8,671
53	U. CA, Irvine	180,436	194,827	207,120	216,287	0	106,629	109,658	0
54	MI State U.	205,932	222,066	219,429	214,004	86,474	93,736	29,938	3,856
55	U. TX Health Science Ctr. San Antonio	142,375	150,040	160,282	201,323	0	52,400	140,082	8,841
56	U. South FL	172,849	193,977	188,046	200,431	0	18,773	181,454	204
57	Yeshiva U.	193,104	189,416	192,199	197,311	0	0	197,311	0
58	U. TX Health Science Ctr. Houston	152,631	175,154	191,724	197,252	0	22,980	99,471	74,801
59	Wayne State U.	178,254	177,619	187,060	197,045	0	39,954	144,187	12,904
60	Wake Forest U.	181,685	178,074	181,642	195,707	0	1,100	194,607	0
61	Medical U. SC	177,965	175,914	184,470	189,089	0	70,171	66,826	52,092
62	Purdue U. all campuses	165,984	175,631	182,894	188,344	108,479	40,972	28,232	10,661
63	U. MO-Columbia	166,138	169,710	169,206	188,219	57,242	66,468	59,009	5,500
64	NC State U.	145,877	162,953	168,872	186,115	89,675	85,511	0	10,929
65	U. CA, Berkeley	183,129	180,737	174,792	184,410	69,042	61,800	53,568	0
66	TX A&M U.	171,899	189,069	188,462	182,674	87,338	63,249	32,087	0
67	U. VA all campuses	162,677	168,222	159,645	180,438	0	59,638	118,181	2,619
68	U. MA Worcester	176,349	156,452	157,469	178,614	0	63,980	93,501	21,133
69	U. TX Medical Branch	171,114	177,365	181,249	177,767	0	66,488	111,279	0
70	WA State U.	110,356	124,270	129,984	171,412	72,508	68,923	9,136	20,845
71	U. Miami	143,165	147,260	146,063	170,397	0	26,361	142,466	1,570
72	U. UT	163,694	165,066	164,893	169,573	0	48,483	95,669	25,421
73	VA Polytechnic Institute and State U.	129,454	150,604	167,765	165,736	90,845	61,155	11,903	1,833
74	Medical C. WI	143,540	147,140	158,171	165,529	0	47,219	118,310	0
75	Boston U.	168,421	169,662	158,473	161,933	0	7,740	152,008	2,185
76	Rutgers, The State U. NJ all campuses	153,739	154,884	157,977	159,609	39,933	80,592	22,665	16,419
77	U. CT all campuses	156,803	154,635	161,722	157,953	6,547	63,826	84,574	3,006
78	U. KS all campuses	135,960	137,286	146,357	156,479	1,276	88,671	45,224	21,308
79	U. IL Urbana-Champaign	134,291	128,733	138,193	150,707	64,410	69,587	7,259	9,451
80	U. TN all campuses	143,820	141,455	140,018	137,101	37,837	46,840	48,161	4,263
81	Tulane U.	122,618	101,539	122,855	135,252	0	34,680	26,530	74,042
82	CO State U.	101,279	110,143	117,891	133,834	33,197	26,772	72,905	960
83	Dartmouth C.	129,639	140,264	140,106	132,337	0	6,909	125,428	0
84	Georgetown U.	110,052	105,029	122,867	125,788	0	11,484	105,823	8,481
85	VA Commonwealth U.	125,944	130,067	111,746	125,604	0	47,919	68,437	9,248
86	U. Louisville	105,077	108,833	120,424	117,892	8	22,605	85,688	9,591
87	U. NM main campus	108,297	109,570	104,285	117,462	16	34,701	72,315	10,430

Appendix I. R&D Expenditures in the Life Sciences at Universities and Colleges, Ranked by all FY 2008 Life Sciences for the First 150 Institutions: FY 2005–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
88	U. AR for Medical Sciences	90,987	107,871	108,551	117,440	0	45,884	66,014	5,542
89	IA State U.	106,565	111,494	111,538	114,157	51,484	40,576	15,918	6,179
90	U. OK all campuses	97,497	101,346	100,945	111,673	0	42,626	63,313	5,734
91	Tufts U.	102,078	101,279	104,040	106,907	0	83,146	23,730	31
92	OR State U.	103,729	108,074	108,754	105,707	61,756	36,512	4,838	2,601
93	SUNY Stony Brook all campuses	118,250	97,924	107,738	103,245	0	50,773	52,266	206
94	SUNY Albany	102,721	96,729	102,740	102,065	0	89,259	12,558	248
95	MS State U.	97,315	98,183	105,564	102,026	89,437	5,112	6,454	1,023
96	Uniformed Services U. of the Health Sciences	78,608	63,175	64,988	100,996	0	6,169	94,827	0
97	U. HI Manoa	84,326	83,980	90,518	100,277	19,198	8,766	60,456	11,857
98	Thomas Jefferson U.	107,388	106,986	107,288	99,275	0	47,284	50,003	1,988
99	U. VT	102,016	107,137	98,031	96,471	9,897	35,509	49,075	1,990
100	WV U.	71,207	79,957	85,132	90,290	24,143	17,722	43,451	4,974
101	KS State U.	80,444	79,617	81,631	89,785	56,501	32,146	1,138	0
102	Rush U.	81,032	81,159	82,539	87,699	0	20,792	64,082	2,825
103	Auburn U. all campuses	80,632	80,290	75,450	81,251	63,548	11,859	3,381	2,463
104	TX A&M U. System Health Science Ctr.	70,696	74,132	76,983	79,124	525	223	78,376	0
105	Brown U.	71,997	82,681	79,473	77,755	223	28,886	34,028	14,618
106	MT State U. Bozeman	70,876	71,686	69,880	72,260	56,856	12,314	1,846	1,244
107	OK State U. all campuses	59,077	60,369	62,334	71,068	37,760	28,921	4,305	82
108	U. MD College Park	61,801	60,333	66,733	70,253	44,040	18,497	0	7,716
109	U. CA, Riverside	66,421	64,407	68,274	67,784	12,770	51,598	3,416	0
110	Temple U.	56,742	56,304	63,124	67,082	500	22,784	35,213	8,585
111	Clemson U.	49,709	52,287	57,090	65,214	36,019	25,603	2,076	1,516
112	AZ State U.	45,181	46,523	53,252	63,677	799	53,046	0	9,832
113	ND State U. all campuses	56,939	58,219	58,444	62,693	51,818	3,713	7,162	0
114	U. AR main campus	56,408	59,420	59,797	61,528	57,851	2,780	0	897
115	UT State U.	47,663	51,247	57,738	60,256	47,927	11,999	330	0
116	U. MS all campuses	64,436	64,905	77,154	58,369	0	10,465	44,872	3,032
117	Medical C. GA	67,278	61,174	60,001	57,085	0	45,480	11,405	200
118	George Washington U.	44,412	44,856	49,146	55,038	0	15,539	39,499	0
119	U. MA Amherst	37,850	42,796	50,796	54,886	24,478	22,823	6,575	1,010
120	St. Louis U. all campuses	45,844	46,044	51,432	54,625	0	896	53,729	0
121	Drexel U.	41,882	48,341	46,819	53,828	0	27,587	23,731	2,510
122	U. ID	53,851	55,712	52,689	49,932	26,730	17,274	5,928	0
123	CA Institute of Technology	44,305	44,259	47,522	49,231	0	49,231	0	0
124	Charles R. Drew U. of Medicine and Science	43,231	47,188	52,118	49,224	0	0	49,224	0
125	U. TX Austin	48,211	48,983	50,210	48,968	224	30,332	17,734	678
126	U. SC all campuses	39,742	40,297	41,304	45,820	0	11,471	34,349	0
127	U. NV, Reno	52,114	47,284	45,392	43,303	17,094	18,842	7,295	72
128	Princeton U.	41,607	38,653	38,002	42,654	0	42,654	0	0
129	Southern IL U. Carbondale	36,055	40,662	41,002	42,422	9,701	9,257	22,954	510
130	U. CA Office of the President	59,470	54,580	52,342	40,612	4,071	3,455	33,086	0
131	U. MT-Missoula, The	36,797	35,129	37,807	39,956	8,973	19,512	9,500	1,971

Appendix I. R&D Expenditures in the Life Sciences at Universities and Colleges, Ranked by all FY 2008 Life Sciences for the First 150 Institutions: FY 2005–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
132	U. WY	33,885	51,003	38,911	39,791	14,737	17,953	3,627	3,474
133	SD State U.	26,556	27,454	31,401	37,165	27,691	2,661	2,725	4,088
134	SUNY Upstate Medical U.	34,931	37,181	39,699	36,359	0	9,420	26,939	0
135	Loma Linda U.	29,898	32,234	27,887	35,883	0	6,287	29,596	0
136	NM State U. main campus	29,198	39,624	37,046	35,751	30,011	5,216	0	524
137	U. PR Medical Sciences Campus	35,809	38,424	38,863	35,570	0	0	35,570	0
138	Meharry Medical C.	29,105	32,878	33,218	34,152	0	30,995	1,319	1,838
139	Loyola U. Chicago	36,593	35,999	33,473	32,613	0	10,428	21,086	1,099
140	SUNY Health Science Ctr. Brooklyn	29,732	31,064	29,809	32,299	0	11,669	20,630	0
141	NY Medical C.	32,460	34,397	34,365	31,644	0	24,699	6,945	0
142	U. ME	26,774	37,181	35,016	31,448	16,917	13,002	107	1,422
143	U. DE	26,600	28,596	29,165	30,901	20,595	5,898	0	4,408
144	Eastern VA Medical School	33,721	33,013	31,453	30,777	0	7,124	23,653	0
145	U. LA Lafayette	24,391	26,583	28,555	30,511	295	4,321	23,421	2,474
146	FL State U.	29,859	30,403	30,293	30,143	0	18,925	7,971	3,247
147	U. MD Biotechnology Institute	44,838	47,012	47,699	30,134	8,285	21,849	0	0
148	U. Toledo	6,399	7,285	28,700	28,311	2,243	14,881	9,940	1,247
149	U. North TX Health Science Ctr. Ft. Worth	22,325	25,124	28,187	28,179	0	23,062	5,117	0
150	U. OR	27,504	26,700	26,694	27,158	0	10,244	16,468	446

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

nec = not elsewhere classified.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$26,080 in total R&D expenditures in the life sciences in FY 2008.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix J. Total and Federally Financed R&D Expenditures in the Mathematical Sciences at Universities and Colleges, Ranked by FY 2008 total for the First 100 Institutions: FY 2005–08

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
	All institutions	494,504	532,791	573,063	620,797	346,238	374,916	408,670	445,424
1	George Washington U.	33,307	40,151	51,672	78,500	31,516	38,015	48,846	75,675
2	Johns Hopkins U., The ^a	27,874	27,163	29,396	28,883	25,946	26,529	29,012	26,617
3	U. TX Austin	18,672	21,715	26,799	25,214	11,698	12,471	19,660	16,078
4	U. TX M. D. Anderson Cancer Ctr.	17,543	21,675	22,426	23,050	4,963	5,553	5,396	5,149
5	NC State U.	15,818	14,924	16,733	15,905	8,033	8,457	8,525	8,437
6	PA State U. all campuses	15,718	10,571	10,950	13,319	11,081	7,005	7,515	9,456
7	Rutgers, The State U. NJ all campuses	9,747	10,389	11,313	12,660	5,078	5,184	5,892	6,875
8	OH State U. all campuses	7,884	13,362	12,547	12,538	5,132	8,201	7,559	8,247
9	IA State U.	10,322	8,588	8,443	10,000	5,239	4,577	3,995	5,213
10	Brown U.	7,351	8,335	9,247	9,583	4,033	4,442	5,372	5,633
11	U. MN all campuses	7,137	7,901	8,577	9,281	4,993	5,517	6,024	6,753
12	NY U.	7,829	7,699	9,750	8,786	7,662	6,783	8,967	8,110
13	GA Institute of Technology all campuses	6,038	6,196	8,371	8,432	2,612	2,478	2,769	2,676
14	TX A&M U.	9,323	9,786	7,697	7,980	7,560	8,223	6,166	5,792
15	Stanford U.	6,630	7,627	7,531	7,905	5,996	7,068	7,056	7,261
16	U. Southern CA	5,530	7,306	8,217	7,684	4,386	5,419	6,733	6,078
17	U. MD College Park	5,228	5,856	6,626	7,553	3,095	3,593	5,162	5,298
18	U. CA, Berkeley	7,129	7,373	6,960	7,413	5,417	5,763	4,978	5,943
19	AZ State U.	3,578	5,958	8,053	7,357	3,113	3,998	5,352	4,919
20	Duke U.	5,395	6,687	6,869	7,109	4,505	5,553	5,910	5,975
21	SUNY Stony Brook all campuses	5,781	6,871	6,364	7,037	3,015	3,002	3,057	3,162
22	Boston C.	4,641	5,822	5,578	6,300	546	600	501	326
23	Princeton U.	4,142	4,596	5,324	6,292	2,571	3,226	3,970	4,862
24	George Mason U.	1,145	6,133	3,209	6,085	1,014	4,791	2,903	5,747
25	U. CA, Los Angeles	5,990	6,604	5,439	5,881	4,899	5,018	4,199	4,989
26	U. WI Madison	5,578	6,033	6,054	5,853	3,891	4,238	4,262	3,997
27	U. FL	4,790	4,933	5,660	5,847	3,521	3,205	3,551	4,087
28	U. GA	5,692	5,990	5,657	5,826	1,184	1,160	994	720
29	U. MI all campuses	4,674	5,220	5,374	5,684	3,379	3,975	4,434	4,388
30	U. IL Urbana-Champaign	3,770	3,462	3,950	5,485	2,395	2,658	2,801	3,692
31	Naval Postgraduate School	4,268	4,323	4,960	5,395	3,643	4,228	4,931	5,310
32	MA Institute of Technology	4,268	4,372	4,898	5,255	3,451	3,946	4,314	4,912
33	Cornell U. all campuses	4,015	3,744	3,674	5,250	3,072	2,964	3,016	4,307
34	Purdue U. all campuses	4,330	4,360	4,872	5,158	3,097	3,232	3,415	3,691
35	U. WA	4,253	5,522	5,134	5,052	3,994	5,148	4,671	4,634
36	MI State U.	4,305	4,757	5,913	4,981	3,145	3,310	3,918	3,605
37	Harvard U.	2,366	2,895	3,431	4,774	2,366	2,895	3,332	4,668
38	NJ Institute of Technology	3,182	3,287	4,006	4,532	1,587	1,779	2,051	2,220
39	U. NE all campuses	3,885	4,411	4,611	4,516	1,353	1,575	1,355	1,506
40	U. CA, San Diego	3,841	3,715	3,764	4,273	2,773	2,538	2,528	2,725
41	VA Polytechnic Institute and State U.	2,705	2,222	2,749	3,976	1,731	1,276	1,323	2,046
42	U. Chicago	4,836	3,889	4,187	3,884	4,609	3,698	3,849	3,710
43	U. KY all campuses	5,884	6,711	6,252	3,819	4,736	5,476	5,959	3,521
44	Carnegie Mellon U.	3,472	2,633	3,654	3,749	3,205	2,442	3,325	3,256
45	U. CA, Irvine	3,077	3,315	3,087	3,742	1,974	2,075	2,133	2,424
46	Rice U.	3,591	3,956	3,238	3,723	3,278	3,389	2,756	3,112
47	IN U. all campuses	2,685	3,490	2,940	3,567	2,440	2,422	2,125	2,632
48	U. CA, Davis	3,142	3,827	3,814	3,463	2,608	3,122	3,055	2,678
49	U. AZ	4,852	5,576	3,137	3,378	3,691	4,531	2,233	2,588

Appendix J. Total and Federally Financed R&D Expenditures in the Mathematical Sciences at Universities and Colleges, Ranked by FY 2008 total for the First 100 Institutions: FY 2005–08

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
50	U. MA Amherst	2,519	2,981	2,869	3,193	1,490	1,972	1,921	2,223
51	CO State U.	2,949	3,991	3,093	3,163	1,867	3,272	2,627	2,689
52	U. TX El Paso	69	360	799	3,111	64	358	666	2,894
53	LA State U. all campuses	1,844	2,317	2,844	2,994	677	1,035	1,545	1,362
54	Rockefeller U.	2,287	2,777	2,812	2,983	1,205	1,407	1,847	1,485
55	Northwestern U.	2,655	2,082	2,837	2,918	2,263	1,767	2,383	2,521
56	U. SC all campuses	2,132	2,688	2,752	2,752	1,339	2,029	2,027	1,927
57	Clemson U.	1,871	2,818	3,214	2,708	500	963	1,005	646
58	U. CO all campuses	2,348	2,261	2,296	2,645	1,878	1,985	2,061	2,369
59	U. Houston	2,147	2,340	1,917	2,620	1,298	1,263	1,198	1,302
60	U. AL Birmingham, The	579	537	2,764	2,555	557	529	2,762	2,423
61	SUNY Buffalo all campuses	1,315	1,792	2,695	2,552	528	868	1,977	1,890
62	U. UT	1,592	1,476	2,316	2,329	1,303	1,317	2,201	2,084
63	U. NC Chapel Hill	2,762	2,276	2,658	2,325	1,668	1,702	2,079	1,908
64	Rensselaer Polytechnic Institute	2,668	3,036	3,017	2,298	2,339	2,656	2,483	1,946
65	Western MI U.	2,404	2,416	2,997	2,283	1,673	1,946	2,269	1,871
66	U. IL Chicago	3,606	2,478	2,365	2,246	2,198	1,698	1,679	1,538
67	FL State U.	2,577	2,350	1,905	2,131	1,664	1,618	1,245	1,680
68	U. MO-Columbia	1,547	1,705	2,176	2,034	1,112	1,404	1,810	1,417
69	CA Institute of Technology	1,426	2,165	2,027	1,981	1,426	2,165	1,971	1,966
70	U. NM main campus	1,439	1,257	1,311	1,975	1,328	1,168	1,148	1,842
71	Columbia U. in the City of New York	1,509	1,676	1,718	1,965	1,509	1,676	1,718	1,965
72	VA Commonwealth U.	517	1,010	1,789	1,921	435	838	1,520	1,652
73	OK State U. all campuses	669	631	510	1,911	151	140	56	92
74	U. PA	3,485	3,642	2,717	1,909	3,153	3,124	2,296	1,671
75	U. MD Baltimore County	1,035	1,611	1,698	1,886	903	1,306	824	742
76	FL Atlantic U.	581	782	1,718	1,853	560	780	943	977
77	Old Dominion U.	1,576	1,265	1,454	1,824	375	505	589	625
78	Tulane U.	2,302	1,572	1,560	1,809	1,792	1,319	1,318	1,342
79	U. Pittsburgh all campuses	1,892	2,295	2,190	1,740	1,658	2,071	1,952	1,547
80	DE State U.	427	788	611	1,701	427	788	611	1,701
81	U. VT	1,711	1,388	1,041	1,629	1,061	870	904	1,023
82	MI Technological U.	777	1,523	1,740	1,620	233	463	467	406
83	MS State U.	1,492	1,545	1,720	1,610	418	420	583	512
84	Boston U.	1,964	1,964	1,561	1,603	1,737	1,634	1,286	1,249
85	U. of Notre Dame	1,373	1,452	1,331	1,594	1,260	1,319	1,174	1,366
86	Air Force Institute of Technology	450	574	1,389	1,555	182	248	620	1,142
87	U. AR Little Rock	705	1,254	1,373	1,492	493	207	482	756
88	Vanderbilt U.	1,237	1,186	1,401	1,460	1,124	1,035	1,261	1,335
89	CA State U. Dominguez Hills	1,413	1,199	3,704	1,423	626	752	3,151	1,423
90	Yale U.	1,612	1,343	1,207	1,346	1,086	877	1,015	1,119
91	San Diego State U.	712	1,052	1,217	1,345	40	399	421	838
92	San Jose State U.	1,169	1,429	1,447	1,343	117	269	268	238
93	Emory U.	487	604	1,075	1,339	483	594	753	854
94	U. DE	590	1,151	1,279	1,326	460	873	1,089	1,149
95	U. CA, Santa Barbara	1,193	1,153	1,145	1,259	731	842	960	1,152
96	U. MA Dartmouth	945	1,136	1,088	1,235	945	972	746	1,077
97	CA State U. Northridge	244	1,085	1,074	1,232	210	1,000	1,054	1,039
98	U. IA	2,860	2,177	1,839	1,204	2,199	1,730	1,340	1,140
99	Worcester Polytechnic Institute	1,258	1,136	1,237	1,106	1,117	987	1,014	935

Appendix J. Total and Federally Financed R&D Expenditures in the Mathematical Sciences at Universities and Colleges, Ranked by FY 2008 total for the First 100 Institutions: FY 2005–08

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
100	SUNY Binghamton	453	334	394	1,077	83	178	207	167

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$27,445 in total and \$25,313 in federally financed R&D expenditures in the mathematical sciences in FY 2008.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix K. R&D Expenditures in the Physical Sciences at Universities and Colleges, Ranked by all FY 2008 Physical Sciences for the First 100 Institutions: FY 2005–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				Physical sciences, nec
					All physical sciences	Astronomy	Chemistry	Physics	
	All institutions	3,703,988	3,813,137	3,859,315	3,932,989	536,807	1,485,567	1,603,974	306,641
1	U. AZ	147,092	148,625	152,825	173,953	142,257	16,211	15,485	0
2	CA Institute of Technology	143,657	148,686	162,934	150,333	8,899	26,706	114,728	0
3	Johns Hopkins U., The ^a	146,097	140,183	129,480	128,188	38,341	19,154	61,125	9,568
4	MA Institute of Technology	104,485	98,367	99,257	104,397	21,297	24,047	54,170	4,883
5	U. CA, Berkeley	120,957	106,207	96,153	96,716	50,141	26,758	16,584	3,233
6	U. TX Austin	83,371	85,380	87,693	89,962	13,124	22,964	50,184	3,690
7	Cornell U. all campuses	84,833	89,517	86,822	89,075	14,306	20,108	45,377	9,284
8	U. MD College Park	60,544	60,990	65,454	79,824	20,214	12,060	47,194	356
9	U. CO all campuses	58,784	63,594	65,229	74,193	31,153	18,802	19,396	4,842
10	U. CA, Los Angeles	53,851	59,431	64,325	65,190	0	21,681	42,667	842
11	U. WI Madison	52,715	55,697	56,304	61,386	6,074	17,703	27,720	9,889
12	U. IL Urbana-Champaign	52,413	56,693	56,747	57,899	4,373	28,181	25,345	0
13	Stanford U.	94,093	73,010	64,642	57,078	0	19,377	6,759	30,942
14	FL State U.	47,794	53,752	58,626	55,200	0	8,427	46,759	14
15	PA State U. all campuses	61,961	64,166	56,783	55,055	10,001	21,629	23,425	0
16	MI State U.	54,666	55,319	60,293	53,797	0	9,489	44,308	0
17	U. CA, San Diego	51,400	49,841	51,646	52,512	0	19,538	30,888	2,086
18	Harvard U.	47,993	57,415	52,487	50,643	6,462	24,255	16,935	2,991
19	SUNY Albany	45,404	52,626	64,005	48,629	0	1,600	686	46,343
20	U. Chicago	46,785	49,120	46,682	46,803	14,253	14,362	13,096	5,092
21	U. CA, Santa Cruz	37,919	37,970	41,950	42,759	26,859	6,801	9,099	0
22	U. MI all campuses	39,648	40,860	38,241	39,610	4,041	18,168	17,121	280
23	SUNY Stony Brook all campuses	30,384	43,463	33,050	39,122	1,146	18,140	19,836	0
24	IN U. all campuses	36,476	46,233	41,901	38,872	1,451	18,207	19,120	94
25	GA Institute of Technology all campuses	29,469	35,570	36,562	38,573	0	25,938	12,635	0
26	U. HI Manoa	29,343	40,300	40,124	38,550	31,287	2,602	3,683	978
27	Rutgers, The State U. NJ all campuses	37,725	39,420	37,734	37,933	0	21,207	16,726	0
28	U. WA	33,582	33,803	34,067	35,713	3,864	19,330	12,519	0
29	TX A&M U.	37,523	38,430	39,200	35,346	43	18,585	14,973	1,745
30	Princeton U.	33,237	28,357	36,754	35,010	5,750	12,117	17,143	0
31	U. CA, Irvine	27,105	31,837	33,047	34,346	0	16,576	17,770	0
32	U. CA, Santa Barbara	25,153	30,624	35,468	33,856	0	6,073	13,743	14,040
33	Columbia U. in the City of New York	47,824	34,271	30,645	33,144	6,801	7,113	3,634	15,596
34	OH State U. all campuses	31,788	27,687	27,428	31,694	2,891	13,027	15,233	543
35	U. Central FL	26,498	34,009	38,035	30,971	0	2,240	20,791	7,940
36	Boston U.	21,402	24,799	26,115	30,549	1,321	6,817	6,401	16,010
37	Purdue U. all campuses	20,632	22,292	29,026	30,324	0	20,751	9,198	375
38	U. NC Chapel Hill	23,398	26,032	25,471	29,861	0	23,793	6,068	0
39	U. PA	32,380	33,236	29,279	28,680	0	14,546	14,134	0
40	U. FL	34,350	33,892	30,751	28,335	3,864	12,537	11,225	709
41	U. MN all campuses	26,914	28,001	24,961	27,134	1,959	11,391	13,784	0
42	Northwestern U.	26,828	25,473	28,268	26,624	0	18,579	6,296	1,749
43	U. CA, Davis	21,533	24,141	23,445	24,140	0	10,479	6,305	7,356
44	LA State U. all campuses	29,703	25,230	25,883	23,990	0	15,160	8,761	69
45	Yale U.	20,533	21,867	20,967	23,959	1,204	8,756	13,999	0

Appendix K. R&D Expenditures in the Physical Sciences at Universities and Colleges, Ranked by all FY 2008 Physical Sciences for the First 100 Institutions: FY 2005–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
46	Rice U.	18,690	16,089	22,766	23,156	0	9,845	13,311	0
47	U. CA, San Francisco	26,041	25,664	22,601	22,195	0	22,195	0	0
48	U. Pittsburgh all campuses	21,731	19,109	17,550	21,382	784	14,528	5,609	461
49	NM Institute of Mining and Technology	3,486	21,777	21,482	20,991	9,306	1,510	1,679	8,496
50	U. SC all campuses	14,032	17,956	18,316	20,875	0	15,115	4,891	869
51	NC State U.	26,469	19,363	18,833	19,922	0	9,125	10,640	157
52	U. UT	20,030	20,635	19,963	19,435	0	14,139	5,296	0
53	ND State U. all campuses	13,116	14,355	14,989	18,919	0	5,088	194	13,637
54	Wayne State U.	14,320	13,411	15,975	18,837	0	10,902	5,231	2,704
55	Vanderbilt U.	15,092	20,719	17,330	18,803	0	8,866	9,937	0
56	U. of Notre Dame	16,528	19,026	19,978	18,689	0	9,628	9,061	0
57	U. NM main campus	11,242	16,955	15,551	18,447	162	2,650	11,138	4,497
58	U. IA	17,611	18,338	20,462	18,348	1,378	4,567	12,403	0
59	Duke U.	18,250	17,594	18,842	18,064	0	6,769	11,295	0
60	AZ State U.	23,607	19,051	16,249	17,892	1,077	12,177	4,576	62
61	SUNY Buffalo all campuses	13,792	14,339	16,134	17,827	0	14,285	3,471	71
62	U. VA all campuses	17,076	15,556	15,786	17,691	3,195	6,977	7,519	0
63	U. MS all campuses	18,720	18,884	16,873	17,586	0	684	16,895	7
64	WA State U.	15,624	16,213	16,592	17,377	30	6,746	10,591	10
65	U. MA Amherst	30,336	17,557	12,809	16,708	3,537	7,342	5,829	0
66	VA Polytechnic Institute and State U.	14,786	14,150	18,638	16,705	0	12,247	4,301	157
67	Brown U.	13,359	13,546	14,204	16,668	349	6,251	8,088	1,980
68	Emory U.	9,985	10,627	17,198	16,295	0	15,195	1,100	0
69	Catholic U. America, The	16,332	14,026	16,309	16,252	0	835	6,840	8,577
70	U. CA Office of the President	18,260	19,053	19,775	15,926	13,837	0	2,089	0
71	U. NE all campuses	13,797	15,446	15,332	15,809	0	5,535	10,274	0
72	U. OR	7,423	10,360	13,089	15,745	0	7,742	8,003	0
73	Washington U. St. Louis	14,731	16,880	14,540	15,642	0	8,607	7,035	0
74	MT State U. Bozeman	14,252	15,117	14,810	15,492	0	8,920	6,572	0
75	U. TN all campuses	17,985	15,961	15,842	15,309	0	5,739	9,570	0
76	U. GA	13,444	16,439	15,685	15,108	0	9,555	5,553	0
77	U. Southern CA	11,070	9,336	13,972	15,039	244	12,339	1,950	506
78	U. DE	17,308	14,558	15,157	13,184	131	5,840	2,575	4,638
79	NM State U. main campus	12,453	12,313	15,265	12,506	5,061	5,907	1,328	210
80	Northeastern U.	15,512	13,189	15,576	12,329	0	6,336	5,993	0
81	U. CA, Riverside	8,599	9,258	8,390	12,183	2,767	4,929	4,487	0
82	U. Southern MS	9,968	9,907	13,153	12,032	0	10,582	1,450	0
83	U. Rochester	11,271	12,137	11,315	11,881	0	3,949	7,932	0
84	U. OK all campuses	13,417	12,177	11,742	11,814	0	6,761	5,053	0
85	Clemson U.	11,416	10,376	11,975	11,778	0	6,691	5,087	0
86	Carnegie Mellon U.	11,743	12,034	10,367	11,723	264	6,388	4,867	204
87	Kent State U. all campuses	4,844	5,124	9,826	11,561	0	2,293	3,066	6,202
88	NJ Institute of Technology	9,659	10,274	13,941	11,555	0	3,406	8,149	0
89	NY U.	12,650	13,765	11,625	11,534	0	6,695	4,839	0
90	U. AR main campus	12,096	10,322	13,241	11,507	24	6,278	5,205	0
91	U. PR Rio Piedras Campus	7,338	11,238	11,436	11,484	0	11,075	409	0
92	CO State U.	11,405	11,904	11,710	11,358	0	8,365	2,845	148
93	U. NV, Reno	10,393	13,952	11,640	11,231	33	2,628	8,550	20

Appendix K

Appendix K. R&D Expenditures in the Physical Sciences at Universities and Colleges, Ranked by all FY 2008 Physical Sciences for the First 100 Institutions: FY 2005–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				
					All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
94	Rensselaer Polytechnic Institute	7,350	9,094	12,568	11,203	0	4,124	7,079	0
95	U. TX M. D. Anderson Cancer Ctr.	9,041	10,790	10,149	11,093	0	11,093	0	0
96	U. KS all campuses	11,198	11,660	9,131	10,956	370	7,687	2,899	0
97	U. AK Fairbanks all campuses	58	2	1 i	10,773	2,408	1,453	0	6,912
98	Boston C.	8,041	8,377	8,943	10,760	0	7,475	3,285	0
99	U. IL Chicago	13,219	12,700	12,008	10,662	0	6,219	4,443	0
100	U. Akron all campuses	11,114	11,987	13,464	10,373	0	10,091	282	0

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

nec = not elsewhere classified.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$97,144 in total R&D expenditures in the physical sciences in FY 2008.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix L: Total and Federally Financed R&D Expenditures in Psychology at Universities and Colleges, Ranked by FY 2008 total for the First 100 Institutions: FY 2005–08

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
	All institutions	825,866	875,411	872,223	928,539	610,872	629,216	603,250	636,897
1	PA State U. all campuses	22,721	22,776	22,594	25,107	11,847	14,108	15,596	18,082
2	U. TX M. D. Anderson Cancer Ctr.	7,851	13,636	19,741	23,217	5,226	6,637	7,791	6,912
3	U. Houston	13,249	9,998	15,948	21,483	6,632	6,318	8,343	11,993
4	U. CT all campuses	15,152	14,625	15,848	18,706	12,123	11,849	11,876	14,587
5	IN U. all campuses	11,152	15,732	16,566	18,243	8,968	9,415	9,003	10,205
6	FL State U.	12,923	15,108	16,759	17,441	9,238	9,042	10,492	10,383
7	U. GA	13,020	13,617	14,958	17,202	7,883	6,921	7,817	9,281
8	NY U.	14,938	14,589	17,450	16,596	12,256	12,334	14,505	13,641
9	U. MN all campuses	13,090	13,165	13,508	16,044	8,835	8,192	7,925	9,129
10	U. Rochester	13,884	14,556	14,115	14,804	10,609	11,469	10,159	10,413
11	U. CO all campuses	11,799	14,041	15,229	14,447	10,561	12,433	12,462	11,218
12	San Diego State U.	8,776	9,268	11,055	13,381	4,850	4,952	5,473	7,988
13	U. NE all campuses	9,691	11,663	12,718	13,317	5,346	6,688	8,408	7,350
14	AZ State U.	9,565	10,821	11,263	12,955	7,959	8,907	9,289	11,123
15	Rutgers, The State U. NJ all campuses	10,773	12,717	12,573	12,911	4,643	4,063	3,824	3,657
16	U. CA, Los Angeles	12,773	11,546	11,718	12,074	9,845	9,035	8,913	8,758
17	U. IL Urbana-Champaign	12,594	13,511	12,723	12,021	8,235	9,115	8,102	7,926
18	U. SC all campuses	6,246	12,118	10,922	11,933	4,324	9,411	8,623	8,609
19	U. MI all campuses	11,970	12,474	10,301	11,727	10,208	10,451	7,250	8,750
20	Vanderbilt U.	9,694	10,606	10,647	11,310	7,701	8,087	8,225	9,100
21	U. CA, Berkeley	8,805	9,501	10,268	11,142	5,551	5,758	6,087	5,789
22	U. Miami	9,538	8,316	7,751	11,134	8,974	7,936	7,461	10,315
23	U. FL	11,890	12,103	13,071	10,794	8,200	7,214	7,161	5,486
24	Princeton U.	8,871	8,854	9,292	10,554	7,199	6,898	7,320	7,646
25	Temple U.	12,586	10,992	9,223	10,520	8,251	6,543	6,165	8,100
26	Stanford U.	7,603	6,701	7,983	9,376	6,438	5,713	6,953	8,089
27	U. Southern CA	4,028	5,341	6,824	9,324	3,099	4,054	5,344	7,705
28	U. NM main campus	10,304	10,470	8,782	9,031	8,818	8,810	7,220	7,668
29	U. WI Madison	29,796	30,618	9,769	8,959	24,461	24,208	7,305	5,868
30	Boston U.	7,439	7,687	9,058	8,894	7,298	7,478	8,845	8,818
31	U. CA, San Diego	6,993	7,886	7,799	8,845	5,384	5,628	5,828	6,823
32	U. WA	9,733	10,936	9,933	8,796	8,876	9,929	8,688	7,969
33	U. KY all campuses	6,294	7,870	8,026	8,751	5,253	6,441	7,087	7,309
34	U. OR	6,914	7,854	7,896	8,540	5,971	7,104	7,088	7,936
35	U. TX Austin	8,693	9,093	9,108	8,491	7,900	8,141	8,255	7,923
36	SUNY Buffalo all campuses	5,489	6,291	9,216	8,225	2,911	2,946	4,691	4,562
37	Carnegie Mellon U.	5,237	5,454	7,501	8,081	4,648	5,153	6,615	6,291
38	U. IA	6,971	8,392	8,102	7,612	6,103	7,097	6,863	6,934
39	Harvard U.	7,525	7,660	7,329	7,595	7,096	7,318	6,880	7,333
40	U. Memphis, The	11,658	11,815	8,491	7,571	6,634	5,850	3,612	3,165
41	San Jose State U.	9,787	8,471	7,910	7,538	9,787	8,471	7,879	7,440
42	U. Pittsburgh all campuses	8,237	7,775	6,538	7,504	7,233	6,831	5,823	6,620
43	U. NC Chapel Hill	5,999	5,581	6,813	7,306	4,703	4,704	5,671	6,649
44	U. MA Boston	1,374	1,758	4,132	7,255	916	1,106	1,898	3,854
45	OH State U. all campuses	6,947	5,971	5,835	7,238	4,992	4,492	4,289	4,910
46	U. VA all campuses	6,802	6,880	5,949	7,195	5,991	6,229	5,475	6,581
47	U. CA, Santa Barbara	3,266	3,760	5,692	6,934	2,767	3,170	3,965	5,221

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
48	Yale U.	6,873	7,847	5,935	6,809	4,610	4,640	3,583	3,676
49	UT State U.	3,384	3,637	6,774	6,713	1,746	2,275	3,754	3,305
50	SUNY Stony Brook all campuses	5,302	7,475	8,664	6,497	4,271	4,085	4,107	3,993
51	SUNY Binghamton	3,503	4,404	4,401	6,225	2,385	2,680	3,097	3,228
52	GA Institute of Technology all campuses	5,018	5,382	5,447	6,167	1,979	2,473	2,426	3,192
53	CUNY Hunter C.	6,977	5,556	6,066	6,159	5,055	4,290	4,703	4,177
54	Wichita State U.	290	2,622	2,535	6,001	135	1,699	1,700	2,665
55	U. Chicago	6,623	7,304	6,081	5,759	6,570	7,212	6,033	5,738
56	U. MD College Park	4,844	4,310	4,399	5,741	4,566	4,019	4,050	4,859
57	GA State U.	11,182	11,747	4,772	5,701	8,570	7,902	2,793	3,564
58	U. PA	6,080	6,267	6,173	5,644	5,537	5,535	5,104	4,722
59	U. AZ	4,903	7,329	5,645	5,470	3,398	3,470	3,332	3,100
60	Columbia U. in the City of New York	4,183	3,053	3,973	5,450	4,113	2,870	3,743	5,220
61	U. Louisville	3,808	4,348	4,729	5,349	3,088	3,690	4,095	4,553
62	Washington U. St. Louis	6,356	5,948	5,367	5,264	4,780	4,369	4,118	4,318
63	Wayne State U.	4,705	4,713	4,880	5,239	3,753	2,922	3,470	3,308
64	Uniformed Services U. of the Health Sciences	86	4,541	6,319	5,183	66	2,850	3,156	3,450
65	MI State U.	6,861	6,818	5,114	5,160	3,456	3,773	3,304	3,316
66	Cornell U. all campuses	6,464	5,875	4,994	5,122	2,670	2,939	2,360	2,191
67	Kent State U. all campuses	1,766	1,548	2,822	5,009	1,189	1,255	1,822	3,545
68	Tufts U.	4,677	4,966	4,839	4,986	2,936	2,682	2,106	2,145
69	Syracuse U. all campuses	4,023	4,644	5,403	4,944	3,975	4,555	5,071	4,283
70	U. MO-Columbia	7,647	7,246	6,832	4,900	5,234	4,912	4,578	3,329
71	U. IL Chicago	6,671	6,562	5,926	4,769	4,481	4,177	2,920	2,571
72	VA Polytechnic Institute and State U.	2,307	2,276	3,840	4,718	1,454	1,196	2,034	2,686
73	U. MA Amherst	5,475	5,977	5,560	4,440	3,304	3,511	3,111	2,433
74	Teachers C. Columbia U.	4,072	4,032	4,352	4,413	3,250	3,734	3,816	3,667
75	CA State U. San Bernardino	1,892	687	4,454	4,411	20	392	498	834
76	U. South FL	7,255	7,631	4,816	4,402	4,515	4,496	2,457	2,876
77	Purdue U. all campuses	6,198	4,585	3,736	4,373	4,416	3,534	3,034	4,031
78	CO State U.	4,812	3,330	2,723	4,355	3,856	2,954	2,370	3,855
79	U. CA, Irvine	3,960	4,380	4,279	4,280	2,145	2,487	2,108	2,106
80	U. LA Lafayette	259	1,632	2,681	4,219	17	402	1,210	1,889
81	U. of Notre Dame	4,029	4,756	3,854	4,171	3,922	4,639	3,790	3,570
82	U. Denver	2,251	2,124	2,501	4,073	2,032	1,937	2,321	3,786
83	George Mason U.	2,809	3,410	2,825	4,035	2,054	2,069	2,012	3,268
84	Johns Hopkins U., The ^a	5,720	7,674	6,196	3,953	5,134	6,391	5,787	3,946
85	Northwestern U.	3,755	3,733	3,820	3,836	2,896	2,890	2,503	2,711
86	VA Commonwealth U.	5,126	4,161	3,209	3,673	3,617	2,983	2,429	2,568
87	CA State U. Northridge	2,422	911	3,814	3,618	920	788	651	627
88	U. CA, Davis	2,000	1,745	2,849	3,458	996	847	1,243	1,590
89	Duke U.	2,527	3,004	2,847	3,329	1,514	1,941	1,795	1,616
90	TX A&M U.	2,940	2,984	2,931	3,305	2,054	2,058	1,682	2,036
91	Dartmouth C.	5,594	7,967	4,138	3,228	3,601	5,501	2,639	2,371
92	Gallaudet U.	1,495	1,476	3,003	3,065	1,495	1,476	3,003	3,065
93	FL Atlantic U.	636	646	943	3,033	591	508	623	1,532
94	U. AL Birmingham, The	8,414	6,173	3,199	3,013	8,374	6,071	3,027	2,814
95	Emory U.	1,718	2,008	2,377	3,007	1,590	1,891	1,835	1,969
96	U. TX Dallas	545	3,698	2,833	2,987	402	3,153	2,390	1,970
97	MS State U.	4,993	7,805	4,478	2,918	3,288	6,105	2,355	815
98	U. CA, Riverside	2,123	1,834	2,517	2,881	1,905	1,581	2,318	2,731

Rank	Institution	Total				Federally financed			
		2005	2006	2007	2008	2005	2006	2007	2008
99	Brown U.	2,349	2,560	1,676	2,876	1,151	1,290	839	1,522
100	U. OK all campuses	1,746	2,161	2,690	2,827	1,192	1,166	2,110	1,878

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$0 in both total and federally financed R&D expenditures in psychology in FY 2008.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix M. R&D Expenditures in the Social Sciences at Universities and Colleges, Ranked by all FY 2008 Social Sciences for the First 100 Institutions: FY 2005–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2005	2006	2007	2008				Social sciences, nec
					All social sciences	Economics	Political sciences	Sociology	
	All institutions	1,685,436	1,705,507	1,797,941	1,940,457	398,350	337,389	403,430	801,288
1	U. MI all campuses	89,909	89,913	93,719	108,697	17,397	19,046	16,057	56,197
2	U. MD College Park	76,411	82,936	80,537	86,372	7,723	11,956	2,400	64,293
3	U. WI Madison	40,905	41,254	41,626	59,276	7,634	2,679	6,997	41,966
4	U. CA, Berkeley	48,971	49,930	54,474	54,236	19,041	4,699	7,993	22,503
5	U. NC Chapel Hill	34,936	26,700	37,092	45,621	28	82	17,737	27,774
6	WA State U.	17,735	15,948	20,259	41,883	6,388	1,994	4,991	28,510
7	U. GA	38,593	37,944	39,957	40,944	15,691	5,312	2,937	17,004
8	OH State U. all campuses	33,921	40,519	46,746	39,276	14,517	3,457	5,714	15,588
9	U. CA, Los Angeles	34,141	35,661	36,093	38,759	1,260	455	5,324	31,720
10	IN U. all campuses	24,596	31,397	32,143	36,561	3,760	13,814	6,596	12,391
11	MI State U.	28,063	34,646	31,722	33,158	12,463	3,348	2,687	14,660
12	U. PA	36,185	30,809	33,059	32,199	2,151	13,579	6,697	9,772
13	U. MN all campuses	21,164	25,285	27,786	29,217	10,411	5,721	10,158	2,927
14	PA State U. all campuses	24,648	24,533	25,606	27,294	2,731	7,802	16,761	0
15	Rutgers, The State U. NJ all campuses	27,271	26,160	25,226	26,496	994	4,810	5,074	15,618
16	George Mason U.	10,151	7,122	22,201	25,738	8,895	12,596	431	3,816
17	U. CA, Davis	22,262	21,085	22,074	25,689	6,500	3,218	1,478	14,493
18	Cornell U. all campuses	25,750	26,863	29,431	25,626	11,559	359	9,918	3,790
19	U. TX Austin	29,057	27,880	26,486	25,143	221	1,600	5,291	18,031
20	Harvard U.	18,364	22,645	23,554	23,708	3,167	10,688	399	9,454
21	Purdue U. all campuses	17,806	18,354	19,163	23,648	9,949	305	6,960	6,434
22	U. IL Urbana-Champaign	22,623	21,107	21,043	22,884	8,536	1,379	1,388	11,581
23	Duke U.	25,728	23,312	25,470	22,386	842	13,310	4,997	3,237
24	GA Institute of Technology all campuses	10,090	13,089	18,880	21,950	16,331	3,325	42	2,252
25	AZ State U.	13,222	19,957	20,536	21,631	3,280	2,550	8,263	7,538
26	TX A&M U.	8,759	9,617	11,729	21,240	10,102	1,151	1,244	8,743
27	Columbia U. in the City of New York	11,229	14,344	17,554	19,143	2,805	1,956	14,382	0
28	IA State U.	16,384	18,430	17,234	18,819	3,558	368	14,642	251
29	Princeton U.	29,601	24,469	19,139	17,932	1,735	14,219	1,360	618
30	NC State U.	7,299	10,406	12,644	16,961	4,433	346	4,555	7,627
31	U. NE all campuses	14,916	15,450	15,582	16,577	6,259	3,654	2,620	4,044
32	U. WA	16,232	17,564	19,216	16,225	0	9,283	3,868	3,074
33	U. FL	14,457	15,743	16,701	16,210	9,113	598	1,917	4,582
34	U. AZ	19,038	23,450	19,747	15,718	3,840	322	8,630	2,926
35	Stanford U.	13,864	12,352	13,407	15,621	1,396	420	1,254	12,551
36	FL State U.	14,626	16,481	17,037	15,417	778	5,421	3,454	5,764
37	Brandeis U.	14,264	16,249	17,356	14,609	255	112	11,098	3,144
38	GA State U.	10,750	10,421	12,571	13,143	8,403	1,810	694	2,236
39	U. CA, San Diego	12,607	11,690	11,522	12,766	1,696	5,716	3,851	1,503
40	ND State U. all campuses	10,806	11,598	12,324	12,447	3,598	52	7	8,790
41	Brown U.	8,380	12,937	11,366	12,406	3,466	1,393	4,741	2,806
42	U. KS all campuses	9,459	10,417	10,504	11,790	854	2,795	6,149	1,992
43	Georgetown U.	9,978	8,708	10,999	11,759	161	10,798	30	770
44	Clemson U.	11,207	11,957	12,422	11,756	4,399	1,331	1,950	4,076

Rank	Institution	2008							
		2005	2006	2007	All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
45	NY U.	8,864	10,832	13,881	11,696	1,392	7,425	2,879	0
46	MS State U.	6,098	4,948	7,100	11,435	406	781	859	9,389
47	Northwestern U.	9,292	7,936	9,610	11,221	1,108	7,126	1,251	1,736
48	U. CA, Irvine	10,979	10,248	10,551	10,891	456	5,239	1,045	4,151
49	U. IL Chicago	11,748	11,004	10,471	10,169	171	160	3,201	6,637
50	LA State U. all campuses	11,245	10,795	9,481	10,058	5,789	469	1,817	1,983
51	SUNY Binghamton	5,554	5,129	5,925	10,050	1,598	894	5,596	1,962
52	U. LA Monroe	250	2,134	2,239	9,906	9,378	0	43	485
53	U. Southern CA	10,037	7,715	7,716	9,699	1,158	733	2,533	5,275
54	FL International U.	16,708	4,600	6,313	9,698	208	2,029	67	7,394
55	U. SC all campuses	7,391	9,586	9,574	9,689	1,147	2,737	922	4,883
56	U. MO-Columbia	12,346	10,657	12,635	9,547	7,315	999	172	1,061
57	U. KY all campuses	6,939	7,870	7,244	9,500	3,919	1,507	487	3,587
58	U. ME	2,673	7,731	7,243	9,494	3,793	269	18	5,414
59	U. CA, Santa Barbara	12,064	7,565	8,266	9,423	578	68	256	8,521
60	U. NM main campus	4,905	6,108	6,973	9,296	982	695	3,015	4,604
61	VA Polytechnic Institute and State U.	8,399	8,278	8,376	9,295	2,568	1,770	705	4,252
62	Washington U. St. Louis	4,999	5,985	7,216	9,231	64	626	8,326	215
63	U. TN all campuses	10,980	11,440	9,187	9,203	6,071	121	1,763	1,248
64	SUNY Albany	13,335	10,975	8,755	9,083	148	1,540	5,012	2,383
65	Teachers C. Columbia U.	4,059	4,320	6,223	8,570	6,530	0	0	2,040
66	U. South FL	5,158	8,868	9,544	8,560	811	1,398	4,942	1,409
67	U. Memphis, The	9,820	8,642	8,999	8,482	3,741	635	2,046	2,060
68	U. OR	4,366	5,037	6,941	7,979	783	3,968	277	2,951
69	MA Institute of Technology	6,945	7,098	6,405	7,978	3,175	2,834	0	1,969
70	U. TX M. D. Anderson Cancer Ctr.	2,817	5,666	6,436	7,945	0	0	7,945	0
71	U. HI Manoa	5,698	6,740	6,354	7,543	51	13	427	7,052
72	U. DE	6,394	6,567	6,490	7,450	1,411	4	4,149	1,886
73	U. of the VI	4,638	4,950	6,278	7,438	0	0	0	7,438
74	U. MA Boston	10,236	10,114	7,956	7,113	788	1,516	1,304	3,505
75	SUNY Buffalo all campuses	3,978	3,374	5,945	7,083	1,094	480	937	4,572
76	U. NH	4,367	4,846	5,903	6,807	997	87	4,940	783
77	George Washington U.	9,156	11,842	7,390	6,766	531	2,700	1,213	2,322
78	OK State U. all campuses	6,140	5,260	5,475	6,692	3,937	110	711	1,934
79	Boston C.	7,145	7,892	9,029	6,672	4,034	81	694	1,863
80	Naval Postgraduate School	2,927	3,061	4,835	6,631	0	6,208	338	85
81	Carnegie Mellon U.	10,569	8,656	8,051	6,626	1,555	2,399	238	2,434
82	U. Cincinnati all campuses	3,655	3,534	4,606	6,570	204	1,425	394	4,547
83	VA Commonwealth U.	1,654	1,705	7,761	6,480	173	5,992	0	315
84	U. CO all campuses	10,031	8,288	7,141	6,337	433	434	3,493	1,977
85	U. OK all campuses	8,146	7,334	6,490	6,232	371	1,766	607	3,488
86	Tufts U.	8,419	4,472	5,764	6,213	260	4,837	14	1,102
87	Tulane U.	3,382	3,251	3,689	6,016	21	0	508	5,487
88	Johns Hopkins U., The ^a	4,875	5,051	3,905	5,910	802 i	78 i	1,602 i	3,428 i
89	Cleveland State U.	5,227	5,623	8,092	5,890	0	1	15	5,874
90	Portland State U.	10,590	6,488	6,201	5,829	12	100	345	5,372
91	KS State U.	3,943	4,241	4,704	5,674	3,696	53	342	1,583
92	U. CA, Santa Cruz	3,443	4,266	4,710	5,658	858	200	975	3,625
93	Vanderbilt U.	3,375	4,137	5,248	5,639	100	4,598	206	735
94	Auburn U. all campuses	2,495	2,090	5,918	5,510	1,501	1	16	3,992

Rank	Institution	2005	2006	2007	2008				
					All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
95	U. MD Baltimore County	7,425	6,226	6,924	5,400	606	3,533	1,176	85
96	TX Tech U.	7,825	7,176	6,802	5,348	2,106	1,206	975	1,061
97	Wayne State U.	5,923	6,028	5,584	5,199	174	15	383	4,627
98	CO State U.	3,135	3,420	3,922	5,105	2,177	40	1,750	1,138
99	U. IA	5,511	6,214	7,932	5,101	558	1,723	700	2,120
100	SUNY Stony Brook all campuses	2,854	3,939	5,190	5,025	654	281	2,857	1,233

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

nec = not elsewhere classified.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$1,650 in total R&D expenditures in the social sciences in FY 2008.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2008 are not included in this table. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2008 Non-S&E Fields in First 300 Institutions: FY 2006–08 and by Subfield for FY 2008

(Dollars in Thousands)

		2008										
Rank	Institution	2006	2007	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
	All institutions	1,880,873	2,050,839	2,240,813	324,647	89,312	879,517	253,571	88,447	123,807	59,008	422,376
1	Purdue U. all campuses	47,468	57,493	65,111	13,790	1,291	7,850	2,190	0	0	267	39,723
2	U. South FL	18,863	64,508	64,246	8,869	5,073	29,579	2,186	0	11,082	2,383	5,074
3	U. WI Madison	72,892	71,547	62,849	38,141	2,829	4,809	11,110	1,960	460	753	2,787
4	U. TX Austin	45,560	56,021	59,757	5,670	5,628	25,534	1,447	113	3,947	323	17,095
5	Harvard U.	53,831	42,644	52,804	4	412	7,624	1,069	4,102	0	372	39,221
6	U. FL	34,258	43,121	48,510	2,291	1,574	5,138	1,865	189	29	525	36,899
7	OR State U.	38,087	42,527	45,302	0	47	1,230	212	0	0	0	43,813
8	U. MI all campuses	37,041	39,723	39,428	11,256	591	17,912	2,160	1,759	5,045	705	0
9	U. Central FL	14,883	29,545	39,025	11,116	0	21,850	47	2	0	37	5,973
10	MI State U.	30,748	34,759	35,475	3,704	3,959	19,482	2,217	0	383	181	5,549
11	Northwestern U.	29,797	29,715	34,691	22,423	1,725	5,341	1,147	3,284	0	771	0
12	U. CA, Los Angeles	29,859	31,414	33,362	7,411	372	17,520	5,072	1,860	0	1,127	0
13	U. PA	20,391	19,858	32,166	7,539	3,830	11,743	3,916	1,590	2,335	1,213	0
14	U. WA	30,701	29,628	31,281	303	145	13,295	2,985	647	13,670	236	0
15	FL State U.	24,224	21,745	29,243	1,580	983	23,736	780	547	711	906	0
16	U. CA, Berkeley	17,802	17,887	28,604	3,658	462	12,241	3,832	7,817	0	594	0
17	U. CA, Santa Cruz	20,332	22,540	26,839	0	79	24,155	1,829	0	0	776	0
18	NY U.	19,858	21,861	26,394	1,670	1,756	9,531	1,401	1,023	390	100	10,523
19	IN U. all campuses	23,208	26,372	25,541	5,275	6,620	6,761	212	668	329	1,759	3,917
20	Brown U.	37,784	23,004	24,926	702	653	6,524	13,260	0	0	2,676	1,111
21	George Washington U.	21,949	23,303	24,543	1,274	0	19,180	2,021	2,068	0	0	0
22	OH State U. all campuses	10,683	17,118	23,710	164	120	16,261	1,397	24	0	263	5,481
23	U. AK Fairbanks all campuses	971	NA	23,407	3,264	0	1,237	739	0	0	0	18,167
24	VA Commonwealth U.	18,492	16,744	22,982	308	101	16,379	78	0	5,176	158	782
25	MA Institute of Technology	22,595	23,269	22,432	13,547	91	4,621	2,223	0	0	128	1,822
26	Vanderbilt U.	12,133	16,601	22,251	48	3,112	16,975	1,312	779	0	25	0
27	TX A&M U.	15,832	21,743	22,161	4,615	29	15,646	1,287	311	0	8	265
28	Emory U.	3,878	14,120	22,095	2,481	159	548	5,474	410	9	84	12,930
29	U. Southern ME	926	926	21,659	2,598	20	3,677	2	16	15,029	2	315
30	Old Dominion U.	15,391	21,415	21,056	4,289	766	12,164	1,982	0	0	1,501	354
31	U. Southern CA	25,523	20,328	20,823	899	2,681	5,342	4,056	2,370	2,752	2,723	0
32	U. GA	18,920	19,323	19,247	88	593	9,762	2,781	2,028	0	3,995	0
33	U. KY all campuses	13,688	17,229	18,721	1,658	1,831	4,726	691	89	936	515	8,275
34	U. MN all campuses	15,041	15,297	18,179	239	643	9,923	1,947	1,207	225	1,180	2,815
35	U. IL Urbana-Champaign	18,550	18,457	17,054	1,607	2,286	5,127	2,059	342	4,493	903	237
36	Southern IL U. Edwardsville	18,720	17,746	16,935	729	54	13,968	140	0	85	474	1,485
37	GA State U.	11,934	14,513	16,720	3,369	257	5,692	1,128	1,085	1,216	311	3,662
38	U. NE all campuses	13,680	14,372	16,354	3,599	545	2,938	5,963	2,785	20	260	244
39	U. CO all campuses	6,812	12,556	16,301	1,468	192	7,329	108	378	2,408	16	4,402
40	PA State U. all campuses	12,452	12,987	16,114	6,262	743	6,774	1,462	197	0	676	0
41	U. Louisville	12,373	12,208	15,187	679	150	2,995	467	422	1,000	116	9,358
42	U. Cincinnati all campuses	10,665	8,098	14,965	534	264	4,579	4,435	0	260	4,893	0
43	AZ State U.	9,441	13,702	14,029	1,082	130	5,779	3,471	102	1,046	166	2,253
44	San Jose State U.	14,580	13,015	13,887	2,243	0	2,082	562	0	1,400	0	7,600
45	U. Memphis, The	12,971	12,905	12,892	1,744	196	8,290	1,594	5	0	835	228
46	Wichita State U.	6,061	5,994	12,787	740	799	5,347	25	0	0	29	5,847
47	U. OK all campuses	7,630	10,629	12,695	501	577	7,127	1,057	0	0	122	3,311
48	U. AR main campus	10,338	12,664	12,613	1,292	89	5,020	1,948	1,061	269	10	2,924
49	Rutgers, The State U. NJ all campuses	12,825	12,030	12,140	1,019	1,395	8,292	254	2	23	8	1,147
50	U. KS all campuses	18,821	17,406	12,069	334	75	9,099	1,167	29	675	163	527
51	Western MI U.	7,465	8,597	12,032	60	198	11,034	244	0	37	9	450
52	U. OR	9,449	9,668	11,556	0	0	11,474	59	23	0	0	0

Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2008 Non-S&E Fields in First 300 Institutions: FY 2006–08 and by Subfield for FY 2008

(Dollars in Thousands)

		2008										
Rank	Institution	2006	2007	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
53	San Diego State U.	9,621	8,876	11,411	2,256	567	2,296	1,717	0	1,129	820	2,626
54	FL International U.	21,130	17,112	11,319	649	930	5,854	399	253	2,484	45	705
55	U. WI Milwaukee	11,186	12,500	11,158	2,572	400	5,160	1,209	0	1,102	1	714
56	LA State U. all campuses	8,102	9,624	10,976	720	388	2,188	1,124	1,097	933	158	4,368
57	U. CA, Santa Barbara	5,428	9,300	10,722	4,227	285	3,607	1,926	11	0	666	0
58	Stanford U.	13,067	14,986	10,658	885	1,071	7,632	248	467	0	0	355
59	Johns Hopkins U., The ^a	12,089	12,289	10,542	0	0	0	10,542	0	0	0	0
60	U. MD College Park	14,745	11,936	10,532	960	1,958	5,220	2,238	0	0	156	0
61	U. AL Huntsville, The	2,600	3,733	10,422	5,189	69	5,101	63	0	0	0	0
62	MT State U. Bozeman	9,106	7,834	9,965	0	284	2,269	4	0	750	794	5,864
63	SUNY Buffalo all campuses	6,848	8,580	9,855	410	301	5,719	294	36	483	72	2,540
64	U. West FL	8,947	10,063	9,800	6,308	0	3,461	12	0	0	0	19
65	Princeton U.	6,983	10,213	9,732	0	90	671	7,929	0	0	658	384
66	U. CA, Irvine	6,028	6,624	9,727	1,096	0	2,553	5,956	0	0	122	0
67	U. CA, Riverside	10,783	11,903	9,714	50	0	7,613	1,056	0	0	38	957
68	Fordham U.	6,492	7,360	9,648	983	109	3,930	2,021	2,228	304	73	0
69	CA State U. Dominguez Hills	66	7,815	9,616	167	0	7,721	77	5	1,646	0	0
70	U. MS all campuses	11,558	9,278	9,318	13	0	878	1,448	2,438	7	31	4,503
71	Syracuse U. all campuses	3,808	6,765	9,231	670	662	3,213	417	1,552	54	94	2,569
72	Stevens Institute of Technology	7,752	8,699	8,737	633	0	8,104	0	0	0	0	0
73	Portland State U.	3,545	4,178	8,698	15	0	4,384	31	0	4,268	0	0
74	U. NC Greensboro	7,665	7,444	8,575	0	33	7,946	267	0	16	19	294
75	FL Gulf Coast U.	9,200	8,326	8,320	798	2,328	4,905	0	0	0	0	289
76	C. of William and Mary all campuses	8,788	10,040	8,310	0	0	7,089	169	1,031	0	21	0
77	Wheeling Jesuit U.	NA	323	8,259	1,920	0	1,587	0	0	0	77	4,675
78	Eastern IL U.	NA	7,821	8,103	281	995	1,475	73	0	5,073	206	0
79	MS State U.	6,202	5,064	8,066	899	194	2,917	1,361	0	0	209	2,486
80	U. TN all campuses	1,643	6,769	7,788	4,691	132	933	978	0	538	19	497
81	CA State U. Northridge	9,650	9,454	7,781	504	0	5,655	120	0	882	2	618
82	U. VA all campuses	4,624	5,713	7,747	98	157	4,875	1,399	986	56	0	176
83	U. MA Boston	1,291	11,489	7,746	570	33	5,786	955	12	0	71	319
84	Fairmont State U.	ne	ne	7,666	225	11	286	6,873	0	0	18	253
85	FL Atlantic U.	1,497	7,457	7,622	2,633	233	1,303	1,841	0	4	532	1,076
86	U. HI Hilo	10,721	8,748	7,584	0	0	7,474	69	0	21	0	20
87	TX State U. San Marcos	2,462	2,430	7,517	168	0	1,373	427	3,961	0	0	1,588
88	CO State U.	13,461	7,523	7,378	1,478	554	1,126	72	0	0	10	4,138
89	Fayetteville State U.	0	6,381	7,343	179	1	6,909	0	9	59	29	157
90	U. CT all campuses	10,090	9,095	7,342	1,513	1,130	1,955	883	0	1,752	109	0
91	Temple U.	4,378	5,379	7,329	227	0	1,947	426	3,039	833	835	22
92	U. MO-Columbia	15,930	15,775	7,255	274	945	5,363	533	6	97	0	37
93	San Francisco State U.	974	7,175	7,246	19	0	7,055	86	0	78	8	0
94	U. NH	6,835	6,235	7,215	1,315	0	5,356	376	0	99	0	69
95	Ball State U.	4,553	4,830	6,997	747	2	2,292	244	0	0	0	3,712
96	U. IA	9,812	11,662	6,858	303	8	2,447	1,408	1,830	0	495	367
97	U. LA Lafayette	8,119	8,128	6,795	2,159	341	1,790	1,848	0	9	638	10
98	U. North FL	2,303	4,537	6,689	1,073	62	5,408	92	0	0	54	0
99	Naval Postgraduate School	5,934	3,580	6,626	5,362	0	1,060	0	0	0	0	204
100	Central WA U.	4,830	7,372	6,549	0	0	627	103	0	0	0	5,819
101	Northeastern U.	5,834	6,718	6,404	17	107	2,200	1,653	508	1,424	495	0
102	WA State U.	7,151	3,252	6,280	3,617	1,295	691	677	0	0	0	0
103	Northern IL U.	4,421	4,773	6,231	3,867	12	132	57	108	6	7	2,042
104	U. of Notre Dame	3,584	4,805	6,140	458	161	0	1,448	19	0	91	3,963
105	Fairfield U.	5,173	5,573	5,940	1,610	137	0	1,989	0	0	448	1,756

Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2008 Non-S&E Fields in First 300 Institutions: FY 2006–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2008										
		2006	2007	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
106	U. SC all campuses	3,887	4,591	5,841	2,215	1,102	1,203	222	0	887	212	0
107	U. AK Anchorage all campuses	7,676	6,373	5,760	1,368	0	761	25	365	0	0	3,241
108	Tufts U.	4,663	5,042	5,641	0	636	1,305	3,527	150	0	23	0
109	Clemson U.	5,100	5,199	5,594	195	0	3,670	324	0	0	52	1,353
110	U. TX Arlington	141	590	5,470	0	0	266	132	0	193	0	4,879
111	WV U.	1,912	5,210	5,337	225	180	2,239	1,361	13	61	22	1,236
112	U. MD Baltimore County	2,487	4,233	5,255	120	0	1,181	2,101	0	0	1,378	475
113	U. CA, Davis	3,094	4,004	5,172	158	12	1,548	514	102	0	2,781	57
114	U. NM main campus	4,824	4,304	5,064	1	1,737	1,986	378	640	0	322	0
115	Eastern KY U.	3,413	5,966	4,830	7	1	26	42	4,548	0	0	206
116	U. Hartford	0	1,534	4,756	227	0	467	0	0	1,462	20	2,580
117	Northeastern IL U.	5,270	4,772	4,728	0	8	4,383	0	0	286	51	0
118	Bryn Mawr C.	635	759	4,684	0	0	0	4,023	0	575	86	0
119	U. NC Chapel Hill	4,719	6,929	4,672	1,317	2,134	521	597	0	0	103	0
120	U. IL Chicago	5,004	2,394	4,566	1,256	133	2,273	843	0	0	61	0
121	Seton Hall U.	4,151	5,350	4,522	0	0	3,250	6	1,266	0	0	0
122	Wayne State U.	4,303	3,552	4,394	680	52	1,044	676	5	633	257	1,047
123	U. MA Lowell	1,748	1,293	4,387	162	3	1,523	0	433	0	33	2,233
124	Case Western Reserve U.	5,450	6,973	4,364	401	0	0	124	349	2,133	0	1,357
125	George Mason U.	9,787	2,816	4,296	164	63	1,172	2,897	0	0	0	0
126	CUNY Hunter C.	4,731	3,977	4,242	0	0	2,102	641	0	1,280	219	0
127	Wellesley C.	4,376	4,169	4,174	806	9	0	4	0	0	198	3,157
128	U. Pittsburgh all campuses	5,024	6,428	4,173	309	11	3,398	353	86	0	16	0
129	Boston U.	6,017	4,620	4,023	440	0	377	1,062	0	1,462	0	682
130	KS State U.	3,214	2,964	3,992	95	219	1,704	526	0	0	9	1,439
131	SUNY Binghamton	331	1,920	3,942	188	2	1,677	1,836	0	0	179	60
132	U. MA Amherst	4,912	4,972	3,933	240	132	3,298	87	153	0	23	0
133	Wabash C.	3,423	3,518	3,878	17	0	0	3,855	0	0	0	6
134	CUNY Graduate Ctr.	5,307	5,399	3,816	0	0	736	674	0	0	0	2,406
135	IA State U.	5,587	3,844	3,799	1,297	5	2,282	214	0	0	0	1
136	St. Cloud State U.	3,648	3,805	3,719	54	481	2,446	271	0	345	42	80
137	U. Denver	4,004	4,345	3,628	0	0	463	87	2,586	492	0	0
138	Yale U.	2,005	2,647	3,628	0	0	0	1,688	1,940	0	0	0
139	Boston C.	2,650	2,449	3,617	145	0	2,987	89	0	0	120	276
140	Southern Methodist U.	3,348	3,604	3,372	113	0	2,412	195	596	0	0	56
141	LA Tech U.	2,819	3,024	3,362	2,436	19	115	330	0	0	462	0
142	U. NC Charlotte	4,193	4,809	3,327	23	17	2,236	195	0	0	0	856
143	Brigham Young U. all campuses	4,040	2,982	3,324	341	145	674	2,130	6	8	20	0
144	U. Houston	5,322	4,839	3,201	27	0	2,760	147	267	0	0	0
145	U. Rochester	2,829	3,769	3,150	101	552	1,713	49	0	522	213	0
146	NM State U. main campus	3,508	3,984	3,096	124	0	552	2,412	0	0	8	0
147	Rochester Institute of	2,596	3,145	3,007	72	0	2,933	1	0	1	0	0
148	St. Joseph's U.	4,342	3,871	3,002	2,620	0	154	92	0	16	0	120
149	Western IL U.	6,400	5,600	3,000	0	0	3,000	0	0	0	0	0
150	Duke U.	1,703	1,941	2,987	1,290	97	0	1,010	459	0	131	0
151	CA State U. Fullerton	3,371	2,804	2,942	1,792	21	797	40	0	261	31	0
152	Southern OR U.	2,323	2,917	2,879	79	913	1,875	0	0	0	5	7
153	Kent State U. all campuses	5,430	3,200	2,875	0	504	983	610	73	0	0	705
154	U. CA, San Diego	2,391	2,927	2,850	195	143	623	428	0	0	1,152	309
155	Baylor U.	1,972	1,843	2,788	354	151	117	874	1	961	29	301
156	CA State U. San Bernardino	2,394	2,411	2,784	1,341	0	303	0	615	162	363	0
157	U. Chicago	3,256	2,673	2,769	408	0	0	208	0	1,631	0	522
158	U. NV, Reno	1,726	3,477	2,768	978	14	435	1,061	280	0	0	0
159	GA Institute of Technology all campuses	4,061	3,547	2,752	0	33	0	409	0	0	0	2,310

Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2008 Non-S&E Fields in First 300 Institutions: FY 2006–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2008										
		2006	2007	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
160	IL Institute of Technology	2,008	3,785	2,751	309	5	621	34	519	0	0	1,263
161	GA Southern U.	4,520	4,811	2,693	125	8	2,175	5	0	380	0	0
162	Drexel U.	988	1,435	2,647	121	281	528	59	68	0	35	1,555
163	Claremont Graduate U.	3,613	3,540	2,620	847	0	1,051	212	0	0	0	510
164	Tulane U.	4,431	3,214	2,615	91	40	303	1,242	599	0	158	182
165	U. TX-Pan American	1,785	1,992	2,614	426	0	2,171	17	0	0	0	0
166	U. of the Pacific	2,048	1,937	2,605	403	300	289	401	1,100	3	101	8
167	St. Louis U. all campuses	115	2,656	2,592	78	597	1,006	298	159	432	0	22
168	U. NV, Las Vegas	1,587	1,734	2,545	598	73	346	1,004	21	185	0	318
169	Amherst C.	1,321	1,458	2,542	0	19	0	614	0	1,607	267	35
170	VA Polytechnic Institute and State U.	3,596	3,845	2,492	721	52	268	133	0	0	772	546
171	NM Highlands U.	3,725	1,909	2,448	0	0	2,345	0	0	103	0	0
172	Duquesne U.	2,170	2,325	2,440	1,043	1	625	0	306	0	416	49
173	Hofstra U.	2,281	2,263	2,414	0	6	2,366	40	0	0	0	2
174	Washington U. St. Louis	3,659	3,071	2,411	68	0	2,175	96	72	0	0	0
175	Georgetown U.	3,577	2,935	2,334	132	0	59	2,085	58	0	0	0
176	U. Miami	1,975	1,998	2,292	0	38	2,129	56	0	0	69	0
177	CUNY Baruch C.	1,735	1,454	2,288	56	6	50	142	0	37	10	1,987
178	American U.	1,433	1,735	2,284	0	0	1	15	2,268	0	0	0
179	TX Tech U.	1,338	1,561	2,263	38	0	2,092	0	95	0	38	0
180	U. North TX	3,466	1,774	2,134	431	476	992	162	0	0	73	0
181	UT State U.	4,265	2,541	2,129	354	2	818	954	0	0	1	0
182	U. MO-St. Louis	1,874	2,307	2,077	379	0	891	135	0	651	0	21
183	U. Dayton	2,990	2,161	2,018	48	11	1,660	70	0	0	229	0
184	U. WY	293	341	1,991	6	203	404	129	30	98	1	1,120
185	Shaw U.	1,920	1,806	1,959	0	173	1,786	0	0	0	0	0
186	Clark U.	2,045	1,741	1,929	0	0	1,929	0	0	0	0	0
187	Teachers C. Columbia U.	1,702	1,976	1,906	0	0	1,906	0	0	0	0	0
188	Brandeis U.	2,233	2,094	1,889	0	0	1,407	0	471	0	11	0
189	Loyola Marymount U.	513	1,129	1,853	225	5	945	102	508	0	68	0
190	MT Tech of the U. MT	1,471	1,605	1,832	0	0	1,544	24	0	0	0	264
191	John Carroll U.	3,568	3,769	1,826	0	0	1,826	0	0	0	0	0
192	U. DE	1,997	2,186	1,792	189	0	1,602	1	0	0	0	0
193	CA Institute of Technology	85	1,855	1,790	0	0	0	1,790	0	0	0	0
194	Eastern MI U.	3,328	2,520	1,759	340	0	519	520	0	330	50	0
195	Middle TN State U.	392	351	1,750	588	108	4	702	0	0	40	308
196	U. ME	714	3,937	1,713	65	198	1,121	199	0	96	34	0
197	U. TX El Paso	10,721	7,445	1,697	105	1	648	173	0	0	8	762
198	Rowan U.	2,779	2,797	1,680	63	8	1,541	31	17	0	10	10
199	Cornell U. all campuses	1,790	3,855	1,645	555	75	0	916	90	0	9	0
200	Adelphi U.	ne	1,002	1,643	47	12	436	25	0	688	141	294
201	Tuskegee U.	1,331	1,576	1,643	0	0	1,643	0	0	0	0	0
202	MI Technological U.	1,119	1,346	1,593	354	8	261	744	0	0	212	14
203	Howard U.	352	563	1,591	28	27	823	0	630	73	0	10
204	Western WA U.	2,073	1,687	1,576	404	0	327	264	0	545	0	36
205	Daemen C.	ne	1,788	1,534	7	0	1,522	0	0	0	0	5
206	Sam Houston State U.	1,183	312	1,504	0	0	116	0	1,070	294	0	24
207	FL A&M U.	2,531	1,154	1,503	0	0	1,452	0	51	0	0	0
208	CO C.	ne	ne	1,500	632	0	424	325	0	20	99	0
209	U. Toledo	2,252	1,894	1,499	248	0	1,090	64	40	57	0	0
210	U. TX San Antonio	2,058	1,779	1,495	234	0	1,172	69	7	0	13	0
211	TX Christian U.	1,474	1,612	1,439	2	44	1,225	49	0	93	20	6
212	West Chester U. PA	1,224	1,887	1,439	985	34	360	0	0	5	55	0

Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2008 Non-S&E Fields in First 300 Institutions: FY 2006–08 and by Subfield for FY 2008

(Dollars in Thousands)

		2008										
Rank	Institution	2006	2007	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
213	CA State U. Long Beach	558	830	1,429	0	0	1,171	223	0	0	35	0
214	U. South AL	421	298	1,429	0	5	189	267	0	0	0	968
215	U. RI	NA	NA	1,414	0	0	1,413	0	0	0	0	1
216	U. MO-Kansas City	1,556	4,074	1,383	846	41	35	41	0	380	37	3
217	U. AZ	2,239	1,697	1,328	285	151	168	589	128	0	7	0
218	West TX A&M U.	1,293	864	1,324	1,241	0	2	43	9	0	0	29
219	U. Tulsa	851	1,483	1,306	0	36	262	702	305	0	1	0
220	C. Charleston	1,735	2,399	1,298	317	34	641	283	0	0	3	20
221	NC State U.	0	1,365	1,285	290	0	791	204	0	0	0	0
222	Mercyhurst C.	880	792	1,231	0	0	38	0	0	221	50	922
223	CA State U. Los Angeles	704	2,050	1,185	0	0	925	111	0	117	0	32
224	Dartmouth C.	52	0	1,184	1,120	0	0	0	0	0	64	0
225	Chapman U.	1,235	1,358	1,149	3	0	760	53	321	0	1	11
226	U.S. Air Force Academy	0	1,841	1,148	207	0	0	691	0	0	0	250
227	Stephen F. Austin State U.	54	359	1,125	0	2	617	124	0	12	11	359
228	CUNY John Jay C. of Criminal	705	625	1,121	0	9	42	71	600	312	0	87
229	U. AL Birmingham, The	1,405	1,320	1,116	748	0	356	12	0	0	0	0
230	Wesleyan U.	449	779	1,101	0	28	243	560	0	0	255	15
231	Lewis & Clark C.	884	1,267	1,093	0	35	138	45	864	0	11	0
232	Tougaloo C.	0	941	1,079	0	0	0	0	0	1,079	0	0
233	U. LA Monroe	1,260	1,121	1,064	4	0	814	56	0	109	19	62
234	U. VT	973	977	1,042	180	68	591	133	0	70	0	0
235	Lehigh U.	1,577	1,770	1,034	0	0	923	17	0	0	0	94
236	IL State U.	1,424	2,697	999	0	3	325	0	0	254	0	417
237	Polytechnic U.	9,850	9,550	999	522	0	200	277	0	0	0	0
238	U. PR Rio Piedras Campus	1,014	966	991	0	0	439	287	192	0	0	73
239	TX A&M U. Kingsville	442	587	976	28	0	226	0	0	0	0	722
240	Carleton C.	753	866	975	0	0	0	975	0	0	0	0
241	Worcester Polytechnic Institute	862	899	975	494	0	481	0	0	0	0	0
242	CUNY Brooklyn C.	594	908	974	0	153	190	630	1	0	0	0
243	Loyola C.	NA	1,696	968	0	0	782	0	0	0	0	186
244	U. ID	1,421	300	957	0	6	32	112	0	0	1	806
245	Pomona C.	597	698	956	0	0	0	884	0	0	72	0
246	Auburn U. all campuses	854	925	926	597	0	89	240	0	0	0	0
247	Calvin C.	1,212	854	924	27	0	342	426	0	0	129	0
248	Drake U.	1,146	1,347	922	45	4	524	4	341	0	4	0
249	La Salle U.	600	450	904	311	53	60	373	0	0	0	107
250	ID State U.	365	682	899	568	0	200	127	0	0	4	0
251	Pace U. all campuses	1,886	1,577	899	169	0	2	12	576	0	0	140
252	Cleveland State U.	1,580	1,871	896	172	0	275	325	1	123	0	0
253	Dickinson C.	841	1,844	893	4	46	60	750	0	0	17	16
254	OH U. all campuses	1,167	337	876	66	94	415	211	0	52	38	0
255	U. San Diego	534	681	863	113	0	298	58	59	335	0	0
256	Wake Forest U.	714	566	835	128	502	58	58	50	0	39	0
257	TX Southern U.	995	876	831	0	0	0	0	0	0	0	831
258	U. IL Springfield	840	1,007	828	45	0	145	638	0	0	0	0
259	ND State U. all campuses	727	1,129	814	2	202	473	135	0	0	0	2
260	Roanoke C.	713	787	802	0	183	52	335	0	0	110	122
261	Macalester C.	794	829	793	0	0	12	586	0	0	195	0
262	Swarthmore C.	666	688	788	0	0	0	772	0	0	16	0
263	SUNY Albany	3,487	217	773	0	56	561	66	0	0	0	90
264	SUNY Stony Brook all campuses	1,460	259	744	0	0	0	183	0	0	561	0
265	U. Baltimore	650	1,228	742	373	59	10	0	300	0	0	0

Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2008 Non-S&E Fields in First 300 Institutions: FY 2006–08 and by Subfield for FY 2008

(Dollars in Thousands)

Rank	Institution	2008										
		2006	2007	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
266	Bucknell U.	414	660	741	28	0	0	122	0	0	36	555
267	U. UT	1,551	1,070	741	38	9	266	380	11	0	37	0
268	Loyola U. Chicago	942	480	739	61	0	595	0	16	67	0	0
269	VA State U.	2,031	2,325	709	0	1	157	46	0	0	11	494
270	East Carolina U.	478	402	688	0	0	616	4	0	0	0	68
271	James Madison U.	3	363	687	7	32	561	87	0	0	0	0
272	Hamilton C. (Clinton, NY)	1,345	953	682	0	4	261	259	0	158	0	0
273	Bowling Green State U. all	2,078	547	678	0	119	376	142	0	0	41	0
274	Western U. of Health Sciences	0	787	674	0	0	674	0	0	0	0	0
275	Seattle U.	NA	NA	673	108	3	55	193	0	12	25	277
276	Rensselaer Polytechnic Institute	806	441	672	237	409	8	0	0	0	18	0
277	Western Carolina U.	1,348	571	667	43	106	46	353	119	0	0	0
278	DePaul U.	624	706	649	174	4	270	182	5	2	12	0
279	CUNY The City C.	755	872	644	0	0	469	140	0	35	0	0
280	Washington and Jefferson C.	ne	ne	643	0	0	8	8	0	0	0	627
281	U. Richmond	546	602	635	96	98	195	139	40	10	57	0
282	U. AL, The	513	425	631	41	4	433	45	0	0	4	104
283	Smith C.	1,262	903	628	0	42	18	226	0	256	82	4
284	TX A&M U. Corpus Christi	173	1,245	627	11	0	326	58	53	0	0	179
285	Tarleton State U.	2,059	81	619	10	0	43	20	0	0	0	546
286	CUNY Queens C.	30	654	612	0	0	435	177	0	0	0	0
287	TN Technological U.	411	273	609	22	9	540	27	0	0	0	11
288	U. CA, Merced	404	655	601	0	0	0	0	0	0	601	0
289	Marshall U.	1,572	236	599	86	0	37	476	0	0	0	0
290	FL Institute of Technology	1,306	747	590	512	0	21	0	0	0	0	57
291	U. Portland	498	509	585	19	0	411	0	0	155	0	0
292	U. MT-Missoula, The	430	364	525	33	236	28	70	0	158	0	0
293	SC State U.	0	0	515	0	0	0	0	0	46	0	469
294	Winona State U.	ne	557	500	122	82	81	158	0	56	1	0
295	U. MA Dartmouth	1,218	582	494	0	0	388	92	0	0	0	14
296	U. Southern MS	1,682	1,460	494	144	36	77	27	0	209	1	0
297	CA State U. Monterey Bay	0	0	491	0	0	45	13	0	344	89	0
298	U. TX of the Permian Basin	ne	651	487	79	0	87	0	0	0	0	321
299	TN State U.	597	507	481	0	0	481	0	0	0	0	0
300	Mt. Holyoke C.	221	443	478	0	0	444	0	0	0	34	0

NA = not available; institution was unable to provide these data or was not surveyed separately. ne = not eligible; institution did not meet the criteria for inclusion.

S&E = science and engineering.

^a The Johns Hopkins University includes the Applied Physics Laboratory, with \$0 in total non-S&E R&D expenditures in FY 2008.

NOTES: Institutions not listed in this table did not provide non-S&E R&D expenditures by non-S&E field. Institutions that reported amounts of zero or more are included. Detail may not add to total because some respondents reporting non-S&E R&D expenditures did not break out total and federal funds by non-S&E field. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
	All institutions	17,508,027	55,221	60,121	15,530,274	114,091	482,579	475,244	294,009	58,545	437,432
1	Johns Hopkins U., The ^a	559,475	0	14,982	514,252	95	4,586	3,803	1,659	0	20,098
2	U. CA, San Francisco	455,872	0	0	442,016	0	13,856	0	0	0	0
3	U. PA	417,898	55	0	388,714	0	8,790	4,387	6,847	11	9,094
4	U. WA	409,086	16	2,975	373,960	394	7,841	7,164	2,102	0	14,634
5	U. MI all campuses	407,553	1,152	0	324,662	849	9,146	6,927	53,345	0	11,472
6	Duke U.	381,219	967	1,815	346,215	1,016	2,100	1,560	14,624	0	12,922
7	U. Pittsburgh all campuses	359,663	680	0	338,799	541	7,088	6,130	1,487	471	4,467
8	Washington U. St. Louis	355,234	555	0	336,106	95	4,423	3,614	2,978	0	7,463
9	U. CA, Los Angeles	349,348	297	0	326,728	295	9,768	7,442	2,147	1	2,670
10	Yale U.	330,418	422	290	321,915	0	4,237	2,615	6	0	933
11	Stanford U.	321,305	450	84	281,266	1,352	14,837	6,536	257	0	16,523
12	U. CA, San Diego	311,832	2,612	1,881	276,189	0	14,781	5,169	1,429	341	9,430
13	Harvard U.	299,983	0	10,580	258,434	1,880	18,887	5,120	2,794	0	2,288
14	Columbia U. in the City of New York	293,835	365	1,886	265,923	120	2,460	4,165	7,929	242	10,745
15	U. NC Chapel Hill	287,516	1,454	5,961	238,395	62	9,064	5,736	26,844	0	0
16	Vanderbilt U.	278,834	0	0	257,903	151	6,688	8,308	1,080	999	3,705
17	U. AL Birmingham, The	272,458	0	0	266,586	20	2,432	2,600	0	0	820
18	Case Western Reserve U.	272,446	0	186	257,434	6	2,108	1,509	1,565	0	9,638
19	Emory U.	264,342	0	0	249,112	0	2,145	1,610	296	0	11,179
20	U. WI Madison	255,663	535	0	222,283	648	4,404	5,363	11,122	0	11,308
21	U. MN all campuses	251,659	586	0	228,094	367	4,182	8,620	5,770	0	4,040
22	Scripps Research Institute, The	232,337	0	0	232,337	0	0	0	0	0	0
23	Mt. Sinai School of Medicine	228,232	0	0	228,232	0	0	0	0	0	0
24	MA Institute of Technology	228,091	3,533	1,063	165,603	92	16,458	430	59	1,565	39,288
25	U. CO all campuses	222,007	0	0	201,527	0	8,068	8,362	1,194	292	2,564
26	Baylor C. of Medicine	216,807	0	0	216,807	0	0	0	0	0	0
27	U. Chicago	213,443	5,189	24	199,947	287	3,694	3,483	819	0	0
28	OR Health & Science U.	201,954	10,122	0	191,832	0	0	0	0	0	0
29	U. Cincinnati all campuses	198,009	0	0	191,876	36	871	109	266	0	4,851
30	Cornell U. all campuses	191,059	55	0	170,100	308	13,226	1,653	3,570	0	2,147
31	U. Southern CA	190,635	196	93	169,988	3,854	1,794	5,964	1,348	30	7,368
32	U. IA	187,195	73	79	173,269	162	1,886	6,450	220	0	5,056
33	U. Rochester	184,043	88	0	172,534	0	1,095	8,534	0	0	1,792
34	OH State U. all campuses	183,918	603	10	164,578	416	4,234	4,100	8,164	37	1,776
35	U. TX Southwestern Medical Ctr. Dallas	180,934	0	0	180,934	0	0	0	0	0	0
36	Boston U.	173,992	0	0	140,812	466	7,206	8,004	180	5,234	12,090
37	Northwestern U.	173,010	0	0	157,285	182	3,776	969	904	2,649	7,245
38	NY U.	166,757	103	0	150,398	57	3,141	12,833	225	0	0
39	U. TX M. D. Anderson Cancer Ctr.	163,280	0	0	142,051	3,871	6,143	6,643	4,241	0	331
40	U. CA, Davis	161,432	0	2	144,828	141	4,229	1,354	3,856	1	7,021
41	U. MD Baltimore	155,834	0	0	155,834	0	0	0	0	0	0
42	U. IL Chicago	154,646	93	0	146,038	8	2,467	1,361	1,905	1,403	1,371
43	U. VA all campuses	153,465	0	0	139,998	0	4,113	5,270	23	0	4,061
44	Yeshiva U.	142,800	0	0	142,800	0	0	0	0	0	0
45	IN U. all campuses	142,215	384	0	124,367	0	3,568	9,070	2,002	0	2,824
46	U. MA Worcester	141,034	0	0	141,034	0	0	0	0	0	0
47	Wake Forest U.	137,435	0	0	136,072	0	1,142	221	0	0	0
48	U. UT	128,273	3,248	106	114,643	4	3,834	1,323	337	0	4,778
49	U. CA, Irvine	122,819	908	0	110,463	239	3,958	1,213	1,873	0	4,165
50	U. FL	117,835	455	1,844	103,356	2,595	1,764	4,945	346	0	2,530
51	U. Miami	116,638	0	2,373	102,456	140	17	9,994	1,146	0	512
52	U. TX Health Science Ctr. Houston	114,361	0	0	114,361	0	0	0	0	0	0

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
53	U. TX Health Science Ctr. San Antonio	113,673	0	0	113,673	0	0	0	0	0	0
54	U. of Medicine & Dentistry NJ	108,440	0	0	108,440	0	0	0	0	0	0
55	U. TX Medical Branch	107,974	0	0	107,755	0	0	0	0	0	219
56	U. AZ	107,876	0	236	97,540	0	5,222	2,691	377	355	1,455
57	Medical C. WI	107,202	0	0	107,202	0	0	0	0	0	0
58	George Washington U.	103,300	279	0	24,965	75,045	84	2,218	458	0	251
59	U. CA, Berkeley	97,986	0	0	66,766	293	7,760	3,968	4,491	12,932	1,776
60	U. KY all campuses	97,403	22	161	86,584	408	1,660	6,788	1,002	0	778
61	Wayne State U.	95,749	357	0	88,288	0	3,102	3,068	358	0	576
62	SUNY Buffalo all campuses	94,601	202	0	86,356	0	2,949	3,341	277	0	1,476
63	SUNY Albany	91,506	0	0	88,732	0	242	856	1,676	0	0
64	Medical U. SC	89,853	0	0	89,766	0	0	0	0	0	87
65	PA State U. all campuses	88,126	179	867	65,145	260	4,356	8,547	5,761	0	3,011
66	LA State U. all campuses	86,111	96	0	82,644	0	2,550	466	146	15	194
67	U. KS all campuses	85,448	0	0	78,798	0	2,503	398	3,187	0	562
68	Tulane U.	84,208	0	0	81,337	315	0	372	1,216	0	968
69	Dartmouth C.	83,532	0	0	77,160	0	893	1,912	48	300	3,219
70	Rockefeller U.	79,516	0	0	74,551	1,205	3,760	0	0	0	0
71	Georgetown U.	77,599	0	0	75,293	0	875	756	675	0	0
72	U. NM main campus	77,302	400	8	68,993	69	712	6,506	401	0	213
73	U. CT all campuses	75,395	228	0	62,559	166	1,868	9,765	120	0	689
74	U. South FL	73,491	0	0	70,255	0	445	1,991	344	0	456
75	U. NE all campuses	72,815	347	0	59,916	106	801	5,642	2,475	0	3,528
76	Thomas Jefferson U.	70,428	0	0	70,428	0	0	0	0	0	0
77	U. VT	69,958	0	0	67,830	160	18	1,648	0	0	302
78	VA Commonwealth U.	68,585	0	0	63,846	0	1,478	2,559	521	0	181
79	Tufts U.	65,815	99	0	57,880	0	2,469	1,812	0	0	3,555
80	Rutgers, The State U. NJ all campuses	64,472	0	200	52,360	115	6,852	2,828	1,206	0	911
81	U. IL Urbana-Champaign	63,907	474	72	33,668	2	12,780	5,191	1,743	813	9,164
82	SUNY Stony Brook all campuses	62,660	563	213	51,932	1,082	3,323	2,787	44	0	2,716
83	Brown U.	57,908	597	2,883	48,480	0	1,831	1,384	1,937	633	163
84	U. AR for Medical Sciences	57,831	0	0	57,831	0	0	0	0	0	0
85	U. OK all campuses	57,053	0	0	54,051	0	1,551	371	248	0	832
86	U. Louisville	55,708	0	0	50,351	58	494	3,350	307	0	1,148
87	CO State U.	54,227	0	65	46,424	0	2,623	2,605	1,517	890	103
88	U. MO-Columbia	53,061	314	0	48,007	132	1,175	2,997	295	0	141
89	U. TN all campuses	51,573	0	208	49,314	0	274	58	574	0	1,145
90	Purdue U. all campuses	50,810	847	0	35,216	294	6,627	3,206	1,393	42	3,185
91	Temple U.	47,000	343	0	39,720	0	756	4,736	460	0	985
92	CA Institute of Technology	45,862	435	167	32,502	237	9,346	0	0	0	3,175
93	U. HI Manoa	45,775	0	415	42,709	0	492	55	1,228	483	393
94	U. TX Austin	45,535	267	99	21,822	1,091	9,058	4,508	3,646	13	5,031
95	U. GA	44,361	329	0	33,401	5	880	8,927	618	0	201
96	St. Louis U. all campuses	43,234	0	0	42,937	0	151	146	0	0	0
97	MI State U.	42,580	88	0	36,393	93	1,728	2,305	878	0	1,095
98	AZ State U.	41,033	194	99	16,905	63	1,906	9,217	3,191	0	9,458
99	Rush U.	40,730	0	0	39,442	0	0	1,288	0	0	0
100	Medical C. GA	38,829	0	0	38,829	0	0	0	0	0	0
101	Princeton U.	36,431	180	0	21,858	0	1,578	6,100	5,432	0	1,283
102	TX A&M U.	34,290	314	43	20,651	2,057	4,639	1,493	2,550	43	2,500
103	U. SC all campuses	33,839	0	258	22,270	0	4,270	6,208	433	0	400
104	U. MS all campuses	32,513	0	0	32,294	0	219	0	0	0	0
105	TX A&M U. System Health Science Ctr.	30,373	133	0	30,091	0	0	86	0	0	63
106	Meharry Medical C.	30,105	0	0	30,105	0	0	0	0	0	0
107	Drexel U.	28,543	0	0	24,410	0	487	1,624	0	0	2,022

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
108	U. PR Medical Sciences Campus	28,338	0	0	28,338	0	0	0	0	0	0
109	U. MD College Park	27,699	765	0	12,510	57	2,013	4,322	5,171	0	2,861
110	GA Institute of Technology all campuses	26,723	100	0	4,106	137	3,074	1,936	26	0	17,344
111	U. OR	25,224	141	0	18,432	0	127	6,131	393	0	0
112	WV U.	24,872	299	5	23,029	0	0	382	106	0	1,051
113	Morehouse School of Medicine	24,485	0	0	24,485	0	0	0	0	0	0
114	U. Houston	24,183	305	0	9,244	0	1,501	11,983	341	0	809
115	IA State U.	23,397	263	0	11,025	445	1,399	71	9,906	0	288
116	SUNY Health Science Ctr. Brooklyn	23,264	0	0	23,264	0	0	0	0	0	0
117	San Diego State U.	23,214	0	179	14,430	0	179	7,627	799	0	0
118	NY Medical C.	22,979	0	0	22,979	0	0	0	0	0	0
119	Carnegie Mellon U.	22,889	4,519	0	3,066	845	1,849	3,550	1,105	1,397	6,558
120	Howard U.	21,927	0	0	19,694	0	0	0	1,279	0	954
121	Brandeis U.	21,599	145	0	14,984	0	1,676	1,890	2,904	0	0
122	Loyola U. Chicago	21,384	0	0	20,669	0	117	556	42	0	0
123	U. DE	21,124	0	39	6,996	0	2,743	1,541	2,545	3,008	4,252
124	MT State U. Bozeman	20,016	0	0	16,196	0	2,378	3	46	0	1,393
125	WA State U.	19,424	0	0	17,147	337	1,230	177	0	0	533
126	U. CA, Santa Barbara	19,200	0	234	3,558	0	3,516	3,632	189	6,710	1,361
127	U. NV, Reno	19,191	0	0	17,663	0	234	1,085	205	0	4
128	VA Polytechnic Institute and State U.	18,435	526	0	10,800	0	1,171	1,453	64	0	4,421
129	U. MA Amherst	18,385	379	0	13,189	359	2,028	1,875	89	0	466
130	FL State U.	18,206	239	0	10,949	391	1,387	3,688	1,320	0	232
131	SUNY Upstate Medical U.	17,552	0	0	17,552	0	0	0	0	0	0
132	U. CA, Santa Cruz	16,837	0	718	7,121	0	3,936	407	33	0	4,622
133	NC State U.	16,468	15	0	10,067	2,493	1,323	0	658	335	1,577
134	U. of Notre Dame	16,440	211	0	6,119	50	6,112	3,356	227	86	279
135	OR State U.	16,119	9	32	14,441	0	753	159	59	462	204
136	U. North TX Health Science Ctr. Ft. Worth	16,017	0	0	16,017	0	0	0	0	0	0
137	U. Toledo	15,524	0	0	14,714	0	489	192	0	0	129
138	U. SD	14,683	9	0	14,359	0	0	118	97	0	100
139	U. MO-Kansas City	13,949	0	0	12,778	0	500	671	0	0	0
140	Northeastern U.	13,242	227	0	7,117	0	3,457	1,332	0	0	1,109
141	U. CA, Riverside	12,572	0	0	8,287	0	792	2,513	448	0	532
142	U. MD Baltimore County	12,459	129	68	2,023	354	4,294	1,783	1,201	715	1,892
143	FL International U.	12,449	0	0	6,666	0	1,062	1,535	1,789	1,302	95
144	U. TX San Antonio	12,082	0	0	10,104	0	873	127	509	0	469
145	Uniformed Services U. of the Health Sciences	11,993	0	0	11,993	0	0	0	0	0	0
146	CUNY Hunter C.	11,750	0	0	5,057	0	1,962	3,598	1,133	0	0
147	IL Institute of Technology	11,637	0	0	8,765	0	428	400	0	0	2,044
148	Rice U.	11,445	174	0	3,758	547	698	214	165	0	5,889
149	Loma Linda U.	11,154	0	0	11,154	0	0	0	0	0	0
150	U. MT-Missoula, The	11,009	0	0	10,043	0	469	305	192	0	0
151	Jackson State U.	10,954	0	1,303	3,180	0	505	177	1,503	4,286	0
152	GA State U.	10,775	0	0	5,846	7	1,119	1,957	1,504	342	0
153	U. RI	10,517	3	1	6,601	0	152	224	0	3,509	27
154	U. South AL	10,468	0	0	10,342	0	19	107	0	0	0
155	Wright State U. all campuses	10,403	31	0	10,068	133	0	94	60	0	17
156	U. AK Fairbanks all campuses	10,375	0	10	10,365	0	0	0	0	0	0
157	U. TX El Paso	9,946	0	1,055	7,502	123	827	416	0	0	23
158	Albany Medical C.	9,766	0	0	9,766	0	0	0	0	0	0
159	U. ID	9,549	0	0	8,882	664	1	2	0	0	0
160	U. MD Biotechnology Institute	9,458	0	168	9,290	0	0	0	0	0	0
161	U. ND all campuses	9,375	0	0	9,273	0	1	6	0	0	95

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
162	UT State U.	9,323	39	0	5,696	0	841	2,639	20	0	88
163	Creighton U.	9,230	0	0	9,035	0	165	30	0	0	0
164	Southern IL U. Carbondale	8,968	0	2	7,413	0	829	590	126	0	8
165	Rensselaer Polytechnic Institute	8,625	157	0	1,281	282	2,107	0	0	0	4,798
166	NM State U. main campus	7,742	0	0	3,190	0	3,743	0	299	158	352
167	U. Central FL	7,634	0	0	1,075	0	1,072	0	325	816	4,346
168	East Carolina U.	7,471	0	0	7,034	0	201	138	82	0	16
169	U. Southern ME	7,293	137	0	7,154	0	0	0	2	0	0
170	TX Tech U. Health Science Ctr.	7,185	0	0	7,185	0	0	0	0	0	0
171	U. WY	7,127	0	0	6,773	0	68	179	0	0	107
172	Auburn U. all campuses	6,945	0	0	3,146	0	663	151	2,304	0	681
173	Rosalind Franklin U. of Medicine and Science	6,695	0	0	6,303	0	0	392	0	0	0
174	U. WI Milwaukee	6,484	0	532	2,611	20	842	925	895	0	659
175	U. TX Dallas	6,317	849	68	1,484	41	1,476	582	179	146	1,492
176	Universidad Central del Caribe	6,209	0	0	6,209	0	0	0	0	0	0
177	ND State U. all campuses	6,123	0	0	1,837	0	2,426	1,834	5	0	21
178	FL A&M U.	6,122	0	0	6,023	0	0	99	0	0	0
179	Boston C.	6,117	0	0	2,266	0	2,498	324	1,029	0	0
180	U. PR Rio Piedras Campus	6,095	0	0	2,644	109	2,165	1,120	10	47	0
181	Eastern VA Medical School	5,910	0	0	5,910	0	0	0	0	0	0
182	OK State U. all campuses	5,793	0	0	4,406	0	262	0	259	100	766
183	Syracuse U. all campuses	5,687	81	0	216	0	46	4,253	515	0	576
184	Marshall U.	5,685	0	0	5,685	0	0	0	0	0	0
185	U. MA Lowell	5,436	0	0	1,925	0	68	2	24	0	3,417
186	George Mason U.	5,393	0	0	1,484	172	31	1,868	1,711	0	127
187	U. Memphis, The	5,369	372	0	1,515	66	444	678	1,740	0	554
188	Kent State U. all campuses	5,313	0	0	1,485	0	479	3,196	153	0	0
189	San Francisco State U.	5,279	0	22	2,989	185	1,019	163	901	0	0
190	U. Denver	5,276	0	0	653	0	982	3,641	0	0	0
191	SUNY Binghamton	4,988	0	0	276	0	39	3,135	350	0	1,188
192	Clemson U.	4,442	14	0	1,832	0	299	0	603	0	1,694
193	East TN State U.	4,406	0	0	4,326	0	0	80	0	0	0
194	FL Atlantic U.	4,403	0	0	2,574	0	916	913	0	0	0
195	U. Southern MS	4,397	0	12	3,844	0	305	236	0	0	0
196	Tuskegee U.	4,388	0	0	2,970	0	0	0	1,418	0	0
197	U. NC Greensboro	4,382	0	0	2,225	0	316	1,453	388	0	0
198	U. MA Boston	4,373	84	0	1,428	0	74	2,060	727	0	0
199	CA State U. Los Angeles	4,297	0	0	2,837	0	1,344	116	0	0	0
200	U. LA Lafayette	4,183	0	0	3,989	115	0	55	0	0	24
201	Portland State U.	4,142	0	0	708	0	1,441	486	1,395	0	112
202	U. NH	4,020	0	462	2,404	0	811	102	224	0	17
203	NC Central U.	3,774	0	0	3,587	0	0	0	187	0	0
204	U. ME	3,761	0	148	440	0	326	1,007	1,752	0	88
205	Brigham Young U. all campuses	3,687	0	0	1,822	0	1,048	459	0	0	358
206	CUNY The City C.	3,640	0	0	867	0	898	0	0	0	1,875
207	MS State U.	3,556	0	0	2,592	0	189	230	489	0	56
208	CA State U. Northridge	3,532	0	0	913	0	873	561	0	1,185	0
209	U. AR main campus	3,453	0	0	800	0	2,469	106	0	0	78
210	CA State U. Long Beach	3,390	0	0	1,477	0	772	657	0	484	0
211	U. NC Charlotte	3,389	449	0	2,046	223	400	179	0	0	92
212	U. AL, The	3,371	126	0	812	0	340	1,401	692	0	0
213	Morehouse C.	3,326	0	0	692	0	0	521	2,113	0	0
214	Teachers C. Columbia U.	3,321	0	0	795	0	0	2,526	0	0	0
215	Lehigh U.	3,255	15	0	830	0	1,781	189	201	0	239
216	Marquette U.	3,173	0	0	2,105	39	296	23	0	202	508
217	Wichita State U.	3,157	0	0	58	0	0	2,665	434	0	0

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
218	U. DC	2,732	0	0	521	0	455	0	1,011	0	745
219	U. LA Monroe	2,672	0	0	2,672	0	0	0	0	0	0
220	ID State U.	2,513	0	0	2,502	0	0	11	0	0	0
221	Wesleyan U.	2,435	0	0	1,294	0	658	483	0	0	0
222	Fordham U.	2,348	0	0	679	0	0	1,454	215	0	0
223	Clark Atlanta U.	2,324	0	0	2,274	0	0	50	0	0	0
224	CUNY Brooklyn C.	2,300	282	0	604	0	930	484	0	0	0
225	Northeastern OH Universities C. of Medicine	2,296	0	0	2,296	0	0	0	0	0	0
226	Rochester Institute of Technology	2,287	0	0	1,513	0	102	0	73	0	599
227	U. TX Arlington	2,274	133	0	492	0	401	494	0	0	754
228	Duquesne U.	2,242	0	0	1,937	63	242	0	0	0	0
229	TX Christian U.	2,225	0	0	49	0	219	1,957	0	0	0
230	AL State U.	2,219	0	0	2,219	0	0	0	0	0	0
231	CUNY York C.	2,160	0	0	2,160	0	0	0	0	0	0
232	U. NV, Las Vegas	2,127	0	0	1,251	0	512	280	84	0	0
233	Western MI U.	2,110	0	0	1,901	0	36	0	173	0	0
234	Xavier U. LA	2,074	0	0	873	0	1,196	5	0	0	0
235	CUNY Queens C.	2,055	0	0	312	0	265	1,383	95	0	0
236	Old Dominion U.	2,009	0	0	913	0	261	106	365	0	364
237	U. TX Brownsville	1,983	0	0	1,983	0	0	0	0	0	0
238	SUNY C. of Optometry	1,963	0	0	1,963	0	0	0	0	0	0
239	Bowling Green State U. all campuses	1,950	0	0	403	0	249	88	1,210	0	0
240	Long Island U. all campuses	1,925	0	0	1,925	0	0	0	0	0	0
241	Morgan State U.	1,916	0	0	350	577	0	0	989	0	0
242	Tougaloo C.	1,913	0	0	1,913	0	0	0	0	0	0
243	Oakland U.	1,911	0	0	1,196	0	662	30	0	0	23
244	Nova Southeastern U.	1,883	0	0	1,539	0	0	344	0	0	0
245	CUNY Herbert H. Lehman C.	1,841	0	0	1,434	0	0	407	0	0	0
246	Woods Hole Oceanographic Institution	1,798	0	1,798	0	0	0	0	0	0	0
247	Black Hills State U.	1,780	0	0	1,583	0	0	150	47	0	0
248	PA C. of Optometry	1,776	0	0	1,776	0	0	0	0	0	0
249	Cleveland State U.	1,772	0	0	630	0	348	242	545	0	7
250	U. Akron all campuses	1,757	0	0	1,046	0	172	4	535	0	0
251	TN State U.	1,707	0	0	1,707	0	0	0	0	0	0
252	Northern AZ U.	1,681	0	0	1,681	0	0	0	0	0	0
253	Southern Methodist U.	1,672	0	0	1,368	43	3	174	0	0	84
254	U. of the VI	1,671	0	0	1,044	0	0	0	627	0	0
255	CA State U. Fullerton	1,598	0	0	1,586	0	0	0	12	0	0
256	SD State U.	1,571	0	37	1,534	0	0	0	0	0	0
257	DE State U.	1,557	0	0	1,557	0	0	0	0	0	0
258	Ball State U.	1,491	0	0	1,246	0	0	88	157	0	0
259	Wellesley C.	1,446	45	30	406	0	21	0	143	801	0
260	U. MO-St. Louis	1,441	0	0	27	0	904	461	49	0	0
261	Northern IL U.	1,426	0	0	857	0	116	448	5	0	0
262	CA State Polytechnic U. Pomona	1,420	0	0	1,420	0	0	0	0	0	0
263	San Jose State U.	1,401	0	0	275	0	660	0	0	466	0
264	U. AK Anchorage all campuses	1,382	0	57	1,320	0	0	0	5	0	0
265	Barnard C.	1,368	0	132	28	0	67	1,141	0	0	0
266	St. John's U. (Jamaica, NY)	1,364	0	0	444	0	163	757	0	0	0
267	Northwestern Health Sciences U.	1,359	0	0	1,359	0	0	0	0	0	0
268	Shaw U.	1,290	0	0	1,290	0	0	0	0	0	0
269	NC Agricultural and Technical State U.	1,281	0	0	1,158	0	123	0	0	0	0
270	C. of William and Mary all campuses	1,262	0	113	330	0	154	214	0	451	0
271	U. PR Humacao	1,254	0	0	241	0	1,013	0	0	0	0
272	TX Tech U.	1,251	0	153	265	0	400	147	163	0	123
273	Spelman C.	1,243	0	0	998	0	245	0	0	0	0

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
274	NJ Institute of Technology	1,238	393	0	0	296	0	0	0	0	549
275	IL State U.	1,226	0	0	1,188	0	15	23	0	0	0
276	DePaul U.	1,196	39	0	63	0	0	1,094	0	0	0
277	CUNY John Jay C. of Criminal Justice	1,193	0	0	0	0	0	1,193	0	0	0
278	U. NC Wilmington	1,192	0	30	135	0	657	370	0	0	0
279	Clark U.	1,146	0	171	105	0	65	805	0	0	0
280	Catholic U. America, The	1,122	0	0	720	0	54	303	0	0	45
281	Governors State U.	1,105	0	0	1,105	0	0	0	0	0	0
282	CA State U. San Bernardino	1,083	0	0	139	0	110	834	0	0	0
283	Smith C.	1,074	0	0	292	42	0	484	0	0	256
284	Worcester Polytechnic Institute	1,058	89	0	141	253	0	0	0	0	575
285	MI Technological U.	1,057	0	0	52	335	150	0	0	0	520
286	U. TX-Pan American	1,054	0	0	1,022	32	0	0	0	0	0
287	Boise State U.	1,042	0	0	960	0	48	0	0	0	34
288	TX Southern U.	1,025	0	0	1,025	0	0	0	0	0	0
289	TX A&M U. Kingsville	1,023	0	0	996	0	27	0	0	0	0
290	Hampton U.	1,009	0	0	835	0	168	0	0	6	0
291	U. Tulsa	1,003	0	0	407	0	165	431	0	0	0
292	U. GU	1,000	0	0	978	0	0	0	22	0	0
293	Clafin U.	993	0	0	993	0	0	0	0	0	0
294	CA State U. Dominguez Hills	982	0	0	624	0	134	216	8	0	0
295	Western KY U.	969	0	0	714	10	44	201	0	0	0
296	NM Highlands U.	964	0	0	130	0	834	0	0	0	0
297	Norfolk State U.	948	0	0	83	0	865	0	0	0	0
298	Fayetteville State U.	914	0	0	644	0	270	0	0	0	0
299	CA State U. East Bay	897	0	0	535	0	227	21	114	0	0
300	CA State U. Fresno	884	0	0	884	0	0	0	0	0	0
301	TX Woman's U.	883	0	0	837	0	0	0	46	0	0
302	Albany State U.	869	0	0	817	0	0	0	0	52	0
303	Seton Hall U.	852	0	0	852	0	0	0	0	0	0
304	CUNY Graduate Ctr.	848	329	0	12	0	0	88	28	391	0
305	Western States Chiropractic C.	825	0	0	825	0	0	0	0	0	0
306	Mercer U. all campuses	818	0	0	818	0	0	0	0	0	0
307	Chicago State U.	781	0	0	0	0	0	0	0	781	0
308	U. MO-Rolla	775	0	0	0	0	448	0	0	0	327
309	SUNY C. Old Westbury	765	0	0	610	0	155	0	0	0	0
310	Furman U.	763	0	0	109	0	455	199	0	0	0
311	U. AL Huntsville, The	762	0	0	762	0	0	0	0	0	0
312	Northern KY U.	757	0	0	420	0	116	221	0	0	0
313	SUNY C. Buffalo	748	0	1	0	0	0	135	612	0	0
314	Morehead State U.	728	0	0	465	0	0	263	0	0	0
315	Benedict C.	698	0	0	698	0	0	0	0	0	0
316	Barry U.	697	0	0	697	0	0	0	0	0	0
317	Clarkson U.	683	0	0	145	0	0	0	0	0	538
318	MT Tech of the U. MT	674	0	0	438	0	172	0	0	0	64
319	Alcorn State U.	672	0	0	672	0	0	0	0	0	0
320	C. Charleston	661	0	0	661	0	0	0	0	0	0
321	Western U. of Health Sciences	653	0	0	653	0	0	0	0	0	0
322	U. CA, Merced	646	0	111	430	0	8	0	0	0	97
323	Middlebury C.	620	0	0	620	0	0	0	0	0	0
324	U. North TX	616	0	0	612	0	0	0	4	0	0
325	FL Institute of Technology	613	4	0	184	0	425	0	0	0	0
326	U. New England	607	0	0	607	0	0	0	0	0	0
327	CUNY C. Staten Island	587	0	0	0	0	587	0	0	0	0
328	Southern U. and A&M C. all campuses	584	0	0	312	0	272	0	0	0	0
329	Bates C.	580	0	0	456	0	124	0	0	0	0
330	U. PR Cayey	573	0	0	420	0	0	60	93	0	0

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
331	Philadelphia C. of Osteopathic Medicine	563	0	0	563	0	0	0	0	0	0
332	SC State U.	553	0	0	553	0	0	0	0	0	0
333	Millsaps C.	548	0	0	548	0	0	0	0	0	0
334	SUNY C. Oswego	545	0	0	0	0	0	545	0	0	0
335	U. of the Pacific	538	0	0	538	0	0	0	0	0	0
336	Bowdoin C.	536	0	0	521	0	0	0	15	0	0
337	LA Tech U.	524	271	176	26	0	11	0	0	0	40
338	Augustana C. (Sioux Falls, SD)	498	0	0	498	0	0	0	0	0	0
339	Midwestern U. (Chicago, IL)	495	0	0	495	0	0	0	0	0	0
340	Miami U. all campuses	478	NA	NA	NA	NA	NA	NA	NA	NA	NA
341	Albany C. of Pharmacy	461	0	0	461	0	0	0	0	0	0
342	CO School of Mines	457	0	0	0	0	232	0	0	0	225
343	Loyola Marymount U.	453	0	0	194	51	0	208	0	0	0
344	Bryn Mawr C.	452	0	0	48	0	202	202	0	0	0
345	Pomona C.	434	0	0	0	0	69	365	0	0	0
346	Sinte Gleska U.	431	0	0	94	0	0	337	0	0	0
347	U. Northern CO	431	0	0	259	80	0	0	92	0	0
348	James Madison U.	424	0	0	278	0	0	124	0	0	22
349	Rowan U.	422	0	0	0	0	0	422	0	0	0
350	U. North FL	421	0	0	419	0	0	0	2	0	0
351	IL Wesleyan U.	415	0	0	0	0	0	415	0	0	0
352	U. MA Dartmouth	413	0	0	143	0	248	0	0	0	22
353	TX State U. San Marcos	412	0	0	321	0	0	0	0	91	0
354	Reed C.	398	0	0	70	0	49	279	0	0	0
355	Baylor U.	389	0	0	82	0	5	302	0	0	0
356	Central MI U.	363	0	0	110	0	253	0	0	0	0
357	Colby C.	362	18	0	208	76	60	0	0	0	0
358	Elizabeth City State U.	360	0	0	0	0	360	0	0	0	0
359	American U.	359	0	0	38	0	0	228	93	0	0
360	Dillard U.	354	0	0	354	0	0	0	0	0	0
361	Roger Williams U. Bristol	351	0	0	351	0	0	0	0	0	0
362	U. Dayton	349	0	0	349	0	0	0	0	0	0
363	U. WI La Crosse	340	35	0	287	0	18	0	0	0	0
364	IN State U. all campuses	334	0	0	42	0	84	208	0	0	0
365	Mercy C.	330	0	0	215	0	0	115	0	0	0
366	Pace U. all campuses	330	0	0	330	0	0	0	0	0	0
367	MT State U. Billings	317	0	0	317	0	0	0	0	0	0
368	Calvin C.	315	0	0	256	0	28	31	0	0	0
369	Mt. St. Mary's C. (Los Angeles, CA)	307	0	0	307	0	0	0	0	0	0
370	Western WA U.	298	0	0	129	0	85	47	37	0	0
371	C. of the Holy Cross	294	0	0	75	0	0	212	7	0	0
372	Hendrix C.	281	0	0	0	0	281	0	0	0	0
373	MO State U.	281	0	0	281	0	0	0	0	0	0
374	Prairie View A&M U.	276	0	0	109	0	121	0	0	0	46
375	Southeastern OK State U.	274	0	0	24	0	250	0	0	0	0
376	GA Southern U.	273	0	0	273	0	0	0	0	0	0
377	West Liberty State C.	260	0	0	260	0	0	0	0	0	0
378	Milwaukee School of Engineering	256	0	0	256	0	0	0	0	0	0
379	National U. of Health Sciences	245	0	0	245	0	0	0	0	0	0
380	Amherst C.	237	0	0	33	0	132	72	0	0	0
381	U. Richmond	232	0	0	180	0	52	0	0	0	0
382	Lincoln U. (Lincoln University, PA)	224	0	0	224	0	0	0	0	0	0
383	Mayville State U.	224	0	0	224	0	0	0	0	0	0
384	MA C. of Pharmacy and Health Sciences	215	0	0	156	0	59	0	0	0	0
385	Davidson C.	213	0	0	0	0	0	213	0	0	0
386	CT C.	211	0	0	45	0	74	92	0	0	0

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
387	WV State U.	201	0	0	201	0	0	0	0	0	0
388	Stevens Institute of Technology	197	0	0	152	0	45	0	0	0	0
389	Salish Kootenai C.	196	0	0	98	0	98	0	0	0	0
390	CUNY Baruch C.	191	0	0	0	0	0	99	92	0	0
391	MN State U. Mankato	183	0	0	0	0	0	0	0	183	0
392	Trinity C. (Hartford, CT)	182	19	0	63	0	0	62	0	38	0
393	Lewis & Clark C.	176	0	0	121	0	55	0	0	0	0
394	Manhattan C.	174	0	0	0	0	0	0	0	0	174
395	Eastern KY U.	166	0	0	166	0	0	0	0	0	0
396	Eastern MI U.	163	80	0	0	0	0	83	0	0	0
397	Vanguard U. Southern CA	162	0	0	162	0	0	0	0	0	0
398	Western IL U.	161	0	0	0	0	161	0	0	0	0
399	CO State U. Pueblo	158	0	0	158	0	0	0	0	0	0
400	Ithaca C.	158	0	0	158	0	0	0	0	0	0
401	Kenyon C.	153	0	0	153	0	0	0	0	0	0
402	Vassar C.	153	0	0	153	0	0	0	0	0	0
403	U. San Francisco	151	0	0	13	0	0	138	0	0	0
404	Swarthmore C.	148	0	0	0	0	126	22	0	0	0
405	U. WI Eau Claire	145	0	0	145	0	0	0	0	0	0
406	Savannah State U.	144	0	0	144	0	0	0	0	0	0
407	U. MD Eastern Shore	144	0	0	144	0	0	0	0	0	0
408	Ursinus C.	144	0	0	89	0	0	55	0	0	0
409	AR State U. main campus	139	18	0	0	0	101	0	0	1	19
410	Southeastern LA U.	139	0	0	51	0	88	0	0	0	0
411	Fairfield U.	137	0	0	137	0	0	0	0	0	0
412	Wilberforce U.	136	0	0	136	0	0	0	0	0	0
413	Oglala Lakota C.	133	0	0	133	0	0	0	0	0	0
414	Trinity U.	130	0	0	52	0	0	78	0	0	0
415	U. AK Southeast all campuses	130	0	0	65	0	0	0	0	65	0
416	Carleton C.	129	0	0	0	0	67	62	0	0	0
417	Sam Houston State U.	129	0	0	0	0	0	0	0	0	129
418	St. Cloud State U.	129	0	0	58	0	0	0	0	0	71
419	U. NC Pembroke	129	0	0	0	0	129	0	0	0	0
420	VA State U.	125	0	0	5	0	0	62	0	0	58
421	Dickinson C.	120	0	0	50	0	0	70	0	0	0
422	U. WI Oshkosh	116	0	0	116	0	0	0	0	0	0
423	Rider U.	112	0	0	89	0	1	22	0	0	0
424	Lawrence U.	111	0	0	50	0	61	0	0	0	0
425	Simmons C.	111	0	0	3	0	0	0	41	67	0
426	Franklin & Marshall C.	107	0	0	107	0	0	0	0	0	0
427	Lake Forest C.	106	0	0	106	0	0	0	0	0	0
428	Hope C.	105	0	0	71	34	0	0	0	0	0
429	Eastern IL U.	100	0	0	91	0	0	9	0	0	0
430	Hamilton C. (Clinton, NY)	98	0	0	17	0	0	81	0	0	0
431	TX A&M International U.	97	0	0	97	0	0	0	0	0	0
432	Mt. Holyoke C.	96	0	0	30	0	66	0	0	0	0
433	St. Joseph's U.	96	0	0	0	0	0	0	96	0	0
434	Claremont Graduate U.	95	95	0	0	0	0	0	0	0	0
435	Bucknell U.	94	0	0	0	0	94	0	0	0	0
436	Pacific Lutheran U.	94	0	0	43	0	10	41	0	0	0
437	Northeastern IL U.	91	0	0	0	0	0	91	0	0	0
438	Villanova U.	90	0	0	74	0	0	16	0	0	0
439	Murray State U.	89	0	0	67	0	0	0	0	0	22
440	Towson U.	89	2	0	82	0	5	0	0	0	0
441	CA State U. Sacramento	88	0	0	28	0	60	0	0	0	0
442	U. TX Tyler	86	0	0	53	0	0	17	0	0	16
443	CUNY Medgar Evers C.	84	0	0	84	0	0	0	0	0	0

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
444	Seattle U.	84	0	0	84	0	0	0	0	0	0
445	SUNY C. Plattsburgh	84	0	0	0	0	84	0	0	0	0
446	Wilkes U.	82	0	0	82	0	0	0	0	0	0
447	Middle TN State U.	80	0	0	0	0	80	0	0	0	0
448	Rhodes C.	79	0	0	79	0	0	0	0	0	0
449	SUNY C. Geneseo	79	0	0	42	0	0	37	0	0	0
450	Appalachian State U.	78	0	0	49	0	0	29	0	0	0
451	Luther C.	78	0	0	78	0	0	0	0	0	0
452	Radford U.	76	0	0	0	0	0	50	26	0	0
453	Des Moines U.	75	0	0	75	0	0	0	0	0	0
454	Lafayette C.	74	0	0	31	0	0	43	0	0	0
455	U. of St. Thomas (St. Paul, MN)	74	74	0	0	0	0	0	0	0	0
456	TX A&M U. Corpus Christi	73	0	0	73	0	0	0	0	0	0
457	U. Northern IA	73	0	0	0	0	0	0	73	0	0
458	Lamar U.	71	0	0	0	0	71	0	0	0	0
459	DePauw U.	70	0	0	0	0	20	50	0	0	0
460	Lincoln U. (Jefferson City, MO)	67	0	0	0	0	0	0	0	67	0
461	Central WA U.	65	0	0	0	0	0	0	65	0	0
462	Augsburg C.	64	0	0	0	0	0	64	0	0	0
463	U. San Diego	64	0	0	0	0	64	0	0	0	0
464	Southern IL U. Edwardsville	63	0	0	63	0	0	0	0	0	0
465	Pittsburg State U.	62	0	0	21	0	41	0	0	0	0
466	LeTourneau U.	53	0	0	0	0	0	0	0	0	53
467	U. TX of the Permian Basin	52	0	0	52	0	0	0	0	0	0
468	Evergreen State C.	51	0	0	51	0	0	0	0	0	0
469	Indiana U. PA all campuses	51	0	0	0	0	0	2	49	0	0
470	Macalester C.	51	0	0	0	0	0	51	0	0	0
471	Central CT State U.	50	0	0	50	0	0	0	0	0	0
472	Coastal Carolina U.	48	0	0	48	0	0	0	0	0	0
473	Juniata C.	48	0	0	34	0	14	0	0	0	0
474	SUNY C. Brockport	48	0	0	48	0	0	0	0	0	0
475	Allegheny C.	47	0	0	0	0	47	0	0	0	0
476	William Paterson U. NJ	47	0	0	47	0	0	0	0	0	0
477	OH Wesleyan U.	46	0	0	18	0	0	28	0	0	0
478	U. West FL	46	0	0	46	0	0	0	0	0	0
479	U. Portland	43	0	0	43	0	0	0	0	0	0
480	U. WI Stout	43	0	0	0	0	43	0	0	0	0
481	SUNY C. Cortland	41	0	0	0	0	0	41	0	0	0
482	Kalamazoo C.	35	0	0	35	0	0	0	0	0	0
483	Wheeling Jesuit U.	33	NA	NA	NA	NA	NA	NA	NA	NA	NA
484	Wabash C.	31	0	0	0	0	31	0	0	0	0
485	Central State U.	30	0	0	30	0	0	0	0	0	0
486	Northern MI U.	30	0	0	0	0	0	30	0	0	0
487	KY State U.	28	0	0	11	0	0	0	0	0	17
488	U. HI Hilo	27	0	0	27	0	0	0	0	0	0
489	AK Pacific U.	26	0	26	0	0	0	0	0	0	0
490	Western Carolina U.	25	0	0	0	0	0	0	25	0	0
491	Hobart and William Smith Colleges	24	0	0	0	0	0	24	0	0	0
492	Fuller Theological Seminary CA	23	0	0	0	0	0	23	0	0	0
493	Point Loma Nazarene C.	21	0	0	21	0	0	0	0	0	0
494	Gonzaga U.	20	0	0	0	0	20	0	0	0	0
495	CA State Polytechnic U. San Luis Obispo	17	0	0	0	0	0	0	0	0	17
496	Chapman U.	17	0	0	17	0	0	0	0	0	0
497	U. Houston-Clear Lake	17	0	0	17	0	0	0	0	0	0
498	Eastern OR U.	14	0	0	0	0	0	0	14	0	0
499	Winona State U.	14	0	0	14	0	0	0	0	0	0
500	U. WI Parkside	13	0	0	13	0	0	0	0	0	0

Appendix O. Federally Financed R&D Expenditures at Universities and Colleges, Financed by the Department of Health and Human Services, Ranked by HHS R&D Expenditures, by Science and Engineering Field: FY 2008

(Dollars in Thousands)

Rank	Institution	HHS R&D expenditures	Computer sciences	Environmental sciences	Life sciences	Mathematical sciences	Physical sciences	Psychology	Social sciences	Sciences NEC	Engineering
501	Rose-Hulman Institute of Technology	12	0	0	0	0	0	0	0	0	12
502	SD School of Mines and Technology	9	0	0	0	0	0	0	0	0	9
503	Carlos Albizu U. (San Juan, PR)	8	0	0	0	0	0	8	0	0	0
504	A.T. Still U. of Health Sciences	7	0	0	7	0	0	0	0	0	0
505	Kansas City U. of Medicine and Biosciences	7	0	0	7	0	0	0	0	0	0
506	U. CA Office of the President	5	0	0	5	0	0	0	0	0	0
507	Youngstown State U.	4	0	0	4	0	0	0	0	0	0
508	WV School of Osteopathic Medicine	2	0	0	2	0	0	0	0	0	0

NA = not available; data were not provided by institution.

HHS = Department of Health and Human Services; nec = not elsewhere classified.

^a Data represent the federally financed expenditures of The Johns Hopkins University, excluding its Applied Physics Laboratory (APL). With \$788,800 in total federally financed R&D expenditures, APL did not report federal agency details.

NOTES: Institutions not listed in this table did not provide federally financed R&D expenditures by federal agency; institutions that reported amounts of zero or more are included. Field detail may not add to all-institution total because some respondents reporting federal agency data did not break out these data by field of science. Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2008.

Appendix P: Federal Obligations for Science and Engineering Research and Development to Systems of Universities and Colleges, Ranked by Total Amount Received, by Agency: FY 2007

(Dollars in Thousands)

Rank	Institution	All agencies	DOC	DOD ^a	DOE	ED	EPA	HHS	NASA	NSF	USDA	Other ^b
	All systems	9,526,536	111,729	1,030,866	319,446	50,036	41,235	5,792,833	278,550	1,449,823	334,634	117,384
1	U. CA System	2,265,917	12,259	151,777	67,170	3,362	5,872	1,561,483	60,104	358,518	33,919	11,453
2	U. TX System	930,187	994	143,030	14,957	3,306	968	688,242	7,228	66,701	1,576	3,185
3	U. NC System	489,084	5,067	25,580	8,459	4,705	4,911	351,489	1,494	52,059	30,004	5,316
4	State U. System FL	457,296	4,198	95,739	22,690	3,979	1,014	202,201	9,241	95,892	14,044	8,298
5	Columbia U. System	437,813	10,247	13,572	9,571	0	4,550	331,865	7,365	59,301	474	868
6	U. IL System	400,841	888	46,361	29,467	4,109	2,059	196,428	2,719	93,365	23,402	2,043
7	U. WI System	386,687	2,411	12,303	38,247	849	1,164	230,465	5,592	76,665	16,222	2,769
8	U. MD System	378,462	23,306	42,504	9,562	391	4,241	189,701	43,914	47,442	14,086	3,315
9	OR State Higher Ed. System	337,284	3,275	21,682	8,919	11,337	4,250	214,129	3,642	50,348	13,550	6,152
10	U. System GA	317,148	2,243	103,780	10,354	1,799	0	101,755	3,978	68,875	20,822	3,542
11	Universities and State Colleges of AZ System	315,935	1,045	20,254	8,055	2,422	2,238	138,354	63,035	67,407	9,364	3,761
12	U. AL System	276,886	570	34,491	2,117	1,209	75	212,126	12,118	11,627	255	2,298
13	UT Higher Ed. System	250,555	1,078	64,343	5,417	0	638	142,601	2,098	22,442	8,968	2,970
14	SUNY System	236,135	3,933	16,647	8,475	3,156	635	158,002	3,948	37,415	1,613	2,311
15	CUNY System	233,588	223	3,736	964	420	0	213,474	591	11,147	0	3,033
16	U. MA System	218,208	631	15,727	6,270	250	1,242	145,906	1,464	39,805	5,984	929
17	U. HI System	172,936	12,973	54,781	2,849	248	0	51,088	10,282	28,720	5,938	6,057
18	IN U. System	170,589	717	5,085	4,699	108	0	133,839	2,081	23,444	75	541
19	CA State U. and Colleges System	124,585	960	42,537	1,012	0	95	46,888	10,736	15,740	960	5,657
20	U. MO System	122,244	143	15,311	4,314	1,100	893	60,652	1,715	18,824	15,395	3,897
21	TX A&M U. System	117,955	1,497	16,462	7,877	1,431	282	46,560	1,018	13,658	25,573	3,597
22	U. NE System	114,091	269	13,126	1,424	2,138	775	58,525	583	23,087	10,877	3,287
23	CO State U. System	97,710	3,677	3,184	5,458	0	1,060	40,269	6,956	24,383	10,394	2,329
24	U. TN System	92,973	0	3,339	7,727	0	1,320	44,672	2,218	16,783	13,794	3,120
25	LA State U. System	91,193	1,416	7,521	1,937	0	166	50,598	1,923	15,173	8,831	3,628
26	U. NV System	76,308	257	11,752	22,398	0	0	19,267	469	13,158	4,003	5,004
27	U. AR System	70,876	0	2,335	345	450	0	50,365	229	6,117	10,610	425
28	MT U. System	68,697	110	9,661	3,059	422	581	27,278	1,838	11,606	9,803	4,339
29	U. AK System	59,365	6,772	2,961	161	1,551	0	9,009	728	27,343	4,170	6,670
30	U. PR System	49,601	101	4,126	180	0	26	30,336	387	8,858	5,510	77
31	U. NH System	34,579	9,144	2,086	1,535	0	493	3,178	5,827	7,102	4,130	1,084
32	U. ME System	26,978	1,149	5,405	618	0	1,477	1,028	996	9,108	5,115	2,082
33	U. Houston System	26,705	0	2,001	1,337	1,294	0	12,023	432	9,467	30	121
34	State U. and Community C. System TN	21,405	66	4,110	463	0	0	7,684	242	3,522	3,832	1,486
35	Southern IL U. System	13,986	0	1,366	373	0	210	6,867	0	4,095	980	95
36	U. SD System	12,040	0	0	0	0	0	9,865	763	1,407	5	0
37	TX State U. System	9,180	0	7,838	0	0	0	346	0	970	0	26
38	U. LA System	8,413	0	3,450	841	0	0	727	0	2,946	276	173
39	Claremont Colleges System	2,638	103	0	0	0	0	818	98	1,619	0	0
40	Fundacion Educativa Ana G. Mendez System	2,525	0	0	70	0	0	779	0	1,676	0	0
41	NC Community C. System	1,167	0	0	0	0	0	0	0	0	0	1,167
42	MN State Colleges and Universities	1,160	0	182	0	0	0	524	0	291	50	113
43	State System of Higher Ed. (PA)	1,052	7	139	0	0	0	277	30	599	0	0
44	Inter American U. PR System	582	0	582	0	0	0	0	0	0	0	0
45	San Jacinto C. System	582	0	0	0	0	0	0	0	582	0	0
46	MA State C. System	481	0	0	0	0	0	408	0	73	0	0
47	Foothill-Deanza Community C.											

Appendix P: Federal Obligations for Science and Engineering Research and Development to Systems of Universities and Colleges, Ranked by Total Amount Received, by Agency: FY 2007

(Dollars in Thousands)

Rank	Institution	All agencies	DOC	DOD ^a	DOE	ED	EPA	HHS	NASA	NSF	USDA	Other ^b
	District System	468	0	0	0	0	0	0	468	0	0	0
48	Grossmont-Cuyamaca Community C. System	292	0	0	0	0	0	292	0	0	0	0
49	Mesa County Jr. C. District System	272	0	0	0	0	0	0	0	272	0	0
50	Community Colleges of Baltimore County, The	250	0	0	0	0	0	250	0	0	0	0
51	San Diego District Community Colleges System	200	0	0	0	0	0	200	0	0	0	0
52	Dallas County Community C. System	103	0	0	0	0	0	0	0	0	0	103
53	Maricopa County Community C. System	75	0	0	75	0	0	0	0	0	0	0
54	Baker C. System	70	0	0	0	0	0	0	0	70	0	0
55	VA Community C. System	63	0	0	0	0	0	0	0	0	0	63
56	State Ctr. Jr. C. District System (CA)	44	0	0	0	0	0	0	0	44	0	0
57	Los Rios Community C. System	34	0	0	0	0	0	0	0	34	0	0
58	Troy State U. System	23	0	0	0	0	0	0	0	23	0	0
59	Coast Community C. District System	20	0	0	0	0	0	0	0	20	0	0

DOC = Department of Commerce; DOD = Department of Defense; DOE = Department of Energy; ED = Department of Education; EPA = Environmental Protection Agency; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; NSF = National Science Foundation; USDA = U.S. Department of Agriculture.

^a DOD research is reported separately from DOD development. DOD states that more than 90% of its development obligations reported for universities and colleges are performed at university-administered laboratories that are separate from academic departments. Furthermore, DOD states that much of its development obligations are for major systems development, that such obligations differ from its obligations for advanced technology development, and that DOD total development obligations are therefore not comparable with development obligations at other federal agencies. Refer to table 14 for DOD obligations to individual institutions, by R&D breakdown.

^b See General Notes.

NOTES: Includes obligations to every individual institution included within each system. Tied institutions are listed alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2007.