



## **FY 2010 Annual R&D Expenditures Expanded Version**

**(With Comparative Data and  
FY2009 NSF Rankings)**

**Office of Institutional Research  
UMASS President's Office  
November 2011**



**The University of Massachusetts**  
*Amherst • Boston • Dartmouth • Lowell • Worcester • UMassOnline*

## Preface

The *FY 2010 Annual Research and Development Expenditures 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 2010 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 2009 (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.”

## IMPORTANT NOTE ON CHANGES FROM FY2009 SURVEY

The *Higher Education Research and Development Survey* for FY 2010, formerly the *Survey of Research and Development Expenditures at Universities and Colleges*, has undergone significant redesign from its previous version. NSF outlines these changes as follows:

### 1. FY 2010 HERD now includes ALL fields of R&D in all survey questions

All fields of R&D are now included in an institution’s Total R&D expenditures, - BOTH Science and Engineering (S&E) fields and Non-Science and Engineering (Non-S&E) fields, such as humanities, education, law, and the arts.

### 2. Other General Changes

- Two alternative listings show the discipline examples for each R&D field:
  - 1) Alphabetical listing of disciplines by field (see Question 9).
  - 2) U.S. Department of Education’s CIP code listing by field (see the Main Menu on the survey website).
- **Clinical trials and research training grants are now explicitly included in the definition of R&D.**
- Each institution campus headed by a campus level president or chancellor is asked to complete a separate survey rather than combine their response with other campuses in their university system.

## **Changes to Questions**

Sources of funds: Separate categories have been created for nonprofit organizations and for institutional cost sharing. The “Industry” category has been renamed “Business” (Question 1).

- Expenditures by field and source: Information is requested by field of R&D for all sources of funds.
  - Question 9 asks for federally funded expenditures by agency and field.
  - Question 12 asks for non-federally funded expenditures by field for each nonfederal source.

### **3. New Questions**

For these new questions: If you do not have data available for one or more of the cells, please leave them blank instead of entering zero(s).

- Question 2. Foreign funding for R&D
- Question 3. Contracts and grants
- Question 4. R&D at medical schools
- Question 5. Clinical trial R&D
- Question 6. Basic research, applied research, and development
- Question 10. Other federal agency sources
- Question 11. R&D funded by the American Recovery and Reinvestment Act (ARRA)
- Question 13. Cost elements of R&D
- Question 14. Capitalization thresholds
- Question 16. Headcount of R&D personnel
- Question 17. Headcount of R&D postdocs

*Source: National Science Foundation Higher Education Research And Development Survey. FY 2010*

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 87) is for FY2007 as NSF has not been able to compile this data for FY2008 and FY2009 data, until 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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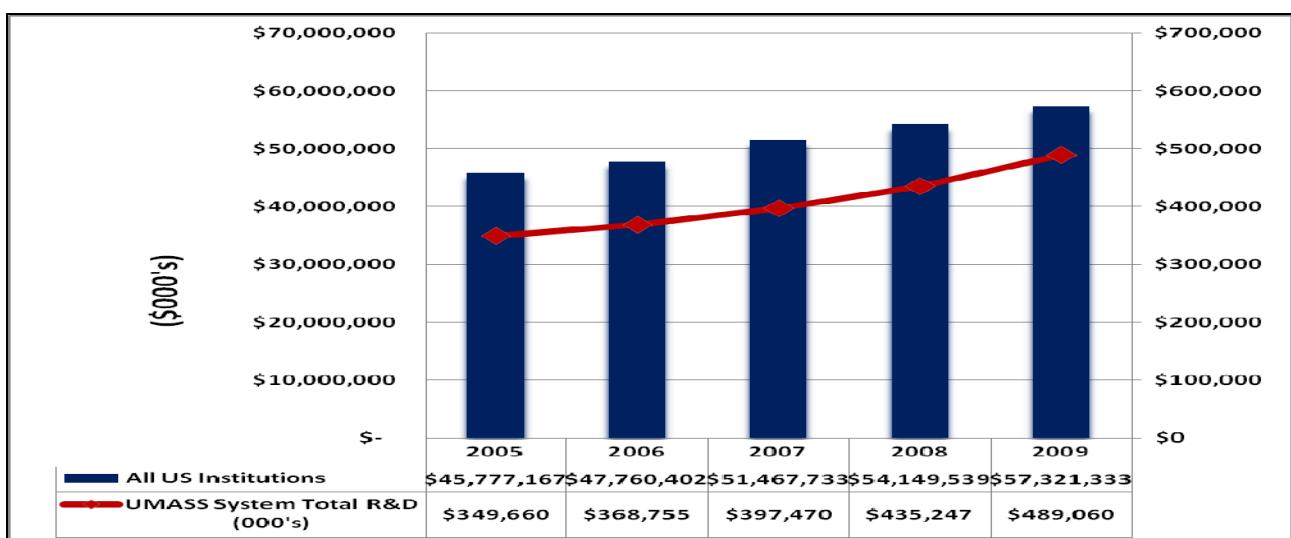
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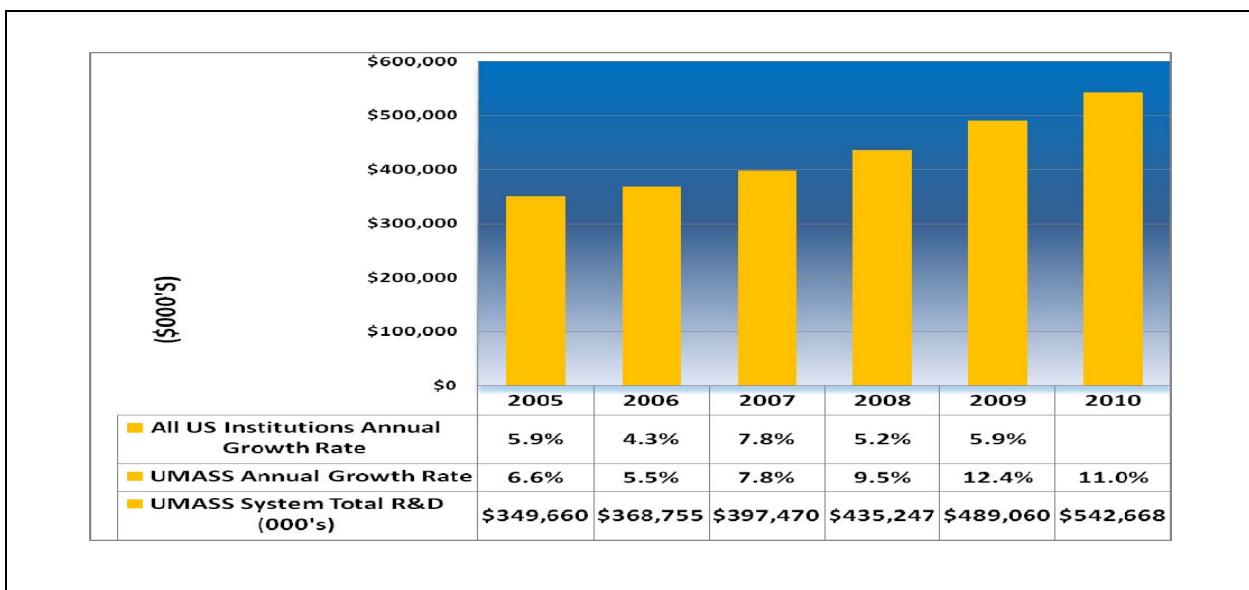
## EXECUTIVE SUMMARY

- **UMASS Total R&D Expenditures** - Total FY2010 R&D Expenditures for the University of Massachusetts System was reported at \$542.6 million, which represents an 11% increase from the FY2009 total of \$489.1 million.
- **UMASS versus All U.S. Institutions - Total R&D Expenditures and Growth** - Between FY2005-FY2009, the UMASS System showed higher annual growth rates in total R&D Expenditures in comparison to all U.S Institutions for all years except FY2007, when the growth rate for both was the same. In comparison to the national annual



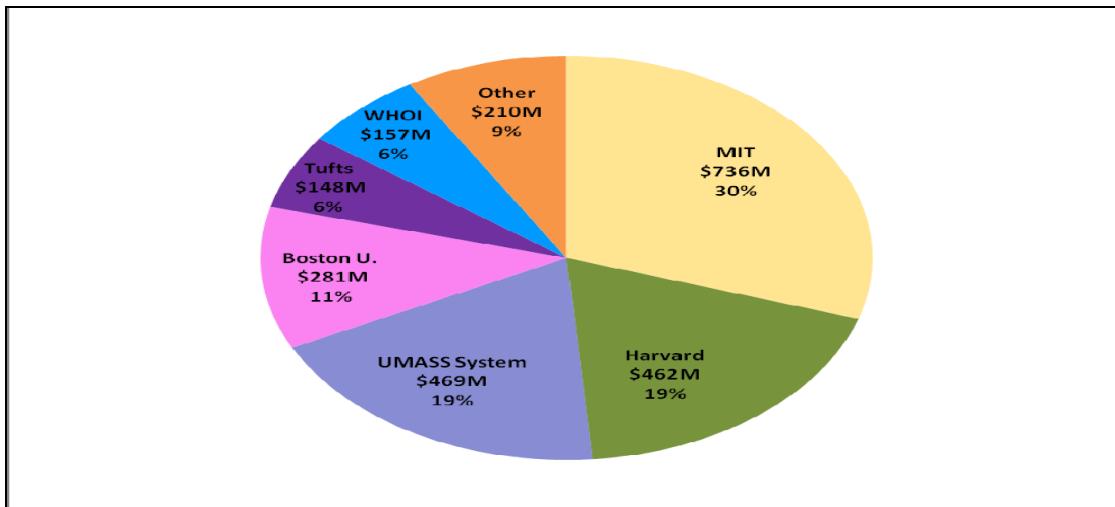
*Total R&D Expenditures: UMASS versus All U.S. Institutions  
As Percent of all MA Institutions, FY2005-FY2009*

growth rates of 5.9%, 4.3%, 7.8%, 5.2%, and 5.9% respectively, the UMASS System reflected annual growth rates of 6.6%, 5.5%, 7.8%, 9.5%, and 12.4% for the same years.



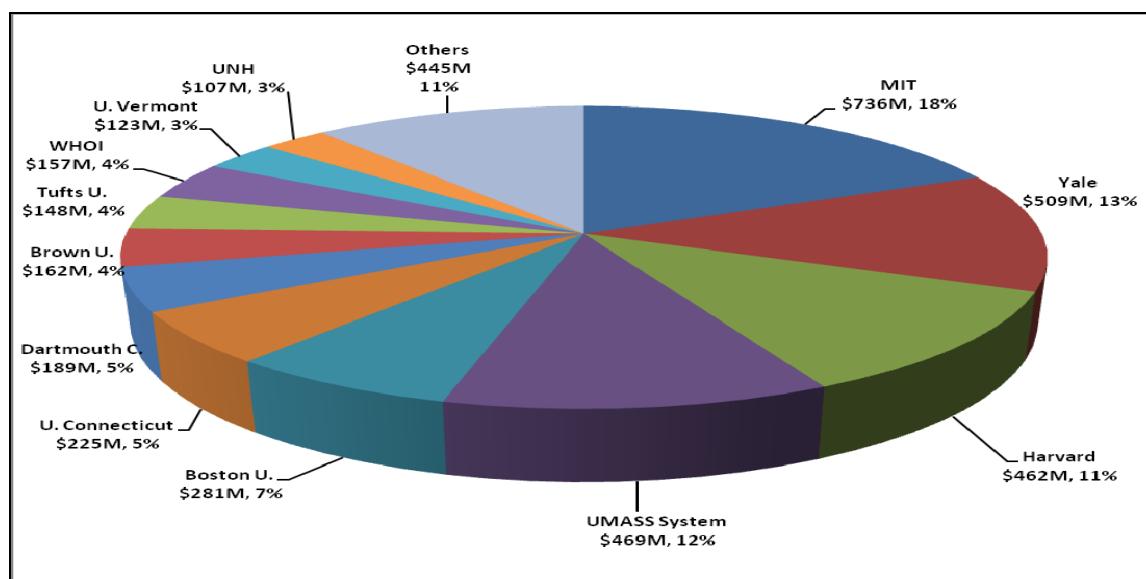
*Total R&D Expenditures: UMASS System (FY2004 – FY2009)  
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- **UMASS Science & Engineering R&D Expenditures as Percent of MA Institutions** - Based on FY 2009 data, the UMASS System comprises 19% of the total Science and Engineering R&D Expenditures for Massachusetts institutions. (*Appendix B*).



*S&E R&D Expenditures: UMASS System and Select Institutions  
As Percent of all MA Institutions, FY 2009*

- **UMASS State Ranking in Science and Engineering R&D Expenditures** - Among Massachusetts colleges and universities, UMASS ranks 2<sup>nd</sup> 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 2009 data).
- **UMASS Total S&E R&D Expenditures as Percent of New England Institutions** – Based on FY 2009 data, the UMASS System comprises 12% of the total S&E 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 FY 2009*

- **UMASS R&D Expenditures by Funding Source (FY2010)** – In terms of funding sources, 61% is from the federal government, 25% is from institutional sources, 2% is from state and local government, 5% from businesses, 6% from non-profit organizations, and 1% is from other sources (e.g., private foundations).
- **UMASS Areas of Funding Growth** – Between the reporting cycles FY2009-10, industry/business sponsorship increased by 5 percentage points (from 6% to 11%), institutional funding stayed the same at 25%, state and local government funding dropped by one percentage point (from 3% to 2%), and federal funding increased by 3 percentage points (from 58% to 61%) from the prior year.
- **Life Sciences Continues to Comprise More Than Half of all R&D Expenditures at UMASS** - At \$300.6 Million, life sciences constitute more than half of UMass's total R&D expenditures (55.4%). FY2010 distribution of R&D expenditures by field is:

Life Sciences	55.4%	Social Sciences	3.9%
Physical Sciences	9.2%	Non Sciences/Engineering	5.0%
Engineering	13.6%	Psychology	2.6%
Computer Sciences	4.5%	Mathematical Sciences	0.7%
Environmental Sciences	4.5%	Other Sciences	0.7%

- **UMASS Federal Obligations for Science and Engineering R&D Expenditures increases by nine percent.** In FY 2007<sup>1</sup>, 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).

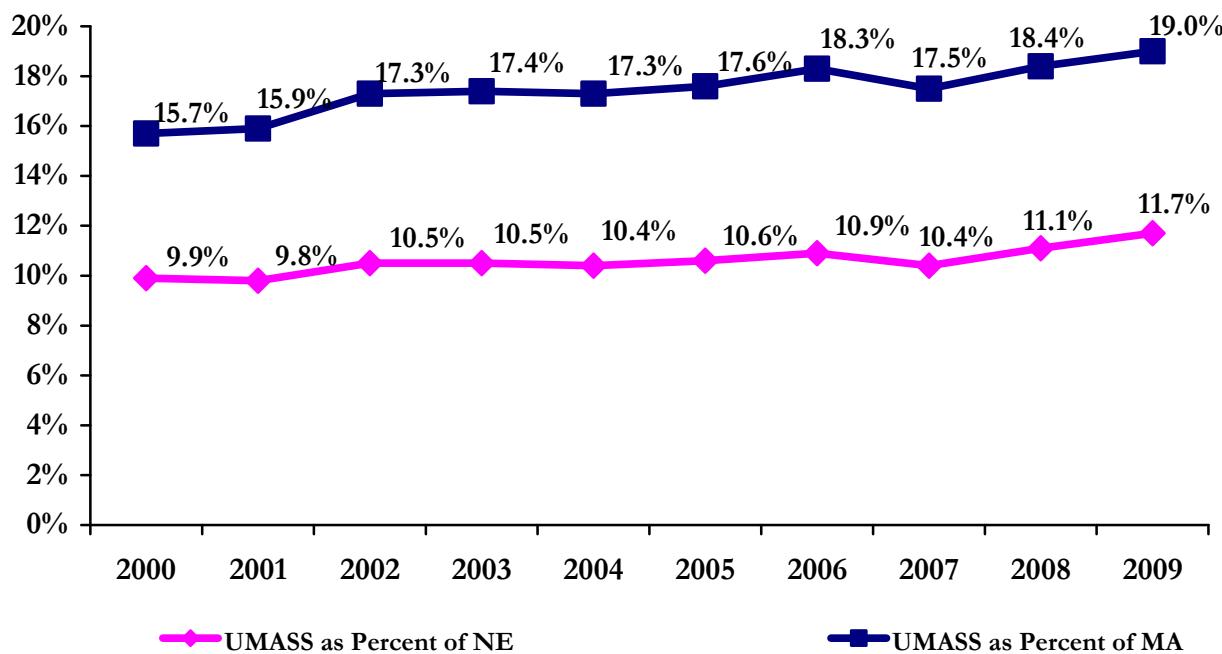
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<sup>1</sup> Please note that the data is for FY 2007. At the time of publication of this report, FY2008 and FY2009 data was unavailable.

## Additional Highlights for UMASS and UMASS Campuses

### I. UMASS Science and Engineering R&D Expenditures As 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 19.0% in FY 2009, reflecting a 3.3% increase in percentage points. [Appendix A1].
- The University of Massachusetts Science and Engineering R&D Expenditures continues to grow as a proportion of total Science and Engineering R&D Expenditures for MA as well as all New England institutions. In FY2000, UMASS R&D Expenditures in Science and Engineering constituted 9.9% of all of New England R&D Expenditures as compared to 11.7% in FY 2009. [Appendix A1].



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

- When compared to the New England region, UMASS performance in Science and Engineering R&D Expenditures varies by field. The top field in this arena has been Math and Computer Sciences (where UMass R&D Expenditures comprise 16.9% of all New England institutions' R&D Expenditures, followed by Social Sciences (15.8%), Psychology (15.2%), Engineering (15.2%) and Life sciences (12.3%). When compared to institutions in Massachusetts, the top performing fields for UMASS R&D Expenditures are Psychology (28.1%), Math and Computer Sciences (23.4%), Social sciences (22.9%), and Life Sciences (22.8%). [Appendix A2].

## II. NSF Research and Development Expenditures Rankings Based on FY 2009 and Past Trends

### **UMASS System Ranking**

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

### **UMASS Campuses – Science and Engineering R&D Expenditures Rankings**

- UMass Amherst ranked 105<sup>th</sup> nationally in total S&E R&D Expenditures from a total of 697 institutions nationwide [FY2009, Appendix B].
- UMass Medical School ranked 90<sup>th</sup> nationally in total academic S&E R&D Expenditures from a total of 697 institutions nationwide, improving its ranking from 99<sup>th</sup> in FY2008 [FY2009, Appendix B].
- UMass Lowell ranked 173<sup>rd</sup> of 697 institutions nationally in total S&E R&D expenditures, improving its ranking from 192<sup>nd</sup> in FY2008 [FY2009, Appendix B].
- UMass Boston ranked 196<sup>th</sup> of 697 institutions nationally in total S&E R&D expenditures, improving its ranking from 209<sup>th</sup> in FY2008 [FY2009, Appendix B].
- UMass Dartmouth ranked 245<sup>th</sup> of 697 institutions nationally in total academic R&D expenditures [FY2009, 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 2003-2009). In FY 2009, UM Amherst ranked 20<sup>th</sup> 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 2009, UM Boston ranked 56<sup>th</sup>, improving its ranking from 74<sup>th</sup> in FY 2008 [Appendix M].
- From FY 2005-FY 2009, UMass Dartmouth's ranking has ranged between 67<sup>th</sup> -77th among the first 100 institutions, for total academic R&D Expenditures in the Environmental Sciences. In FY 2009, UMass Dartmouth ranked 77<sup>th</sup>. [Appendix H].
- 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 2009, UMass Medical School

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<sup>2</sup> 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.

improved its ranking to 60<sup>th</sup> from 68<sup>th</sup> (FY 2008) among the first 150 institutions in this category. [Appendix I].

### **Additional Rankings**

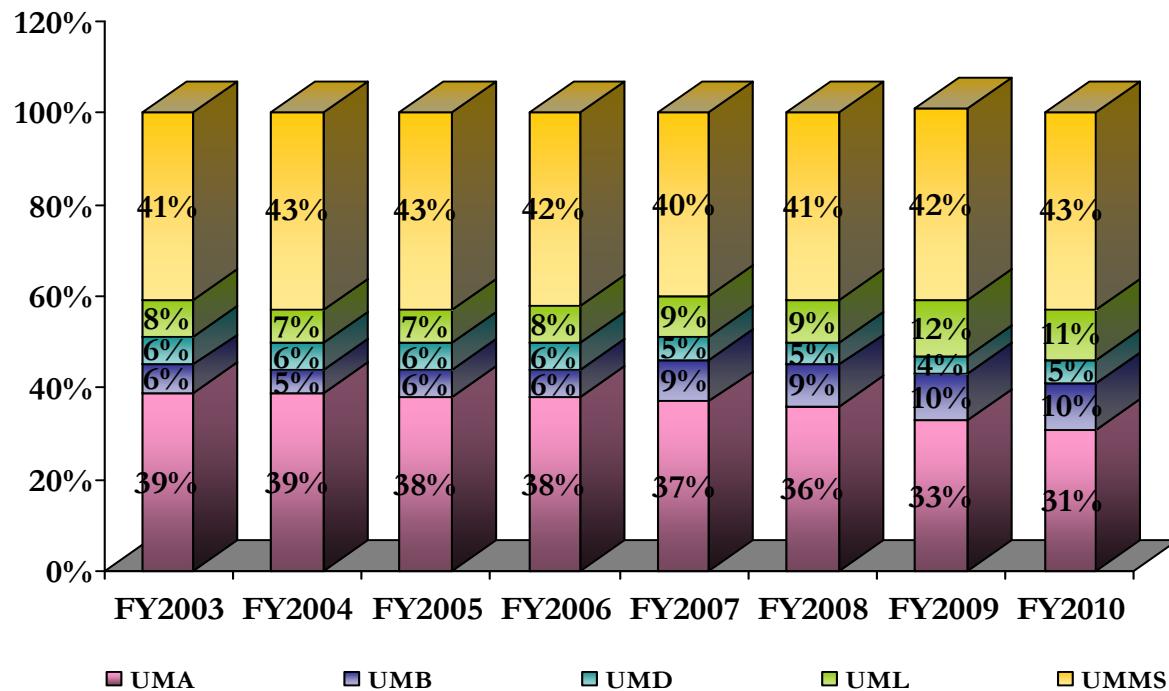
- UMass Amherst has consistently ranked among the first 100 universities and colleges in R&D Expenditures in Engineering over the past five years. UM Amherst's ranking in this field has significantly increased, from 83<sup>rd</sup> in FY 2003 to 47<sup>th</sup> in FY2009. [Appendix G].
- UMass Amherst has consistently ranked among the first 100 universities and colleges for R&D Expenditures in Mathematical Sciences. In FY 2009, UMass Amherst ranked 59<sup>th</sup>. [Appendix J].
- UMass Amherst has consistently ranked among the first 100 institutions for R&D Expenditures in the Physical Sciences. In FY 2009, UM Amherst ranked 56<sup>th</sup>, an improvement from its FY 2008 ranking of 65<sup>th</sup> among the top 100 institutions. [Appendix K].
- In FY 2009, UMass Boston ranked 36<sup>th</sup> and UMass Amherst ranked 79th 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-FY2010

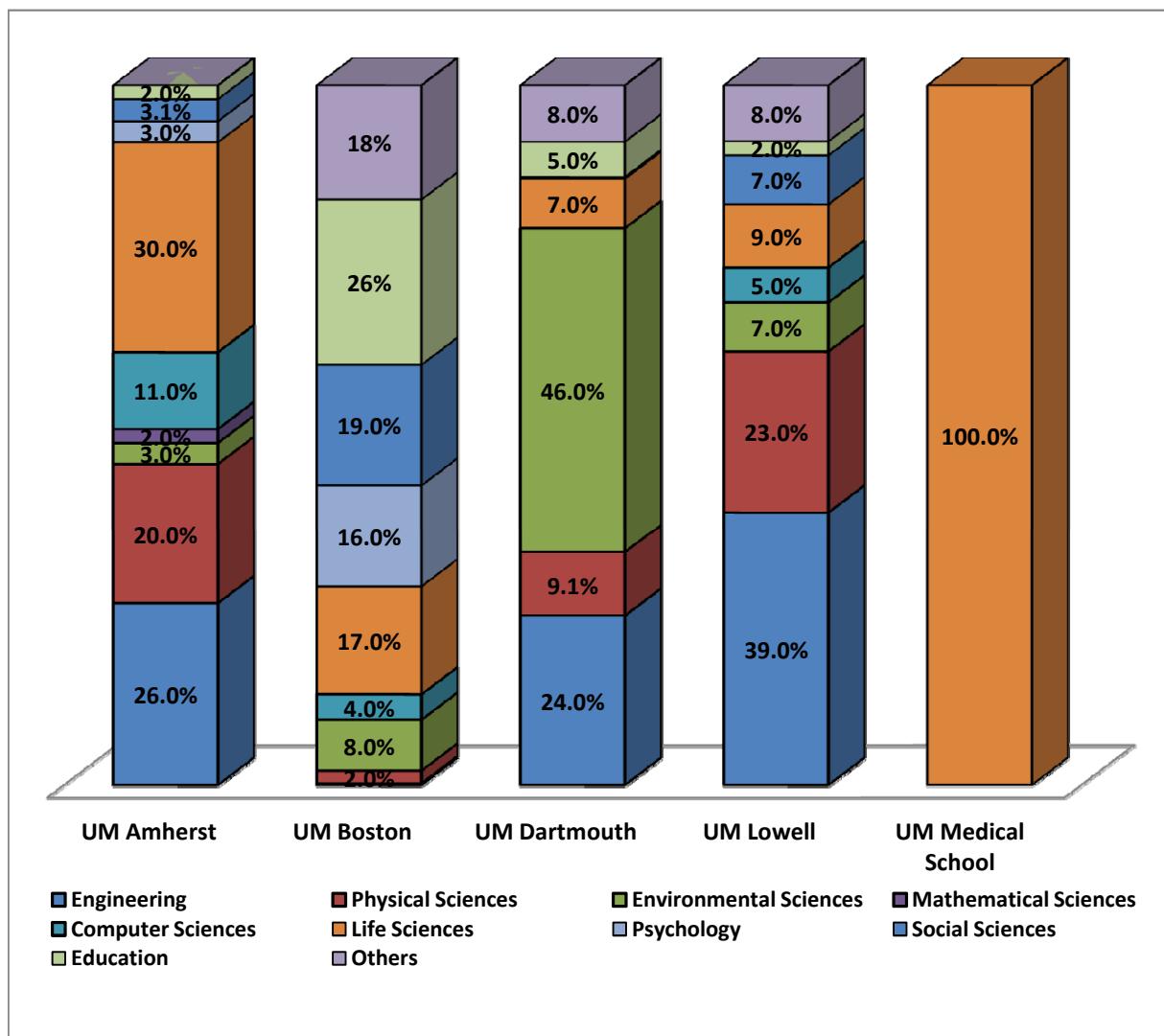
1. Total FY2010 R&D Expenditures for the University of Massachusetts System was reported at \$542.6 Million, which represents a 11.0% increase from the FY2009 total of \$489.1 Million.
2. All of UMass Campuses reported an increase in growth between FY2009-FY2010.
3. Within the UMASS System, a little over two-fifths (43%) of the total R&D Expenditures is attributed to the UMass Medical School and approximately one-third (31%) 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 26% (FY2003-FY2010).

**UMASS Campuses - Total R&D Expenditures  
(As a Percent of UMass System)  
FY2003-FY2010**



5. R&D expenditures activities at UMass campuses vary by field. In FY2010, while UMass Amherst's top three R&D Expenditures areas were Life Sciences (30%), Engineering (26%), and Physical Sciences (20%), UMass Boston's concentration was primarily in Education (26%), the Social Sciences (19%), Life Sciences (17%), and Psychology (16%). UMass Dartmouth's major areas of concentration were in the fields of Environmental Sciences (46%) and Engineering (24%), and for UMass Lowell, Engineering (39%) and Physical Sciences (23%). The UMass Medical School had 100% of its R&D Expenditures in the Life Sciences.

### UMass Campuses: Total R&D Expenditures by Field (FY2010)

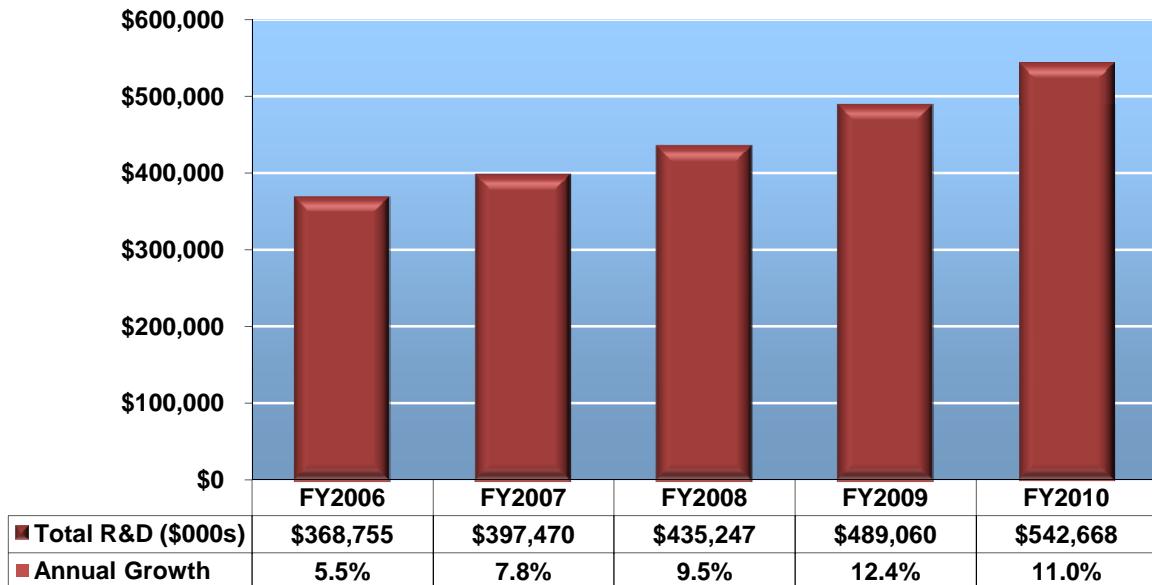


**A. TOTAL R&D EXPENDITURES**

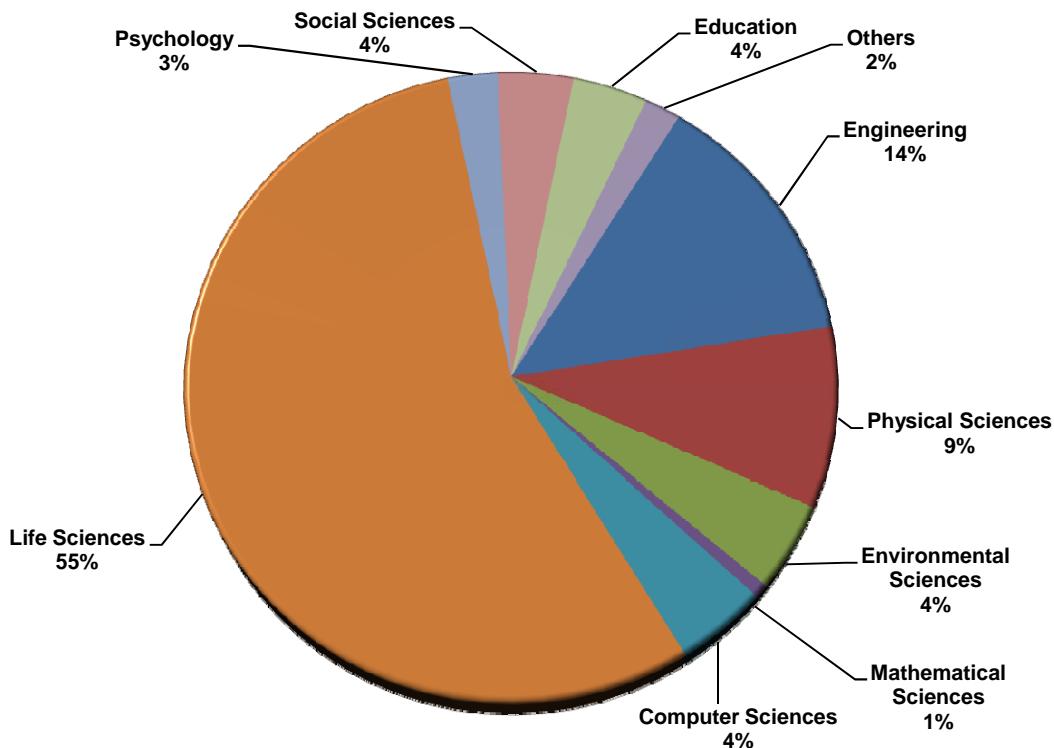
**DATA AND CHARTS**

## UMASS System

### Total R&D Expenditures FY2006 – FY2010

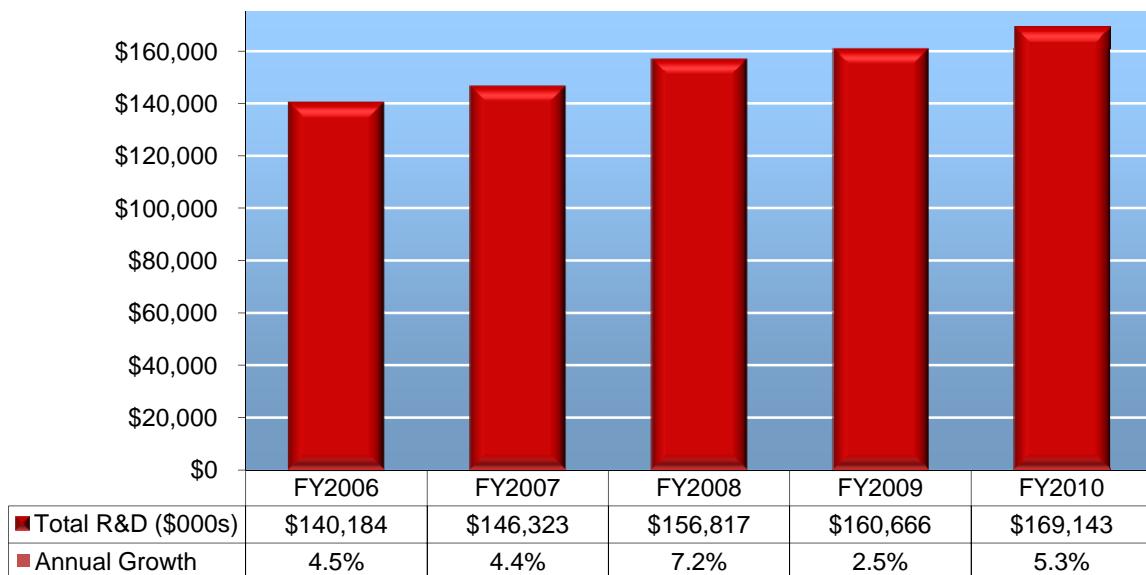


### Total R&D Expenditures FY2010

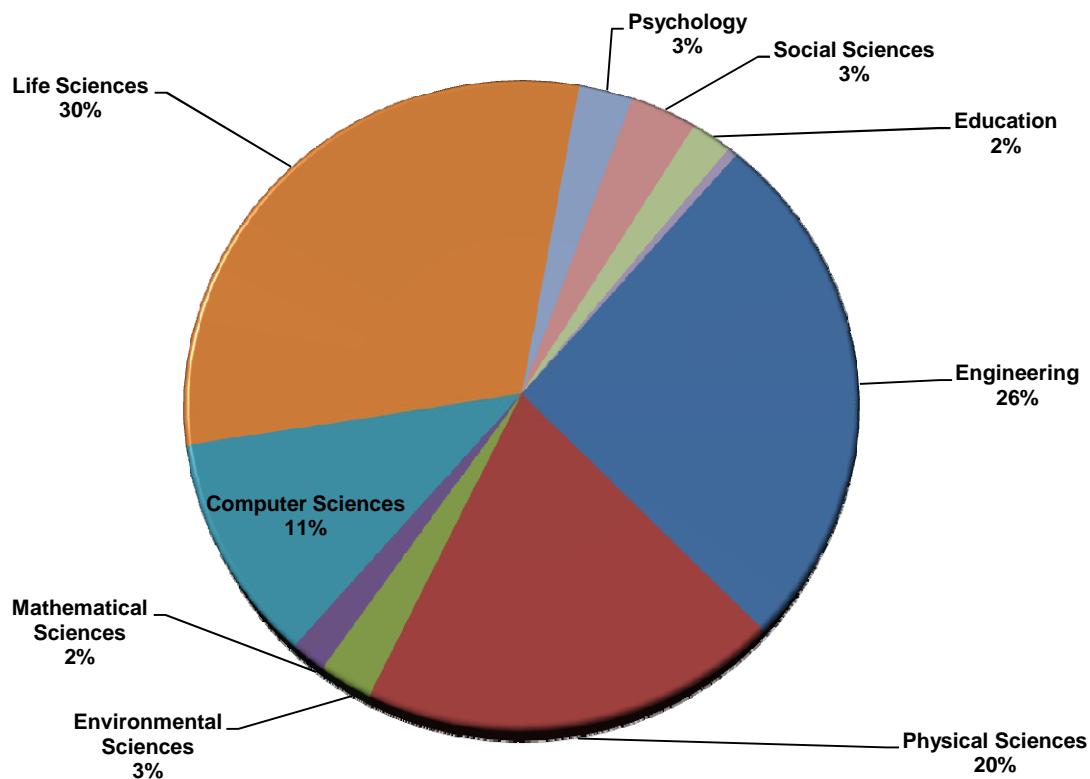


## Amherst

### Total R&D Expenditures FY2006 – FY2010



### Total R&D Expenditures FY2010

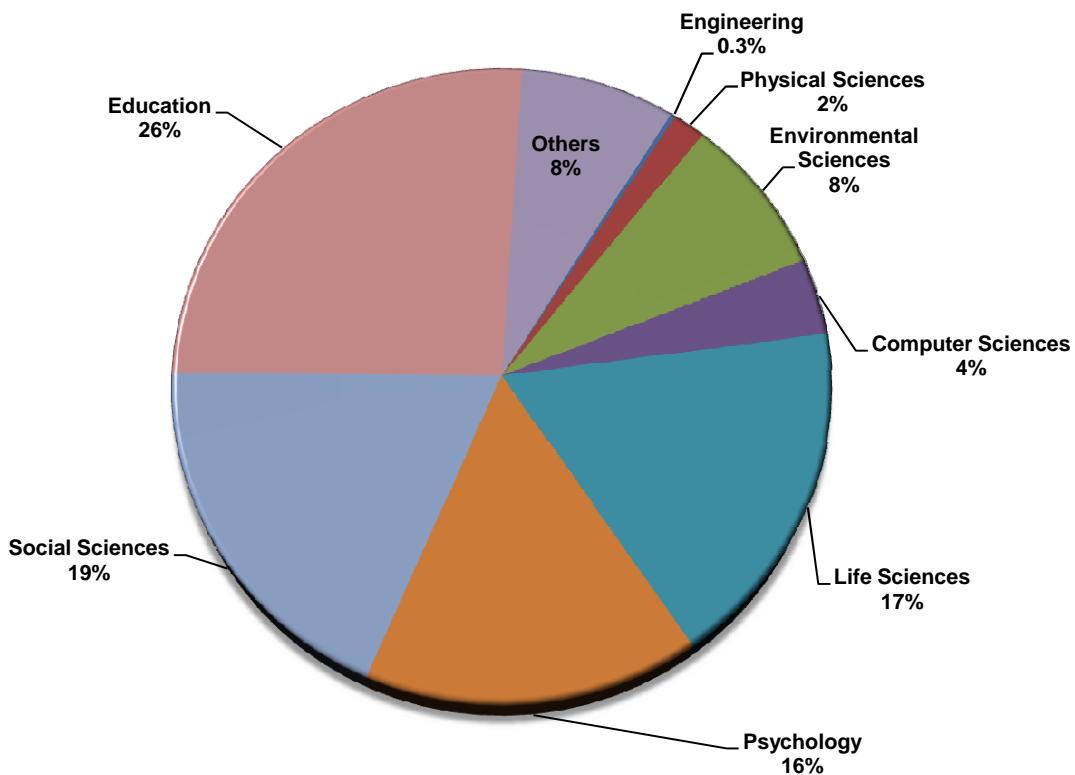


## Boston

### Total R&D Expenditures FY2006 – FY2010

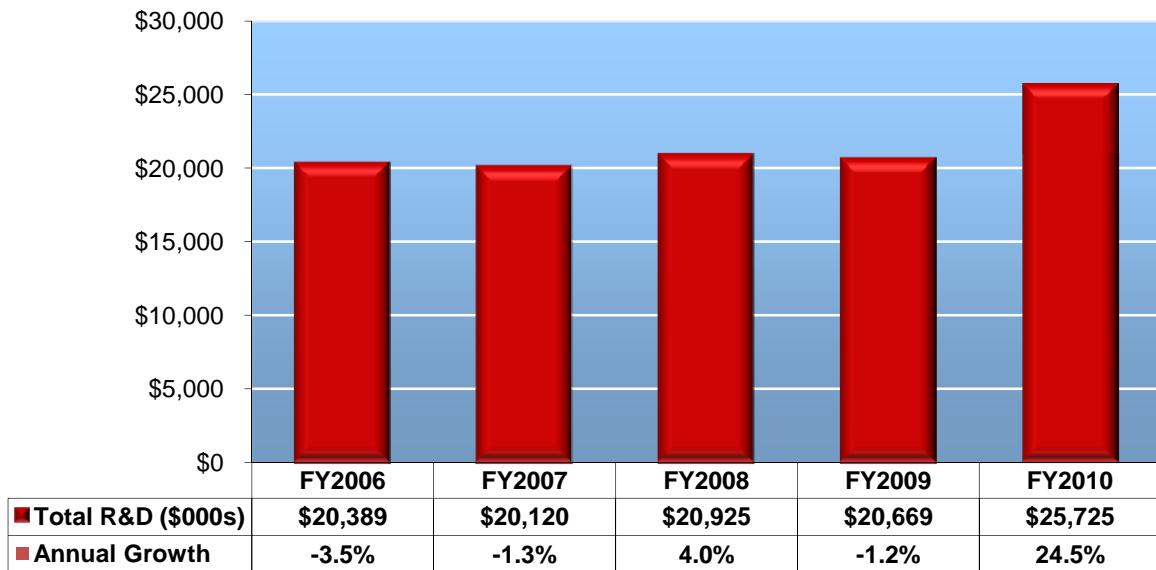


### Total R&D Expenditures FY2010

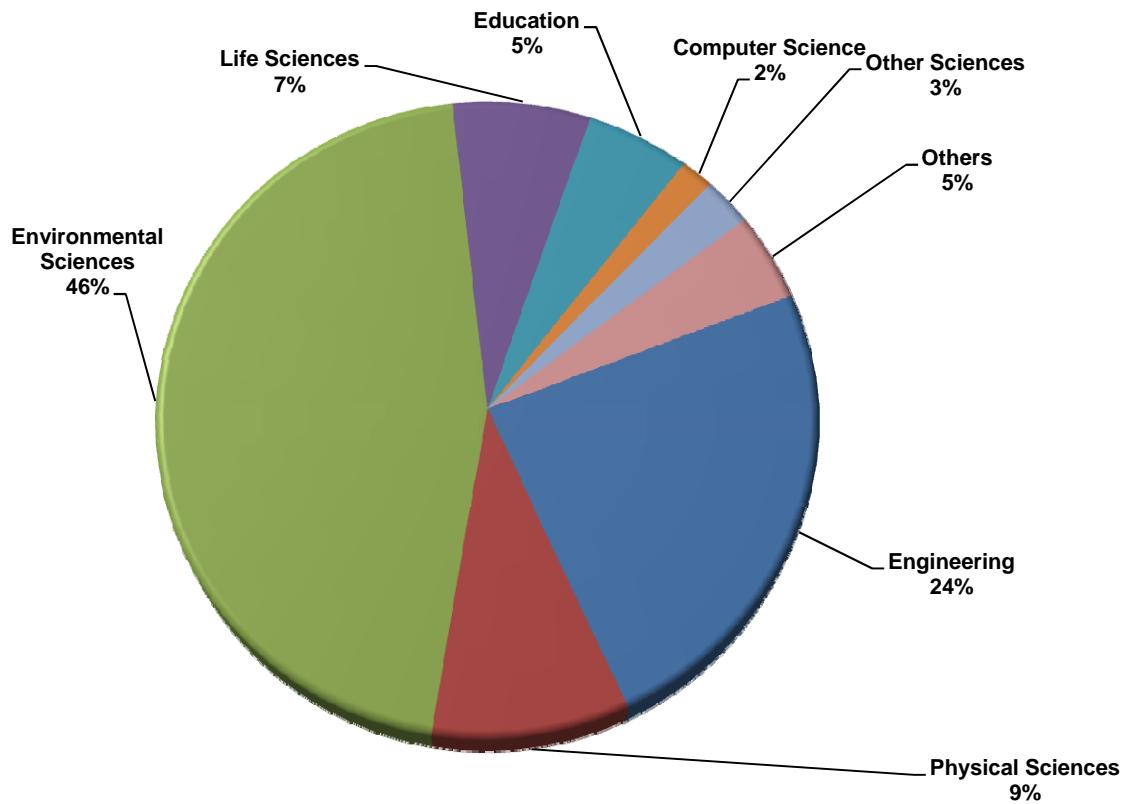


## Dartmouth

Total R&D Expenditures FY2006 – FY2010

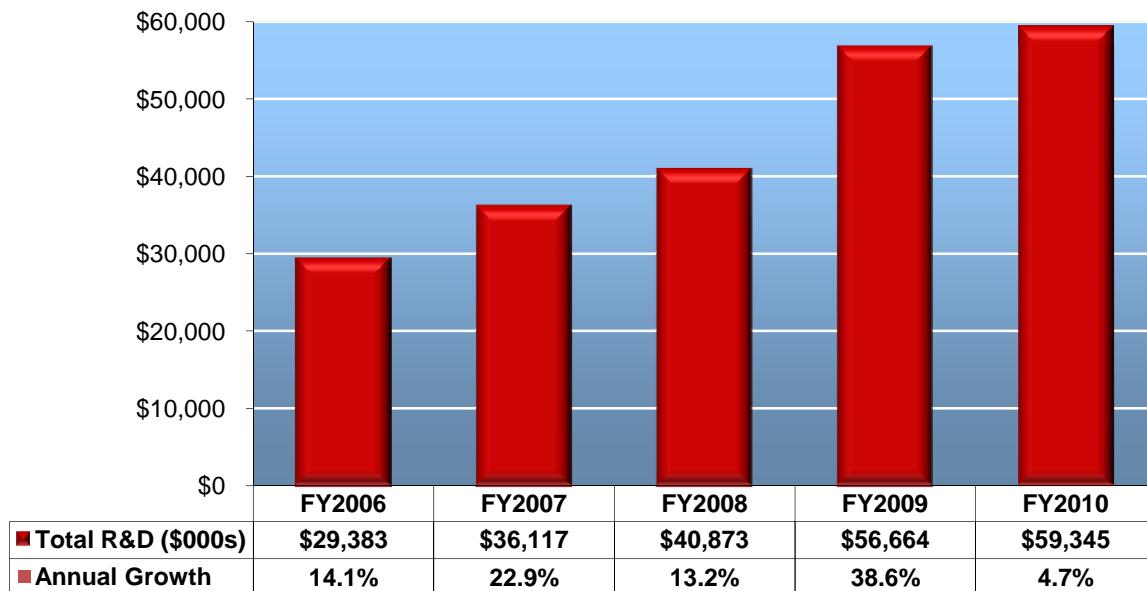


Total R&D Expenditures FY2010

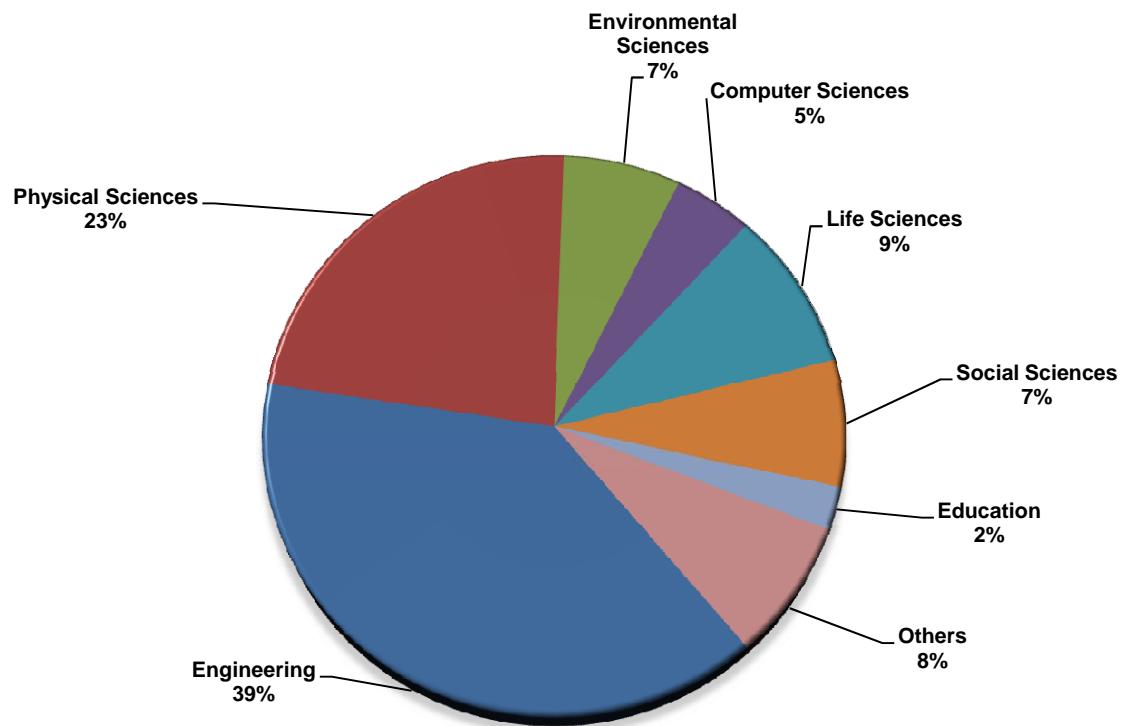


## Lowell

### Total R&D Expenditures FY2006 – FY2010

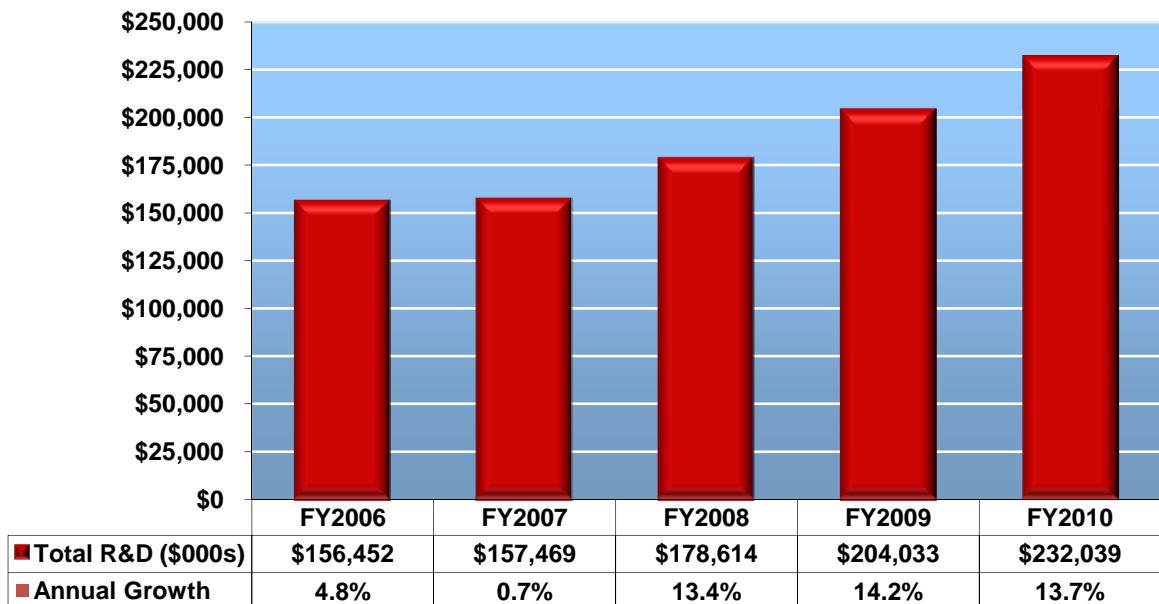


### Total R&D Expenditures FY2010



## Worcester

Total R&D Expenditures FY2006 - FY2010



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

**B. R&D EXPENDITURES by FIELD  
ADDITIONAL CAMPUS DETAILS**

### Total R&D Expenditures By Field FY2010

FIELD	UMA FY2010	% of UMA Total	% of Field	UMB FY2010	% of UMB Total	% of Field	UMD FY2010	% of UMD Total	% of Field	UML FY2010	% of UML Total	% of Field	UMW FY2010	% of UMW Total	% of Field	System FY2010	% of Total
<b>Engineering (Total)</b>	\$ 44,357	26.2%	60.3%	\$ 141	0.2%	0.2%	\$ 6,175	24.0%	8.4%	\$ 22,874	38.5%	31.1%	\$ -			\$ 73,547	13.6%
Aeronautical & Astronomical	\$ -			\$ -			\$ -	0.0%		\$ -			\$ -			\$ -	0.0%
Bioengineering/Biomedical	\$ -			\$ -			\$ 165	0.6%	34.4%	\$ 314			\$ -			\$ 479	0.1%
Chemical	\$ 15,383	9.1%	93.3%	\$ -			\$ -			\$ 1,112	1.9%	6.7%	\$ -			\$ 16,495	3.0%
Civil	\$ 7,517	4.4%	80.2%	\$ -			\$ 759	3.0%	8.1%	\$ 1,096	1.8%	11.7%	\$ -			\$ 9,372	1.7%
Electrical	\$ 15,088	8.9%	69.5%	\$ 139	0.2%	0.6%	\$ 1,769	6.9%	8.1%	\$ 4,710	7.9%	21.7%	\$ -			\$ 21,706	4.0%
Mechanical	\$ 5,756	3.4%	55.1%	\$ -			\$ 841	3.3%	8.1%	\$ 3,840	6.5%	36.8%	\$ -			\$ 10,437	1.9%
Metallurgical & Materials	\$ -		0.0%	\$ -			\$ 753	2.9%	18.0%	\$ 3,439	5.8%	82.0%	\$ -			\$ 4,192	0.8%
Other	\$ 613	0.4%	5.6%	\$ 2	0.00%	0.0%	\$ 1,888	7.3%	17.4%	\$ 8,363	14.1%	77.0%	\$ -			\$ 10,866	2.0%
<b>Physical Sciences (Total)</b>	\$ 33,074	19.6%	65.9%	\$ 932	1.7%	1.9%	\$ 2,421	9.4%	4.8%	\$ 13,731	23.1%	27.4%	\$ -			\$ 50,158	9.2%
Astronomy	\$ 4,135	2.4%	100.0%	\$ -			\$ -			\$ -			\$ -			\$ 4,135	0.8%
Chemistry	\$ 21,591	12.8%	79.3%	\$ 688	1.2%	2.5%	\$ 1,768	6.9%	6.5%	\$ 3,188	5.4%	11.7%	\$ -			\$ 27,235	5.0%
Physics	\$ 7,348	4.3%	39.1%	\$ 244	0.4%	1.3%	\$ 653	2.5%	3.5%	\$ 10,543	17.8%	56.1%	\$ -			\$ 18,788	3.5%
Other	\$ -			\$ -			\$ -			\$ -			\$ -			\$ -	0.0%
<b>Environmental Sciences (Total)</b>	\$ 4,252	2.5%	17.3%	\$ 4,634	8.2%	18.8%	\$ 11,751	45.7%	47.7%	\$ 4,002	6.7%	16.2%	\$ -			\$ 24,639	4.5%
Atmospheric	\$ -			\$ -			\$ -			\$ -			\$ -			\$ -	
Earth Sciences	\$ 3,203	1.9%	44.0%	\$ 69	0.1%	0.9%	\$ -			\$ 4,002	6.7%	55.0%	\$ -			\$ 7,274	1.3%
Oceanography	\$ -	0.0%	0.0%	\$ 4,030	7.1%	25.5%	\$ 11,751	45.7%	74.5%	\$ -			\$ -			\$ 15,781	2.9%
Other	\$ 1,049			\$ 535	0.9%	33.8%	\$ -			\$ -			\$ -			\$ 1,584	0.3%
<b>Mathematical Sciences (Total)</b>	\$ 2,817	1.7%	76.4%	\$ 19	0.0%	0.5%	\$ 372	1.4%	10.1%	\$ 481	0.8%	13.0%	\$ -			\$ 3,689	0.7%
<b>Computer Sciences (Total)</b>	\$ 18,841	11.1%	78.0%	\$ 2,188	3.9%	9.1%	\$ 428	1.7%	1.8%	\$ 2,696	4.5%	11.2%	\$ -			\$ 24,153	4.5%
<b>Life Sciences (Total)</b>	\$ 51,328	30.3%	17.1%	\$ 9,916	17.6%	3.3%	\$ 1,798	7.0%	0.6%	\$ 5,521	9.3%	1.8%	\$ 232,039	100.0%	77.2%	\$ 300,602	55.4%
Agricultural	\$ 21,710	12.8%	97.1%	\$ -			\$ 645	2.5%	2.9%	\$ -			\$ -			\$ 22,355	4.1%
Biological	\$ 22,495	13.3%	21.4%	\$ 2,537	4.5%	2.4%	\$ 1,120	4.4%	1.1%	\$ 1,281	2.2%	1.2%	\$ 77,718	33.5%	73.9%	\$ 105,151	19.4%
Medical	\$ 6,410	3.8%	4.7%	\$ 4,697	8.3%		\$ -			\$ -			\$ 124,323	53.6%	91.8%	\$ 135,430	25.0%
Other	\$ 713	0.4%	1.9%	\$ 2,682	4.8%	7.1%	\$ 33	0.1%	0.1%	\$ 4,240	7.1%	11.26%	\$ 29,998	12.9%	79.6%	\$ 37,666	6.9%
<b>Psychology (Total)</b>	\$ 4,560	2.7%	32.7%	\$ 9,031	16.0%	64.8%	\$ 198	0.8%	1.4%	\$ 137	0.2%	1.0%	\$ -			\$ 13,926	2.6%
<b>Social Sciences (Total)</b>	\$ 5,625	3.3%	26.8%	\$ 10,524	18.7%	50.1%	\$ 530	2.1%	2.5%	\$ 4,334	7.3%	20.6%	\$ -			\$ 21,013	3.9%
Economics	\$ 2,478	1.5%	66.3%	\$ 797	1.4%	21.3%	\$ 12	0.0%	0.3%	\$ 453	0.8%	12.1%	\$ -			\$ 3,740	0.7%
Political Science	\$ 1,394	0.8%	23.2%	\$ 3,056	5.4%	50.8%	\$ 231	0.9%	3.8%	\$ 1,331	2.2%	22.1%	\$ -			\$ 6,012	1.1%
Sociology	\$ 1,086	0.6%	52.5%	\$ 858	1.5%	41.4%	\$ 37	0.1%	1.8%	\$ 89	0.1%	4.3%	\$ -			\$ 2,070	0.4%
Other	\$ 667	0.4%	7.3%	\$ 5,813	10.3%	63.2%	\$ 250	1.0%	2.7%	\$ 2,461	4.1%	26.8%	\$ -			\$ 9,191	1.7%
<b>Other Sciences (Total)</b>	\$ -			\$ 2,002	3.5%	50.2%	\$ 639	2.5%	16.0%	\$ 1,344	2.3%	33.7%	\$ -			\$ 3,985	0.7%
<b>TOTAL, SCI &amp; ENG FIELDS</b>	\$ 164,854	97.5%	32.0%	\$ 39,387	69.8%	7.6%	\$ 24,312	94.5%	4.7%	\$ 55,120	92.9%	10.7%	\$ 232,039	100.0%	45.0%	\$ 515,712	95.0%

FIELD	UMA Total	% of Field	UMB Total	% of Field	UMD FY2009	UMD Total	% of Field	UML Total	% of Field	UMW FY2009	UMW Total	% of Field	System FY2009	% of Total
Education	\$ 3,460	2.0%	16.6%	\$ 14,607	25.9%	69.9%	\$ 1,356	5.3%	6.5%	\$ 1,460	2.5%	7.0%	\$ -	\$ 20,883 3.8%
Law	\$ 130	0.1%	100.0%	\$ -	0.0%	0.0%	\$ -	-	-	\$ -	0.0%	0.0%	\$ -	\$ 130 0.0%
Humanities	\$ 241	0.1%	43.3%	\$ 303	0.5%	54.5%	\$ 12	0.0%	2.2%	\$ -	-	-	\$ -	\$ 556 0.1%
Visual and Performing Arts	\$ 24	0.0%	20.5%	\$ 19	0.0%	16.2%	\$ 31	0.1%	26.5%	\$ 43	0.07%	36.8%	\$ -	\$ 117 0.02%
Business and Management	\$ 336	0.2%	10.1%	\$ 2,100	3.7%	62.8%	\$ 14	0.1%	0.4%	\$ 893	1.5%	26.7%	\$ -	\$ 3,343 0.6%
Comm., Journalism & Library Sci	\$ 98		92.5%	\$ -	0.0%	0.0%	\$ -		0.0%	\$ 8	0.0%	7.5%	\$ -	\$ 106 0.0%
Social Work	\$ -		#DIV/0!	\$ -		#DIV/0!	\$ -		#DIV/0!	\$ -		\$ -	\$ -	\$ -
Other Non-Science and Engin.	\$ -		0.0%	\$ -	0.0%	0.0%	\$ -	0.0%	0.0%	\$ 1,821	3.1%	100.0%	\$ -	\$ 1,821 0.3%
				\$ -										
<b>TOTAL, NON-SCI &amp; ENG FIELDS</b>	<b>\$ 4,289</b>	<b>2.5%</b>	<b>15.9%</b>	<b>\$ 17,029</b>	<b>30.2%</b>	<b>63.2%</b>	<b>\$ 1,413</b>	<b>5.5%</b>	<b>5.2%</b>	<b>\$ 4,225</b>	<b>7.1%</b>	<b>15.7%</b>	<b>\$ -</b>	<b>\$ 26,956 5.0%</b>
	\$ -			\$ -			\$ -							
<b>TOTAL, SCI &amp; ENG FIELDS</b>	<b>\$ 164,854</b>	<b>97.5%</b>	<b>32.0%</b>	<b>\$ 39,387</b>	<b>69.8%</b>	<b>7.6%</b>	<b>\$ 24,312</b>	<b>94.5%</b>	<b>4.7%</b>	<b>\$ 55,120</b>	<b>92.9%</b>	<b>10.7%</b>	<b>\$ 232,039 100.0%</b>	<b>45.0%</b>
	\$ -			\$ -			\$ -							
<b>GRAND TOTAL</b>	<b>\$ 169,143</b>	<b>31.2%</b>		<b>\$ 56,416</b>	<b>10.4%</b>		<b>\$ 25,725</b>	<b>4.7%</b>		<b>\$ 59,345</b>	<b>10.9%</b>		<b>\$ 232,039</b>	<b>42.8%</b>

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

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

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

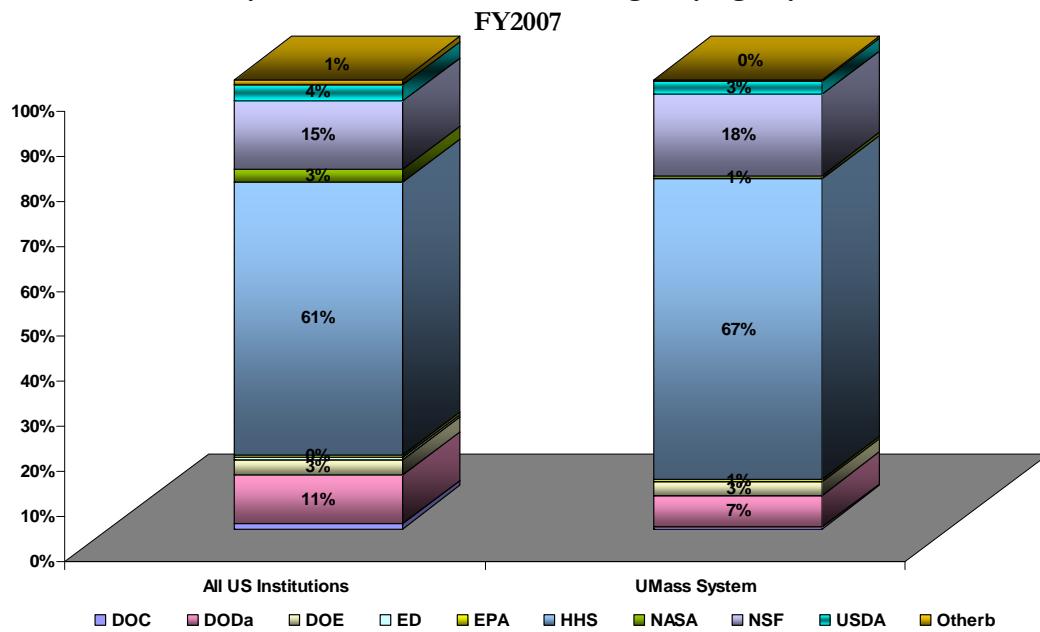
## **B. R&D EXPENDITURES BY FIELD - ADDITIONAL CAMPUS DETAILS**

1. There has been consistent growth in R&D Expenditures over the past five years on a majority of UMass campuses. Overall, between FY2006 and FY2010, growth has ranged from 21% to over 100%. Two campuses (UMass Lowell and UMass Boston) reflected growth of over 100%; and the UMass System aggregate reflected a 47% growth over the last five years.
2. UMass Amherst reflects its strength in Computer Sciences, comprising 78% of the entire UMass System's R&D expenditures in this field, at \$18.8M. In FY2009, UMass Amherst ranked 20th 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 FY2010, 30.2% of the total R&D Expenditures activities in UMass Boston occurred within the non-sciences field. At \$17M, this comprises 63% 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 48%, or \$11.7M 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 FY2009, UMass Dartmouth ranked 77th in this field (Appendix H).
5. Over one-third (39%) of UMass Lowell's R&D Expenditures in FY2010 were in the field of Engineering. At \$23M, this comprises 31% of the System R&D Expenditures in Engineering. Prominent areas within this field for the UMass Lowell campus include Mechanical Engineering (\$3.8M) Metallurgical Engineering and Materials Sciences (\$3.4M) and Electrical Engineering (\$4.7M).
6. For the UMass Medical School, 100% of R&D Expenditures is in the Life Sciences field. At \$232M, this comprises almost three-fourth's (77.2%) of the System total R&D Expenditures in the Life Sciences.

### 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.

**Federal Obligations in Science and Engineering R&D to Systems of Universities and Colleges By Agency**

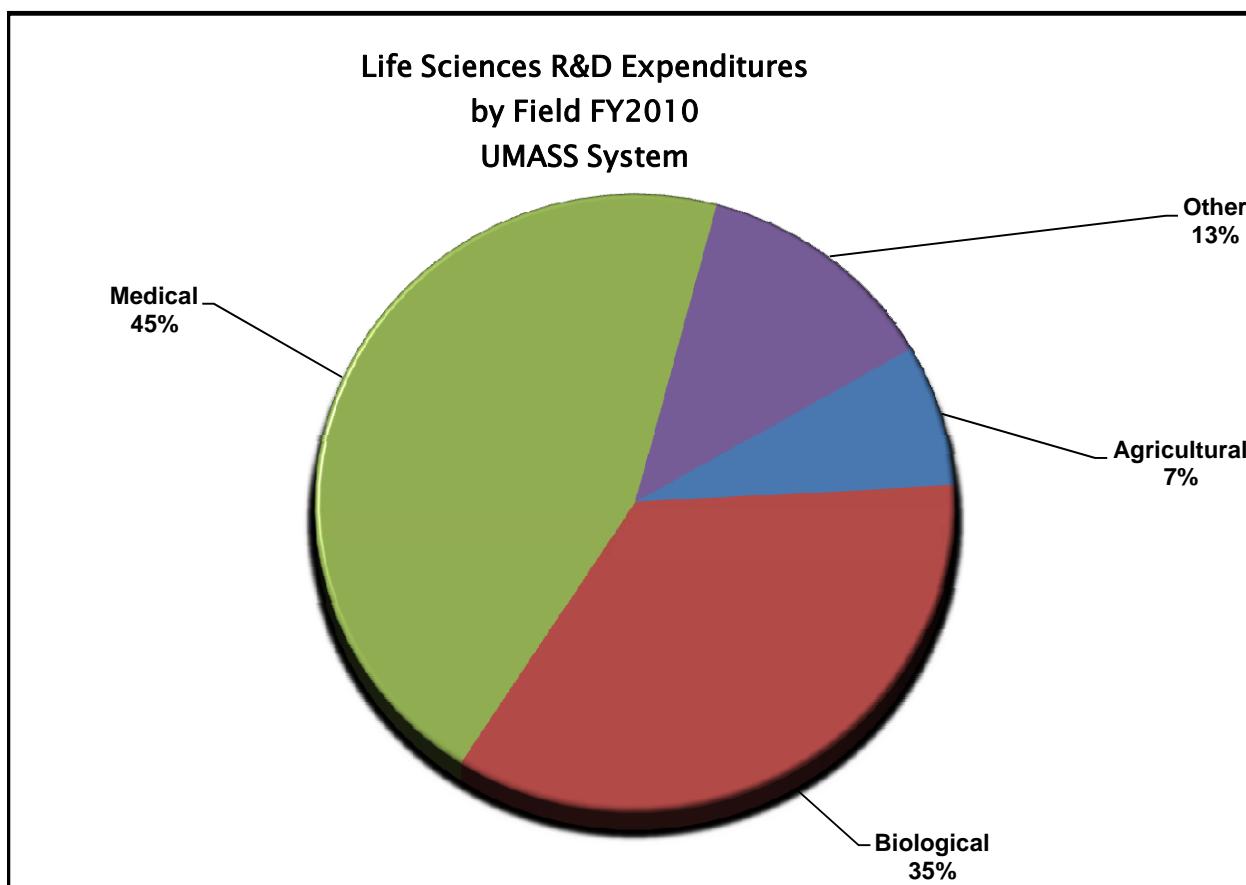


DOC - Department of Commerce; DOD - Department of Defense; DOE - Department of Energy; ED - Education Department; NASA - National Aeronautics and Space Administration; EPA - Environmental Protection Agency; HHS - Health and Human Services; NSF - National Science Foundation; USDA - United States Department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

**C. LIFE SCIENCES  
R&D EXPENDITURES**

## C. LIFE SCIENCES R&D EXPENDITURES

1. In FY 2010, R&D Expenditures in the Life Sciences for the UMASS System was at \$301 Million, comprising approximately well over half (55.4%) of total R&D Expenditures.
2. This represents a 45% increase from FY 2006, and a 10% increase between FY 2009-10.
3. In FY 2010, 45% of all of the R&D Expenditures in the Life Sciences was within the Medical Sciences, followed by Biological Sciences (35%), Agricultural Sciences (7%), and all Other (13%).
4. At the System level, the largest growth has been within the Medical Sciences, with FY 2009-10 R&D Expenditures increasing by 18%, followed by Other Life Sciences (10%), and Biological Sciences (4%).



**Life Sciences R&D Expenditures by Field**  
**FY2006 – FY2010**

	Life Sciences R&D Expenditures								
	FY06	FY07	FY08	FY09	FY10	5-Year Change		1-Year Change	
						\$	%	\$	%
Amherst	\$42,797	\$50,796	\$54,886	\$54,733	\$51,328	\$8,531	19.9%	-\$3,405	-6.2%
Boston	\$2,626	\$5,517	\$7,138	\$9,237	\$9,916	\$7,290	277.6%	\$679	7.4%
Dartmouth	\$1,319	\$1,228	\$1,925	\$1,286	\$1,798	\$479	36.3%	\$512	39.8%
Lowell	\$4,111	\$4,814	\$4,754	\$5,206	\$5,521	\$1,410	34.3%	\$315	6.1%
Worcester	\$156,452	\$157,469	\$178,614	\$204,033	\$232,039	\$75,587	48.3%	\$28,006	13.7%
System	<b>\$207,305</b>	<b>\$219,824</b>	<b>\$247,317</b>	<b>\$274,495</b>	<b>\$300,602</b>	<b>\$93,297</b>	<b>45.0%</b>	<b>\$26,107</b>	<b>9.5%</b>

	Agricultural								
	FY06	FY07	FY08	FY09	FY10	5-Year Change		1-Year Change	
						\$	%	\$	%
Amherst	\$19,183	\$20,795	\$24,478	\$23,088	\$21,710	\$2,527	13.2%	-\$1,378	-6.0%
Boston	\$0	\$0	\$0	\$0	\$0	\$0		\$0	
Dartmouth	\$744	\$739	\$602	\$531	\$645	-\$99	-13.3%	\$114	21.5%
Lowell	\$0	\$0	\$0	\$0	\$0	\$0		\$0	
Worcester	\$0	\$0	\$0	\$0	\$0	\$0		\$0	
System	<b>\$19,927</b>	<b>\$21,534</b>	<b>\$25,080</b>	<b>\$23,619</b>	<b>\$22,355</b>	<b>\$2,428</b>	<b>12.2%</b>	<b>-\$1,264</b>	<b>-5.4%</b>

	Biological								
	FY06	FY07	FY08	FY09	FY10	5-Year Change		1-Year Change	
						\$	%	\$	%
Amherst	\$17,996	\$22,757	\$22,823	\$23,323	\$22,495	\$4,499	25.0%	-\$828	-3.6%
Boston	\$1,439	\$2,345	\$3,384	\$3,020	\$2,537	\$1,098	76.3%	-\$483	-16.0%
Dartmouth	\$263	\$465	\$970	\$711	\$1,120	\$857	325.9%	\$409	57.5%
Lowell	\$885	\$1,378	\$1,477	\$1,531	\$1,281	\$396	44.7%	-\$250	-16.3%
Worcester	\$61,571	\$56,562	\$63,980	\$72,851	\$77,718	\$16,147	26.2%	\$4,867	6.7%
System	<b>\$82,154</b>	<b>\$83,507</b>	<b>\$92,634</b>	<b>\$101,436</b>	<b>\$105,151</b>	<b>\$22,997</b>	<b>28.0%</b>	<b>\$3,715</b>	<b>3.7%</b>

**Life Sciences R&D Expenditures by Field**  
**FY2006 – FY2010**

	Medical									
	FY06	FY07	FY08	FY09	FY10	5-Year Change		1-Year Change		
						\$	%	\$	%	
Amherst	\$3,191	\$5,401	\$6,575	\$7,237	\$6,410	\$3,219	100.9%	-\$827	-11.4%	
Boston	\$0	\$2,984	\$2,934	\$3,493	\$4,697	\$4,697		\$1,204	34.5%	
Dartmouth	\$0	\$0	\$0	\$0	\$0	\$0		\$0		
Lowell	\$0	\$0	\$0	\$0	\$0	\$0		\$0		
Worcester	\$76,250	\$82,470	\$93,501	\$104,417	\$124,323	\$48,073	63.0%	\$19,906	19.1%	
System	<b>\$79,441</b>	<b>\$90,855</b>	<b>\$103,010</b>	<b>\$115,147</b>	<b>\$135,430</b>	<b>\$55,989</b>	<b>70.5%</b>	<b>\$20,283</b>	<b>17.6%</b>	

	Other Life Sciences									
	FY06	FY07	FY08	FY09	FY10	5-Year Change		1-Year Change		
						\$	%	\$	%	
Amherst	\$2,427	\$1,843	\$1,010	\$1,085	\$713	-\$1,714	-70.6%	-\$372	-34.3%	
Boston	\$1,187	\$188	\$820	\$2,724	\$2,682	\$1,495	125.9%	-\$42	-1.5%	
Dartmouth	\$312	\$24	\$353	\$44	\$33	-\$279	-89.4%	-\$11	-25.0%	
Lowell	\$3,226	\$3,436	\$3,277	\$3,675	\$4,240	\$1,014	31.4%	\$565	15.4%	
Worcester	\$18,631	\$18,437	\$21,133	\$26,765	\$29,998	\$11,367	61.0%	\$3,233	12.1%	
System	<b>\$25,783</b>	<b>\$23,928</b>	<b>\$26,593</b>	<b>\$34,293</b>	<b>\$37,666</b>	<b>\$11,883</b>	<b>46.1%</b>	<b>\$3,373</b>	<b>9.8%</b>	

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 2004–2009**

Division and state	2004	2005	2006	2007	2008	2009
United States	43,257,915	45,798,944	47,750,592	49,493,338	51,934,133	54,935,457
New England	3,333,767	3,450,621	3,603,898	3,652,809	3,787,403	4,014,265
Connecticut	649,245	669,923	691,998	691,408	731,711	752,793
Maine	99,108	96,569	120,038	137,425	128,090	128,434
Massachusetts	2,000,120	2,079,548	2,122,756	2,171,596	2,271,757	2,463,395
New Hampshire	277,201	287,472	315,394	307,074	302,008	298,298
Rhode Island	192,326	199,709	230,104	230,281	236,627	246,322
Vermont	115,767	117,400	123,608	115,025	117,210	125,023
U. MA Worcester	142,073	149,267	156,452	157,469	178,614	204,033
U. MA Amherst	120,788	127,487	136,057	141,351	152,884	156,216
U. MA Lowell	22,163	23,852	27,635	34,824	36,486	52,431
U. MA Dartmouth	18,074	19,452	19,171	19,538	20,431	19,343
U. MA Boston	15,460	18,148	21,056	25,952	30,272	36,637
UMass System Total	318,558	338,206	360,371	379,134	418,687	468,660
As % of US	0.7%	0.7%	0.8%	0.8%	0.8%	0.9%
As % of New England	9.6%	9.8%	10.0%	10.4%	11.1%	11.7%
As % of MA	15.9%	16.3%	17.0%	17.5%	18.4%	19.0%

**Appendix A2: UMass Science and Engineering R&D Expenditures as Percent of US, New England, Massachusetts Figures by Field: FY 2009**

Division and State	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
United States	54,935,457	2,940,300	32,790,685	2,145,247	4,294,427	979,294	2,074,842	1,059,749	8,650,913
New England	4,014,265	349,890	2,233,446	144,693	349,815	88,236	126,400	124,565	597,220
Connecticut	752,793	13,507	606,344	10,367	35,501	27,587	10,867	6,470	42,150
Maine	128,434	25,057	60,141	3,755	4,236	1,645	6,881	8,043	18,676
Massachusetts	2,463,395	211,463	1,202,926	104,456	273,647	47,797	87,052	73,063	462,991
New Hampshire	298,298	56,601	156,479	5,487	11,018	5,656	7,732	15,539	39,786
Rhode Island	246,322	41,801	105,035	19,559	22,537	3,405	13,639	16,585	23,761
Vermont	125,023	1,461	102,521	1,069	2,876	2,146	229	4,865	9,856
U. MA Worcester	204,033	-	204,033	-	-	-	-	-	-
U. MA Amherst	156,216	3,543	54,733	19,491	19,577	4,157	4,592	-	50,123
U. MA Lowell	52,431	5,856	5,206	2,572	11,766	151	4,606	933	21,341
U. MA Dartmouth	19,343	8,183	1,286	712	2,342	62	183	1,250	5,325
U. MA Boston	36,637	3,919	9,237	1,694	507	9,049	10,544	1,478	209
UMass System Total	468,660	21,501	274,495	24,469	34,192	13,419	19,925	3,661	76,998
As % of US	0.9%	0.7%	0.8%	1.1%	0.8%	1.4%	1.0%	0.3%	0.9%
As % of New England	11.7%	6.1%	12.3%	16.9%	9.8%	15.2%	15.8%	2.9%	12.9%
As % of MA	19.0%	10.2%	22.8%	23.4%	12.5%	28.1%	22.9%	5.0%	16.6%

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2009.

**Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2002–09**

(Dollars in Thousands)									
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
	All institutions	36,405,220	40,100,324	43,257,915	45,798,944	47,750,592	49,493,338	51,934,133	54,935,457
1	Johns Hopkins U., The <sup>a</sup>	1,140,235	1,244,132	1,375,014	1,443,792	1,499,977	1,554,103	1,680,927	1,856,270
2	U. MI all campuses	673,724	780,054	769,126	808,887	800,488	808,731	876,390	1,007,198
3	U. WI Madison	662,101	717,044	763,875	798,099	831,895	840,672	881,777	952,119
4	U. CA, San Francisco	596,965	671,443	728,321	754,444	796,149	842,840	885,182	947,697
5	U. CA, Los Angeles <sup>b</sup>	787,598	849,357	772,569	785,625	811,493	823,083	871,478	889,995
6	U. CA, San Diego	585,008	646,508	708,690	721,035	754,766	798,896	842,027	879,357
7	Duke U.	441,533	520,191	520,871	630,752	657,080	781,843	766,906	805,021
8	U. WA	627,273	684,814	713,976	707,519	778,148	756,787	765,135	778,046
9	PA State U. all campuses	492,739	533,427	600,139	625,764	644,182	652,144	701,130	753,358
10	U. MN all campuses	494,265	508,557	526,270	548,873	594,877	624,149	682,662	740,980
11	MA Institute of Technology	446,786	485,764	543,448	580,742	600,748	614,352	659,626	736,102
12	U. PA	522,269	564,635	596,756	654,982	676,052	648,247	708,244	726,768
13	OH State U. all campuses	432,387	496,438	518,088	608,923	652,329	720,206	702,592	716,461
14	Stanford U.	538,474	603,227	671,046	714,897	679,196	687,511	688,225	704,183
15	U. CA, Davis	456,653	482,145	511,757	546,978	573,002	600,508	642,519	681,618
16	Cornell U. all campuses	496,123	554,760	575,554	606,804	648,802	641,936	653,996	671,406
17	U. CA, Berkeley	474,746	507,186	525,598	554,551	546,035	552,365	591,770	652,474
18	U. CO all campuses	399,818	436,761	482,992	517,067	512,794	527,587	535,556	648,417
19	U. NC Chapel Hill	370,806	390,542	416,727	441,033	443,790	477,231	525,843	646,011
20	TX A&M U.	436,681	456,235	456,809	479,735	492,955	543,888	582,365	630,655
21	Washington U. St. Louis	416,960	474,328	489,565	531,846	547,674	572,775	563,967	628,328
22	U. Pittsburgh all campuses	400,200	409,684	461,693	522,448	530,162	558,566	595,627	623,347
23	U. FL	386,316	429,734	447,146	530,734	565,491	592,835	584,170	592,082
24	Columbia U. in the City of New York	405,403	437,669	468,484	535,424	529,945	545,995	548,704	589,575
25	U. TX M. D. Anderson Cancer Ctr.	262,145	315,169	353,034	383,780	457,696	496,539	558,503	578,788
26	U. AZ	390,827	454,941	478,680	530,233	535,847	531,753	545,869	565,292
27	U. IL Urbana-Champaign	427,174	493,581	506,041	499,711	476,198	473,890	501,279	563,710
28	GA Institute of Technology all campuses	340,347	364,190	410,799	425,386	440,898	472,591	522,136	561,631
29	U. Southern CA	372,397	414,099	426,665	445,036	450,173	508,138	519,543	533,041
30	Northwestern U.	282,154	319,722	358,947	387,242	419,985	443,345	483,881	515,229
31	Yale U.	354,243	387,644	422,828	431,618	460,075	448,671	487,285	509,452
32	U. TX Austin	320,966	343,854	343,886	410,981	431,398	446,765	493,294	506,369
33	Harvard U.	401,367	408,707	454,495	447,196	453,156	451,276	453,028	462,193
34	Purdue U. all campuses	285,778	309,476	365,779	364,986	372,958	415,172	429,988	453,799
35	Emory U.	271,238	323,224	311,685	333,665	345,989	398,383	441,222	449,419
36	Baylor C. of Medicine	411,924	461,763	476,075	458,694	462,375	438,280	449,301	449,031
37	IN U. all campuses	299,080	337,669	384,168	307,137	355,004	386,654	411,939	440,815
38	U. AL Birmingham, The	255,053	284,497	310,950	318,536	331,436	351,457	404,615	431,732
39	Vanderbilt U.	208,305	276,074	318,335	350,433	376,893	399,149	422,622	431,673
40	Case Western Reserve U.	219,042	250,674	231,800	323,618	369,264	372,374	416,077	415,539
41	U. MD College Park	324,980	321,899	325,648	338,648	354,244	359,760	395,037	409,190
42	U. TX Southwestern Medical Ctr. Dallas	263,958	276,692	314,403	320,800	333,237	341,090	390,349	402,087
43	LA State U. all campuses	287,363	314,446	341,634	361,688	355,465	378,906	391,357	401,306
44	VA Polytechnic Institute and State U.	232,560	247,807	268,752	289,994	321,722	366,960	373,281	396,681
45	U. Rochester	261,601	285,768	312,303	345,337	366,658	373,247	375,218	395,358
46	Scripps Research Institute, The	NA	NA	307,910	330,170	367,375	360,511	366,047	382,275
47	NC State U.	290,018	286,025	292,720	302,596	330,936	331,662	366,137	380,571
48	U. Chicago	225,264	247,322	272,390	293,970	305,301	322,488	357,278	377,652
49	U. KY all campuses	236,275	272,062	297,610	306,653	323,958	331,606	336,669	373,364
50	MI State U.	289,787	321,410	325,438	333,735	358,097	360,852	356,767	373,184
51	U. NE all campuses	247,948	276,424	299,550	333,126	333,243	336,468	349,220	366,507
52	U. MD Baltimore	266,822	297,271	317,293	304,396	405,260	358,851	379,407	359,542
53	U. Cincinnati all campuses	216,652	254,101	276,326	286,036	294,150	336,717	344,046	356,752
54	Rutgers, The State U. NJ all campuses	258,829	278,763	296,534	309,531	308,204	311,612	323,404	351,564
55	U. GA	284,660	299,748	313,160	316,806	323,843	332,612	350,299	349,730

**Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2002–09**

(Dollars in Thousands)									
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
56	CA Institute of Technology	220,004	240,664	261,098	265,364	270,269	285,488	272,881	342,455
57	U. IL Chicago	259,852	291,507	312,768	318,279	332,176	342,421	335,138	341,655
58	SUNY Albany	67,493	120,655	203,977	259,708	274,354	309,221	270,414	340,259
59	SUNY Buffalo all campuses	226,959	240,180	258,952	267,271	297,909	314,837	329,720	338,283
60	U. UT	216,707	223,739	230,146	244,691	248,168	247,794	253,891	331,137
61	U. IA	288,808	292,035	312,914	334,144	346,357	363,243	293,564	329,901
62	U. CA, Irvine	209,469	234,656	257,024	276,763	300,229	309,554	324,552	325,493
63	Mt. Sinai School of Medicine	185,335	203,853	212,786	225,293	273,216	269,451	296,380	318,407
64	OR Health & Science U.	158,729	197,178	254,447	266,687	272,174	287,430	301,396	309,675
65	U. South FL	197,894	213,249	240,021	259,218	285,941	272,661	278,419	309,456
66	NY U.	222,978	241,593	259,333	276,198	284,164	297,867	310,699	308,834
67	CO State U.	178,845	187,054	214,886	236,211	253,992	288,497	295,235	304,397
68	U. HI Manoa	161,823	179,285	236,368	230,651	249,635	266,447	271,835	290,707
69	WA State U.	146,862	175,181	171,735	182,677	196,391	210,010	276,806	285,595
70	U. TN all campuses	188,261	217,389	228,760	255,699	249,072	243,184	250,188	284,896
71	AZ State U.	123,016	145,591	152,164	166,923	201,955	224,352	259,503	281,588
72	Boston U.	192,612	224,841	240,867	246,520	255,615	249,279	255,022	280,814
73	U. VA all campuses	182,340	206,199	228,532	235,058	238,754	229,653	257,651	261,604
74	SUNY Stony Brook all campuses	184,045	200,330	213,547	212,289	234,635	268,282	252,745	258,098
75	Rockefeller U.	166,603	192,143	192,222	198,719	215,417	233,917	247,505	252,478
76	Wayne State U.	199,007	214,642	225,475	226,331	220,731	235,186	249,210	251,854
77	U. Miami	171,319	177,709	194,446	209,572	213,516	210,534	241,775	248,029
78	U. MO-Columbia	177,011	205,212	217,550	220,718	215,240	228,654	244,639	245,058
79	U. KS all campuses	172,131	173,024	181,192	190,105	195,947	202,129	215,364	225,856
80	U. CT all campuses	172,003	190,341	211,236	219,982	215,184	224,679	225,904	225,217
81	IA State U.	188,664	199,566	211,996	209,545	221,998	217,158	224,368	224,311
82	U. of Medicine and Dentistry NJ	178,156	190,763	209,134	239,778	245,771	236,834	230,347	223,796
83	U. TX Health Science Ctr. San Antonio	129,616	133,304	137,039	142,375	150,040	160,282	201,323	221,535
84	Carnegie Mellon U.	188,191	186,351	205,149	200,297	212,506	197,143	210,619	217,667
85	U. TX Health Science Ctr. Houston	138,380	149,294	147,328	152,631	175,154	191,724	197,252	217,623
86	MS State U.	158,652	165,922	191,352	179,825	189,917	206,207	210,951	216,936
87	Medical U. SC	132,030	150,551	163,179	178,086	176,055	184,624	189,369	216,778
88	U. CA, Santa Barbara	131,795	149,130	151,325	165,014	174,429	191,204	203,719	215,728
89	OR State U.	161,735	167,631	170,286	180,309	189,606	189,368	188,056	209,061
90	U. MA Worcester	132,729	148,823	169,090	176,349	156,452	157,469	178,614	204,033
91	U. NM main campus	150,598	158,239	170,085	178,703	181,223	177,430	197,630	201,769
92	Wake Forest U.	111,634	130,405	133,753	185,152	183,129	185,609	199,915	201,204
93	Princeton U.	164,408	179,951	188,373	202,380	188,165	188,732	194,757	200,580
94	U. OK all campuses	169,373	174,466	158,578	173,663	178,719	176,825	192,070	196,772
95	FL State U.	134,351	152,277	168,132	172,858	185,633	189,565	182,314	195,244
96	Yeshiva U.	157,124	177,236	183,253	193,104	189,416	192,199	197,311	193,010
97	Uniformed Services U. of the Health Sciences	28,630	30,604	89,999	78,694	67,716	71,307	106,179	192,268
98	Dartmouth C.	126,839	155,795	173,266	179,094	200,277	192,846	186,938	189,351
99	U. SC all campuses	123,108	121,410	121,671	122,212	153,737	158,857	172,378	186,996
100	Clemson U.	134,840	152,986	158,585	175,127	179,840	211,760	195,195	186,383
101	U. TX Medical Branch	129,534	153,122	166,798	174,254	179,915	183,492	180,026	184,845
102	Medical C. WI	96,700	108,608	139,235	143,540	147,140	158,171	165,529	176,237
103	Brown U.	109,482	125,090	130,741	138,262	157,926	152,619	157,670	161,650
104	Woods Hole Oceanographic Institution	99,964	104,223	114,087	117,517	121,888	137,410	150,720	157,289
105	U. MA Amherst	109,332	113,512	120,788	127,487	135,272	141,351	152,884	156,216
106	Tulane U.	102,998	117,709	123,677	138,959	114,397	137,107	153,242	155,139
107	VA Commonwealth U.	109,619	126,451	132,839	146,105	149,256	134,453	148,655	150,989
108	NM State U. main campus	103,078	108,613	93,329	125,427	164,994	148,120	138,427	149,798
109	Tufts U.	109,291	112,609	126,432	131,028	128,965	130,826	139,528	147,903
110	Georgetown U.	105,668	117,713	126,320	123,938	118,558	137,775	142,623	147,441
111	U. Louisville	80,974	88,522	110,653	128,347	135,873	151,226	148,936	146,874

**Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2002–09**

		(Dollars in Thousands)							
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
112	KS State U.	106,804	112,733	119,306	123,398	123,746	123,900	137,543	146,310
113	U. CA, Santa Cruz	70,967	78,448	94,297	105,617	114,126	124,856	135,261	144,052
114	Auburn U. all campuses	108,775	117,000	125,705	132,203	126,522	140,629	146,984	143,654
115	UT State U.	121,621	138,862	153,616	131,624	138,670	140,243	146,128	143,010
116	WV U.	84,985	104,748	108,002	115,398	122,134	133,590	139,770	139,592
117	U. CA, Riverside	111,936	112,468	110,627	122,221	124,820	128,057	129,605	130,187
118	U. DE	85,157	100,706	109,985	110,339	114,985	118,245	125,179	124,475
119	U. AK Fairbanks all campuses	116,279	128,916	132,212	139,488	153,470	128,155	121,067	123,420
120	U. VT	88,602	104,994	114,120	115,693	121,841	113,195	115,421	122,558
121	OK State U. all campuses	94,987	103,079	103,915	99,436	100,323	101,112	121,226	120,445
122	MT State U. Bozeman	78,211	91,503	97,696	109,465	112,428	116,999	120,155	115,045
123	U. Central FL	66,351	89,880	103,261	102,702	107,996	111,595	108,067	113,433
124	ND State U. all campuses	72,105	91,812	102,115	103,011	103,778	106,208	115,513	113,214
125	U. NH	93,222	96,415	103,935	108,378	115,117	114,228	113,877	107,860
126	U. NV, Reno	66,721	80,553	83,552	95,579	98,917	95,809	102,073	106,378
127	U. AR for Medical Sciences	45,046	63,677	74,063	91,516	107,871	108,551	117,440	106,314
128	U. AR main campus	83,063	82,277	88,918	98,138	99,271	101,109	102,784	105,446
129	Drexel U.	44,465	69,548	76,120	88,049	96,687	96,575	100,911	102,366
130	Temple U.	63,850	71,327	76,055	83,062	79,736	85,394	92,486	101,864
131	Thomas Jefferson U.	102,974	109,083	112,078	107,388	106,986	107,288	99,275	101,188
132	U. ME	62,149	68,923	81,216	75,066	93,153	96,135	95,042	100,580
133	George Washington U.	86,288	92,454	103,473	107,715	113,982	126,110	157,145	99,945
134	U. Houston	59,707	63,455	60,962	80,731	75,662	73,542	84,490	99,262
135	U. of Notre Dame	52,371	59,803	74,255	71,266	78,553	77,467	97,171	97,850
136	Rush U.	79,394	89,196	89,254	83,693	83,194	84,370	89,513	96,975
137	U. Dayton	46,554	52,943	63,734	67,445	69,080	74,005	81,275	93,496
138	NJ Institute of Technology	69,138	73,664	74,998	76,920	77,583	88,699	89,792	92,891
139	FL International U.	47,654	52,175	63,545	76,678	63,567	90,903	95,706	91,278
140	U. MS all campuses	71,893 i	85,378	79,867	91,913	93,471	108,244	90,095	90,677
141	U. ID	76,758	85,213	93,246	91,009	86,863	83,390	81,532	88,242
142	TX A&M U. System Health Science Ctr.	49,636	55,031	64,170	73,162	76,109	77,957	79,687	83,631
143	U. RI	53,347	61,818	60,947	60,252	70,696	76,237	77,457	83,375
144	U. CA Office of the President <sup>b</sup>	NA	NA	90,233	97,245	128,770	118,910	100,034	83,006
145	NM Institute of Mining and Technology	36,309	37,186	38,476	56,134 i	73,792	83,742	79,437	81,742
146	TX Tech U.	82,785	92,515	57,592	56,623	58,591	57,878	57,902	80,011
147	San Diego State U.	64,302	67,053	66,710	73,887	73,777	65,810	69,974	79,190
148	Rice U.	48,169	52,367	60,872	63,102	66,564	71,435	74,254	78,745
149	George Mason U.	38,849	44,980	46,210	42,630	50,381	58,252	72,542	78,487
150	Rensselaer Polytechnic Institute	45,955	50,777	56,907	65,571	70,576	77,238	77,295	77,890
151	U. WY	41,632 e	60,054	60,054 e	83,449	89,414	79,700	74,720	77,633
152	Naval Postgraduate School	54,291 i	61,025	56,184 i	51,343	56,780	63,392	83,314	76,860
153	U. OR	43,723	44,604	51,956	52,657	57,153	61,694	67,378	75,869
154	U. MD Baltimore County	36,323	42,906	49,403	58,467	65,718	66,968	66,802	75,571
155	Old Dominion U.	29,223	30,324	34,819	47,006	49,966	52,134	66,538	71,909
156	U. ND all campuses	33,973	41,803	49,595	46,798	56,074	63,036	65,027	71,656
157	U. AL Huntsville, The	48,353	46,595	49,259	54,601	59,231	70,027	65,396	71,365
158	U. LA Lafayette	47,796	43,769	55,218	44,620	47,308	52,075	58,667	68,018
159	Southern IL U. Carbondale	53,604	53,018	53,953	57,434	74,520	64,703	67,094	66,316
160	U. Toledo	24,825	24,123	27,708	32,351	30,493	52,448	59,583	66,136
161	SUNY Binghamton	21,343	23,090	25,405	25,769	29,635	35,462	59,017	66,050
162	Wichita State U.	18,842	22,401	29,948	32,726	31,873	47,398	47,853	65,988
163	Medical C. GA	51,705	56,398	58,808	67,278	61,174	60,001	57,085	65,473
164	Brandeis U.	47,122	50,841	51,498	54,136	57,017	56,831	49,797	62,228
165	Northeastern U.	38,540	42,931	47,283	63,514	66,495	71,502	59,911	61,309
166	U. TX Dallas	26,198	30,748	31,274	43,111	44,198	46,477	59,300	61,214
167	GA State U.	44,564	45,653	45,415	50,262	52,690	51,387	77,709	60,557

**Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2002–09**

(Dollars in Thousands)									
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
168	U. MT-Missoula, The	39,367	43,562	51,078	54,685	52,903	55,755	58,032	59,505
169	MI Technological U.	30,005	30,264	35,670	40,188	43,081	55,294	58,763	58,356
170	Charles R. Drew U. of Medicine and Science	48,839	49,888	51,994	43,231	47,188	52,118	49,224	57,604
171	U. TX El Paso	23,684	27,185	25,440	26,825	32,161	39,965	48,906	56,635
172	SD State U.	20,085	27,652	30,962	32,042	33,275	39,033	47,758	55,334
173	U. MA Lowell	22,827	22,783	22,163	23,852	27,635	34,824	36,486	52,431
174	U. TX Arlington	15,097	15,102	19,003	28,971	29,267	32,734	43,005	51,673
175	C. of William and Mary all campuses	39,858	43,974	49,420	50,146	52,025	49,854	55,090	51,169
176	U.S. Air Force Academy	25,589	27,198	29,998	29,438	10,547	14,504	44,297	48,641
177	Wright State U. all campuses	30,962	34,860	38,052	40,328	47,711	49,713	47,770	48,153
178	U. Southern MS	25,685	35,049	35,908	37,881	39,163	47,135	47,088	46,744
179	U. MD Biotechnology Institute	43,673	45,140	47,725	56,135	59,297	61,757	43,213	45,921 i
180	U. Memphis, The	33,625	38,728	44,120	49,961	43,715	44,359	43,183	45,747
181	Jackson State U.	25,445	28,843	31,641	35,876	38,273	36,888	42,739	44,884
182	FL Atlantic U.	23,995	25,946	23,767	27,388	28,896	38,598	41,788	44,334
183	U. WI Milwaukee	24,933	27,259	28,268	32,748	34,033	40,023	41,285	44,115
184	U. TX San Antonio	11,115	13,654	15,738	22,429	30,259	30,542	33,106	43,818
185	U. MD Ctr. for Environmental Science	38,501	38,344	39,631	41,022	40,146	40,720	40,556	41,670
186	OH U. all campuses	36,601	37,527	38,704	43,229	38,000	38,671	38,108	41,256
187	Boston C.	31,754	32,158	32,158 e	31,588	35,659	39,261	40,796	41,132
188	Syracuse U. all campuses	45,870	48,846	58,276	62,020	36,100	36,396	38,455	40,885
189	CO School of Mines	26,515	29,162	27,087	26,499	28,729	29,939	34,050	40,117
190	San Jose State U.	25,003	28,323	29,268	32,886	34,687	34,241	38,521	39,339
191	U. NV, Las Vegas	30,527	42,205	45,429	48,343	57,031	56,034	50,775	39,148
192	St. Louis U. all campuses	35,444	41,189	41,189 e	47,356	48,133	54,265	56,644	37,983
193	Loma Linda U.	23,996	26,296	29,651	29,898	32,451	28,020	35,890	37,557
194	TX Tech U. Health Science Ctr.	NA	NA	19,827	18,697	22,013	21,006	24,716	37,363
195	Eastern VA Medical School	28,572	32,801	33,798	33,721	33,013	31,453	30,777	36,678
196	U. MA Boston	13,121	15,793	15,460	18,148	21,056	25,952	30,272	36,637
197	U. AL, The	37,130	34,187	35,132	34,531	35,129	36,382	32,846	36,508
198	Desert Research Institute	29,465	31,757	34,783	34,570	38,511	40,238	38,045	36,490
199	CUNY The City C.	17,103	17,712	25,947	28,992	30,316	32,840	34,452	36,368
200	U. MO-Rolla	32,222	35,999	41,242	38,337	37,384	30,395	36,477	35,466
201	Loyola U. Chicago	37,607	37,581	36,134	40,551	37,669	34,940	34,568	35,126
202	Portland State U.	17,683	21,433	21,433 e	28,940	28,763	26,025	27,007	35,030
203	U. PR Medical Sciences Campus	29,089	31,124	34,092	35,809	38,424	38,863	35,570	34,869
204	U. Akron all campuses	28,080	27,953	27,488	26,888	28,440	27,138	27,182	34,507
205	CUNY Hunter C.	25,905	32,704	34,931	33,024	31,308	27,046	30,402	33,267
206	SUNY Upstate Medical U.	22,326	25,931	32,090	34,931	37,181	39,699	36,359	33,194
207	Lehigh U.	22,687	29,211	32,048	36,709	33,469	36,537	37,156	33,169
208	Howard U.	35,387	37,577	41,404	41,609	36,465	38,020	36,419	32,884
209	Southern IL U. Edwardsville	14,043	17,100	18,973	20,883	23,737	26,904	30,333	31,795
210	NY Medical C.	25,222	30,492	33,521	32,460	34,397	34,365	31,644	30,584
211	U. PR Rio Piedras Campus	9,736	11,473	12,417	20,546	21,609	21,379	34,674	30,433
212	Miami U. all campuses	13,279	13,727	15,377	18,026	19,229	23,729	25,052	29,808
213	U. North TX Health Science Ctr. Ft. Worth	12,893	15,388	18,520	22,325	25,124	28,187	28,179	29,582
214	U. SD	8,368	11,148	15,523	18,681	22,613	21,473	22,742	29,417
215	U. South AL	17,692	19,371	20,096	19,431	19,308	25,883	28,466	29,197
216	SUNY Health Science Ctr. Brooklyn	31,153 i	30,680 i	30,207 i	29,732	31,064	29,809	32,299	29,184
217	Rochester Institute of Technology	13,500	17,197	19,423	21,068	22,107	20,961	24,018	28,955
218	NC Agricultural and Technical State U.	15,353	17,304	19,534	22,936	23,698	24,044	28,781	28,540
219	U. MO-Kansas City	24,060	31,104	31,968	30,780	26,016	26,870	27,509	27,500
220	Morehouse School of Medicine	23,956	27,154	33,317	30,652	28,378	27,886	27,077	27,392
221	Creighton U.	18,982	24,116	25,451	27,022	25,615	28,374	26,872	27,104
222	Air Force Institute of Technology	9,243	12,454	13,001	14,666	18,783	16,801	20,497	26,761
223	Meharry Medical C.	20,508	25,427	27,507	29,105	32,878	33,218	34,152	26,587

**Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2002–09**

		(Dollars in Thousands)							
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
224	Northern AZ U.	17,263	17,446	19,967	22,870	27,632	26,566	25,820	26,183
225	FL A&M U.	31,147	23,503	31,408	26,400	34,293	16,541	24,012	25,651
226	Brigham Young U. all campuses	21,228	22,557	23,565	23,961	25,973	26,653	25,664	25,497
227	Stevens Institute of Technology	13,855 e	18,334 i	22,814	22,997	25,848	25,684	27,317	25,116
228	San Francisco State U.	14	12,500	42,903	23,655	27,333	20,069	21,191	25,065
229	Kent State U. all campuses	12,868	14,549	12,712	11,045	11,076	19,001	23,293	25,050
230	U. NC Charlotte	8,773	12,599	17,425	16,042	18,463	22,165	21,869	24,814
231	East Carolina U.	11,513	12,520	13,296	14,240	14,061	15,970	16,192	24,177
232	IL Institute of Technology	19,909	25,744	22,948	25,498	22,646	22,955	22,538	23,347
233	Marshall U.	11,285	15,070	20,221	22,321	18,385	22,519	22,423	22,437
234	U. of the VI	13,981	15,762	17,874	16,735	17,495	17,842	18,099	22,019
235	Mercer U. all campuses	12,998	14,996	18,437	20,042	19,529	18,096	19,624	21,858
236	U. CA, Merced	na	na	na	4,468	7,527	10,945	16,802	21,421
237	U. Southern ME	7,592 i	10,705 i	13,818 i	16,931 i	20,045	34,799	27,232	20,957
238	Catholic U. America, The	22,883	24,475	23,610	21,489	17,662	19,919	20,375	20,942
239	Northern IL U.	10,366	12,368	11,687	11,239	16,627	16,710	14,948	20,644
240	ID State U.	10,119	12,243	14,385	19,700	16,754	19,887	20,728	20,524
241	SUNY C. of Environmental Science and	26,337	26,783	19,419 i	12,054	17,954 i	23,854	26,359	20,513
242	U. PR Mayaguez Campus	19,939	20,029	16,686	20,492	21,080	19,813	20,094 i	20,375
243	U. North TX	13,227	13,990	11,958	12,617	14,819	14,207	15,932	19,552
244	CA State Polytechnic U. San Luis Obispo	14,002	13,598	9,417	11,235	12,529	14,517	14,866	19,420
245	U. MA Dartmouth	15,030	16,476	18,074	19,452	19,171	19,538	20,431	19,343
246	LA Tech U.	12,110	15,055	16,118	15,832	15,276	14,166	19,406	18,060
247	Albany Medical C.	13,104	13,394	15,562	15,465	16,227	15,029	15,108	17,776
248	AL State U.	1,433	1,633	1,688	1,900	1,900	1,900	2,461	17,164
249	Teachers C. Columbia U.	10,409	9,603	9,684	10,669	11,411	12,585	15,198	16,919
250	American U.	4,420	2,517	1,745	1,542	2,410	6,109	9,263	16,848
251	Tuskegee U.	9,965	10,067	11,519	10,966	11,651	14,329	14,963	16,706
252	U. NC Wilmington	14,568	12,762	14,381	20,617	13,609	17,064	20,100	16,423
253	TX State U. San Marcos	8,109	7,621	9,130	7,261	7,034	7,890	11,792	15,742
254	Clarkson U.	8,322 e	7,466	14,703	13,826	16,143	16,976	17,654	14,929
255	AL A&M U.	15,717	36,856	17,429	16,075	14,431	13,672	8,959	14,752
256	Worcester Polytechnic Institute	10,493	12,357	14,045	14,679	14,483	13,409	14,912	14,663
257	TX A&M U. Kingsville	8,208	10,203	11,102	13,389	13,343	13,794	13,519	14,630
258	SD School of Mines and Technology	9,692	10,853	10,626	13,347	12,589	14,480	16,503	14,373
259	Southern Methodist U.	9,774	9,890	10,432	11,839	12,475	13,381	19,530	14,338
260	TN Technological U.	9,823	9,609	8,779	9,312	9,575	12,226	11,742	13,959
261	Cleveland State U.	13,855	14,112	16,888	15,884	14,496	15,948	14,131	13,424
262	Rosalind Franklin U. of Medicine and Science	8,645	9,923	10,614	11,920	10,981	12,199	12,128	13,375
263	Western MI U.	19,023	21,571	13,912	17,518	18,005	17,182	14,617	13,301
264	TX A&M U. Corpus Christi	9,124	10,281	12,266	8,845	12,654	11,933	11,662	13,279
265	Alcorn State U.	5,809	7,619	7,622	6,256	6,593	9,056	11,665	13,064
266	U. MO-St. Louis	11,519	12,819	12,429	12,056	11,713	10,907	12,297	12,995
267	Hampton U.	11,067	18,673	31,645	42,969	28,705	24,017	21,089	12,824
268	CUNY Queens C.	6,718	6,430	6,819	6,876	7,432	9,186	11,377	12,768
269	CA State U. Long Beach	8,026	13,732	9,877	9,594	10,322	13,867	14,971	12,665
270	U. Denver	10,539	9,949	12,500	11,716	10,581	9,833	11,029	12,560
271	U. Tulsa	11,603	11,527	15,375	12,740	12,358	14,735	14,270	12,525
272	CA State U. Northridge	10,619	11,638	10,305	8,767	7,490	12,412	12,793	12,486
273	Morgan State U.	1,674	7,493	8,580	9,544	13,523	11,257	12,336	12,351
274	TN State U.	15,262	14,306	15,255	14,669	14,096	12,475	12,090	12,202
275	Boise State U.	6,446	7,583	9,126	9,162	7,848	10,947	11,222	11,955
276	CA State U. Sacramento	312 i	287 i	262 i	237 i	212 i	183	4,386	11,734
277	Prairie View A&M U.	10,444	11,193	10,989	11,810	11,444	12,019	10,786	11,545
278	Baylor U.	3,868	4,203	5,242	6,364	6,133	8,951	9,867	11,427
279	MO State U.	1,888	1,423	2,935	6,367	5,188	9,320	9,042	11,244

**Appendix B: Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2007 R&D Expenditures: FY 2002–09**

		(Dollars in Thousands)							
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
280	Embry-Riddle Aeronautical U.	5,102	6,641	8,558	13,325	10,628 i	7,930	6,864	10,899
281	Tarleton State U.	7,871	8,534	7,194	8,512	8,069	9,151	8,857	10,804
282	U.S. Naval Academy	2,324	3,451	5,985	6,623	6,850	7,973	8,849	10,468
283	Oakland U.	6,869	6,175	6,616	6,505	9,169	8,872	9,465	10,464
284	U. NC Greensboro	4,454	3,454	3,762	4,843	6,059	6,130	7,876	10,394
285	FL Institute of Technology	6,669	8,004	7,801	7,539	7,684	6,985	8,642	10,389
286	Humboldt State U.	5,871 i	6,028 i	6,185 i	6,342 i	6,500	7,087	8,808	10,301
287	Marquette U.	9,807	11,385	9,652	10,338	10,445	9,744	10,373	10,275
288	Northeastern OH Universities C. of Medicine	4,525	4,364	5,601	5,703	5,294	4,984	9,165	10,077
289	Duquesne U.	5,955	6,848	8,082	8,096	8,345	8,850	9,542	10,066
290	Villanova U.	5,481 e	6,479 i	7,477 i	8,475 i	9,473 i	10,473	9,484	9,919 i
291	CA State U. Fresno	9,398	13,558	15,211	13,498	9,749	5,297	7,967	9,837
292	U. HI Hilo	10,841	5,317	4,978	9,596	7,843	7,926	6,916	9,595
293	Polytechnic U.	10,915	11,271 i	11,627	15,295	14,479	14,216	12,674	9,505
294	U.S. Military Academy	6,006 i	6,435 i	6,864 i	7,293 i	7,722 i	8,167	10,123	9,432
295	DE State U.	3,162	3,944	4,678 i	5,412	7,016	7,418	8,052	9,335
296	U. AR Little Rock	2,088 e	24,284	4,127	4,345	9,331	9,598 i	9,866	9,269
297	East TN State U.	11,701	12,971	7,788	8,098	7,943	8,020	8,237	9,189
298	VA State U.	7,144	7,209	5,953	5,048	8,189	8,170	8,282	9,056
299	Seton Hall U.	1,200	1,779	1,941	3,418	2,395	2,685	2,290	8,923
300	Nova Southeastern U.	3,327	4,752	5,139	5,789	6,445	6,697	7,545	8,872
	All other surveyed institutions	653,378	637,485 0	654,209 0	693,528 0	720,066 0	717,429 0	769,312 0	793,579

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.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$977,951 in total R&D expenditures in FY 2009.

<sup>b</sup> See Appendix A, Technical Notes, for changes in reporting between FY 2003 and FY 2004.

<sup>c</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

<sup>d</sup> On 1 July 2008 PA College of Optometry was renamed Salus University to reflect an expansion of its academic programs.

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 2009.

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2009 Expenditures: FY 2002-09**

(Dollars in Thousands)									
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
	All institutions	21,873,227	24,770,506	27,644,009	29,208,868	30,128,002	30,443,049	31,281,447	32,587,529
1	Johns Hopkins U., The <sup>a</sup>	1,022,510	1,106,971	1,229,426	1,277,292	1,307,453	1,362,836	1,454,426	1,587,547
2	U. MI all campuses	444,255	516,818	521,339	554,516	565,739	577,201	592,768	636,216
3	U. WA	487,059	565,602	625,218	606,317	650,394	620,375	614,069	619,353
4	MA Institute of Technology	330,409	356,206	427,552	457,235	476,362	476,318	495,008	532,618
5	U. CA, San Diego	359,383	400,100	465,629	463,946	463,807	475,708	490,963	511,428
6	U. WI Madison	345,003	396,231	434,423	477,582	491,810	469,076	474,440	507,898
7	U. CO all campuses	340,466	377,941	414,986	449,366	448,350	442,303	437,393	500,123
8	U. PA	397,587	415,631	435,343	465,284	478,773	449,687	482,321	499,498
9	U. CA, San Francisco	327,393	371,697	418,944	438,988	464,660	467,402	472,642	483,667
10	Columbia U. in the City of New York	356,749	385,529	406,576	453,188	451,187	459,748	461,029	483,111
11	Stanford U.	426,620	483,540	541,667	574,675	540,069	534,787	509,477	477,507
12	U. CA, Los Angeles <sup>b</sup>	366,762	421,174	461,145	469,889	483,873	488,846	471,932	467,505
13	U. Pittsburgh all campuses	306,913	345,625	394,444	420,305	422,316	441,357	456,172	463,192
14	PA State U. all campuses	284,706	301,094	347,996	358,569	367,215	370,789	406,528	439,193
15	Duke U.	261,356	306,864	347,896	376,568	414,419	459,122	451,317	438,767
16	U. NC Chapel Hill	254,571	280,678	304,204	320,294	329,215	346,672	373,098	431,837
17	Washington U. St. Louis	303,441	357,364	371,043	400,699	408,402	424,451	393,918	414,045
18	U. MN all campuses	295,301	293,266	307,677	319,771	326,170	337,966	364,137	390,602
19	Harvard U.	336,607	348,620	399,764	395,906	403,458	392,103	383,330	385,704
20	Yale U.	274,304	296,713	330,837	332,702	348,500	349,027	374,551	378,914
21	U. Southern CA	266,645	300,195	312,589	330,126	333,378	355,084	348,713	375,024
22	Cornell U. all campuses	270,578	320,868	339,107	365,694	390,043	367,094	358,944	363,144
23	OH State U. all campuses	177,883	198,488	284,675	294,053	315,914	313,242	335,121	339,820
24	Vanderbilt U.	172,858	221,979	261,484	281,694	300,423	312,178	331,296	336,405
25	GA Institute of Technology all campuses	165,680	203,582	237,483	245,130	257,751	260,230	281,184	322,452
26	Case Western Reserve U.	181,888	205,452	195,525	212,485	306,980	304,742	305,483	313,044
27	U. TX Austin	219,158	231,996	235,281	254,529	273,147	289,331	324,287	309,125
28	CA Institute of Technology	199,944	219,097	244,187	249,371	248,591	253,657	243,624	305,682
29	U. Chicago	183,830	201,129	229,102	245,679	253,471	261,870	284,616	301,159
30	Northwestern U.	178,607	200,316	230,593	244,113	249,980	249,411	264,984	300,619
31	U. AL Birmingham, The	216,221	245,217	261,664	288,434	292,962	269,006	303,084	300,130
32	U. Rochester	195,298	208,148	231,193	257,497	278,399	280,132	276,268	295,963
33	U. CA, Davis	176,644	208,327	221,937	240,003	248,190	256,994	268,957	295,924
34	Emory U.	186,083	228,255	243,248	266,868	267,894	271,445	291,126	295,831
35	Scripps Research Institute, The	NA	NA	236,989	272,969	268,533	267,073	265,657	288,388
36	U. IL Urbana-Champaign	214,323	266,487	275,896	289,985	264,645	253,612	266,912	288,013
37	U. AZ	211,772	259,074	283,956	292,811	301,619	269,941	277,897	287,889
38	Baylor C. of Medicine	259,475	302,764	312,669	300,638	287,679	263,146	262,498	267,130
39	Mt. Sinai School of Medicine	125,979	152,719	185,249	191,326	224,911	221,397	253,319	264,914
40	U. CA, Berkeley	217,297	238,206	268,830	290,960	261,718	251,043	249,163	262,069
41	TX A&M U.	163,488	177,119	173,705	212,923	206,242	228,363	245,607	261,491
42	Boston U.	171,438	203,947	219,054	228,842	238,560	232,115	235,153	255,178
43	U. IA	180,743	197,260	209,865	216,354	216,521	222,944	229,903	252,336
44	U. MD College Park	194,095	183,206	180,943	196,008	209,764	218,973	236,417	246,985
45	OR Health & Science U.	130,231	164,221	206,219	217,145	223,204	227,441	232,208	233,774
46	U. FL	167,108	194,958	221,898	231,699	248,322	240,819	230,999	232,737
47	U. Cincinnati all campuses	150,166	185,261	194,965	202,654	201,742	219,317	221,186	229,324
48	U. VA all campuses	152,358	173,442	188,121	198,606	203,778	198,256	219,429	218,499
49	CO State U.	112,650	117,151	162,074	154,245	182,648	210,746	208,925	211,890
50	U. TX Southwestern Medical Ctr. Dallas	155,258	177,196	200,888	202,057	196,621	191,687	201,480	207,216
51	U. HI Manoa	110,882	143,580	187,035	190,137	202,419	208,196	194,508	203,453
52	NY U.	149,995	166,033	181,441	191,782	189,276	194,303	199,363	202,535
53	IN U. all campuses	132,759	153,625	166,913	171,528	170,635	173,828	186,711	197,558
54	U. IL Chicago	143,183	168,063	192,825	198,163	203,875	208,881	196,520	196,702
55	U. TX M. D. Anderson Cancer Ctr.	117,633	122,869	150,529	160,953	182,028	190,508	194,889	194,633
56	U. UT	142,625	152,112	161,119	168,652	174,888	174,719	171,737	192,354

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2009 Expenditures: FY 2002-09**

(Dollars in Thousands)									
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
57	U. South FL	84,108	106,102	126,906	142,580	153,737	158,442	169,911	190,949
58	U. CA, Irvine	115,548	133,873	150,995	161,524	169,983	169,912	178,299	177,098
59	Purdue U. all campuses	107,477	129,199	144,090	150,351	157,438	165,637	176,592	175,302
60	U. Miami	121,171	130,863	141,943	156,059	150,408	147,535	165,986	172,000
61	Carnegie Mellon U.	137,967	157,583	172,858	173,902	185,389	168,486	170,978	170,260
62	U. MD Baltimore	117,017	126,156	141,221	129,270	186,160	164,211	169,026	169,081
63	MI State U.	122,595	133,820	143,473	156,461	169,116	170,350	152,907	164,198
64	Rutgers, The State U. NJ all campuses	91,205	110,041	128,655	137,609	129,456	135,933	140,399	161,877
65	LA State U. all campuses	97,928	99,143	112,169	132,679	144,389	150,282	150,298	157,645
66	U. TN all campuses	88,344	100,486	109,357	121,004	133,334	126,998	120,289	156,043
67	SUNY Buffalo all campuses	121,376	129,794	143,865	151,890	153,152	148,989	155,340	152,146
68	U. NE all campuses	82,728	96,627	115,833	129,216	139,113	138,338	136,317	148,602
69	VA Polytechnic Institute and State U.	82,976	98,143	95,669	109,842	119,994	128,796	135,578	148,411
70	U. MA Worcester	93,992	109,082	126,162	130,680	136,141	131,226	145,113	145,834
71	U. KY all campuses	100,426	120,003	129,887	142,794	151,238	154,688	154,811	145,483
72	Wake Forest U.	91,738	108,467	120,075	141,685	139,549	141,467	146,298	144,454
73	Yeshiva U.	114,268	128,894	151,520	160,894	153,785	147,941	143,866	137,108
74	NC State U.	91,981	96,157	103,586	109,128	131,262	131,056	131,412	135,318
75	U. TX Health Science Ctr. Houston	98,676	107,481	106,737	112,509	122,870	131,879	129,277	135,087
76	AZ State U.	64,407	71,741	79,877	94,545	109,893	114,632	125,558	134,598
77	Dartmouth C.	87,255	106,034	123,109	122,329	140,430	128,164	121,306	134,113
78	U. NM main campus	104,252	106,541	112,299	129,557	127,907	123,039	134,783	133,334
79	U. TX Health Science Ctr. San Antonio	83,761	86,683	89,662	95,125	95,110	95,610	121,758	129,399
80	Princeton U.	97,724	104,011	111,435	120,042	117,845	119,171	125,102	128,876
81	U. KS all campuses	82,663	92,888	101,920	110,768	115,522	115,670	122,401	127,449
82	Woods Hole Oceanographic Institution	78,458	84,410	100,456	100,747	101,631	112,754	117,587	127,378
83	U. TX Medical Branch	78,100	93,039	102,491	117,235	120,408	118,173	122,009	126,703
84	Uniformed Services U. of the Health Sciences	10,294	9,527	62,408	50,016	39,461	37,275	67,345	124,314
85	U. CT all campuses	93,326	111,654	127,609	134,347	124,837	123,513	119,915	120,668
86	Georgetown U.	75,342	88,463	95,852	100,328	92,268	105,304	111,590	119,925
87	U. MO-Columbia	77,742	84,211	90,304	96,038	101,732	108,328	108,131	118,998
88	OR State U.	91,683	100,499	104,276	109,030	116,586	110,267	113,614	118,252
89	Medical C. WI	76,241	83,026	100,547	102,859	100,128	107,200	111,602	117,842
90	FL State U.	70,456	87,985	102,967	105,747	110,358	113,681	110,618	117,294
91	Wayne State U.	95,910	102,963	114,700	120,581	118,042	114,364	115,904	116,682
92	U. of Medicine and Dentistry NJ	90,235	105,495	121,812	143,239	140,923	126,101	122,061	115,770
93	U. CA, Santa Barbara	78,370	88,422	92,248	103,955	106,169	111,848	111,601	113,837
94	Medical U. SC	75,803	92,893	103,494	108,196	104,057	101,402	102,187	113,789
95	Tulane U.	64,824	82,118	87,917	94,628	84,052	98,473	109,152	109,269
96	U. SC all campuses	53,403	63,044	71,856	65,095	89,294	89,000	98,576	107,504
97	SUNY Stony Brook all campuses	108,122	112,452	123,124	125,781	112,973	111,241	106,419	107,396
98	U. GA	78,086	93,884	96,348	102,966	92,652	103,256	102,817	106,932
99	U. AK Fairbanks all campuses	66,169	72,607	75,269	89,637	98,330	112,543	105,914	105,885
100	MS State U.	77,521	79,837	82,205	84,465	94,073	106,662	105,327	102,903
101	Tufts U.	73,236	78,942	92,997	98,200	95,964	91,379	95,620	102,330
102	VA Commonwealth U.	65,028	81,201	89,066	97,322	97,576	90,137	95,369	97,433
103	SUNY Albany	40,497	76,038	94,712	103,941	103,835	105,776	108,747	96,910
104	IA State U.	71,419	82,297	92,235	98,005	104,553	97,112	102,771	96,483
105	WA State U.	61,138	70,653	74,944	80,222	81,324	78,505	97,668	95,824
106	U. OK all campuses	69,388	75,318	81,048	87,776	90,880	86,422	91,578	95,809
107	Brown U.	68,215	81,445	84,126	90,857	96,922	95,023	95,145	93,753
108	U. VT	58,280	70,832	79,015	79,879	82,519	90,049	89,717	92,555
109	George Washington U.	58,729	68,959	78,192	78,779	75,209	87,624	119,100	88,949
110	NM State U. main campus	70,314	75,368	76,396	91,247	101,849	100,773	86,636	88,707
111	U. DE	48,183	69,493	76,583	74,721	79,640	82,539	84,628	87,090
112	UT State U.	79,393	95,494	107,945	92,660	96,242	90,832	88,884	84,082
113	U. MA Amherst	54,770	60,839	65,452	66,921	69,176	71,974	79,736	80,163
114	U. NH	50,829	59,463	67,917	78,653	86,416	81,027	83,769	78,633

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2009 Expenditures: FY 2002-09**

		(Dollars in Thousands)							
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
115	U. CA, Santa Cruz	32,901	38,213	53,196	62,301	66,390	68,204	69,742	76,085
116	Naval Postgraduate School	52,172 i	58,463	50,771 i	43,079	54,528	62,434	82,302	75,825
117	Rockefeller U.	67,559	75,303	82,535	85,552	93,742	86,728	81,557	73,906
118	Thomas Jefferson U.	79,217	85,348	92,296	86,171	82,551	81,545	76,034	73,152
119	U. Louisville	38,978	39,924	54,476	67,104	70,481	76,479	72,711	72,770
120	MT State U. Bozeman	39,986	53,283	58,874	71,604	75,362	75,765	70,386	71,620
121	U. Dayton	40,191	47,327	56,647	58,782	56,779	60,089	64,515	70,469
122	Drexel U.	30,232	49,271	54,963	62,606	68,499	66,795	65,198	67,620
123	Temple U.	44,577	51,309	50,456	53,987	50,904	54,452	58,686	65,126
124	U. Central FL	29,929	47,749	44,020	40,013	37,974	49,359	55,771	65,042
125	WV U.	49,394	60,586	60,819	62,489	63,764	65,699	68,147	64,388
126	U. NV, Reno	39,958	47,756	50,787	60,329	64,476	62,713	66,165	63,709
127	U. MS all campuses	50,795 i	62,140	59,787	67,603	67,717	77,526	65,799	62,192
128	U. OR	37,177	36,127	43,634	43,564	46,583	49,467	55,190	61,464
129	U. AR for Medical Sciences	27,491	41,681	53,249	59,053	66,127	60,836	62,035	61,249
130	NM Institute of Mining and Technology	18,864	15,434	13,853	30,877 i	47,901	69,050	64,322	61,178
131	KS State U.	43,988	53,313	56,088	58,821	52,649	47,654	52,984	57,743
132	U. of Notre Dame	33,285	41,220	48,650	51,072	55,710	53,974	66,812	57,425
133	U. RI	45,453	51,942	48,590	42,132	46,898	52,561	50,377	57,148
134	Rice U.	39,739	43,706	51,157	54,735	53,880	54,279	54,959	56,270
135	George Mason U.	31,890	38,510	39,758	36,475	35,911	46,588	50,392	55,678
136	Clemson U.	47,174	62,552	61,065	56,829	56,268	53,905	56,535	55,108
137	U. CA, Riverside	32,305	40,409	40,981	52,919	58,023	56,129	53,780	53,971
138	U. AL Huntsville, The	35,660	35,558	39,607	42,358	44,636	48,415	47,068	53,893
139	U. MD Baltimore County	29,376	34,164	37,548	43,377	44,830	49,461	50,561	53,867
140	FL International U.	32,057	40,860	47,913	51,328	45,894	52,141	52,838	53,647
141	Charles R. Drew U. of Medicine and Science	39,259	39,407	40,430	41,207	44,394	48,580	43,291	53,110
142	Auburn U. all campuses	42,432	45,374	49,565	51,319	45,540	54,949	54,748	52,911
143	U. ND all campuses	25,004	28,336	36,349	32,092	38,848	44,610	46,620	49,215
144	Rensselaer Polytechnic Institute	26,490	32,295	36,651	42,338	44,690	48,924	47,109	48,216
145	U. ME	23,732	28,901	36,513	28,951	41,394	41,963	40,931	47,280
146	Medical C. GA	23,317	28,280	35,841	41,910	41,555	40,609	39,486	45,272
147	ND State U. all campuses	21,414	37,940	45,375	46,060	45,418	45,475	50,038	43,614
148	Rush U.	44,756	49,834	51,706	49,150	45,044	39,601	40,942	43,608
149	San Diego State U.	25,223	28,084	30,092	35,328	35,351	33,139	36,267	42,736
150	NJ Institute of Technology	27,550	30,535	30,995	35,716	35,489	41,330	40,087	42,656
151	U. ID	33,465	42,861	48,565	47,212	47,018	46,144	45,301	42,207
152	U. Southern MS	22,398	31,653	32,075	34,941	34,577	42,645	42,540	41,517
153	Brandeis U.	29,006	33,722	38,041	39,788	41,184	41,358	38,204	40,532
154	U. Houston	31,455	32,556	34,468	37,262	38,559	40,116	43,162	40,020
155	OK State U. all campuses	31,100	37,748	43,345	36,637	37,943	36,958	41,051	39,517
156	U.S. Air Force Academy	8,163	12,599	15,739	15,165	9,678	14,301	43,787	38,795
157	Northeastern U.	24,295	26,895	30,659	36,524	36,071	36,028	36,497	38,178
158	Jackson State U.	21,721	25,607	28,806	30,472	30,783	30,980	35,221	37,321
159	U. MT-Missoula, The	22,612	27,220	34,478	36,433	33,039	33,855	34,407	36,631
160	St. Louis U. all campuses	31,215	36,989	36,989 e	44,757	45,183	47,704	49,434	33,644
161	U. AR main campus	27,588	27,071	31,088	33,496	31,926	37,016	31,531	31,597
162	U. NV, Las Vegas	22,367	32,511	28,013	35,942	42,772	48,597	41,505	31,270
163	Howard U.	33,949	36,137	40,086	40,020	34,959	33,996	34,630	30,599
164	Desert Research Institute	22,760	23,265	26,235	28,655	30,407	30,752	30,703	29,544
165	U. WY	20,017 e	23,186	23,186 e	29,351	25,844	25,537	28,372	29,479
166	U. TX El Paso	16,457	18,116	16,900	15,378	19,331	21,018	26,902	29,386
167	U. Toledo	8,996	10,928	13,229	15,521	16,534	31,863	29,201	29,328
168	Loma Linda U.	20,114	22,675	26,631	26,855	28,788	24,666	32,350	29,114
169	Old Dominion U.	17,170	18,882	21,377	24,463	27,506	25,694	28,298	27,644
170	U. PR Medical Sciences Campus	23,931	25,845	28,063	29,863	31,199	31,955	28,481	27,042
171	MI Technological U.	17,973	17,667	18,735	19,760	18,757	28,193	29,868	27,004

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2009 Expenditures: FY 2002-09**

(Dollars in Thousands)									
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
172	TX A&M U. System Health Science Ctr.	22,417	26,729	30,283	32,949	35,214	35,004	33,044	26,984
173	U. TX San Antonio	7,111	9,982	11,644	15,924	20,277	20,545	21,523	26,393
174	U. TX Dallas	11,624	14,530	15,733	19,933	19,954	17,783	21,383	25,651
175	Portland State U.	11,914	13,276	13,276 e	18,580	18,797	17,054	18,743	25,334
176	CO School of Mines	13,230	16,314	16,550	15,501	20,543	18,248	20,072	25,109
177	SD State U.	9,115	11,441	13,447	13,914	12,788	16,729	20,912	24,303
178	U. TX Arlington	7,848	7,884	10,498	17,654	19,006	19,774	20,721	24,290
179	C. of William and Mary all campuses	18,007	21,992	26,049	26,898	29,121	25,983	25,645	24,248
180	TX Tech U.	28,202	31,776	23,181	22,071	22,278	22,874	19,698	24,184
181	Eastern VA Medical School	13,077	15,431	17,530	19,969	19,399	20,620	17,499	24,083
182	GA State U.	18,967	22,218	25,845	25,204	24,968	24,569	26,257	24,038
183	San Jose State U.	15,777	18,935	20,363	21,160	23,197	22,609	22,173	23,949
184	U. AL, The	26,900	26,241	25,329	24,393	22,847	27,744	23,394	23,944
185	Meharry Medical C.	20,453	24,195	26,159	27,408	30,914	31,263	31,035	23,829
186	Morehouse School of Medicine	21,919	24,382	23,331	24,213	25,156	23,230	24,985	23,583
187	FL A&M U.	21,592	18,273	24,994	22,378	24,902	14,502	22,154	23,409
188	U. MO-Rolla	15,749	18,142	20,218	21,772	22,351	18,256	22,353	23,368
189	U. MA Lowell	14,932	15,821	16,655	17,608	18,741	20,045	22,406	23,083
190	SUNY Health Science Ctr. Brooklyn	23,011 i	23,162 i	23,313 i	23,466	25,184	23,232	25,299	22,849
191	Loyola U. Chicago	27,678	28,107	29,150	30,584	25,420	24,794	23,034	22,844
192	Wright State U. all campuses	16,070	18,733	20,599	20,527	22,430	22,229	21,315	22,789
193	Boston C.	22,827	22,907	22,907 e	17,801	18,344	20,336	21,099	22,672
194	CUNY The City C.	13,319	13,456	19,711	22,289	21,408	21,776	21,739	22,598
195	Syracuse U. all campuses	32,704	34,559	43,162	46,945	25,299	24,894	24,207	22,434
196	NY Medical C.	19,318	23,387	25,103	25,242	26,579	26,101	23,107	22,253
197	SUNY Upstate Medical U.	13,404	16,652	22,650	23,275	27,247	27,933	23,117	21,828
198	U. North TX Health Science Ctr. Ft. Worth	7,770	9,927	13,259	17,037	19,183	19,203	19,818	20,215
199	Stevens Institute of Technology	8,094 e	13,783 i	19,473	18,626	22,501	22,809	19,458	19,326
200	Lehigh U.	13,519	16,215	19,400	21,061	18,248	22,116	22,044	19,302
201	Southern IL U. Carbondale	10,789	12,078	15,557	16,975	20,108	17,724	17,499	19,223
202	U. WI Milwaukee	11,461	13,704	13,670	15,893	15,867	18,368	16,895	18,955
203	U. PR Rio Piedras Campus	4,971	6,760	8,093	14,301	16,881	16,114	25,382	18,886
204	U. MD Biotechnology Institute	16,701	19,989	24,436	31,276	32,005	30,375	17,952	18,737 i
205	CUNY Hunter C.	14,573	17,047	18,836	18,544	18,472	15,768	14,978	18,512
206	NC Agricultural and Technical State U.	11,953	12,226	13,487	16,348	15,885	15,362	18,405	18,494
207	Rochester Institute of Technology	7,868	11,630	12,415	11,620	14,581	13,225	14,370	18,029
208	IL Institute of Technology	11,277	13,900	14,903	16,493	19,121	19,731	18,888	17,349
209	Northern IL U.	4,980	6,892	6,824	7,897	11,696	13,034	11,566	17,098
210	East Carolina U.	6,030	7,565	9,399	10,967	10,657	10,354	10,807	17,079
211	Brigham Young U. all campuses	12,900	16,564	17,129	16,878	17,309	17,118	17,128	16,979
212	Marshall U.	9,502	12,802	17,104	18,660	15,360	18,412	18,492	16,787
213	SUNY Binghamton	8,959	8,981	10,414	10,494	12,213	13,991	14,402	16,704
214	U. SD	5,830	8,308	12,849	15,448	17,308	16,683	17,569	16,684
215	U. of the VI	10,620	10,772	11,598	12,213	12,518	12,561	12,770	16,628
216	OH U. all campuses	17,677	20,406	20,831	20,736	19,573	18,605	18,204	16,508
217	U. Memphis, The	14,072	14,985	14,078	15,125	15,964	17,765	15,393	16,179
218	Catholic U. America, The	17,925	18,864	18,927	16,252	13,264	15,324	15,020	15,834
219	U. South AL	15,922	17,638	17,832	16,538	15,147	16,400	15,746	15,807
220	U. MO-Kansas City	10,795	14,232	15,696	16,960	15,965	16,542	16,765	15,786
221	FL Atlantic U.	15,566	17,517	14,662	15,956	19,952	18,037	17,642	15,115
222	U. MA Boston	4,837	5,579	5,412	6,326	8,610	9,152	12,001	13,536
223	Miami U. all campuses	4,021	4,312	5,132	8,014	7,874	8,964	10,872	13,500
224	Mercer U. all campuses	8,607	8,018	9,613	11,235	11,741	11,075	12,012	13,377
225	Northern AZ U.	10,873	10,900	12,754	14,547	14,305	12,409	13,298	13,333
226	Kent State U. all campuses	9,427	9,278	9,093	7,619	8,198	9,801	12,476	13,282
227	San Francisco State U.	13	6,089	37,056	12,457	17,255	11,896	10,143	13,178
228	U. LA Lafayette	12,925	14,455	15,850	16,159	11,596	10,712	12,426	13,075
229	Tuskegee U.	7,703	7,660	8,904	8,478	8,971	11,033	11,522	12,863

*Appendix C*

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2009 Expenditures: FY 2002-09**

(Dollars in Thousands)									
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
230	U. PR Mayaguez Campus	8,865	9,596	7,539	10,786	10,645	11,164	11,913 i	12,663
231	Hampton U.	10,058	18,417	31,443	42,792	28,584	23,836	20,910	12,662
232	Albany Medical C.	8,901	9,677	11,849	11,525	11,152	9,521	10,239	12,653
233	ID State U.	4,738	6,746	8,416	12,087	11,661	11,911	13,002	12,428
234	Wichita State U.	6,687	10,619	11,796	9,589	16,302	18,086	13,485	12,241
235	Creighton U.	6,594	9,413	13,745	12,683	10,505	11,716	10,722	12,196
236	CA State Polytechnic U. San Luis Obispo	5,968	3,820	2,616	5,743	6,461	5,391	7,603	12,169
237	U. NC Charlotte	5,850	7,981	13,816	10,362	10,792	11,887	10,635	11,946
238	U. Southern ME	3,969 i	5,892 i	7,815 i	9,738 i	11,662	19,656	15,138	11,914
239	SD School of Mines and Technology	6,950	8,222	8,366	10,752	9,834	11,232	13,866	11,859
240	U. MD Ctr. for Environmental Science	13,080	12,654	13,824	13,853	12,860	13,365	12,019	11,656
241	Air Force Institute of Technology	2,609	6,418	4,664	4,934	5,212	6,681	8,244	11,500
242	TX Tech U. Health Science Ctr.	NA	NA	7,604	6,730	9,713	8,765	8,995	11,274
243	AL State U.	1,249	1,449	1,683	1,685	1,685	1,685	2,461	11,117
244	U. Akron all campuses	9,537	9,348	10,284	10,246	11,433	11,210	9,272	10,966
245	Alcorn State U.	5,809	7,582	7,622	5,396	5,706	7,874	9,525	10,711
246	Morgan State U.	1,674	6,232	7,227	8,126	12,199	9,992	10,978	10,702
247	U. Denver	8,386	8,268	9,839	9,017	8,543	7,694	9,212	10,526
248	U. NC Wilmington	9,950	8,957	9,951	10,665	9,884	11,362	13,949	10,350
249	AL A&M U.	10,710	30,343	12,023	12,005	7,537	8,467	5,566	10,265
250	U.S. Naval Academy	2,324	3,169	5,341	5,987	6,487	7,575	8,463	10,137
251	Worcester Polytechnic Institute	5,013	5,966	8,489	9,424	10,193	9,545	9,977	10,106
252	CA State U. Long Beach	4,944	12,126	8,351	8,577	8,368	11,856	12,702	9,963
253	Southern Methodist U.	6,026	5,940	6,752	8,415	9,303	10,304	10,612	9,871
254	MO State U.	79	371	1,863	5,166	4,615	8,740	7,747	9,786
255	U. MA Dartmouth	7,142	8,718	9,199	9,852	9,516	11,456	13,087	9,667
256	Boise State U.	4,173	6,321	7,642	8,447	7,448	9,924	9,124	9,621
257	CUNY Queens C.	5,516	5,062	5,820	5,443	6,422	7,238	8,940	9,519
258	U. North TX	6,015	6,320	5,499	7,003	8,343	7,192	8,241	9,045
259	U.S. Military Academy	5,180 i	5,550 i	5,920 i	6,290 i	6,660 i	7,043	9,293	8,543
260	U. NC Greensboro	3,340	2,704	3,267	3,876	5,211	5,256	6,336	8,542
261	DE State U.	2,819	3,636	4,342 i	5,048	6,506	6,487	7,097	8,332
262	CA State U. Los Angeles	7,728	6,882	8,094	9,797	8,672	9,819	8,848	8,163
263	Western MI U.	9,913	12,131	8,313	11,987	11,214	10,254	8,591	8,084
264	LA Tech U.	3,487	6,113	4,718	5,336	5,769	4,151	6,399	8,033
265	U. CA, Merced	na	na	na	2,816	3,135	3,119	4,852	8,025
266	SUNY C. of Environmental Science and Forestry	4,630	5,177	6,499 i	7,821	7,831 i	7,842	9,239	7,853
267	FL Institute of Technology	3,646	5,204	5,575	5,170	6,138	5,570	6,706	7,820
268	U. HI Hilo	8,499	5,082	4,217	8,998	7,678	7,610	5,877	7,803
269	Prairie View A&M U.	7,712	7,886	7,965	8,464	9,067	9,217	7,659	7,676
270	Tarleton State U.	5,216	5,698	5,208	6,386	5,488	4,852	4,701	7,599
271	CA State U. Northridge	6,786	6,460	6,521	5,719	5,200	7,339	7,381	7,576
272	Embry-Riddle Aeronautical U.	4,174	3,323	5,179	6,642	6,531 i	6,419	4,572	7,424
273	Teachers C. Columbia U.	5,939	5,572	6,256	6,187	6,770	7,655	7,622	7,357
274	Clark Atlanta U.	15,325	12,367	13,075	11,346	10,008	7,905	6,784	7,329
275	TN State U.	11,218	10,280	11,277	10,446	10,216	8,475	7,576	7,257
276	Rosalind Franklin U. of Medicine and Science	5,638	6,783	7,843	9,974	9,507	7,689	6,936	7,246
277	U. MD Eastern Shore	5,718	4,862	5,041	5,432	4,367	3,288	5,648	7,215
278	Clarkson U.	4,286 e	4,833	6,434	6,890	8,280	7,587	8,269	7,105
279	Wheeling Jesuit U.	2,989 i	3,586 i	4,183 i	4,780 i	5,377 i	5,974	1,062	7,058
280	SC State U.	1,998	2,198	2,418	2,587	2,587	2,587	6,252	7,037
281	Morehouse C.	2,383 i	2,653 i	2,923 i	3,196	5,378	4,743	4,650	6,993
282	AR State U. main campus	312	385	638	1,080	3,938	4,694	4,542	6,977
283	TX A&M U. Corpus Christi	3,127	4,581	5,685	4,572	7,798	6,609	6,015	6,966
284	VA State U.	6,895	6,964	5,655	2,668	5,813	7,604	5,973	6,925
285	American U.	3,467	2,141	1,456	1,364	1,678	4,214	5,959	6,907
286	Marquette U.	3,565	4,409	6,046	6,979	7,566	6,842	7,075	6,781

**Appendix C: Federally Financed Science and Engineering R&D Expenditures at Universities and Colleges, Ranked by FY 2009 Expenditures: FY 2002-09**

		(Dollars in Thousands)							
Rank	Institution	2002	2003	2004	2005	2006	2007	2008	2009
287	Universidad Central del Caribe	6,470	7,183	8,498	8,543	8,206	8,672	7,304	6,752
288	Lincoln U. (Jefferson City, MO)	2,513	2,149	1,552	2,093	4,367	4,169	4,574	6,358
289	TX State U. San Marcos	4,144	3,873	3,536	2,921	1,872	2,528	2,146	6,323
290	Norfolk State U.	4,902	4,404	6,054	6,055	4,621	5,998	7,287	6,306
291	Western KY U.	3,493	3,125	4,400	4,915	7,079	8,225	6,536	6,247
292	U. MO-St. Louis	4,755	4,978	4,618	4,470	5,046	4,240	5,424	6,214
293	CA State U. San Bernardino	1,399	4,858	5,127	5,775	5,367	3,553	4,447	6,201
294	Southern U. Baton Rouge <sup>bnnhhb</sup>	5,000 i	4,291 i	3,581	3,539 i	3,496	4,375	5,593	5,920
295	U. AK Anchorage all campuses	4,244 e	5,316	6,721	7,470	6,333	4,967	5,258	5,911
296	TN Technological U.	1,695	1,539	2,564	3,515	3,601	6,076	5,094	5,812
297	Chicago State U.	1,236	1,107	1,415 i	1,724	1,994	1,993	1,926	5,588
298	Villanova U.	4,551 e	5,456 i	6,361 i	7,266 i	8,171 i	9,077	5,388	5,582 i
299	U. Tulsa	6,806	8,439	11,240	8,969	7,964	7,851	6,331	5,534
300	East TN State U.	3,908	4,642	4,412	5,015	4,713	4,864	4,911	5,525
All other surveyed institutions		360,446	360,502	388,619	429,481	436,551	434,191	452,971	464,334

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.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$920,678 in federally financed R&D expenditures in FY 2009.

<sup>b</sup> See Appendix A, Technical Notes, for changes in reporting between FY 2003 and FY 2004.

<sup>c</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

<sup>d</sup> On 1 July 2008 PA College of Optometry was renamed Salus University to reflect an expansion of its academic programs.

NOTES: Institutions reporting zero federal expenditures in the ranked total for FY 2009 are not listed 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 2009.

**R&D Expenditures at Universities and Colleges, ranked by all R&D Expenditures, for the First 150 Institutions, by Source of Funds:  
FY 2009**

Rank	Institution	(Dollars in thousands)					
		All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
	All institutions	54,935,457	32,587,529	3,647,109	3,196,999	11,198,461	4,305,359
1	Johns Hopkins U., The <sup>a</sup>	1,856,270	1,587,547	9,037	37,113	97,063	125,510
2	U. MI all campuses	1,007,198	636,216	4,490	41,182	271,675	53,635
3	U. WI Madison	952,119	507,898	39,004	18,112	283,373	103,732
4	U. CA, San Francisco	947,697	483,667	29,884	65,069	165,029	204,048
5	U. CA, Los Angeles	889,995	467,505	22,633	47,329	198,758	153,770
6	U. CA, San Diego	879,357	511,428	35,711	62,081	134,074	136,063
7	Duke U.	805,021	438,767	22,644	183,515	96,926	63,169
8	U. WA	778,046	619,353	13,196	76,834	43,002	25,661
9	PA State U. all campuses	753,358	439,193	63,460	102,871	146,212	1,622
10	U. MN all campuses	740,980	390,602	62,720	32,559	176,800	78,299
11	MA Institute of Technology	736,102	532,618	655	102,894	7,875	92,060
12	U. PA	726,768	499,498	17,249	46,886	61,733	101,402
13	OH State U. all campuses	716,461	339,820	119,488	119,600	102,583	34,970
14	Stanford U.	704,183	477,507	23,971	58,491	67,413	76,801
15	U. CA, Davis	681,618	295,924	57,427	35,383	211,331	81,553
16	Cornell U. all campuses	671,406	363,144	79,529	27,481	117,628	83,624
17	U. CA, Berkeley	652,474	262,069	45,431	71,386	171,310	102,278
18	U. CO all campuses	648,417	500,123	27,719	40,385	41,758	38,432
19	U. NC Chapel Hill	646,011	431,837	61,456	12,191	140,527	0
20	TX A&M U.	630,655	261,491	133,140	34,622	180,900	20,502
21	Washington U. St. Louis	628,328	414,045	19,472	35,730	89,564	69,517
22	U. Pittsburgh all campuses	623,347	463,192	16,759	9,623	99,171	34,602
23	U. FL	592,082	232,737	98,049	35,839	181,864	43,593
24	Columbia U. in the City of New York	589,575	483,111	16,235	12,751	56,344	21,134
25	U. TX M. D. Anderson Cancer Ctr.	578,788	194,633	156,985	43,689	100,435	83,046
26	U. AZ	565,292	287,889	33,347	18,638	181,359	44,059
27	U. IL Urbana-Champaign	563,710	288,013	35,790	19,312	191,357	29,238
28	GA Institute of Technology all campuses	561,631	322,452	10,727	43,885	167,766	16,801
29	U. Southern CA	533,041	375,024	9,670	72,815	75,532	0
30	Northwestern U.	515,229	300,619	7,101	11,837	141,806	53,866
31	Yale U.	509,452	378,914	6,211	16,578	27,718	80,031
32	U. TX Austin	506,369	309,125	21,605	49,059	96,454	30,126
33	Harvard U.	462,193	385,704	2,531	19,291	0	54,667
34	Purdue U. all campuses	453,799	175,302	49,871	66,631	160,867	1,128
35	Emory U.	449,419	295,831	8,056	24,448	100,052	21,032
36	Baylor C. of Medicine	449,031	267,130	2,462	18,399	64,488	96,552
37	IN U. all campuses	440,815	197,558	6,041	23,438	150,404	63,374
38	U. AL Birmingham, The	431,732	300,130	371	21,373	83,494	26,364
39	Vanderbilt U.	431,673	336,405	783	6,207	55,925	32,353
40	Case Western Reserve U.	415,539	313,044	16,882	6,473	54,857	24,283
41	U. MD College Park	409,190	246,985	22,775	11,235	118,139	10,056
42	U. TX Southwestern Medical Ctr. Dallas	402,087	207,216	47,698	24,109	39,323	83,741
43	LA State U. all campuses	401,306	157,645	86,068	17,920	111,517	28,156
44	VA Polytechnic Institute and State U.	396,681	148,411	100,217	20,444	105,525	22,084
45	U. Rochester	395,358	295,963	12,626	21,846	43,900	21,023
46	Scripps Research Institute, The	382,275	288,388	3,970	23,563	47,024	19,330
47	NC State U.	380,571	135,318	115,825	40,531	88,607	290
48	U. Chicago	377,652	301,159	5,552	8,031	32,273	30,637
49	U. KY all campuses	373,364	145,483	48,042	15,300	121,999	42,540

**Appendix D**

**R&D Expenditures at Universities and Colleges, ranked by all R&D Expenditures, for the First 150 Institutions, by Source of Funds:  
FY 2009**

(Dollars in thousands)							
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
50	MI State U.	373,184	164,198	42,783	10,578	138,388	17,237
51	U. NE all campuses	366,507	148,602	8,532	14,220	166,753	28,400
52	U. MD Baltimore	359,542	169,081	15,549	45,471	83,497	45,944
53	U. Cincinnati all campuses	356,752	229,324	23,847	9,944	76,772	16,865
54	Rutgers, The State U. NJ all campuses	351,564	161,877	37,940	12,647	101,120	37,980
55	U. GA	349,730	106,932	37,666	6,427	186,998	11,707
56	CA Institute of Technology	342,455	305,682	1,630	8,756	5,398	20,989
57	U. IL Chicago	341,655	196,702	13,616	5,034	100,581	25,722
58	SUNY Albany	340,259	96,910	92,127	77,442	62,068	11,712
59	SUNY Buffalo all campuses	338,283	152,146	20,063	21,355	100,208	44,511
60	U. UT	331,137	192,354	1,360	15,219	104,098	18,106
61	U. IA	329,901	252,336	3,935	15,432	36,090	22,108
62	U. CA, Irvine	325,493	177,098	17,228	16,330	68,145	46,692
63	Mt. Sinai School of Medicine	318,407	264,914	5,694	13,230	8,405	26,164
64	OR Health & Science U.	309,675	233,774	5,854	16,277	29,876	23,894
65	U. South FL	309,456	190,949	32,260	20,109	61,108	5,030
66	NY U.	308,834	202,535	7,713	6,744	35,702	56,140
67	CO State U.	304,397	211,890	18,649	19,090	42,064	12,704
68	U. HI Manoa	290,707	203,453	17,191	29,758	32,198	8,107
69	WA State U.	285,595	95,824	52,125	8,963	115,592	13,091
70	U. TN all campuses	284,896	156,043	44,660	13,740	56,316	14,137
71	AZ State U.	281,588	134,598	26,871	17,696	77,490	24,933
72	Boston U.	280,814	255,178	526	4,930	4,502	15,678
73	U. VA all campuses	261,604	218,499	858	7,766	17,933	16,548
74	SUNY Stony Brook all campuses	258,098	107,396	23,246	5,309	113,801	8,346
75	Rockefeller U.	252,478	73,906	954	2,327	155,283	20,008
76	Wayne State U.	251,854	116,682	8,553	7,770	81,674	37,175
77	U. Miami	248,029	172,000	4,868	24,686	14,877	31,598
78	U. MO-Columbia	245,058	118,998	20,948	4,559	90,934	9,619
79	U. KS all campuses	225,856	127,449	6,419	3,883	78,138	9,967
80	U. CT all campuses	225,217	120,668	9,495	8,173	71,996	14,885
81	IA State U.	224,311	96,483	47,038	15,805	57,161	7,824
82	U. of Medicine and Dentistry NJ	223,796	115,770	11,985	15,919	50,776	29,346
83	U. TX Health Science Ctr. San Antonio	221,535	129,399	5,089	19,237	47,203	20,607
84	Carnegie Mellon U.	217,667	170,260	3,275	19,254	15,059	9,819
85	U. TX Health Science Ctr. Houston	217,623	135,087	18,694	7,210	32,264	24,368
86	MS State U.	216,936	102,903	32,623	8,048	73,362	0
87	Medical U. SC	216,778	113,789	925	13,326	80,731	8,007
88	U. CA, Santa Barbara	215,728	113,837	3,878	15,522	44,082	38,409
89	OR State U.	209,061	118,252	42,697	4,840	39,857	3,415
90	U. MA Worcester	204,033	145,834	5,265	14,090	20,916	17,928
91	U. NM main campus	201,769	133,334	5,038	5,496	52,945	4,956
92	Wake Forest U.	201,204	144,454	18,252	17,388	7,984	13,126
93	Princeton U.	200,580	128,876	873	6,199	52,019	12,613
94	U. OK all campuses	196,772	95,809	17,683	14,772	55,349	13,159
95	FL State U.	195,244	117,294	16,254	1,084	54,123	6,489
96	Yeshiva U.	193,010	137,108	0	2,086	39,168	14,648
97	Uniformed Services U. of the Health Sciences	192,268	124,314	0	0	49,829	18,125
98	Dartmouth C.	189,351	134,113	841	3,053	39,516	11,828
99	U. SC all campuses	186,996	107,504	2,141	4,607	56,731	16,013

**Appendix D**

**R&D Expenditures at Universities and Colleges, ranked by all R&D Expenditures, for the First 150 Institutions, by Source of Funds:  
FY 2009**

(Dollars in thousands)							
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
100	Clemson U.	186,383	55,108	19,481	14,821	92,478	4,495
101	U. TX Medical Branch	184,845	126,703	1,954	4,345	37,665	14,178
102	Medical C. WI	176,237	117,842	272	2,194	38,685	17,244
103	Brown U.	161,650	93,753	661	2,595	59,030	5,611
104	Woods Hole Oceanographic Institution	157,289	127,378	1,743	1,682	10,993	15,493
105	U. MA Amherst	156,216	80,163	5,439	8,505	50,647	11,462
106	Tulane U.	155,139	109,269	6,957	1,309	19,366	18,238
107	VA Commonwealth U.	150,989	97,433	11,844	10,451	25,365	5,896
108	NM State U. main campus	149,798	88,707	19,393	2,311	32,376	7,011
109	Tufts U.	147,903	102,330	724	11,071	13,217	20,561
110	Georgetown U.	147,441	119,925	1,968	917	10,598	14,033
111	U. Louisville	146,874	72,770	10,649	2,484	39,913	21,058
112	KS State U.	146,310	57,743	40,838	3,948	32,759	11,022
113	U. CA, Santa Cruz	144,052	76,085	4,042	4,735	38,882	20,308
114	Auburn U. all campuses	143,654	52,911	35,486	4,629	47,329	3,299
115	UT State U.	143,010	84,082	31,595	3,288	19,355	4,690
116	WV U.	139,592	64,388	5,489	4,478	61,977	3,260
117	U. CA, Riverside	130,187	53,971	6,229	6,527	48,968	14,492
118	U. DE	124,475	87,090	5,422	3,644	23,237	5,082
119	U. AK Fairbanks all campuses	123,420	105,885	2,746	0	0	14,789
120	U. VT	122,558	92,555	253	2,971	19,914	6,865
121	OK State U. all campuses	120,445	39,517	32,059	4,671	43,749	449
122	MT State U. Bozeman	115,045	71,620	22,556	6,991	13,878	0
123	U. Central FL	113,433	65,042	14,987	9,910	19,055	4,439
124	ND State U. all campuses	113,214	43,614	37,269	1,001	27,833	3,497
125	U. NH	107,860	78,633	1,486	6,777	14,081	6,883
126	U. NV, Reno	106,378	63,709	7,243	2,075	32,428	923
127	U. AR for Medical Sciences	106,314	61,249	5,006	2,739	24,312	13,008
128	U. AR main campus	105,446	31,597	46,160	3,438	18,239	6,012
129	Drexel U.	102,366	67,620	4,126	2,147	20,777	7,696
130	Temple U.	101,864	65,126	3,457	6,981	20,202	6,098
131	Thomas Jefferson U.	101,188	73,152	7,368	8,188	6,402	6,078
132	U. ME	100,580	47,280	592	3,446	48,453	809
133	George Washington U.	99,945	88,949	47	3,284	5,890	1,775
134	U. Houston	99,262	40,020	20,453	5,730	26,097	6,962
135	U. of Notre Dame	97,850	57,425	308	2,384	28,626	9,107
136	Rush U.	96,975	43,608	36	10,728	38,790	3,813
137	U. Dayton	93,496	70,469	15,342	4,954	1,938	793
138	NJ Institute of Technology	92,891	42,656	5,006	4,659	31,394	9,176
139	FL International U.	91,278	53,647	6,636	807	26,482	3,706
140	U. MS all campuses	90,677	62,192	167	2,404	17,802	8,112
141	U. ID	88,242	42,207	24,662	723	19,491	1,159
142	TX A&M U. System Health Science Ctr.	83,631	26,984	5,103	815	44,205	6,524
143	U. RI	83,375	57,148	8,164	4,573	13,490	0
144	U. CA Office of the President	83,006	199	36,823	1,410	44,391	183
145	NM Institute of Mining and Technology	81,742	61,178	5,798	10,094	4,607	65
146	TX Tech U.	80,011	24,184	22,093	6,353	24,056	3,325
147	San Diego State U.	79,190	42,736	8,253	1,177	18,444	8,580
148	Rice U.	78,745	56,270	604	4,475	8,930	8,466
149	George Mason U.	78,487	55,678	1,692	881	12,633	7,603

**Appendix D**

**R&D Expenditures at Universities and Colleges, ranked by all R&D Expenditures, for the First 150 Institutions, by Source of Funds:  
FY 2009**

Rank	Institution	(Dollars in thousands)				
		All R&D expenditures	Federal government	State and local government	Industry	Institution funds
150	Rensselaer Polytechnic Institute	77,890	48,216	8,966	5,119	13,094

e = estimated; data were not provided by institution; prior-year data were used or current-year estimates were reported. i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$977,951 in total R&D expenditures in FY 2009.

<sup>b</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

<sup>c</sup> On 1 July 2008 PA College of Optometry was renamed Salus University to reflect an expansion of its academic programs.

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 2009.

**R&D Expenditures at all Universities and Colleges Without a Medical School, ranked by all R&D Expenditures, by Source of Funds: FY 2009**

(Dollars in thousands)							
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
	All institutions	17,714,007	9,326,998	1,926,520	1,163,104	4,210,777	1,086,608
1	MA Institute of Technology	736,102	532,618	655	102,894	7,875	92,060
2	U. CA, Berkeley	652,474	262,069	45,431	71,386	171,310	102,278
3	TX A&M U.	630,655	261,491	133,140	34,622	180,900	20,502
4	U. TX M. D. Anderson Cancer Ctr.	578,788	194,633	156,985	43,689	100,435	83,046
5	U. IL Urbana-Champaign	563,710	288,013	35,790	19,312	191,357	29,238
6	GA Institute of Technology all campuses	561,631	322,452	10,727	43,885	167,766	16,801
7	U. TX Austin	506,369	309,125	21,605	49,059	96,454	30,126
8	Purdue U. all campuses	453,799	175,302	49,871	66,631	160,867	1,128
9	U. MD College Park	409,190	246,985	22,775	11,235	118,139	10,056
10	VA Polytechnic Institute and State U.	396,681	148,411	100,217	20,444	105,525	22,084
11	Scripps Research Institute, The	382,275	288,388	3,970	23,563	47,024	19,330
12	NC State U.	380,571	135,318	115,825	40,531	88,607	290
13	Rutgers, The State U. NJ all campuses	351,564	161,877	37,940	12,647	101,120	37,980
14	U. GA	349,730	106,932	37,666	6,427	186,998	11,707
15	CA Institute of Technology	342,455	305,682	1,630	8,756	5,398	20,989
16	SUNY Albany	340,259	96,910	92,127	77,442	62,068	11,712
17	CO State U.	304,397	211,890	18,649	19,090	42,064	12,704
18	WA State U.	285,595	95,824	52,125	8,963	115,592	13,091
19	AZ State U.	281,588	134,598	26,871	17,696	77,490	24,933
20	Rockefeller U.	252,478	73,906	954	2,327	155,283	20,008
21	IA State U.	224,311	96,483	47,038	15,805	57,161	7,824
22	Carnegie Mellon U.	217,667	170,260	3,275	19,254	15,059	9,819
23	MS State U.	216,936	102,903	32,623	8,048	73,362	0
24	U. CA, Santa Barbara	215,728	113,837	3,878	15,522	44,082	38,409
25	OR State U.	209,061	118,252	42,697	4,840	39,857	3,415
26	Princeton U.	200,580	128,876	873	6,199	52,019	12,613
27	Clemson U.	186,383	55,108	19,481	14,821	92,478	4,495
28	Woods Hole Oceanographic Institution	157,289	127,378	1,743	1,682	10,993	15,493
29	U. MA Amherst	156,216	80,163	5,439	8,505	50,647	11,462
30	NM State U. main campus	149,798	88,707	19,393	2,311	32,376	7,011
31	KS State U.	146,310	57,743	40,838	3,948	32,759	11,022
32	U. CA, Santa Cruz	144,052	76,085	4,042	4,735	38,882	20,308
33	Auburn U. all campuses	143,654	52,911	35,486	4,629	47,329	3,299
34	UT State U.	143,010	84,082	31,595	3,288	19,355	4,690
35	U. CA, Riverside	130,187	53,971	6,229	6,527	48,968	14,492
36	U. DE	124,475	87,090	5,422	3,644	23,237	5,082
37	U. AK Fairbanks all campuses	123,420	105,885	2,746	0	0	14,789
38	OK State U. all campuses	120,445	39,517	32,059	4,671	43,749	449
39	MT State U. Bozeman	115,045	71,620	22,556	6,991	13,878	0
40	ND State U. all campuses	113,214	43,614	37,269	1,001	27,833	3,497
41	U. NH	107,860	78,633	1,486	6,777	14,081	6,883
42	U. AR main campus	105,446	31,597	46,160	3,438	18,239	6,012
43	U. ME	100,580	47,280	592	3,446	48,453	809
44	U. Houston	99,262	40,020	20,453	5,730	26,097	6,962
45	U. of Notre Dame	97,850	57,425	308	2,384	28,626	9,107
46	U. Dayton	93,496	70,469	15,342	4,954	1,938	793
47	NJ Institute of Technology	92,891	42,656	5,006	4,659	31,394	9,176

*Appendix E*

**R&D Expenditures at all Universities and Colleges Without a Medical School, ranked by all R&D Expenditures, by Source of Funds: FY 2009**

(Dollars in thousands)							
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
48	U. ID	88,242	42,207	24,662	723	19,491	1,159
49	U. RI	83,375	57,148	8,164	4,573	13,490	0
50	U. CA Office of the President	83,006	199	36,823	1,410	44,391	183
51	NM Institute of Mining and Technology	81,742	61,178	5,798	10,094	4,607	65
52	TX Tech U.	80,011	24,184	22,093	6,353	24,056	3,325
53	San Diego State U.	79,190	42,736	8,253	1,177	18,444	8,580
54	Rice U.	78,745	56,270	604	4,475	8,930	8,466
55	George Mason U.	78,487	55,678	1,692	881	12,633	7,603
56	Rensselaer Polytechnic Institute	77,890	48,216	8,966	5,119	13,094	2,495
57	U. WY	77,633	29,479	3,895	1,154	41,720	1,385
58	Naval Postgraduate School	76,860	75,825	188	663	0	184
59	U. OR	75,869	61,464	342	1,360	7,905	4,798
60	U. MD Baltimore County	75,571	53,867	2,204	1,766	15,262	2,472
61	Old Dominion U.	71,909	27,644	5,549	5,875	32,841	0
62	U. AL Huntsville, The	71,365	53,893	708	9,364	5,079	2,321
63	U. LA Lafayette	68,018	13,075	13,979	0	24,567	16,397
64	SUNY Binghamton	66,050	16,704	6,624	3,599	32,391	6,732
65	Wichita State U.	65,988	12,241	10,140	19,343	23,709	555
66	Brandeis U.	62,228	40,532	0	2,973	10,722	8,001
67	Northeastern U.	61,309	38,178	761	12,169	10,201	0
68	U. TX Dallas	61,214	25,651	14,183	11,474	9,906	0
69	GA State U.	60,557	24,038	3,808	757	27,975	3,979
70	U. MT-Missoula, The	59,505	36,631	2,289	882	15,332	4,371
71	MI Technological U.	58,356	27,004	842	5,536	24,563	411
72	U. TX El Paso	56,635	29,386	2,730	4,606	19,913	0
73	SD State U.	55,334	24,303	14,182	4,435	3,267	9,147
74	U. MA Lowell	52,431	23,083	1,466	6,772	21,110	0
75	U. TX Arlington	51,673	24,290	3,042	6,035	18,306	0
76	C. of William and Mary all campuses	51,169	24,248	2,760	1,524	17,707	4,930
77	U.S. Air Force Academy	48,641	38,795	67	432	9,112	235
78	U. Southern MS	46,744	41,517	1,384	2,115	887	841
79	U. MD Biotechnology Institute	45,921 i	18,737 i	1,581 i	356 i	24,478 i	769 i
80	U. Memphis, The	45,747	16,179	4,019	434	23,526	1,589
81	Jackson State U.	44,884	37,321	0	1,714	5,849	0
82	FL Atlantic U.	44,334	15,115	3,143	978	22,372	2,726
83	U. WI Milwaukee	44,115	18,955	6,103	711	15,463	2,883
84	U. TX San Antonio	43,818	26,393	13,837	1,075	2,513	0
85	U. MD Ctr. for Environmental Science	41,670	11,656	5,544	0	20,179	4,291
86	OH U. all campuses	41,256	16,508	2,893	5,136	16,704	15
87	Boston C.	41,132	22,672	79	1,141	6,308	10,932
88	Syracuse U. all campuses	40,885	22,434	5,087	3,670	7,888	1,806
89	CO School of Mines	40,117	25,109	734	14,274	0	0
90	San Jose State U.	39,339	23,949	10,367	678	2,279	2,066
91	U. NV, Las Vegas	39,148	31,270	2,384	1,390	4,104	0
92	U. MA Boston	36,637	13,536	949	333	15,993	5,826
93	U. AL, The	36,508	23,944	1,988	3,054	7,522	0
94	Desert Research Institute	36,490	29,544	1,471	1,011	2,717	1,747
95	CUNY The City C.	36,368	22,598	3,388	3,665	3,095	3,622

Appendix E

**R&D Expenditures at all Universities and Colleges Without a Medical School, ranked by all R&D Expenditures, by Source of Funds: FY 2009**

(Dollars in thousands)							
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
96	U. MO-Rolla	35,466	23,368	441	3,739	7,373	545
97	Portland State U.	35,030	25,334	2,445	974	2,069	4,208
98	U. Akron all campuses	34,507	10,966	3,158	3,943	12,021	4,419
99	CUNY Hunter C.	33,267	18,512	2,784	11	7,300	4,660
100	Lehigh U.	33,169	19,302	7,313	2,387	3,642	525
101	Southern IL U. Edwardsville	31,795	2,022	2,531	964	25,927	351
102	U. PR Rio Piedras Campus	30,433	18,886	41	0	11,470	36
103	Miami U. all campuses	29,808	13,500	2,177	361	12,718	1,052
104	U. North TX Health Science Ctr. Ft. Worth	29,582	20,215	647	1,177	4,914	2,629
105	Rochester Institute of Technology	28,955	18,029	979	3,918	4,065	1,964
106	NC Agricultural and Technical State U.	28,540	18,494	185	187	9,674	0
107	Air Force Institute of Technology	26,761	11,500	38	334	14,889	0
108	Northern AZ U.	26,183	13,333	4,169	3,821	4,860	0
109	FL A&M U.	25,651	23,409	490	1,752	0	0
110	Brigham Young U. all campuses	25,497	16,979	1,089	3,494	2,168	1,767
111	Stevens Institute of Technology	25,116	19,326	661	1,514	2,786	829
112	San Francisco State U.	25,065	13,178	3,610	444	7,135	698
113	Kent State U. all campuses	25,050	13,282	4,167	497	6,268	836
114	U. NC Charlotte	24,814	11,946	3,261	5,882	3,725	0
115	IL Institute of Technology	23,347	17,349	2,151	2,033	1,144	670
116	U. of the VI	22,019	16,628	2,800	2,591	0	0
117	U. CA, Merced	21,421	8,025	7,877	79	4,134	1,306
118	U. Southern ME	20,957	11,914	825	166	4,746	3,306
119	Catholic U. America, The	20,942	15,834	32	580	4,324	172
120	Northern IL U.	20,644	17,098	11	729	2,806	0
121	ID State U.	20,524	12,428	364	3,676	3,829	227
122	SUNY C. of Environmental Science and Forestry	20,513	7,853	1,697	1,389	8,615	959
123	U. PR Mayaguez Campus	20,375	12,663	1,058	4,577	2,077	0
124	U. North TX	19,552	9,045	2,122	1,469	5,977	939
125	CA State Polytechnic U. San Luis Obispo	19,420	12,169	2,499	467	1,781	2,504
126	U. MA Dartmouth	19,343	9,667	1,312	606	7,164	594
127	LA Tech U.	18,060	8,033	2,099	485	7,412	31
128	AL State U.	17,164	11,117	3,983	545	1,519	0
129	Teachers C. Columbia U.	16,919	7,357	0	0	0	9,562
130	American U.	16,848	6,907	0	0	8,656	1,285
131	Tuskegee U.	16,706	12,863	0	0	0	3,843
132	U. NC Wilmington	16,423	10,350	1,172	437	4,049	415
133	TX State U. San Marcos	15,742	6,323	5,508	267	2,032	1,612
134	Clarkson U.	14,929	7,105	1,331	2,830	3,663	0
135	AL A&M U.	14,752	10,265	1,426	170	711	2,180
136	Worcester Polytechnic Institute	14,663	10,106	14	1,236	3,022	285
137	TX A&M U. Kingsville	14,630	5,288	1,007	249	6,821	1,265
138	SD School of Mines and Technology	14,373	11,859	945	164	1,341	64
139	Southern Methodist U.	14,338	9,871	333	1,353	1,905	876
140	TN Technological U.	13,959	5,812	4,466	301	3,380	0
141	Cleveland State U.	13,424	4,081	4,324	150	3,557	1,312
142	Western MI U.	13,301	8,084	1,023	1,769	1,212	1,213
143	TX A&M U. Corpus Christi	13,279	6,966	3,504	138	149	2,522
144	Alcorn State U.	13,064	10,711	2,105	248	0	0

Appendix E

**R&D Expenditures at all Universities and Colleges Without a Medical School, ranked by all R&D Expenditures, by Source of Funds: FY 2009**

(Dollars in thousands)							
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
145	U. MO-St. Louis	12,995	6,214	10	65	6,106	600
146	Hampton U.	12,824	12,662	0	0	162	0
147	CUNY Queens C.	12,768	9,519	1,663	1,270	316	0
148	CA State U. Long Beach	12,665	9,963	1,090	334	444	834
149	U. Denver	12,560	10,526	157	667	612	598
150	U. Tulsa	12,525	5,534	604	6,071	316	0
151	CA State U. Northridge	12,486	7,576	2,580	89	1,966	275
152	Morgan State U.	12,351	10,702	650	844	133	22
153	TN State U.	12,202	7,257	140	335	4,470	0
154	Boise State U.	11,955	9,621	360	281	1,102	591
155	CA State U. Sacramento	11,734	3,608	5,306	477	1,971	372
156	Prairie View A&M U.	11,545	7,676	3,031	70	628	140
157	Baylor U.	11,427	4,587	298	1,677	3,573	1,292
158	MO State U.	11,244	9,786	172	721	0	565
159	Embry-Riddle Aeronautical U.	10,899	7,424	1,478	1,852	145	0
160	Tarleton State U.	10,804	7,599	2,693	288	224	0
161	U.S. Naval Academy	10,468	10,137	0	331	0	0
162	Oakland U.	10,464	5,485	75	859	3,790	255
163	U. NC Greensboro	10,394	8,542	535	791	70	456
164	FL Institute of Technology	10,389	7,820	910	1,571	0	88
165	Humboldt State U.	10,301	3,541	3,346	412	1,397	1,605
166	Marquette U.	10,275	6,781	109	324	1,753	1,308
167	Duquesne U.	10,066	4,180	209	430	5,018	229
168	Villanova U.	9,919 i	5,582 i	2,767 i	834 i	0 i	736 i
169	CA State U. Fresno	9,837	4,275	2,620	122	2,313	507
170	U. HI Hilo	9,595	7,803	288	599	0	905
171	Polytechnic U.	9,505	5,384	1,358	2,205	0	558
172	U.S. Military Academy	9,432	8,543	0	0	787	102
173	DE State U.	9,335	8,332	505	498	0	0
174	U. AR Little Rock	9,269	4,961	1,974	0	2,014	320
175	VA State U.	9,056	6,925	15	0	2,083	33
176	Seton Hall U.	8,923	3,414	4,199	258	0	1,052
177	Nova Southeastern U.	8,872	4,517	1,374	0	705	2,276
178	AR State U. main campus	8,622	6,977	618	31	930	66
179	SC State U.	8,535	7,037	134	0	793	571
180	Western KY U.	8,516	6,247	748	284	887	350
181	Bowling Green State U. all campuses	8,396	4,285	471	1,781	1,508	351
182	CA State U. San Bernardino	8,281	6,201	959	321	800	0
183	CUNY Graduate Ctr.	8,226	2,123	205	0	13	5,885
184	CA State U. Los Angeles	8,186	8,163	0	0	0	23
185	Lincoln U. (Jefferson City, MO)	8,011	6,358	1,653	0	0	0
186	Clark Atlanta U.	7,861	7,329	5	0	513	14
187	CA State U. Fullerton	7,507	4,983	592	1,720	212	0
188	U. MD Eastern Shore	7,504	7,215	181	60	0	48
189	U. AR Pine Bluff	7,422	3,894	234	0	3,194	100
190	Stephen F. Austin State U.	7,271	3,636	1,338	255	1,637	405
191	U. AK Anchorage all campuses	7,224	5,911	518	0	0	795
192	Wheeling Jesuit U.	7,097	7,058	39	0	0	0

Appendix E

**R&D Expenditures at all Universities and Colleges Without a Medical School, ranked by all R&D Expenditures, by Source of Funds: FY 2009**

(Dollars in thousands)							
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
193	Morehouse C.	6,993	6,993	0	0	0	0
194	U. TX-Pan American	6,929	4,662	1,304	304	227	432
195	Norfolk State U.	6,878	6,306	11	0	0	561
196	Southern U. Baton Rouge <sup>a</sup>	6,865	5,920	937	0	0	8
197	Fordham U.	6,637	3,293	137	0	2,600	607
198	Ball State U.	6,621	2,202	173	488	3,758	0
199	Western WA U.	6,564	2,819	331	162	2,990	262
200	Wesleyan U.	6,170	3,230	302	58	1,876	704
201	Clark U.	6,072	2,685	0	0	1,728	1,659
202	MT Tech of the U. MT	5,951	3,939	1,494	518	0	0
203	U. GU	5,834	4,808	178	848	0	0
204	Eastern MI U.	5,757	3,699	20	455	1,404	179
205	Xavier U. LA	5,690	4,095	1,200	0	395	0
206	U. TX Brownsville	5,654	4,641	635	0	346	32
207	Chicago State U.	5,645	5,588	0	0	57	0
208	U. of the Pacific	5,528	1,701	776	3,051	0	0
209	IL State U.	5,397	3,627	419	309	1,042	0
210	NC Central U.	5,379	5,055	324	0	0	0
211	Lamar U.	5,376	3,086	1,810	258	16	206
212	West TX A&M U.	5,366	1,898	2,100	369	0	999
213	James Madison U.	5,305	3,727	281	0	355	942
214	U. Baltimore	5,295	1,418	2,261	20	57	1,539
215	Fisk U.	5,265	5,265	0	0	0	0
216	KY State U.	5,189	3,736	1,417	26	0	10
217	C. Charleston	4,941	3,578	61	11	1,134	157
218	CA State U. Monterey Bay	4,940	3,157	1,190	593	0	0
219	Williams C.	4,907	1,959	0	0	1,262	1,686
220	U. North FL	4,878	3,404	639	158	524	153
221	Bryn Mawr C.	4,822	2,298	8	7	2,509	0
222	U. LA Monroe	4,794	2,432	1,494	271	267	330
223	Wellesley C.	4,715	2,595	187	52	0	1,881
224	CUNY Brooklyn C.	4,696	3,749	55	525	367	0
225	CA State U. San Marcos	4,559	3,521	303	0	0	735
226	Smith C.	4,390	3,408	32	0	479	471
227	U. Hartford	4,338	609	718	1,018	1,549	444
228	TX Christian U.	4,318	2,558	149	1,525	86	0
229	Kettering U.	4,294	2,741	334	697	0	522
230	Milwaukee School of Engineering	4,245	1,291	0	2,149	561	244
231	TX Southern U.	4,232	4,228	4	0	0	0
232	Rowan U.	4,219	2,804	1,362	53	0	0
233	Langston U.	4,114	2,990	1,124	0	0	0
234	Santa Clara U.	4,066	3,915	76	27	0	48
235	Dillard U.	4,059	3,594	465	0	0	0
236	Towson U.	4,025	1,544	2,162	69	149	101
237	WV State U.	4,017	2,689	1,048	50	230	0
238	Alfred U. all campuses	3,953	1,289	1,297	802	565	0
239	U. WI Stevens Point	3,921	1,814	254	136	708	1,009
240	FL Gulf Coast U.	3,915	3,052	422	0	0	441

*Appendix E*

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**R&D Expenditures at all Universities and Colleges Without a Medical School, ranked by all R&D Expenditures, by Source of Funds: FY 2009**

(Dollars in thousands)							
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
241	Bucknell U.	3,850	2,150	171	724	805	0
242	U. WI Superior	3,849	3,296	2	26	238	287
243	Gallaudet U.	3,848 i	3,657 i	65 i	0 i	0 i	126 i
244	Grand Valley State U.	3,846	996	515	0	908	1,427
245	U. DC	3,818	1,938	1,254	0	590	36
246	Claremont Graduate U.	3,642 i	889 i	86 i	0 i	717 i	1,950 i
247	CUNY John Jay C. of Criminal Justice	3,461	2,613	0	0	60	788
248	Midwestern U. (Chicago, IL)	3,457	417	6	363	2,660	11
249	Elizabeth City State U.	3,421	3,404	17	0	0	0
250	Palmer C. of Chiropractic	3,415	1,404	0	0	1,614	397
251	CUNY C. Staten Island	3,341	918	1,272	513	158	480
252	Claflin U.	3,328	3,328	0	0	0	0
253	Sam Houston State U.	3,313	2,644	519	0	150	0
254	U. West FL	3,274	2,798	213	0	14	249
255	Ft. Valley State U.	3,262	3,262	0	0	0	0
256	Central State U.	3,244	2,888	143	213	0	0
257	DePaul U.	3,215	2,897	14	64	113	127
258	St. Cloud State U.	3,153	878	309	1,138	828	0
259	MN State U. Mankato	3,133	363	152	892	307	1,419
260	Central WA U.	3,131	2,240	300	159	325	107
261	U. TX Tyler	3,078	1,930	987	35	9	117
262	Calvin C.	3,061	1,496	1	162	1,228	174
263	U. WI La Crosse	3,010	1,419	336	393	429	433
264	Long Island U. all campuses	2,955 i	2,169 i	129 i	310 i	243 i	104 i
265	Spelman C.	2,944	2,944	0	0	0	0
266	Appalachian State U.	2,937	1,118	151	1,064	457	147
267	U. NC Asheville	2,933	1,405	1,186	75	117	150
268	St. Francis U. (Loretto, PA)	2,915	2,915	0	0	0	0
269	Barnard C.	2,899	2,374	1	450	74	0
270	Central MI U.	2,870	1,437	169	706	420	138
271	U. Richmond	2,863	1,857	0	638	350	18
272	CA State U. East Bay	2,854	1,457	680	0	260	457
273	CA State U. Dominguez Hills	2,836	2,441	371	24	0	0
274	Carleton C.	2,829	1,765	30	13	146	875
275	Albany C. of Pharmacy	2,808	825	654	1,090	239	0
276	Franklin & Marshall C.	2,801	1,079	518	0	622	582
277	Amherst C.	2,796	1,340	0	69	989	398
278	Tougaloo C.	2,783	2,334	0	0	110	339
279	Pomona C.	2,748	815	0	0	1,854	79
280	Rose-Hulman Institute of Technology	2,744	433	0	58	0	2,253
281	Mt. Holyoke C.	2,720	1,754	38	0	928	0
282	CUNY Herbert H. Lehman C.	2,696	1,997	5	469	225	0
283	Western Carolina U.	2,693	1,549	313	122	490	219
284	Harvey Mudd C.	2,691	1,622	0	84	808	177
285	Sul Ross State U.	2,671	1,271	495	0	415	490
286	SUNY C. of Optometry	2,670	2,043	0	171	138	318
287	Occidental C.	2,625	608	0	2,017	0	0
288	Colgate U.	2,569	1,370	1	0	972	226
289	Macalester C.	2,560	626	86	148	1,596	104

Appendix E

**R&D Expenditures at all Universities and Colleges Without a Medical School, ranked by all R&D Expenditures, by Source of Funds: FY 2009**

		(Dollars in thousands)					
Rank	Institution	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
290	Northwest Indian C.	2,491	2,408	83	0	0	0
291	Middle TN State U.	2,482	1,333	262	66	670	151
292	Fairfield U.	2,422	455	0	57	1,810	100
293	U. Northern CO	2,387	1,828	79	22	431	27
294	La Salle U.	2,359	1,826	0	0	533	0
295	SUNY C. Buffalo	2,327	1,699	87	0	202	339
296	Hope C.	2,321	1,207	0	0	293	821
297	Shaw U.	2,314	2,071	93	0	150	0
298	Loyola Marymount U.	2,291	1,737	0	9	217	328
299	Southern CT State U.	2,273	623	1,039	0	60	551
300	Swarthmore C.	2,217	871	0	0	619	727

e = estimated; data were not provided by institution; prior-year data were used or current-year estimates were reported. i = imputed.

<sup>a</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

<sup>b</sup> On 1 July 2008 PA College of Optometry was renamed Salus University to reflect an expansion of its academic programs.

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.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2009.

**Appendix F: Total and Federally Financed R&D Expenditures in the Computer Sciences at Universities and Colleges, Ranked by FY 2009 Total for the First 100 Institutions: FY 2006–09**

Rank	Institution	(Dollars in Thousands)				Federally financed		
		2006	2007	2008	2009	2006	2007	2008
	All institutions	1,438,111	1,429,711	1,472,432	1,592,469	1,017,310	1,025,869	1,037,258
1	U. Southern CA	93,573	78,502	77,270	93,042	86,580	72,227	72,327
2	Carnegie Mellon U.	117,865	99,279	101,128	89,094	109,615	89,678	87,561
3	U. IL Urbana-Champaign	81,675	73,848	68,781	86,282	55,422	50,005	42,933
4	Johns Hopkins U., The <sup>a</sup>	70,268	76,125	66,728	71,800	69,254	75,277	65,836
5	GA Institute of Technology all campuses	47,560	52,455	56,761	66,248	30,541	32,105	34,484
6	PA State U. all campuses	32,371	41,862	46,489	56,880	24,196	31,582	35,184
7	U. TX Austin	41,897	37,688	74,399	50,454	33,842	34,545	70,746
8	MA Institute of Technology	49,500	45,762	46,100	46,566	33,158	30,102	32,396
9	U. TN all campuses	9,256	8,662	12,159	45,602	6,564	6,098	7,478
10	U. CA, San Diego	64,466	55,791	46,709	44,769	43,245	36,886	29,680
11	U. MD College Park	37,605	33,720	32,180	31,736	21,554	19,385	17,159
12	U. Chicago	18,144	22,037	23,998	29,154	17,490	21,334	22,643
13	OH State U. all campuses	33,693	29,255	27,766	27,521	14,854	12,349	9,955
14	OR Health & Science U.	16,702	20,850	23,094	25,075	13,687	17,324	18,888
15	U. HI Manoa	21,252	34,176	24,677	23,955	21,057	33,735	24,134
16	U. UT	15,020	16,273	14,521	18,692	11,171	9,948	9,950
17	U. WI Madison	14,624	14,827	18,244	18,454	11,600	10,830	12,542
18	Cornell U. all campuses	28,081	23,304	19,935	18,234	16,418	14,468	10,545
19	U. CA, Los Angeles	15,992	16,005	16,362	16,833	12,510	11,858	12,289
20	U. MA Amherst	17,404	17,660	17,808	16,738	8,523	9,084	9,867
21	Stanford U.	21,922	19,959	18,141	16,319	18,647	17,432	14,604
22	U. LA Lafayette	6,037	9,496	10,331	14,108	552	1,006	1,972
23	U. AL Huntsville, The	8,615	10,742	14,436	13,962	7,335	7,790	10,998
24	VA Polytechnic Institute and State U.	10,032	10,662	12,268	13,124	3,691	3,610	4,162
25	U. MN all campuses	16,060	15,951	15,090	12,888	10,190	9,704	7,541
26	Purdue U. all campuses	8,232	10,597	11,934	12,764	4,732	6,233	7,139
27	U. CA, Irvine	11,699	10,787	11,927	12,682	6,505	6,630	7,046
28	U. CA, Santa Barbara	10,671	11,821	12,367	12,646	8,345	8,470	7,703
29	FL State U.	8,565	9,206	9,724	12,586	4,523	5,156	6,573
30	IN U. all campuses	12,397	12,373	9,698	12,481	6,545	5,078	4,691
31	MS State U.	8,824	8,664	10,006	11,954	5,688	5,789	7,270
32	Princeton U.	9,779	9,771	9,302	11,888	6,644	6,404	6,468
33	U. PA	7,166	7,202	8,776	11,391	5,227	5,602	6,388
34	AZ State U.	10,409	10,076	9,293	11,311	3,782	4,350	4,694
35	TX A&M U.	6,574	7,560	9,994	11,030	3,840	4,025	4,184
36	U. IL Chicago	12,594	13,067	7,913	10,929	4,786	4,503	4,657
37	Clemson U.	10,226	3,730	12,530	10,832	540	545	2,858
38	FL International U.	4,201	5,788	4,052	10,692	3,132	4,155	3,523
39	U. NC Chapel Hill	11,764	11,422	10,225	10,517	9,454	8,944	7,097
40	U. AK Fairbanks all campuses	6,216	15,267	16,534	10,506	4,432	15,025	16,263
41	SUNY Buffalo all campuses	9,657	8,522	10,666	10,268	5,128	3,726	4,398
42	Columbia U. in the City of New York	9,174	9,331	9,446	9,558	8,085	8,114	8,520
43	Brown U.	8,839	9,841	9,458	8,961	5,313	5,622	4,868
44	U. NE all campuses	7,460	8,512	9,648	8,926	4,357	5,040	6,095
45	U. Houston	5,441	6,066	6,361	8,752	2,695	3,942	3,662

**Appendix F: Total and Federally Financed R&D Expenditures in the Computer Sciences at Universities and Colleges, Ranked by FY 2009 Total for the First 100 Institutions: FY 2006–09**

Rank	Institution	(Dollars in Thousands)				Federally financed		
		2006	2007	2008	2009	2006	2007	2008
46	George Mason U.	5,791	6,829	7,953	8,577	4,484	6,061	7,284
47	U. TX Dallas	6,631	7,020	9,019	8,431	2,613	2,753	2,874
48	CA Institute of Technology	9,136	10,492	7,324	8,350	8,904	9,552	7,164
49	Naval Postgraduate School	3,573	7,600	6,212	8,349	3,543	7,482	6,154
50	U. CA, Davis	7,795	6,743	8,535	8,105	4,135	4,218	4,775
51	U. AZ	5,971	3,687	4,054	8,044	3,545	2,384	3,045
52	Syracuse U. all campuses	3,439	7,587	7,259	7,760	2,798	3,878	4,105
53	U.S. Air Force Academy	252	450	1,226	7,730	252	450	1,226
54	U. CO all campuses	7,641	8,497	8,998	7,456	6,612	6,775	6,820
55	U. Memphis, The	2,977	3,561	5,313	7,448	759	953	2,339
56	Rutgers, The State U. NJ all campuses	8,814	7,329	6,584	7,401	4,732	3,721	2,174
57	Rice U.	9,732	7,179	6,380	7,396	8,690	6,415	5,538
58	Rockefeller U.	4,968	5,942	6,720	7,217	0	0	0
59	U. VA all campuses	6,151	6,466	6,427	6,736	5,643	5,896	5,300
60	Wright State U. all campuses	6,499	6,990	7,885	6,687	1,480	1,237	862
61	U. TX San Antonio	3,189	3,466	4,598	6,565	2,985	3,185	3,631
62	NC State U.	4,907	5,072	6,083	6,493	3,888	3,445	4,149
63	U. MI all campuses	7,190	6,946	6,851	6,434	4,707	4,828	4,484
64	Drexel U.	6,763	8,034	9,009	6,335	5,040	6,190	6,618
65	IA State U.	7,508	5,115	5,616	6,326	3,223	3,131	3,315
66	U. NC Charlotte	4,154	5,753	5,792	6,275	1,868	2,380	2,513
67	U. Pittsburgh all campuses	4,688	4,608	5,176	6,211	3,743	3,883	4,375
68	NJ Institute of Technology	4,944	6,045	7,112	6,201	1,782	2,053	2,457
69	SUNY Stony Brook all campuses	8,366	6,423	7,841	6,047	3,103	3,704	4,742
70	U. AL, The	6,467	7,682	6,732	6,023	3,685	6,130	4,287
71	Washington U. St. Louis	7,262	6,993	6,245	5,893	3,600	3,683	4,260
72	U. OR	3,341	2,829	3,616	5,610	3,105	2,576	3,307
73	U. MD Baltimore County	1,345	3,684	4,678	5,487	1,015	2,848	3,668
74	NY U.	5,175	5,483	5,143	5,475	4,156	4,090	4,685
75	Air Force Institute of Technology	3,074	1,988	2,996	5,421	661	797	1,439
76	U. FL	5,479	4,108	4,278	5,313	3,655	2,876	3,007
77	Duke U.	3,927	3,786	4,558	5,202	3,122	2,861	3,320
78	U. KY all campuses	3,354	2,942	2,731	5,017	1,688	1,397	1,551
79	U. WA	1,328	1,766	3,550	4,923	1,135	1,417	1,597
80	LA State U. all campuses	3,139	3,767	3,984	4,861	1,376	2,102	2,197
81	MI State U.	3,921	3,477	3,709	4,720	2,151	1,716	1,658
82	U. TX El Paso	1,837	1,962	3,458	4,535	1,553	1,854	2,530
83	Rensselaer Polytechnic Institute	3,079	3,606	3,691	4,479	2,490	2,996	2,995
84	Dartmouth C.	4,821	5,243	5,028	4,245	3,071	3,718	3,591
85	Stevens Institute of Technology	2,817	1,265	3,597	3,852	2,780	1,208	2,641
86	Yale U.	4,940	3,621	3,414	3,638	4,059	3,145	3,088
87	OH U. all campuses	170	1,013	444	3,428	0	623	50
88	U. of Notre Dame	3,346	2,466	3,184	3,337	3,172	2,368	2,360
89	U. CA, Riverside	2,532	2,681	2,268	3,296	1,340	1,621	1,582
90	U. CA, Santa Cruz	2,285	3,054	3,538	3,293	1,494	1,252	1,498
91	U. DE	1,790	2,360	2,279	3,214	1,564	1,862	1,949
92	U. CT all campuses	3,662	2,592	2,717	3,159	1,616	1,645	1,724
93	U. NM main campus	3,798	3,525	3,234	3,143	3,484	3,265	3,012

**Appendix F: Total and Federally Financed R&D Expenditures in the Computer Sciences at Universities and Colleges, Ranked by FY 2009 Total for the First 100 Institutions: FY 2006–09**

Rank	Institution	(Dollars in Thousands)				Federally financed		
		2006	2007	2008	2009	2006	2007	2008
94	OR State U.	3,664	3,128	2,927	3,056	3,387	2,794	2,691
95	LA Tech U.	1,204	1,332	1,775	2,873	456	490	538
96	U. TX Arlington	0	1,675	2,885	2,864	0	1,039	1,253
97	Portland State U.	3,519	2,407	2,779	2,843	2,790	1,930	2,411
98	U. GA	3,406	3,029	2,693	2,796	763	779	583
99	U. ME	1,677	2,753	1,990	2,681	166	101	152
100	U. Rochester	2,714	2,405	2,778	2,649	2,259	1,947	1,949

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

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$70,002 in total and \$67,851 in federally financed R&D expenditures in the computer sciences in FY 2009.

<sup>b</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2009 are not listed 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 2009.

**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 2006–09**

Rank	Institution	(Dollars in Thousands)							
		Total				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
	All institutions	7,093,038	7,513,519	7,957,779	8,650,913	4,306,931	4,456,684	4,725,819	5,036,050
1	Johns Hopkins U., The <sup>a</sup>	467,230	535,222	619,406	703,165	444,407	518,939	607,822	666,674
2	GA Institute of Technology all campuses	294,466	309,986	346,745	379,305	180,755	180,240	197,139	228,542
3	PA State U. all campuses	235,614	235,341	258,515	268,979	149,236	150,402	170,676	180,468
4	MA Institute of Technology	220,043	216,475	218,937	230,997	164,846	159,443	150,679	152,389
5	TX A&M U.	161,735	164,434	183,338	216,875	56,189	52,215	58,127	73,520
6	U. MI all campuses	151,656	161,738	171,124	198,266	106,816	115,360	118,230	128,990
7	Purdue U. all campuses	118,109	153,503	154,791	176,401	47,901	57,411	63,164	66,797
8	U. CA, Berkeley	147,875	152,752	161,514	175,128	56,280	53,721	47,832	51,092
9	U. TX Austin	152,094	155,968	163,879	169,470	93,513	95,189	99,410	99,971
10	VA Polytechnic Institute and State U.	127,349	146,402	152,049	163,437	50,769	54,422	61,416	65,390
11	Stanford U.	148,688	142,796	148,776	156,600	115,675	106,318	106,570	106,041
12	SUNY Albany	102,548	125,065	99,995	155,233	2,412	2,668	2,452	2,333
13	U. IL Urbana-Champaign	125,371	124,954	139,103	149,111	71,447	73,746	83,821	89,976
14	OH State U. all campuses	134,920	160,353	149,077	145,610	44,879	46,179	48,196	48,254
15	NC State U.	96,066	91,114	102,459	116,787	45,609	40,967	39,334	44,295
16	AZ State U.	71,479	85,658	102,486	116,639	32,424	31,214	37,739	45,470
17	U. MD College Park	88,321	87,869	97,332	102,067	54,277	54,231	56,049	61,557
18	U. CA, San Diego	83,480	87,877	92,934	98,604	36,983	37,232	37,965	40,822
19	U. WI Madison	92,933	93,286	93,405	97,479	59,398	56,200	53,391	56,496
20	U. CA, Santa Barbara	76,923	83,778	88,081	97,320	48,695	48,914	48,921	53,485
21	U. FL	92,963	94,295	90,274	94,817	46,049	44,468	42,567	40,039
22	U. Rochester	99,801	97,183	83,632	90,521	85,329	81,962	69,100	74,622
23	U. Dayton	65,789	70,309	77,596	90,196	54,635	57,400	62,168	68,017
24	Cornell U. all campuses	77,191	77,677	81,269	85,118	47,959	48,755	48,743	52,878
25	U. MN all campuses	55,130	63,524	71,621	84,560	26,797	31,190	36,108	44,422
26	Carnegie Mellon U.	56,824	56,929	67,566	83,624	44,793	45,295	52,106	61,363
27	U. WA	75,361	81,085	80,599	81,374	59,319	60,997	60,347	61,065
28	NM State U. main campus	99,689	81,705	76,857	79,827	73,156	64,294	59,470	59,118
29	U. CA, Davis	59,204	65,634	71,975	79,570	22,036	24,857	24,104	28,236
30	Clemson U.	81,309	111,828	72,483	74,210	30,347	29,777	26,125	29,158
31	Northwestern U.	64,791	66,841	71,289	72,998	44,630	43,746	45,842	50,074
32	UT State U.	55,850	63,442	67,248	72,811	51,990	54,034	54,622	55,382
33	U. CA, Los Angeles	52,088	52,600	56,907	61,850	29,380	27,739	27,917	30,508
34	U. CO all campuses	36,721	42,758	46,629	61,644	29,544	31,985	33,125	43,540
35	MS State U.	47,812	56,428	58,642	58,223	30,992	38,912	40,379	39,255
36	SUNY Buffalo all campuses	47,833	55,548	62,169	56,218	23,497	26,526	34,803	29,684
37	U. TN all campuses	48,400	50,101	56,053	55,956	26,807	27,704	28,201	30,624
38	NM Institute of Mining and Technology	45,194	54,510	51,369	55,024	30,084	43,690	40,594	41,841
39	Wichita State U.	21,884	35,218	36,734	54,669	9,296	9,295	8,083	7,590
40	Princeton U.	55,548	52,077	52,821	53,435	35,084	33,883	38,195	35,195
41	U. Southern CA	49,447	51,100	53,082	52,826	33,722	31,819	31,411	33,270
42	IA State U.	51,726	52,354	53,186	51,976	26,903	25,501	27,948	25,573
43	Columbia U. in the City of New York	37,522	41,069	42,213	51,966	30,308	32,606	33,657	39,643
44	U. KY all campuses	44,236	46,912	48,676	51,856	19,908	21,032	24,132	20,008

**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 2006–09**

Rank	Institution	(Dollars in Thousands)				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
45	Rensselaer Polytechnic Institute	48,242	50,061	52,424	50,991	27,750	28,455	28,766	28,332
46	U. CA, Santa Cruz	32,173	35,536	40,378	50,967	27,235	27,906	30,784	37,588
47	U. MA Amherst	40,106	42,730	48,028	50,123	17,557	17,723	20,887	22,115
48	U. UT	33,209	32,890	35,354	49,937	20,441	19,283	17,543	21,760
49	NJ Institute of Technology	39,941	50,986	45,384	49,216	19,505	23,650	21,822	25,248
50	U. AZ	80,160	58,235	52,942	48,426	26,188	24,279	23,978	18,611
51	Case Western Reserve U.	40,322	37,685	48,511	46,451	25,617	25,844	28,753	27,577
52	Auburn U. all campuses	32,797	38,587	48,256	45,509	18,192	25,799	25,368	26,075
53	U. ND all campuses	27,784	31,074	37,803	45,167	17,074	20,257	25,583	29,400
54	U. DE	39,573	43,038	47,417	44,725	31,145	34,066	37,061	35,400
55	LA State U. all campuses	40,937	43,661	42,840	43,767	12,359	12,822	10,527	9,875
56	CA Institute of Technology	36,864	46,334	39,920	42,550	34,531	38,220	33,544	34,933
57	Woods Hole Oceanographic Institution	21,630	26,511	30,541	42,003	20,572	21,581	25,395	35,882
58	MI State U.	28,519	32,816	39,486	41,717	11,287	12,666	14,881	17,202
59	U. NE all campuses	33,702	34,785	40,541	40,981	15,769	16,105	18,007	19,790
60	Vanderbilt U.	33,424	37,124	38,258	40,457	26,887	29,865	31,426	33,257
61	Duke U.	35,192	39,903	39,047	40,346	23,808	27,665	27,063	26,767
62	U. VA all campuses	35,682	34,894	38,725	39,915	29,835	29,662	31,507	31,921
63	Rutgers, The State U. NJ all campuses	25,245	29,011	35,572	39,851	10,479	12,967	17,876	21,675
64	Old Dominion U.	23,991	24,343	32,855	37,459	16,591	13,636	16,883	15,255
65	U. CA, Irvine	35,222	33,953	36,368	35,610	14,037	13,518	16,489	15,148
66	MI Technological U.	25,626	33,149	35,948	35,147	10,697	17,070	18,595	16,184
67	U. Cincinnati all campuses	26,983	29,186	32,826	35,076	12,023	12,711	15,177	17,295
68	U. PA	32,779	31,213	33,568	34,593	20,982	20,842	22,938	22,963
69	U. Houston	23,961	16,296	19,325	34,396	8,162	7,736	8,157	9,510
70	U. Central FL	28,886	29,071	34,876	34,327	10,955	13,370	17,055	16,681
71	U. MO-Columbia	15,872	25,937	28,058	33,938	7,690	9,134	9,643	14,291
72	Rice U.	22,197	26,528	29,222	33,230	16,751	19,085	20,815	22,580
73	Harvard U.	22,851	21,587	24,572	33,077	19,811	17,812	19,455	25,085
74	Drexel U.	36,733	36,660	32,184	32,876	24,716	25,009	20,154	20,846
75	FL State U.	32,761	32,704	31,425	32,491	26,979	26,896	24,902	20,609
76	U.S. Air Force Academy	4,703	7,811	36,159	32,401	4,587	7,654	35,649	27,307
77	U. TX Arlington	17,957	19,629	24,473	31,551	11,153	10,998	11,158	13,847
78	U. SC all campuses	25,085	25,084	27,530	31,347	16,498	16,453	18,470	20,501
79	CO State U.	25,088	27,282	28,825	30,903	17,753	19,049	17,977	19,111
80	WV U.	25,023	28,128	27,505	29,672	17,309	17,899	16,993	17,334
81	U. AL Huntsville, The	28,136	34,710	24,823	29,668	21,756	23,873	16,217	21,221
82	Boston U.	24,972	26,454	26,912	29,520	22,783	23,802	23,984	25,364
83	U. of Notre Dame	15,950	16,239	34,997	28,501	10,613	11,422	28,049	18,747
84	U. IA	34,071	36,823	28,342	28,402	13,539	17,505	19,192	20,119
85	U. NM main campus	16,394	17,018	21,075	27,860	11,413	11,730	15,339	20,289
86	FL International U.	17,700	20,496	17,022	27,816	14,167	14,761	13,847	15,431
87	U. MO-Rolla	27,932	24,220	27,480	27,631	16,009	13,972	16,720	17,923
88	U. South FL	35,778	34,351	30,841	27,508	17,460	17,262	15,930	12,405
89	SUNY Binghamton	11,256	15,794	26,785	27,075	4,230	4,107	4,341	5,137
90	U. Pittsburgh all campuses	21,254	20,606	21,971	25,915	14,809	14,365	14,835	17,712

**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 2006–09**

Rank	Institution	Total				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
91	SUNY Stony Brook all campuses	23,488	36,611	25,675	25,726	10,343	10,663	10,582	9,916
92	OR State U.	23,907	22,802	23,029	25,184	16,314	14,373	14,857	15,305
93	WA State U.	24,591	22,757	26,703	25,115	13,476	11,143	12,337	10,259
94	Northeastern U.	26,894	25,833	23,323	24,755	16,776	13,714	14,777	15,361
95	TX Tech U.	16,202	16,750	17,800	24,014	6,468	7,731	7,627	10,021
96	U. CA, Riverside	28,721	26,530	25,165	23,890	18,279	16,795	15,164	12,576
97	U. AR main campus	21,676	21,388	22,604	23,837	8,004	8,418	9,005	9,123
98	KS State U.	18,837	19,450	21,214	22,778	8,244	8,080	9,826	10,720
99	OK State U. all campuses	19,247	17,409	20,596	22,693	11,764	11,162	12,294	13,294
100	Dartmouth C.	20,807	19,429	19,715	22,137	14,937	12,793	11,362	15,294

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

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$643,701 in total and \$619,530 in federally financed R&D expenditures in engineering in FY 2009.

<sup>b</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2009 are not listed 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 2009.

**Appendix H: R&D Expenditures in the Environmental Sciences at Universities and Colleges, Ranked by all FY 2009 Environmental Sciences for the First 100 Institutions: FY 2006–09 and by subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009				
					All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
	All institutions	2,601,611	2,686,065	2,805,701	2,940,300	415,092	1,027,078	1,087,009	411,121
1	U. CA, San Diego	127,469	132,814	144,932	148,322	13,197	36,213	98,884	28
2	TX A&M U.	69,531	112,571	129,148	130,662	6,495	7,703	112,949	3,515
3	CO State U.	84,894	94,391	106,137	116,171	35,201	80,970	0	0
4	Woods Hole Oceanographic Institution	100,258	110,899	120,179	115,286	0	0	115,286	0
5	U. WA	92,110	91,765	100,028	110,858	24,150	5,667	71,443	9,598
6	Columbia U. in the City of New York	57,799	55,503	56,202	88,026	19,753	5,486	56,011	6,776
7	U. CO all campuses	90,831	90,889	80,804	79,942	28,229	46,689	6	5,018
8	U. HI Manoa	60,612	65,677	71,276	77,907	2,270	13,235	57,171	5,231
9	U. TX Austin	37,600	43,269	47,150	58,406	111	47,173	8,605	2,517
10	U. AK Fairbanks all campuses	80,804	41,773	41,882	57,164	10,562	24,167	17,543	4,892
11	PA State U. all campuses	52,793	55,506	55,537	56,529	15,630	31,223	9,676	0
12	U. NH	55,726	55,684	56,760	55,048	20,712	11,975	22,361	0
13	Johns Hopkins U., The <sup>a</sup>	40,256	42,422	46,864	51,224	10,392 i	3,479 i	15,416 i	21,937 i
14	U. WI Madison	82,589	77,397	66,517	49,630	31,011	7,548	3,468	7,603
15	U. Miami	49,485	49,346	52,829	46,077	28,041	0	14,554	3,482
16	U. IL Urbana-Champaign	41,592	38,715	41,051	45,265	3,576	28,245	0	13,444
17	OR State U.	40,829	39,634	42,497	44,785	1,636	3,480	14,551	25,118
18	U. MD Ctr. for Environmental Science	40,146	40,720	40,556	41,670	0	4,776	36,894	0
19	U. SC all campuses	32,413	33,752	36,626	39,360	0	8,346	10,002	21,012
20	U. OK all campuses	33,264	33,058	35,358	38,811	20,901	17,910	0	0
21	SUNY Stony Brook all campuses	22,512	24,042	25,164	36,303	1	10,365	25,937	0
22	MA Institute of Technology	27,267	26,227	28,828	35,856	6,488	10,609	7,247	11,512
23	Desert Research Institute	35,776	38,402	36,340	35,248	9,461	25,787	0	0
24	LA State U. all campuses	33,543	34,402	37,549	34,798	0	6,749	22,725	5,324
25	U. RI	26,121	26,520	26,259	31,364	222	4,480	25,868	794
26	C. of William and Mary all campuses	34,649	34,262	35,053	31,277	0	935	30,197	145
27	U. MD Baltimore County	22,118	27,373	27,483	31,001	0	31,001	0	0
28	U. CA, Davis	26,234	28,464	29,243	30,648	2,805	3,549	5,848	18,446
29	U. NC Chapel Hill	22,258	22,030	23,346	28,818	0	20,768	7,282	768
30	U. AZ	11,388	13,265	17,431	27,779	3,572	19,909	0	4,298
31	Rutgers, The State U. NJ all campuses	28,649	28,785	28,596	27,549	996	1,519	15,735	9,299
32	U. CA, Santa Barbara	29,108	28,111	26,262	25,912	0	3,476	22,106	330
33	U. MN all campuses	14,474	13,953	14,927	25,443	0	8,974	3,230	13,239
34	Princeton U.	17,909	18,373	20,179	22,711	5,953	5,518	0	11,240
35	U. South FL	32,230	29,032	26,903	22,550	582	2,425	18,224	1,319
36	Stanford U.	19,803	23,208	21,205	22,253	0	5,199	4,719	12,335
37	Harvard U.	26,616	27,733	24,988	21,692	0	3,797	0	17,895
38	U. CA, Santa Cruz	20,173	22,427	23,896	21,683	0	5,123	15,278	1,282
39	U. ME	20,470	20,872	19,855	21,196	0	8,696	12,500	0
40	U. NV, Reno	10,074	10,760	19,835	20,273	12	14,261	139	5,861

**Appendix H: R&D Expenditures in the Environmental Sciences at Universities and Colleges, Ranked by all FY 2009 Environmental Sciences for the First 100 Institutions: FY 2006–09 and by subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009				
					All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
41	U. MD College Park	13,893	14,422	15,782	19,156	3,730	15,426	0	0
42	FL State U.	25,531	22,816	20,724	18,912	8,026	5,585	5,088	213
43	AZ State U.	12,277	13,553	18,198	18,682	0	18,036	0	646
44	San Jose State U.	17,949	16,678	20,366	18,579	541	236	17,726	76
45	U. Southern CA	18,225	18,778	16,597	16,504	0	12,516	3,740	248
46	Duke U.	13,530	14,772	17,211	16,450	0	3,415	6,215	6,820
47	U. Southern MS	14,362	15,147	13,952	16,295	0	490	15,805	0
48	GA Institute of Technology all campuses	16,422	15,847	16,119	15,873	14,066	1,667	0	140
49	U. KS all campuses	15,204	14,235	15,328	15,552	1	15,519	32	0
50	NC State U.	13,223	14,700	15,178	15,243	0	174	3,970	11,099
51	U. WY	11,328	11,411	14,577	15,146	6,129	7,106	0	1,911
52	CA Institute of Technology	16,357	16,044	15,927	15,115	0	15,115	0	0
53	U. GA	14,521	13,491	14,102	15,107	0	4,276	10,831	0
54	Cornell U. all campuses	6,383	6,457	15,749	15,064	0	5,885	97	9,082
55	MI State U.	1,071	1,020	892	14,584	0	14,584	0	0
56	U. MD Biotechnology Institute	12,285	14,058	12,869	13,673	0	0	13,673	0 i
57	U. DE	12,532	12,388	11,990	13,181	0	1,144	11,842	195
58	U. CA, Los Angeles	11,098	10,083	10,872	13,147	5,133	6,402	0	1,612
59	U. CA, Berkeley	9,996	10,574	10,893	12,995	98	12,897	0	0
60	U. CA Office of the President	14,439	16,990	12,903	12,851	0	0	0	12,851
61	Naval Postgraduate School	14,604	16,684	12,816	12,817	5,896	0	6,921	0
62	MI Technological U.	8,238	12,428	12,229	12,058	0	1,482	0	10,576
63	U. CA, Riverside	13,679	15,074	12,852	11,619	1,484	1,776	0	8,359
64	U. UT	8,129	7,912	9,427	11,512	3,261	8,251	0	0
65	U. MI all campuses	11,285	11,897	11,154	11,322	0	11,322	0	0
66	MS State U.	5,017	9,150	10,273	10,909	2,096	2,757	4,986	1,070
67	U. AL Huntsville, The	8,898	11,470	10,709	10,511	10,242	262	0	7
68	Brown U.	7,998	7,535	11,192	10,278	171	6,915	54	3,138
69	U. Central FL	14,513	16,494	13,484	10,224	10,224	0	0	0
70	U. NV, Las Vegas	18,069	18,846	15,750	10,201	0	10,124	0	77
71	OH State U. all campuses	9,336	9,896	10,567	9,981	0	9,981	0	0
72	U. CT all campuses	8,869	8,486	9,935	9,831	0	18	9,813	0
73	FL International U.	5,364	5,032	3,994	9,710	0	9,710	0	0
74	U. NC Wilmington	7,479	10,052	12,068	9,659	0	455	9,204	0
75	U. FL	10,281	10,113	9,225	9,448	0	5,904	2,430	1,114
76	U. ND all campuses	8,745	11,128	8,846	8,325	3,851	3,998	0	476
77	U. MA Dartmouth	9,565	10,116	10,016	8,183	0	0	8,183	0
78	George Mason U.	12,601	9,522	7,564	8,009	2,094	5,810	105	0
79	U. Houston	4,002	3,633	3,792	7,788	0	6,769	0	1,019
80	San Francisco State U.	7,607	6,892	4,785	7,787	2	273	7,512	0
81	IA State U.	6,422	7,051	8,641	7,688	0	7,688	0	0
82	U. CA, Irvine	5,689	5,492	6,399	7,642	59	0	0	7,583
83	TX Tech U.	6,454	6,331	7,570	7,448	374	1,848	0	5,226
84	Boston C.	7,432	8,114	7,837	7,406	0	543	0	6,863
85	VA Polytechnic Institute and State U.	5,876	7,910	7,257	7,324	0	7,164	0	160

**Appendix H: R&D Expenditures in the Environmental Sciences at Universities and Colleges, Ranked by all FY 2009 Environmental Sciences for the First 100 Institutions: FY 2006–09 and by subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009				
					All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
86	Old Dominion U.	4,731	5,094	6,653	7,091	0	0	7,091	0
87	WV U.	7,374	6,894	7,221	6,974	0	6,974	0	0
88	CO School of Mines	1,759	4,956	6,629	6,891	0	6,891	0	0
89	WA State U.	1,595	2,887	3,313	6,776	870	1,940	350	3,616
90	U. WI Milwaukee	7,466	8,209	7,326	6,608	2	277	5,891	438
91	TX A&M U. Corpus Christi	5,511	5,996	6,277	6,437	25	424	5,098	890
92	Purdue U. all campuses	6,210	5,547	6,118	6,106	2,780	1,390	0	1,936
93	U. NM main campus	4,453	5,411	5,325	5,997	913	4,973	0	111
94	San Diego State U.	3,931	3,775	4,679	5,982	0	5,358	624	0
95	U. MA Lowell	4,016	3,691	3,499	5,856	0	5,856	0	0
96	U. Chicago	4,848	6,414	5,612	5,839	0	5,839	0	0
97	SUNY Albany	6,760	4,465	5,489	5,737	4,312	1,425	0	0
98	Washington U. St. Louis	4,927	5,526	4,526	5,723	0	5,723	0	0
99	U. TN all campuses	4,791	4,207	8,754	5,717	131	2,048	0	3,538
100	U. MS all campuses	317	7,129	7,119	5,515	0	1,095	4,420	0

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

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$27,133 in total R&D expenditures in the environmental sciences in FY 2009.

<sup>b</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2009 are not listed 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 2009.

**Appendix I. R&D Expenditures in the Life Sciences at Universities and Colleges, Ranked by all FY 2009 Life Sciences for the First 150 Institutions: FY 2006–09 and by Subfield for FY 2009**

Rank	Institution	(Dollars in Thousands)								
		2006	2007	2008	All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec	2009
	All institutions	28,803,592	29,806,206	31,210,224	32,790,685	3,057,451	10,152,632	18,239,835	1,340,767	
1	U. CA, San Francisco	770,485	820,239	862,987	930,283	0	29,667	900,616	0	
2	Johns Hopkins U., The <sup>a</sup>	702,207	692,380	738,962	787,092	0	205,189	536,351	45,552	
3	Duke U.	553,834	669,354	655,202	673,352	0	194,300	474,848	4,204	
4	U. CA, Los Angeles	609,514	612,248	649,978	648,574	0	22,720	625,854	0	
5	U. WI Madison	508,034	541,332	567,870	623,414	46,313	220,821	349,620	6,660	
6	U. MI all campuses	481,245	480,044	506,766	610,550	10,651	155,351	373,491	71,057	
7	U. PA	546,624	525,729	590,059	606,702	347	204,664	386,099	15,592	
8	Washington U. St. Louis	490,846	515,165	506,555	562,058	0	190,901	364,663	6,494	
9	U. Pittsburgh all campuses	458,627	489,305	523,296	544,425	0	17,350	512,408	14,667	
10	U. MN all campuses	434,861	455,889	499,348	529,128	76,010	105,031	342,334	5,753	
11	U. WA	541,524	513,821	515,172	517,978	17,233	89,848	396,872	14,025	
12	U. TX M. D. Anderson Cancer Ctr.	402,469	434,713	491,639	510,469	0	165,095	345,374	0	
13	U. NC Chapel Hill	349,179	371,745	407,159	505,871	0	219,888	242,349	43,634	
14	U. CA, Davis	425,934	441,417	471,685	496,903	134,749	156,491	205,663	0	
15	U. CA, San Diego	404,236	446,301	476,841	495,438	22	39,641	454,390	1,385	
16	Baylor C. of Medicine	462,375	438,280	449,301	449,031	0	227,544	221,487	0	
17	Yale U.	402,060	397,064	429,517	446,864	595	140,083	306,186	0	
18	Cornell U. all campuses	411,148	409,577	410,883	433,210	57,158	102,407	256,605	17,040	
19	OH State U. all campuses	373,349	397,652	408,489	426,315	63,111	91,474	260,694	11,036	
20	Stanford U.	389,093	407,985	410,123	425,500	0	23,474	402,026	0	
21	U. FL	390,097	418,136	419,207	419,662	143,609	116,458	135,360	24,235	
22	Emory U.	330,039	362,271	402,767	416,968	0	183,623	229,987	3,358	
23	U. AL Birmingham, The	312,118	333,758	386,099	404,696	0	109,584	292,457	2,655	
24	U. TX Southwestern Medical Ctr. Dallas		333,237	341,090	390,349	402,087	0	166,725	234,144	1,218
25	Columbia U. in the City of New York	367,877	380,740	370,822	385,193	0	134,668	244,034	6,491	
26	U. CO all campuses	287,983	294,574	299,433	382,876	3	67,896	283,883	31,094	
27	Scripps Research Institute, The	367,375	360,511	366,047	382,275	0	382,275	0	0	
28	Northwestern U.	300,157	316,703	352,348	369,374	0	98,736	259,150	11,488	
29	U. MD Baltimore	405,260	358,851	379,407	359,542	0	53,931	287,634	17,977	
30	Vanderbilt U.	303,452	320,632	341,388	348,830	0	138,007	199,714	11,109	
31	Case Western Reserve U.	312,695	316,777	350,088	347,127	0	86,994	233,871	26,262	
32	U. Southern CA	256,515	321,959	329,680	330,121	0	19,517	298,847	11,757	
33	Harvard U.	312,303	314,166	316,229	325,469	0	178,209	147,046	214	
34	Mt. Sinai School of Medicine	273,216	269,451	296,380	318,407	0	95,691	222,716	0	
35	U. Cincinnati all campuses	251,055	292,289	293,448	304,931	0	69,735	225,912	9,284	
36	IN U. all campuses	227,786	261,002	286,197	299,428	0	95,661	190,499	13,268	
37	U. Chicago	216,635	232,868	267,789	277,473	0	113,241	160,783	3,449	
38	U. AZ	253,309	275,212	269,947	272,803	63,496	80,370	123,068	5,869	
39	U. Rochester	234,547	246,393	260,232	271,684	0	66,031	196,321	9,332	
40	U. IL Chicago	257,615	268,553	268,277	266,337	0	63,840	188,610	13,887	
41	U. KY all campuses	230,681	240,818	244,384	259,700	59,400	74,229	117,394	8,677	
42	MA Institute of Technology	172,631	191,916	218,413	257,208	0	233,730	14,340	9,138	
43	U. IA	274,029	284,969	230,220	256,682	0	73,067	163,034	20,581	

**Appendix I. R&D Expenditures in the Life Sciences at Universities and Colleges, Ranked by all FY 2009 Life Sciences for the First 150 Institutions: FY 2006–09 and by Subfield for FY 2009**

Rank	Institution	(Dollars in Thousands)								
		2009								
		2006	2007	2008	All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec	
44	NY U.	229,797	237,400	254,203	255,186	0	98,463	140,586	16,137	
45	OR Health & Science U.	236,976	244,734	253,072	254,723	0	112,056	126,375	16,292	
46	LA State U. all campuses	225,097	243,300	253,746	253,267	77,735	108,289	66,006	1,237	
47	U. GA	224,426	231,955	243,797	241,490	93,279	102,473	41,353	4,385	
48	U. NE all campuses	221,599	220,180	222,586	241,098	59,455	114,972	59,386	7,285	
49	PA State U. all campuses	200,986	202,986	219,814	238,962	87,643	51,976	99,343	0	
50	U. South FL	193,977	188,046	200,431	234,887	0	14,226	220,000	661	
51	Rockefeller U.	198,779	216,284	227,568	233,727	0	220,496	13,231	0	
52	SUNY Buffalo all campuses	212,496	213,681	216,658	233,547	0	61,092	161,776	10,679	
53	U. of Medicine and Dentistry NJ	245,771	236,834	230,347	223,796	0	100,708	123,088	0	
54	U. TX Health Science Ctr. San Antonio	150,040	160,282	201,323	221,535	0	50,697	163,260	7,578	
55	U. TX Health Science Ctr. Houston	175,154	191,724	197,252	217,623	0	26,111	99,516	91,996	
56	Medical U. SC	175,914	184,470	189,089	216,376	0	72,746	75,844	67,786	
57	U. UT	165,066	164,893	169,573	215,203	0	53,365	112,701	49,137	
58	U. CA, Irvine	194,827	207,120	216,287	213,655	0	105,291	108,364	0	
59	MI State U.	222,066	219,429	214,004	211,919	87,124	88,981	29,225	6,589	
60	U. MA Worcester	156,452	157,469	178,614	204,033	0	72,851	104,417	26,765	
61	U. CA, Berkeley	180,737	174,792	184,410	200,473	71,282	65,299	63,892	0	
62	Wayne State U.	177,619	187,060	197,045	197,995	0	37,634	147,404	12,957	
63	Wake Forest U.	178,074	181,642	195,707	197,095	0	1,659	195,436	0	
64	TX A&M U.	189,069	188,462	182,674	193,967	88,297	39,553	64,781	1,336	
65	Yeshiva U.	189,416	192,199	197,311	193,010	0	0	193,010	0	
66	Purdue U. all campuses	175,631	182,894	188,344	190,112	111,549	36,701	30,795	11,067	
67	Uniformed Services U. of the Health Sciences	63,175	64,988	100,996	188,911	0	5,659	183,252	0	
68	U. MO-Columbia	169,710	169,206	188,219	187,295	64,136	43,171	62,087	17,901	
69	NC State U.	162,953	168,872	186,115	186,776	88,392	81,209	0	17,175	
70	U. VA all campuses	168,222	159,645	180,438	185,145	0	58,131	123,854	3,160	
71	U. TX Medical Branch	177,365	181,249	177,767	183,102	0	75,370	107,732	0	
72	U. Miami	147,260	146,063	170,397	182,483	0	27,073	152,907	2,503	
73	U. IL Urbana-Champaign	128,733	138,193	150,707	177,615	68,639	92,531	5,759	10,686	
74	Medical C. WI	147,140	158,171	165,529	176,237	0	48,599	127,638	0	
75	Boston U.	169,662	158,473	161,933	174,803	0	8,092	164,525	2,186	
76	VA Polytechnic Institute and State U.	150,604	167,765	165,736	168,495	91,658	63,795	11,083	1,959	
77	U. KS all campuses	137,286	146,357	156,479	165,779	1,281	92,108	51,742	20,648	
78	Rutgers, The State U. NJ all campuses	154,884	157,977	159,609	165,741	39,533	92,058	19,348	14,802	
79	WA State U.	124,270	129,984	171,412	157,517	82,822	43,352	27,621	3,722	
80	U. CT all campuses	154,635	161,722	157,953	154,654	6,649	83,225	60,644	4,136	
81	Tulane U.	101,539	122,855	135,252	137,864	0	29,832	28,819	79,213	
82	Dartmouth C.	140,264	140,106	132,337	133,225	0	6,693	126,532	0	
83	Georgetown U.	105,029	122,867	125,788	132,105	0	10,120	110,600	11,385	
84	U. TN all campuses	141,455	140,018	137,101	129,234	35,667	46,861	43,048	3,658	
85	CO State U.	110,143	117,891	133,834	128,829	34,307	30,302	63,461	759	

**Appendix I. R&D Expenditures in the Life Sciences at Universities and Colleges, Ranked by all FY 2009 Life Sciences for the First 150 Institutions: FY 2006–09 and by Subfield for FY 2009**

Rank	Institution	(Dollars in Thousands)								
		2009								
		2006	2007	2008	All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec	
86	VA Commonwealth U.	130,067	111,746	125,604	128,708	0	48,571	70,095	10,042	
87	OR State U.	108,074	108,754	105,707	118,051	66,312	45,650	4,012	2,077	
88	IA State U.	111,494	111,538	114,157	117,632	53,902	43,712	16,591	3,427	
89	U. Louisville	108,833	120,424	117,892	116,945	0	30,644	76,140	10,161	
90	U. NM main campus	109,570	104,285	117,462	114,959	18	32,414	75,194	7,333	
91	U. OK all campuses	101,346	100,945	111,673	114,727	0	46,141	63,818	4,768	
92	Tufts U.	101,279	104,040	106,907	110,873	16	85,018	25,839	0	
93	U. HI Manoa	83,980	90,518	100,277	107,753	18,148	9,169	68,645	11,791	
94	U. AR for Medical Sciences	107,871	108,551	117,440	106,314	0	41,269	59,965	5,080	
95	MS State U.	98,183	105,564	102,026	103,638	90,401	5,802	6,367	1,068	
96	U. VT	107,137	98,031	96,471	101,652	13,405	35,502	51,335	1,410	
97	Thomas Jefferson U.	106,986	107,288	99,275	101,188	0	44,056	54,234	2,898	
98	KS State U.	79,617	81,631	89,785	96,245	57,909	36,866	1,470	0	
99	Rush U.	81,159	82,539	87,699	94,328	0	22,042	68,977	3,309	
100	SUNY Stony Brook all campuses	97,924	107,738	103,245	90,904	0	44,221	46,305	378	
101	WV U.	79,957	85,132	90,290	87,416	23,774	16,016	43,350	4,276	
102	SUNY Albany	96,729	102,740	102,065	86,824	0	78,190	8,545	89	
103	George Washington U.	44,856	49,146	55,038	85,060	0	14,617	70,443	0	
104	Auburn U. all campuses	80,290	75,450	81,251	83,434	65,859	10,352	2,682	4,541	
105	TX A&M U. System Health Science Ctr.	74,132	76,983	79,124	82,549	81	211	82,257	0	
106	Brown U.	82,681	79,473	77,755	78,219	263	23,858	37,874	16,224	
107	Temple U.	56,304	63,124	67,082	75,042	710	28,871	36,654	8,807	
108	U. MD College Park	60,333	66,733	70,253	70,997	45,855	16,939	0	8,203	
109	AZ State U.	46,523	53,252	63,677	70,468	867	56,196	205	13,200	
110	U. CA, Riverside	64,407	68,274	67,784	69,635	12,747	53,248	3,640	0	
111	OK State U. all campuses	60,369	62,334	71,068	69,620	36,998	27,824	4,761	37	
112	Medical C. GA	61,174	60,001	57,085	65,473	0	50,216	14,386	871	
113	MT State U. Bozeman	71,686	69,880	72,260	64,327	48,974	10,729	3,054	1,570	
114	U. MS all campuses	64,905	77,154	58,369	63,603	0	14,181	46,106	3,316	
115	U. AR main campus	59,420	59,797	61,528	63,410	59,649	2,603	0	1,158	
116	ND State U. all campuses	58,219	58,444	62,693	62,925	54,162	2,026	6,737	0	
117	Clemson U.	52,287	57,090	65,214	58,760	33,174	22,648	2,249	689	
118	UT State U.	51,247	57,738	60,256	58,207	47,678	10,248	281	0	
119	Charles R. Drew U. of Medicine and Science	47,188	52,118	49,224	57,604	0	0	57,604	0	
120	U. ID	55,712	52,689	49,932	57,589	34,568	17,633	5,388	0	
121	U. TX Austin	48,983	50,210	48,968	57,026	229	36,308	19,430	1,059	
122	Drexel U.	48,341	46,819	53,828	56,875	0	30,973	22,685	3,217	
123	<b>U. MA Amherst</b>	<b>42,796</b>	<b>50,796</b>	<b>54,886</b>	<b>54,733</b>	<b>23,088</b>	<b>23,323</b>	<b>7,237</b>	<b>1,085</b>	
124	U. SC all campuses	40,297	41,304	45,820	50,566	0	13,565	37,001	0	
125	CA Institute of Technology	44,259	47,522	49,231	50,431	0	50,431	0	0	
126	U. NV, Reno	47,284	45,392	43,303	44,711	17,692	19,376	7,333	310	
127	U. MT-Missoula, The	35,129	37,807	39,956	44,420	9,208	21,499	10,437	3,276	
128	Southern IL U. Carbondale	40,662	41,002	42,422	43,353	9,730	8,674	24,590	359	
129	U. WY	51,003	38,911	39,791	41,342	15,312	18,653	3,768	3,609	
130	SD State U.	27,454	31,401	37,165	39,608	28,166	2,421	3,228	5,793	

**Appendix I. R&D Expenditures in the Life Sciences at Universities and Colleges, Ranked by all FY 2009 Life Sciences for the First 150 Institutions: FY 2006–09 and by Subfield for FY 2009**

Rank	Institution				(Dollars in Thousands) 2009				
		2006	2007	2008	All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
131	Princeton U.	38,653	38,002	42,654	39,405	0	39,405	0	0
132	NM State U. main campus	39,624	37,046	35,751	39,385	32,796	6,012	0	577
133	U. ME	37,181	35,016	31,448	39,020	23,351	14,112	79	1,478
134	TX Tech U. Health Science Ctr.	22,013	21,006	24,716	37,363	0	13,946	23,417	0
135	U. CA Office of the President	54,580	52,342	40,612	37,262	3,333	2,641	31,288	0
136	Eastern VA Medical School	33,013	31,453	30,777	36,678	0	11,650	25,028	0
137	Loma Linda U.	32,234	27,887	35,883	36,357	0	6,394	29,753	210
138	St. Louis U. all campuses	46,044	51,432	54,625	35,798	0	10,068	25,409	321
139	U. PR Medical Sciences Campus	38,424	38,863	35,570	34,869	0	0	34,869	0
140	FL State U.	30,403	30,293	30,143	34,848	0	17,248	13,509	4,091
141	SUNY Upstate Medical U.	37,181	39,699	36,359	33,194	0	6,902	26,292	0
142	U. DE	28,596	29,165	30,901	32,752	20,980	6,223	0	5,549
143	Loyola U. Chicago	35,999	33,473	32,613	32,695	0	11,182	20,460	1,053
144	U. MD Biotechnology Institute	47,012	47,699	30,134	32,029 i	8,830 i	23,199 i	0 i	0 i
145	U. Toledo	7,285	28,700	28,311	31,612	1,092	17,081	11,851	1,588
146	U. LA Lafayette	26,583	28,555	30,511	30,933	219	4,115	25,309	1,290
147	NY Medical C.	34,397	34,365	31,644	30,584	0	23,720	6,864	0
148	San Diego State U.	27,140	23,791	24,994	30,223	0	14,325	10,076	5,822
149	U. OR	26,700	26,694	27,158	29,838	0	11,259	18,533	46
150	U. North TX Health Science Ctr. Ft. Worth	25,124	28,187	28,179	29,582	0	24,399	5,183	0

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

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$40,374 in total R&D expenditures in the life sciences in FY 2009.

<sup>b</sup> On 1 July 2008 PA College of Optometry was renamed Salus University to reflect an expansion of its academic programs.

<sup>c</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2009 are not listed 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 2009.

**Appendix J. Total and Federally Financed R&D Expenditures in the Mathematical Sciences at Universities and Colleges,  
Ranked by FY 2009 total for the First 100 Institutions: FY 2006-09**

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
	All institutions	532,780	572,946	620,430	552,778	374,905	408,590	447,404	368,820
1	Johns Hopkins U., The <sup>a</sup>	27,163	29,396	28,883	28,169	26,529	29,012	28,535	26,972
2	U. TX Austin	21,715	26,799	25,214	24,953	12,471	19,660	16,078	13,857
3	U. TX M. D. Anderson Cancer Ctr.	21,675	22,426	23,050	24,294	5,553	5,396	5,149	5,187
4	NC State U.	14,924	16,733	15,905	18,603	8,457	8,525	8,437	9,869
5	PA State U. all campuses	10,571	10,950	13,319	14,876	7,005	7,515	9,456	11,130
6	Rutgers, The State U. NJ all campuses	10,389	11,313	12,660	13,591	5,184	5,892	6,875	7,725
7	SUNY Stony Brook all campuses	6,871	6,364	7,037	12,659	3,002	3,057	3,162	3,703
8	OH State U. all campuses	13,362	12,547	12,538	10,899	8,201	7,559	8,247	7,554
9	TX A&M U.	9,786	7,697	7,980	10,161	8,223	6,166	5,792	5,387
10	Brown U.	8,335	9,247	9,583	9,863	4,442	5,372	5,633	5,496
11	Stanford U.	7,627	7,531	7,905	9,762	7,068	7,056	7,261	8,800
12	U. MN all campuses	7,901	8,577	9,281	9,611	5,517	6,024	6,753	7,114
13	NY U.	7,699	9,750	8,786	9,276	6,783	8,967	8,110	8,883
14	IA State U.	8,588	8,443	10,000	9,146	4,577	3,995	5,213	4,479
15	U. CA, Berkeley	7,373	6,960	7,413	8,020	5,763	4,978	5,943	6,374
16	GA Institute of Technology all campuses	6,196	8,371	8,432	7,740	2,478	2,769	2,676	2,318
17	U. MD College Park	5,856	6,626	7,553	7,573	3,593	5,162	5,298	5,088
18	U. GA	5,990	5,657	5,826	7,105	1,160	994	720	1,445
19	Duke U.	6,687	6,869	7,109	7,093	5,553	5,910	5,975	5,785
20	U. MI all campuses	5,220	5,374	5,684	7,024	3,975	4,434	4,388	5,519
21	Princeton U.	4,596	5,324	6,292	6,777	3,226	3,970	4,862	5,469
22	U. CA, Los Angeles	6,604	5,439	5,881	6,589	5,018	4,199	4,989	5,307
23	Boston C.	5,822	5,578	6,300	6,163	600	501	326	524
24	AZ State U.	5,958	8,053	7,357	5,773	3,998	5,352	4,919	4,501
25	MA Institute of Technology	4,372	4,898	5,255	5,762	3,946	4,314	4,912	5,654
26	U. WI Madison	6,033	6,054	5,853	5,523	4,238	4,262	3,997	3,590
27	U. Southern CA	7,306	8,217	7,684	5,439	5,419	6,733	6,078	4,268
28	Purdue U. all campuses	4,360	4,872	5,158	5,415	3,232	3,415	3,691	3,578
29	Naval Postgraduate School	4,323	4,960	5,395	5,135	4,228	4,931	5,310	5,029
30	NM State U. main campus	188	307	1,053	4,758	109	262	886	4,090
31	U. WA	5,522	5,134	5,052	4,680	5,148	4,671	4,634	4,324
32	U. NE all campuses	4,411	4,611	4,516	4,648	1,575	1,355	1,506	1,361
33	MI State U.	4,757	5,913	4,981	4,613	3,310	3,918	3,605	3,864
34	Cornell U. all campuses	3,744	3,674	5,250	4,603	2,964	3,016	4,307	3,697
35	Harvard U.	2,895	3,431	4,774	4,256	2,895	3,332	4,668	4,169
36	NJ Institute of Technology	3,287	4,006	4,532	4,011	1,779	2,051	2,220	1,808
37	U. CA, Irvine	3,315	3,087	3,742	3,870	2,075	2,133	2,424	2,429
38	U. CA, San Diego	3,715	3,764	4,273	3,826	2,538	2,528	2,725	2,759
39	Rice U.	3,956	3,238	3,723	3,825	3,389	2,756	3,112	3,313
40	Air Force Institute of Technology	574	1,389	1,555	3,689	248	620	1,142	2,208
41	VA Polytechnic Institute and State U.	2,222	2,749	3,976	3,500	1,276	1,323	2,046	1,720
42	U. IL Urbana-Champaign	3,462	3,950	5,485	3,467	2,658	2,801	3,692	2,717
43	IN U. all campuses	3,490	2,940	3,567	3,337	2,422	2,125	2,632	2,470
44	Carnegie Mellon U.	2,633	3,654	3,749	3,257	2,442	3,325	3,256	2,645
45	U. AZ	5,576	3,137	3,378	3,240	4,531	2,233	2,588	2,502
46	U. AL Birmingham, The	537	2,764	2,555	3,157	529	2,762	2,423	2,677
47	U. NM main campus	1,257	1,311	1,975	3,124	1,168	1,148	1,842	2,981

**Appendix J. Total and Federally Financed R&D Expenditures in the Mathematical Sciences at Universities and Colleges,  
Ranked by FY 2009 total for the First 100 Institutions: FY 2006-09**

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
48	U. CA, Davis	3,827	3,814	3,463	3,081	3,122	3,055	2,678	2,404
49	U. NC Chapel Hill	2,276	2,658	2,325	3,064	1,702	2,079	1,908	2,522
50	U. KY all campuses	6,711	6,252	3,819	2,974	5,476	5,959	3,521	2,292
51	FL State U.	2,350	1,905	2,131	2,968	1,618	1,245	1,680	2,374
52	CO State U.	3,991	3,093	3,163	2,954	3,272	2,627	2,689	2,484
53	Northwestern U.	2,082	2,837	2,918	2,939	1,767	2,383	2,521	2,301
54	U. UT	1,476	2,316	2,329	2,919	1,317	2,201	2,084	2,503
55	U. SC all campuses	2,688	2,752	2,752	2,892	2,029	2,027	1,927	2,025
56	U. Chicago	3,889	4,187	3,884	2,884	3,698	3,849	3,710	2,841
57	U. FL	4,933	5,660	5,847	2,810	3,205	3,551	4,087	1,593
58	Tulane U.	1,572	1,560	1,809	2,757	1,319	1,318	1,342	1,702
59	U. MA Amherst	2,981	2,869	3,193	2,753	1,972	1,921	2,223	1,918
60	Columbia U. in the City of New York	1,676	1,718	1,965	2,728	1,676	1,718	1,965	2,631
61	Rensselaer Polytechnic Institute	3,036	3,017	2,298	2,716	2,656	2,483	1,946	2,304
62	U. PA	3,642	2,717	1,909	2,675	3,124	2,296	1,671	1,996
63	Clemson U.	2,818	3,214	2,708	2,619	963	1,005	646	514
64	George Mason U.	6,133	3,209	6,085	2,549	4,791	2,903	5,747	2,459
65	LA State U. all campuses	2,317	2,844	2,298	2,526	1,035	1,545	1,362	1,690
66	SUNY Buffalo all campuses	1,792	2,695	2,552	2,493	868	1,977	1,890	1,741
67	CA Institute of Technology	2,165	2,027	1,981	2,492	2,165	1,971	1,966	2,492
68	U. IL Chicago	2,478	2,365	2,246	2,468	1,698	1,679	1,538	1,652
69	U. Pittsburgh all campuses	2,295	2,190	1,740	2,420	2,071	1,952	1,547	2,121
70	U. Houston	2,340	1,917	2,620	2,380	1,263	1,198	1,302	1,184
71	Elizabeth City State U.	109	79	0	2,366	109	79	0	2,366
72	U. TX El Paso	360	799	3,111	2,358	358	666	2,894	1,760
73	U. CO all campuses	2,261	2,296	2,645	2,345	1,985	2,061	2,369	2,069
74	Boston U.	1,964	1,561	1,603	2,028	1,634	1,286	1,249	1,613
75	Yale U.	1,343	1,207	1,346	1,980	877	1,015	1,119	1,661
76	FL Atlantic U.	782	1,718	1,853	1,946	780	943	977	865
77	MS State U.	1,545	1,720	1,610	1,927	420	583	512	700
78	OK State U. all campuses	631	510	1,911	1,857	140	56	92	68
79	SUNY Binghamton	334	394	1,077	1,853	178	207	167	180
80	IL Institute of Technology	349	498	97	1,839	298	334	88	178
81	TX Tech U.	577	684	728	1,828	446	465	365	847
82	U.S. Naval Academy	596	661	965	1,788	570	661	762	1,767
83	Rockefeller U.	2,777	2,812	2,983	1,773	1,407	1,847	1,485	995
84	U. CA, Santa Barbara	1,153	1,145	1,259	1,767	842	960	1,152	1,478
85	MI Technological U.	1,523	1,740	1,620	1,766	463	467	406	224
86	U. of Notre Dame	1,452	1,331	1,594	1,690	1,319	1,174	1,366	1,494
87	U. MO-Columbia	1,705	2,176	2,034	1,670	1,404	1,810	1,417	1,438
88	DE State U.	788	611	1,701	1,600	788	611	1,701	1,600
89	Old Dominion U.	1,265	1,454	1,824	1,598	505	589	625	675
90	Western MI U.	2,416	2,997	2,283	1,524	1,946	2,269	1,871	1,272
91	U. MD Baltimore County	1,611	1,698	1,886	1,518	1,306	824	742	577
92	OR State U.	2,374	2,531	902	1,446	2,250	2,224	658	926
93	Vanderbilt U.	1,186	1,401	1,460	1,443	1,035	1,261	1,335	1,364
94	San Diego State U.	1,052	1,217	1,345	1,430	399	421	838	1,080
95	San Jose State U.	1,429	1,447	1,343	1,430	269	268	238	358

**Appendix J. Total and Federally Financed R&D Expenditures in the Mathematical Sciences at Universities and Colleges,  
Ranked by FY 2009 total for the First 100 Institutions: FY 2006-09**

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
96	U. DE	1,151	1,279	1,326	1,374	873	1,089	1,149	1,242
97	WA State U.	563	770	976	1,295	305	486	697	864
98	U. TX Arlington	445	511	595	1,246	299	341	357	834
99	VA Commonwealth U.	1,010	1,789	1,921	1,245	838	1,520	1,652	1,080
100	U. IA	2,177	1,839	1,204	1,146	1,730	1,340	1,140	1,076

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

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$26,408 in total and \$25,408 in federally financed R&D expenditures in the mathematical sciences in FY 2009.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2009 are not listed 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 2009.

**Appendix K. R&D Expenditures in the Physical Sciences at Universities and Colleges, Ranked by all FY 2009 Physical Sciences for the First 100 Institutions: FY 2006-09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009				
					All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
	All institutions	2,699,043	2,689,718	2,743,886	2,963,748	389,011	1,037,173	1,360,811	176,753
1	CA Institute of Technology	141,376	150,022	144,182	201,926	7,555	26,065	168,306	0
2	Johns Hopkins U., The <sup>a</sup>	136,988	126,693	123,393	139,871	38,156	17,804	74,697	9,214
3	MA Institute of Technology	94,818	95,057	99,609	109,324	21,921	27,379	54,448	5,576
4	U. AZ	89,270	87,317	97,961	106,794	87,135	10,857	8,802	0
5	U. CO all campuses	57,838	57,541	65,148	76,021	37,967	18,387	16,354	3,313
6	U. TX Austin	60,258	61,858	61,796	66,872	7,017	14,474	45,378	3
7	U. CA, Berkeley	76,542	63,593	59,011	61,016	29,787	16,861	14,295	73
8	Cornell U. all campuses	60,332	56,576	58,558	60,249	5,382	13,732	32,508	8,627
9	U. WI Madison	39,819	37,233	40,757	59,927	4,038	12,736	24,610	18,543
10	U. MD College Park	42,273	45,685	56,409	57,563	18,642	5,889	33,032	0
11	U. CA, Los Angeles	45,676	49,423	48,924	49,995	0	15,346	34,649	0
12	U. IL Urbana-Champaign	38,668	38,525	41,426	43,252	3,863	21,340	18,049	0
13	Harvard U.	54,461	48,423	46,090	40,767	5,534	19,649	14,902	682
14	U. Chicago	38,206	36,157	35,385	40,635	12,765	10,539	13,251	4,080
15	U. CA, San Diego	36,137	39,862	38,731	39,893	0	18,490	19,822	1,581
16	Stanford U.	64,675	56,783	47,886	35,004	0	13,209	4,763	17,032
17	Boston U.	24,027	25,387	29,679	34,680	1,442	6,201	6,389	20,648
18	Rutgers, The State U. NJ all campuses	24,322	23,935	24,322	34,588	248	25,693	8,647	0
19	U. WA	28,350	29,485	31,747	34,469	3,998	18,504	11,967	0
20	PA State U. all campuses	39,700	33,865	34,140	33,115	5,220	12,371	15,524	0
21	FL State U.	28,571	31,823	31,149	31,908	0	4,762	27,002	144
22	MI State U.	36,304	38,216	31,158	31,362	0	3,889	27,473	0
23	Columbia U. in the City of New York	33,473	29,578	31,872	31,185	7,242	7,108	16,835	0
24	U. MI all campuses	28,068	26,753	29,039	29,548	3,016	13,349	12,947	236
25	U. HI Manoa	32,393	27,071	26,145	28,167	22,269	2,539	2,308	1,051
26	U. PA	27,710	23,930	24,332	27,222	0	13,745	13,477	0
27	U. MN all campuses	20,712	17,698	18,034	24,492	1,562	8,501	14,429	0
28	Northwestern U.	20,161	20,988	19,979	24,416	0	17,260	6,017	1,139
29	OH State U. all campuses	18,050	18,791	22,609	24,203	1,948	9,662	12,435	158
30	Princeton U.	21,251	23,907	22,883	23,717	4,987	6,009	12,721	0
31	U. CA, Santa Barbara	21,141	25,104	23,106	23,074	0	4,516	10,041	8,517
32	U. NC Chapel Hill	19,346	20,427	23,811	22,243	0	18,419	3,824	0
33	GA Institute of Technology all campuses	18,346	19,469	19,714	21,804	0	13,625	8,179	0
34	U. IA	13,350	14,151	16,536	21,551	954	2,488	18,109	0
35	U. CA, Irvine	20,070	19,920	21,925	21,305	0	11,190	10,115	0
36	Purdue U. all campuses	15,655	19,183	22,318	20,935	0	13,680	7,255	0
37	U. FL	24,585	21,537	18,427	20,397	2,607	8,794	8,937	59
38	IN U. all campuses	15,118	15,604	17,935	20,016	997	8,647	10,372	0
39	Yale U.	16,320	16,667	18,764	19,965	1,077	7,385	11,503	0
40	Vanderbilt U.	14,182	15,082	15,889	18,916	0	12,093	6,823	0
41	TX A&M U.	18,786	18,775	17,048	18,425	72	9,851	8,143	359
42	U. CA, Davis	16,558	15,484	15,895	17,821	0	8,160	4,884	4,777
43	SUNY Stony Brook all campuses	18,967	17,752	16,632	17,752	1,050	6,077	10,625	0

**Appendix K. R&D Expenditures in the Physical Sciences at Universities and Colleges, Ranked by all FY 2009 Physical Sciences for the First 100 Institutions: FY 2006-09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009				
					All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
44	LA State U. all campuses	14,917	13,836	13,491	16,120	0	9,877	6,243	0
45	NM Institute of Mining and Technology	13,505	19,435	18,567	15,594	6,550	667	1,720	6,657
46	U. of Notre Dame	16,774	17,421	15,647	15,342	0	6,586	8,756	0
47	U. NM main campus	14,573	13,038	15,917	15,278	55	2,699	10,183	2,341
48	U. Pittsburgh all campuses	15,179	14,755	16,552	14,947	584	10,180	4,183	0
49	Rice U.	12,738	17,388	16,844	14,895	0	5,615	9,280	0
50	U. CA, Santa Cruz	17,231	18,187	15,418	14,820	6,033	4,223	4,564	0
51	U. UT	14,538	14,237	14,081	14,406	0	11,188	3,218	0
52	U. PR Rio Piedras Campus	11,128	11,340	19,512	14,379	0	10,230	4,149	0
53	U. VA all campuses	13,494	13,116	14,934	14,194	2,578	5,202	6,414	0
54	Jackson State U.	3,836	4,856	5,591	14,027	0	4,212	2,667	7,148
55	U. OR	7,700	10,560	12,360	13,782	0	6,167	7,615	0
56	Washington U. St. Louis	13,120	11,173	12,024	13,525	0	6,803	6,722	0
57	MT State U. Bozeman	13,828	13,906	14,111	13,471	0	7,572	5,899	0
58	WA State U.	12,217	12,434	11,247	13,085	212	4,470	7,579	824
59	Duke U.	14,448	15,101	14,454	13,040	0	3,995	9,045	0
60	U. Central FL	11,494	13,686	12,805	13,004	0	2,715	10,289	0
61	U. MA Amherst	10,779	7,538	10,987	12,830	2,765	6,153	3,912	0
62	ND State U. all campuses	13,176	13,052	16,671	12,776	0	4,714	140	7,922
63	AZ State U.	13,426	12,017	11,794	12,742	631	8,139	3,929	43
64	U. SC all campuses	9,289	9,293	12,334	12,545	0	9,085	3,272	188
65	U. CA, San Francisco	19,962	15,957	14,982	12,158	0	12,158	0	0
66	Catholic U. America, The	10,213	12,374	11,630	11,805	0	657	5,465	5,683
67	U. MS all campuses	15,226	13,654	14,297	11,783	0	648	11,135	0
68	U. TN all campuses	11,415	11,310	11,065	11,698	0	4,234	7,464	0
69	U. Rochester	10,479	9,350	10,051	11,421	0	3,583	7,838	0
70	U. Southern MS	7,312	10,682	10,444	11,310	0	9,765	1,545	0
71	NC State U.	11,697	12,243	12,252	10,900	0	3,549	7,248	103
72	U. DE	12,252	12,528	10,642	10,821	112	4,380	2,424	3,905
73	Brown U.	7,335	7,119	9,026	10,683	295	3,147	3,868	3,373
74	U. KS all campuses	9,170	7,378	8,184	10,378	461	7,680	2,237	0
75	Carnegie Mellon U.	8,878	8,145	9,135	10,173	28	5,021	4,803	321
76	NY U.	10,304	9,006	8,954	9,935	0	6,326	3,609	0
77	VA Polytechnic Institute and State U.	7,618	9,062	7,775	9,793	0	7,138	2,541	114
78	U. CA, Riverside	7,985	6,867	9,824	9,725	957	4,332	4,436	0
79	Naval Postgraduate School	4,781	5,470	7,832	9,586	0	0	9,586	0
80	CO State U.	9,238	9,005	8,513	9,421	0	6,502	2,726	193
81	Wayne State U.	8,745	8,155	9,018	9,264	0	5,141	4,112	11
82	U. NE all campuses	7,412	8,179	9,083	9,079	0	2,989	6,090	0
83	U. IL Chicago	8,386	8,330	6,731	8,914	0	4,530	4,384	0
84	NM State U. main campus	7,413	13,257	8,783	8,879	1,650	5,492	1,586	151
85	Rensselaer Polytechnic Institute	6,354	9,710	8,340	8,535	0	2,770	5,765	0
86	U. TX M. D. Anderson Cancer Ctr.	5,799	6,410	6,977	8,431	0	8,431	0	0
87	KS State U.	5,887	6,068	8,095	8,252	0	1,541	6,711	0
88	U. Southern CA	6,356	7,985	8,436	8,190	159	6,288	1,246	497

**Appendix K. R&D Expenditures in the Physical Sciences at Universities and Colleges, Ranked by all FY 2009 Physical Sciences for the First 100 Institutions: FY 2006-09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009				
					All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
89	Rochester Institute of Technology	6,487	6,127	5,639	8,110	0	200	3,269	4,641
90	NJ Institute of Technology	7,086	10,143	7,396	7,969	0	838	7,131	0
91	Portland State U.	1,327	1,502	4,124	7,754	0	2,913	4,497	344
92	Emory U.	9,326	8,590	6,795	7,703	0	7,120	583	0
93	U. NV, Reno	13,243	10,422	10,367	7,663	89	850	6,724	0
94	Case Western Reserve U.	6,632	6,286	5,797	7,557	164	2,785	4,601	7
95	U. AR main campus	7,179	9,755	8,468	7,458	0	3,540	3,918	0
96	Northeastern U.	6,829	7,770	7,478	7,364	0	3,263	4,101	0
97	U. NV, Las Vegas	5,489	8,496	9,028	7,300	0	2,850	4,450	0
98	U. AK Fairbanks all campuses	1	5,669	6,249	7,169	6,967	202	0	0
99	U. MA Lowell	6,533	7,089	6,634	7,022	0	656	6,366	0
100	Tufts U.	4,189	4,520	5,696	6,813	0	5,245	1,568	0

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

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$113,365 in federally financed R&D expenditures in the physical sciences in FY 2009.

<sup>b</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2009 are not listed 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 2009.

**Appendix L: Total and Federally Financed R&D Expenditures in Psychology at Universities and Colleges, Ranked by FY 2009 total for the First 100 Institutions: FY 2006–09**

Rank	Institution	Total				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
	All institutions	875,412	872,315	928,858	979,294	629,217	603,371	637,140	658,818
1	PA State U. all campuses	22,776	22,594	25,107	30,771	14,108	15,596	18,082	20,194
2	U. TX M. D. Anderson Cancer Ctr.	13,636	19,741	23,217	21,119	6,637	7,791	6,912	6,659
3	FL State U.	15,108	16,759	17,441	19,651	9,042	10,492	10,383	12,896
4	IN U. all campuses	15,732	16,566	18,243	19,472	9,415	9,003	10,205	9,953
5	U. MN all campuses	13,165	13,508	16,044	18,154	8,192	7,925	9,129	12,842
6	Duke U.	3,004	2,847	3,329	18,028	1,941	1,795	1,616	7,903
7	U. CA, San Diego	7,886	7,799	8,845	17,946	5,628	5,828	6,823	12,713
8	U. MI all campuses	12,474	10,301	11,727	17,103	10,451	7,250	8,750	10,652
9	U. CT all campuses	14,625	15,848	18,706	16,897	11,849	11,876	14,587	12,542
10	U. GA	13,617	14,958	17,202	16,166	6,921	7,817	9,281	8,702
11	NY U.	14,589	17,450	16,596	15,324	12,334	14,505	13,641	13,361
12	U. CO all campuses	14,041	15,229	14,447	15,028	12,433	12,462	11,218	12,035
13	U. CA, Los Angeles	11,546	11,718	12,074	14,986	9,035	8,913	8,758	11,129
14	U. Rochester	14,556	14,115	14,804	14,668	11,469	10,159	10,413	10,347
15	San Diego State U.	9,268	11,055	13,381	13,966	4,952	5,473	7,988	8,215
16	Rutgers, The State U. NJ all campuses	12,717	12,573	12,911	13,612	4,063	3,824	3,657	4,837
17	U. Houston	9,998	15,948	21,483	13,598	6,318	8,343	11,993	7,212
18	U. NE all campuses	11,663	12,718	13,317	12,880	6,688	8,408	7,350	6,774
19	U. SC all campuses	12,118	10,922	11,933	12,830	9,411	8,623	8,609	9,340
20	AZ State U.	10,821	11,263	12,955	12,529	8,907	9,289	11,123	9,193
21	U. Miami	8,316	7,751	11,134	11,771	7,936	7,461	10,315	10,931
22	U. IL Urbana-Champaign	13,511	12,723	12,021	11,761	9,115	8,102	7,926	7,904
23	Boston U.	7,687	9,058	8,894	11,333	7,478	8,845	8,818	11,018
24	SUNY Stony Brook all campuses	7,475	8,664	6,497	11,251	4,085	4,107	3,993	5,853
25	Stanford U.	6,701	7,983	9,376	11,153	5,713	6,953	8,089	9,359
26	Temple U.	10,992	9,223	10,520	11,073	6,543	6,165	8,100	8,277
27	U. FL	12,103	13,071	10,794	10,943	7,214	7,161	5,486	5,472
28	U. KY all campuses	7,870	8,026	8,751	10,764	6,441	7,087	7,309	8,422
29	Princeton U.	8,854	9,292	10,554	10,626	6,898	7,320	7,646	7,388
30	U. CA, Berkeley	9,501	10,268	11,142	10,325	5,758	6,087	5,789	5,700
31	U. LA Lafayette	1,632	2,681	4,219	10,154	402	1,210	1,889	1,466
32	U. NM main campus	10,470	8,782	9,031	9,782	8,810	7,220	7,668	8,337
33	U. OR	7,854	7,896	8,540	9,735	7,104	7,088	7,936	8,969
34	Yale U.	7,847	5,935	6,809	9,439	4,640	3,583	3,676	4,362
35	Vanderbilt U.	10,606	10,647	11,310	9,407	8,087	8,225	9,100	7,425
36	U. MA Boston	1,758	4,132	7,255	9,049	1,106	1,898	3,854	4,124
37	U. Southern CA	5,341	6,824	9,324	8,764	4,054	5,344	7,705	6,899
38	San Jose State U.	8,471	7,910	7,538	8,563	8,471	7,879	7,440	8,563
39	SUNY Buffalo all campuses	6,291	9,216	8,225	8,531	2,946	4,691	4,562	5,078
40	U. NC Chapel Hill	5,581	6,813	7,306	8,417	4,704	5,671	6,649	7,115
41	U. Memphis, The	11,815	8,491	7,571	8,260	5,850	3,612	3,165	3,237
42	OH State U. all campuses	5,971	5,835	7,238	7,924	4,492	4,289	4,910	4,819
43	U. Pittsburgh all campuses	7,775	6,538	7,504	7,894	6,831	5,823	6,620	6,944
44	SUNY Binghamton	4,404	4,401	6,225	7,738	2,680	3,097	3,228	4,019
45	Carnegie Mellon U.	5,454	7,501	8,081	7,539	5,153	6,615	6,291	6,652
46	U. TX Austin	9,093	9,108	8,491	7,358	8,141	8,255	7,923	6,350
47	U. IA	8,392	8,102	7,612	7,264	7,097	6,863	6,934	6,652

**Appendix L: Total and Federally Financed R&D Expenditures in Psychology at Universities and Colleges, Ranked by FY 2009 total for the First 100 Institutions: FY 2006–09**

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
48	U. WA	10,936	9,933	8,796	7,237	9,929	8,688	7,969	6,478
49	U. VA all campuses	6,880	5,949	7,195	7,181	6,229	5,475	6,581	6,520
50	Harvard U.	7,660	7,329	7,595	7,108	7,318	6,880	7,333	6,986
51	CUNY Hunter C.	5,556	6,066	6,159	6,942	4,290	4,703	4,177	4,383
52	U. WI Madison	30,618	9,769	8,959	6,912	24,208	7,305	5,868	4,232
53	U. Chicago	7,304	6,081	5,759	6,574	7,212	6,033	5,738	6,496
54	Washington U. St. Louis	5,948	5,367	5,264	6,451	4,369	4,118	4,318	4,729
55	U. PA	6,267	6,173	5,644	6,378	5,535	5,104	4,722	5,296
56	U. MD College Park	4,310	4,399	5,741	6,256	4,019	4,050	4,859	4,207
57	GA State U.	11,747	4,772	5,701	6,117	7,902	2,793	3,564	3,177
58	U. South FL	7,631	4,816	4,402	5,767	4,496	2,457	2,876	4,229
59	U. CA, Santa Barbara	3,760	5,692	6,934	5,725	3,170	3,965	5,221	4,109
60	Wayne State U.	4,713	4,880	5,239	5,508	2,922	3,470	3,308	3,380
61	Purdue U. all campuses	4,585	3,736	4,373	5,452	3,534	3,034	4,031	4,291
62	Dartmouth C.	7,967	4,138	3,228	5,450	5,501	2,639	2,371	4,330
63	Kent State U. all campuses	1,548	2,822	5,009	5,448	1,255	1,822	3,545	3,916
64	Columbia U. in the City of New York	3,053	3,973	5,450	5,347	2,870	3,743	5,220	5,179
65	U. IL Chicago	6,562	5,926	4,769	5,308	4,177	2,920	2,571	2,922
66	U. CA, Irvine	4,380	4,279	4,280	4,950	2,487	2,108	2,106	3,233
67	Cornell U. all campuses	5,875	4,994	5,122	4,941	2,939	2,360	2,191	2,221
68	Tufts U.	4,966	4,839	4,986	4,842	2,682	2,106	2,145	1,838
69	GA Institute of Technology all campuses	5,382	5,447	6,167	4,785	2,473	2,426	3,192	2,614
70	Teachers C. Columbia U.	4,032	4,352	4,413	4,695	3,734	3,816	3,667	3,802
71	U. AZ	7,329	5,645	5,470	4,666	3,470	3,332	3,100	2,857
72	MI State U.	6,818	5,114	5,160	4,601	3,773	3,304	3,316	2,870
73	CO State U.	3,330	2,723	4,355	4,594	2,954	2,370	3,855	4,130
74	U. Denver	2,124	2,501	4,073	4,541	1,937	2,321	3,786	4,231
75	VA Commonwealth U.	4,161	3,209	3,673	4,406	2,983	2,429	2,568	3,137
76	U. Louisville	4,348	4,729	5,349	4,399	3,690	4,095	4,553	3,820
77	George Mason U.	3,410	2,825	4,035	4,194	2,069	2,012	3,268	3,708
78	VA Polytechnic Institute and State U.	2,276	3,840	4,718	4,169	1,196	2,034	2,686	2,468
79	U. MA Amherst	5,977	5,560	4,440	4,157	3,511	3,111	2,433	2,180
80	U. of Notre Dame	4,756	3,854	4,171	4,053	4,639	3,790	3,570	3,319
81	CA State U. Northridge	911	3,814	3,618	4,014	788	651	627	777
82	Syracuse U. all campuses	4,644	5,403	4,944	3,981	4,555	5,071	4,283	3,344
83	Northwestern U.	3,733	3,820	3,836	3,924	2,890	2,503	2,711	2,926
84	U. CA, Davis	1,745	2,849	3,458	3,793	847	1,243	1,590	1,843
85	UT State U.	3,637	6,774	6,713	3,702	2,275	3,754	3,305	1,778
86	TX A&M U.	2,984	2,931	3,305	3,488	2,058	1,682	2,036	2,614
87	FL Atlantic U.	646	943	3,033	3,445	508	623	1,532	1,576
88	Uniformed Services U. of the Health Sciences	4,541	6,319	5,183	3,357	2,850	3,156	3,450	2,347
89	U. AL, The	2,083	1,685	2,093	3,278	1,814	1,508	1,982	2,104
90	Gallaudet U.	1,476	3,003	3,065 i	3,176 i	1,476	3,003	3,065 i	3,176 i
91	Brown U.	2,560	1,676	2,876	3,106	1,290	839	1,522	1,356
92	U. MD Baltimore County	2,177	2,248	2,522	2,944	1,115	1,508	2,017	1,920
93	Fordham U.	907	579	2,776	2,900	403	160	1,571	1,755
94	U. CA, Riverside	1,834	2,517	2,881	2,894	1,581	2,318	2,731	2,629
95	U. AL Birmingham, The	6,173	3,199	3,013	2,879	6,071	3,027	2,814	2,621

**Appendix L: Total and Federally Financed R&D Expenditures in Psychology at Universities and Colleges, Ranked by FY 2009 total for the First 100 Institutions: FY 2006–09**

(Dollars in Thousands)

Rank	Institution	Total				Federally financed			
		2006	2007	2008	2009	2006	2007	2008	2009
96	WA State U.	1,101	2,295	1,520	2,802	481	1,119	352	1,304
97	U. OK all campuses	2,161	2,690	2,827	2,750	1,166	2,110	1,878	1,440
98	U. DE	3,729	3,366	2,771	2,737	2,876	2,426	2,267	2,399
99	George Washington U.	1,820	2,153	2,712	2,721	1,667	1,969	2,522	2,368
100	Rush U.	2,035	1,831	1,814	2,647	1,290	1,350	1,288	1,774

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

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$0 in both total and federally financed R&D expenditures in psychology in FY 2009.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2009 are not listed 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 2009.

**Appendix M. R&D Expenditures in the Social Sciences at Universities and Colleges, Ranked by all FY 2009 Social Sciences for the First 100 Institutions: FY 2006–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009				
					All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
	All institutions	1,705,507	1,802,055	1,947,430	2,074,842	379,339	368,564	408,188	918,751
1	U. MI all campuses	89,913	93,719	108,697	114,066	17,200	22,557	16,025	58,284
2	U. MD College Park	82,936	80,537	86,372	88,658	6,972	12,092	2,888	66,706
3	U. WI Madison	41,254	41,626	59,276	65,910	9,203	2,928	6,901	46,878
4	U. NC Chapel Hill	26,700	37,092	45,621	61,946	38	43	23,719	38,146
5	U. CA, Berkeley	49,930	54,474	54,236	56,157	20,357	5,521	6,611	23,668
6	WA State U.	15,948	20,259	41,883	56,081	7,899	9,606	3,173	35,403
7	U. GA	37,944	39,957	40,944	42,399	16,136	6,273	3,093	16,897
8	U. CA, Los Angeles	35,661	36,093	38,759	39,781	1,392	476	4,967	32,946
9	IN U. all campuses	31,397	32,143	36,561	37,874	4,113	12,318	6,705	14,738
10	OH State U. all campuses	40,519	46,746	39,276	37,339	11,707	3,942	6,621	15,069
11	George Mason U.	7,122	22,201	25,738	32,871	10,812	14,394	1,017	6,648
12	MI State U.	34,646	31,722	33,158	32,026	12,053	3,815	2,672	13,486
13	Rutgers, The State U. NJ all campuses	26,160	25,226	26,496	31,426	2,004	6,134	5,334	17,954
14	PA State U. all campuses	24,533	25,606	27,294	30,713	3,635	7,789	19,289	0
15	U. PA	30,809	33,059	32,199	26,820	1,877	7,239	7,082	10,622
16	Duke U.	23,312	25,470	22,386	26,200	3,384	15,388	6,373	1,055
17	AZ State U.	19,957	20,536	21,631	25,793	1,246	2,251	8,166	14,130
18	U. MN all campuses	25,285	27,786	29,217	25,437	5,730	7,071	10,160	2,476
19	Purdue U. all campuses	18,354	19,163	23,648	25,309	9,881	364	7,780	7,284
20	U. TX Austin	27,880	26,486	25,143	25,041	226	1,946	3,771	19,098
21	U. CA, Davis	21,085	22,074	25,689	25,020	6,431	3,413	1,575	13,601
22	Cornell U. all campuses	26,863	29,431	25,626	24,838	14,333	632	9,257	616
23	Harvard U.	22,645	23,554	23,708	24,503	853	7,257	561	15,832
24	U. IL Urbana-Champaign	21,107	21,043	22,884	23,459	9,243	1,167	1,109	11,940
25	Princeton U.	24,469	19,139	17,932	22,802	2,321	18,440	1,072	969
26	Stanford U.	12,352	13,407	15,621	19,560	2,211	595	2,227	14,527
27	FL State U.	16,481	17,037	15,417	18,505	968	7,886	2,519	7,132
28	U. FL	15,743	16,701	16,210	16,585	7,946	589	2,921	5,129
29	U. AZ	23,450	19,747	15,718	16,327	3,703	185	7,249	5,190
30	U. NE all campuses	15,450	15,582	16,577	16,259	5,868	4,018	2,921	3,452
31	NC State U.	10,406	12,644	16,961	16,258	5,156	456	3,111	7,535
32	TX A&M U.	9,617	11,729	21,240	16,112	3,409	1,065	3,725	7,913
33	FL International U.	4,600	6,313	9,698	16,108	982	6,271	534	8,321
34	GA Institute of Technology all campuses	13,089	18,880	21,950	15,762	10,308	3,538	0	1,916
35	IA State U.	18,430	17,234	18,819	15,465	3,384	435	11,407	239
36	Northwestern U.	7,936	9,610	11,221	14,886	781	9,422	2,393	2,290
37	Columbia U. in the City of New York	14,344	17,554	19,143	14,314	3,758	3,914	6,642	0
38	Brandeis U.	16,249	17,356	14,609	14,053	248	22	11,424	2,359
39	MS State U.	4,948	7,100	11,435	13,695	491	879	1,299	11,026
40	Brown U.	12,937	11,366	12,406	13,639	4,095	1,441	4,492	3,611
41	ND State U. all campuses	11,598	12,324	12,447	13,597	4,280	45	145	9,127
42	U. MO-Columbia	10,657	12,635	9,547	13,085	8,572	845	295	3,373
43	U. CA, San Diego	11,690	11,522	12,766	12,830	1,709	6,491	2,994	1,636
44	U. IL Chicago	11,004	10,471	10,169	12,762	482	427	3,954	7,899

**Appendix M. R&D Expenditures in the Social Sciences at Universities and Colleges, Ranked by all FY 2009 Social Sciences for the First 100 Institutions: FY 2006–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009				
					All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
45	Washington U. St. Louis	5,985	7,216	9,231	12,722	29	622	8,501	3,570
46	American U.	1,182	4,597	7,559	12,373	1,469	3,153	828	6,923
47	U. CA, Irvine	10,248	10,551	10,891	12,335	331	5,827	1,649	4,528
48	SUNY Binghamton	5,129	5,925	10,050	12,055	1,858	1,232	6,791	2,174
49	Clemson U.	11,957	12,422	11,756	11,840	4,120	1,055	2,440	4,225
50	U. WA	17,564	19,216	16,225	11,808	21	5,623	3,241	2,923
51	GA State U.	10,421	12,571	13,143	11,737	7,812	1,649	1,314	962
52	VA Polytechnic Institute and State U.	8,278	8,376	9,295	11,491	2,188	1,801	339	7,163
53	LA State U. all campuses	10,795	9,481	10,058	10,848	5,577	884	2,062	2,325
54	U. Southern CA	7,715	7,716	9,699	10,672	462	813	1,664	7,733
55	U. TN all campuses	11,440	9,187	9,203	10,578	7,965	387	1,182	1,044
56	U. MA Boston	10,114	7,956	7,113	10,544	1,155	3,000	856	5,533
57	U. Central FL	1,257	1,948	2,660	10,527	1,150	670	257	8,450
58	Georgetown U.	8,708	10,999	11,759	10,450	28	9,799	26	597
59	U. SC all campuses	9,586	9,574	9,689	10,272	1,303	2,874	968	5,127
60	Teachers C. Columbia U.	4,320	6,223	8,570	10,207	8,077	0	0	2,130
61	NY U.	10,832	13,881	11,696	10,082	1,462	7,326	1,294	0
62	U. KY all campuses	7,870	7,244	9,500	9,883	3,963	1,675	791	3,454
63	U. of the VI	4,950	6,278	7,438	9,723	0	0	0	9,723
64	SUNY Albany	10,975	8,755	9,083	9,697	132	385	5,902	3,278
65	U. TX M. D. Anderson Cancer Ctr.	5,666	6,436	7,945	9,677	0	0	9,677	0
66	U. NM main campus	6,108	6,973	9,296	9,665	929	912	3,561	4,263
67	U. CA, Santa Barbara	7,565	8,266	9,423	9,599	447	47	279	8,826
68	Johns Hopkins U., The <sup>a</sup>	5,051	3,905	5,910	9,182	1,052 i	111 i	424 i	7,595 i
69	U. KS all campuses	10,417	10,504	11,790	9,059	183	1,666	5,779	1,431
70	U. South FL	8,868	9,544	8,560	8,995	800	1,609	5,286	1,300
71	U. IA	6,214	7,932	5,101	8,765	322	5,536	246	2,661
72	U. DE	6,567	6,490	7,450	7,947	1,282	17	4,551	2,097
73	U. Memphis, The	8,642	8,999	8,482	7,943	3,902	918	1,172	1,951
74	MA Institute of Technology	7,098	6,405	7,978	7,934	3,340	2,667	0	1,927
75	Portland State U.	6,488	6,201	5,829	7,870	175	206	2,998	4,491
76	TX Tech U.	7,176	6,802	5,348	7,638	307	249	2,654	4,428
77	U. MD Baltimore County	6,226	6,924	5,400	7,519	552	5,970	997	0
78	U. HI Manoa	6,740	6,354	7,543	7,501	60	5	849	6,587
79	U. OR	5,037	6,941	7,979	7,369	794	3,658	466	2,451
80	Boston C.	7,892	9,029	6,672	7,353	5,240	73	660	1,380
81	U. CO all campuses	8,288	7,141	6,337	7,150	355	280	2,319	4,196
82	Case Western Reserve U.	1,976	5,778	4,993	6,968	309	0	1,507	5,152
83	SUNY Buffalo all campuses	3,374	5,945	7,083	6,943	515	453	939	5,036
84	U. NV, Reno	1,949	601	2,181	6,887	321	16	169	6,381
85	Tufts U.	4,472	5,764	6,213	6,741	326	5,449	15	951
86	Seton Hall U.	30	21	122	6,614	0	50	60	6,504
87	U. Cincinnati all campuses	3,534	4,036	6,570	6,554	148	486	455	5,465
88	Naval Postgraduate School	3,061	4,835	6,631	6,487	0	5,088	126	1,273
89	U. AL Huntsville, The	691	1,481	3,817	6,334	2,573	3,724	37	0
90	OK State U. all campuses	5,260	5,475	6,692	6,299	3,887	70	736	1,606

**Appendix M. R&D Expenditures in the Social Sciences at Universities and Colleges, Ranked by all FY 2009 Social Sciences for the First 100 Institutions: FY 2006–09 and by Subfield for FY 2009**

Rank	Institution	(Dollars in Thousands)						2009 Social sciences, nec	
		2006	2007	2008	All social sciences	Economics	Political sciences		
91	Wichita State U.	3,827	1,072	1,544	6,274	0	701	51	5,522
92	U. OK all campuses	7,334	6,490	6,232	6,205	585	2,131	907	2,582
93	U. ME	7,731	7,243	9,494	6,186	0	143	101	5,942
94	U. NH	4,846	5,903	6,807	6,023	708	55	4,520	740
95	CO State U.	3,420	3,922	5,105	6,004	2,450	144	1,947	1,463
96	VA Commonwealth U.	1,705	7,761	6,480	5,822	0	4,645	0	1,177
97	KS State U.	4,241	4,704	5,674	5,648	3,321	19	608	1,700
98	Auburn U. all campuses	2,090	5,918	5,510	5,596	1,744	0	20	3,832
99	U. TX El Paso	1,112	1,443	2,925	5,533	706	2,526	395	1,906
100	San Diego State U.	7,038	5,913	4,398	5,214	0	2,075	1,024	2,115

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

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$4,393 in total R&D expenditures in the social sciences in FY 2009.

<sup>b</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

NOTES: Institutions reporting zero expenditures in the ranked total for FY 2009 are not listed 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 2009.

**Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2009 Non-S&E Fields in First 300 Institutions: FY 2007–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2009										
		2007	2008	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	2,057,844	2,205,849	2,385,876	340,711	107,548	921,171	253,224	106,818	138,860	72,957	444,587
1	Purdue U. all campuses	57,493	65,111	70,318	14,620	1,629	8,607	2,667	0	0	373	42,422
2	U. MI all campuses	39,723	39,428	63,321	12,339	359	18,023	2,505	4,536	5,182	674	19,703
3	Harvard U.	42,644	52,804	63,259	0	71	10,943	779	3,950	0	480	47,036
4	U. South FL	64,508	64,246	61,581	8,752	4,904	30,972	2,263	0	9,508	2,007	3,175
5	U. WI Madison	71,547	62,849	61,530	38,454	2,183	4,834	10,401	1,687	511	686	2,774
6	U. TX Austin	56,021	59,757	59,797	6,948	6,210	24,032	2,500	200	3,659	389	15,859
7	U. FL	43,121	48,510	52,159	2,638	1,492	7,647	1,808	202	37	542	37,793
8	OR State U.	42,527	45,302	48,503	52	30	1,198	134	0	0	0	47,089
9	FL State U.	21,745	29,243	42,550	2,303	7,712	25,669	946	1,719	1,294	1,135	1,772
10	Northwestern U.	29,715	34,691	40,281	21,212	3,370	8,978	1,323	4,699	0	699	0
11	U. Central FL	29,545	39,025	35,376	5,970	82	28,515	90	0	413	300	6
12	U. CA, Los Angeles	31,414	33,362	33,921	7,939	181	17,143	5,395	2,025	0	1,238	0
13	MI State U.	34,759	35,475	32,777	3,270	2,667	17,123	151	2,194	1,181	151	6,040
14	U. PA	19,858	32,166	31,391	9,028	4,490	9,522	2,820	1,618	2,496	1,417	0
15	U. CA, Berkeley	17,887	28,604	30,094	2,343	1,002	11,546	4,358	10,405	0	440	0
16	NY U.	21,861	26,394	30,005	1,806	1,958	13,896	3,182	4,616	429	498	3,620
17	AZ State U.	13,702	14,029	29,873	1,309	280	6,865	3,878	369	1,601	216	15,355
18	U. WA	29,628	31,281	27,743	161	182	9,931	3,574	876	12,966	53	0
19	U. Southern ME	926	21,659	27,298	2,515	62	3,978	634	72	19,571	0	466
20	OH State U. all campuses	17,118	23,710	27,130	191	331	20,951	2,782	67	0	292	2,516
21	U. CA, Santa Cruz	22,540	26,839	26,409	0	70	23,773	1,560	0	0	1,006	0
22	Brown U.	23,004	24,926	25,730	598	717	7,277	13,380	0	0	2,519	1,239
23	U. CO all campuses	12,556	16,301	25,679	1,899	68	13,555	578	706	175	155	8,543
24	IN U. all campuses	26,372	25,541	24,854	5,905	6,044	7,158	74	549	271	1,325	3,528
25	Old Dominion U.	21,415	21,056	24,277	5,260	243	14,373	2,054	0	0	1,893	454
26	Vanderbilt U.	16,601	22,251	24,162	192	3,221	19,059	771	827	0	26	66
27	U. Southern CA	20,328	20,823	23,766	1,279	2,002	6,153	4,905	2,751	3,217	3,459	0
28	MA Institute of Technology	23,269	22,432	23,547	12,702	95	5,295	2,824	0	0	158	2,473
29	U. MN all campuses	15,297	18,179	21,467	5,083	854	9,548	1,845	1,322	629	992	1,194
30	TX A&M U.	21,743	22,161	21,268	5,180	3	14,580	911	554	0	9	31
31	U. Louisville	12,208	15,187	20,304	855	229	7,664	333	320	1,745	70	9,088
32	U. GA	19,323	19,247	20,267	0	647	10,421	2,949	2,240	0	4,010	0
33	GA State U.	14,513	16,720	18,363	2,731	716	6,114	928	1,181	1,537	282	4,874
34	American U.	6,998	6,479	18,346	2,468	2,588	2,356	2,030	8,308	0	596	0
35	U. IL Urbana-Champaign	18,457	17,054	18,095	1,324	2,347	5,882	2,000	632	4,747	1,012	151
36	U. NE all campuses	14,372	16,354	17,847	4,247	690	2,886	6,092	3,246	16	315	355
37	Southern IL U. Edwardsville	17,746	16,935	17,344	1,072	26	14,797	146	0	75	565	663
38	San Jose State U.	13,015	13,887	15,874	2,243	57	3,496	352	0	1,952	90	7,684
39	U. OK all campuses	10,629	12,695	15,628	62	440	7,053	656	0	0	40	7,377
40	LA State U. all campuses	9,624	10,976	15,549	1,794	252	3,362	1,783	1,143	884	266	6,065
41	WA State U.	3,252	6,280	15,485	3,541	565	2,981	1,125	0	5,556	98	1,619
42	Columbia U. in the City of New	1	0	15,085	0	1,792	1,590	348	1,732	9,217	27	379
43	Syracuse U. all campuses	6,765	9,231	15,014	2,126	770	5,002	426	1,896	152	44	4,598
44	TX Tech U.	1,561	2,263	14,638	3,043	5,471	2,692	1,165	719	0	1,303	245
45	U. Cincinnati all campuses	7,809	14,965	13,154	319	240	3,876	3,645	0	250	4,824	0
46	Stanford U.	14,986	10,658	12,839	551	613	10,475	0	448	0	0	752

**Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2009 Non-S&E Fields in First 300 Institutions: FY 2007–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2009										
		2007	2008	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
47	Rutgers, The State U. NJ all	12,030	12,140	12,715	911	1,110	9,739	339	70	0	21	525
48	U. WI Milwaukee	12,500	11,158	12,081	3,024	404	6,104	1,184	0	720	1	644
49	U. AR main campus	12,664	12,613	12,002	1,642	61	4,526	1,494	1,402	313	3	2,561
50	Princeton U.	10,213	9,732	11,930	0	152	1,559	8,842	0	0	955	422
51	San Diego State U.	8,876	11,411	11,884	2,450	550	2,290	1,900	0	1,132	950	2,612
52	MT State U. Bozeman	7,834	9,965	11,799	74	259	2,224	53	0	939	1,425	6,825
53	FL Atlantic U.	7,457	7,622	11,793	4,419	0	1,651	0	0	0	2,172	3,551
54	PA State U. all campuses	12,987	16,114	11,679	5,622	1,410	1,765	1,611	480	0	791	0
55	U. CA, Santa Barbara	9,300	10,722	11,493	4,900	221	3,360	2,195	13	0	804	0
56	VA Commonwealth U.	16,744	22,982	11,294	268	6	10,432	96	0	114	89	289
57	U. TN all campuses	6,769	7,788	11,254	8,406	407	1,145	739	58	322	16	161
58	SUNY Buffalo all campuses	8,580	9,855	11,140	330	359	5,740	269	167	564	144	3,567
59	U. CA, Irvine	6,624	9,727	10,852	1,130	0	2,725	6,815	0	0	182	0
60	U. KS all campuses	17,406	12,069	10,688	123	141	8,316	958	29	872	151	98
61	U. HI Hilo	8,748	7,584	10,607	0	51	9,359	21	0	122	3	1,051
62	U. OR	9,668	11,556	10,502	0	8	10,295	171	13	0	15	0
63	U. MA Boston	11,489	7,746	10,391	577	12	4,919	679	0	42	34	4,128
64	FL International U.	17,112	11,319	10,044	606	723	5,043	247	0	2,265	420	740
65	Ball State U.	4,830	6,997	10,023	45	0	3,451	1,589	0	0	0	4,938
66	U. West FL	10,063	9,800	10,014	6,950	0	3,001	33	0	0	0	30
67	Johns Hopkins U., The <sup>a</sup>	12,289	10,542	9,973	0	0	0	9,973	0	0	0	0
68	U. NH	6,235	7,215	9,686	1,244	0	7,018	1,189	0	137	0	98
69	Wichita State U.	5,994	12,787	9,667	672	572	4,424	179	0	2	48	3,770
70	Emory U.	14,120	22,095	9,648	2,277	233	1,135	1,791	658	234	45	3,275
71	Temple U.	5,379	7,329	9,557	291	0	5,045	495	2,418	511	775	22
72	Portland State U.	4,178	8,698	9,544	64	55	2,332	56	0	7,010	27	0
73	U. MS all campuses	9,278	9,318	9,425	29	9	1,143	572	2,520	7	5	5,140
74	U. NC Greensboro	7,444	8,575	9,417	12	69	8,769	115	0	23	0	429
75	U. CA, Riverside	11,903	9,714	9,349	98	0	7,064	1,075	0	0	111	1,001
76	Western MI U.	8,597	12,032	9,278	62	106	8,391	86	0	106	22	505
77	U. Memphis, The	12,905	12,892	9,223	1,393	142	5,148	1,532	0	28	766	214
78	Fordham U.	7,360	9,648	9,039	1,134	145	3,226	1,897	1,851	716	70	0
79	Fayetteville State U.	6,381	7,343	8,928	22	5	8,072	7	179	495	63	85
80	TX State U. San Marcos	2,430	7,517	8,755	203	0	2,182	0	3,130	0	540	2,700
81	U. KY all campuses	17,229	18,721	8,684	913	1,432	3,550	379	193	1,025	667	525
82	MS State U.	5,064	8,066	8,490	1,001	333	3,145	1,574	0	0	270	2,167
83	C. of William and Mary all	10,040	8,310	8,469	117	4	6,929	19	1,372	0	28	0
84	U. MO-Columbia	15,775	7,255	8,469	462	844	6,300	634	0	206	23	0
85	Eastern IL U.	7,821	8,103	8,344	193	898	2,501	81	100	4,338	233	0
86	CA State U. Northridge	9,454	7,781	8,336	470	90	5,952	200	0	1,026	10	588
87	CA State U. Dominguez Hills	7,815	9,616	8,182	334	0	7,155	32	9	652	0	0
88	U. MD College Park	11,936	10,532	8,175	605	699	4,318	2,499	0	0	54	0
89	U. CT all campuses	9,095	7,342	7,727	1,638	1,554	1,895	396	17	2,140	87	0
90	Clemson U.	5,199	5,594	7,541	395	0	5,387	451	0	0	10	1,298
91	U. LA Lafayette	8,128	6,795	7,456	2,681	585	1,664	1,935	0	2	587	2
92	CA State U. Fullerton	2,804	2,942	7,391	1,993	0	3,515	253	0	986	474	170
93	CO State U.	7,523	7,378	7,323	1,669	321	906	135	0	0	89	4,203

**Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2009 Non-S&E Fields in First 300 Institutions: FY 2007–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2009										
		2007	2008	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
94	Northern IL U.	4,773	6,231	7,294	4,414	1	84	62	115	0	12	2,606
95	Fairfield U.	5,573	5,940	7,032	1,599	174	0	2,546	0	0	557	2,156
96	U. of Notre Dame	4,805	6,140	7,016	551	52	0	2,636	33	0	27	3,717
97	FL Gulf Coast U.	8,326	8,320	6,990	818	2,072	3,875	0	0	0	0	225
98	George Mason U.	2,816	4,296	6,819	127	214	2,511	3,361	121	85	40	360
99	U. PR Medical Sciences	0	0	6,799	0	0	6,799	0	0	0	0	0
100	Tufts U.	5,042	5,641	6,672	0	715	1,300	4,430	143	0	84	0
101	U. SC all campuses	4,591	5,841	6,538	2,425	1,259	1,263	333	0	1,031	227	0
102	Seton Hall U.	5,350	4,522	6,504	0	1	3,064	78	3,361	0	0	0
103	U. VA all campuses	5,713	7,747	6,497	5	65	4,294	1,596	350	0	0	187
104	U. CA, Davis	4,004	5,172	6,072	69	11	2,079	626	27	0	3,121	139
105	WV U.	5,210	5,337	6,064	13	121	3,761	1,184	59	179	96	651
106	Northeastern U.	6,718	6,404	5,865	55	159	2,213	1,338	314	1,337	449	0
107	SUNY Binghamton	1,920	3,942	5,862	256	8	1,669	2,238	0	0	1,617	74
108	U. Pittsburgh all campuses	6,428	4,173	5,741	630	6	4,445	448	212	0	0	0
109	Naval Postgraduate School	3,580	6,626	5,591	5,591	0	0	0	0	0	0	0
110	U. MD Baltimore County	4,233	5,255	5,485	126	0	1,758	2,061	0	0	1,146	394
111	U. IL Chicago	2,394	4,566	5,463	1,146	194	2,942	1,148	0	0	33	0
112	Wayne State U.	3,552	4,394	5,353	775	18	1,529	657	66	752	342	1,214
113	Sam Houston State U.	312	1,504	5,304	0	0	402	0	0	0	0	4,902
114	U. NC Chapel Hill	6,929	4,672	5,297	1,546	2,578	416	658	0	0	99	0
115	U. SD	0	0	5,273	661	150	440	160	63	0	410	3,389
116	KS State U.	2,964	3,992	5,066	161	285	2,169	856	0	0	24	1,571
117	St. Cloud State U.	3,805	3,719	5,065	7	353	2,780	1,306	0	600	19	0
118	U. IA	11,662	6,858	5,036	205	4	2,210	1,071	530	725	15	276
119	Humboldt State U.	0	NA	4,960	2,533	858	1,241	60	57	0	211	0
120	Boston C.	2,449	3,617	4,663	48	0	4,336	75	0	0	0	204
121	U. TX Dallas	0	NA	4,590	3,149	0	127	1,314	0	0	0	0
122	U. North TX	1,774	2,134	4,568	834	759	2,184	404	0	74	313	0
123	NM State U. main campus	3,984	3,096	4,565	131	49	552	747	40	0	264	2,782
124	U. NC Charlotte	4,809	3,327	4,458	194	35	3,654	465	0	108	2	0
125	Wheeling Jesuit U.	323	8,259	4,454	0	0	4,443	0	0	0	0	11
126	U. MA Amherst	4,972	3,933	4,450	680	110	3,246	239	155	0	20	0
127	Rochester Institute of	3,145	3,007	4,438	106	32	3,475	0	0	0	0	825
128	Brigham Young U. all campuses	2,982	3,324	4,404	593	167	1,195	2,231	7	0	211	0
129	U. CA, San Diego	2,927	2,850	4,296	320	234	876	840	0	0	1,452	574
130	U. MA Lowell	1,293	4,387	4,233	355	8	1,165	1,109	0	0	7	1,589
131	IA State U.	3,844	3,799	4,215	1,690	0	2,371	154	0	0	0	0
132	U. Denver	4,345	3,628	4,167	0	0	661	198	2,749	559	0	0
133	CUNY Hunter C.	3,977	4,242	4,082	0	11	1,851	468	0	1,561	191	0
134	U. NM main campus	4,304	5,064	4,062	0	1,308	1,758	259	737	0	0	0
135	GA Institute of Technology all	3,547	2,752	3,856	0	43	0	1,552	0	0	0	2,261
136	George Washington U.	23,303	24,543	3,848	552	0	603	1,484	1,209	0	0	0
137	Central WA U.	7,372	6,549	3,836	0	0	599	200	0	0	0	3,037
138	Northeastern IL U.	4,772	4,728	3,773	0	1	3,585	0	0	179	8	0
139	U. AL Birmingham, The	1,320	1,116	3,728	736	0	880	2	0	0	0	2,110
140	Wabash C.	3,518	3,878	3,725	136	0	0	3,582	0	0	0	7

**Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2009 Non-S&E Fields in First 300 Institutions: FY 2007–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2009										
		2007	2008	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
141	Boston U.	4,620	4,023	3,693	569	0	540	631	8	1,434	0	511
142	U. South AL	298	1,429	3,685	0	2	104	196	0	0	0	3,383
143	Wellesley C.	4,169	4,174	3,670	606	3	0	5	0	13	97	2,946
144	U. Houston	4,839	3,201	3,655	177	0	2,854	193	431	0	0	0
145	Georgetown U.	2,935	2,334	3,623	204	28	59	1,439	1,893	0	0	0
146	Yale U.	2,647	3,628	3,545	0	0	0	1,589	1,956	0	0	0
147	Stevens Institute of Technology	8,699	3,176	3,544	1,948	0	1,596	0	0	0	0	0
148	U. Chicago	2,673	2,769	3,542	275	0	0	245	0	2,452	0	570
149	LA Tech U.	3,024	3,362	3,398	2,517	21	153	321	0	0	386	0
150	Brandeis U.	2,094	1,889	3,358	0	9	1,433	84	685	0	8	1,139
151	U. TX El Paso	7,445	1,697	3,348	98	1,129	1,214	189	10	1	0	707
152	U. TX Arlington	590	5,470	3,332	0	0	327	218	0	811	0	1,976
153	IL State U.	2,697	999	3,330	0	16	2,717	0	0	237	0	360
154	GA Southern U.	4,811	2,693	3,083	130	8	2,398	96	12	406	0	33
155	CUNY John Jay C. of Criminal	625	1,121	3,026	0	4	97	100	263	0	0	2,562
156	Hofstra U.	2,263	2,414	3,020	3	30	2,937	41	0	0	0	9
157	U. AL Huntsville, The	3,733	10,422	2,975	1,477	0	723	241	0	0	0	534
158	CA Institute of Technology	1,855	1,790	2,945	0	0	0	2,945	0	0	0	0
159	Central MI U.	570	348	2,888	256	24	505	139	0	2	0	1,962
160	U. UT	1,070	741	2,865	77	618	1,033	766	282	0	89	0
161	U. Rochester	3,769	3,150	2,829	120	851	927	167	0	572	192	0
162	U. Hartford	1,534	4,756	2,782	231	0	536	0	0	15	2,000	0
163	U. NV, Reno	3,477	2,768	2,773	485	48	1,071	970	199	0	0	0
164	VA Polytechnic Institute and	3,845	2,492	2,752	1,062	32	1,115	24	0	0	210	309
165	Rowan U.	2,797	1,680	2,731	63	0	2,502	166	0	0	0	0
166	CA State U. Sacramento	0	332	2,727	968	339	483	290	0	0	5	642
167	U. TX San Antonio	1,779	1,495	2,703	827	71	1,304	387	0	0	114	0
168	U. MO-St. Louis	2,307	2,077	2,670	500	0	1,409	69	0	585	107	0
169	Mills C.	NA	NA	2,666	78	0	2,317	0	0	0	8	263
170	Drexel U.	1,435	2,647	2,654	70	212	330	9	135	0	69	1,829
171	Duke U.	1,941	2,987	2,631	842	20	0	1,208	352	107	102	0
172	NM Highlands U.	1,909	2,448	2,630	0	0	2,522	0	0	108	0	0
173	NC State U.	1,365	1,285	2,622	501	0	1,109	1,012	0	0	0	0
174	Baylor U.	1,843	2,788	2,608	541	143	125	666	0	1,023	17	93
175	Loyola Marymount U.	1,129	1,853	2,606	125	26	1,385	373	650	0	47	0
176	U. NV, Las Vegas	1,734	2,545	2,504	975	179	191	537	126	310	17	169
177	Bryn Mawr C.	759	4,684	2,474	0	0	12	1,287	0	406	769	0
178	Case Western Reserve U.	6,973	4,364	2,473	9	219	856	53	190	287	393	466
179	Dillard U.	1,838	29	2,454	0	0	63	78	0	0	0	2,313
180	MT Tech of the U. MT	1,605	1,832	2,444	0	0	1,971	89	0	0	0	384
181	Southern Methodist U.	3,604	3,372	2,403	131	0	1,877	142	35	0	103	115
182	IL Institute of Technology	3,785	2,751	2,362	42	5	5	1	189	0	1,155	965
183	Eastern MI U.	2,520	1,759	2,361	230	0	930	1,000	0	201	0	0
184	U. DE	2,186	1,792	2,313	239	0	1,945	43	0	0	0	86
185	U. Miami	1,998	2,292	2,310	0	26	2,252	14	0	0	18	0
186	UT State U.	2,541	2,129	2,230	427	1	1,152	650	0	0	0	0
187	Kent State U. all campuses	3,200	2,875	2,225	0	304	1,566	92	51	0	20	192

**Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2009 Non-S&E Fields in First 300 Institutions: FY 2007–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2009										
		2007	2008	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
188	CA State U. San Marcos	ne	NA	2,223	0	85	1,955	5	150	17	11	0
189	Amherst C.	1,458	2,542	2,188	0	16	0	419	0	1,448	267	38
190	Clark U.	1,741	1,929	2,151	0	0	2,151	0	0	0	0	0
191	Tulane U.	3,214	2,615	2,143	7	36	423	665	902	0	73	37
192	Sinte Gleska U.	401	210	2,113	0	0	570	686	0	128	240	489
193	U. WY	341	1,991	2,051	6	209	416	133	31	101	1	1,154
194	U. TX-Pan American	1,992	2,614	2,042	469	0	1,522	51	0	0	0	0
195	MI Technological U.	1,346	1,593	2,039	381	0	228	935	0	0	209	286
196	Western WA U.	1,687	1,576	2,015	387	0	511	430	0	0	326	361
197	Western IL U.	5,600	3,000	1,900	0	0	1,900	0	0	0	0	0
198	TX Christian U.	1,612	1,439	1,895	20	30	1,691	19	0	78	57	0
199	CUNY Graduate Ctr.	5,399	3,816	1,892	0	0	1,460	432	0	0	0	0
200	U. AK Fairbanks all campuses	4,478	4,858	1,872	196	20	1,643	13	0	0	0	0
201	U. NC Wilmington	539	226	1,864	372	39	1,192	158	0	54	49	0
202	OH U. all campuses	337	876	1,841	1	626	229	353	0	2	86	544
203	Tuskegee U.	1,576	1,643	1,837	0	0	1,837	0	0	0	0	0
204	Howard U.	563	1,591	1,830	21	119	1,427	192	0	71	0	0
205	Southern CT State U.	1,200	NA	1,823	0	18	619	457	0	509	4	216
206	Southern OR U.	2,917	2,879	1,820	70	13	1,728	0	0	0	5	4
207	Washington U. St. Louis	3,071	2,411	1,813	434	0	1,079	97	93	0	98	12
208	U.S. Air Force Academy	1,841	1,148	1,811	352	0	0	1,065	231	0	0	163
209	Duquesne U.	2,325	2,440	1,790	1,099	0	328	38	274	7	44	0
210	U. RI	NA	1,414	1,614	0	0	1,612	2	0	0	0	0
211	CA State U. San Bernardino	2,411	2,784	1,590	162	66	69	4	260	59	970	0
212	TX A&M U. Kingsville	587	976	1,587	22	0	1,028	0	0	0	0	537
213	West Chester U. PA	1,887	1,439	1,581	601	12	450	36	0	0	0	482
214	U. Dayton	2,161	2,018	1,547	17	9	1,388	76	0	0	57	0
215	Daemen C.	1,788	1,534	1,530	0	0	1,530	0	0	0	0	0
216	Shaw U.	1,806	1,959	1,523	93	20	1,410	0	0	0	0	0
217	CUNY Baruch C.	1,454	2,288	1,499	53	6	11	223	3	13	10	1,180
218	Teachers C. Columbia U.	1,976	1,906	1,480	0	0	1,480	0	0	0	0	0
219	Loyola U. Chicago	480	739	1,393	0	0	1,293	0	53	47	0	0
220	U. AR Little Rock	NA	NA	1,381	446	26	768	0	141	0	0	0
221	John Carroll U.	3,769	1,826	1,373	0	0	1,362	0	0	0	0	11
222	FL A&M U.	1,154	1,503	1,367	119	0	1,248	0	0	0	0	0
223	SUNY Albany	217	773	1,365	119	69	129	79	0	0	0	969
224	U. of the Pacific	1,937	2,605	1,351	10	271	286	203	507	0	37	37
225	Wesleyan U.	779	1,101	1,348	0	32	192	813	0	0	296	15
226	U. LA Monroe	1,121	1,064	1,336	254	0	1,049	25	0	0	8	0
227	U. Toledo	1,894	1,499	1,328	718	0	607	0	3	0	0	0
228	U. MA Dartmouth	582	494	1,326	19	0	1,288	10	0	0	8	1
229	Cornell U. all campuses	3,855	1,645	1,286	294	185	0	756	51	0	0	0
230	CA State U. Monterey Bay	0	491	1,264	0	0	980	0	0	217	67	0
231	U. North FL	4,537	6,689	1,263	33	0	1,003	100	0	0	0	127
232	U. Tulsa	1,483	1,306	1,244	220	79	259	644	41	0	1	0
233	Eastern KY U.	5,966	4,830	1,237	13	0	23	7	1,068	0	10	116
234	Marshall U.	236	599	1,208	892	0	307	9	0	0	0	0

**Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2009 Non-S&E Fields in First 300 Institutions: FY 2007–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2009										
		2007	2008	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
235	Lehigh U.	1,770	1,034	1,183	53	0	864	40	0	0	0	226
236	CUNY The City C.	872	644	1,170	200	301	501	111	45	0	12	0
237	West TX A&M U.	864	1,324	1,160	1,034	0	4	94	0	0	0	28
238	U. PR Rio Piedras Campus	966	991	1,159	0	0	292	9	10	411	0	437
239	U. MO-Kansas City	4,074	1,383	1,157	273	207	122	263	0	273	19	0
240	Mercyhurst C.	792	1,231	1,150	0	0	15	0	0	218	40	877
241	Adelphi U.	1,002	1,643	1,140	0	0	503	0	0	525	0	112
242	FL Institute of Technology	747	590	1,134	732	0	353	0	0	0	0	49
243	CA State U. Los Angeles	2,050	1,185	1,127	0	1	1,047	27	0	51	0	1
244	Hamilton C. (Clinton, NY)	953	682	1,109	0	0	736	165	0	195	13	0
245	U. Richmond	602	635	1,106	195	100	256	170	274	0	111	0
246	Calvin C.	854	924	1,099	24	116	15	706	0	14	203	21
247	C. Charleston	2,399	1,298	1,081	239	163	424	248	0	0	4	3
248	Haskell Indian Nations U.	ne	0	1,077	0	330	611	0	0	136	0	0
249	Dartmouth C.	0	1,184	1,074	712	0	0	0	0	0	91	271
250	Stephen F. Austin State U.	359	1,125	1,074	15	0	774	126	0	54	40	65
251	St. Bonaventure U.	ne	ne	1,052	0	221	244	525	0	0	62	0
252	ND State U. all campuses	1,129	814	1,046	5	121	747	68	0	0	0	105
253	U. AZ	1,697	1,328	1,042	169	386	330	157	0	0	0	0
254	Carleton C.	866	975	1,036	0	0	0	1,036	0	0	0	0
255	Tarleton State U.	81	619	1,031	0	0	58	8	0	0	0	965
256	SUNY Stony Brook all	259	744	1,020	0	0	0	521	0	0	499	0
257	U. ID	300	957	1,000	0	4	61	53	0	0	0	882
258	Middle TN State U.	351	1,750	986	406	18	0	486	0	0	44	32
259	Worcester Polytechnic Institute	899	975	982	520	9	384	69	0	0	0	0
260	Chapman U.	1,358	1,149	939	0	0	587	10	336	0	5	1
261	Cleveland State U.	1,871	896	921	210	0	407	279	0	25	0	0
262	Auburn U. all campuses	925	926	906	554	0	218	134	0	0	0	0
263	U. AK Anchorage all campuses	6,373	5,760	906	178	0	404	34	290	0	0	0
264	Dickinson C.	1,844	893	885	9	22	105	623	0	0	35	91
265	ID State U.	682	899	881	595	0	155	131	0	0	0	0
266	TN Technological U.	273	609	864	16	23	797	20	0	0	0	8
267	Swarthmore C.	688	788	850	0	0	0	835	0	0	15	0
268	Macalester C.	829	793	843	0	0	21	625	0	0	197	0
269	Black Hills State U.	197	383	830	75	0	749	6	0	0	0	0
270	Oakland U.	166	347	811	160	141	228	25	0	0	5	252
271	CUNY Brooklyn C.	908	974	790	3	96	137	537	3	0	14	0
272	CA State U. Long Beach	830	1,429	788	0	0	739	44	0	0	5	0
273	U. Baltimore	1,228	742	768	356	95	47	0	270	0	0	0
274	U. ME	3,937	1,713	764	18	233	369	61	0	83	0	0
275	Smith C.	903	628	762	0	130	30	244	0	180	176	2
276	TX Southern U.	876	831	760	0	0	0	0	0	0	0	760
277	Pacific U.	0	10	748	0	0	748	0	0	0	0	0
278	East Carolina U.	402	688	745	0	0	655	24	0	0	0	66
279	CT C.	77	0	732	440	0	0	219	0	0	73	0
280	CUNY Herbert H. Lehman C.	404	241	727	0	4	98	42	0	0	23	560
281	C. NJ, The	144	14	718	0	0	160	558	0	0	0	0

**Appendix N: R&D Expenditures in Non-Science and Engineering Fields at Universities and Colleges, Ranked by all FY 2009 Non-S&E Fields in First 300 Institutions: FY 2007–09 and by Subfield for FY 2009**

(Dollars in Thousands)

Rank	Institution	2009										
		2007	2008	All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
282	Seattle Pacific U.	NA	ne	714	0	0	714	0	0	0	0	0
283	Air Force Institute of Technology	372	30	697	664	0	33	0	0	0	0	0
284	Bucknell U.	660	741	688	57	0	7	13	0	0	6	605
285	Rice U.	677	466	686	218	1	39	412	0	0	16	0
286	James Madison U.	363	687	683	1	1	573	108	0	0	0	0
287	U. IL Springfield	1,007	828	683	36	0	41	606	0	0	0	0
288	Catholic U. America, The	565	392	671	0	21	71	119	88	278	0	94
289	Rose-Hulman Institute of	1,620	346	661	0	0	661	0	0	0	0	0
290	Roanoke C.	787	802	653	0	0	48	435	0	0	41	129
291	St. Joseph's U.	3,871	3,002	653	199	0	146	147	0	5	0	156
292	U. TX of the Permian Basin	651	487	645	90	0	128	0	0	0	0	427
293	TX A&M International U.	ne	286	643	205	0	4	1	0	0	0	433
294	William Paterson U. NJ	NA	371	637	69	21	320	186	0	0	41	0
295	Western KY U.	2	430	622	169	9	444	0	0	0	0	0
296	U. PR Mayaguez Campus	1,925	NA	616	10	0	525	0	0	4	77	0
297	DePaul U.	706	649	615	246	6	220	48	80	0	15	0
298	Washington and Jefferson C.	ne	643	610	0	0	43	0	0	0	0	567
299	U. Portland	509	585	602	171	3	340	0	0	88	0	0
300	U. CA, Merced	655	601	592	0	0	0	592	0	0	0	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.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$0 in total non-S&E R&D expenditures in FY 2009.

NOTES: Institutions not listed in this table did not provide non-S&E R&D expenditures by non-S&E field or reported zero expenditures in the ranked total for FY 2009. 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 2009.

**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 2009**

(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	18,054,412	65,721	74,092	16,074,707	34,880	497,659	472,909	307,411	57,858	464,740
1	Johns Hopkins U., The <sup>a</sup>	587,723	0	17,158	539,804	94	4,871	1,998	671	0	23,127
2	U. CA, San Francisco	470,319	0	0	458,912	0	11,407	0	0	0	0
3	U. MI all campuses	437,022	1,182	0	353,045	786	9,068	9,122	50,496	0	13,323
4	U. PA	425,938	26	0	397,967	0	9,404	4,945	5,297	4	8,295
5	U. WA	391,445	7	3,382	356,102	448	8,379	5,221	2,077	0	15,829
6	Washington U. St. Louis	380,175	284	3	356,918	112	5,257	3,855	5,937	0	7,809
7	Duke U.	367,795	1,012	1,657	325,162	1,257	2,794	7,404	16,093	0	12,416
8	U. Pittsburgh all campuses	362,634	723	0	342,028	531	6,463	6,550	1,513	498	4,328
9	U. NC Chapel Hill	345,845	443	5,370	289,255	88	8,971	5,835	35,883	0	0
10	U. CA, Los Angeles	339,039	602	135	316,358	0	8,886	9,313	1,287	11	2,447
11	Yale U.	333,422	401	258	323,536	0	4,472	3,494	0	0	1,261
12	U. CA, San Diego	330,022	2,639	2,439	288,886	0	16,922	6,394	1,405	458	10,879
13	Stanford U.	313,719	94	101	274,701	1,299	12,595	7,522	190	0	17,217
14	Harvard U.	305,634	0	11,407	266,318	1,936	13,007	5,257	4,338	0	3,371
15	Columbia U. in the City of New York	288,949	469	2,958	266,069	160	2,082	4,176	2,029	0	11,006
16	Vanderbilt U.	283,887	0	0	262,271	364	9,158	6,110	828	988	4,168
17	Case Western Reserve U.	283,021	0	0	268,004	0	2,014	1,068	2,219	0	9,716
18	U. CO all campuses	282,353	0	0	258,020	0	9,467	9,342	1,927	224	3,373
19	Emory U.	276,388	97	495	262,031	0	2,639	1,739	491	0	8,896
20	U. AL Birmingham, The	269,071	0	0	261,940	0	883	2,487	181	0	3,580
21	U. WI Madison	257,630	343	0	224,673	560	4,857	3,805	10,748	0	12,644
22	MA Institute of Technology	257,208	4,149	6,916	186,475	365	22,753	576	22	1,511	34,441
23	U. MN all campuses	254,688	697	10	226,759	348	4,442	11,374	5,806	0	5,252
24	Scripps Research Institute, The	246,610	0	0	246,610	0	0	0	0	0	0
25	Mt. Sinai School of Medicine	244,011	0	0	244,011	0	0	0	0	0	0
26	U. Chicago	223,325	6,267	25	206,693	253	4,617	4,324	1,146	0	0
27	Baylor C. of Medicine	219,132	0	0	219,132	0	0	0	0	0	0
28	Northwestern U.	214,526	0	0	200,154	206	4,924	1,104	1,368	444	6,326
29	OR Health & Science U.	202,566	12,388	0	190,178	0	0	0	0	0	0
30	U. Cincinnati all campuses	202,180	0	0	196,775	25	299	108	430	0	4,543
31	U. Southern CA	198,562	1,667	47	178,543	2,487	1,383	4,958	1,819	12	7,646
32	U. Rochester	197,936	251	0	185,571	0	1,142	8,982	68	0	1,922
33	U. IA	193,816	90	114	181,241	289	930	6,148	328	0	4,676
34	Cornell U. all campuses	192,200	3	0	170,028	163	15,063	1,660	3,061	0	2,222
35	OH State U. all campuses	191,776	778	50	173,180	334	4,537	3,765	7,012	76	2,044
36	Boston U.	185,121	0	0	149,917	445	5,750	10,528	82	5,475	12,924
37	U. TX Southwestern Medical Ctr. Dallas	181,846	0	0	181,846	0	0	0	0	0	0
38	U. CA, Davis	176,401	0	0	158,481	108	4,315	1,340	4,535	0	7,622
39	NY U.	171,173	39	0	154,927	239	3,274	12,554	140	0	0
40	U. TX M. D. Anderson Cancer Ctr.	163,068	0	0	142,265	4,133	6,760	5,554	4,356	0	0
41	U. MD Baltimore	154,439	0	0	154,439	0	0	0	0	0	0
42	U. IL Chicago	152,019	173	0	143,433	0	2,538	931	3,070	704	1,170
43	U. VA all campuses	151,646	0	0	140,152	0	3,070	4,859	0	0	3,565
44	IN U. all campuses	151,419	481	0	132,798	0	4,640	8,343	2,056	42	3,059
45	U. MA Worcester	142,603	0	0	142,603	0	0	0	0	0	0
46	U. UT	142,046	4,557	464	126,727	38	4,129	1,053	298	0	4,780
47	Yeshiva U.	135,737	0	0	135,737	0	0	0	0	0	0
48	Wake Forest U.	134,716	0	0	133,626	0	1,057	33	0	0	0
49	U. CA, Irvine	123,474	1,069	0	110,481	478	4,441	1,500	1,972	0	3,533
50	U. Miami	122,582	0	1,845	108,193	260	1	10,529	1,200	0	554
51	U. TX Medical Branch	118,981	0	0	118,408	0	0	0	0	0	573
52	U. FL	117,128	767	1,244	105,449	288	2,175	4,786	362	0	2,057
53	U. TX Health Science Ctr. San Antonio	115,933	0	0	115,933	0	0	0	0	0	0
54	Medical C. WI	113,300	0	0	113,300	0	0	0	0	0	0
55	U. TX Health Science Ctr. Houston	112,657	0	0	112,657	0	0	0	0	0	0
56	U. of Medicine and Dentistry NJ	106,534	0	0	106,534	0	0	0	0	0	0
57	U. AZ	104,746	0	328	94,884	17	5,110	2,313	552	380	1,162
58	Medical U. SC	102,222	0	0	102,008	0	0	0	0	0	214

**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 2009**

(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
59	U. CA, Berkeley	99,342	0	0	69,026	77	6,934	3,325	4,651	13,575	1,754
60	SUNY Buffalo all campuses	98,264	61	0	89,192	0	2,559	3,941	320	0	2,191
61	PA State U. all campuses	96,145	56	941	71,463	601	4,342	9,571	5,969	0	3,202
62	U. KY all campuses	96,111	35	171	83,922	332	1,588	8,110	1,087	0	866
63	Wayne State U.	94,292	207	0	86,899	0	2,865	3,296	443	0	582
64	U. KS all campuses	93,575	0	0	84,043	0	6,025	349	2,458	0	700
65	U. South FL	87,993	0	0	85,208	0	277	1,963	409	0	136
66	LA State U. all campuses	87,893	330	0	83,108	158	3,359	510	264	0	164
67	Dartmouth C.	85,745	0	0	77,539	0	933	3,494	98	49	3,632
68	Tulane U.	82,464	0	0	80,657	183	21	541	396	0	666
69	SUNY Albany	80,921	22	0	75,766	0	377	898	3,541	0	317
70	U. NE all campuses	77,754	277	0	65,218	306	670	5,154	3,249	0	2,880
71	George Washington U.	77,742	275	0	74,789	89	0	2,183	353	0	53
72	Georgetown U.	76,719	0	0	74,757	21	792	419	730	0	0
73	U. CT all campuses	74,256	277	77	63,160	145	1,650	7,431	474	0	1,042
74	U. NM main campus	73,020	271	0	63,356	70	1,283	6,945	448	0	647
75	VA Commonwealth U.	71,775	25	0	67,739	4	1,114	2,677	46	0	170
76	Rutgers, The State U. NJ all campuses	71,437	13	0	53,594	216	8,478	3,384	4,889	0	863
77	Rockefeller U.	70,161	0	0	66,542	698	2,921	0	0	0	0
78	Thomas Jefferson U.	68,604	0	0	68,604	0	0	0	0	0	0
79	U. VT	68,175	0	0	66,233	51	45	1,817	0	0	29
80	Tufts U.	68,003	489	0	59,108	0	3,327	1,542	0	0	3,537
81	U. IL Urbana-Champaign	63,477	793	7	32,792	124	11,496	4,951	1,746	1,521	10,047
82	U. OK all campuses	60,439	0	0	57,092	0	1,408	287	182	0	1,470
83	SUNY Stony Brook all campuses	57,976	489	163	47,787	1,347	3,355	2,691	44	0	2,100
84	Brown U.	57,755	664	2,214	48,244	0	1,727	1,235	1,705	1,520	446
85	U. AR for Medical Sciences	56,919	0	0	56,919	0	0	0	0	0	0
86	U. Louisville	55,326	0	0	50,922	0	702	2,949	292	0	461
87	U. MO-Columbia	55,007	143	0	50,595	151	1,185	0	2,580	0	353
88	Temple U.	53,110	317	0	46,194	0	937	4,451	359	0	852
89	Charles R. Drew U. of Medicine and Science	52,941	0	0	52,941	0	0	0	0	0	0
90	U. TN all campuses	50,721	0	164	47,250	21	299	366	420	0	2,201
91	CA Institute of Technology	50,321	552	166	34,705	229	10,510	0	0	0	4,159
92	U. HI Manoa	48,055	0	215	45,416	0	709	61	824	454	376
93	U. TX Austin	47,614	249	237	24,582	1,306	9,056	4,054	2,024	0	6,106
94	CO State U.	47,268	0	96	40,554	0	2,529	2,325	1,688	35	41
95	Purdue U. all campuses	46,631	719	0	32,490	235	5,745	3,142	1,570	51	2,679
96	AZ State U.	46,206	536	158	17,862	45	2,677	7,727	3,666	0	13,535
97	U. GA	44,902	493	0	34,423	0	856	8,443	513	0	174
98	Medical C. GA	44,274	0	0	44,274	0	0	0	0	0	0
99	TX A&M U.	43,167	1,254	214	26,808	1,615	4,417	2,106	2,732	33	3,988
100	Rush U.	42,757	0	0	40,983	0	0	1,774	0	0	0
101	Princeton U.	41,757	142	0	24,256	0	1,923	6,031	7,626	0	1,779
102	U. SC all campuses	39,640	0	1,929	25,490	0	4,390	6,950	455	0	426
103	MI State U.	38,373	140	0	32,373	109	1,955	1,951	451	86	1,308
104	U. MS all campuses	31,874	0	0	31,744	0	130	0	0	0	0
105	Drexel U.	30,211	0	0	27,595	0	370	0	0	0	2,246
106	St. Louis U. all campuses	28,972	0	0	28,761	0	99	94	0	0	18
107	Brandeis U.	28,919	257	0	18,513	0	1,510	2,220	6,419	0	0
108	U. MD College Park	28,794	1,479	0	13,887	0	2,141	3,304	5,123	0	2,860
109	U. OR	28,353	362	0	19,932	0	178	7,400	481	0	0
110	San Diego State U.	27,115	0	880	16,664	0	843	8,109	619	0	0
111	GA Institute of Technology all campuses	26,940	129	0	4,566	187	2,265	1,302	56	150	18,285
112	U. PR Medical Sciences Campus	26,531	0	0	26,531	0	0	0	0	0	0
113	U. DE	25,498	310	0	8,303	2	2,789	1,876	3,278	2,926	6,014
114	Carnegie Mellon U.	25,000	4,831	0	4,997	275	2,108	3,873	677	1,382	6,857
115	TX A&M U. System Health Science Ctr.	24,778	42	0	23,804	0	35	83	736	0	78
116	WV U.	24,234	383	22	22,186	65	159	447	26	0	946

**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 2009**

(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
117	Morehouse School of Medicine	23,224	0	0	23,224	0	0	0	0	0	0
118	Meharry Medical C.	22,741	0	0	22,741	0	0	0	0	0	0
119	SUNY Health Science Ctr. Brooklyn	22,012	0	0	22,012	0	0	0	0	0	0
120	NY Medical C.	21,490	0	0	21,490	0	0	0	0	0	0
121	MT State U. Bozeman	21,080	0	0	16,343	0	3,641	3	24	0	1,069
122	IA State U.	20,874	99	0	11,621	296	1,151	0	7,270	0	437
123	WA State U.	20,537	0	25	17,970	423	1,112	113	200	1	693
124	U. Houston	20,159	466	0	7,515	34	2,404	7,212	1,308	0	1,220
125	Loyola U. Chicago	19,970	0	0	19,200	0	98	625	47	0	0
126	VA Polytechnic Institute and State U.	19,430	404	0	11,580	0	1,250	1,657	14	0	4,525
127	U. NV, Reno	19,377	0	0	17,966	0	24	996	364	0	27
128	U. CA, Santa Cruz	18,708	0	691	8,075	0	3,276	392	23	0	6,251
129	U. MA Amherst	17,637	253	0	12,394	343	2,237	1,565	52	0	793
130	Howard U.	17,403	0	0	16,576	0	0	0	0	0	827
131	U. of Notre Dame	16,487	190	0	7,638	13	5,011	3,078	254	93	210
132	OR State U.	16,471	25	63	14,672	0	299	71	89	690	562
133	U. North TX Health Science Ctr. Ft. Worth	16,122	0	0	16,122	0	0	0	0	0	0
134	NC State U.	16,031	0	0	9,971	2,408	1,398	0	638	242	1,374
135	SUNY Upstate Medical U.	15,808	0	0	15,808	0	0	0	0	0	0
136	U. CA, Santa Barbara	15,735	0	352	2,712	0	3,062	3,233	133	4,456	1,787
137	CUNY Hunter C.	15,584	0	0	8,702	0	2,274	4,142	466	0	0
138	Uniformed Services U. of the Health Sciences	15,331	0	0	15,331	0	0	0	0	0	0
139	Northeastern U.	15,052	139	0	8,636	0	3,671	1,559	0	0	1,047
140	FL International U.	14,127	10	0	11,471	0	958	1,255	334	0	99
141	U. Toledo	13,888	0	0	13,201	0	336	223	0	0	128
142	U. TX San Antonio	13,737	0	0	12,124	0	775	135	425	0	278
143	FL State U.	13,598	66	0	7,577	519	1,078	3,956	364	0	38
144	East Carolina U.	13,194	0	4	12,267	0	158	580	185	0	0
145	U. RI	13,085	8	0	7,990	0	511	144	0	4,432	0
146	U. CA, Riverside	13,075	21	0	8,436	100	1,173	2,228	254	0	863
147	U. MD Baltimore County	12,265	0	397	2,477	218	2,976	1,621	2,160	987	1,429
148	U. MT-Missoula, The	12,231	0	0	11,473	0	450	185	123	0	0
149	U. SD	12,091	0	0	11,855	0	0	2	0	0	234
150	Jackson State U.	12,017	0	797	1,352	0	3,248	38	1,823	4,759	0
151	Albany Medical C.	11,925	0	0	11,925	0	0	0	0	0	0
152	U. MO-Kansas City	11,796	0	0	10,858	0	420	518	0	0	0
153	Loma Linda U.	11,731	0	0	11,731	0	0	0	0	0	0
154	Wright State U. all campuses	11,467	281	0	11,017	25	0	137	0	0	7
155	U. South AL	11,158	0	0	10,968	0	108	82	0	0	0
156	Southern IL U. Carbondale	10,989	0	0	9,597	0	1,041	165	120	22	44
157	U. TX El Paso	10,587	0	266	8,875	117	908	357	0	0	64
158	U. AK Fairbanks all campuses	10,394	0	402	7,671	0	0	23	0	2,298	0
159	Rice U.	10,320	540	0	3,651	610	533	81	89	47	4,769
160	IL Institute of Technology	9,662	0	0	7,631	0	291	175	0	0	1,565
161	U. ID	9,568	35	0	9,016	514	0	0	0	0	3
162	GA State U.	9,405	0	0	5,999	0	1,576	1,445	385	0	0
163	Creighton U.	9,299	0	0	9,100	0	169	30	0	0	0
164	CUNY The City C.	9,299	0	0	6,086	0	685	389	0	0	2,139
165	U. ND all campuses	9,266	0	0	9,182	0	17	0	0	0	67
166	U. TX Dallas	9,182	1,435	67	2,541	54	1,710	527	455	0	2,393
167	Eastern VA Medical School	8,960	0	0	8,960	0	0	0	0	0	0
168	Rensselaer Polytechnic Institute	8,810	427	0	1,898	445	1,713	0	0	0	4,327
169	TX Tech U. Health Science Ctr.	8,291	0	0	8,291	0	0	0	0	0	0
170	U. Central FL	7,984	0	0	736	0	1,142	0	413	0	5,693
171	U. WY	7,406	0	0	7,038	0	71	186	0	0	111
172	U. WI Milwaukee	7,352	0	537	3,328	4	921	1,112	661	0	789
173	UT State U.	7,170	9	0	5,440	13	462	1,162	16	0	68
174	Rosalind Franklin U. of Medicine and										

**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 2009**

(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
175	Science Boston C.	7,075 6,804	0 0	0 0	6,399 3,122	0 0	0 2,169	676 835	0 678	0 0	0 0
176	U. Southern ME	6,776	132	0	6,644	0	0	0	0	0	0
177	San Francisco State U.	6,659	0	108	4,223	104	61	1,204	959	0	0
178	U. Denver	6,403	0	0	1,105	0	1,263	4,024	0	0	11
179	Auburn U. all campuses	6,327	0	0	3,170	0	160	376	2,026	0	595
180	SUNY Binghamton	6,234	0	0	230	0	559	3,812	457	0	1,176
181	FL A&M U.	6,209	0	0	6,209	0	0	0	0	0	0
182	Marshall U.	6,065	0	0	6,065	0	0	0	0	0	0
183	George Mason U.	6,060	0	0	1,825	175	0	1,930	1,777	0	353
184	NM State U. main campus	5,964	0	0	1,052	0	4,681	198	3	0	30
185	Kent State U. all campuses	5,719	0	0	2,007	0	381	3,249	82	0	0
186	OK State U. all campuses	5,367	0	0	4,284	0	173	0	301	99	510
187	ND State U. all campuses	5,362	0	10	1,097	0	2,258	1,915	82	0	0
188	Universidad Central del Caribe	5,335	0	0	5,335	0	0	0	0	0	0
189	Clemson U.	5,106	37	0	1,147	0	545	0	736	0	2,641
190	U. LA Lafayette	4,997	0	0	4,643	76	0	278	0	0	0
191	U. MA Lowell	4,993	0	0	1,714	0	173	0	52	0	3,054
192	Tuskegee U.	4,899	0	0	3,316	0	0	0	1,583	0	0
193	U. NC Greensboro	4,894	0	0	2,891	0	212	1,635	156	0	0
194	U. PR Rio Piedras Campus	4,848	0	0	1,009	0	3,385	56	382	16	0
195	Syracuse U. all campuses	4,723	118	0	149	0	41	3,337	701	0	377
196	U. Southern MS	4,722	0	55	4,133	0	216	286	32	0	0
197	Ponce School of Medicine	4,679	0	0	4,679	0	0	0	0	0	0
198	Portland State U.	4,657	111	0	1,337	0	1,706	529	846	0	128
199	U. Memphis, The	4,567	442	8	1,256	35	447	880	946	0	553
200	Miami U. all campuses	4,435	NA	NA	NA	NA	NA	NA	NA	NA	NA
201	U. AL, The	4,188	0	136	1,538	0	322	1,773	419	0	0
202	U. AR main campus	4,187	0	0	646	0	2,953	263	18	0	307
203	East TN State U.	4,096	0	0	3,983	0	0	63	47	0	3
204	U. NC Charlotte	4,053	218	0	2,807	277	335	91	111	0	214
205	CA State U. Northridge	3,980	0	0	937	0	929	716	0	1,398	0
206	FL Atlantic U.	3,827	0	0	2,280	0	828	719	0	0	0
207	CA State U. Los Angeles	3,794	0	0	1,517	0	2,167	110	0	0	0
208	Lehigh U.	3,597	33	0	1,220	0	1,904	131	267	0	42
209	U. TX Arlington	3,574	208	0	676	17	535	963	0	24	1,151
210	U. NH	3,521	0	97	2,594	0	475	112	243	0	0
211	U. ME	3,465	0	96	804	0	128	982	1,426	0	29
212	Brigham Young U. all campuses	3,363	0	0	1,622	0	773	472	70	0	426
213	NC Central U.	3,247	0	0	2,935	0	0	0	312	0	0
214	Marquette U.	3,099	0	0	2,033	0	83	112	0	250	621
215	CA State U. Long Beach	3,054	0	0	1,049	0	561	825	0	578	41
216	Teachers C. Columbia U.	3,034	0	0	591	0	0	2,443	0	0	0
217	Morehouse C.	3,024	0	1,067	0	0	319	0	1,638	0	0
218	FL Institute of Technology	3,016	0	59	195	0	1,588	715	0	0	459
219	MS State U.	3,008	77	0	2,087	0	255	0	511	0	78
220	CUNY Brooklyn C.	2,830	269	0	683	0	1,154	724	0	0	0
221	Wichita State U.	2,729	0	0	230	0	263	0	2,236	0	0
222	U. MA Boston	2,605	0	0	1,534	0	0	1,071	0	0	0
223	Northeastern OH Universities C. of Medicine	2,600	0	0	2,551	0	0	0	49	0	0
224	Old Dominion U.	2,567	0	284	1,554	0	114	94	388	0	133
225	SD State U.	2,545	0	86	2,454	5	0	0	0	0	0
226	Fordham U.	2,532	0	0	866	0	0	1,590	76	0	0
227	CA State U. San Marcos	2,490	0	0	2,490	0	0	0	0	0	0
228	Morgan State U.	2,475	0	0	725	94	0	0	1,656	0	0
229	Clark Atlanta U.	2,438	0	0	2,438	0	0	0	0	0	0
230	U. TX Brownsville	2,338	0	0	2,338	0	0	0	0	0	0
231	CUNY Queens C.	2,329	0	0	451	0	414	1,194	270	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 2009**

(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
232	ID State U.	2,315	0	0	2,227	0	0	88	0	0	0
233	U. MO-St. Louis	2,285	0	0	336	0	983	966	0	0	0
234	TX Christian U.	2,178	0	0	29	0	192	1,957	0	0	0
235	Duquesne U.	2,156	0	0	1,955	0	201	0	0	0	0
236	U. NV, Las Vegas	2,134	0	0	1,461	0	159	429	85	0	0
237	Oakland U.	2,125	0	0	1,185	0	940	0	0	0	0
238	U. of the VI	2,001	0	0	1,956	0	0	0	45	0	0
239	CA State U. San Bernardino	1,956	0	0	479	0	144	1,333	0	0	0
240	NJ Institute of Technology	1,928	369	0	0	208	115	0	0	811	425
241	SUNY C. of Optometry	1,924	0	0	1,924	0	0	0	0	0	0
242	U. Akron all campuses	1,913	0	0	1,107	44	216	145	363	0	38
243	Wesleyan U.	1,865	0	0	1,017	0	550	298	0	0	0
244	Western MI U.	1,861	0	0	1,675	0	0	0	186	0	0
245	Tougaloo C.	1,844	0	0	1,844	0	0	0	0	0	0
246	CA State U. Fresno	1,793	0	0	1,793	0	0	0	0	0	0
247	Southern Methodist U.	1,773	0	0	1,185	60	69	428	0	0	31
248	Nova Southeastern U.	1,761	0	0	1,673	0	0	88	0	0	0
249	U. NC Wilmington	1,736	5	1,636	48	0	47	0	0	0	0
250	San Jose State U.	1,734	0	0	222	0	997	0	0	515	0
251	CUNY John Jay C. of Criminal Justice	1,717	0	0	0	0	0	1,717	0	0	0
252	Xavier U. LA	1,685	3	0	865	0	817	0	0	0	0
253	OH U. all campuses	1,677	0	0	839	0	284	554	0	0	0
254	Northern AZ U.	1,671	0	0	1,671	0	0	0	0	0	0
255	Catholic U. America, The	1,572	0	0	632	0	117	362	0	0	461
256	Woods Hole Oceanographic Institution	1,563	0	1,563	0	0	0	0	0	0	0
257	Northern IL U.	1,551	0	0	1,020	0	47	484	0	0	0
258	Shaw U.	1,534	0	0	1,534	0	0	0	0	0	0
259	TX Tech U.	1,523	0	165	413	0	335	19	347	0	244
260	U. CA, Merced	1,520	0	342	564	0	289	0	0	0	325
261	TX Southern U.	1,494	0	0	1,494	0	0	0	0	0	0
262	Davidson C.	1,491	0	0	0	0	0	0	1,491	0	0
263	Bowling Green State U. all campuses	1,459	0	0	21	0	205	50	1,183	0	0
264	DePaul U.	1,457	0	0	28	0	0	1,429	0	0	0
265	Barnard C.	1,430	0	203	60	0	80	1,087	0	0	0
266	Northwestern Health Sciences U.	1,423	0	0	1,423	0	0	0	0	0	0
267	U. PR Mayaguez Campus	1,413	0	63	519	0	588	0	0	0	243
268	NC Agricultural and Technical State U.	1,368	0	0	1,199	0	169	0	0	0	0
269	CUNY Herbert H. Lehman C.	1,343	0	0	905	0	0	438	0	0	0
270	Fayetteville State U.	1,307	0	0	1,279	28	0	0	0	0	0
271	Rochester Institute of Technology	1,293	0	0	209	0	167	0	78	0	839
272	Salus U. <sup>b</sup>	1,288	0	0	1,288	0	0	0	0	0	0
273	U. TX-Pan American	1,256	15	0	1,235	0	6	0	0	0	0
274	CA State U. Fullerton	1,247	0	0	1,119	0	0	0	128	0	0
275	U. Northern CO	1,223	0	0	658	301	0	0	264	0	0
276	Worcester Polytechnic Institute	1,202	111	0	265	159	188	0	0	0	479
277	U. AK Anchorage all campuses	1,201	0	40	439	0	0	0	56	666	0
278	C. of William and Mary all campuses	1,199	0	26	435	0	153	100	0	485	0
279	John Bastyr C. of Naturopathic Medicine	1,197	0	0	1,197	0	0	0	0	0	0
280	NM Highlands U.	1,190	0	0	186	0	1,004	0	0	0	0
281	TN State U.	1,187	0	0	1,187	0	0	0	0	0	0
282	Cleveland State U.	1,156	0	0	547	0	209	45	355	0	0
283	CA State U. Dominguez Hills	1,136	0	0	517	0	129	218	272	0	0
284	Governors State U.	1,126	0	0	1,126	0	0	0	0	0	0
285	SUNY C. Buffalo	1,115	0	57	0	0	0	96	962	0	0
286	Boise State U.	1,072	0	0	832	0	21	0	84	0	135
287	St. John's U. (Jamaica, NY)	1,053	0	0	287	0	176	590	0	0	0
288	Wellesley C.	1,049	51	11	343	0	0	0	0	644	0
289	U. North TX	1,033	0	0	1,023	0	0	10	0	0	0
290	U. DC	1,026	0	0	1,026	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 2009**

(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
291	CA State U. East Bay	1,022	0	0	689	0	195	0	138	0	0
292	U. PR Humacao	1,015	0	0	0	0	1,015	0	0	0	0
293	U. HI Hilo	1,007	0	0	813	0	190	4	0	0	0
294	U. GU	982	0	0	982	0	0	0	0	0	0
295	CA State Polytechnic U. Pomona	975	0	0	975	0	0	0	0	0	0
296	U. PR Cayey	970	0	0	0	0	98	58	185	629	0
297	AL State U.	961	0	0	961	0	0	0	0	0	0
298	Smith C.	960	0	0	318	16	0	420	0	0	206
299	Northwest Indian C.	939	0	0	939	0	0	0	0	0	0
300	TX A&M U. Kingsville	932	0	0	827	0	105	0	0	0	0
301	U. MO-Rolla	908	0	0	1	0	552	0	0	0	355
302	MI Technological U.	904	0	0	0	117	200	0	0	0	587
303	Mercer U. all campuses	882	0	0	882	0	0	0	0	0	0
304	Albany State U.	874	0	0	864	0	0	0	0	10	0
305	DE State U.	871	0	0	871	0	0	0	0	0	0
306	U. New England	852	0	0	852	0	0	0	0	0	0
307	Norfolk State U.	796	0	0	76	0	720	0	0	0	0
308	IL State U.	790	0	0	790	0	0	0	0	0	0
309	Clark U.	784	0	185	186	0	35	378	0	0	0
310	MT Tech of the U. MT	782	0	0	412	0	141	0	0	0	229
311	U. of the Pacific	754	0	0	486	0	268	0	0	0	0
312	Seton Hall U.	752	0	0	713	0	0	0	39	0	0
313	Ball State U.	745	0	0	316	0	0	89	340	0	0
314	Furman U.	743	0	0	165	0	387	191	0	0	0
315	Bucknell U.	742	0	0	6	0	169	0	0	0	567
316	Barry U.	737	0	0	737	0	0	0	0	0	0
317	Baylor U.	735	0	0	55	0	0	661	0	0	19
318	VA State U.	729	0	0	70	0	0	32	0	0	627
319	West Chester U. PA	711	0	0	88	0	0	623	0	0	0
320	U. MA Dartmouth	703	0	0	62	0	543	40	0	0	58
321	SUNY C. Plattsburgh	698	0	0	698	0	0	0	0	0	0
322	Middlebury C.	693	0	0	693	0	0	0	0	0	0
323	Western KY U.	683	0	0	532	11	66	15	59	0	0
324	Western States Chiropractic C.	677	0	0	677	0	0	0	0	0	0
325	TX Woman's U.	675	0	0	636	0	15	0	24	0	0
326	Chicago State U.	673	0	0	0	0	65	0	0	608	0
327	Southern U. Baton Rouge <sup>c</sup>	671	0	0	200	0	471	0	0	0	0
328	U. of the Sciences Philadelphia	669	0	0	468	0	178	0	23	0	0
329	LA Tech U.	662	194	0	54	0	80	0	0	0	334
330	Clarkson U.	660	0	0	152	0	0	0	0	0	508
331	U. AL Huntsville, The	660	0	0	504	0	156	0	0	0	0
332	Albany C. of Pharmacy	659	0	0	659	0	0	0	0	0	0
333	Touro U.-CA	642	0	0	642	0	0	0	0	0	0
334	U. Tulsa	629	0	0	203	0	175	251	0	0	0
335	Sam Houston State U.	615	0	0	0	0	0	0	0	0	615
336	Northern KY U.	609	0	0	301	0	107	186	15	0	0
337	U. Dayton	608	0	0	558	0	0	0	0	0	50
338	Minot State U.	599	0	0	504	0	0	95	0	0	0
339	Eastern MI U.	598	127	0	292	0	42	137	0	0	0
340	Augustana C. (Sioux Falls, SD)	581	0	0	581	0	0	0	0	0	0
341	U. North FL	577	0	0	490	0	0	22	0	0	65
342	Central State U.	570	29	29	116	0	29	29	29	0	309
343	Benedict C.	561	0	0	498	0	0	0	63	0	0
344	Philadelphia C. of Osteopathic Medicine	542	0	0	542	0	0	0	0	0	0
345	Black Hills State U.	538	0	0	538	0	0	0	0	0	0
346	Western U. of Health Sciences	534	0	0	534	0	0	0	0	0	0
347	C. Charleston	517	0	0	507	0	0	0	10	0	0
348	CA State U. Sacramento	501	0	0	302	0	40	0	80	79	0
349	Williams C.	501	0	0	233	0	207	0	61	0	0
350	Mt. St. Mary's C. (Los Angeles, CA)	498	0	0	498	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 2009**

(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
351	Bates C.	495	0	0	454	0	15	0	0	0	26
352	New England C. of Optometry	490	0	0	490	0	0	0	0	0	0
353	U. AR Little Rock	484	0	0	397	0	2	0	32	0	53
354	Bryn Mawr C.	468	0	0	67	0	401	0	0	0	0
355	Alcorn State U.	457	0	0	457	0	0	0	0	0	0
356	Morehead State U.	456	0	0	361	0	0	95	0	0	0
357	James Madison U.	449	0	0	272	0	0	140	0	0	37
358	Bowdoin C.	448	0	0	448	0	0	0	0	0	0
359	SUNY C. Oswego	436	0	0	0	0	0	436	0	0	0
360	AR State U. main campus	435	0	0	310	0	103	0	0	0	22
361	SUNY C. Old Westbury	434	0	0	377	0	57	0	0	0	0
362	CUNY Graduate Ctr.	430	329	0	19	0	0	26	30	26	0
363	Mercy C.	421	0	0	412	0	0	9	0	0	0
364	Rowan U.	418	0	0	0	0	206	212	0	0	0
365	TX State U. San Marcos	416	0	0	291	0	44	68	0	13	0
366	Loyola Marymount U.	415	0	0	213	33	8	161	0	0	0
367	Kennesaw State U.	412	0	0	239	0	37	0	136	0	0
368	Midwestern U. (Chicago, IL)	391	0	0	391	0	0	0	0	0	0
369	Colby C.	385	0	0	239	70	76	0	0	0	0
370	Ithaca C.	377	0	0	377	0	0	0	0	0	0
371	Reed C.	377	0	0	195	0	55	127	0	0	0
372	CUNY C. Staten Island	346	0	0	0	0	346	0	0	0	0
373	U. San Diego	328	0	0	245	0	83	0	0	0	0
374	Agnes Scott C.	319	0	0	0	0	0	289	30	0	0
375	Elizabeth City State U.	314	0	0	0	85	229	0	0	0	0
376	Hendrix C.	314	0	0	314	0	0	0	0	0	0
377	U. WI Eau Claire	314	0	0	314	0	0	0	0	0	0
378	Mt. Holyoke C.	310	0	0	176	0	134	0	0	0	0
379	Hampton U.	303	0	0	28	0	275	0	0	0	0
380	C. of the Holy Cross	301	0	0	51	0	0	250	0	0	0
381	Prairie View A&M U.	296	0	0	68	0	148	0	80	0	0
382	CT C.	289	0	0	122	0	138	29	0	0	0
383	Pomona C.	286	0	0	23	0	12	251	0	0	0
384	U. Richmond	280	0	0	150	0	58	72	0	0	0
385	Amherst C.	271	0	0	117	0	41	113	0	0	0
386	MO State U.	266	0	0	252	0	0	0	0	0	14
387	Roger Williams U. Bristol	266	0	0	266	0	0	0	0	0	0
388	Stevens Institute of Technology	264	0	0	0	0	0	0	0	0	264
389	Trinity C. (Hartford, CT)	263	7	0	179	0	0	21	56	0	0
390	MT State U. Billings	261	0	0	261	0	0	0	0	0	0
391	U. WI La Crosse	259	0	0	259	0	0	0	0	0	0
392	American U.	249	0	0	0	56	0	178	15	0	0
393	U. LA Monroe	249	0	0	249	0	0	0	0	0	0
394	Milwaukee School of Engineering	236	0	0	191	0	45	0	0	0	0
395	Central MI U.	235	0	0	185	0	50	0	0	0	0
396	CO School of Mines	233	0	0	0	0	161	0	0	0	72
397	Calvin C.	232	0	0	208	0	24	0	0	0	0
398	IN State U. all campuses	231	0	0	36	0	11	184	0	0	0
399	CA State Polytechnic U. San Luis Obispo	230	0	0	20	0	30	0	0	0	180
400	Mayville State U.	224	0	0	224	0	0	0	0	0	0
401	Lincoln U. (Lincoln University, PA)	210	0	0	210	0	0	0	0	0	0
402	NY Institute of Technology all campuses	203	0	0	203	0	0	0	0	0	0
403	CA State U. Bakersfield	201	0	0	201	0	0	0	0	0	0
404	Rider U.	195	0	0	85	0	46	64	0	0	0
405	CUNY Baruch C.	194	0	0	0	0	0	50	144	0	0
406	Western WA U.	191	0	0	0	0	117	59	8	7	0
407	Pittsburg State U.	181	0	0	144	0	37	0	0	0	0
408	Northeastern State U.	177	0	0	177	0	0	0	0	0	0
409	U. Central OK	169	0	0	2	0	0	0	0	80	87

**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 2009**

(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
410	Fairfield U.	168	0	0	168	0	0	0	0	0	0
411	Swarthmore C.	166	0	0	0	0	89	50	0	0	27
412	Juniata C.	165	0	0	165	0	0	0	0	0	0
413	U. San Francisco	161	0	18	50	0	0	29	56	8	0
414	CO State U. Pueblo	160	0	0	160	0	0	0	0	0	0
415	Salish Kootenai C.	158	0	0	123	0	35	0	0	0	0
416	U. MD Eastern Shore	158	0	0	158	0	0	0	0	0	0
417	WV State U.	157	0	0	157	0	0	0	0	0	0
418	U. NC Pembroke	156	0	0	0	0	156	0	0	0	0
419	TX A&M International U.	155	0	0	155	0	0	0	0	0	0
420	National U. of Health Sciences	153	0	0	153	0	0	0	0	0	0
421	Central CT State U.	146	0	0	72	0	0	72	2	0	0
422	IL Wesleyan U.	145	0	0	0	0	0	145	0	0	0
423	MA C. of Pharmacy and Health Sciences	143	0	0	103	0	40	0	0	0	0
424	TX A&M U. Corpus Christi	143	0	0	119	0	24	0	0	0	0
425	Northeastern IL U.	141	0	0	0	0	0	141	0	0	0
426	Towson U.	138	1	0	93	0	0	1	43	0	0
427	Eastern KY U.	135	0	0	135	0	0	0	0	0	0
428	Savannah State U.	135	0	0	135	0	0	0	0	0	0
429	Niagara U.	134	0	0	46	0	0	57	31	0	0
430	Vassar C.	131	0	0	131	0	0	0	0	0	0
431	Kenyon C.	130	0	0	130	0	0	0	0	0	0
432	Wilberforce U.	130	0	0	130	0	0	0	0	0	0
433	Southeastern OK State U.	125	0	0	0	0	125	0	0	0	0
434	SUNY C. Geneseo	125	0	0	90	0	0	35	0	0	0
435	Lamar U.	118	0	0	56	0	62	0	0	0	0
436	Middle TN State U.	118	0	0	92	0	26	0	0	0	0
437	Lawrence U.	114	0	0	41	0	73	0	0	0	0
438	Pace U. all campuses	111	0	0	111	0	0	0	0	0	0
439	Franklin & Marshall C.	110	0	0	110	0	0	0	0	0	0
440	Plymouth State U.	110	0	0	110	0	0	0	0	0	0
441	Washington and Lee U.	107	0	0	0	0	0	107	0	0	0
442	Hope C.	106	0	0	106	0	0	0	0	0	0
443	Evergreen State C.	105	0	0	105	0	0	0	0	0	0
444	Colgate U.	104	0	0	37	0	67	0	0	0	0
445	Trinity U.	103	0	0	33	0	0	70	0	0	0
446	U. WI Oshkosh	101	0	0	101	0	0	0	0	0	0
447	Simmons C.	98	0	0	49	0	0	0	10	39	0
448	St. Cloud State U.	96	0	0	19	0	0	0	0	0	77
449	GA Southern U.	94	0	0	94	0	0	0	0	0	0
450	U. AK Southeast all campuses	87	0	0	0	0	0	0	0	87	0
451	U. Hartford	87	0	0	87	0	0	0	0	0	0
452	Lincoln U. (Jefferson City, MO)	86	0	0	0	0	0	0	4	82	0
453	Carleton C.	85	0	0	0	0	33	52	0	0	0
454	Seattle U.	81	0	0	81	0	0	0	0	0	0
455	OH Wesleyan U.	79	0	0	46	0	0	33	0	0	0
456	CUNY Medgar Evers C.	77	0	0	77	0	0	0	0	0	0
457	OH Northern U.	77	0	0	77	0	0	0	0	0	0
458	Spelman C.	77	0	0	0	0	0	77	0	0	0
459	Ursinus C.	76	0	0	24	0	0	52	0	0	0
460	Dickinson C.	74	0	0	0	0	0	74	0	0	0
461	Goucher C.	72	0	0	44	0	28	0	0	0	0
462	Lake Forest C.	72	0	0	72	0	0	0	0	0	0
463	Central WA U.	71	0	0	0	0	0	0	71	0	0
464	Adelphi U.	70	0	0	70	0	0	0	0	0	0
465	Dowling C.	69	69	0	0	0	0	0	0	0	0
466	Harvey Mudd C.	69	0	0	69	0	0	0	0	0	0
467	Philadelphia U.	68	0	0	0	0	0	0	0	68	0
468	Elizabethtown C.	67	0	0	67	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 2009**

		(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
469	Western OR U.	63	0	0	63	0	0	0	0	0	0
470	Radford U.	62	0	0	0	0	0	62	0	0	0
471	Southeastern LA U.	62	0	0	35	0	27	0	0	0	0
472	Des Moines U.	61	0	0	61	0	0	0	0	0	0
473	SUNY C. Cortland	61	0	0	0	0	0	61	0	0	0
474	Eastern IL U.	59	0	0	59	0	0	0	0	0	0
475	Rhodes C.	59	0	0	59	0	0	0	0	0	0
476	LeTourneau U.	57	0	0	0	0	0	0	0	0	57
477	Seattle Pacific U.	56	0	0	0	0	56	0	0	0	0
478	Pacific Lutheran U.	54	0	0	12	0	0	42	0	0	0
479	Wabash C.	54	0	0	0	0	54	0	0	0	0
480	DePauw U.	52	0	0	0	0	0	52	0	0	0
481	Macalester C.	51	0	0	0	0	0	51	0	0	0
482	C. NJ, The	48	0	0	48	0	0	0	0	0	0
483	William Paterson U. NJ	48	0	0	48	0	0	0	0	0	0
484	Alfred U. all campuses	45	0	0	0	0	0	45	0	0	0
485	Weber State U.	45	0	0	45	0	0	0	0	0	0
486	U. TX Tyler	44	0	0	27	0	0	17	0	0	0
487	U. Northern IA	43	0	0	0	0	0	0	43	0	0
488	U. WI Stevens Point	42	0	0	42	0	0	0	0	0	0
489	Northern MI U.	41	0	0	0	0	0	41	0	0	0
490	U. West FL	41	0	0	41	0	0	0	0	0	0
491	Lafayette C.	37	0	0	24	0	0	13	0	0	0
492	SUNY C. Brockport	37	0	0	37	0	0	0	0	0	0
493	Loyola C.	36	36	0	0	0	0	0	0	0	0
494	Hobart and William Smith Colleges	35	0	0	0	0	0	35	0	0	0
495	Pepperdine U.	34	0	0	34	0	0	0	0	0	0
496	AK Pacific U.	33	0	33	0	0	0	0	0	0	0
497	Luther C.	30	0	0	29	0	0	0	1	0	0
498	Manhattan C.	28	0	28	0	0	0	0	0	0	0
499	Grand Valley State U.	26	0	26	0	0	0	0	0	0	0
500	Kalamazoo C.	26	0	0	0	0	26	0	0	0	0
501	Sonoma State U.	24	0	0	24	0	0	0	0	0	0
502	Western Carolina U.	24	0	0	24	0	0	0	0	0	0
503	Rose-Hulman Institute of Technology	20	2	0	0	0	11	0	0	0	7
504	Southern IL U. Edwardsville	18	0	0	18	0	0	0	0	0	0
505	KY State U.	16	0	0	16	0	0	0	0	0	0
506	WV School of Osteopathic Medicine	16	0	0	16	0	0	0	0	0	0
507	SD School of Mines and Technology	15	0	0	0	0	0	0	15	0	0
508	Gonzaga U.	14	0	0	0	0	14	0	0	0	0
509	SC State U.	13	0	0	13	0	0	0	0	0	0
510	Coastal Carolina U.	12	0	0	12	0	0	0	0	0	0
511	A.T. Still U. of Health Sciences	6	0	0	6	0	0	0	0	0	0
512	U. TX of the Permian Basin	5	0	0	5	0	0	0	0	0	0
513	St. Joseph's U.	4	0	0	0	0	0	0	4	0	0
514	Augustana C. (Rock Island, IL)	3	0	0	3	0	0	0	0	0	0
515	Hofstra U.	3	0	0	0	0	0	3	0	0	0
516	TX A&M U. Commerce	1	0	0	1	0	0	0	0	0	0
517	U. WI Stout	1	0	0	0	0	1	0	0	0	0

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

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

<sup>a</sup> Data represent the federally financed expenditures of The Johns Hopkins University, excluding its Applied Physics Laboratory (APL). With \$920,678 in total federally financed R&D expenditures, APL did not report federal agency details.

<sup>b</sup> On 1 July 2008 PA College of Optometry was renamed Salus University to reflect an expansion of its academic programs.

<sup>c</sup> In previous publications of this report Southern University Baton Rouge was listed as Southern University and A&M College.

NOTES: Institutions not listed in this table did not provide federally financed R&D expenditures by federal agency or reported zero expenditures in the ranked total for FY 2009. 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 2009.

**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 <sup>a</sup>	DOE	ED	EPA	HHS	NASA	NSF	USDA	Other <sup>b</sup>
	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

**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 <sup>a</sup>	DOE	ED	EPA	HHS	NASA	NSF	USDA	Other <sup>b</sup>
46	MA State C. System	481	0	0	0	0	0	408	0	73	0	0
47	Foothill-DeAnza Community C. 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.

<sup>a</sup> 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.

<sup>b</sup> 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.