

DOCUMENT RESUME

ED 455 136

SE 065 114

TITLE Academic Research and Development Expenditures: Fiscal Year 1999. Detailed Statistical Tables.

INSTITUTION Quantum Research Corp., Bethesda, MD.

SPONS AGENCY National Science Foundation, Washington, DC. Div. of Science Resources Studies.

REPORT NO NSF-01-329

PUB DATE 2001-06-00

NOTE 269p.; Project officer was M. Marge Machen.

CONTRACT SRS-96-19737

AVAILABLE FROM National Science Foundation, Div. of Science Resources Studies, 4201 Wilson Blvd., Suite 965, Arlington, VA 22230. Tel: 301-947-2722; Fax: 703-292-9092; e-mail: paperpubs.gov. For full text: <http://www.nsf.gov/sbe/srs/stats.htm>.

PUB TYPE Numerical/Quantitative Data (110) -- Tests/Questionnaires (160)

EDRS PRICE MF01/PC11 Plus Postage.

DESCRIPTORS Colleges; *Data; Federal Aid; Higher Education; *Research and Development; Universities

IDENTIFIERS National Science Foundation

ABSTRACT

This document features detailed statistical tables of Academic Research and Development Expenditures for fiscal year 1999. The data presented in this report were collected from the National Science Foundation's (NSF's) fiscal year 1999 Survey of Research and Development Expenditures at Universities and Colleges. Contents include: (1) "Technical Notes"; (2) "Detailed Statistical Tables"; (3) "University-Administered Federally Funded Research and Development Centers: FY 1999"; and (4) "Survey Instruments." (YDS)

Academic Research and Development Expenditures:

Fiscal Year 1999

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Detailed Statistical Tables

Division of Science Resources Studies
Directorate for Social, Behavioral, and Economic Sciences

National Science Foundation



June 2001

Academic Research and Development Expenditures:

Fiscal Year 1999

Detailed Statistical Tables

M. Marge Machen, Project Officer

Division of Science Resources Studies
Directorate for Social, Behavioral, and Economic Sciences

National Science Foundation



June 2001

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Suggested Citation

National Science Foundation, Division of Science Resources Studies, *Academic Research and Development Expenditures: Fiscal Year 1999*, NSF 01-329, Project Officer, M. Marge Machen (Arlington, VA 2001).

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ACKNOWLEDGMENTS

The preparation of *Academic Research and Development Expenditures: Fiscal Year 1999*, Detailed Statistical Tables, was managed by M. Marge Machen, Project Officer, National Science Foundation (NSF), Division of Science Resources Studies (SRS), Research and Development Statistics Program (RDS), under the overall direction of John E. Jankowski, Program Director, (RDS). Guidance and review were provided by Lynda T. Carlson, Division Director, Mary J. Frase, Deputy Division Director, and Ron Fecso, Chief Mathematical Statistician, SRS. Julia H. Harriston and Tanya R. Gore of SRS provided copyediting, processing, and final composition for this report. Quantum Research Corp. (QRC) of Bethesda, MD, under NSF contract number SRS-96-19737, prepared the tables, general and technical notes, and report copy. QRC staff members who worked on this report were Heidi L. Clark, Sujata Gamage, Jennifer Greer, Gail H. Henry, Cheryl Lloyd, Elizabeth H. Peto, and Emily Wueker.

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GENERAL NOTES

The data presented in this report were compiled from the National Science Foundation's (NSF's) fiscal year (FY) 1999 Survey of Research and Development Expenditures at Universities and Colleges (academic R&D expenditures survey). They refer to science and engineering expenditures for separately budgeted research and development (R&D). Terms used in institutional accounting procedures are incorporated throughout the tables.

The term "separately budgeted R&D expenditures" includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or 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.

"Federally funded research and development centers" (FFRDCs) are R&D-performing organizations that range from the traditional contractor-owned/contractor-operated or Government-owned/contractor-operated organizational structures to various degrees of contractor/Government control and ownership. FFRDCs are formed to achieve particular Federal R&D objectives that cannot be met as effectively by existing organizations.

The terms "imputation" and "imputed data" refer to the computerized process by which NSF develops

estimates of data when institutions do not furnish the information upon request. Using this process, estimates are developed that are based primarily on key data items reported in prior years' surveys. When these key data items are not available, estimates are based on figures derived from data of respondent institutions that have similar characteristics, including highest degree granted and type of institutional control (public or private). In this publication, the letter "i" is used to identify imputed data and the letter "e" is used when institutional respondents indicated that their data were estimated, or when data required slight mathematical adjustments.

Data presented in trend tables are assembled from the most recently completed survey cycle. Since prior years' data are reviewed for consistency with current year responses and, when necessary, are revised in consultation with institutional respondents, references to prior years' data should be restricted to this document.

Requests for additional information concerning the survey findings for the current or prior surveys should be directed to M. Marge Machen at—

Research and Development Statistics Program
Division of Science Resources Studies
National Science Foundation
4201 Wilson Boulevard, Suite 965
Arlington, VA 22230

Telephone: (703) 292-7786
Internet: mmachen@nsf.gov

SECTION A.
TECHNICAL NOTES

SCOPE OF THE SURVEY

Data for the National Science Foundation's (NSF's) fiscal year (FY) 1999 report on research and development (R&D) expenditures were collected from 597 institutions of higher education in the United States and Outlying Areas. These institutions have doctoral programs in science and engineering (S&E), are historically black colleges or universities (HBCUs) that expend any amount of separately budgeted R&D in S&E, or are master's or bachelor's degree-granting institutions that expend at least \$150,000 in separately budgeted R&D in S&E.

In addition, the survey includes 17 federally funded research and development centers (FFRDCs). To qualify, an FFRDC must be engaged in basic or applied research, development, or management of R&D activities, and the results of these activities must be directly monitored by the Federal Government—usually a single agency—in a relationship expected to be maintained on a long-term basis. The center must be operated, managed, and administered by either a university or consortium of universities as an autonomous organization or as an identifiable separate operating unit of its parent institution. Finally, 70 percent or more of the center's financial support must be received from the Federal Government.

Although the same survey form (NSF Form 411) is used to collect data from both academic institutions and FFRDCs, the resulting data are presented separately in this report. The survey population was reviewed prior to mailing the questionnaires to ensure that each institutional classification was accurate. Characteristics of the schools were reviewed before and during the course of the survey to determine if changes had occurred (i.e., in highest degree granted or in terms of school openings, closings, or mergers).

FY 1999 SURVEY FRAME DESIGN

Starting with the FY 1998 survey, NSF has conducted a full population survey each year. NSF also has conducted a population review each year to ensure that all institutions that meet the inclusion criteria are, in fact, surveyed. This review is based on the survey frame design developed in FY 1998:

- Only S&E bachelor's and higher degree-granting institutions are surveyed.
- All S&E doctorate-granting institutions and all HBCUs are surveyed.

- All S&E master's and bachelor's degree-granting institutions that reported at least \$150,000 in separately budgeted R&D expenditures in S&E in the previous fiscal year are surveyed. NSF contacted the master's and bachelor degree-granting institutions that were not in the FYs 1994 through 1998 academic R&D expenditures populations to determine if they met the \$150,000 expenditure criteria. Institutions with a minimum of \$150,000 were retained in the survey population. This represents a change from previous academic R&D expenditures surveys, which used a minimum of \$50,000 as the eligibility threshold.

In FY 1999, NSF conducted a population review using the above criteria. As a result of adding and deleting institutions from the survey population to comply with the inclusion criteria, the overall number of institutions surveyed increased from 556 in FY 1998 to 597 in FY 1999.

SURVEY INSTRUMENT

Most major R&D performers have incorporated into their record-keeping systems the data that are essential to complete this survey, thereby ensuring a consistent format from one year to the next. Such consistency yields the most useful statistics for time series. As a rule, information to complete this questionnaire is found within the institutions' year-end accounting records.

The survey questionnaire consists of four main items:

Item 1 is a request that institutions report their total current expenditures for separately budgeted science and engineering R&D for all activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit, i.e., research centers, within the institution by source of funds. In addition, schools are asked to provide the percentage of the total and the percentage of the federally financed expenditures that are considered basic research. Included also are research funds for which an outside organization, educational or other, is a subrecipient. Care should be observed when interpreting data on source of funds; for example, industry R&D support is limited to grants and contracts for R&D activities from profit-making organizations. Total industry funds excludes research funded through unrestricted accounts and from corporate foundations, endowments, and fellowships to students; those funds would be included in

an institution's own funding totals. An increasing number of institutions have linkages with industry and foundations via subcontracts, thus complicating the identification of funding source. In addition, institutional policy may determine whether unrestricted state support is reported as state or as institutional funding.

Item 1A, added in FY 1996, is a request for total and federally financed current fund expenditures for separately budgeted science and engineering R&D passed through the institution to subrecipients¹. Schools are asked to break out the subrecipient category by "educational" and "other."

Item 2 is a request for total and federally financed current fund expenditures for separately budgeted R&D activities by detailed S&E fields. Major fields remain unchanged from previous years. In the FY 1997 questionnaire, a subfield of bioengineering/biomedical engineering was added under Engineering. When interpreting these data at the detailed discipline level, users should keep in mind that there is considerable interdisciplinary and multidisciplinary activity.

Item 3 is a request for the portions of total and federally financed expenditures reported in items 1 and 2 that were used for the purchase of research equipment out of current funds. This portion includes all research equipment purchased under sponsored research project awards and disbursed in the same detailed disciplines

as in item 2. These data are of special interest to Federal and institutional policy-makers in determining current funding levels for scientific research instrumentation.

ITEM 1A ANALYSIS

Because the responses to this item were not published in any of the Detailed Statistical Tables in FYs 1996 and 1997, the technical notes for these publications included summary tables. For FY 1999, as was done for FY 1998, in addition to the following summary and tables, NSF is including two ranking tables in the Section A tables based on item 1A data.

This item was completed by 87.5 percent of the respondents. The total R&D expenditures passed through to subrecipients, \$1.3 billion, represented 5.7 percent of the item 1A respondents' total R&D expenditures and 4.6 percent of all separately budgeted R&D in FY 1999 (table 1). The doctorate-granting institutions reported a similar percentage of pass-through funds as the non-doctorate-granting institutions. Item 1A respondents from doctorate-granting institutions reported \$1.2 billion, or 5.7 percent, of their total R&D expenditures were passed through to subrecipients, versus \$17 million or 5.4 percent of item 1A non-doctorate-granting respondents. Item 1A respondents from private institutions reported a higher percentage (6.4 percent) of pass-through funds than those from public institutions (5.2 percent).

Table 1. FY 1999 item 1A summary of total academic R&D expenditures

Degree and control	[In thousands of dollars]				
	All respondents' total R&D ¹	Item 1A ² respondents' total R&D	Total R&D expenditures passed to subrecipients		
			Educational	Other	Total ³
All academic institutions.....	27,365,379	22,152,694	572,083	424,357	1,253,111
Doctorate.....	26,923,485	21,827,952	564,858	420,515	1,235,633
Non-doctorate.....	441,894	324,742	7,225	3,842	17,478
Public.....	18,514,284	13,950,668	372,745	264,626	730,652
Private.....	8,851,095	8,202,026	199,338	159,731	522,459

¹ This total is the amount reported by all respondents prior to imputation for non-respondents.

² This total is the amount reported by respondents who answered item 1A. Item 1A measures the amount of R&D expenditures passed through the institution to subrecipients.

³ Detail may not sum to totals due to rounding and because some institutions provided only total and Federal R&D expenditure data passed subrecipients.

¹ Subrecipient means the entity that expends awards from a pass-through entity to carry out a program, but does not include an individual that is a beneficiary of such a program.

Respondents to this question reported \$1 billion in Federal R&D funds passed through to subrecipients. This amount represented 7.9 percent of the Federal support reported by item 1A respondents and 6.4 percent of the \$16 billion in total Federal support (table 2).

Table A-6 shows the total amount of R&D expenditures passed through to subrecipients for the 100 institutions reporting the highest amounts. Table A-7 shows the total amount of Federal R&D expenditures passed through to subrecipients for the 100 institutions reporting the highest amounts. Attendees at a June 1999 workshop in Boulder, CO, recommended publishing these data in this report. Respondents who provided item 1A data were contacted to obtain their concurrence with the publication of these data at the institutional level.

RESPONSE RATE

The FY 1999 survey questionnaires were mailed in November 1999. Respondents could choose to submit a paper questionnaire or to use a Web data collection system to respond to the survey. Every effort was made to maintain close contact with respondents in order to preserve both consistency and continuity in the resultant data. Questionnaires were carefully examined for completeness upon receipt. Computerized facsimiles of the survey data were then prepared for each institution, comparing the current and 2 prior years' data and noting any substantive disparities. A personalized e-mail message was sent to the respondents so that they could

provide revisions before final processing and tabulation of the data. The e-mail message included a Web link to the academic R&D expenditures Web-based data collection system, allowing respondents to view and correct their data via the Web.

Respondents were asked to explain significant discrepancies between current and prior years' reporting patterns previously verified as correct (see Data Anomalies for more information). They were encouraged to correct prior years' data if anomalies were identified. When updated or amended figures covering past years were submitted, NSF correspondingly changed trend data. Similarly, if a respondent institution underwent an organizational change, such as a merger, NSF incorporated the effects of such changes into prior years' data.

By the survey closing date at the end of August 2000, forms had been received from 588 universities and colleges out of the academic population of 597, resulting in a 98-percent response rate. Responses were received from 99.4 percent of all doctorate-granting institutions, where 98.4 percent of the estimated national R&D expenditures in S&E fields was disbursed. Also, forms were received from all of the 17 FFRDCs. Table A-1 displays a detailed breakdown of the response rates by highest degree granted.

As in FY 1998, Oregon Health Sciences University did not respond to the survey in FY 1999. This institution was among the first 100 universities and colleges

Table 2. FY 1999 item 1A summary of Federal academic R&D expenditures

[In thousands of dollars]

Degree and control	All respondents' Federal R&D ¹	Item 1A ² respondents' Federal R&D	Federal R&D expenditures passed to subrecipients		
			Educational	Other	Total ³
All academic institutions.....	15,965,069	12,986,506	501,638	317,297	1,027,029
Doctorate.....	15,706,289	12,776,257	494,777	313,678	1,011,507
Non-doctorate.....	258,780	210,249	6,861	3,619	15,522
Public.....	9,590,068	7,113,589	321,004	216,433	612,026
Private.....	6,375,001	5,872,917	180,634	100,864	415,003

¹ This total is the amount reported by all respondents prior to imputation for non-respondents.

² This total is the amount reported by respondents who answered item 1A. Item 1A measures the amount of R&D expenditures passed through the institution to subrecipients.

³ Detail may not sum to totals due to rounding and because some institutions provided only total and Federal R&D expenditure data passed through to subrecipients.

ranked by total R&D expenditures in FY 1997, and users should be aware that both the FY 1998 and the FY 1999 data for this institution were imputed.

NATIONAL TOTAL AND IMPUTATION

To provide a national estimate for all universities and colleges performing R&D in FY 1999, it was necessary to implement two statistical procedures. First, data were estimated by "imputation" for the nine institutions that had not responded by the closing date of the survey, using imputation techniques that have been used consistently since FY 1976. Second, data were also imputed for universities and colleges that submitted only partial responses. The imputed total was \$124 million, or 0.4 percent of the \$27.5 billion total R&D expenditures, as shown in Table A-2.

Tables A-3a and A-3b present breakdowns of the total and Federal imputed amounts by S&E fields. The dollar amount imputed is displayed along with the percentage it represents of the national estimate for universities and colleges in a particular field. The amount imputed is similarly broken down by source of funds in table A-4.

A number of surveyed institutions have responded only intermittently in past years, providing data one year, not responding for one or more subsequent years, and then providing data again. For the years in which no response was received, data have been imputed as previously described. Although the imputation algorithm accurately reflects national trends, it cannot account for specific trends at individual institutions. For this reason a separate backcasting of prior years' data was performed, following current-year imputation.

For each institution, formerly imputed key variables for items 1 to 3 were recomputed to ensure that the imputed data accurately represent the growth patterns shown by reported data. If data were reported for fiscal years 1996 and 1999 but not for the intervening years, for example, the difference between the reported figures for each item total was calculated and evenly distributed across the intervening years (1997-1998). The new figures were spread across disciplines (items 2 and 3) or sources of support (item 1) on the basis of the most recent reporting pattern. A clean facsimile was generated for each of the institutions undergoing these procedures and returned to the school for comment. These procedures result in much more consis-

tent reporting trends for individual institutions but have little effect upon aggregate figures reflecting national totals.

DATA ANOMALIES

Aggregate academic expenditure data are generally consistent from year to year, although data for individual institutions may vary considerably. Data anomalies may reflect true increases or decreases in expenditures or may be the result of changes in reporting methodology.

STATE TABLES

The Detailed Statistical Tables showing R&D expenditures at individual doctorate-granting institutions by state provide detailed campus listings for the University of Tennessee, the University of Colorado, and Louisiana State University in FY 1999. FY 1999 was the first year that Louisiana State University data were presented in this way.

HIGHEST-DEGREE-GRANTED TABLES

Several longitudinal tables display data for institutions whose highest S&E degree granted is at the doctoral level. In tables produced prior to FY 1992, it would have been difficult to identify whether changes in yearly R&D expenditures were caused by changes in expenditure levels or in the number of doctorate-granting institutions. In order to maintain a consistent group of institutions across all years, the highest-degree-granted status for each institution is based on the highest degree granted in the most recent year, FY 1999.

DATA AVAILABILITY

Data published in this report are also available in machine-readable form on the World Wide Web. Single-year or multi-year data files are available with data for FYs 1975 through 1999.

Information on file formats and the years for which they are available can be found on the World Wide Web at this URL: <http://www.nsf.gov/sbe/srs/rdexp99/rdpub99/99pubuse.htm>.

Selected data items for institutions are available on the World Wide Web at <http://www.nsf.gov/sbe/srs/profiles/start.htm>. The institutional profiles cover data from this survey as well as data collected in NSF's other

academic S&E surveys: the Survey of Graduate Students and Postdoctorates in Science and Engineering (graduate student survey) and the Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions (Federal S&E support survey). The profiles are also linked to the corresponding ranking table of each survey.

Institutional researchers can obtain data from several academic S&E resources through the Web-Based Computer-Aided Science Policy Analysis and Research (WebCASPAR) database system, which is an easy-to-use tool for the retrieval and analysis of statistical data on academic S&E resources. WebCASPAR provides an extensive and growing data library with multi-year statistics on the state of higher education in general and on academic S&E resources specifically. This data library is based on a set of standard institutional and field-of-science definitions across the multiple sources used to develop the database. The WebCASPAR pro-

gram includes built-in help capabilities to facilitate the use and interpretation of the data.

The latest version of WebCASPAR can now be accessed via the Web at <http://caspar.nsf.gov/webcaspar>.

WebCASPAR data are drawn from a number of sources. All data are available for individual institutions, by state, and at the national level. Longitudinal data from surveys of universities and colleges conducted by the NSF Division of Science Resources Studies include the academic R&D expenditures survey, the Federal S&E support survey, and the graduate student survey. Data from the surveys of universities and colleges conducted by the National Center for Education Statistics include earned degrees, opening fall enrollment, tuition, faculty salaries, tenure and fringe benefits, and financial statistics.

SECTION A.
TABLES

SECTION A. TABLES

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Table A-1. Response rates for the academic research and development expenditures survey, by respondent type and highest degree granted, fiscal year 1999

Respondent type and highest degree granted	Number in survey universe	Number of complete responses	Number of partial responses	Total number of responses	Response rate
Total	614	491	114	605	98.5
Universities and colleges	597	474	114	588	98.5
Doctorate	359	289	68	357	99.4
Master's	148	116	29	145	98.0
Bachelor's and below	90	69	17	86	95.6
Academically-administered FFRDCs	17	17	0	17	100.0

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table A-2. Imputed amounts for total research and development expenditures at universities and colleges, by highest degree granted:
fiscal year 1999**

[Dollars in millions]

Highest degree granted	Total separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
Total	27,489	124	0.4
Doctorate granting institutions	27,038	115	0.4
Non-doctorate granting institutions	451	9	2.0

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table A-3a. Imputed amounts for total research and development expenditures at universities and colleges, by science and engineering field: fiscal year 1999

[Dollars in millions]

Science and engineering field	Total separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
Total	27,489	124	0.4
Engineering	4,257	66	1.5
Aeronautical and astronautical	260	46	17.5
Bioengineering/bio- medical	137	7	5.4
Chemical	350	10	3.0
Civil	529	15	2.8
Electrical	1,020	81	7.9
Mechanical	625	60	9.6
Metallurgical and materials	385	2	0.6
Other, n.e.c.	951	98	10.3
Physical sciences	2,600	39	1.5
Astronomy.....	389	12	3.0
Chemistry.....	915	27	3.0
Physics.....	1,142	29	2.5
Other, n.e.c.	153	3	2.3
Environmental sciences	1,690	26	1.5
Atmospheric	288	20	6.9
Earth sciences.....	544	49	9.1
Oceanography.....	602	40	6.6
Other, n.e.c.	256	40	15.7
Mathematical sciences.....	313	6	2.0
Computer sciences.....	860	11	1.2
Life sciences.....	15,591	156	1.0
Agricultural sciences.....	2,031	18	0.9
Biological sciences.....	5,013	50	1.0
Medical sciences.....	7,991	77	1.0
Other, n.e.c.	557	11	2.0
Psychology.....	465	9	1.9
Social sciences.....	1,262	22	1.8
Economics.....	270	3	1.3
Political science.....	201	3	1.2
Sociology.....	270	12	4.6
Other, n.e.c.	521	12	2.3
Other sciences, n.e.c.	452	13	2.8

NOTES: The imputation rate at the total level is lower than the imputation rates at the S&E field levels because many institutions could provide totals but not the S&E field details.

Because of rounding, detail may not add to totals.

KEY: n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table A-3b. Imputed amounts for federally financed research and development expenditures at universities and colleges, by science and engineering field: fiscal year 1999

[Dollars in millions]

Science and engineering field	Total separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
Total	16,047	82	0.5
Engineering	2,438	33	1.4
Aeronautical and astronautical	183	35	19.0
Bioengineering/bio-medical	72	6	7.9
Chemical	179	8	4.6
Civil	216	8	3.9
Electrical	652	77	11.9
Mechanical	388	54	13.9
Metallurgical and materials	218	2	0.9
Other, n.e.c.	530	84	15.8
Physical sciences	1,860	24	1.3
Astronomy	277	6	2.1
Chemistry	615	16	2.6
Physics	862	18	2.1
Other, n.e.c.	105	1	0.7
Environmental sciences	1,101	15	1.4
Atmospheric	222	19	8.5
Earth sciences	320	39	12.3
Oceanography	404	34	8.4
Other, n.e.c.	154	33	21.1
Mathematical sciences	209	4	1.8
Computer sciences	582	7	1.2
Life sciences	8,920	91	1.0
Agricultural sciences	546	4	0.8
Biological sciences	3,203	32	1.0
Medical sciences	4,848	46	0.9
Other, n.e.c.	323	9	2.8
Psychology	310	7	2.1
Social sciences	472	9	1.8
Economics	90	3	3.2
Political science	54	1	2.1
Sociology	119	7	5.6
Other, n.e.c.	209	3	1.5
Other sciences, n.e.c.	154	6	4.1

NOTES: The imputation rate at the total level is lower than the imputation rates at the S&E field levels because many institutions could provide totals but not the S&E field details.

Because of rounding, detail may not add to totals.

KEY: n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table A-4. Imputed amounts for research and development expenditures at universities and colleges, by source of funds: fiscal year 1999

[Dollars in millions]

Source of funds	Total separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
Total	27,489	124	0.4
Federal Government	16,047	82	0.5
State and local government.....	2,028	17	0.8
Industry	2,048	16	0.8
Institutional funds	5,366	30	0.6
All other sources	2,000	26	1.3

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table A-5. Number of surveyed institutions for the academic
research and development expenditures survey at all
institutions, by respondent type and highest degree granted:
fiscal years 1994-1999**

Respondent type and highest degree granted	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Total	517	517	511	511	572	614
Universities and colleges	499	499	493	493	555	597
Doctorate.....	348	348	343	343	357	359
Master's	84	84	84	84	118	148
Bachelor's and below	67	67	66	66	80	90
Academically-administered FFRDCs	18	18	18	18	17	17

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table A-6. Total amount of R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 1999

[Dollars in thousands]

Page 1 of 3

Institutions ranked by total amount of R&D expenditures passed through ¹	Total R&D expenditures	Total R&D expenditures passed through	Amounts passed through	
			Educational subrecipients	Other subrecipients
Total, all institutions	27,489,061	1,253,111	572,083	424,357
1 Stanford University	426,549	59,251	--	--
2 University of Colorado	318,618	56,008 e	12,772 e	43,236 e
3 Duke University	348,274	55,416	15,668	39,748
4 Harvard University	326,193	35,200	--	--
5 University of Arizona	320,245	29,630	16,297	13,333
6 MA Institute of Tech	420,306	27,961	8,063	19,898
7 U of Nebraska at Lincoln	131,046	27,498	18,965	8,533
8 Cornell University	395,552	27,395	--	--
9 U of Southern California	280,741	27,074	12,024	15,050
10 Columbia U in City of NY	279,587	25,654	11,822	13,832
Total, 1st 10 institutions	3,247,111	371,087	95,611	153,630
11 U of Illinois Urbana-Cham	358,247	22,601	20,647	1,954
12 U of Pennsylvania	383,569	21,146	11,907	9,239
13 Pennsylvania State U	379,402	18,910	7,961	10,949
14 Georgetown University	111,426	18,070	10,218	7,852
15 U of NC Chapel Hill	252,767	17,094	8,101	8,993
16 U WI-Madison	462,725	16,860	8,427	8,433
17 U TX at Austin	258,122	16,715	11,366	5,349
18 UT Houston Hlth Sci Ctr	105,307	16,602	7,366	9,236
19 Ohio State University	322,810	15,971	9,729	6,242
20 Northwestern University	233,809	15,587	--	--
Total, 1st 20 institutions	6,115,295	550,643	191,333	221,877
21 University of Pittsburgh	249,477	15,228	8,223	7,005
22 Yale University	274,050	15,194	--	--
23 NC State University	270,621	15,123	8,246	6,877
24 U of Alabama Birmingham	232,115	14,660	--	--
25 Arizona State University	107,184	13,002	1,956	11,046
26 Georgia Institute of Tech	263,725	12,747	--	--
27 U of South Florida	123,961	11,789	--	--
28 Purdue University	226,411	11,690	8,794	2,896
29 Baylor Col of Medicine	272,198	11,502	11,502	0
30 Texas A&M University	402,203	11,121	8,114	3,007
Total, 1st 30 institutions	8,537,240	682,699	238,168	252,708
31 George Washington U	66,757	10,934	10,934	0
32 Rutgers the State U NJ	213,838	10,798	7,801	2,997
33 Oregon State University	139,285	10,767	8,117	2,650
34 University of Florida	304,447	9,654	8,689	965
35 New Mexico State Univ	79,877	9,640	2,530	7,110
36 University of Miami	139,608	8,779	4,611	4,168
37 Florida State University	97,673	8,685	2,079	6,606
38 University of Chicago	162,805	8,486	6,529	1,957
39 Indiana University	194,790	8,408	4,872	3,536
40 Wake Forest University	82,827	8,362	--	--
Total, 1st 40 institutions	10,019,147	777,212	294,330	282,697

See explanatory information and SOURCE at end of table.

**Table A-6. Total amount of R&D expenditures passed through
to subrecipients by universities and colleges,
ranked by amount passed through:
fiscal year 1999**
[Dollars in thousands]

Institutions ranked by total amount of R&D expenditures passed through ¹	Total R&D expenditures	Total R&D expenditures passed through	Amounts passed through	
			Educational subrecipients	Other subrecipients
41 University of Rochester	177,126	8,007	5,598	2,409
42 Washington University	315,606	7,995	5,215	2,780
43 University of Utah	153,843	7,831	4,132	3,699
44 Louisiana State U System	225,808	7,606	3,002	4,604
45 U of Iowa	207,135	7,356	--	--
46 Brandeis University	48,305	7,292	1,715	5,577
47 University of New Mexico	115,850	7,044	6,147	897
48 Emory University	189,170	6,993	4,384	2,609
49 University of Georgia	237,493	6,910	--	--
50 University of Kentucky	174,034	6,853	6,853	0
Total, 1st 50 institutions	11,863,517	851,099	331,376	305,272
51 Tulane University	87,324	6,785	6,175	610
52 Michigan State University	207,912	6,773	5,154	1,619
53 SUNY at Stony Brook	148,982	6,606	--	--
54 University of IL Chicago	175,093	6,597	3,860	2,737
55 Vanderbilt University	149,675	6,488	3,315	3,173
56 SUNY Hlth Sci Ctr Brklyn	28,840	6,442	6,120	322
57 CUNY City College	13,452	6,411	--	--
58 New York University	167,179	6,388	3,979	2,409
59 Eastern VA Med School	24,096	6,216	2,339	3,877
60 Montana St U Bozeman	55,475	6,100	5,000	1,100
Total, 1st 60 institutions	12,921,545	915,905	367,318	321,119
61 University of Kansas	132,752	6,053	4,371	1,682
62 VA Polytech Inst & St U	169,250	6,030	2,802	3,228
63 Florida International U	25,061	5,940	--	--
64 Howard University	23,557	5,862	4,007	1,855
65 Princeton University	124,237	5,860	3,837	2,023
66 Wayne State University	146,832	5,817	1,969	3,848
67 University of Cincinnati	153,002	5,771	2,663	3,108
68 Yeshiva University	111,771	5,600	5,600	0
69 Boston University	141,102	5,455	2,727	2,728
70 Mississippi State U	110,896	5,402	4,987	415
Total, 1st 70 institutions	14,060,005	973,695	400,281	340,006
71 U of Maine	41,452	5,369	3,127	2,242
72 U of South Carolina	105,835	5,282	3,682	1,600
73 University of Virginia	157,487	5,263	3,309	1,954
74 Mt Sinai Sch Med	127,765	5,025	5,025	0
75 SUNY at Buffalo	166,823	4,807	3,399	1,408
76 U of New Hampshire	57,613	4,785	--	--
77 U of Alabama Huntsville	40,203	4,683	1,623	3,060
78 West Virginia University	63,392	4,660	3,124	1,536
79 University of Oklahoma	142,085	4,610	2,677	1,933
80 University of Dayton	36,937	4,545	1,511	3,034
Total, 1st 80 institutions	14,999,597	1,022,724	427,758	356,773

See explanatory information and SOURCE at end of table.

**Table A-6. Total amount of R&D expenditures passed through
to subrecipients by universities and colleges,
ranked by amount passed through:
fiscal year 1999**

[Dollars in thousands]

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Institutions ranked by total amount of R&D expenditures passed through ¹	Total R&D expenditures	Total R&D expenditures passed through	Amounts passed through	
			Educational subrecipients	Other subrecipients
81 Washington State U	96,943	4,486	3,334	1,152
82 U of Alaska Fairbanks	88,825	4,444	--	--
83 U TX at El Paso	21,961	4,397	3,448	949
84 Rice University	41,069	4,376	4,052	324
85 U of Rhode Island	44,452	4,254	2,978	1,276
86 University of Vermont	64,049	4,215	1,594	2,621
87 U MA Worcester	83,040	4,133	4,133	0
88 University of Connecticut	134,986	3,936	2,535	1,401
89 Oklahoma State University	83,108	3,932	--	--
90 Dartmouth College	69,522	3,919	3,055	864
Total, 1st 90 institutions	15,727,552	1,064,816	452,887	365,360
91 Drexel University	22,397	3,682	2,573	1,109
92 U Med & Dent of NJ	126,277	3,629	--	--
93 Temple University	66,777	3,617	3,617	0
94 U TX MD Anderson Cntr	155,126	3,594	1,818	1,776
95 University of Louisville	57,051	3,533	2,120	1,413
96 U MD Biotechnology Inst	31,172	3,520	3,367	153
97 U TX San An Hlth Sci Ctr	87,804	3,506	732	2,774
98 University of Alabama, The	28,909	3,477	3,451	26
99 Brown University	76,330	3,430	2,183	1,247
100 U of Nevada Las Vegas	20,170	3,429	2,729	700
Total, 1st 100 institutions	16,399,565	1,100,233	475,477	374,558
Total, all other sampled institutions	11,089,496	152,878	96,606	49,799

¹ Only the top 100 institutions that reported the largest amount of passed through funds are shown in this table.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table A-7. Total amount of Federal R&D expenditures passed through to subrecipients
by universities and colleges, ranked by amount passed through:
fiscal year 1999**

[Dollars in thousands]

Page 1 of 3

Institutions ranked by total amount of R&D Federal expenditures passed through ¹	Federal R&D expenditures	Federal R&D expenditures passed through	Federal amounts passed through	
			Educational subrecipients	Other subrecipients
Total, all institutions	16,046,797	1,027,029	501,638	317,297
1 Stanford University	353,947	58,550	--	--
2 University of Colorado	244,686	43,712 e	11,573 e	32,139 e
3 Harvard University	266,019	31,370	--	--
4 University of Arizona	178,126	25,509	14,030	11,479
5 U of Southern California	199,619	25,301	11,511	13,790
6 Columbia U in City of NY	240,158	25,165	11,639	13,526
7 MA Institute of Tech	308,921	22,965	6,741	16,224
8 U of Nebraska at Lincoln	36,977	22,769	14,764	8,005
9 U of Illinois Urbana-Cham	185,767	20,192	18,239	1,953
10 U of Pennsylvania	279,013	18,836	11,227	7,609
Total, 1st 10 institutions	2,293,233	294,369	99,724	104,725
11 Pennsylvania State U	199,105	17,664	7,352	10,312
12 U of NC Chapel Hill	182,935	17,094	8,101	8,993
13 Georgetown University	83,972	17,052	10,218	6,834
14 UT Houston Hlth Sci Ctr	71,288	15,673	6,635	9,038
15 U WI-Madison	249,961	15,300	7,746	7,554
16 Duke University	186,757	14,727	14,727	0
17 University of Pittsburgh	194,618	13,214	6,739	6,475
18 U of Alabama Birmingham	165,223	13,208	--	--
19 U TX at Austin	164,913	13,173	9,353	3,820
20 Ohio State University	135,216	13,141	8,445	4,696
Total, 1st 20 institutions	3,927,221	444,615	179,040	162,447
21 Yale University	213,404	12,727	--	--
22 Arizona State University	53,905	12,609	1,918	10,691
23 Northwestern University	132,647	11,884	--	--
24 Cornell University	234,792	11,632	--	--
25 Baylor Col of Medicine	141,111	11,102	11,102	0
26 U of South Florida	42,005	10,274	--	--
27 New Mexico State Univ	56,875	9,456	2,432	7,024
28 NC State University	66,310	9,369	4,904	4,465
29 Purdue University	95,708	9,355	8,093	1,262
30 Rutgers the State U NJ	75,664	8,445	6,539	1,906
Total, 1st 30 institutions	5,039,642	551,468	214,028	187,795
31 University of Florida	122,296	7,791	7,012	779
32 University of Chicago	135,720	7,751	6,031	1,720
33 Indiana University	102,262	7,721	4,243	3,478
34 Washington University	218,598	7,554	5,118	2,436
35 Florida State University	55,666	7,528	2,018	5,510
36 Oregon State University	81,649	7,435	4,901	2,534
37 University of Utah	111,716	7,390	4,092	3,298
38 Texas A&M University	149,151	7,212	6,537	675
39 U of Iowa	122,638	7,091	--	--
40 University of New Mexico	84,976	6,922	6,025	897
Total, 1st 40 institutions	6,224,314	625,863	260,005	209,122

See explanatory information and SOURCE at end of table.

Table A-7. Total amount of Federal R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 1999

[Dollars in thousands]

Page 2 of 3

Institutions ranked by total amount of R&D Federal expenditures passed through ¹	Federal R&D expenditures	Federal R&D expenditures passed through	Federal amounts passed through	
			Educational subrecipients	Other subrecipients
41 George Washington U	49,944	6,888	6,888	0
42 University of Rochester	132,852	6,781	5,164	1,617
43 Tulane University	50,779	6,585	6,065	520
44 Emory University	132,816	6,509	4,012	2,497
45 SUNY at Stony Brook	93,937	6,319	--	--
46 Louisiana State U System	75,831	6,275	2,528	3,747
47 SUNY Hlth Sci Ctr Brklyn	21,053	6,198	5,888	310
48 New York University	111,124	6,142	3,979	2,163
49 University of Miami	101,883	6,141	3,905	2,236
50 Michigan State University	89,835	6,081	4,847	1,234
Total, 1st 50 institutions	7,084,368	689,782	303,281	223,446
51 Brandeis University	29,423	5,947	1,217	4,730
52 Florida International U	15,757	5,940	--	--
53 University of Georgia	56,080	5,885	--	--
54 Wake Forest University	60,293	5,885	--	--
55 Howard University	21,658	5,754	4,007	1,747
56 University of Cincinnati	100,325	5,696	2,588	3,108
57 Yeshiva University	89,680	5,600	5,600	0
58 Georgia Institute of Tech	112,861	5,456	--	--
59 VA Polytech Inst & St U	75,386	5,427	2,666	2,761
60 U of Maine	19,163	5,369	3,127	2,242
Total, 1st 60 institutions	7,664,994	746,741	322,486	238,034
61 Boston University	123,390	5,282	2,641	2,641
62 University of Kentucky	66,184	5,174	5,174	0
63 CUNY City College	9,992	5,042	--	--
64 Mt Sinai Sch Med	84,624	5,025	5,025	0
65 Mississippi State U	46,528	4,959	4,710	249
66 Vanderbilt University	116,887	4,931	3,084	1,847
67 University of Virginia	108,495	4,669	2,938	1,731
68 U of Alabama Huntsville	25,166	4,610	1,613	2,997
69 Princeton University	72,974	4,574	3,131	1,443
70 SUNY at Buffalo	85,490	4,569	3,224	1,345
Total, 1st 70 institutions	8,404,724	795,576	354,026	250,287
71 University of Dayton	30,755	4,534	1,507	3,027
72 University of IL Chicago	86,406	4,464	3,348	1,116
73 University of Kansas	57,272	4,413	3,269	1,144
74 Montana St U Bozeman	26,231	4,300	3,500	800
75 Rice University	35,012	4,269	3,945	324
76 U of New Hampshire	30,586	4,254	--	--
77 U of South Carolina	48,490	4,220	2,620	1,600
78 U MA Worcester	55,516	4,133	4,133	0
79 West Virginia University	26,264	4,004	3,119	885
80 U TX at El Paso	18,292	3,871	3,447	424
Total, 1st 80 institutions	8,819,548	838,038	382,914	259,607

See explanatory information and SOURCE at end of table.

Table A-7. Total amount of Federal R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through: fiscal year 1999

[Dollars in thousands]

Institutions ranked by total amount of R&D Federal expenditures passed through ¹	Federal R&D expenditures	Federal R&D expenditures passed through	Federal amounts passed through	
			Educational subrecipients	Other subrecipients
81 Eastern VA Med School	11,354	3,700	1,591	2,109
82 U Med & Dent of NJ	61,730	3,629	--	--
83 U TX MD Anderson Cntr	69,413	3,594	1,818	1,776
84 Washington State U	44,610	3,566	2,696	870
85 U of Alaska Fairbanks	34,647	3,538	--	--
86 U MD Biotechnology Inst	13,911	3,520	3,367	153
87 U TX San An Hlth Sci Ctr	56,904	3,506	732	2,774
88 U of Nevada Las Vegas	10,248	3,429	2,729	700
89 University of Alabama, The	17,601	3,381	3,355	26
90 University of Vermont	36,085	3,359	1,174	2,185
Total, 1st 90 institutions	9,176,051	873,260	400,376	270,200
91 Temple University	29,734	3,245	3,245	0
92 Wayne State University	57,610	3,227	1,353	1,874
93 U of Rhode Island	36,207	3,173	2,311	862
94 Dartmouth College	46,741	3,163	2,824	339
95 Thomas Jefferson U	56,369	3,141	2,887	254
96 Brown University	45,276	3,078	2,042	1,036
97 University of Connecticut	55,496	3,040	2,100	940
98 Desert Research Institute	16,552	2,951	2,010	941
99 Colorado State University	91,943	2,828	2,404	424
100 U of Nevada Reno	24,587	2,650	2,251	399
Total, 1st 100 institutions	9,636,566	903,756	423,803	277,269
Total, all other sampled institutions	6,410,231	123,273	77,835	40,028

1 Only the top 100 institutions that reported the largest amount of passed through funds are shown in this table.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

SECTION B.

DETAILED STATISTICAL TABLES

Note

To obtain accurate historical data, use only the latest detailed statistical tables for FY 1999 and not data published earlier. Institutions revise prior-years' data when important changes occur in reporting practices and program classifications, and only the latest tables incorporate such changes.

UNIVERSITIES AND COLLEGES

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UNIVERSITY-ADMINISTERED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS

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**Table B-1. R&D expenditures at universities and colleges,
by source of funds: fiscal years 1953-1999**

[Dollars in millions]

Fiscal year	Total	Source of funds				
		Federal Government	State and local government	Industry	Institutional funds	All other sources
1953	255	138	37	19	35	26
1954	290	160	42	22	38	28
1955	312	169	47	25	41	30
1956	372	213	53	29	43	34
1957	410	229	60	34	49	38
1958	456	254	68	39	53	42
1959	526	306	76	39	58	47
1960	646	405	85	40	64	52
1961	763	500	95	40	70	58
1962	904	613	106	40	79	66
1963	1,081	760	118	41	89	73
1964	1,275	917	132	40	103	83
1965	1,474	1,073	143	41	124	93
1966	1,715	1,261	156	42	148	108
1967	1,921	1,409	164	48	181	119
1968	2,149	1,572	172	55	218	132
1969	2,225	1,600	197	60	223	145
1970	2,335	1,647	219	61	243	165
1971	2,500	1,724	255	70	274	177
1972	2,630	1,795	269	74	305	187
1973	2,884	1,985	295	84	318	202
1974	3,022	2,032	308	95	368	219
1975	3,409	2,288	332	113	417	259
1976	3,729	2,512	364	123	446	285
1977	4,067	2,726	374	139	514	314
1978 ¹	4,625	3,059	414	170	623	359
1979	5,366	3,598	472	193	735	368
1980	6,063	4,098	491	236	835	403
1981	6,847	4,571	546	291	1,004	435
1982	7,324	4,768	616	337	1,111	491
1983	7,882	4,989	626	389	1,302	576
1984	8,620	5,431	690	475	1,411	613
1985	9,687	6,064	752	560	1,617	694
1986	10,928	6,712	915	700	1,869	732
1987	12,153	7,343	1,023	790	2,168	828
1988	13,463	8,193	1,106	872	2,356	935
1989	14,977	8,991	1,224	994	2,698	1,071
1990	16,286	9,638	1,324	1,127	3,006	1,191
1991	17,585	10,234	1,474	1,204	3,367	1,307
1992	18,818	11,092	1,491	1,279	3,547	1,409
1993	19,951	11,956	1,559	1,360	3,589	1,486
1994	21,020	12,644	1,553	1,422	3,826	1,574
1995	22,161	13,326	1,689	1,488	4,046	1,613
1996	23,035	13,833	1,810	1,605	4,169	1,618
1997	24,338	14,300	1,906	1,729	4,691	1,711
1998	25,837	15,131	1,946	1,894	5,000	1,868
1999	27,489	16,047	2,028	2,048	5,366	2,000

¹ Fiscal year 1978 data are estimated based on data collected from doctorate-granting institutions only.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-2. R&D expenditures at universities and colleges,
by character of work: fiscal years 1953-1999**

[Dollars in millions]

Fiscal year	Total	Character of work			
		Basic research		Applied research and development	
		Amount	Percent of total	Amount	Percent of total
1953	255	110	43.1	145	56.9
1954	290	136	46.9	154	53.1
1955	312	159	51.0	153	49.0
1956	372	200	53.8	172	46.2
1957	410	240	58.5	170	41.5
1958	456	281	61.6	175	38.4
1959	526	343	65.2	183	34.8
1960	646	433	67.0	213	33.0
1961	763	530	70.2	227	29.8
1962	904	659	72.9	245	27.1
1963	1,081	814	75.3	267	24.7
1964	1,275	1,003	78.7	272	21.3
1965	1,474	1,138	77.2	336	22.8
1966	1,715	1,303	76.0	412	24.0
1967	1,921	1,457	75.8	464	24.2
1968	2,149	1,650	76.8	499	23.2
1969	2,225	1,711	76.9	514	23.1
1970	2,335	1,796	76.9	539	23.1
1971	2,500	1,914	76.6	586	23.4
1972	2,630	2,022	76.9	608	23.1
1973	2,884	2,053	71.2	831	28.8
1974	3,022	2,153	71.2	869	28.8
1975	3,409	2,410	70.7	999	29.3
1976	3,729	2,549	68.4	1,180	31.6
1977	4,067	2,800	68.8	1,267	31.2
1978 ¹	4,625	--	--	--	--
1979	5,366	3,619	67.4	1,747	32.6
1980	6,063	4,036	66.6	2,026	33.4
1981	6,847	4,594	67.1	2,253	32.9
1982	7,324	4,879	66.6	2,445	33.4
1983	7,882	5,303	67.3	2,579	32.7
1984	8,620	5,733	66.5	2,887	33.5
1985	9,687	6,556	67.7	3,131	32.3
1986	10,928	7,493	68.6	3,435	31.4
1987	12,153	8,393	69.1	3,760	30.9
1988	13,463	8,894	66.1	4,569	33.9
1989	14,977	9,792	65.4	5,184	34.6
1990	16,286	10,643	65.4	5,643	34.6
1991	17,585	11,606	66.0	5,979	34.0
1992	18,818	12,516	66.5	6,302	33.5
1993	19,951	13,303	66.7	6,647	33.3
1994	21,020	13,981	66.5	7,039	33.5
1995	22,161	14,802	66.8	7,359	33.2
1996	23,035	15,471	67.2	7,564	32.8
1997	24,338	16,587	68.2	7,751	31.8
1998	25,837	17,442	67.5	8,395	32.5
1999	27,489	18,844	68.6	8,645	31.4

¹ Separate data for basic research and applied research and development were not collected for fiscal year 1978.

NOTES: R&D expenditures by character of work are based on estimates of basic research provided by universities and colleges.

Because of rounding, detail may not add to totals.

KEY: -- = not available

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-2A. Federally financed R&D expenditures at universities and colleges, by character of work: fiscal years 1953-1999

[Dollars in millions]

Fiscal year	Total	Character of work			
		Basic research		Applied research and development	
		Amount	Percent of total	Amount	Percent of total
1953	138	--	--	--	--
1954	160	--	--	--	--
1955	169	--	--	--	--
1956	213	--	--	--	--
1957	229	--	--	--	--
1958	254	--	--	--	--
1959	306	--	--	--	--
1960	405	--	--	--	--
1961	500	--	--	--	--
1962	613	--	--	--	--
1963	760	--	--	--	--
1964	917	--	--	--	--
1965	1,073	--	--	--	--
1966	1,261	--	--	--	--
1967	1,409	--	--	--	--
1968	1,572	--	--	--	--
1969	1,600	--	--	--	--
1970	1,647	--	--	--	--
1971	1,724	--	--	--	--
1972	1,795	1,420	79.1	375	20.9
1973	1,985	1,454	73.2	531	26.8
1974	2,032	1,523	75.0	509	25.0
1975	2,288	1,695	74.1	593	25.9
1976	2,512	1,841	73.3	671	26.7
1977	2,726	2,007	73.6	719	26.4
1978 ¹	3,059	--	--	--	--
1979	3,598	2,577	71.6	1,022	28.4
1980	4,098	2,861	69.8	1,237	30.2
1981	4,571	3,260	71.3	1,311	28.7
1982	4,768	3,402	71.3	1,367	28.7
1983	4,989	3,547	71.1	1,442	28.9
1984	5,431	3,830	70.5	1,601	29.5
1985	6,064	4,343	71.6	1,722	28.4
1986	6,712	4,868	72.5	1,844	27.5
1987	7,343	5,375	73.2	1,968	26.8
1988	8,193	5,678	69.3	2,515	30.7
1989	8,991	6,195	68.9	2,796	31.1
1990	9,638	6,648	69.0	2,989	31.0
1991	10,234	7,127	69.6	3,107	30.4
1992	11,092	7,718	69.6	3,375	30.4
1993	11,956	8,398	70.2	3,559	29.8
1994	12,644	8,874	70.2	3,771	29.8
1995	13,326	9,394	70.5	3,932	29.5
1996	13,833	9,862	71.3	3,971	28.7
1997	14,300	10,308	72.1	3,993	27.9
1998	15,131	10,908	72.1	4,222	27.9
1999	16,047	11,808	73.6	4,239	26.4

¹ Separate data for basic research and applied research and development were not collected for fiscal year 1978.

NOTES: R&D expenditures by character of work are based on estimates of basic research provided by universities and colleges.

Because of rounding, detail may not add to totals.

KEY: -- = not available

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-3. R&D expenditures at universities and colleges, by source of funds and science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	27,489,061	25,837,199	24,338,253	23,035,265	22,161,451	21,019,612	19,950,563	18,817,827
Source of funds								
Federal Government	16,046,797	15,130,505	14,300,231	13,833,483	13,325,960	12,644,373	11,956,290	11,092,412
State and local government	2,028,402	1,945,529	1,906,086	1,810,283	1,688,534	1,553,441	1,558,686	1,490,509
Industry	2,047,722	1,893,525	1,729,432	1,604,790	1,488,477	1,421,801	1,360,357	1,278,952
Institutional funds	5,366,196	5,000,102	4,691,478	4,168,628	4,045,843	3,826,076	3,589,059	3,547,420
All other sources	1,999,944	1,867,538	1,711,026	1,618,081	1,612,637	1,573,921	1,486,171	1,408,534
Field								
Engineering	4,257,121	4,068,713	3,847,314	3,706,948	3,514,937	3,354,871	3,155,737	3,062,458
Aeronautical and astronautical	260,343	249,684	247,347	232,942	241,069	217,376	212,601	196,584
Bioengineering/bio- medical	137,036	101,957	76,791	--	--	--	--	--
Chemical	349,669	327,074	316,667	317,186	297,060	278,687	273,632	260,940
Civil	528,830	494,823	471,666	454,629	430,781	402,837	371,417	339,549
Electrical	1,019,659	1,042,227	950,834	887,655	818,547	744,762	698,129	703,657
Mechanical	625,444	567,729	517,151	519,085	520,624	502,222	482,874	450,575
Metallurgical and materials	384,796	391,388	388,821	349,401	329,864	310,064	298,923	293,946
Other, n.e.c.	951,344	893,831	878,037	946,050	876,992	898,923	818,161	817,207
All sciences	23,231,940	21,768,486	20,490,939	19,328,317	18,646,514	17,664,741	16,794,826	15,755,369
Physical sciences	2,599,686	2,482,819	2,361,551	2,255,729	2,254,179	2,175,883	2,130,401	2,055,163
Astronomy	389,306	302,308	287,336	275,754	303,572	267,183	258,520	238,052
Chemistry	915,075	877,501	819,369	800,806	770,547	758,961	740,317	704,579
Physics	1,142,322	1,077,293	1,050,602	986,569	988,607	956,410	940,495	921,180
Other, n.e.c.	152,983	225,717	204,244	192,600	191,453	193,329	191,069	191,352
Environmental sciences	1,689,594	1,623,148	1,522,857	1,487,878	1,432,791	1,395,864	1,318,891	1,241,932
Atmospheric	287,999	269,167	236,758	224,459	208,084	203,205	210,403	194,175
Earth sciences	543,936	512,463	448,640	445,179	456,052	454,687	416,591	413,018
Oceanography	601,830	545,566	536,613	533,386	473,332	455,151	458,086	427,476
Other, n.e.c.	255,829	295,952	300,846	284,854	295,323	282,821	233,811	207,263
Mathematical sciences	312,727	310,144	289,261	288,088	278,515	281,650	272,248	247,717
Computer sciences	859,977	746,049	708,975	689,743	682,022	645,914	607,679	555,367
Life sciences	15,591,256	14,583,198	13,586,297	12,711,906	12,184,674	11,465,182	10,851,322	10,196,267
Agricultural sciences	2,031,367	1,995,484	1,966,003	1,910,064	1,814,246	1,661,335	1,558,111	1,511,643
Biological sciences	5,012,512	4,573,160	4,178,701	3,908,094	3,832,697	3,708,051	3,536,448	3,304,074
Medical sciences	7,990,865	7,465,880	6,907,687	6,390,735	6,069,977	5,638,536	5,323,768	4,963,746
Other, n.e.c.	556,512	548,674	533,906	503,013	467,754	457,260	432,995	416,804
Psychology	464,858	445,347	395,941	381,360	370,360	358,148	349,709	328,503
Social sciences	1,262,002	1,130,119	1,118,680	1,095,926	1,018,385	953,403	896,287	815,283
Economics	270,007	260,929	259,437	271,339	250,260	243,000	231,247	221,553
Political science	201,173	175,490	175,440	179,747	172,998	160,522	151,085	142,096
Sociology	269,858	251,897	254,595	230,068	214,672	195,582	183,354	163,287
Other, n.e.c.	520,964	441,803	429,208	414,772	380,455	354,299	330,601	288,347
Other sciences, n.e.c.	451,640	447,662	507,377	417,687	425,588	388,697	368,289	315,137

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-4. Federally financed R&D expenditures at universities and colleges,
by science and engineering field: fiscal years 1992-1999**

[Dollars in thousands]

Field	1999	1998	1997	1996	1995	1994	1993	1992
Total	16,046,797	15,130,505	14,300,231	13,833,483	13,325,960	12,644,373	11,956,290	11,092,412
Engineering	2,438,273	2,353,638	2,258,757	2,232,174	2,101,643	1,993,351	1,857,974	1,752,636
Aeronautical and astronautical	182,926	170,689	183,639	171,164	183,653	165,385	159,839	150,859
Bioengineering/bio- medical	72,318	56,635	47,517	--	--	--	--	--
Chemical	179,421	169,272	165,854	173,768	161,116	150,495	142,815	126,225
Civil	216,207	197,073	200,198	197,733	185,891	163,739	154,325	143,623
Electrical	651,605	692,537	627,507	599,803	543,643	490,107	458,418	449,459
Mechanical	387,784	350,725	322,046	334,903	339,620	327,760	310,007	268,870
Metallurgical and materials	217,950	221,684	222,452	190,452	175,505	155,563	150,438	143,259
Other, n.e.c.	530,062	495,023	489,544	564,351	512,215	540,302	482,132	470,341
All sciences	13,608,524	12,776,867	12,041,474	11,601,309	11,224,317	10,651,022	10,098,316	9,339,776
Physical sciences	1,859,517	1,761,609	1,679,334	1,629,123	1,636,681	1,562,400	1,512,719	1,475,602
Astronomy	277,222	187,859	182,910	182,296	206,925	180,929	165,031	158,350
Chemistry	615,465	587,549	551,060	553,125	532,763	517,480	505,257	479,668
Physics	862,097	817,522	800,311	756,942	761,461	727,120	708,167	708,030
Other, n.e.c.	104,733	168,679	145,053	136,760	135,532	136,871	134,264	129,554
Environmental sciences	1,100,681	1,075,412	1,010,067	1,005,520	960,970	943,347	870,282	791,699
Atmospheric	222,486	209,537	185,293	175,948	163,649	161,315	160,633	140,073
Earth sciences	320,241	311,206	268,121	267,036	272,915	270,611	243,529	238,401
Oceanography	403,665	362,118	355,428	371,352	331,478	323,093	329,612	306,583
Other, n.e.c.	154,289	192,551	201,225	191,184	192,928	188,328	136,508	106,642
Mathematical sciences	209,147	214,048	201,949	207,954	204,684	205,099	203,122	183,262
Computer sciences	582,242	513,091	505,785	501,429	483,291	461,730	423,319	379,798
Life sciences	8,920,220	8,316,215	7,760,228	7,402,806	7,111,420	6,735,943	6,387,041	5,911,294
Agricultural sciences	545,563	533,362	548,291	559,571	531,437	493,131	450,030	417,787
Biological sciences	3,203,327	2,928,147	2,681,562	2,527,509	2,487,986	2,436,382	2,310,849	2,137,514
Medical sciences	4,848,097	4,548,854	4,226,893	4,023,857	3,826,902	3,537,413	3,369,501	3,113,366
Other, n.e.c.	323,233	305,852	303,482	291,869	265,095	269,017	256,661	242,627
Psychology	310,119	299,574	271,270	258,322	248,718	240,481	234,389	214,905
Social sciences	472,320	425,030	406,446	422,698	387,673	358,263	338,321	281,253
Economics	89,951	92,222	89,784	90,645	80,020	76,271	77,304	65,947
Political science	53,763	53,112	51,766	62,247	59,648	49,844	42,828	35,046
Sociology	119,404	118,616	118,515	118,732	104,246	96,087	91,108	81,736
Other, n.e.c.	209,202	161,080	146,381	151,074	143,759	136,061	127,081	98,524
Other sciences, n.e.c.	154,278	171,888	206,395	173,457	190,880	143,759	129,123	101,963

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-5. Non-Federal R&D expenditures at universities and colleges, by source of funds and science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	11,442,264	10,706,694	10,038,022	9,201,782	8,835,491	8,375,239	7,994,273	7,725,415
	Source of funds							
State and local government	2,028,402	1,945,529	1,906,086	1,810,283	1,688,534	1,553,441	1,558,686	1,490,509
Industry	2,047,722	1,893,525	1,729,432	1,604,790	1,488,477	1,421,801	1,360,357	1,278,952
Institutional funds	5,366,196	5,000,102	4,691,478	4,168,628	4,045,843	3,826,076	3,589,059	3,547,420
All other sources	1,999,944	1,867,538	1,711,026	1,618,081	1,612,637	1,573,921	1,486,171	1,408,534
	Field							
Engineering	1,818,848	1,715,075	1,588,557	1,474,774	1,413,294	1,361,520	1,297,763	1,309,822
Aeronautical and astronautical	77,417	78,995	63,708	61,778	57,416	51,991	52,762	45,725
Bioengineering/bio- medical	64,718	45,322	29,274	--	--	--	--	--
Chemical	170,248	157,802	150,813	143,418	135,944	128,192	130,817	134,715
Civil	312,623	297,750	271,468	256,896	244,890	239,098	217,092	195,926
Electrical	368,054	349,690	323,327	287,852	274,904	254,655	239,711	254,198
Mechanical	237,660	217,004	195,105	184,182	181,004	174,462	172,867	181,705
Metallurgical and materials	166,846	169,704	166,369	158,949	154,359	154,501	148,485	150,687
Other, n.e.c.	421,282	398,808	388,493	381,699	364,777	358,621	336,029	346,866
All sciences	9,623,416	8,991,619	8,449,465	7,727,008	7,422,197	7,013,719	6,696,510	6,415,593
Physical sciences	740,169	721,210	682,217	626,606	617,498	613,483	617,682	579,561
Astronomy	112,084	114,449	104,426	93,458	96,647	86,254	93,489	79,702
Chemistry	299,610	289,952	268,309	247,681	237,784	241,481	235,060	224,911
Physics	280,225	259,771	250,291	229,627	227,146	229,290	232,328	213,150
Other, n.e.c.	48,250	57,038	59,191	55,840	55,921	56,458	56,805	61,798
Environmental sciences	588,913	547,736	512,790	482,358	471,821	452,517	448,609	450,233
Atmospheric	65,513	59,630	51,465	48,511	44,435	41,890	49,770	54,102
Earth sciences	223,695	201,257	180,519	178,143	183,137	184,076	173,062	174,617
Oceanography	198,165	183,448	181,185	162,034	141,854	132,058	128,474	120,893
Other, n.e.c.	101,540	103,401	99,621	93,670	102,395	94,493	97,303	100,621
Mathematical sciences	103,580	96,096	87,312	80,134	73,831	76,551	69,126	64,455
Computer sciences	277,735	232,958	203,190	188,314	198,731	184,184	184,360	175,569
Life sciences	6,671,036	6,266,983	5,826,069	5,309,100	5,073,254	4,729,239	4,464,281	4,284,973
Agricultural sciences	1,485,804	1,462,122	1,417,712	1,350,493	1,282,809	1,168,204	1,108,081	1,093,856
Biological sciences	1,809,185	1,645,013	1,497,139	1,380,585	1,344,711	1,271,669	1,225,599	1,166,560
Medical sciences	3,142,768	2,917,026	2,680,794	2,366,878	2,243,075	2,101,123	1,954,267	1,850,380
Other, n.e.c.	233,279	242,822	230,424	211,144	202,659	188,243	176,334	174,177
Psychology	154,739	145,773	124,671	123,038	121,642	117,667	115,320	113,598
Social sciences	789,682	705,089	712,234	673,228	630,712	595,140	557,966	534,030
Economics	180,056	168,707	169,653	180,694	170,240	166,729	153,943	155,606
Political science	147,410	122,378	123,674	117,500	113,350	110,678	108,257	107,050
Sociology	150,454	133,281	136,080	111,336	110,426	99,495	92,246	81,551
Other, n.e.c.	311,762	280,723	282,827	263,698	236,696	218,238	203,520	189,823
Other sciences, n.e.c.	297,562	275,774	300,982	244,230	234,708	244,938	239,166	213,174

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-6. R&D expenditures at doctorate-granting institutions, by source of funds and science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	27,038,008	25,377,606	23,908,819	22,644,082	21,792,051	20,673,195	19,615,731	18,556,176
	Source of funds							
Federal Government	15,782,855	14,848,364	14,033,186	13,593,138	13,099,682	12,432,161	11,748,767	10,927,489
State and local government	1,958,050	1,894,626	1,858,104	1,766,856	1,845,164	1,513,562	1,527,053	1,465,931
Industry	2,016,039	1,861,995	1,696,030	1,571,837	1,456,777	1,392,810	1,332,045	1,255,422
Institutional funds	5,316,785	4,946,237	4,635,611	4,116,703	3,997,079	3,780,184	3,540,677	3,513,953
All other sources	1,964,279	1,826,384	1,685,888	1,595,548	1,593,349	1,554,478	1,467,189	1,393,381
	Field							
Engineering	4,186,328	3,995,246	3,774,809	3,641,196	3,453,216	3,298,073	3,103,783	3,020,633
Aeronautical and astronautical	250,497	245,565	242,675	228,156	235,378	211,062	207,053	192,732
Bioengineering/bio- medical	135,150	101,655	76,463	--	--	--	--	--
Chemical	347,979	324,012	312,984	314,947	294,895	277,152	272,060	259,388
Civil	520,697	481,639	457,473	440,989	416,524	390,570	360,628	332,973
Electrical	1,007,553	1,027,680	935,502	870,894	805,293	732,141	686,192	694,490
Mechanical	609,084	543,627	497,090	505,750	508,532	493,012	473,169	441,888
Metallurgical and materials	382,544	389,291	386,901	347,647	328,258	308,564	297,658	292,721
Other, n.e.c.	932,824	881,777	865,721	932,813	864,336	885,572	807,023	806,441
All sciences	22,851,680	21,382,360	20,134,010	19,002,886	18,338,835	17,375,122	16,511,948	15,535,543
Physical sciences	2,522,110	2,393,575	2,281,133	2,180,546	2,185,717	2,110,111	2,068,533	2,004,535
Astronomy	387,159	300,121	285,808	274,306	301,679	265,884	257,295	236,964
Chemistry	870,730	831,844	779,168	762,617	736,483	724,948	707,370	676,593
Physics	1,114,366	1,038,106	1,014,180	953,189	958,347	928,207	915,084	900,809
Other, n.e.c.	149,855	223,504	201,977	190,434	189,208	191,072	188,784	190,169
Environmental sciences	1,637,606	1,576,907	1,477,056	1,441,095	1,388,560	1,351,708	1,274,945	1,214,266
Atmospheric	284,673	265,284	233,896	221,271	204,722	199,563	206,215	191,081
Earth sciences	521,381	491,515	430,950	428,380	441,761	440,768	403,353	404,038
Oceanography	580,984	528,958	519,292	516,337	455,537	437,789	441,229	420,546
Other, n.e.c.	250,568	291,150	292,918	275,107	286,540	273,588	224,148	198,601
Mathematical sciences	300,676	298,538	277,090	276,102	266,976	271,641	259,192	239,098
Computer sciences	830,442	726,518	690,749	674,443	670,145	634,790	597,016	544,348
Life sciences	15,448,596	14,425,939	13,446,281	12,591,934	12,070,720	11,355,611	10,750,640	10,112,601
Agricultural sciences	1,971,323	1,932,265	1,911,337	1,867,092	1,771,360	1,620,812	1,522,235	1,479,300
Biological sciences	4,949,533	4,500,123	4,109,737	3,844,371	3,773,589	3,650,905	3,484,926	3,262,145
Medical sciences	7,977,602	7,450,251	6,895,526	6,382,289	6,062,944	5,631,792	5,316,035	4,958,402
Other, n.e.c.	550,138	543,300	529,681	498,182	462,827	452,102	427,444	412,754
Psychology	450,241	427,510	378,009	364,025	352,496	342,831	333,684	317,095
Social sciences	1,229,637	1,099,112	1,086,593	1,068,514	992,552	930,677	872,655	795,202
Economics	266,022	257,934	255,284	267,533	244,844	237,886	225,964	216,311
Political science	198,011	172,604	172,313	176,944	170,661	158,351	148,673	140,787
Sociology	258,304	242,983	246,913	221,687	207,540	189,563	176,993	158,084
Other, n.e.c.	507,300	425,591	412,083	402,350	369,507	344,877	321,025	280,020
Other sciences, n.e.c.	432,372	434,261	497,099	406,227	411,669	377,753	355,283	308,398

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-7. Federally financed R&D expenditures at doctorate-granting institutions,
by science and engineering field: fiscal years 1992-1999**

[Dollars in thousands]

Field	1999	1998	1997	1996	1995	1994	1993	1992
Total	15,782,855	14,848,364	14,033,186	13,593,138	13,099,682	12,432,161	11,748,767	10,927,489
Engineering	2,399,183	2,308,440	2,214,207	2,192,411	2,066,891	1,962,634	1,830,261	1,732,032
Aeronautical and astronautical	173,397	167,026	179,526	166,833	178,293	159,430	154,565	147,165
Bioengineering/bio- medical	71,963	56,369	47,189	--	--	--	--	--
Chemical	178,543	167,181	163,076	172,236	159,778	149,581	141,915	125,349
Civil	214,139	190,484	193,594	191,553	180,534	159,650	150,217	141,264
Electrical	642,880	682,480	616,538	587,559	534,248	481,641	451,011	444,076
Mechanical	379,165	335,381	308,349	326,808	332,773	322,562	304,557	264,024
Metallurgical and materials	216,211	220,308	221,276	189,379	174,545	154,685	149,675	142,530
Other, n.e.c.	522,885	489,211	484,659	558,043	506,720	535,085	478,321	467,624
All sciences	13,383,672	12,539,924	11,818,979	11,400,727	11,032,791	10,469,527	9,918,506	9,195,457
Physical sciences	1,806,016	1,702,655	1,628,060	1,580,198	1,590,876	1,519,841	1,471,578	1,439,966
Astronomy	275,839	186,397	181,925	181,459	205,633	180,079	164,222	157,650
Chemistry	584,721	555,432	524,122	527,180	509,364	495,277	482,758	459,347
Physics	842,258	793,442	778,016	735,935	741,657	708,966	691,531	694,206
Other, n.e.c.	103,198	167,384	143,997	135,624	134,222	135,519	133,067	128,763
Environmental sciences	1,075,035	1,051,424	985,655	980,583	936,909	918,673	845,038	776,863
Atmospheric	219,782	206,310	183,080	173,357	161,006	158,652	157,249	137,641
Earth sciences	309,176	301,169	258,986	258,914	266,076	263,632	236,914	234,186
Oceanography	394,021	353,823	346,407	362,108	321,535	313,331	319,684	302,768
Other, n.e.c.	152,056	190,122	197,182	186,204	188,292	183,058	131,191	102,268
Mathematical sciences	201,430	207,050	194,689	200,440	197,328	198,092	194,878	177,991
Computer sciences	563,109	500,128	492,281	491,589	476,186	454,329	416,272	372,251
Life sciences	8,833,529	8,213,243	7,664,000	7,322,283	7,034,906	6,662,417	6,317,343	5,850,924
Agricultural sciences	511,200	491,812	507,194	527,904	499,618	461,707	423,570	392,098
Biological sciences	3,161,918	2,880,209	2,637,903	2,487,331	2,450,640	2,402,623	2,277,035	2,108,634
Medical sciences	4,840,429	4,538,800	4,217,840	4,018,126	3,822,498	3,532,740	3,364,587	3,109,857
Other, n.e.c.	319,982	302,422	301,063	288,922	262,150	265,347	252,151	240,335
Psychology	300,583	290,056	260,587	247,179	236,220	229,378	222,025	206,312
Social sciences	458,698	411,163	392,526	411,057	376,376	348,032	328,487	272,616
Economics	88,200	90,412	87,520	88,640	76,514	73,006	73,760	62,608
Political science	52,867	52,124	51,005	61,494	59,182	49,298	42,322	34,520
Sociology	114,201	113,445	114,342	114,042	100,617	93,174	87,903	78,751
Other, n.e.c.	203,430	155,182	139,659	146,881	140,063	132,554	124,502	96,737
Other sciences, n.e.c.	145,272	164,205	201,181	167,398	183,990	138,765	122,885	98,534

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-8 Non-Federal R&D expenditures at doctorate-granting institutions, by source of funds and science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	11,255,153	10,529,242	9,875,633	9,050,944	8,692,369	8,241,034	7,866,964	7,628,687
Source of funds								
State and local government	1,958,050	1,894,626	1,858,104	1,766,856	1,645,164	1,513,562	1,527,053	1,465,931
Industry	2,016,039	1,861,995	1,696,030	1,571,837	1,456,777	1,392,810	1,332,045	1,255,422
Institutional funds	5,316,785	4,946,237	4,635,611	4,116,703	3,997,079	3,780,184	3,540,677	3,513,953
All other sources	1,964,279	1,826,384	1,685,888	1,595,548	1,593,349	1,554,478	1,467,189	1,393,381
Field								
Engineering	1,787,145	1,686,806	1,560,602	1,448,785	1,386,325	1,335,439	1,273,522	1,288,601
Aeronautics and astronautical	77,100	78,539	63,149	61,323	57,085	51,632	52,488	45,567
Bioengineering/bio-medical	63,187	45,286	29,274	--	--	--	--	--
Chemical	169,436	156,831	149,908	142,711	135,117	127,571	130,145	134,039
Civil	306,558	291,155	263,879	249,436	235,990	230,920	210,411	191,709
Electrical	364,673	345,200	318,964	283,335	271,045	250,500	235,181	250,414
Mechanical	229,919	208,246	188,741	178,942	175,759	170,450	168,612	177,864
Metallurgical and materials	166,333	168,983	165,625	158,268	153,713	153,879	147,983	150,191
Other, n.e.c.	409,939	392,566	381,062	374,770	357,616	350,487	328,702	338,817
All sciences	9,468,008	8,842,436	8,315,031	7,602,159	7,306,044	6,905,595	6,593,442	6,340,086
Physical sciences	716,094	690,920	653,073	600,348	594,841	590,270	596,955	564,569
Astronomy	111,320	113,724	103,883	92,847	96,046	85,805	93,073	79,314
Chemistry	286,009	276,412	255,046	235,437	227,119	229,671	224,612	217,246
Physics	272,108	244,664	236,164	217,254	216,690	219,241	223,553	206,603
Other, n.e.c.	46,657	56,120	57,980	54,810	54,986	55,553	55,717	61,406
Environmental sciences	562,571	525,483	491,401	460,512	451,651	433,035	429,907	437,403
Atmospheric	64,891	58,974	50,816	47,914	43,716	40,911	48,966	53,440
Earth sciences	212,205	190,346	171,964	169,466	175,685	177,136	166,439	169,852
Oceanography	186,963	175,135	172,885	154,229	134,002	124,458	121,545	117,778
Other, n.e.c.	98,512	101,028	95,736	88,903	98,248	90,530	92,957	96,333
Mathematical sciences	99,246	91,488	82,401	75,662	69,648	73,549	64,314	61,107
Computer sciences	267,333	226,390	198,468	182,854	193,959	180,461	180,744	172,097
Life sciences	6,615,067	6,212,696	5,782,281	5,269,651	5,035,814	4,693,194	4,433,297	4,261,677
Agricultural sciences	1,460,123	1,440,453	1,404,143	1,339,188	1,271,742	1,159,105	1,098,665	1,087,202
Biological sciences	1,787,615	1,619,914	1,471,834	1,357,040	1,322,949	1,248,282	1,207,891	1,153,511
Medical sciences	3,137,173	2,911,451	2,677,686	2,364,163	2,240,446	2,099,052	1,951,448	1,848,545
Other, n.e.c.	230,156	240,878	228,618	209,260	200,677	186,755	175,293	172,419
Psychology	149,658	137,454	117,422	116,846	116,276	113,453	111,659	110,783
Social sciences	770,939	687,949	694,067	657,457	616,176	582,645	544,168	522,586
Economics	177,822	167,522	167,764	178,893	168,330	164,880	152,204	153,703
Political science	145,144	120,480	121,308	115,450	111,479	109,053	106,351	106,267
Sociology	144,103	129,538	132,571	107,645	106,923	96,389	89,090	79,333
Other, n.e.c.	303,870	270,409	272,424	255,469	229,444	212,323	196,523	183,283
Other sciences, n.e.c.	287,100	270,056	295,918	238,829	227,679	238,988	232,398	209,864

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-9. R&D expenditures at public universities and colleges, by source of funds and science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	18,628,230	17,468,331	16,399,394	15,582,736	14,947,272	14,110,196	13,375,876	12,548,018
Source of funds								
Federal Government	9,667,129	9,057,298	8,561,044	8,463,245	8,098,486	7,634,771	7,171,445	6,600,113
State and local government	1,851,683	1,774,918	1,738,639	1,649,160	1,511,640	1,404,113	1,416,208	1,352,653
Industry	1,356,583	1,285,487	1,168,975	1,076,349	1,003,127	946,524	894,508	842,888
Institutional funds	4,528,550	4,214,332	3,883,157	3,417,796	3,386,387	3,190,014	2,981,649	2,907,778
All other sources	1,224,285	1,136,296	1,047,579	976,186	947,632	934,774	912,066	844,586
Field								
Engineering	3,043,028	2,866,102	2,695,189	2,587,821	2,441,009	2,287,343	2,112,631	2,034,738
Aeronautical and astronautical	188,500	155,002	154,892	138,676	143,370	124,175	125,689	119,798
Bioengineering/bio- medical	79,384	62,102	52,227	--	--	--	--	--
Chemical	255,290	245,187	237,029	226,815	205,705	190,382	185,635	173,131
Civil	446,567	425,808	399,338	381,669	361,512	334,375	304,291	274,138
Electrical	716,246	714,076	634,980	584,754	539,484	466,142	418,862	425,081
Mechanical	415,149	367,972	331,731	349,325	346,138	304,812	293,262	276,392
Metallurgical and materials	277,861	281,711	289,402	259,644	253,112	238,697	220,548	210,856
Other, n.e.c.	664,031	614,244	595,590	646,938	591,688	628,760	564,344	555,342
All sciences	15,585,202	14,602,229	13,704,205	12,994,915	12,506,263	11,822,853	11,263,245	10,513,280
Physical sciences	1,674,609	1,585,576	1,494,014	1,445,077	1,465,565	1,412,527	1,379,599	1,289,425
Astronomy	235,703	206,471	187,864	186,867	213,597	185,180	174,596	154,264
Chemistry	621,796	587,492	557,103	541,307	521,436	513,373	499,137	466,477
Physics	749,425	647,256	621,239	592,000	595,391	575,490	572,420	560,007
Other, n.e.c.	67,685	144,357	127,808	124,903	135,141	138,484	133,446	108,677
Environmental sciences	1,355,906	1,282,834	1,215,741	1,192,673	1,134,640	1,099,495	1,032,799	965,741
Atmospheric	236,474	228,093	204,303	192,857	175,930	164,871	175,403	161,279
Earth sciences	420,231	379,854	333,777	330,513	342,977	344,093	314,765	309,419
Oceanography	510,526	490,118	487,285	483,712	423,185	401,603	373,065	345,025
Other, n.e.c.	188,675	184,769	190,376	185,591	192,548	188,928	169,566	150,018
Mathematical sciences	194,654	195,993	178,070	174,239	168,277	167,580	157,721	145,439
Computer sciences	488,228	398,483	349,357	336,107	340,379	324,748	294,240	283,853
Life sciences	10,233,326	9,631,238	8,982,005	8,431,039	8,069,052	7,586,727	7,229,643	6,769,818
Agricultural sciences	1,975,181	1,930,454	1,905,549	1,858,052	1,759,082	1,607,108	1,510,657	1,466,305
Biological sciences	3,174,793	2,884,036	2,620,395	2,458,089	2,410,169	2,339,003	2,238,988	2,068,593
Medical sciences	4,758,377	4,489,112	4,137,964	3,815,961	3,638,982	3,384,190	3,229,262	2,981,339
Other, n.e.c.	324,975	327,636	318,097	298,937	260,819	256,426	250,736	253,581
Psychology	345,138	334,247	298,459	280,534	268,731	254,213	242,902	226,748
Social sciences	982,355	872,257	847,577	839,536	763,411	705,894	663,755	595,492
Economics	221,153	207,977	205,546	225,565	207,390	198,180	187,140	174,564
Political science	123,312	109,436	110,862	113,284	108,146	96,686	87,963	80,652
Sociology	201,063	193,879	194,273	175,442	165,515	144,486	134,868	116,480
Other, n.e.c.	436,827	360,965	336,896	325,245	282,360	266,542	253,784	223,796
Other sciences, n.e.c.	310,986	301,601	338,982	295,710	296,208	271,669	262,586	236,764

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-10. Federally financed R&D expenditures at public universities and colleges, by science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Field	1999	1998	1997	1996	1995	1994	1993	1992
Total	9,667,129	9,057,298	8,561,044	8,463,245	8,098,486	7,634,771	7,171,445	6,600,113
Engineering	1,513,583	1,441,099	1,375,171	1,384,333	1,276,867	1,179,171	1,071,745	1,009,643
Aeronautical and astronautical	121,172	96,696	101,153	91,685	98,254	86,549	89,160	85,594
Bioengineering/bio- medical	29,489	26,487	29,111	--	--	--	--	--
Chemical	119,128	116,966	113,649	115,492	100,717	94,064	89,204	76,373
Civil	166,792	156,413	155,015	151,054	141,492	119,432	111,641	103,030
Electrical	417,366	433,068	380,327	362,282	322,068	270,740	240,680	243,307
Mechanical	222,666	192,150	178,540	205,358	199,220	171,191	160,935	141,411
Metallurgical and materials	140,088	146,216	148,398	126,253	123,473	110,252	99,688	90,226
Other, n.e.c.	296,882	273,103	268,978	332,209	291,643	326,943	280,437	269,702
All sciences	8,153,546	7,616,199	7,185,873	7,078,912	6,821,619	6,455,600	6,099,700	5,590,470
Physical sciences	1,054,244	1,002,893	943,027	946,072	966,373	921,268	892,542	841,321
Astronomy	133,551	110,041	98,439	108,318	133,460	113,935	99,237	90,094
Chemistry	381,653	361,326	349,679	351,279	341,143	328,368	319,811	299,604
Physics	506,630	429,413	413,909	404,504	406,484	391,157	390,062	388,847
Other, n.e.c.	32,410	102,113	81,000	81,971	85,286	87,808	83,432	62,776
Environmental sciences	822,782	787,053	751,162	763,367	716,885	691,436	630,137	562,523
Atmospheric	175,668	172,036	155,518	147,628	134,027	126,017	128,317	110,496
Earth sciences	220,786	199,910	171,461	173,759	182,342	182,023	160,455	154,214
Oceanography	322,929	313,748	313,339	330,690	289,000	275,333	252,144	232,559
Other, n.e.c.	103,399	101,359	110,844	111,290	111,516	108,063	89,221	65,254
Mathematical sciences	109,053	115,713	107,010	107,736	106,859	104,606	101,074	92,486
Computer sciences	284,814	230,318	209,334	209,521	207,642	193,350	167,536	160,738
Life sciences	5,206,304	4,860,198	4,561,727	4,440,618	4,239,781	4,018,211	3,810,689	3,511,245
Agricultural sciences	528,289	508,146	521,797	542,485	511,644	473,519	433,354	403,738
Biological sciences	1,835,692	1,666,839	1,530,452	1,460,340	1,423,309	1,399,712	1,326,781	1,214,612
Medical sciences	2,684,800	2,536,015	2,345,929	2,279,683	2,175,790	2,015,794	1,925,402	1,765,440
Other, n.e.c.	157,523	149,198	163,549	158,110	129,038	129,186	125,152	127,455
Psychology	220,337	216,873	198,518	188,039	176,818	166,280	158,308	144,854
Social sciences	355,780	310,351	292,100	307,014	273,665	252,366	243,621	199,700
Economics	68,317	65,782	64,854	72,657	65,373	64,104	66,231	55,718
Political science	29,300	28,444	27,413	31,904	29,587	23,973	22,126	17,970
Sociology	81,709	85,312	85,789	86,068	75,683	66,173	64,237	54,785
Other, n.e.c.	176,454	130,813	114,044	116,385	103,022	98,116	91,027	71,227
Other sciences, n.e.c.	100,232	92,800	122,995	116,545	133,596	108,083	95,793	77,603

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-11. Non-Federal R&D expenditures at public universities and colleges,
by source of funds and science and engineering field: fiscal years 1992-1999**

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	8,961,101	8,411,033	7,838,350	7,119,491	6,848,786	6,475,425	6,204,431	5,947,905
Source of funds								
State and local government	1,851,683	1,774,918	1,738,639	1,649,160	1,511,640	1,404,113	1,416,208	1,352,653
Industry	1,356,583	1,285,487	1,168,975	1,076,349	1,003,127	946,524	894,508	842,888
Institutional funds	4,528,550	4,214,332	3,883,157	3,417,796	3,386,387	3,190,014	2,981,649	2,907,778
All other sources	1,224,285	1,136,296	1,047,579	976,186	947,632	934,774	912,066	844,586
Field								
Engineering	1,529,445	1,425,003	1,320,018	1,203,488	1,164,142	1,108,172	1,040,886	1,025,095
Aeronautical and aeronautical	67,328	58,306	53,739	46,991	45,116	37,626	36,529	34,204
Bioengineering/bio- medical	49,895	35,615	23,116	--	--	--	--	--
Chemical	136,162	128,221	123,380	111,323	104,988	96,318	96,431	96,758
Civil	279,775	269,395	244,323	230,615	220,020	214,943	192,650	171,108
Electrical	298,880	281,008	254,653	222,472	217,416	195,402	178,182	181,774
Mechanical	192,483	175,822	153,191	143,967	146,918	133,621	132,327	134,981
Metallurgical and materials	137,773	135,495	141,004	133,391	129,639	128,445	120,860	120,630
Other, n.e.c.	367,149	341,141	326,612	314,729	300,045	301,817	283,907	285,640
All sciences	7,431,656	6,986,030	6,518,332	5,916,003	5,684,644	5,367,253	5,163,545	4,922,810
Physical sciences	620,365	582,683	550,987	499,005	499,192	491,259	487,057	448,104
Astronomy	102,152	96,430	89,425	78,549	80,137	71,245	75,359	64,170
Chemistry	240,143	226,166	207,424	190,028	180,293	185,005	179,326	166,873
Physics	242,795	217,843	207,330	187,496	188,907	184,333	182,358	171,160
Other, n.e.c.	35,275	42,244	46,808	42,932	49,855	50,676	50,014	45,901
Environmental sciences	533,124	495,781	464,579	429,306	417,755	408,059	402,662	403,218
Atmospheric	60,806	56,057	48,785	45,229	41,903	38,854	47,086	50,783
Earth sciences	199,445	179,944	162,316	156,754	160,635	162,070	154,310	155,205
Oceanography	187,597	176,370	173,946	153,022	134,185	126,270	120,921	112,466
Other, n.e.c.	85,276	83,410	79,532	74,301	81,032	80,865	80,345	84,764
Mathematical sciences	85,601	80,280	71,060	66,503	61,418	62,974	56,647	52,953
Computer sciences	203,414	168,165	140,023	126,586	132,737	131,398	126,704	123,115
Life sciences	5,027,022	4,771,040	4,420,278	3,990,421	3,829,271	3,568,516	3,418,954	3,258,573
Agricultural sciences	1,446,892	1,422,308	1,383,752	1,315,567	1,247,438	1,133,589	1,077,303	1,062,567
Biological sciences	1,339,101	1,217,197	1,089,943	997,749	986,860	939,291	912,207	853,981
Medical sciences	2,073,577	1,953,097	1,792,035	1,536,278	1,463,192	1,368,396	1,303,860	1,215,899
Other, n.e.c.	167,452	178,438	154,548	140,827	131,781	127,240	125,584	126,126
Psychology	124,801	117,374	99,941	92,495	91,913	87,933	84,594	81,894
Social sciences	626,575	561,906	555,477	532,522	489,746	453,528	420,134	395,792
Economics	152,836	142,195	140,692	152,908	142,017	134,076	120,909	118,846
Political science	94,012	80,992	83,449	81,380	78,559	72,713	65,837	62,682
Sociology	119,354	108,567	108,484	89,374	89,832	78,313	70,631	61,695
Other, n.e.c.	260,373	230,152	222,852	208,860	179,338	168,426	162,757	152,569
Other sciences, n.e.c.	210,754	208,801	215,987	179,165	162,612	163,586	166,793	159,161

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-12. R&D expenditures at private universities and colleges, by source of funds and science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	8,860,831	8,368,868	7,938,859	7,452,529	7,214,179	6,909,416	6,574,687	6,269,809
	Source of funds							
Federal Government	6,379,668	6,073,207	5,739,187	5,370,238	5,227,474	5,009,602	4,784,845	4,492,299
State and local government	176,719	170,611	167,447	161,123	176,894	149,328	142,478	137,856
Industry	691,139	608,038	560,457	528,441	485,350	475,277	465,849	436,064
Institutional funds	837,646	785,770	808,321	750,832	659,456	636,062	607,410	639,642
All other sources	775,659	731,242	663,447	641,895	665,005	639,147	574,105	563,948
	Field							
Engineering	1,214,093	1,202,611	1,152,125	1,119,127	1,073,928	1,067,528	1,043,106	1,027,720
Aeronautical and astronautical	71,843	94,682	92,455	94,266	97,699	93,201	86,912	76,786
Bioengineering/bio-medical	57,652	39,855	24,564	--	--	--	--	--
Chemical	94,379	81,887	79,638	90,371	91,355	88,305	87,997	87,809
Civil	82,263	69,015	72,328	72,960	69,269	68,462	67,126	65,411
Electrical	303,413	328,151	315,854	302,901	279,063	278,620	279,267	278,576
Mechanical	210,295	199,757	185,420	169,760	174,486	197,410	189,612	174,183
Metallurgical and materials	106,935	109,677	99,419	89,757	76,752	71,367	78,375	83,090
Other, n.e.c.	287,313	279,587	282,447	299,112	285,304	270,163	253,817	261,865
All sciences	7,646,738	7,166,257	6,786,734	6,333,402	6,140,251	5,841,888	5,531,581	5,242,089
Physical sciences	925,077	897,243	867,537	810,652	788,614	763,356	750,802	765,738
Astronomy	153,603	95,837	99,472	88,887	89,975	82,003	83,924	83,788
Chemistry	293,279	290,009	262,266	259,499	249,111	245,588	241,180	238,102
Physics	392,897	430,037	429,363	394,569	393,216	380,920	368,075	361,173
Other, n.e.c.	85,298	81,360	76,436	67,697	56,312	54,845	57,623	82,675
Environmental sciences	333,688	340,314	307,116	295,205	298,151	296,369	286,092	276,191
Atmospheric	51,525	41,074	32,455	31,602	32,154	38,334	35,000	32,896
Earth sciences	123,705	132,609	114,863	114,666	113,075	110,594	101,826	103,599
Oceanography	91,304	55,448	49,328	49,674	50,147	53,548	85,021	82,451
Other, n.e.c.	67,154	111,183	110,470	99,263	102,775	93,893	64,245	57,245
Mathematical sciences	118,073	114,151	111,191	113,849	110,238	114,070	114,527	102,278
Computer sciences	371,749	347,566	359,618	353,636	341,643	321,166	313,439	271,514
Life sciences	5,357,930	4,951,960	4,604,292	4,280,867	4,115,622	3,878,455	3,621,679	3,426,449
Agricultural sciences	56,186	65,030	60,454	52,012	55,164	54,227	47,454	45,338
Biological sciences	1,837,719	1,689,124	1,558,306	1,450,005	1,422,528	1,369,048	1,297,460	1,235,481
Medical sciences	3,232,488	2,976,768	2,769,723	2,574,774	2,430,995	2,254,346	2,094,506	1,982,407
Other, n.e.c.	231,537	221,038	215,809	204,076	206,935	200,834	182,259	163,223
Psychology	119,720	111,100	97,482	100,826	101,629	103,935	106,807	101,755
Social sciences	279,647	257,862	271,103	256,390	254,974	247,509	232,532	219,791
Economics	48,854	52,952	53,891	45,774	42,870	44,820	44,107	46,989
Political science	77,861	66,054	64,578	66,463	64,852	63,836	63,122	61,444
Sociology	68,795	58,018	60,322	54,626	49,157	51,096	48,486	46,807
Other, n.e.c.	84,137	80,838	92,312	89,527	98,095	87,757	76,817	64,551
Other sciences, n.e.c.	140,854	146,061	168,395	121,977	129,380	117,028	105,703	78,373

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-13. Federally financed R&D expenditures at private universities and colleges,
by science and engineering field: fiscal years 1992-1999**

[Dollars in thousands]

Field	1999	1998	1997	1996	1995	1994	1993	1992
Total	6,379,668	6,073,207	5,739,187	5,370,238	5,227,474	5,009,602	4,784,845	4,492,299
Engineering	924,690	912,539	883,586	847,841	824,776	814,180	786,229	742,993
Aeronautical and astronautical	61,754	73,993	82,486	79,479	85,399	78,836	70,679	65,265
Bioengineering/bio- medical	42,829	30,148	18,406	--	--	--	--	--
Chemical	60,293	52,306	52,205	58,276	60,399	56,431	53,611	49,852
Civil	49,415	40,660	45,183	46,679	44,399	44,307	42,684	40,593
Electrical	234,239	259,469	247,180	237,521	221,575	219,367	217,738	206,152
Mechanical	165,118	158,575	143,506	129,545	140,400	156,569	149,072	127,459
Metallurgical and materials	77,862	75,468	74,054	64,199	52,032	45,311	50,750	53,033
Other, n.e.c.	233,180	221,920	220,566	232,142	220,572	213,359	201,695	200,639
All sciences	5,454,978	5,160,668	4,855,601	4,522,397	4,402,698	4,195,422	3,998,616	3,749,306
Physical sciences	805,273	758,716	736,307	683,051	670,308	641,132	620,177	634,281
Astronomy	143,671	77,818	84,471	73,978	73,465	66,994	65,794	68,256
Chemistry	233,812	226,223	201,381	201,846	191,620	189,112	185,446	180,064
Physics	355,467	388,109	386,402	352,438	354,977	335,963	318,105	319,183
Other, n.e.c.	72,323	66,566	64,053	54,789	50,246	49,063	50,832	66,778
Environmental sciences	277,899	288,359	258,905	242,153	244,085	251,911	240,145	229,176
Atmospheric	46,818	37,501	29,775	28,320	29,622	35,298	32,316	29,577
Earth sciences	99,455	111,296	96,660	93,277	90,573	88,588	83,074	84,187
Oceanography	80,736	48,370	42,089	40,662	42,478	47,760	77,468	74,024
Other, n.e.c.	50,890	91,192	90,381	79,894	81,412	80,265	47,287	41,388
Mathematical sciences	100,094	98,335	94,939	100,218	97,825	100,493	102,048	90,776
Computer sciences	297,428	282,773	296,451	291,908	275,649	268,380	255,783	219,060
Life sciences	3,713,916	3,456,017	3,198,501	2,962,188	2,871,639	2,717,732	2,576,352	2,400,049
Agricultural sciences	17,274	25,216	26,494	17,086	19,793	19,612	16,676	14,049
Biological sciences	1,367,635	1,261,308	1,151,110	1,067,169	1,064,677	1,036,670	984,068	922,902
Medical sciences	2,163,297	2,012,839	1,880,964	1,744,174	1,651,112	1,521,619	1,444,099	1,347,926
Other, n.e.c.	165,710	156,654	139,933	133,759	136,057	139,831	131,509	115,172
Psychology	89,782	82,701	72,752	70,283	71,900	74,201	76,081	70,051
Social sciences	116,540	114,679	114,346	115,684	114,008	105,897	94,700	81,553
Economics	21,634	26,440	24,930	17,988	14,647	12,167	11,073	10,229
Political science	24,463	24,668	24,353	30,343	30,061	25,871	20,702	17,076
Sociology	37,695	33,304	32,726	32,664	28,563	29,914	26,871	26,951
Other, n.e.c.	32,748	30,267	32,337	34,689	40,737	37,945	36,054	27,297
Other sciences, n.e.c.	54,046	79,088	83,400	56,912	57,284	35,676	33,330	24,360

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-14. Non-Federal R&D expenditures at private universities and colleges,
by source of funds and science and engineering field: fiscal years 1992-1999**

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	2,481,163	2,295,661	2,199,672	2,082,291	1,986,705	1,899,814	1,789,842	1,777,510
Source of funds								
State and local government	176,719	170,611	167,447	161,123	176,894	149,328	142,478	137,856
Industry	691,139	608,038	560,457	528,441	485,350	475,277	465,849	436,064
Institutional funds	837,646	785,770	808,321	750,832	659,456	636,062	607,410	639,642
All other sources	775,659	731,242	663,447	641,895	665,005	639,147	574,105	563,948
Field								
Engineering	289,403	290,072	268,539	271,286	249,152	253,348	256,877	284,727
Aeronautical and astronautical	10,089	20,689	9,969	14,787	12,300	14,365	16,233	11,521
Bioengineering/bio- medical	14,823	9,707	6,158	--	--	--	--	--
Chemical	34,086	29,581	27,433	32,095	30,956	31,874	34,386	37,957
Civil	32,848	28,355	27,145	26,281	24,870	24,155	24,442	24,818
Electrical	69,174	68,682	68,674	65,380	57,488	59,253	61,529	72,424
Mechanical	45,177	41,182	41,914	40,215	34,086	40,841	40,540	46,724
Metallurgical and materials	29,073	34,209	25,365	25,558	24,720	26,056	27,625	30,057
Other, n.e.c.	54,133	57,667	61,881	66,970	64,732	56,804	52,122	61,226
All sciences	2,191,760	2,005,589	1,931,133	1,811,005	1,737,553	1,646,466	1,532,965	1,492,783
Physical sciences	119,804	138,527	131,230	127,601	118,306	122,224	130,625	131,457
Astronomy	9,932	18,019	15,001	14,909	16,510	15,009	18,130	15,532
Chemistry	59,467	63,786	60,885	57,653	57,491	56,476	55,734	58,038
Physics	37,430	41,928	42,961	42,131	38,239	44,957	49,970	41,990
Other, n.e.c.	12,975	14,794	12,383	12,908	6,066	5,782	6,791	15,897
Environmental sciences	55,789	51,955	48,211	53,052	54,066	44,458	45,947	47,015
Atmospheric	4,707	3,573	2,680	3,282	2,532	3,036	2,684	3,319
Earth sciences	24,250	21,313	18,203	21,389	22,502	22,006	18,752	19,412
Oceanography	10,568	7,078	7,239	9,012	7,669	5,788	7,553	8,427
Other, n.e.c.	16,264	19,991	20,089	19,369	21,363	13,628	16,958	15,857
Mathematical sciences	17,979	15,816	16,252	13,631	12,413	13,577	12,479	11,502
Computer sciences	74,321	64,793	63,167	61,728	65,994	52,786	57,656	52,454
Life sciences	1,644,014	1,495,943	1,405,791	1,318,679	1,243,983	1,160,723	1,045,327	1,026,400
Agricultural sciences	38,912	39,814	33,960	34,926	35,371	34,615	30,778	31,289
Biological sciences	470,084	427,816	407,196	382,836	357,851	332,378	313,392	312,579
Medical sciences	1,069,191	963,929	888,759	830,600	779,883	732,727	650,407	634,481
Other, n.e.c.	65,827	64,384	75,876	70,317	70,878	61,003	50,750	48,051
Psychology	29,938	28,399	24,730	30,543	29,729	29,734	30,726	31,704
Social sciences	163,107	143,183	156,757	140,706	140,966	141,612	137,832	138,238
Economics	27,220	26,512	28,961	27,786	28,223	32,653	33,034	36,760
Political science	53,398	41,386	40,225	36,120	34,791	37,965	42,420	44,388
Sociology	31,100	24,714	27,596	21,962	20,594	21,182	21,615	19,856
Other, n.e.c.	51,389	50,571	59,975	54,838	57,358	49,812	40,763	37,254
Other sciences, n.e.c.	86,808	66,973	84,995	65,065	72,096	81,352	72,373	54,013

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-15. R&D expenditures at doctorate-granting institutions, by source of funds, science and engineering field, and control: fiscal years 1992, 1998, and 1999

[Dollars in thousands]

Source and field	Total			Public			Private		
	1999	1998	1992	1999	1998	1992	1999	1998	1992
Total	27,038,008	25,377,606	18,556,176	18,288,878	17,138,719	12,346,003	8,749,130	8,238,887	6,210,173
	Source of funds								
Federal Government	15,782,855	14,848,364	10,927,489	9,468,701	8,857,529	6,473,536	6,314,154	5,990,835	4,453,953
State and local government	1,958,050	1,894,626	1,465,931	1,782,719	1,725,454	1,329,298	175,331	169,172	136,633
Industry	2,016,039	1,861,995	1,255,422	1,333,987	1,263,897	826,236	682,052	598,098	429,186
Institutional funds	5,316,785	4,946,237	3,513,953	4,494,242	4,174,972	2,881,574	822,543	771,265	632,379
All other sources	1,964,279	1,826,384	1,393,381	1,209,229	1,116,867	835,359	755,050	709,517	558,022
	Field								
Engineering	4,186,328	3,995,246	3,020,633	2,986,141	2,813,832	2,000,002	1,200,187	1,181,414	1,020,631
Aeronautical and astronomical	250,497	245,565	192,732	179,021	151,130	115,986	71,476	94,435	76,746
Bioengineering/bio-medical	135,150	101,655	--	78,792	61,991	--	56,358	39,664	--
Chemical	347,979	324,012	259,388	254,162	243,800	171,854	93,817	80,212	87,534
Civil	520,697	481,639	332,973	439,234	413,199	268,289	81,463	68,440	64,684
Electrical	1,007,553	1,027,680	694,490	705,489	702,419	417,434	302,064	325,261	277,056
Mechanical	609,084	543,627	441,888	404,305	356,750	270,111	204,779	186,877	171,777
Metallurgical and materials	382,544	389,291	292,721	275,770	280,210	209,922	106,774	109,081	82,799
Other, n.e.c.	932,824	881,777	806,441	649,368	604,333	546,406	283,456	277,444	260,035
All sciences	22,851,680	21,382,360	15,535,543	15,302,737	14,324,887	10,346,001	7,548,943	7,057,473	5,189,542
Physical sciences	2,522,110	2,393,575	2,004,535	1,627,252	1,526,733	1,254,461	894,858	866,842	750,074
Astronomy	387,159	300,121	236,964	234,716	205,273	153,835	152,443	94,848	83,129
Chemistry	870,730	831,844	676,593	597,451	560,277	447,503	273,279	271,567	229,090
Physics	1,114,366	1,038,106	900,809	730,159	618,016	545,560	384,207	420,090	355,249
Other, n.e.c.	149,855	223,504	190,169	64,926	143,167	107,563	84,929	80,337	82,606
Environmental sciences ..	1,637,606	1,576,907	1,214,266	1,308,072	1,240,043	941,330	329,534	336,864	272,936
Atmospheric	284,673	265,284	191,081	234,401	225,701	159,638	50,272	39,583	31,443
Earth sciences	521,381	491,515	404,038	399,776	360,470	301,594	121,605	131,045	102,444
Oceanography	580,984	528,958	420,546	490,037	473,635	338,157	90,947	55,323	82,389
Other, n.e.c.	250,568	291,150	198,601	183,858	180,237	141,941	66,710	110,913	56,660
Mathematical sciences	300,676	298,538	239,098	188,100	188,821	139,112	112,576	109,717	99,986
Computer sciences	830,442	726,518	544,348	460,722	381,988	274,443	369,720	344,530	269,905
Life sciences	15,448,596	14,425,939	10,112,601	10,126,387	9,527,443	6,707,010	5,322,209	4,898,496	3,405,591
Agricultural sciences	1,971,323	1,932,265	1,479,300	1,920,529	1,884,967	1,435,914	50,794	47,298	43,386
Biological sciences	4,949,533	4,500,123	3,262,145	3,131,948	2,835,700	2,042,650	1,817,585	1,664,423	1,219,495
Medical sciences	7,977,602	7,450,251	4,958,402	4,753,016	4,483,468	2,977,659	3,224,586	2,966,783	1,980,743
Other, n.e.c.	550,138	543,300	412,754	320,894	323,308	250,787	229,244	219,992	161,967
Psychology	450,241	427,510	317,095	335,379	319,745	218,977	114,862	107,765	98,118
Social sciences	1,229,637	1,099,112	795,202	961,542	849,356	578,664	268,095	249,756	216,538
Economics	266,022	257,934	216,311	218,017	205,375	169,814	48,005	52,559	46,497
Political science	198,011	172,604	140,787	121,949	108,039	79,851	76,062	64,565	60,936
Sociology	258,304	242,983	158,084	194,562	188,346	112,877	63,742	54,637	45,207
Other, n.e.c.	507,300	425,591	280,020	427,014	347,596	216,122	80,286	77,995	63,898
Other sciences, n.e.c.	432,372	434,261	308,398	295,283	290,758	232,004	137,089	143,503	76,394

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-16. Federally financed R&D expenditures at doctorate-granting institutions, by science and engineering field, and control: fiscal years 1992, 1998, and 1999

[Dollars in thousands]

Field	Total			Public			Private		
	1999	1998	1992	1999	1998	1992	1999	1998	1992
Total	15,782,855	14,848,364	10,927,489	9,468,701	8,857,529	6,473,536	6,314,154	5,990,835	4,453,953
Engineering	2,399,183	2,308,440	1,732,032	1,479,225	1,406,192	991,425	919,958	902,248	740,607
Aeronautical and astronautical	173,397	167,026	147,165	111,953	93,177	81,931	61,444	73,849	65,234
Bioengineering/bio- medical	71,963	56,369	--	29,432	26,411	--	42,531	29,958	--
Chemical	178,543	167,181	125,349	118,493	116,038	75,599	60,050	51,143	49,750
Civil	214,139	190,484	141,264	164,952	149,950	101,052	49,187	40,534	40,212
Electrical	642,880	682,480	444,076	409,597	423,844	238,135	233,283	258,636	205,941
Mechanical	379,165	335,381	264,024	215,796	183,861	137,289	163,369	151,520	126,735
Metallurgical and materials	216,211	220,308	142,530	138,505	144,965	89,696	77,706	75,343	52,834
Other, n.e.c.	522,885	499,211	467,624	290,497	267,946	267,723	232,388	221,265	199,901
All sciences	13,383,672	12,539,924	9,195,457	7,989,476	7,451,337	5,482,111	5,394,196	5,088,587	3,713,346
Physical sciences	1,806,016	1,702,655	1,439,966	1,022,151	965,626	815,430	783,865	737,029	624,536
Astronomy	275,839	186,397	157,650	132,724	109,098	89,833	143,115	77,299	67,817
Chemistry	584,721	555,432	459,347	365,148	341,733	284,157	219,573	213,699	175,190
Physics	842,258	793,442	694,206	493,266	413,440	379,453	348,992	380,002	314,753
Other, n.e.c.	103,198	167,384	128,763	31,013	101,355	61,987	72,185	66,029	66,776
Environmental sciences	1,075,035	1,051,424	776,863	799,802	765,706	549,980	275,233	285,718	226,883
Atmospheric	219,782	206,310	137,641	174,167	170,274	109,516	45,615	36,036	28,125
Earth sciences	309,176	301,169	234,186	211,031	190,776	150,410	98,145	110,393	83,776
Oceanography	394,021	353,823	302,768	313,373	305,522	228,769	80,648	48,301	73,999
Other, n.e.c.	152,056	190,122	102,268	101,231	99,134	61,285	50,825	90,988	40,983
Mathematical sciences	201,430	207,050	177,991	105,261	111,557	88,656	96,169	95,493	89,335
Computer sciences	563,109	500,128	372,251	267,057	219,400	154,120	296,052	280,728	218,131
Life sciences	8,833,529	8,213,243	5,850,924	5,141,485	4,791,977	3,467,199	3,692,044	3,421,266	2,383,725
Agricultural sciences	511,200	491,812	392,098	497,366	478,865	379,965	13,834	12,947	12,133
Biological sciences	3,161,918	2,880,209	2,108,634	1,806,453	1,633,723	1,197,803	1,355,465	1,246,486	910,831
Medical sciences	4,840,429	4,538,800	3,109,857	2,681,558	2,532,844	1,763,368	2,158,871	2,005,956	1,346,489
Other, n.e.c.	319,982	302,422	240,335	156,108	146,545	126,063	163,874	155,877	114,272
Psychology	300,583	290,056	206,312	214,202	210,139	139,076	86,381	79,917	67,236
Social sciences	458,698	411,163	272,616	346,981	300,792	192,725	111,717	110,371	79,891
Economics	88,200	90,412	62,608	66,829	64,024	52,472	21,371	26,388	10,136
Political science	52,867	52,124	34,520	28,540	27,764	17,645	24,327	24,360	16,875
Sociology	114,201	113,445	78,751	78,705	82,283	52,961	35,496	31,162	25,790
Other, n.e.c.	203,430	155,182	96,737	172,907	126,721	69,647	30,523	28,461	27,090
Other sciences, n.e.c.	145,272	164,205	98,534	92,537	86,140	74,925	52,735	78,065	23,609

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-17. Non-Federal R&D expenditures at doctorate-granting institutions, by source of funds, science and engineering field, and control: fiscal years 1992, 1998, and 1999

[Dollars in thousands]

Source and field	Total			Public			Private		
	1999	1998	1992	1999	1998	1992	1999	1998	1992
Total	11,255,153	10,529,242	7,628,687	8,820,177	8,281,190	5,872,467	2,434,976	2,248,052	1,756,220
	Source of funds								
State and local government	1,958,050	1,894,626	1,465,931	1,782,719	1,725,454	1,329,298	175,331	169,172	136,633
Industry	2,016,039	1,861,995	1,255,422	1,333,987	1,263,897	826,236	682,052	598,098	429,186
Institutional funds	5,316,785	4,946,237	3,513,953	4,494,242	4,174,972	2,881,574	822,543	771,265	632,379
All other sources	1,964,279	1,826,384	1,393,381	1,209,229	1,116,867	835,359	755,050	709,517	558,022
	Field								
Engineering	1,787,145	1,686,806	1,288,601	1,506,916	1,407,640	1,008,577	280,229	279,166	280,024
Aeronautical and astronautical	77,100	78,539	45,567	67,068	57,953	34,055	10,032	20,586	11,512
Bioengineering/bio- medical	63,187	45,286	--	49,360	35,580	--	13,827	9,706	--
Chemical	169,436	156,831	134,039	135,669	127,762	96,255	33,767	29,069	37,784
Civil	306,558	291,155	191,709	274,282	263,249	167,237	32,276	27,906	24,472
Electrical	364,673	345,200	250,414	295,892	278,575	179,299	68,781	66,625	71,115
Mechanical	229,919	208,246	177,864	188,509	172,889	132,822	41,410	35,357	45,042
Metallurgical and materials	166,333	168,983	150,191	137,265	135,245	120,226	29,068	33,738	29,965
Other, n.e.c.	409,939	392,566	338,817	358,871	336,387	278,683	51,068	56,179	60,134
All sciences	9,468,008	8,842,436	6,340,086	7,313,261	6,873,550	4,863,890	2,154,747	1,968,886	1,476,196
Physical sciences	716,094	690,920	564,569	605,101	561,107	439,031	110,993	129,813	125,538
Astronomy	111,320	113,724	79,314	101,992	96,175	64,002	9,328	17,549	15,312
Chemistry	286,009	276,412	217,246	232,303	218,544	163,346	53,706	57,868	53,900
Physics	272,108	244,664	206,603	236,893	204,576	166,107	35,215	40,088	40,496
Other, n.e.c.	46,657	56,120	61,406	33,913	41,812	45,576	12,744	14,308	15,830
Environmental sciences	562,571	525,483	437,403	508,270	474,337	391,350	54,301	51,146	46,053
Atmospheric	64,891	58,974	53,440	60,234	55,427	50,122	4,657	3,547	3,318
Earth sciences	212,205	190,346	169,852	188,745	169,694	151,184	23,460	20,652	18,668
Oceanography	186,963	175,135	117,778	176,664	168,113	109,388	10,299	7,022	8,390
Other, n.e.c.	98,512	101,028	96,333	82,627	81,103	80,656	15,885	19,925	15,677
Mathematical sciences	99,246	91,488	61,107	82,839	77,264	50,456	16,407	14,224	10,651
Computer sciences	267,333	226,390	172,097	193,665	162,588	120,323	73,668	63,802	51,774
Life sciences	6,615,067	6,212,696	4,261,677	4,984,902	4,735,466	3,239,811	1,630,165	1,477,230	1,021,866
Agricultural sciences	1,460,123	1,440,453	1,087,202	1,423,163	1,406,102	1,055,949	36,960	34,351	31,253
Biological sciences	1,787,615	1,619,914	1,153,511	1,325,495	1,201,977	844,847	462,120	417,937	308,664
Medical sciences	3,137,173	2,911,451	1,848,545	2,071,458	1,950,624	1,214,291	1,065,715	960,827	634,254
Other, n.e.c.	230,156	240,878	172,419	164,786	176,763	124,724	65,370	64,115	47,695
Psychology	149,658	137,454	110,783	121,177	109,606	79,901	28,481	27,848	30,882
Social sciences	770,939	687,949	522,586	614,561	548,564	385,939	156,378	139,385	136,647
Economics	177,822	167,522	153,703	151,188	141,351	117,342	26,634	26,171	36,361
Political science	145,144	120,480	106,267	93,409	80,275	62,206	51,735	40,205	44,061
Sociology	144,103	129,538	79,333	115,857	106,063	59,916	28,246	23,475	19,417
Other, n.e.c.	303,870	270,409	183,283	254,107	220,875	146,475	49,763	49,534	36,808
Other sciences, n.e.c.	287,100	270,056	209,864	202,746	204,618	157,079	84,354	65,438	52,785

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-18. R&D expenditures at historically black colleges and universities,
by source of funds and science and engineering field:
fiscal years 1992-1999**

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	254,697	293,024	290,369	263,508	241,434	211,439	191,369	178,777
Source of funds								
Federal Government	216,331	248,440	254,256	222,262	199,335	174,561	157,207	146,624
State and local government	6,877	12,908	11,346	11,842	11,162	9,533	8,577	9,053
Industry	5,388	5,030	5,182	6,450	6,481	6,724	4,796	4,145
Institutional funds	14,735	10,723	13,962	19,697	21,050	17,187	17,716	14,977
All other sources	11,366	15,923	5,623	3,257	3,406	3,434	3,073	3,978
Field								
Engineering	31,905	48,164	49,739	42,823	35,433	26,906	21,149	20,733
Aeronautical and astronautical	3,923	2,673	2,514	2,544	2,240	1,553	324	423
Bioengineering/bio- medical	222	183	164	--	--	--	--	--
Chemical	2,764	4,660	5,010	2,203	2,070	1,355	1,360	1,114
Civil	4,499	3,963	5,003	4,045	3,408	2,838	2,503	2,475
Electrical	5,666	8,191	8,749	11,106	8,089	6,842	4,360	4,144
Mechanical	8,105	17,899	16,704	10,849	9,548	7,438	6,860	7,142
Metallurgical and materials	1,013	2,518	3,561	2,212	1,614	190	58	245
Other, n.e.c.	5,713	8,077	8,034	9,864	8,464	6,690	5,684	5,190
All sciences	222,792	244,860	240,630	220,685	206,001	184,533	170,220	158,044
Physical sciences	48,958	46,797	47,801	40,225	41,401	39,458	32,380	29,205
Astronomy	4,567	4,384	7,269	5,853	4,295	2,614	1,576	367
Chemistry	23,059	21,772	16,534	15,169	14,797	13,715	13,551	11,896
Physics	20,764	20,188	23,633	18,935	21,297	22,542	16,395	16,534
Other, n.e.c.	568	453	365	268	1,012	587	858	408
Environmental sciences	11,327	14,700	14,214	17,218	15,562	6,087	3,853	3,252
Atmospheric	1,871	1,810	1,129	767	743	732	1,310	667
Earth sciences	2,443	2,958	1,753	2,509	1,756	507	39	592
Oceanography	447	173	185	299	587	653	245	106
Other, n.e.c.	6,566	9,759	11,147	13,643	12,476	4,195	2,259	1,887
Mathematical sciences	5,054	5,248	6,358	6,504	5,709	3,589	5,631	4,375
Computer sciences	15,686	14,138	15,646	16,814	8,791	5,020	4,686	4,170
Life sciences	124,518	143,511	138,233	120,909	107,713	114,743	106,870	105,159
Agricultural sciences	48,706	60,086	58,412	48,015	49,035	51,099	46,235	45,225
Biological sciences	45,525	57,764	54,619	51,052	43,458	45,477	41,710	44,126
Medical sciences	25,449	21,009	21,871	18,361	13,110	15,428	16,364	12,981
Other, n.e.c.	4,838	4,652	3,331	3,481	2,110	2,739	2,561	2,827
Psychology	2,369	1,002	1,135	2,019	3,947	3,580	3,326	2,053
Social sciences	8,337	8,021	9,878	9,740	10,333	8,914	9,917	8,528
Economics	1,344	1,156	1,426	1,175	3,196	2,741	3,190	2,847
Political science	299	464	987	749	438	549	513	371
Sociology	2,877	3,033	2,964	4,691	3,593	3,162	2,581	2,469
Other, n.e.c.	3,817	3,368	4,501	3,125	3,106	2,462	3,633	2,841
Other sciences, n.e.c.	6,543	11,443	7,365	7,256	12,545	3,142	3,557	1,302

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-19. Federally financed R&D expenditures at historically black colleges and universities, by science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Field	1999	1998	1997	1996	1995	1994	1993	1992
Total	216,331	248,440	254,256	222,262	199,335	174,561	157,207	146,624
Engineering	27,644	41,139	45,068	37,300	30,955	21,746	15,901	16,034
Aeronautical and astronautical	3,619	2,370	2,433	2,128	2,069	1,420	324	423
Bioengineering/bio- medical	222	183	159	--	--	--	--	--
Chemical	2,116	3,668	4,511	1,891	1,803	1,091	1,086	852
Civil	3,619	3,139	3,781	2,507	2,582	1,941	1,340	1,314
Electrical	4,774	7,730	8,492	10,302	7,467	5,707	3,781	3,446
Mechanical	7,342	14,657	15,077	9,685	8,566	6,237	5,314	5,467
Metallurgical and materials	936	2,370	3,269	1,862	1,526	101	58	245
Other, n.e.c.	5,016	7,022	7,346	8,925	6,942	5,249	3,998	4,287
All sciences	188,687	207,301	209,188	184,962	168,380	152,815	141,306	130,590
Physical sciences	43,889	41,296	43,101	35,277	36,143	32,337	27,472	24,491
Astronomy	4,209	4,371	7,246	5,730	4,095	2,518	1,544	367
Chemistry	21,289	18,752	14,014	13,019	12,880	11,682	12,256	11,043
Physics	17,884	17,961	21,511	16,312	18,263	17,596	13,077	12,685
Other, n.e.c.	507	212	330	216	905	541	595	396
Environmental sciences	8,182	11,926	11,134	12,488	5,517	4,377	2,847	1,972
Atmospheric	1,818	1,766	825	434	348	236	832	212
Earth sciences	1,042	1,623	721	1,348	1,094	37	32	506
Oceanography	383	79	91	183	286	150	212	74
Other, n.e.c.	4,939	8,458	9,497	10,523	3,789	3,954	1,771	1,180
Mathematical sciences	2,747	2,530	4,328	4,261	4,291	2,928	3,276	2,816
Computer sciences	13,550	12,284	13,763	13,336	6,951	4,217	4,138	3,533
Life sciences	109,293	123,372	121,856	104,716	94,247	97,711	93,379	90,538
Agricultural sciences	40,446	47,640	50,303	41,803	42,445	44,511	40,019	40,212
Biological sciences	42,332	53,087	49,109	44,513	39,452	39,418	38,201	39,395
Medical sciences	22,886	18,904	20,730	16,119	11,263	12,271	13,603	10,024
Other, n.e.c.	3,629	3,741	1,714	2,281	1,087	1,511	1,556	907
Psychology	1,871	979	1,025	1,729	3,665	2,930	3,050	1,597
Social sciences	5,178	5,525	7,281	6,605	7,300	6,477	5,527	4,784
Economics	1,171	1,063	1,258	1,014	2,904	2,595	2,833	2,570
Political science	134	254	457	425	173	274	107	167
Sociology	1,490	2,006	2,177	3,587	2,588	2,110	1,627	1,478
Other, n.e.c.	2,383	2,202	3,389	1,579	1,635	1,498	960	569
Other sciences, n.e.c.	3,977	9,389	6,700	6,550	10,266	1,838	1,617	859

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-20. Non-Federal R&D expenditures at historically black colleges and universities, by source of funds and science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Source and field	1999	1998	1997	1996	1995	1994	1993	1992
Total	38,366	44,584	36,113	41,246	42,099	36,878	34,162	32,153
Source of funds								
State and local government	6,877	12,908	11,346	11,842	11,162	9,533	8,577	9,053
Industry	5,388	5,030	5,182	6,450	6,481	6,724	4,796	4,145
Institutional funds	14,735	10,723	13,962	19,697	21,050	17,187	17,716	14,977
All other sources	11,366	15,923	5,623	3,257	3,406	3,434	3,073	3,978
Field								
Engineering	4,261	7,025	4,671	5,523	4,478	5,160	5,248	4,699
Aeronautical and astronautical	304	303	81	416	171	133	0	0
Bioengineering/bio- medical	0	0	5	--	--	--	--	--
Chemical	648	992	499	312	267	264	274	262
Civil	880	824	1,222	1,538	826	897	1,163	1,161
Electrical	892	461	257	804	622	1,135	579	698
Mechanical	763	3,242	1,627	1,164	982	1,201	1,546	1,675
Metallurgical and materials	77	148	292	350	88	89	0	0
Other, n.e.c.	697	1,055	688	939	1,522	1,441	1,686	903
All sciences	34,105	37,559	31,442	35,723	37,621	31,718	28,914	27,454
Physical sciences	5,069	5,501	4,700	4,948	5,258	7,121	4,908	4,714
Astronomy	358	13	23	123	200	96	32	0
Chemistry	1,770	3,020	2,520	2,150	1,917	2,033	1,295	853
Physics	2,880	2,227	2,122	2,623	3,034	4,946	3,318	3,849
Other, n.e.c.	61	241	35	52	107	46	263	12
Environmental sciences	3,145	2,774	3,080	4,730	10,045	1,710	1,006	1,280
Atmospheric	53	44	304	333	395	496	478	455
Earth sciences	1,401	1,335	1,032	1,161	662	470	7	86
Oceanography	64	94	94	116	301	503	33	32
Other, n.e.c.	1,627	1,301	1,650	3,120	8,687	241	488	707
Mathematical sciences	2,307	2,718	2,030	2,243	1,418	661	2,355	1,559
Computer sciences	2,136	1,854	1,883	3,478	1,840	803	548	637
Life sciences	15,225	20,139	16,377	16,193	13,466	17,032	13,491	14,621
Agricultural sciences	8,260	12,446	8,109	6,212	6,590	6,588	6,216	5,013
Biological sciences	3,193	4,677	5,510	6,539	4,006	6,059	3,509	4,731
Medical sciences	2,563	2,105	1,141	2,242	1,847	3,157	2,761	2,957
Other, n.e.c.	1,209	911	1,617	1,200	1,023	1,228	1,005	1,920
Psychology	498	23	110	290	282	650	276	456
Social sciences	3,159	2,496	2,597	3,135	3,033	2,437	4,390	3,744
Economics	173	93	168	161	292	146	357	277
Political science	165	210	530	324	265	275	406	204
Sociology	1,387	1,027	787	1,104	1,005	1,052	954	991
Other, n.e.c.	1,434	1,166	1,112	1,546	1,471	964	2,673	2,272
Other sciences, n.e.c.	2,566	2,054	665	706	2,279	1,304	1,940	443

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-21. R&D expenditures at universities and colleges, by geographic division and source of funds: fiscal year 1999

[Dollars in millions]

Division	Total	Federal	Non-Federal
Total	27,489	16,047	11,442
New England	2,178	1,508	670
Middle Atlantic	3,987	2,480	1,507
East North Central	3,872	2,147	1,725
West North Central	1,828	898	930
South Atlantic	5,192	3,024	2,168
East South Central	1,222	657	565
West South Central	2,557	1,264	1,293
Mountain	1,739	1,076	663
Pacific	4,817	2,938	1,879
Outlying Areas	97	55	42

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-22. R&D expenditures at doctorate-granting institutions, by geographic division, State, and source of funds: fiscal year 1999

[Dollars in thousands]

Page 1 of 2

Division and State	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Total	27,038,008	15,782,855	1,958,050	2,016,039	5,316,785	1,964,279
New England	2,149,423	1,494,963	61,071	171,592	226,150	195,647
Connecticut	415,182	272,839	10,783	25,904	66,257	39,399
Maine	41,452	19,163	1,389	2,324	16,326	2,250
Massachusetts	1,380,737	1,008,037	32,735	124,412	85,095	130,458
New Hampshire	127,135	77,327	8,961	8,939	18,102	13,806
Rhode Island	120,868	81,512	4,485	2,901	28,474	3,496
Vermont	64,049	36,085	2,718	7,112	11,896	6,238
Middle Atlantic	3,938,663	2,448,564	178,953	281,240	681,077	348,829
New Jersey	520,600	239,702	45,013	30,227	162,464	43,194
New York	2,028,668	1,309,809	82,155	97,407	318,344	220,953
Pennsylvania	1,389,395	899,053	51,785	153,606	200,269	84,682
East North Central	3,838,516	2,128,220	258,886	254,110	912,496	284,804
Illinois	1,086,793	618,342	60,265	55,164	270,777	82,245
Indiana	458,717	222,787	27,877	41,461	149,140	17,452
Michigan	913,823	505,545	58,326	59,130	228,315	62,507
Ohio	826,336	471,673	67,991	80,319	148,629	57,724
Wisconsin	552,847	309,873	44,427	18,036	115,635	64,876
West North Central	1,812,442	891,381	198,020	130,340	469,922	122,779
Iowa	370,651	177,470	53,415	35,759	90,260	13,747
Kansas	232,887	88,634	50,300	19,182	58,179	16,592
Minnesota	371,462	207,780	49,082	23,953	61,591	29,056
Missouri	544,862	317,589	24,812	30,301	126,987	45,173
Nebraska	205,363	61,226	10,648	17,231	102,726	13,532
North Dakota	61,695	25,923	1,965	3,608	27,782	2,417
South Dakota	25,522	12,759	7,798	306	2,397	2,262
South Atlantic	5,109,617	2,961,791	452,657	451,638	994,193	249,338
Delaware	73,521	34,628	5,310	4,152	19,401	10,030
District of Columbia	218,044	169,373	2,582	14,349	12,398	19,342
Florida	780,925	390,756	90,393	63,533	197,382	38,861
Georgia	828,886	371,177	73,687	89,612	258,131	36,279
Maryland	1,379,742	1,051,429	76,096	33,561	150,686	67,970
North Carolina	980,612	515,116	120,297	178,754	140,443	26,002
South Carolina	260,995	106,551	26,593	12,823	100,824	14,204
Virginia	523,335	296,431	54,550	49,322	90,626	32,406
West Virginia	63,557	26,330	3,149	5,532	24,302	4,244
East South Central	1,154,314	627,225	90,698	74,385	278,165	83,841
Alabama	405,323	253,057	8,923	22,287	78,983	42,073
Kentucky	231,085	81,720	12,441	21,209	106,967	8,748
Mississippi	153,228	78,529	31,138	9,570	33,272	719
Tennessee	364,678	213,919	38,196	21,319	58,943	32,301
West South Central	2,505,888	1,227,719	333,025	217,098	475,209	252,837
Arkansas	107,178	42,467	32,499	10,236	14,856	7,120
Louisiana	362,842	144,365	79,289	32,659	86,619	19,910
Oklahoma	235,286	86,046	41,610	14,764	76,192	16,674
Texas	1,800,582	954,841	179,627	159,439	297,542	209,133

See explanatory information and SOURCE at end of table.

Table B-22. R&D expenditures at doctorate-granting institutions, by geographic division, State, and source of funds: fiscal year 1999

[Dollars in thousands]-Continued

Page 2 of 2

Division and State	Total	Federal Government	State and local governments	Industry	Institutional funds	All other sources
Mountain	1,722,530	1,063,090	106,035	98,535	373,547	81,323
Arizona	439,286	239,142	11,753	22,242	150,366	15,783
Colorado	501,562	356,940	24,672	27,151	59,833	32,966
Idaho	68,173	25,521	15,625	3,818	16,208	7,001
Montana	79,847	40,858	13,719	8,326	15,528	1,416
Nevada	91,485	51,387	5,442	5,196	25,484	3,976
New Mexico	221,788	152,570	12,242	12,866	39,260	4,850
Utah	273,192	177,563	19,852	15,730	46,220	13,827
Wyoming	47,197	19,109	2,730	3,206	20,648	1,504
Pacific	4,716,072	2,889,092	254,772	333,720	894,449	344,039
Alaska	88,825	34,647	3,913	19,340	30,908	17
California	3,572,900	2,138,671	166,656	236,438	723,232	307,903
Hawaii	156,810	93,418	35,111	13,021	15,260	0
Oregon	317,935	209,634	33,873	10,444	47,977	16,007
Washington	579,602	412,722	15,219	54,477	77,072	20,112
Outlying Areas	90,543	50,810	23,933	3,381	11,577	842

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-23 R&D expenditures at doctorate-granting institutions
by geographic division and state, fiscal years 1992-1999**

[Dollars in thousands]

Page 1 of 2

Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Total	27,038,008	25,377,606	23,907,889	22,643,183	21,791,183	20,672,358	19,615,731	18,556,176
New England	2,149,423	2,049,905	1,977,740	1,860,943	1,806,255	1,787,844	1,750,226	1,625,884
Connecticut	415,182	402,671	392,668	388,134	377,225	366,948	364,708	339,674
Maine	41,452	33,106	33,144	34,684	31,901	29,393	24,879	23,213
Massachusetts	1,380,737	1,326,994	1,272,920	1,178,562	1,150,583	1,136,328	1,108,131	1,029,536
New Hampshire	127,135	117,323	107,505	98,638	93,073	101,552	99,475	87,412
Rhode Island	120,868	111,979	111,977	107,266	99,408	101,848	103,194	96,507
Vermont	64,049	57,832	59,526	53,659	54,065	51,775	49,839	49,542
Middle Atlantic	3,938,663	3,698,760	3,483,223	3,375,003	3,315,031	3,139,452	2,946,873	2,834,977
New Jersey	520,600	484,260	462,052	452,917	440,042	406,019	373,816	379,104
New York	2,028,668	1,881,274	1,779,991	1,732,340	1,735,458	1,655,487	1,554,051	1,487,916
Pennsylvania	1,389,395	1,333,226	1,241,180	1,189,746	1,139,531	1,077,946	1,019,006	967,957
East North Central	3,838,516	3,644,452	3,429,954	3,239,549	3,076,543	2,947,205	2,797,212	2,632,646
Illinois	1,086,793	1,011,054	926,515	862,321	812,287	793,745	757,508	726,917
Indiana	458,717	424,722	400,243	389,982	375,719	335,227	302,811	282,982
Michigan	913,823	876,375	842,303	807,900	774,005	730,019	699,957	650,400
Ohio	826,336	805,015	763,604	693,786	641,550	621,390	592,744	553,239
Wisconsin	552,847	527,286	497,289	485,560	472,982	466,824	444,192	419,108
West North Central	1,812,442	1,676,601	1,620,182	1,516,207	1,477,904	1,402,458	1,343,217	1,249,756
Iowa	370,651	357,927	341,772	332,402	322,769	315,560	298,745	268,721
Kansas	232,887	211,465	197,586	181,775	181,496	168,880	154,103	139,012
Minnesota	371,462	360,629	363,392	341,468	336,805	318,138	332,298	317,026
Missouri	544,862	478,295	459,405	404,875	397,192	374,610	344,566	321,255
Nebraska	205,363	186,200	177,373	158,398	158,633	147,881	137,134	132,775
North Dakota	61,695	56,945	56,096	71,849	59,617	55,709	54,175	52,731
South Dakota	25,522	25,140	24,558	25,440	21,392	21,680	22,196	18,236
South Atlantic	5,109,617	4,781,406	4,540,543	4,268,651	4,131,463	3,859,538	3,635,612	3,388,326
Delaware	73,521	69,896	65,095	54,154	53,161	50,734	52,627	48,970
District of Columbia	218,044	227,636	214,019	201,445	181,461	151,694	145,218	133,524
Florida	780,925	705,197	682,516	638,102	604,103	521,516	488,551	428,372
Georgia	828,886	794,691	766,346	712,188	669,507	606,212	546,960	514,809
Maryland	1,379,742	1,318,062	1,272,173	1,236,171	1,200,414	1,166,061	1,148,279	1,112,586
North Carolina	980,612	873,910	801,797	741,679	702,383	672,021	616,671	563,263
South Carolina	260,995	240,875	219,000	217,881	220,088	196,822	178,174	163,839
Virginia	523,335	488,606	455,959	411,825	446,947	435,192	404,111	369,706
West Virginia	63,557	62,533	63,638	55,206	53,399	59,286	55,021	53,257
East South Central	1,154,314	1,089,345	981,151	932,162	883,136	851,267	787,043	728,947
Alabama	405,323	402,502	368,602	342,021	327,403	304,961	281,209	258,537
Kentucky	231,085	200,682	158,238	148,376	134,784	126,026	122,409	109,644
Mississippi	153,228	145,717	124,601	124,675	112,794	114,311	105,739	98,555
Tennessee	364,678	340,444	329,710	317,090	308,155	305,969	277,686	262,211
West South Central	2,505,888	2,331,327	2,228,225	2,130,562	2,078,348	2,005,634	1,900,680	1,757,711
Arkansas	107,178	112,135	102,204	93,107	87,799	80,577	74,817	61,433
Louisiana	362,842	340,741	332,267	307,839	318,534	272,614	255,171	243,614
Oklahoma	235,286	206,627	186,702	201,626	186,371	174,585	172,968	169,427
Texas	1,800,582	1,671,824	1,607,052	1,527,990	1,485,644	1,477,858	1,397,724	1,283,237

See explanatory information and SOURCE at end of table.

**Table B-23. R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

Page 2 of 2

Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Mountain	1,722,530	1,638,401	1,531,860	1,465,669	1,459,758	1,324,612	1,231,771	1,192,476
Arizona	439,286	405,999	376,818	375,881	380,216	342,792	310,721	299,733
Colorado	501,562	483,388	427,435	406,203	394,065	367,527	331,081	304,943
Idaho	68,173	68,983	63,077	64,930	58,621	55,390	48,774	46,896
Montana	79,847	72,425	70,591	71,518	66,879	53,057	48,080	44,596
Nevada	91,485	83,888	88,331	84,970	86,902	79,121	79,124	71,425
New Mexico	221,788	226,071	219,150	213,691	230,393	191,546	186,750	181,971
Utah	273,192	249,147	238,705	207,923	202,212	196,715	194,685	212,731
Wyoming	47,197	48,500	47,753	40,553	40,470	38,464	32,556	30,181
Pacific	4,716,072	4,379,817	4,038,564	3,781,718	3,493,109	3,302,941	3,175,249	3,094,301
Alaska	88,825	75,606	70,943	71,381	72,216	76,093	66,796	67,881
California	3,572,900	3,314,274	3,049,252	2,817,913	2,597,919	2,465,183	2,380,979	2,343,653
Hawaii	156,810	148,007	120,107	111,202	78,429	70,079	73,961	80,258
Oregon	317,935	308,317	290,603	276,109	258,575	242,822	225,750	203,915
Washington	579,602	533,613	507,659	505,113	485,970	448,764	427,763	398,594
Outlying Areas	90,543	87,592	76,447	72,719	69,636	51,407	47,848	51,152

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-24. Federally financed R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

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Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Total	15,782,855	14,848,364	14,033,061	13,593,036	13,099,603	12,432,105	11,748,767	10,927,489
New England	1,494,963	1,434,063	1,356,263	1,252,581	1,236,204	1,199,864	1,173,959	1,097,093
Connecticut	272,839	261,929	242,385	233,933	227,915	222,569	220,562	205,900
Maine	19,163	13,028	15,066	16,211	15,789	11,386	8,959	8,975
Massachusetts	1,008,037	978,943	918,071	830,922	828,056	795,502	773,666	725,696
New Hampshire	77,327	70,966	67,282	62,987	60,131	66,794	67,727	60,382
Rhode Island	81,512	77,737	79,417	77,007	71,381	69,918	71,515	63,383
Vermont	36,085	31,460	34,042	31,521	32,932	33,695	31,530	32,757
Middle Atlantic	2,448,564	2,290,804	2,176,574	2,123,278	2,072,298	2,004,105	1,902,400	1,770,415
New Jersey	239,702	227,706	224,084	215,525	207,257	190,721	166,835	165,377
New York	1,309,809	1,194,825	1,144,937	1,113,168	1,110,597	1,094,689	1,058,602	989,448
Pennsylvania	899,053	868,273	807,553	794,585	754,444	718,695	676,963	615,590
East North Central	2,128,220	1,999,200	1,893,474	1,789,591	1,727,971	1,659,544	1,573,127	1,445,419
Illinois	618,342	574,963	529,117	492,351	463,631	452,241	424,745	394,505
Indiana	222,787	213,288	209,071	203,390	197,910	181,226	167,743	153,981
Michigan	505,545	472,081	453,664	425,145	420,747	400,670	377,278	339,328
Ohio	471,673	442,078	417,921	390,708	375,061	357,928	348,166	319,868
Wisconsin	309,873	296,790	283,701	277,997	270,622	267,479	255,195	237,737
West North Central	891,381	824,294	804,989	760,384	735,234	695,388	643,289	605,237
Iowa	177,470	167,006	162,060	161,262	163,620	157,643	145,006	133,612
Kansas	88,634	80,214	75,116	68,823	70,026	64,115	59,635	53,150
Minnesota	207,780	204,899	200,297	199,068	194,953	181,166	174,836	165,926
Missouri	317,589	274,704	271,199	232,258	212,750	201,985	190,959	180,743
Nebraska	61,226	62,578	61,231	52,186	55,421	52,971	38,530	39,140
North Dakota	25,923	23,191	24,207	35,659	27,841	27,537	25,223	24,572
South Dakota	12,759	11,702	10,879	11,128	10,623	9,971	9,100	8,094
South Atlantic	2,961,791	2,831,762	2,659,487	2,613,100	2,539,140	2,399,959	2,233,923	2,060,876
Delaware	34,628	33,688	32,031	29,509	27,352	26,250	26,170	21,629
District of Columbia	169,373	161,698	153,846	147,212	132,770	103,677	100,345	94,107
Florida	390,756	351,088	334,150	315,555	317,081	288,429	267,717	230,439
Georgia	371,177	363,140	347,407	335,769	306,745	287,139	273,079	256,701
Maryland	1,051,429	1,003,068	936,567	924,262	908,933	895,897	848,597	829,940
North Carolina	515,116	499,055	452,486	455,325	444,183	421,018	386,742	341,123
South Carolina	106,551	107,258	102,887	120,015	109,443	90,558	73,020	59,688
Virginia	296,431	287,757	270,490	254,419	262,169	251,829	226,591	198,886
West Virginia	26,330	25,010	29,623	31,034	30,464	35,162	31,662	28,363
East South Central	627,225	605,740	567,698	536,289	504,040	493,885	451,921	411,744
Alabama	253,057	253,186	230,894	213,580	189,847	177,323	161,331	142,520
Kentucky	81,720	76,003	75,649	64,756	59,811	58,080	55,698	47,095
Mississippi	78,529	73,329	62,350	62,497	62,585	61,265	54,715	54,512
Tennessee	213,919	203,222	198,805	195,456	191,797	197,217	180,177	167,617
West South Central	1,227,719	1,144,703	1,095,052	1,031,147	983,333	922,805	865,901	771,041
Arkansas	42,467	38,165	35,021	32,815	33,348	29,450	25,395	22,071
Louisiana	144,365	134,956	129,285	125,254	136,253	102,697	95,891	89,089
Oklahoma	86,046	81,689	71,421	72,817	59,504	59,053	56,475	46,486
Texas	954,841	889,893	859,325	800,261	754,228	731,605	688,140	613,395

See explanatory information and SOURCE at end of table.

**Table B-24. Federally financed R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

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Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Mountain	1,063,090	975,465	899,131	863,163	881,604	776,846	717,796	689,245
Arizona	239,142	210,170	198,097	199,889	210,475	182,009	149,803	143,240
Colorado	356,940	327,481	289,514	269,866	263,802	239,109	222,107	208,315
Idaho	25,521	23,552	18,544	18,535	19,710	18,075	17,026	17,343
Montana	40,858	35,730	31,261	29,258	27,382	24,413	21,399	18,467
Nevada	51,387	45,496	43,934	46,713	47,708	43,614	43,196	35,599
New Mexico	152,570	149,911	144,639	137,607	156,554	118,994	113,060	110,587
Utah	177,563	165,319	158,139	146,304	140,600	135,517	136,630	142,396
Wyoming	19,109	17,806	15,003	14,991	15,373	15,115	14,575	13,298
Pacific	2,889,092	2,697,058	2,537,345	2,581,293	2,380,426	2,250,169	2,160,711	2,047,316
Alaska	34,647	31,505	28,127	30,351	37,285	40,770	41,616	32,066
California	2,138,671	1,989,478	1,875,953	1,947,922	1,800,500	1,697,546	1,630,280	1,547,315
Hawaii	93,418	86,886	72,421	66,902	44,238	39,392	41,362	47,684
Oregon	209,634	202,388	195,030	174,616	158,076	145,737	134,956	124,198
Washington	412,722	386,801	365,814	361,502	340,327	326,724	312,497	296,053
Outlying Areas	50,810	45,275	43,048	42,210	39,353	29,540	25,740	29,103

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-25. State and local government-financed R&D expenditures at doctorate-granting institutions, by geographic division and state: fiscal years 1992-1999

[Dollars in thousands]

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Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Total	1,958,050	1,894,626	1,857,641	1,766,399	1,644,710	1,513,112	1,527,053	1,465,931
New England	61,071	60,421	56,889	57,780	42,583	35,706	38,846	35,083
Connecticut	10,783	13,157	13,730	19,938	18,732	12,297	10,067	5,937
Maine	1,389	1,796	1,551	1,594	2,005	2,290	1,711	1,320
Massachusetts	32,735	31,663	29,774	25,244	13,443	12,503	15,744	14,687
New Hampshire	8,961	8,300	7,990	7,308	3,963	2,890	5,846	5,175
Rhode Island	4,485	2,857	1,161	1,172	1,986	3,154	2,812	5,434
Vermont	2,718	2,648	2,683	2,524	2,454	2,572	2,666	2,530
Middle Atlantic	178,953	161,702	159,633	163,739	174,106	145,548	132,152	135,284
New Jersey	45,013	39,773	37,274	42,834	39,535	39,167	36,361	41,882
New York	82,155	78,761	80,674	83,812	99,617	77,386	75,614	71,062
Pennsylvania	51,785	43,168	41,685	37,093	34,954	28,995	20,177	22,340
East North Central	258,886	249,036	239,745	216,306	209,635	194,939	219,459	228,566
Illinois	60,265	49,572	53,968	47,358	47,279	43,863	45,716	52,643
Indiana	27,877	25,517	23,826	23,232	22,463	19,823	20,552	20,271
Michigan	58,326	56,017	50,800	48,539	51,788	41,345	39,541	39,907
Ohio	67,991	74,406	70,078	55,084	45,556	48,287	45,240	49,628
Wisconsin	44,427	43,524	41,073	42,093	42,549	41,621	68,410	66,117
West North Central	198,020	226,590	226,149	215,883	208,350	196,109	194,523	174,224
Iowa	53,415	52,945	52,713	49,905	47,279	47,189	38,218	31,006
Kansas	50,300	46,941	45,002	40,456	39,353	35,147	36,640	30,467
Minnesota	49,082	47,118	50,539	47,842	49,543	45,786	49,861	49,720
Missouri	24,812	23,506	21,342	21,691	21,486	19,270	18,959	17,703
Nebraska	10,648	46,602	47,142	45,388	42,383	39,606	39,627	37,693
North Dakota	1,965	1,123	1,070	1,555	1,534	1,493	1,532	1,085
South Dakota	7,798	8,355	8,341	9,046	6,772	7,618	9,686	6,550
South Atlantic	452,657	422,619	428,759	399,483	344,692	334,556	308,501	298,992
Delaware	5,310	4,600	2,977	2,410	2,144	2,180	3,710	4,702
District of Columbia	2,582	1,593	1,267	1,446	814	1,459	1,038	1,428
Florida	90,393	79,258	87,761	83,234	41,466	41,240	31,641	31,775
Georgia	73,687	69,604	68,844	61,862	55,663	44,663	39,325	39,835
Maryland	76,096	62,375	82,024	84,330	79,267	88,792	93,252	82,288
North Carolina	120,297	126,438	115,928	103,533	98,567	91,962	75,340	71,323
South Carolina	26,593	27,069	20,697	20,887	17,899	15,304	16,057	15,480
Virginia	54,550	48,728	46,848	39,492	46,849	47,020	46,134	49,854
West Virginia	3,149	2,954	2,413	2,289	2,023	1,936	2,004	2,307
East South Central	90,698	86,605	79,932	82,190	75,753	66,600	86,280	80,426
Alabama	8,923	7,071	5,251	5,789	6,991	6,052	26,991	26,313
Kentucky	12,441	14,254	7,446	11,467	9,589	6,197	6,198	5,086
Mississippi	31,138	29,455	29,324	29,173	23,778	20,528	21,836	19,731
Tennessee	38,196	35,825	37,911	35,761	35,395	33,823	31,255	29,296
West South Central	333,025	324,480	315,157	304,236	281,211	268,385	271,034	246,993
Arkansas	32,499	33,089	29,227	25,616	23,779	22,892	24,110	15,922
Louisiana	79,289	77,897	75,199	72,286	71,862	65,431	64,306	64,885
Oklahoma	41,610	37,406	35,622	30,472	19,699	19,275	22,399	19,578
Texas	179,627	176,088	175,109	175,862	165,871	160,787	160,219	146,608

See explanatory information and SOURCE at end of table.

**Table B-25. State and local government-financed R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

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Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Mountain	106,035	113,028	115,638	112,017	106,045	72,504	81,483	76,216
Arizona	11,753	11,812	10,266	8,022	8,080	7,257	6,333	7,299
Colorado	24,672	25,787	26,833	28,049	22,122	8,745	18,026	15,471
Idaho	15,625	21,635	20,940	21,555	20,615	9,463	12,550	10,681
Montana	13,719	13,784	14,368	13,433	12,914	9,268	9,029	10,285
Nevada	5,442	4,533	4,411	3,538	6,460	4,570	4,361	3,109
New Mexico	12,242	12,555	14,954	16,842	17,298	14,573	13,998	13,845
Utah	19,852	17,556	17,876	16,810	15,431	14,808	13,075	12,874
Wyoming	2,730	5,366	5,990	3,768	3,125	3,820	4,111	2,652
Pacific	254,772	228,059	213,976	193,892	183,572	189,936	186,065	182,007
Alaska	3,913	3,680	3,964	5,842	5,607	4,625	3,012	3,680
California	166,656	141,724	134,392	112,962	107,103	119,649	112,499	111,297
Hawaii	35,111	37,002	28,440	31,826	26,789	25,204	27,099	26,775
Oregon	33,873	32,905	32,335	31,906	30,312	29,042	29,762	27,244
Washington	15,219	12,748	14,845	11,356	13,761	11,416	13,693	13,011
Outlying Areas	23,933	22,086	21,763	20,873	18,763	8,829	8,710	8,140

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-26. Industry-financed R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

Page 1 of 2

Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Total	2,016,039	1,861,995	1,695,964	1,571,772	1,456,712	1,392,746	1,332,045	1,255,422
New England	171,592	153,419	146,530	144,849	125,519	130,979	133,414	121,402
Connecticut	25,904	25,916	25,387	23,378	20,327	18,814	18,351	15,273
Maine	2,324	7,074	5,609	4,214	4,158	4,406	4,117	3,545
Massachusetts	124,412	106,633	103,260	105,800	89,657	95,741	98,319	90,661
New Hampshire	8,939	6,209	4,880	3,886	3,919	4,309	4,842	4,451
Rhode Island	2,901	2,074	1,995	2,340	1,991	2,831	3,212	3,135
Vermont	7,112	5,513	5,399	5,231	5,467	4,878	4,573	4,337
Middle Atlantic	281,240	275,912	261,644	240,978	240,857	232,721	225,316	221,138
New Jersey	30,227	27,128	26,186	23,703	25,861	30,042	26,115	25,977
New York	97,407	93,123	96,133	94,056	94,693	90,450	87,632	91,152
Pennsylvania	153,606	155,661	139,325	123,219	120,303	112,229	111,569	104,009
East North Central	254,110	261,892	240,822	232,836	199,636	190,735	181,149	169,055
Illinois	55,164	56,246	48,587	48,582	42,519	42,948	44,745	43,574
Indiana	41,461	40,336	33,321	35,539	34,542	31,873	22,535	21,165
Michigan	59,130	59,053	57,186	58,670	51,386	47,420	47,390	44,903
Ohio	80,319	87,999	82,653	71,745	54,316	49,197	47,781	40,665
Wisconsin	18,036	18,258	19,075	18,300	16,873	19,297	18,698	18,748
West North Central	130,340	117,929	108,396	102,843	105,722	98,455	90,082	85,539
Iowa	35,759	31,058	24,226	22,285	19,391	18,411	17,907	21,563
Kansas	19,182	12,104	11,907	12,131	11,434	7,861	7,527	8,302
Minnesota	23,953	24,128	24,280	23,809	23,510	23,809	21,606	17,529
Missouri	30,301	29,589	30,047	27,107	36,639	35,140	31,492	27,152
Nebraska	17,231	16,749	13,686	12,268	10,933	10,664	8,891	8,529
North Dakota	3,608	3,806	3,439	4,505	3,346	1,989	2,173	2,056
South Dakota	306	495	811	738	469	581	486	408
South Atlantic	451,638	383,758	334,299	321,532	306,587	285,544	279,957	257,584
Delaware	4,152	3,859	3,361	2,964	3,681	4,117	4,857	5,075
District of Columbia	14,349	19,481	18,381	14,448	13,297	11,804	10,313	8,113
Florida	63,533	51,668	49,043	46,717	36,382	37,516	40,565	35,077
Georgia	89,612	85,820	73,284	63,791	55,129	53,469	51,968	42,067
Maryland	33,561	41,623	41,067	58,767	55,986	45,843	47,737	44,211
North Carolina	178,754	119,469	96,482	86,086	74,332	66,237	70,214	64,084
South Carolina	12,823	11,400	8,682	10,678	19,364	18,990	14,242	19,061
Virginia	49,322	45,891	40,280	34,473	45,256	43,510	36,088	34,301
West Virginia	5,532	4,547	3,719	3,608	3,160	4,058	3,973	5,595
East South Central	74,385	79,101	71,065	77,337	71,065	65,446	62,871	57,070
Alabama	22,287	30,279	29,685	29,706	29,164	25,170	23,729	21,620
Kentucky	21,209	18,468	14,781	19,686	16,627	15,970	13,575	12,800
Mississippi	9,570	10,399	9,169	11,122	8,929	8,885	9,824	9,141
Tennessee	21,319	19,955	17,430	16,823	16,345	15,421	15,743	13,509
West South Central	217,098	190,667	187,911	153,842	142,217	134,898	123,775	117,376
Arkansas	10,236	8,185	7,570	8,207	7,693	7,763	6,831	5,403
Louisiana	32,659	29,467	32,544	23,246	21,235	19,715	16,508	17,757
Oklahoma	14,764	13,320	14,036	11,804	11,453	10,958	10,320	10,170
Texas	159,439	139,695	133,761	110,585	101,836	96,462	90,116	84,046

See explanatory information and SOURCE at end of table.

**Table B-26. Industry-financed R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

Page 2 of 2

Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Mountain	98,535	99,428	91,848	89,164	86,099	96,006	88,619	91,969
Arizona	22,242	22,125	18,584	17,099	23,238	21,746	18,889	19,130
Colorado	27,151	26,785	23,756	23,695	20,605	30,340	23,651	21,637
Idaho	3,818	7,551	8,883	9,957	7,408	10,041	7,286	5,147
Montana	8,326	8,437	8,470	7,000	5,825	3,965	3,234	3,230
Nevada	5,196	5,355	5,464	8,042	6,941	7,054	5,245	5,992
New Mexico	12,866	12,559	9,915	11,840	10,696	13,611	18,743	22,460
Utah	15,730	13,502	14,550	9,445	9,456	8,064	9,303	11,532
Wyoming	3,206	3,114	2,226	2,086	1,930	1,185	2,268	2,841
Pacific	333,720	294,550	250,824	206,097	177,062	156,721	146,357	133,273
Alaska	19,340	16,081	12,769	9,965	5,470	4,441	4,751	3,275
California	236,438	215,896	181,582	140,095	120,171	105,824	99,371	94,024
Hawaii	13,021	10,949	5,944	8,088	299	434	151	337
Oregon	10,444	10,096	9,647	8,620	11,693	9,672	8,578	6,736
Washington	54,477	41,528	40,882	39,329	39,429	36,350	33,506	28,901
Outlying Areas	3,381	5,339	2,625	2,294	1,948	1,241	505	1,016

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-27. Institutionally financed R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

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Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Total	5,316,785	4,946,237	4,635,335	4,116,428	3,996,809	3,779,917	3,540,677	3,513,953
New England	226,150	229,806	265,511	258,234	224,431	235,579	226,089	215,693
Connecticut	66,257	66,868	76,391	78,954	78,243	79,487	80,829	79,429
Maine	16,326	10,810	10,526	12,172	9,357	10,907	9,674	8,892
Massachusetts	85,095	96,639	125,526	120,282	92,039	96,865	92,084	86,161
New Hampshire	18,102	17,439	15,058	11,549	12,948	16,859	11,768	11,421
Rhode Island	28,474	26,130	26,545	24,617	22,325	23,965	23,481	22,345
Vermont	11,896	11,920	11,465	10,660	9,519	7,496	8,253	7,445
Middle Atlantic	681,077	631,735	570,307	548,498	516,298	479,281	448,006	463,237
New Jersey	162,464	150,482	139,540	141,839	133,955	116,838	116,307	119,163
New York	318,344	283,568	247,932	238,611	218,047	204,359	182,403	185,799
Pennsylvania	200,269	197,685	182,835	168,048	164,296	158,084	149,296	158,275
East North Central	912,496	857,957	783,781	742,270	688,567	637,624	559,002	537,691
Illinois	270,777	250,566	219,390	211,427	194,776	185,036	178,026	171,466
Indiana	149,140	126,098	113,903	108,023	101,283	83,841	65,991	64,601
Michigan	228,315	220,595	208,882	199,102	192,604	179,925	172,114	163,068
Ohio	148,629	151,197	143,733	130,000	107,789	103,365	89,146	83,800
Wisconsin	115,635	109,561	97,873	93,718	92,115	85,457	53,725	54,756
West North Central	469,922	392,331	381,101	346,122	343,252	332,393	331,398	309,242
Iowa	90,260	88,591	83,880	80,221	77,793	77,371	80,919	71,144
Kansas	58,179	56,206	56,752	52,546	52,517	53,884	44,215	42,537
Minnesota	61,591	55,541	53,751	46,759	46,255	46,551	64,860	61,532
Missouri	126,987	108,237	108,016	91,496	92,974	87,905	78,490	69,361
Nebraska	102,726	55,018	50,105	44,096	46,329	40,842	37,179	38,965
North Dakota	27,782	26,091	25,554	27,980	25,043	23,224	23,595	23,417
South Dakota	2,397	2,647	3,043	3,024	2,341	2,616	2,140	2,286
South Atlantic	994,193	898,476	876,965	721,804	740,855	652,913	646,209	615,398
Delaware	19,401	19,222	20,125	13,074	14,560	13,946	13,937	14,522
District of Columbia	12,398	25,865	24,092	21,321	19,937	19,322	18,346	15,871
Florida	197,382	183,378	177,605	160,422	180,109	123,158	119,937	108,535
Georgia	258,131	246,047	252,398	223,909	227,244	200,733	167,509	161,049
Maryland	150,686	142,535	132,531	112,634	103,679	94,134	125,118	123,249
North Carolina	140,443	94,068	107,071	65,450	63,275	64,328	64,747	66,137
South Carolina	100,824	84,576	65,914	48,596	53,994	54,049	52,850	51,932
Virginia	90,626	76,688	74,039	61,948	64,587	68,602	69,633	61,928
West Virginia	24,302	26,097	23,190	14,450	13,470	14,641	14,132	12,175
East South Central	278,165	249,450	204,284	188,310	180,071	172,309	135,481	135,311
Alabama	78,983	82,108	84,747	77,312	79,861	78,018	48,358	48,532
Kentucky	106,967	83,214	53,070	49,194	43,883	40,965	42,013	39,870
Mississippi	33,272	30,603	13,623	11,600	11,211	12,414	10,960	9,485
Tennessee	58,943	53,525	52,844	50,204	45,116	40,912	34,150	37,424
West South Central	475,209	451,247	426,573	413,268	463,201	468,531	437,673	419,036
Arkansas	14,856	25,542	23,985	21,184	19,717	17,228	15,039	14,586
Louisiana	86,619	78,858	78,310	69,212	69,687	66,688	61,267	51,397
Oklahoma	76,192	59,439	52,462	72,669	79,107	68,401	67,338	76,907
Texas	297,542	287,408	271,816	250,203	294,690	316,214	294,029	276,146

See explanatory information and SOURCE at end of table.

**Table B-27. Institutionally financed R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

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Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Mountain	373,547	377,463	354,839	334,312	316,861	299,709	271,634	271,936
Arizona	150,366	146,586	137,165	137,834	126,380	113,476	112,596	110,306
Colorado	59,833	68,065	50,422	50,995	52,080	54,001	41,797	36,675
Idaho	16,208	15,447	14,258	14,436	9,350	17,219	11,068	13,232
Montana	15,528	13,435	15,684	21,133	20,172	14,902	14,011	11,545
Nevada	25,484	24,314	30,749	25,924	24,798	22,603	25,193	25,553
New Mexico	39,260	45,780	42,442	39,092	38,562	30,561	28,507	25,388
Utah	46,220	42,561	40,376	26,618	28,065	30,278	27,825	38,330
Wyoming	20,648	21,275	23,743	18,280	17,454	16,669	10,637	10,907
Pacific	894,449	844,954	764,804	556,925	514,853	491,060	474,868	535,509
Alaska	30,908	24,340	26,082	25,217	23,850	26,253	17,412	27,205
California	723,232	694,912	620,168	409,980	372,600	364,732	367,837	427,386
Hawaii	15,260	13,170	13,297	4,386	3,738	3,290	3,109	3,319
Oregon	47,977	37,800	35,824	40,769	37,453	37,826	34,209	30,184
Washington	77,072	74,732	69,433	76,573	77,212	58,959	52,301	47,415
Outlying Areas	11,577	12,818	7,170	6,685	8,420	10,518	10,317	10,900

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-28. All other sources of financed R&D expenditures at doctorate-granting institutions
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

Page 1 of 2

Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Total	1,964,279	1,826,384	1,685,888	1,595,548	1,593,349	1,554,478	1,467,189	1,393,381
New England	195,647	172,196	152,547	147,499	177,518	185,716	177,918	156,613
Connecticut	39,399	34,801	34,775	31,931	32,008	33,781	34,899	33,135
Maine	2,250	398	392	493	592	404	418	481
Massachusetts	130,458	113,116	96,289	96,314	127,388	135,717	128,318	112,331
New Hampshire	13,806	14,409	12,295	12,908	12,112	10,700	9,292	5,983
Rhode Island	3,496	3,181	2,859	2,130	1,725	1,980	2,174	2,210
Vermont	6,238	6,291	5,937	3,723	3,693	3,134	2,817	2,473
Middle Atlantic	348,829	338,607	315,065	298,510	311,472	277,797	238,999	244,903
New Jersey	43,194	39,171	34,968	29,016	33,434	29,251	28,198	26,705
New York	220,953	230,997	210,315	202,693	212,504	188,603	149,800	150,455
Pennsylvania	84,682	68,439	69,782	66,801	65,534	59,943	61,001	67,743
East North Central	284,804	276,367	272,132	258,546	250,734	264,363	264,475	251,915
Illinois	82,245	79,767	75,453	62,603	64,082	69,657	64,276	64,729
Indiana	17,452	19,483	20,122	19,798	19,521	18,464	25,990	22,964
Michigan	62,507	68,629	71,771	76,444	57,480	60,659	63,634	63,194
Ohio	57,724	49,335	49,219	46,249	58,828	62,613	62,411	59,278
Wisconsin	64,876	59,153	55,567	53,452	50,823	52,970	48,164	41,750
West North Central	122,779	115,457	99,547	90,975	85,346	80,113	83,925	75,514
Iowa	13,747	18,327	18,893	18,729	14,686	14,946	16,695	11,396
Kansas	16,592	16,000	8,809	7,819	8,166	7,873	6,086	4,556
Minnesota	29,056	28,943	34,525	23,990	22,544	20,826	21,135	22,319
Missouri	45,173	42,259	28,801	32,323	33,343	30,310	24,666	26,296
Nebraska	13,532	5,253	5,209	4,460	3,567	3,798	12,907	8,448
North Dakota	2,417	2,734	1,826	2,150	1,853	1,466	1,652	1,601
South Dakota	2,262	1,941	1,484	1,504	1,187	894	784	898
South Atlantic	249,338	244,791	241,033	212,732	200,189	186,566	167,022	155,476
Delaware	10,030	8,527	6,601	6,197	5,424	4,241	3,953	3,042
District of Columbia	19,342	18,999	16,433	17,018	14,643	15,432	15,176	14,005
Florida	38,861	39,805	33,957	32,174	29,065	31,173	28,691	22,546
Georgia	36,279	30,080	24,413	26,857	24,726	20,208	15,079	15,157
Maryland	67,970	68,461	79,984	56,178	52,549	41,395	33,575	32,898
North Carolina	26,002	34,880	29,830	31,285	22,026	28,476	19,628	20,596
South Carolina	14,204	10,572	20,820	17,705	19,388	17,921	22,005	17,678
Virginia	32,406	29,542	24,302	21,493	28,086	24,231	25,665	24,737
West Virginia	4,244	3,925	4,693	3,825	4,282	3,489	3,250	4,817
East South Central	83,841	68,449	58,172	48,036	52,207	53,027	50,490	44,396
Alabama	42,073	29,858	18,025	15,634	21,540	18,398	20,800	19,552
Kentucky	8,748	8,743	7,292	3,273	4,874	4,814	4,925	4,793
Mississippi	719	1,931	10,135	10,283	6,291	11,219	8,404	5,686
Tennessee	32,301	27,917	22,720	18,846	19,502	18,596	16,361	14,365
West South Central	252,837	220,230	203,532	228,069	208,386	211,015	202,297	203,265
Arkansas	7,120	7,154	6,401	5,285	3,262	3,244	3,442	3,451
Louisiana	19,910	19,563	16,929	17,841	19,497	18,083	17,199	20,486
Oklahoma	16,674	14,773	13,161	13,864	16,608	16,898	16,436	16,286
Texas	209,133	178,740	167,041	191,079	169,019	172,790	165,220	163,042

See explanatory information and SOURCE at end of table.

**Table B-28. All other sources of financed R&D expenditures at doctorate-granting institutions,
by geographic division and state: fiscal years 1992-1999**

[Dollars in thousands]

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Division and State	1999	1998	1997	1996	1995	1994	1993	1992
Mountain	81,323	73,017	70,404	67,013	69,149	79,547	72,239	63,110
Arizona	15,783	15,306	12,706	13,037	12,043	18,304	23,100	19,758
Colorado	32,966	35,270	36,910	33,598	35,456	35,332	25,500	22,845
Idaho	7,001	798	452	447	1,538	592	844	493
Montana	1,416	1,039	808	694	586	509	407	1,069
Nevada	3,976	4,190	3,773	753	995	1,280	1,129	1,172
New Mexico	4,850	5,266	7,200	8,310	7,283	13,807	12,442	9,691
Utah	13,827	10,209	7,764	8,746	8,660	8,048	7,852	7,599
Wyoming	1,504	939	791	1,428	2,588	1,675	965	483
Pacific	344,039	315,196	271,615	243,511	237,196	215,055	207,248	196,196
Alaska	17	0	1	6	4	4	5	1,655
California	307,903	272,264	237,157	206,954	197,545	177,432	170,992	163,631
Hawaii	0	0	5	0	3,365	1,759	2,240	2,143
Oregon	16,007	25,128	17,767	20,198	21,041	20,545	18,245	15,553
Washington	20,112	17,804	16,685	16,353	15,241	15,315	15,766	13,214
Outlying Areas	842	2,074	1,841	657	1,152	1,279	2,576	1,993

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
United States, total	27,489,061	16,046,797	2,028,402	2,047,722	5,366,196	1,999,944
Public, total	18,628,230	9,667,129	1,851,683	1,356,583	4,528,550	1,224,285
Private, total	8,860,831	6,379,668	176,719	691,139	837,646	775,659
Alabama, total	416,594	261,752	8,923	22,287	79,251	44,381
Public, total	406,688	254,247	8,923	22,287	79,158	42,073
Alabama A&M University	11,562	8,558	486	30	1,823	665
Alabama State University	1,365	1,190	0	0	175	0
Auburn University	80,544	27,058	782	3,649	44,944	4,111
U of Alabama Birmingham	232,115	165,223	1,218	10,181	18,196	37,297
U of Alabama Huntsville	40,203	25,166	1,456	5,071	8,510	0
U of South Alabama	11,990e	9,451e	606e	1,779e	154e	0e
University of Alabama, The	28,909	17,601	4,375	1,577	5,356	0
Private, total	9,906	7,505	0	0	93	2,308
Oakwood College	567	447	0	0	93	27
Selma University	116	116	0	0	0	0
Talladega College	0	0	0	0	0	0
Tuskegee University	9,223	6,942	0	0	0	2,281
Alaska, total	93,687	37,241	4,109	19,720	32,299	318
Public, total	93,687	37,241	4,109	19,720	32,299	318
U of Alaska Anchorage	4,782	2,537	187	375	1,382	301
U of Alaska Fairbanks	88,825	34,647	3,913	19,340	30,908	17
U of Alaska, SE	80	57	9	5	9	0
Arizona, total	439,286	239,142	11,753	22,242	150,366	15,783
Public, total	439,286	239,142	11,753	22,242	150,366	15,783
Arizona State University	107,184	53,905	2,116	4,267	44,231	2,665
Northern Arizona U	11,857	7,111	1,795	1,315	1,636	0
University of Arizona	320,245	178,126	7,842	16,660	104,499	13,118
Arkansas, total	111,999	45,587	32,543	10,286	16,437	7,146
Public, total	111,927	45,515	32,543	10,286	16,437	7,146
Arkansas State University	1,527	224	740	149	391	23
Arkansas Tech Univ	598	137	44	50	367	0
U Arkansas Main	61,585	15,851	30,966	6,198	5,228	3,342
U Arkansas Medical Sci	44,066	26,392	793	3,889	9,237	3,755
U Arkansas Pine Bluff	4,151e	2,911e	0e	0e	1,214e	26e
Private, total	72	72	0	0	0	0
Philander Smith College	72	72	0	0	0	0
California, total	3,658,622	2,179,077	185,716	249,043	729,128	315,658
Public, total	2,678,664	1,390,222	170,736	180,732	647,798	289,176
CA St Poly U Pomona	1,069	1,069	0	0	0	0
CA St U Chico	3,106	850	1,120	1,136	0	0
CA St U Dominguez Hills	8,517	3,932	4,388	97	100	0
CA St U Fresno	11,450	1,749e	7,344i	1,618i	721i	18i
CA St U Long Beach	31,283	11,929	13,916	722	3,166	1,550
CA St U Los Angeles	535	463	11i	25i	15i	21i
CA St U, Bakersfield	200e	92e	31i	15i	22i	40i
Calif Polytechnic	11,892	7,673	1,012	664	1,011	1,532
Calif State San Bernadino	3,301	697	757	1,847	0	0
Calif State, Fullerton	1,749i	1,028i	178i	116i	203i	224i
Calif State, Northridge	3,230	2,324	251	30	535	90
Humboldt State University	5,557	2,629	852	869	450	757
San Diego St University	45,579	19,724	5,113	1,021	15,344	4,377
San Francisco State U	5,000e	3,630e	437i	933i	0i	0i
San Jose State University	21,005e	11,825e	2,537e	4,324e	1,655e	664e
Sonoma State University	134	16	50	0	68	0
U CA Berkeley	451,539	191,025	47,551	21,928	149,496	41,539
U CA Davis	307,950	124,463	22,210	16,242	120,267	24,768
U CA Irvine	141,842	75,505	4,418	16,539	28,079	17,301

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
California, continued:						
Public, continued:						
U CA Los Angeles	477,620	251,999	10,004	34,404	108,089	73,124
U CA Riverside	75,821	19,994	3,319	3,893	40,525	8,090
U CA San Diego	461,632	292,007	22,003	31,356	71,671	44,595
U CA San Francisco	417,095	233,181	19,355	36,830	71,744	55,985
U CA Santa Barbara	104,561	74,026	1,823	4,742	15,781	8,189
U CA Santa Cruz	52,902	25,084	1,846	1,094	18,856	6,022
US Naval Postgrad School	34,095e	33,308e	210e	287e	0e	290e
Private, total	979,958	788,855	14,980	68,311	81,330	26,482
Biola University	0	0	0	0	0	0
C R Drew U of Med & Sci	24,484	22,212	1,226	1,046	0	0
CA Inst of Integral Stu	0	0	0	0	0	0
CA Sch Prof Psy S Diego	1,020e	517e	157e	42e	65e	239e
CA Sch Prof Psy-Alameda	498	25	461	0	4	8
CA Sch Prof Psy-Fresno	742	210	394	7	86	45
CA Sch Prof Psy-LA	0	0	0	0	0	0
California Inst of Tech	212,216	195,303	290	6,332	8,334	1,957
Ciaramont Graduate Sch	1,870	384	158	270	488	570
Fuller Theological Sem	80	80	0	0	0	0
Golden Gate University	0	0	0	0	0	0
Harvey Mudd College	5,699e	1,032	83i	406i	499i	3,679i
Loma Linda University	18,818	12,217	0	4,310	2,291	0
Occidental College	862	297	0	497	68	0
Pepperdine University	0	0	0	0	0	0
Pitzer College	297	246	0	0	35	16
Pomona College	1,619	654	4	5	476	480
Santa Clara University	2,326i	533i	0i	580i	1,145i	68i
Stanford University	426,549	353,947	3,198	31,516	18,779	19,109
U of Southern California	280,741	199,619	9,004	23,111	49,007	0
US International U	0	0	0	0	0	0
University San Francisco	500e	200e	5i	23i	38i	234i
University of San Diego	343	282	0	40	0	21
University of the Pacific	999	844	0	99	0	56
Western U of Hlth Sci	295e	253e	0e	27e	15e	0e
Colorado, total	507,673	361,598	24,992	27,226	60,743	33,114
Public, total	496,456	352,377	24,874	26,562	59,786	32,857
Colorado School of Mines	21,715	10,704	1,570	9,292	149	0
Colorado State University	150,281	91,943	16,776	7,213	34,342	7
Fort Lewis College	243	157	37	0	0	49
U of Colorado HSC	130,450	101,044	2,383	4,001	9,242	13,780
U of Colorado, Boulder	184,237	140,959	3,406	5,231	15,703	18,938
U of Colorado, Col Spgs	1,137e	429e	78e	427e	203e	0e
U of Colorado, Denver	2,794	2,254	332	208	0	0
U of Northern Colorado	701	526	9	115	51	0
U of Southern Colorado	979	642	212	49	14	62
US Air Force Academy	3,761	3,699	15	26	0	21
W State Coll, Colorado	158	20	56	0	82	0
Private, total	11,217	9,221	118	664	957	257
Colorado College	877	47	0	0	814	16
Regis University	93	93	0	0	0	0
University of Denver	10,247	9,081	118	664	143	241
Connecticut, total	418,122	273,787	10,827	26,026	66,997	40,485
Public, total	135,744	55,896	10,224	10,355	48,377	10,892
Southern Connecticut St U	188	100	0	0	88	0
US Coast Guard Academy	570	300	0	0	200	70
University of Connecticut	134,986	55,496	10,224	10,355	48,089	10,822

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

Page 3 of 14

State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Connecticut, continued:						
Private, total	282,378	217,891	603	15,671	18,620	29,593
Connecticut College	432	0	2	10	15	405
Trinity College	1,552	529	0	85	404	534
University of Hartford	773	299	114	286	74	0
University of New Haven	198	19	42	27	33	77
Wesleyan University	5,373	3,640	44	21	1,083	585
Yale University	274,050	213,404	401	15,242	17,011	27,992
Delaware, total	76,286	36,683	5,401	4,246	19,715	10,241
Public, total	76,286	36,683	5,401	4,246	19,715	10,241
Delaware State University	2,765	2,055	91	94	314	211
University of Delaware	73,521	34,628	5,310	4,152	19,401	10,030
District of Columbia, total	223,786	173,466	3,117	14,349	13,110	19,744
Public, total	3,394	1,829	451	0	712	402
University of DC	3,394	1,829	451	0	712	402
Private, total	220,392	171,637	2,666	14,349	12,398	19,342
American University	2,987	2,735	0	0	54	198
Catholic U of America	13,317	11,064	3	635	678	937
Gallaudet University	2,348	2,264	84	0	0	0
George Washington U	66,757	49,944	1,554	4,001	0	11,258
Georgetown University	111,426	83,972	905	7,939	11,666	6,944
Howard University	23,557	21,658	120	1,774	0	5
Florida, total	788,743	396,395	91,371	63,637	198,479	38,861
Public, total	636,969	287,125	88,968	46,690	189,645	24,541
Florida A&M University	21,622	20,693	929	0	0	0
Florida Atlantic U	17,151	11,036	434	5,681	0	0
Florida International U	25,061	15,757	6,033	729	1,890	652
Florida State University	97,673	55,666	1,947	988	36,736	2,336
U of Central Florida	42,466	16,048	5,303	4,873	16,242	0
U of South Florida	123,961	42,005	7,499	6,236	57,058	11,163
Univ of West Florida	4,588	3,624	964	0	0	0
University of Florida	304,447	122,296	65,859	28,183	77,719	10,390
Private, total	151,774	109,270	2,403	16,947	8,834	14,320
Bethune Cookman College	583	583	0	0	0	0
Embry-Riddle Aero Univ	2,647	1,432	14	104	1,097	0
Florida Inst of Tech	5,830	2,735	681	1,091	1,323	0
Nova Southeastern U	3,106	2,637	367	0	15	87
University of Miami	139,608	101,883	1,341	15,752	6,399	14,233
Georgia, total	839,715	380,202	74,085	90,747	258,402	36,279
Public, total	584,288	202,067	67,602	78,685	230,303	5,631
Albany State University	1,019	1,019	0	0	0	0
Fort Valley State U	2,937	2,318	398	221	0	0
Georgia Institute of Tech	263,725	112,861	13,856	62,752	74,256	0
Georgia Southern U	833	833	0	0	0	0
Georgia State University	36,523	14,310	5,304	1,075	13,453	2,381
Kennesaw State Univ	142	142	0	0	0	0
Medical Col of Georgia	41,103	13,991	916	3,603	20,982	1,611
Savannah State Univ	513	513	0	0	0	0
University of Georgia	237,493	56,080	47,128	11,034	121,612	1,639
Private, total	255,427	178,135	6,483	12,062	28,099	30,648
Clark Atlanta University	19,467	12,116	1,827	695	65	4,764
Emory University	189,170	132,816	4,271	7,794	18,753	25,536
Inst of Paper Sci & Tech	10,533	3,398	296	1,250	5,241	348
Mercer University	17,250	12,657	83	1,280	3,230	0

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Georgia, continued:						
Private, continued:						
Morehouse College	2,853	1,843	0	826	184	0
Morehouse School of Med	13,622	12,948	6	129	539	0
Morris Brown College	525	525	0	0	0	0
Spelman College	2,007	1,832	0	88	87	0
Hawaii, total	156,810	93,418	35,111	13,021	15,260	0
Public, total	156,810	93,418	35,111	13,021	15,260	0
Univ of Hawaii at Manoa	156,810	93,418	35,111	13,021	15,260	0
Idaho, total	71,674	28,116	15,718	3,962	16,877	7,001
Public, total	71,674	28,116	15,718	3,962	16,877	7,001
Boise State University	3,501	2,595	93	144	669	0
Idaho State University	5,642	1,258	1,303	1,915	1,166	0
University of Idaho	62,531	24,263	14,322	1,903	15,042	7,001
Illinois, total	1,101,056	626,648	62,687	56,748	272,193	82,780
Public, total	590,022	293,631	56,395	27,009	179,813	33,174
Chicago State University	1,266	1,254	0	0	12	0
Illinois State University	4,326	2,057	1,684	540	15	0
Northeastern Illinois U	101	18	38	22	21	2
Northern Illinois U	6,455	3,727	110	709	1,909	0
S Illinois U Edwardsville	1,316	147	572	386	211	0
Stnm IL U Carbondale	33,169	7,660	8,305	2,462	11,275	3,467
U of Illinois Urbana-Cham	358,247	185,767	38,122	12,864	106,848	14,646
University of IL Chicago	175,093	86,406	5,752	9,683	58,693	14,559
Western Illinois U	10,049	6,595	1,812	343	799	500
Private, total	511,034	333,017	6,292	29,739	92,380	49,606
Bradley University	1,341	218	0	833	290	0
DePaul University	1,028	571	2	382	73	0
Finch U Hlth Sci Chicago	6,764	4,860	0	32	778	1,094
Illinois Inst of Tech	13,438	9,777	557	2,451	653	0
Lake Forest College	190	74	0	0	83	33
Loyola U of Chicago	29,001	17,588	599	1,922	4,943	3,949
Midwestern University	1,701	443	2	176	944	136
Northwestern University	233,809	132,647	4,038	14,168	58,144	24,812
Rush University	60,957	31,119	527	8,154	17,508	3,649
University of Chicago	162,805	135,720	567	1,621	8,964	15,933
Indiana, total	460,418	224,035	27,877	41,727	149,209	17,570
Public, total	428,234	199,173	27,659	38,541	145,409	17,452
Ball State University	2,056	835	41	274	906	0
Indiana State University	4,977	368	18	4,591	0	0
Indiana University	194,790	102,262	1,728	4,820	68,679	17,301
Purdue University	226,411	95,708	25,872	28,856	75,824	151
Private, total	32,184	24,862	218	3,186	3,800	118
Rose-Hulman Inst of Tech	1,132	748	0	266	0	118
University of Notre Dame	30,483	23,614	218	2,920	3,731	0
Valparaiso University	569	500	0	0	69	0
Iowa, total	375,300	177,847	53,415	35,940	91,684	16,414
Public, total	369,978	177,161	53,415	35,736	90,187	13,479
Iowa State University	161,301	54,179	47,923	14,905	41,309	2,985
U of Iowa	207,135	122,638	5,191	20,778	48,095	10,433
U of Northern Iowa	1,542	344	301	53	783	61
Private, total	5,322	686	0	204	1,497	2,935
Des Moines U Ost Med Ctr	673	309	0	23	73	268
Drake University	349	167	0	32	108	42
Grinnell College	4,300	210	0	149	1,316	2,625
Maharishi U of Mgmt	0	0	0	0	0	0

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Kansas, total	234,501	88,728	50,445	19,525	58,212	17,591
Public, total	234,501	88,728	50,445	19,525	58,212	17,591
Kansas State University	85,580	28,102	34,451	3,746	16,141	3,140
Pittsburg State U	1,614	94	145	343	33	999
University of Kansas	132,752	57,272	11,363	14,393	36,465	13,259
Wichita State University	14,555	3,260	4,486	1,043	5,573	193
Kentucky, total	273,903	92,572	42,066	21,714	108,568	8,983
Public, total	273,903	92,572	42,066	21,714	108,568	8,983
Eastern Kentucky U	36,708	7,403	28,838	431	36	0
Kentucky State University	713e	703e	10e	0e	0e	0e
Murray State University	1,966	388	551	72	955	0
Northern Kentucky U	144	71	1	2	57	13
University of Kentucky	174,034	66,184	11,297	15,109	78,808	2,636
University of Louisville	57,051	15,536	1,144	6,100	28,159	6,112
Western Kentucky Univ	3,287	2,287	225	0	553	222
Private, total	0	0	0	0	0	0
Spalding University	0	0	0	0	0	0
Louisiana, total	376,098	154,341	79,834	32,879	89,100	19,944
Public, total	285,305	100,158	77,202	20,965	71,480	15,500
Grambling State U	1,997e	1,936e	44e	4e	13e	0e
Louisiana St U, A&M College	158,672	37,291	63,925	6,094	42,177	9,185
Louisiana St U, Hlth Sci	44,726	24,150	1,415	4,768	9,519	4,874
Louisiana St U, Shreveport	113	26	42	45	0	0
Louisiana Tech University	7,659e	2,287e	1,758e	325e	3,289e	0e
McNeese State University	699	611	0	18	70	0
Southeastern Louisiana U	976	550	231	0	161	34
Southern U A&M All Camp	9,296	6,689	217	153	2,237	0
U of LA Monroe, The	8,135	2,824	1,401	0	3,910	0
U of LA at Lafayette	30,735	9,430	4,488	7,278	8,278	1,261
University of New Orleans	22,297	14,364	3,681	2,280	1,826	146
Private, total	90,793	54,183	2,632	11,914	17,620	4,444
Dillard University	175	164	11	0	0	0
Tulane University	87,324	50,779	2,599	11,914	17,620	4,412
Xavier University of LA	3,294	3,240	22	0	0	32
Maine, total	44,437	20,137	1,964	2,476	17,293	2,567
Public, total	42,818	19,286	1,962	2,324	16,901	2,345
U of Maine	41,452	19,163	1,389	2,324	16,326	2,250
Univ of Southern Maine	1,366	123	573	0	575	95
Private, total	1,619	851	2	152	392	222
Bates College	754	576	2	8	22	146
Bowdoin College	510	154	0	144	212	0
Colby College	355	121	0	0	158	76
Maryland, total	1,387,262	1,058,128	76,138	33,777	151,053	68,166
Public, total	511,299	286,151	74,899	18,446	107,702	24,101
Bowie State University	2,675	2,360	0	119	0	196
Coppin State College	11	11	0	0	0	0
Morgan State University	1,066	1,066	0	0	0	0
Towson State University	1,452	1,028	42	80	302	0
U MD Baltimore County	21,854	15,624	1,576	2,649	1,714	291
U MD Biotechnology Inst	31,172	13,911	499	848	13,721	2,193
U MD Ctr for Environ Sci	26,816	8,116	3,637	108	12,372	2,583
U MD Eastern Shore	2,508	2,508	0	0	0	0
U MD at College Park	257,628	145,081	44,749	3,053	56,908	7,837
U of MD Baltimore	140,903	84,516	24,396	11,572	9,418	11,001
US Naval Academy	2,316	2,234	0	17	65	0
Unif Svcs U of Hlth Sci	22,898	9,696	0	0	13,202	0

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Maryland, continued:						
Private, total	875,963	771,977	1,239	15,331	43,351	44,065
Johns Hopkins U	874,518	770,580	1,239	15,317	43,317	44,065
Loyola College	1,445	1,397	0	14	34	0
Massachusetts, total	1,402,522	1,018,574	32,905	125,874	88,441	136,728
Public, total	206,254	112,795	27,434	17,158	34,240	14,627
Bridgewater State College	260	114	12	92	42	0
Fitchburg State College	13	0	0	0	13	0
U MA Amherst	86,576	39,877	6,354	5,796	27,796	6,753
U MA Boston	11,132	2,951	1,261	0	3,997	2,923
U MA Dartmouth	5,820	3,983	343	771	723	0
U MA Lowell	19,413	10,354	1,156	6,234	1,669	0
U MA Worcester	83,040	55,516	18,308	4,265	0	4,951
Private, total	1,196,268	905,779	5,471	108,716	54,201	122,101
Amherst College	1,498	726	0	113	659	0
Boston College	21,726	14,492	242	934	3,451	2,607
Boston University	141,102	123,390	1,141	7,601	0	8,970
Brandeis University	48,305	29,423	241	0	5,113	13,528
Clark University	2,651	2,651	0	0	0	0
College of the Holy Cross	252	151	0	0	0	101
Hampshire College	2,900	662	25	0	285	1,928
Harvard University	326,193	266,019	2,056	11,790	0	46,328
MA Col Phar Allied Hlth	89e	0e	0e	89e	0e	0e
MA Institute of Tech	420,306	308,921	281	75,444	12,663	22,997
Mount Holyoke College	1,721	975	81	0	115	550
New England Col Opt	1,643	1,118	0	0	525	0
Northeastern University	30,209	22,776	311	2,981	4,141	0
Radcliffe College	4,948	2,361	13i	267i	831i	1,476i
Simmons College	937	112	0	793	32	0
Smith College	1,107	240	3	0	182	682
Tufts University	101,728	63,618	732	7,342	20,304	9,732
Wellesley College	4,943i	2,304i	31i	27i	800i	1,781i
Wentworth Inst of Tech	817	669	0	148	0	0
Williams College	1,853e	1,345	8i	22i	44i	434i
Woods Hole Oceanogr Inst	71,722	59,534	244	295	2,746	8,903
Worcester Polytech Inst	9,618	4,292	62	870	2,310	2,084
Michigan, total	919,390	508,080	58,472	60,451	229,644	62,743
Public, total	914,860	506,322	57,492	59,522	228,916	62,608
Central Michigan U	755	142	441	153	19	0
Eastern Michigan U	1,512	895	0	392	225	0
Ferris State University	15	0	0	10	0	5
Grand Valley State U	992	309	20	0	499	164
Michigan State University	207,912	89,835	37,257	7,647	65,344	7,829
Michigan Tech University	28,074	16,107	1,154	3,578	5,818	1,417
Oakland University	6,422	3,033	420	1,002	1,716	251
University of Michigan	508,619	334,226	4,810	34,432	103,072	32,079
Wayne State University	146,832	57,610	12,592	10,660	49,162	16,808
Western Michigan U	13,727	4,165	798	1,648	3,061	4,055
Private, total	4,530	1,758	980	929	728	135
Andrews University	290e	117e	0e	0e	110e	63e
Calvin College	1,033	306	115	371	216	25
Hope College	1,039	879	0	0	113	47
Kettering University	647	89	11	297	250	0
Lawrence Tech Univ	344	57	0	261	26	0
U of Detroit Mercy	1,177	310	854	0	13	0

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Minnesota, total	375,919	210,235	49,447	24,323	62,310	29,604
Public, total	373,883	208,912	49,439	24,282	62,043	29,207
Minnesota State, Mankato	564	164	189	124	80	7
St Cloud State Univ	1,935e	987e	171e	225e	384e	168e
University of Minnesota	371,384	207,761	49,079	23,933	61,579	29,032
Private, total	2,036	1,323	8	41	267	397
Augsburg College	303	303	0	0	0	0
Carleton College	927	398	0	21	227	281
Gustavus Adolphus Col	222	179	0	0	28	15
St Olaf College	506	424	5	0	0	77
University of St Thomas	78	19	3	20	12	24
Mississippi, total	160,287	85,128	31,138	9,570	33,732	719
Public, total	158,946	84,247	31,138	9,570	33,272	719
Alcorn State University	5,223	5,223	0	0	0	0
Jackson State University	8,823	7,925	0	0	898	0
Mississippi State U	110,896	46,528	26,461	7,892	30,015	0
Mississippi Valley St U	495	495	0	0	0	0
U Mississippi, All Camp	17,298	9,952	4,153	682	1,792	719
U Southern Mississippi	16,211	14,124	524	996	567	0
Private, total	1,341	881	0	0	460	0
Rust College	114	114	0	0	0	0
Tougaloo College	1,227	767	0	0	460	0
Missouri, total	549,876	321,115	25,591	30,380	127,617	45,173
Public, total	204,825	78,179	18,727	6,803	91,765	9,351
Lincoln University	2,686	2,686	0	0	0	0
SW Missouri State Univ	1,324	484	751	58	31	0
Southeast Missouri St U	250e	200e	25i	12i	13i	0i
Truman State University	754e	156e	3e	9e	586e	0e
U of Missouri Columbia	149,002	53,875	17,031	3,832	67,631	6,633
U of Missouri Kansas City	14,331	7,206	61	427	5,835	802
U of Missouri Rolla	25,893	8,731	446	2,079	12,996	1,641
U of Missouri St Louis	10,294	4,841	209	386	4,583	275
U of Missouri Sys Admn	291	0	201	0	90	0
Private, total	345,051	242,936	6,864	23,577	35,852	35,822
Forest Inst of Prof Psy	0	0	0	0	0	0
Kirksville Col Osteo Med	743	311	0	0	302	130
Saint Louis University	27,817	23,722	282	3,113	287	413
U of Health Sci (MO)	885e	305e	30e	500e	15e	35e
Washington University	315,606	218,598	6,552	19,964	35,248	35,244
Montana, total	84,460	43,872	14,639	8,967	15,566	1,416
Public, total	84,460	43,872	14,639	8,967	15,566	1,416
MT Tech of the U of MT	4,613	3,014	920	641	38	0
Montana St U Bozeman	55,475	26,231	12,661	7,079	9,504	0
University of Montana, The	24,372	14,627	1,058	1,247	6,024	1,416
Nebraska, total	205,363	61,226	10,648	17,231	102,726	13,532
Public, total	189,348	56,297	9,296	10,989	99,352	13,414
U of NE Med Ctr	54,205	17,167	4,970	5,445	20,126	6,497
U of Nebraska at Lincoln	131,046	36,977	4,297	5,466	77,554	6,752
U of Nebraska at Omaha	4,097	2,153	29	78	1,672	165
Private, total	16,015	4,929	1,352	6,242	3,374	118
Creighton University	16,015	4,929	1,352	6,242	3,374	118
Nevada, total	91,485	51,387	5,442	5,196	25,484	3,976
Public, total	91,485	51,387	5,442	5,196	25,484	3,976
Desert Research Institute	23,376	16,552	2,193	1,226	1,982	1,423
U of Nevada Las Vegas	20,170	10,248	1,978	2,596	5,348	0
U of Nevada Reno	47,939	24,587	1,271	1,374	18,154	2,553

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
New Hampshire, total	127,135	77,327	8,961	8,939	18,102	13,806
Public, total	57,613	30,586	6,267	4,395	9,157	7,208
U of New Hampshire	57,613	30,586	6,267	4,395	9,157	7,208
Private, total	69,522	46,741	2,694	4,544	8,945	6,598
Dartmouth College	69,522	46,741	2,694	4,544	8,945	6,598
New Jersey, total	520,957	239,880	45,013	30,402	162,468	43,194
Public, total	381,097	158,521	40,708	21,827	130,966	29,075
NJ Inst of Technology	40,982	21,127	6,968	1,258	10,854	775
Rutgers the State U NJ	213,838	75,664	25,334	9,833	85,061	17,946
U Med & Dent of NJ	126,277	61,730	8,406	10,736	35,051	10,354
Private, total	139,860	81,359	4,305	8,575	31,502	14,119
Fairleigh Dickinson U	356	7	181	11	26	131
Monmouth University	357	178	0	175	4	0
Princeton University	124,237	72,974	2,147	5,965	29,163	13,988
Seton Hall University	1,116	1,116	0	0	0	0
Stevens Inst of Tech	13,794	7,084	1,977	2,424	2,309	0
New Mexico, total	224,500	155,218	12,302	12,866	39,260	4,854
Public, total	224,500	155,218	12,302	12,866	39,260	4,854
NM Inst Mining & Tech	26,061	10,719	2,103	7,034	6,117	88
New Mexico Highlands U	2,712	2,648	60	0	0	4
New Mexico State Univ	79,877	56,875	7,832	2,892	11,274	1,004
University of New Mexico	115,850	84,976	2,307	2,940	21,869	3,758
New York, total	2,065,882	1,334,210	84,437	101,656	322,852	222,727
Public, total	518,405	294,754	20,882	26,339	120,117	56,313
CUNY Baruch Col	526	151	0	100	37	238
CUNY Brooklyn College	5,293	2,228	116	485	1,681	783
CUNY City College	13,452	9,992	1,538	1,531	289	102
CUNY Col Staten Island	979	595	18	59	186	121
CUNY Grad Ctr	1,098	515	0	0	18	565
CUNY H H Lehman Col	1,370	1,216	0	73	81	0
CUNY Hunter College	15,934	7,526	915	189	4,896	2,408
CUNY John Jay Col Cr Just	1,442	951	40	451	0	0
CUNY Queens College	3,083	1,884	18	984	197	0
CUNY York College	1,392	1,372	0	2	18	0
SUNY Col Env Sci Frstry	25,385	3,874	2,908	2,037	16,033	533
SUNY Col Old Westbury	691	485	0	0	206	0
SUNY Col at Brockport	676	308	212	0	149	7
SUNY Col at Buffalo	1,689	1,167	22	7	455	38
SUNY Col at Cortland	82	30	12	3	22	15
SUNY Col at Fredonia	92	52	11	5	8	16
SUNY Col at Geneseo	543	183	1	13	212	134
SUNY Col at Oswego	542	478	0	17	47	0
SUNY Col at Plattsburgh	793	432	58	18	242	43
SUNY Col of Optometry	1,135	755	0	10	255	115
SUNY Hlth Sci Ctr Brklyn	28,840	21,053	137	2,261	3,438	1,951
SUNY Purchase College	188	188	0	0	0	0
SUNY Upstate Med U	15,099	7,889	257	272	717	5,964
SUNY at Albany	64,278	46,242	4,135	1,337	5,780	6,784
SUNY at Binghamton	17,998	5,761	2,514	3,584	4,881	1,258
SUNY at Buffalo	166,823	85,490	4,806	5,485	41,885	29,157
SUNY at Stony Brook	148,982	93,937	3,164	7,416	38,384	6,081
Private, total	1,547,477	1,039,456	63,555	75,317	202,735	166,414
Adelphi University	254	130	0	101	7	16
Albany Medical College	10,377	7,437	0	51	1,492	1,397
Alfred University	5,857	1,491	847	2,414	787	318
Barnard College	1,181	1,008	0	0	3	170
Clarkson University	6,989	3,694	490	1,226	1,579	0
Columbia U in City of NY	279,587	240,158	1,428	2,630	10,734	24,637

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
New York, continued:						
Private, continued:						
Cooper Union	144	34	70	5	35	0
Cornell University	395,552	234,792	37,854	12,053	75,228	35,625
Fordham University	3,134	1,725	129	0	224	1,056
Hofstra University	716	659	0	39	0	18
Ithaca College	2,066	1,607	0	0	459	0
Long Island University	1,406	1,116	0	10	190	90
Manhattan College	485	70	164	251	0	0
Mt Sinai Sch Med	127,765	84,624	2,729	9,257	16,034	15,121
New School University	5,230	1,069	0	0	0	4,161
New York Inst Technology	370	92	40	49	90	99
New York Medical College	20,436	14,029	118	3,742	0	2,547
New York University	167,179	111,124	1,193	7,502	17,722	29,638
Pace University All Cmp	571	435	0	0	3	133
Polytechnic University	9,050	4,595	1,230	2,135	1,090	0
Rensselaer Polytech Inst	39,034	22,803	2,868	10,084	2,387	892
Rochester Inst of Tech	9,340e	2,690	408	769	4,856e	617
Rockefeller Univ, The	121,519	45,010	2,362	2,707	40,420	31,020
Skidmore College	236	61	0	101	74	0
St. John's University (NY)	1,617	1,177	1	278	161	0
Syracuse University	39,640	30,050	3,130	1,470	1,710	3,280
Teachers Col, Columbia U	7,206	4,119	36	0	0	3,051
Union College (NY)	1,043	608	0	211	176	48
University of Rochester	177,126	132,852	8,456	18,226	6,662	10,930
Vassar College	596i	517i	2i	6i	12i	59i
Yeshiva University	111,771	89,680	0	0	20,600	1,491
North Carolina, total	1,012,576	538,102	121,787	179,830	145,060	27,797
Public, total	571,905	281,710	114,927	41,832	130,768	2,668
Appalachian State U	621	219	67	0	63	272
East Carolina University	9,014	4,832	1,555	2,627	0	0
Elizabeth City State U	1,040	1,040	0	0	0	0
Fayetteville State U	265	265	0	0	0	0
NC A&T State University	14,741	12,454	33	383	1,581	290
NC State University	270,621	66,310	97,150	31,478	75,195	488
North Carolina Central U	825e	777e	0i	0i	0i	48i
U of NC Asheville	742	213	250	44	2	233
U of NC Chapel Hill	252,767	182,935	14,571	5,886	49,375	0
U of NC Greensboro	2,368	1,535	128	430	0	275
U of NC at Charlotte	9,041	4,780	597	924	2,529	211
U of NC at Wilmington	7,647	4,431	568	0	1,882	766
Western Carolina U	501	300	0	60	141	0
Winston Salem State U	1,712	1,619	8	0	0	85
Private, total	440,671	256,392	6,860	137,998	14,292	25,129
Bennett College	811e	583e	0e	48e	0e	180e
Duke University	348,274	186,757	6,108	121,630	14,135	19,644
Johnson C Smith U	8,659	8,659	0	0	0	0
Shaw University	100	100	0	0	0	0
Wake Forest University	82,827	60,293	752	16,320	157	5,305
North Dakota, total	61,695	25,923	1,965	3,608	27,782	2,417
Public, total	61,695	25,923	1,965	3,608	27,782	2,417
North Dakota State U	44,696	12,308	1,938	1,300	27,310	1,840
Univ of North Dakota	16,999	13,615	27	2,308	472	577
Ohio, total	830,701	475,054	68,051	80,705	149,023	57,868
Public, total	608,009	302,028	64,670	70,035	129,969	41,307
Air Force Inst of Tech	4,316	1,540	0	0	2,776	0
Bowling Green State U	3,454	1,847	88	273	1,246	0
Central State University	1,497e	1,144e	0e	269e	84e	0e
Cleveland State U	11,893e	3,655e	3,411i	1,448i	3,285i	94i

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Ohio, continued:						
Public, continued:						
Kent State University	11,083	8,212	841	656	1,374	0
Med Col of Ohio	12,467	9,219	609	237	1,443	959
Miami University (OH)	10,964	3,302	839	1,073	5,583	167
N.E. Ohio Univ Col of Med	3,389	1,693	178	43	1,185	290
Ohio State University	322,810	135,216	49,569	52,034	59,410	26,581
Ohio University	21,437	10,544	1,444	2,843	5,916	690
University of Akron	16,279	7,140	882	2,150	4,009	2,098
University of Cincinnati	153,002	100,325	4,053	5,989	32,880	9,755
University of Toledo	11,819	5,682	812	1,245	3,566	514
Wright State University	23,131	12,365	1,884	1,717	7,006	159
Youngstown State Univ	468	144	60	58	206	0
Private, total	222,692	173,026	3,381	10,670	19,054	16,561
Antioch University	0	0	0	0	0	0
Case Western Reserve U	182,332	140,178	3,129	6,157	16,934	15,934
College of Wooster	379	318	0	55	6	0
Denison University	314	221	0	0	40	53
John Carroll University	1,072	1,072	0	0	0	0
Kenyon College	100e	61e	0i	4i	14i	21i
Ohio Wesleyan University	255	185	0	0	0	70
Union Institute, The	1,023	0	0	0	677	346
University of Dayton	36,937	30,755	252	4,454	1,339	137
Wilberforce University	280i	236i	0i	0i	44i	0i
Oklahoma, total	238,799	88,507	41,736	14,802	76,192	17,562
Public, total	228,706	83,229	40,825	11,241	75,861	17,550
Langston University	2,340	2,340	0	0	0	0
Oklahoma State University	83,108	23,179	24,896	3,447	30,459	1,127
U of Central Oklahoma	1,173	121	126	38	0	888
University of Oklahoma	142,085	57,589	15,803	7,756	45,402	15,535
Private, total	10,093	5,278	911	3,561	331	12
Oral Roberts University	53	6	0	0	35	12
University of Tulsa	10,040	5,272	911	3,561	296	0
Oregon, total	319,700	210,667	33,975	10,473	48,269	16,316
Public, total	298,437	194,536	33,197	9,015	46,127	15,562
Oregon Health Sciences U	112,197i	76,033i	3,366i	7,854i	15,483i	9,461i
Oregon State University	139,285	81,649	28,847	211	24,395	4,183
Portland State University	13,940	9,313	578	819	2,743	487
Southern Oregon Univ	320	205	23	0	77	15
University of Oregon	32,695	27,336	383	131	3,429	1,416
Private, total	21,263	16,131	778	1,458	2,142	754
Lewis and Clark College	600	394	0	0	113	93
OR Grad Inst Sci & Tech	19,818	15,303	699	1,429	1,927	460
Pacific University	0	0	0	0	0	0
Reed College	400e	300e	0i	0i	61i	39i
University of Portland	387	105	79	15	41	147
Willamette University	58	29	0	14	0	15
Pennsylvania, total	1,400,286	905,775	52,510	154,203	202,126	85,672
Public, total	698,769	425,892	17,830	80,051	146,538	28,458
East Stroudsburg U of PA	887e	480	137i	67i	93i	110i
Indiana U of PA All Cmp	389	354	0	0	28	7
Kutztown U of PA	96	82	10	0	4	0
Lincoln University (PA)	972	972	0	0	0	0
Pennsylvania State U	379,402	199,105	16,069	65,698	98,530	0
Temple University	66,777	29,734	135	1,284	25,380	10,244
University of Pittsburgh	249,477	194,618	1,413	12,990	22,403	18,053
West Chester U of PA	769	547	66	12	100	44

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Pennsylvania, continued:						
Private, total	701,517	479,883	34,680	74,152	55,588	57,214
Allegheny College	734	252	8	0	8	466
MCP Hahnemann Univ	27,516	17,281	6,900	1,552	0	1,783
Bryn Mawr College	3,929	764	30	120	3,015	0
Bucknell University	1,335	679	440	216	0	0
Carnegie Mellon U	142,174	90,408	17,912	17,761	9,112	6,981
Dickinson College	948	653	28	124	143	0
Drexel University	22,397	12,914	1,035	4,078	4,370	0
Duquesne University	2,025	1,531	0	459	35	0
Franklin & Marshall Coll	1,424	348	0	0	880	196
Haverford College	1,104	937	0	0	92	75
Juniata College	164	135	0	4	0	25
La Salle University	244	229	0	9	6	0
Lafayette College	600	354	12	37	197	0
Lehigh University	27,902	13,161	4,669	6,669	3,062	341
PA College of Optometry	307	283	24	0	0	0
Phila Col Osteopathic Med	1,050	99	0	109	245	597
Phila Col of Phar & Sci	358e	162e	0e	196e	0e	0e
St. Joseph's Univ	311	185	0	86	40	0
Swarthmore College	996e	586e	0e	42e	294e	74e
Thomas Jefferson U	78,410	56,369	1,605	12,081	880	7,475
U of Pennsylvania	383,569	279,013	1,877	30,269	33,209	39,201
Villanova University	3,950	3,470	140	340	0	0
Widener U All Campuses	70	70	0	0	0	0
Rhode Island, total	120,868	81,512	4,485	2,901	28,474	3,496
Public, total	44,452	36,207	4,390	1,095	2,459	301
U of Rhode Island	44,452	36,207	4,390	1,095	2,459	301
Private, total	76,416	45,305	95	1,806	26,015	3,195
Brown University	76,330	45,276	95	1,795	25,969	3,195
Providence College	86	29	0	11	46	0
South Carolina, total	267,549	111,092	26,670	12,826	101,890	15,071
Public, total	265,995	110,082	26,670	12,826	101,503	14,914
Clemson University	99,341	27,064	21,063	8,445	38,341	4,428
College of Charleston	2,100	1,553	53	3	402	89
Med U of South Carolina	55,819	30,997	1,881	2,202	14,986	5,753
South Carolina State U	2,900	1,978	24	0	277	621
U of South Carolina	105,835	48,490	3,649	2,176	47,497	4,023
Private, total	1,554	1,010	0	0	387	157
Benedict College	634 i	552 i	0 i	0 i	82 i	0 i
Claflin College	555	250	0	0	305	0
Furman University	365	208	0	0	0	157
South Dakota, total	25,522	12,759	7,798	306	2,397	2,262
Public, total	25,522	12,759	7,798	306	2,397	2,262
SD Sch of Mines & Tech	4,161	3,300	248	72	517	24
South Dakota State U	15,599	6,086	6,951	234	1,269	1,059
U of South Dakota	5,762	3,373	599	0	611	1,179
Tennessee, total	371,439	217,970	39,045	21,530	59,489	33,405
Public, total	207,145	88,014	38,967	17,612	44,602	17,950
East Tennessee State U	3,351	1,400	90	0	95	1,766
Middle Tennessee State U	618	319	64	5	208	22
Tennessee State U	10,762	8,522	0	89	2,046	105
Tennessee Tech U	9,204	1,222	4,440	1,715	1,818	9
University of Memphis, The	24,280	6,364	5,298	710	10,039	1,869
U of Tennessee	157,328	70,013	28,236	15,070	29,902	14,107
U of Tennessee Chattanooga	1,601	174	839	23	494	71
U of Tennessee, Martin	1	0	0	0	0	1

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Tennessee, continued:						
Private, total	164,294	129,956	78	3,918	14,887	15,455
Fisk University	4,034	2,846	0	156	0	1,032
Knoxville College	0	0	0	0	0	0
Le Moyne-Owen Coll	1,053	1,031	10	12	0	0
Meharry Medical College	9,460	9,192	0	0	0	268
Southern Col of Optometry	72	0	0	20	52	0
Vanderbilt University	149,675	116,887	68	3,730	14,835	14,155
Texas, total	1,829,967	975,753	183,149	160,032	301,326	209,707
Public, total	1,496,969	786,964	178,030	137,266	259,361	135,348
Lamar University	3,739	2,914	694	40	41	50
Prairie View A&M U	10,157	8,675	227	124	1,131	0
Sam Houston State U	3,892	3,225	163	375	129	0
Southwest Texas St Univ	3,597	1,871	946	0	233	547
Stephen F Austin St U	4,892	776	155	203	1,638	2,120
Sul Ross State University	630	74	336	0	0	220
Tarleton State University	3,905	1,623	89	0	2,105	88
Texas A&M U-Commerce	168	109	59	0	0	0
Texas A&M Univ Kingsville	6,397	1,771	461	325	3,285	555
Texas A&M University	402,203	149,151	94,660	34,722	115,069	8,601
Texas Southern U	2,507	2,292	133	58	24	0
Texas Tech University	58,488	20,242	16,358	5,682	12,577	3,629
Texas Woman's University	2,179	1,306	747	56	0	70
U Nort TX Health Sci Ctr	9,689	5,370	587	2,389	1,343	0
U TX MD Anderson Cnrc Ctr ...	155,126	69,413	0	0	50,557	35,156
U TX Med Br at Galveston	93,580	55,061	9,686	6,366	11,043	11,424
U TX SW Med Ctr at Dallas	165,520	101,996	5,486	16,197	1,020	40,821
U TX San An Hlth Sci Ctr	87,804	56,904	6,713	10,777	7,899	5,511
U TX at Arlington	11,450	6,089	1,107	2,220	2,034	0
U TX at Austin	258,122	164,913	17,698	39,729	31,220	4,562
U TX at Dallas	16,028	7,700	1,445	1,336	3,767	1,780
U TX at El Paso	21,961	18,292	2,709	697	263	0
U TX at San Antonio	7,780	5,463	2,081	0	236	0
U of Houston Downtown	1,096	838	0	56	202	0
U of Houston, Clear Lake	5,944	5,387	299	189	69	0
U of TX-Pan American	1,684	1,068	429	0	47	140
UT Houston Hlth Sci Ctr	105,307	71,288	1,594	12,872	6,183	13,370
University of Houston	43,370	20,443	10,121	1,762	6,704	4,340
University of North Texas	7,487	2,617	1,040	1,091	492	2,247
West Texas A&M U	2,267	93	2,007	0	50	117
Private, total	332,998	188,789	5,119	22,766	41,965	74,359
Abilene Christian Univ	272	114	2	0	156	0
Baylor Col of Dentistry	2,848	1,481	229	127	787	224
Baylor Col of Medicine	272,198	141,111	2,380	19,400	39,048	70,259
Baylor University	2,032e	522e	586e	75e	390e	459e
Jarvis Christian College	56	56	0	0	0	0
Rice University	41,069	35,012	1,431	1,645	0	2,981
Southern Methodist U	9,401	6,387	379	772	1,473	390
St. Mary's University	0	0	0	0	0	0
Texas Christian U	4,061	3,257	112	581	111	0
Trinity University	867	692	0	166	0	9
University of Dallas	194	157	0	0	0	37
Wiley College	0	0	0	0	0	0
Utah, total	273,192	177,563	19,852	15,730	46,220	13,827
Public, total	249,207	166,149	18,572	12,949	39,462	12,075
University of Utah	153,843	111,716	2,025	8,951	22,678	8,473
Utah State University	95,364	54,433	16,547	3,998	16,784	3,602
Private, total	23,985	11,414	1,280	2,781	6,758	1,752
Brigham Young University	23,985	11,414	1,280	2,781	6,758	1,752

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Vermont, total	64,791	36,773	2,718	7,112	11,896	6,292
Public, total	64,049	36,085	2,718	7,112	11,896	6,238
University of Vermont	64,049	36,085	2,718	7,112	11,896	6,238
Private, total	742	688	0	0	0	54
Middlebury College	742	688	0	0	0	54
Virginia, total	531,286	303,018	55,121	49,589	90,982	32,576
Public, total	495,602	283,147	55,106	38,794	90,156	28,399
Col of William & Mary	31,322	11,892	3,072	1,178	14,206	974
George Mason University	26,766	19,492	1,669	297	1,178	4,130
James Madison University	1,781	763	319	0	0	699
Norfolk State University	2,995	2,970	25	0	0	0
Old Dominion University	23,030	13,706	4,035	2,787	2,502	0
Radford University	181	115	29	0	7	30
University of Virginia	157,487	108,495	6,311	12,989	16,056	13,636
VA Polytech Inst & St U	169,250	75,386	36,738	13,287	39,820	4,019
Virginia Commonwealth U	79,785	48,175	2,391	8,062	16,279	4,878
Virginia Military Inst	394	92	17	174	78	33
Virginia State University	2,611	2,061	500	20	30	0
Private, total	35,684	19,871	15	10,795	826	4,177
Eastern VA Med School	24,096	11,354	15	8,561	110	4,056
Hampton University	7,472	7,168	0	0	290	14
Institute of Textile Tech	2,346	0	0	2,161	185	0
University of Richmond	1,099	812	0	73	214	0
Virginia Union University	671e	537e	0e	0e	27e	107e
Washington, total	588,075	417,330	16,340	54,656	78,902	20,847
Public, total	587,583	417,149	16,340	54,656	78,591	20,847
Central Washington U	1,731	1,179	49	0	110	393
E Washington Univ	2,356	1,244	840	0	183	89
U of Washington	482,659	368,112	11,636	51,319	42,516	9,076
W Washington Univ	3,894	2,004	232	179	1,226	253
Washington State U	96,943	44,610	3,583	3,158	34,556	11,036
Private, total	492	181	0	0	311	0
Whitman College	492	181	0	0	311	0
West Virginia, total	64,340	26,589	3,204	5,532	24,752	4,263
Public, total	63,636	26,342	3,197	5,532	24,314	4,251
Bluefield State College	0	0	0	0	0	0
Fairmont State College	24	12	0	0	12	0
Marshall University	66	66	0	0	0	0
WV Sch of Osteo Med	99	0	0	0	99	0
West Virginia State Col	55	0	48	0	0	7
West Virginia University	63,392	26,264	3,149	5,532	24,203	4,244
Private, total	704	247	7	0	438	12
Salem-Teikyo University	704	247	7	0	438	12
Wisconsin, total	560,648	313,140	44,989	19,771	116,601	66,147
Public, total	490,957	262,368	44,374	15,008	109,778	59,429
U WI-Eau Claire	569	338	64	35	42	90
U WI-Green Bay	466	240	51	1	110	64
U WI-La Crosse	1,184	671	106	121	158	128
U WI-Madison	462,725	249,961	39,308	14,172	102,342	56,942
U WI-Milwaukee	22,207	9,409	4,510	535	6,534	1,219
U WI-Oshkosh	576	296	87	7	76	110
U WI-Parkside	151	108	0	16	27	0
U WI-River Falls	192	69	0	30	12	81
U WI-Stevens Point	1,195	253	136	8	161	637

See explanatory information and SOURCE at end of table.

Table B-29. R&D expenditures at universities and colleges, by state, control, and source of funds: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Federal Government	State and local government	Industry	Institutional funds	All other sources
Wisconsin, continued:						
Public, continued:						
U WI-Stout	1,098	790	111	3	194	0
U WI-Superior	432	119	0	68	91	154
U WI-Whitewater	162	114	1	12	31	4
Private, total	69,691	50,772	615	4,763	6,823	6,718
Marquette University	6,469	3,416	608	1,178	299	968
Medical Col of Wisconsin	61,446	47,087	1	2,151	6,460	5,747
Milwaukee School of Eng	1,776	269	6	1,434	64	3
Wyoming, total	47,197	19,109	2,730	3,206	20,648	1,504
Public, total	47,197	19,109	2,730	3,206	20,648	1,504
University of Wyoming	47,197	19,109	2,730	3,206	20,648	1,504
Guam, total	2,829	2,242	0	0	12	575
Public, total	2,829	2,242	0	0	12	575
University of Guam	2,829	2,242	0	0	12	575
Puerto Rico, total	90,543	50,810	23,933	3,381	11,577	842
Public, total	82,647	43,409	23,898	3,381	11,183	776
U PR Mayaguez Campus	55,648	23,784	23,845	2,771	4,774	474
U PR Med Sci Campus	17,114	13,971	44	602	2,303	194
U PR Rio Piedras Campus	9,885	5,654	9	8	4,106	108
Private, total	7,896	7,401	35	0	394	66
Ponce School of Medicine	3,105	2,960	0	0	81	64
Pont Catholic U of PR, The	131	96	35	0	0	0
U Ctr'l Del Caribe Esc Med	4,660	4,345	0	0	313	2
Virgin Islands, total	3,310	1,957	1,257	96	0	0
Public, total	3,310	1,957	1,257	96	0	0
U of the Virgin Islands	3,310	1,957	1,257	96	0	0

NOTES: Because of rounding, detail may not add to totals.

Beginning in fiscal year 1998, this table reports data for all institutions. In prior years this table reported on doctorate-granting institutions only.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-30. R&D expenditures at doctorate-granting institutions, by geographic division, state, and science and engineering field: fiscal year 1999

[Dollars in thousands]

Page 1 of 2

Division and State	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total	27,038,008	4,186,328	2,522,110	1,637,606	1,131,118	15,448,596	450,241	1,229,637	432,372
New England	2,149,423	308,550	227,110	191,870	97,806	1,110,597	39,571	103,388	70,531
Connecticut	415,182	30,839	25,319	9,681	6,313	320,302	9,955	9,031	3,742
Maine	41,452	5,725	4,321	11,974	328	16,742	417	1,945	0
Massachusetts	1,380,737	242,015	181,568	113,890	74,903	607,834	19,417	81,810	59,300
New Hampshire	127,135	15,572	5,889	27,834	2,914	66,308	2,422	5,401	795
Rhode Island	120,868	12,955	8,865	28,137	12,189	43,398	6,606	5,092	3,626
Vermont	84,049	1,444	1,148	354	1,159	56,013	754	109	3,068
Middle Atlantic	3,938,663	557,718	341,969	154,787	190,883	2,371,767	86,025	197,902	37,612
New Jersey	520,600	95,587	56,241	38,343	26,602	243,591	13,424	37,370	9,442
New York	2,028,668	219,579	194,684	84,674	79,261	1,342,468	42,416	60,048	5,538
Pennsylvania	1,389,395	242,552	91,044	31,770	85,020	785,708	30,185	100,484	22,632
East North Central	3,838,516	683,696	352,058	100,600	151,074	2,163,023	78,616	260,768	48,681
Illinois	1,086,793	159,558	117,722	38,224	80,812	591,094	22,021	51,010	26,352
Indiana	458,717	82,507	60,610	11,394	14,242	227,201	12,325	44,821	5,617
Michigan	913,823	183,251	69,500	10,838	20,668	526,811	13,678	84,410	4,667
Ohio	826,336	194,427	59,714	11,569	23,760	473,015	10,548	43,288	10,015
Wisconsin	552,847	63,953	44,512	28,575	11,592	344,902	20,044	37,239	2,030
West North Central	1,812,442	218,790	105,330	53,168	47,689	1,256,587	22,581	80,331	27,966
Iowa	370,651	60,439	23,940	5,695	10,693	236,652	3,402	23,618	6,212
Kansas	232,887	37,810	20,265	10,706	5,442	140,100	1,857	6,718	9,989
Minnesota	371,462	38,583	17,400	12,986	12,300	269,087	7,095	14,011	0
Missouri	544,862	47,726	24,528	7,112	13,258	424,273	7,944	18,350	1,671
Nebraska	205,363	22,112	11,338	12,163	4,942	132,852	1,714	11,907	8,335
North Dakota	61,695	9,746	5,257	1,607	1,047	38,026	522	4,004	1,486
South Dakota	25,522	2,374	2,602	2,899	7	15,597	47	1,723	273
South Atlantic	5,109,617	935,140	456,401	336,795	284,967	2,731,086	79,500	250,480	55,248
Delaware	73,521	26,908	10,144	9,288	3,303	17,348	1,569	4,961	0
District of Columbia	218,044	13,605	21,026	199	15,693	136,473	3,364	15,873	11,811
Florida	780,925	106,617	82,079	85,009	23,115	415,585	25,503	36,036	6,981
Georgia	828,886	202,780	47,812	31,687	48,862	424,414	19,055	51,289	2,987
Maryland	1,379,742	310,639	178,871	91,943	120,650	584,562	5,851	68,108	19,118
North Carolina	980,612	104,163	51,222	37,763	25,827	707,307	9,305	41,786	3,239
South Carolina	260,995	52,161	18,127	18,758	11,515	133,229	4,037	13,348	9,820
Virginia	523,335	97,666	43,042	58,813	15,565	278,756	10,451	18,445	597
West Virginia	63,557	20,601	4,078	3,335	437	33,412	365	634	695
East South Central	1,154,314	178,648	72,818	34,548	33,188	762,219	19,735	29,697	23,461
Alabama	405,323	61,060	20,094	8,526	14,212	284,582	6,374	4,842	5,633
Kentucky	231,085	32,589	8,338	848	3,625	168,781	3,090	6,012	7,802
Mississippi	153,228	33,708	14,412	10,075	5,937	76,939	546	4,618	6,993
Tennessee	364,678	51,291	29,974	15,099	9,414	231,917	9,725	14,225	3,033
West South Central	2,505,888	371,533	187,733	170,978	79,889	1,557,606	29,209	77,876	31,064
Arkansas	107,178	9,743	4,056	1,502	305	88,879	217	2,437	39
Louisiana	362,842	54,758	20,547	28,704	8,804	218,931	1,272	14,756	15,070
Oklahoma	235,286	36,353	22,057	29,006	4,839	108,501	12,628	17,861	4,041
Texas	1,800,582	270,679	141,073	111,766	65,941	1,141,295	15,092	42,822	11,914

See explanatory information and SOURCE at end of table.

Table B-30. R&D expenditures at doctorate-granting institutions, by geographic division, state, and science and engineering field: fiscal year 1999

[Dollars in thousands]

Page 2 of 2

Division and State	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Mountain	1,722,530	316,980	233,546	187,367	53,308	751,785	30,925	61,183	87,436
Arizona	439,286	78,268	104,322	28,574	11,066	178,553	8,250	25,523	4,730
Colorado	501,562	56,293	64,517	87,376	13,999	247,115	12,483	11,320	8,459
Idaho	68,173	11,013	3,324	4,524	183	43,797	647	2,574	2,111
Montana	79,847	8,847	8,271	978	2,206	49,990	36	4,961	4,558
Nevada	91,485	5,088	11,367	31,652	945	21,206	1,328	2,717	17,182
New Mexico	221,788	91,465	15,235	12,105	8,743	54,701	4,893	7,525	27,121
Utah	273,192	60,228	21,518	15,616	15,542	134,932	3,036	5,624	16,696
Wyoming	47,197	5,778	4,992	6,542	624	21,491	252	939	6,579
Pacific	4,716,072	608,583	540,832	401,488	211,922	2,674,554	62,570	165,750	50,373
Alaska	88,825	5,790	32,102	18,756	11,178	17,234	0	3,765	0
California	3,572,900	526,179	435,470	229,274	175,237	1,994,873	44,549	123,109	44,209
Hawaii	156,810	6,987	24,628	52,019	401	62,503	954	3,409	5,709
Oregon	317,935	20,450	17,153	39,665	15,931	206,337	7,423	10,793	183
Washington	579,602	49,177	31,279	61,774	9,175	393,607	9,644	24,674	272
Outlying Areas	90,543	6,690	4,313	6,005	392	69,372	1,509	2,262	0

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

Page 1 of 14

State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
United States, total	27,489,061	4,257,121	2,599,686	1,689,594	1,172,704	15,591,256	464,858	1,262,002	451,840
Public, total	18,628,230	3,043,028	1,674,609	1,355,906	682,882	10,233,326	345,138	982,355	310,986
Private, total	8,860,831	1,214,093	925,077	333,688	489,822	5,357,930	119,720	279,647	140,854
Alabama, total	416,594	62,000	20,469	8,534	14,433	292,388	6,374	6,763	5,633
Public, total	406,688	61,060	20,094	8,526	14,412	285,688	6,374	4,901	5,633
Alabama A&M University	11,562	1,302	2,540	6	544	5,896	0	31	1,243
Alabama State University	1,365	0	0	0	200	1,106	0	59	0
Auburn University	80,544	20,575	2,720	470	460	51,324	755	1,876	2,364
U of Alabama Birmingham	232,115	8,438	3,139	1	459	214,654	5,117	307	0
U of Alabama Huntsville	40,203	16,887	8,624	5,287	7,352	661	0	83	1,309
U of South Alabama	11,990e	617e	119e	337e	678e	9,908e	42e	289e	0e
University of Alabama, The	28,909	13,241	2,952	2,425	4,719	2,139	460	2,256	717
Private, total	9,906	940	375	8	21	6,700	0	1,862	0
Oakwood College	567	0	202	8	21	336	0	0	0
Selma University	116	0	0	0	0	116	0	0	0
Talladega College	0	0	0	0	0	0	0	0	0
Tuskegee University	9,223	940	173	0	0	6,248	0	1,862	0
Alaska, total	93,687	5,790	32,102	18,761	11,178	17,306	0	3,768	4,782
Public, total	93,687	5,790	32,102	18,761	11,178	17,306	0	3,768	4,782
U of Alaska Anchorage	4,782	0i	0i	0i	0i	0i	0i	0i	4,782i
U of Alaska Fairbanks	88,825	5,790	32,102	18,756	11,178	17,234	0	3,765	0
U of Alaska, SE	80	0	0	5	0	72	0	3	0
Arizona, total	439,286	78,268	104,322	28,574	11,066	178,553	8,250	25,523	4,730
Public, total	439,286	78,268	104,322	28,574	11,066	178,553	8,250	25,523	4,730
Arizona State University	107,184	34,378	19,937	16,451	3,672	13,203	5,616	9,248	4,679
Northern Arizona U	11,857	796	1,158	1,052	149	6,546	22	2,091	43
University of Arizona	320,245	43,094	83,227	11,071	7,245	158,804	2,612	14,184	8
Arkansas, total	111,999	9,845	4,337	1,702	330	92,379	217	2,534	655
Public, total	111,927	9,845	4,305	1,702	330	92,339	217	2,534	655
Arkansas State University	1,527	105	101	19	6	1,080	1	215	0
Arkansas Tech Univ	598	102	93	200	11	181	0	11	0
U Arkansas Main	61,585	9,638	3,955	1,483	299	43,733	216	2,222	39
U Arkansas Medical Sci	44,066	0	0	0	0	44,066	0	0	0
U Arkansas Pine Bluff	4,151e	0e	156e	0e	14e	3,279e	0e	86e	616e
Private, total	72	0	32	0	0	40	0	0	0
Philander Smith College	72	0	32	0	0	40	0	0	0
California, total	3,658,622	544,307	443,096	242,314	185,444	2,020,346	49,769	127,397	45,949
Public, total	2,678,664	344,363	268,158	207,081	92,406	1,583,065	38,132	110,201	35,258
CA St Poly U Pomona	1,069	12	0	0	0	1,057	0	0	0
CA St U Chico	3,106	118	0	20	579	647	0	1,742	0
CA St U Dominguez Hills	8,517	1,859i	1,108i	1,307i	635i	2,519i	248i	573i	268i
CA St U Fresno	11,450	2,493i	69i	218i	290i	7,891i	489i	0i	0i
CA St U Long Beach	31,283	23,439i	3,007i	2,196i	0i	2,534i	73i	0i	34i
CA St U Los Angeles	535	131i	81i	66i	41i	160i	17i	27i	12i
CA St U, Bakersfield	200e	43i	26i	30i	14i	64i	5i	13i	5i
Calif Polytechnic	11,892	3,507	268	0	4,800	2,558	27	0	732
Calif State San Bernadino	3,301	0	30	39	2,287	94	526	200	125
Calif State, Fullerton	1,749i	353i	298i	159i	126i	540i	48i	178i	47i
Calif State, Northridge	3,230	203	1,446	381	93	992	27	88	0
Humboldt State University	5,557	807	19	470	373	3,315	8	457	108
San Diego St University	45,579	3,853	3,267	2,861	1,956	19,928	4,436	2,728	6,550
San Francisco State U	5,000e	1,166i	719i	667i	384i	1,486i	155i	291i	132i
San Jose State University	21,005e	5,770e	1,881e	9,427e	328e	598e	2,938e	63e	0e
Sonoma State University	134	0	5	1	14	102	7	5	0
U CA Berkeley	451,539	107,062	93,676	7,244	6,129	173,208	7,080	38,531	18,609
U CA Davis	307,950	29,528	14,193	6,981	3,435	248,859	1,494	3,106	354
U CA Irvine	141,842	12,461	17,328	3,023	6,032	94,991	2,057	5,766	184

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

Page 2 of 14

State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
California, continued:									
Public, continued:									
U CA Los Angeles	477,620	46,108	41,873	9,960	12,755	327,302	8,623	28,802	2,197
U CA Riverside	75,821	8,439	6,883	8,968	625	45,241	1,986	2,567	1,112
U CA San Diego	461,632	47,725	36,154	107,958	37,772	215,713	5,012	10,084	1,214
U CA San Francisco	417,095	0	0	0	0	417,095	0	0	0
U CA Santa Barbara	104,561	37,147	21,057	24,007	4,565	7,495	1,777	8,037	476
U CA Santa Cruz	52,902	3,061	22,600	12,880	2,195	8,676	1,099	2,296	95
US Naval Postgrad School	34,095e	9,078i	2,170i	8,218i	6,978i	0i	0i	4,647i	3,004i
Private, total	979,958	199,944	174,938	35,233	93,038	437,281	11,637	17,196	10,691
Biola University	0	0	0	0	0	0	0	0	0
C R Drew U of Med & Sci	24,484	0	0	0	0	24,484	0	0	0
CA Inst of Integral Stu	0	0	0	0	0	0	0	0	0
CA Sch Prof Psy S Diego	1,020e	0	0	0	0	0	1,020e	0	0
CA Sch Prof Psy-Alameda	498	0	0	0	0	0	498	0	0
CA Sch Prof Psy-Fresno	742	0	0	0	0	0	742	0	0
CA Sch Prof Psy-L.A.	0	0	0	0	0	0	0	0	0
California Inst of Tech	212,216	40,470	108,136	14,611	11,260	26,791	0	2,228	8,720
Claremont Graduate Sch	1,870	0	0	0	591	0	473	806	0
Fuller Theological Sem	80	0i	0i	0i	0i	0i	80i	0i	0i
Golden Gate University	0	0	0	0	0	0	0	0	0
Harvey Mudd College	5,699e	1,541i	865i	58i	206i	2,461i	41i	236i	291i
Loma Linda University	18,818	0	0	0	0	18,818	0	0	0
Occidental College	862	0	389	145	0	328	0	0	0
Pepperdine University	0	0	0	0	0	0	0	0	0
Pitzer College	297	0	0	0	0	1	246	50	0
Pomona College	1,619	0	349	47	15	433	433	342	0
Santa Clara University	2,326i	1,275i	148i	0i	104i	325i	8i	466i	0i
Stanford University	426,549	114,272	54,521	8,260	22,026	216,764	4,103	6,603	0
U of Southern California	280,741	42,148	10,415	12,095	58,796	145,206	3,987	6,437	1,657
US International U	0	0	0	0	0	0	0	0	0
University San Francisco	500e	125i	73i	5i	22i	227i	5i	23i	20i
University of San Diego	343	59i	42i	12i	18i	203i	1i	5i	3i
University of the Pacific	999	54	0	0	0	945	0	0	0
Western U of Hlth Sci	295e	0e	0e	0e	0e	295e	0e	0e	0e
Colorado, total	507,673	57,659	65,715	87,482	14,221	249,597	12,749	11,791	8,459
Public, total	496,456	55,801	62,076	87,380	13,947	248,658	10,932	9,203	8,459
Colorado School of Mines	21,715	14,578	4,199	1,124	1,702	0	0	112	0
Colorado State University	150,281	13,670	8,514	14,773	3,094	96,230	3,252	2,827	7,921
Fort Lewis College	243	0	129	0	0	80	0	34	0
U of Colorado HSC	130,450	0	0	0	0	130,450	0	0	0
U of Colorado, Boulder	184,237	24,982	47,822	71,312	8,564	18,844	7,237	4,938	538
U of Colorado, Col Spgs	1,137e	448e	187e	4e	144e	190e	119e	45e	0e
U of Colorado, Denver	2,794	757	148	163	295	396	97	938	0
U of Northern Colorado	701	0	258	0	0	166	35	242	0
U of Southern Colorado	979	144	425	0	40	364	5	1	0
US Air Force Academy	3,761	1,222	378	3	108	1,844	187	19	0
W State Coll, Colorado	158	0	16	1	0	94	0	47	0
Private, total	11,217	1,858	3,639	102	274	939	1,817	2,588	0
Colorado College	877	0	176	102	74	81	74	370	0
Regis University	93	0	74	0	0	19	0	0	0
University of Denver	10,247	1,858	3,389	0	200	839	1,743	2,218	0
Connecticut, total	418,122	32,504	25,669	9,844	6,470	320,691	9,985	9,195	3,764
Public, total	135,744	24,237	4,865	7,513	1,440	82,028	5,494	6,420	3,747
Southern Connecticut St U	188	44i	24i	27i	13i	58i	6i	11i	5i
US Coast Guard Academy	570	400	170	0	0	0	0	0	0
University of Connecticut	134,986	23,793	4,671	7,486	1,427	81,970	5,488	6,409	3,742

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

Page 3 of 14

State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Connecticut, continued:									
Private, total	282,378	8,267	20,804	2,331	5,030	238,663	4,491	2,775	17
Connecticut College	432i	100i	99i	5i	26i	161i	3i	21i	17i
Trinity College	1,552	1,072	57	0	100	170	21	132	0
University of Hartford	773	283	169	0	35	71	0	215	0
University of New Haven	198	49	0	131	18	0	0	0	0
Wesleyan University	5,373	0	1,883	228	86	2,140	842	194	0
Yale University	274,050	6,763	18,596	1,967	4,765	236,121	3,625	2,213	0
Delaware, total	76,286	26,908	11,013	9,288	3,306	19,121	1,657	4,993	0
Public, total	76,286	26,908	11,013	9,288	3,306	19,121	1,657	4,993	0
Delaware State University	2,765	0	869	0	3	1,773	88	32	0
University of Delaware	73,521	26,908	10,144	9,288	3,303	17,348	1,569	4,961	0
District of Columbia, total	223,786	13,779	21,741	467	15,925	137,795	4,152	18,102	11,825
Public, total	3,394	174	715	268	232	1,185	0	806	14
University of DC	3,394	174	715	268	232	1,185	0	806	14
Private, total	220,392	13,605	21,026	199	15,693	136,610	4,152	17,296	11,811
American University	2,987	0	1,135	0	261	288	143	1,160	0
Catholic U of America	13,317	2,642	7,987	0	0	979	1,221	480	8
Gallaudet University	2,348	0	0	0	0	137	788	1,423	0
George Washington U	66,757	8,781	1,952	104	13,931	23,269	541	6,461	11,718
Georgetown University	111,426	0	5,473e	35e	91e	98,480e	472e	6,816e	59e
Howard University	23,557	2,182	4,479	60	1,410	13,457	987	956	26
Florida, total	788,743	106,944	82,361	85,369	26,211	416,703	25,537	36,484	9,134
Public, total	636,969	102,971	78,924	53,715	25,033	317,655	18,286	33,003	7,382
Florida A&M University	21,622	3,897	2,017	1,495	1,920	12,272	0	21	0
Florida Atlantic U	17,151	10,035	399	2,613	950	363	1,494	1,067	230
Florida International U	25,061	10,359	1,087	4,072	2,074	1,331	368	5,770	0
Florida State University	97,673	11,237	41,417	13,871	7,020	10,312	4,589	9,213	14
U of Central Florida	42,466	8,353	10,970	9,068	945	1,894	687	3,813	6,736
U of South Florida	123,961	12,902	1,414	17,526	440	82,586	6,636	2,456	1
Univ of West Florida	4,588	2	122	0	3,042	541	34	446	401
University of Florida	304,447	46,186	21,498	5,070	8,642	208,356	4,478	10,217	0
Private, total	151,774	3,973	3,437	31,654	1,178	99,048	7,251	3,481	1,752
Bethune Cookman College	583	0	0	4	0	577	0	2	0
Embry-Riddle Aero Univ	2,647e	325e	160e	356e	54e	0e	0e	0e	1,752e
Florida Inst of Tech	5,830	2,280	923	982	865	608	172	0	0
Nova Southeastern U	3,106	0	0	1,860	0	25	1,165	56	0
University of Miami	139,608	1,368	2,354	28,452	259	97,838	5,914	3,423	0
Georgia, total	839,715	202,956	49,881	32,144	49,027	429,923	19,615	51,881	4,288
Public, total	584,288	180,481	33,307	26,754	44,331	228,270	18,042	49,821	3,282
Albany State University	1,019e	41e	4e	0e	68e	499e	0e	112e	295e
Fort Valley State U	2,937	0	0	0	0	2,674	0	263	0
Georgia Institute of Tech	263,725	172,053	19,539	13,224	35,222	14,217	3,457	3,026	2,987
Georgia Southern U	833	0	340	79	0	412	2	0	0
Georgia State University	36,523	0	3,416	379	1,557	8,375	7,604	15,192	0
Kennesaw State Univ	142	0	142	0	0	0	0	0	0
Medical Col of Georgia	41,103	0	0	0	0	41,103	0	0	0
Savannah State Univ	513	135	0	378	0	0	0	0	0
University of Georgia	237,493	8,252	9,866	12,694	7,484	160,990	6,979	31,228	0
Private, total	255,427	22,475	16,574	5,390	4,696	201,653	1,573	2,060	1,006
Clark Atlanta University	19,467	3,237i	3,441i	5,390i	3,610i	3,025i	0i	764i	0i
Emory University	189,170	0	6,304	0	856	179,929	1,008	1,073	0
Inst of Paper Sci & Tech	10,533e	5,310i	4,358i	0i	0i	865i	0i	0i	0i
Mercer University	17,250	13,928	888	0	133	2,288	7	6	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Georgia, continued:									
Private, continued:									
Morehouse College	2,853	0	293	0	63	1,097	273	213	914
Morehouse School of Med	13,622	0	0	0	0	13,622	0	0	0
Morris Brown College	525	0	192	0	0	0	241	0	92
Spelman College	2,007	0	1,098	0	34	827	44	4	0
Hawaii, total	156,810	6,987	24,828	52,019	401	62,503	954	3,409	5,709
Public, total	156,810	6,987	24,828	52,019	401	62,503	954	3,409	5,709
Univ of Hawaii at Manoa	156,810	6,987	24,828	52,019	401	62,503	954	3,409	5,709
Idaho, total	71,674	11,099	3,583	6,062	231	44,626	826	2,929	2,318
Public, total	71,674	11,099	3,583	6,062	231	44,626	826	2,929	2,318
Boise State University	3,501	86	259	1,538	48	829	179	355	207
Idaho State University	5,642	378	1,403	592	8	3,164	3	94	0
University of Idaho	62,531	10,635	1,921	3,932	175	40,633	644	2,480	2,111
Illinois, total	1,101,056	161,869	120,486	39,304	82,863	593,470	22,253	53,160	27,651
Public, total	590,022	113,744	64,248	32,640	75,584	239,566	13,460	36,046	14,734
Chicago State University	1,266	0	0	0	0	0	0	0	1,266
Illinois State University	4,326	0	400	24	729	1,614	145	1,414	0
Northeastern Illinois U	101	0	0	15	0	49	4	0	33
Northern Illinois U	6,455	315	2,661	183	302	1,924	942	128	0
S Illinois U Edwardsville	1,316	259	71	174	54	158	6	594	0
Sthrn IL U Carbondale	33,169	5,190	1,914	890	763	18,967	368	2,125	2,952
U of Illinois Urbana-Cham	358,247	91,373	48,846	28,452	68,062	87,213	7,385	21,908	5,008
University of IL Chicago	175,093	15,107	8,317	2,011	3,688	127,786	4,388	8,321	5,475
Western Illinois U	10,049	1,500	2,039	891	1,986	1,855	222	1,556	0
Private, total	511,034	48,125	56,238	6,664	7,279	353,904	8,793	17,114	12,917
Bradley University	1,341	552	594	0	11	184	0	0	0
DePaul University	1,028	0	77	4	184	13	717	33	0
Finch U Hlth Sci Chicago	6,764	0	0	0	0	6,534	230	0	0
Illinois Inst of Tech	13,438	4,955	1,826	0	321	6,290	46	0	0
Lake Forest College	190	0	60	0	0	130	0	0	0
Loyola U of Chicago	29,001	0	597	28	140	25,799	705	1,732	0
Midwestern University	1,701	0	0	0	0	1,701	0	0	0
Northwestern University	233,809	42,618	18,142	666	4,136	146,887	1,911	6,569	12,880
Rush University	60,957	0	0	0	0	58,166	2,791	0	0
University of Chicago	162,805	0	34,942	5,966	2,487	108,200	2,393	8,780	37
Indiana, total	460,418	83,474	60,981	11,394	14,537	227,239	12,325	44,821	5,647
Public, total	428,234	73,635	47,250	11,394	12,827	221,891	11,351	44,269	5,617
Ball State University	2,056	156	290	470	38	656	72	360	14
Indiana State University	4,977	30	27	224	0	315	0	4,373	8
Indiana University	194,790	3,343	25,926	6,428	4,011	119,441	8,552	21,829	5,260
Purdue University	226,411	70,106	21,007	4,272	8,778	101,479	2,727	17,707	335
Private, total	32,184	9,839	13,731	0	1,710	5,348	974	552	30
Rose-Hulman Inst of Tech	1,132	839	58	0	167	38	0	0	30
University of Notre Dame	30,483	8,872	13,360	0	1,415	5,310	974	552	0
Valparaiso University	569	128	313	0	128	0	0	0	0
Iowa, total	375,300	60,868	25,045	5,731	11,008	238,450	3,455	24,529	6,214
Public, total	369,978	60,439	23,940	5,695	10,693	235,979	3,402	23,618	6,212
Iowa State University	161,301	40,019	9,105	3,343	9,275	78,037	614	15,369	5,539
U of Iowa	207,135	20,409	14,766	1,991	1,418	157,236	2,788	7,854	673
U of Northern Iowa	1,542	11	69	361	0	706	0	395	0
Private, total	5,322	429	1,105	36	315	2,471	53	911	2
Des Moines U Ost Med Ctr	673	0	0	0	0	673	0	0	0
Drake University	349	0	176	0	0	129	0	43	1
Grinnell College	4,300	429	929	36	315	1,669	53	868	1
Maharishi U of Mgmt	0	0	0	0	0	0	0	0	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Kansas, total	234,501	38,804	20,287	10,706	5,442	140,326	1,902	7,045	9,989
Public, total	234,501	38,804	20,287	10,706	5,442	140,326	1,902	7,045	9,989
Kansas State University	85,580	13,356	7,916	840	1,102	56,739	857	3,115	1,655
Pittsburg State U	1,614	994	22	0	0	226	45	327	0
University of Kansas	132,752	13,085	11,388	9,858	3,756	82,370	535	3,426	8,334
Wichita State University	14,555	11,369	961	8	584	991	465	177	0
Kentucky, total	273,903	40,097	15,079	7,741	6,352	182,112	4,270	8,829	9,423
Public, total	273,903	40,097	15,079	7,741	6,352	182,112	4,270	8,829	9,423
Eastern Kentucky U	36,708	7,479i	4,293i	6,352i	2,666i	10,808i	992i	2,789i	1,329i
Kentucky State University	713e	0e	0e	0e	61e	652e	0e	0e	0e
Murray State University	1,966	4	66	461	0	1,428	0	7	0
Northern Kentucky U	144	22	85	0	0	31	2	4	0
University of Kentucky	174,034	27,478	5,623	612	1,777	126,650	870	3,222	7,802
University of Louisville	57,051	5,111	2,715	236	1,848	42,131	2,220	2,790	0
Western Kentucky Univ	3,287	3	2,297	80	0	412	186	17	292
Private, total	0	0	0	0	0	0	0	0	0
Spalding University	0	0	0	0	0	0	0	0	0
Louisiana, total	376,098	56,692	22,841	29,625	10,027	225,170	1,386	15,287	15,070
Public, total	285,305	50,468	19,702	29,138	9,560	152,522	820	13,510	9,585
Grambling State U	1,997e	111e	500e	0e	910e	470e	0e	6e	0e
Louisiana St U, A&M Col	158,672	27,020	11,130	26,413	2,849	85,059	91	5,400	710
Louisiana St U, Hlth Sci	44,726	0	0	0	0	44,726	0	0	0
Louisiana St U, Shreveport	113	0	35	0	0	59	0	19	0
Louisiana Tech University	7,659e	3,237e	323e	3e	521e	622e	5e	6e	2,942e
McNeese State University	699	0	42	611	16	30	0	0	0
Southeastern Louisiana U	976	10	171	35	27	628	70	35	0
Southern U A&M All Camp	9,296	1,813	1,371	275	270	5,052	44	471	0
U of LA Monroe, The	8,135	0	124	486	42	677	0	2,896	3,910
U of LA at Lafayette	30,735	7,516	1,018	287	4,423	14,834	226	771	1,660
University of New Orleans	22,297	10,761	4,988	1,028	502	365	384	3,906	363
Private, total	90,793	6,224	3,139	487	467	72,648	566	1,777	5,485
Dillard University	175	0	175	0	0	0	0	0	0
Tulane University	87,324	6,224	2,653	487	467	72,140	566	1,777	3,010
Xavier University of LA	3,294	0	311	0	0	508	0	0	2,475
Maine, total	44,437	5,725	5,032	12,505	527	18,013	447	2,188	0
Public, total	42,818	5,725	4,321	12,250	395	17,652	417	2,058	0
U of Maine	41,452	5,725	4,321	11,974	328	16,742	417	1,945	0
Univ of Southern Maine	1,366	0	0	276	67	910	0	113	0
Private, total	1,619	0	711	255	132	361	30	130	0
Bates College	754	0	268	255	26	174	21	10	0
Bowdoin College	510	0	334	0	0	141	0	35	0
Colby College	355	0	109	0	106	46	9	85	0
Maryland, total	1,387,262	311,757	180,689	92,326	123,544	585,132	5,851	68,171	19,792
Public, total	511,299	84,617	58,800	47,589	28,183	228,557	2,468	60,411	674
Bowie State University	2,675	3	0	236	2,109	327	0	0	0
Coppin State College	11	0	0	0	0	11	0	0	0
Morgan State University	1,066	14	1,052	0	0	0	0	0	0
Towson State University	1,452	0	110	0	436	232	0	0	674
U MD Baltimore County	21,854	6,942	2,976	5,442	739	3,015	555	2,185	0
U MD Biotechnology Inst	31,172	0	0	7,747	0	23,425	0	0	0
U MD Ctr for Environ Sci	26,816	0	0	26,816	0	0	0	0	0
U MD Eastern Shore	2,508	9	47	373	284	1,780	0	15	0
U MD at College Park	257,628	76,548	53,959	6,828	24,266	35,966	1,913	58,148	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Maryland, continued:									
Public, continued:									
U of MD Baltimore	140,903	0	0	0	0	140,903	0	0	0
US Naval Academy	2,316	1,101	656	147	349	0	0	63	0
Unif Svcs U of Hlth Sci	22,898	0	0	0	0	22,898	0	0	0
Private, total	875,963	227,140	121,889	44,737	95,361	356,575	3,383	7,760	19,118
Johns Hopkins U ¹	874,518	225,813	121,817	44,700	95,352	356,575	3,383	7,760	19,118
Loyola College	1,445	1,327	72	37	9	0	0	0	0
Massachusetts, total	1,402,522	243,682	185,840	115,082	76,387	616,434	20,128	85,440	59,529
Public, total	206,254	24,724	24,510	11,809	13,855	114,546	5,343	8,591	2,876
Bridgewater State College	260	0	0	93	0	19	0	26	122
Fitchburg State College	13	0	0	0	0	0	0	0	13
U MA Amherst	86,576	15,146	18,041	7,587	12,048	26,596	4,071	1,046	2,041
U MA Boston	11,132	88	377	780	109	2,422	439	6,776	141
U MA Dartmouth	5,820	1,636	628	1,288	1,057	1,085	20	106	0
U MA Lowell	19,413	7,854	5,464	2,061	641	1,384	813	637	559
U MA Worcester	83,040	0	0	0	0	83,040	0	0	0
Private, total	1,196,268	218,958	161,330	103,273	62,532	501,888	14,785	76,849	56,653
Amherst College	1,498	0	495	135	12	722	32	102	0
Boston College	21,726	0	6,377	547	9,700	2,138	327	2,637	0
Boston University	141,102	16,110	11,945	3,775	3,245	94,478	2,465	1,868	7,216
Brandeis University	48,305	0	3,800	0	1,324	20,127	1,372	21,682	0
Clark University	2,651	1,506	877	0	10	104	136	18	0
College of the Holy Cross	252	0	115	0	19	46	70	2	0
Hampshire College	2,900	880	234	17	197	309	387	874	2
Harvard University	326,193	4,960	30,424	14,089	3,060	221,419	4,548	33,073	14,620
MA Col Phar Allied Hlth	89e	0e	0e	0e	0e	89e	0e	0e	0e
MA Institute of Tech	420,306	153,789	92,189	23,494	39,199	66,924	1,080	8,908	34,723
Mount Holyoke College	1,721	0	507	16	712	389	1	96	0
New England Col Opt	1,643	0	0	0	0	1,643	0	0	0
Northeastern University	30,209	13,118	6,722	0	1,887	6,183	1,368	931	0
Radcliffe College	4,948	346i	1,491i	250i	227i	1,790i	206i	580i	58i
Simmons College	937	0	1	0	0	112	2	822	0
Smith College	1,107	0	81	391	64	450	31	90	0
Tufts University	101,728	7,346	3,843	1,155	1,526	81,075	2,747	4,036	0
Wellesley College	4,943i	0i	972i	0i	225i	2,696i	0i	1,050i	0i
Wentworth Inst of Tech	817	0	148	669	0	0	0	0	0
Williams College	1,853e	441i	309i	12i	92i	874i	13i	78i	34i
Woods Hole Oceanogr Inst	71,722	12,999	0	58,723	0	0	0	0	0
Worcester Polytech Inst	9,618	7,463	800	0	1,033	320	0	2	0
Michigan, total	919,390	184,180	71,234	11,902	20,871	527,934	13,705	84,834	4,730
Public, total	914,860	183,147	69,227	11,811	20,663	527,152	13,700	84,533	4,627
Central Michigan U	755	96	175	175	39	175	50	40	5
Eastern Michigan U	1,512	0	665	276	0	292	0	279	0
Ferris State University	15	3i	1i	0i	0i	11i	0i	0i	0i
Grand Valley State U	992	4	109	697	0	125	27	30	0
Michigan State University	207,912	16,673	31,712	1,757	3,684	130,392	2,526	18,731	2,437
Michigan Tech University	28,074	18,896	1,483	1,691	619	5,012	0	175	198
Oakland University	6,422	1,094	569	0	294	4,118	14	0	333
University of Michigan	508,619	131,570	21,915	6,511	12,715	270,898	8,285	56,723	2
Wayne State University	146,832	10,823	11,190	19	880	114,217	2,775	5,276	1,652
Western Michigan U	13,727	3,988	1,408	685	2,432	1,912	23	3,279	0
Private, total	4,530	1,033	2,007	91	208	782	5	301	103
Andrews University	290e	2e	16e	0e	5e	76e	5e	186e	0e
Calvin College	1,033	22	358	30	43	402	0	115	63
Hope College	1,039	162	352	61	160	304	0	0	0
Kettering University	647	397	250	0	0	0	0	0	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Michigan, continued:									
Private, continued:									
Lawrence Tech Univ	344	344	0	0	0	0	0	0	0
U of Detroit Mercy	1,177	106	1,031	0	0	0	0	0	40
Minnesota, total	375,919	39,421	18,417	13,656	12,829	269,971	7,126	14,483	16
Public, total	373,883	39,402	17,749	13,393	12,584	269,372	7,095	14,272	16
Minnesota State, Mankato	564	78	29	241	1	199	0	0	16
St. Cloud State Univ	1,935e	760e	338e	166e	289e	118e	0e	264e	0e
University of Minnesota	371,384	38,564	17,382	12,986	12,294	269,055	7,095	14,008	0
Private, total	2,036	19	668	263	245	599	31	211	0
Augsburg College	303	0	303	0	0	0	0	0	0
Carleton College	927	0	168	206	232	156	0	165	0
Gustavus Adolphus Col	222	0	64	57	0	27	31	43	0
St Olaf College	506	0	115	0	7	384	0	0	0
University of St. Thomas	78	19	18	0	6	32	0	3	0
Mississippi, total	160,287	33,816	14,890	10,075	6,223	83,126	546	4,618	6,993
Public, total	158,946	33,766	14,701	10,075	6,079	82,168	546	4,618	6,993
Alcorn State University	5,223	0	0	0	0	5,223	0	0	0
Jackson State University	8,823	0	3,279	0	3,259	2,014	0	0	271
Mississippi State U	110,896	30,713	2,652	3,199	2,485	65,748	133	3,829	2,137
Mississippi Valley St U	495	58	289	0	142	6	0	0	0
U Mississippi, All Camp	17,298	2,805	4,411	0	50	7,783	266	637	1,346
U Southern Mississippi	16,211	190	4,070	6,876	143	1,394	147	152	3,239
Private, total	1,341	50	189	0	144	958	0	0	0
Rust College	114	50	0	0	0	64	0	0	0
Tougaloo College	1,227	0	189	0	144	894	0	0	0
Missouri, total	549,876	47,814	24,776	7,191	13,350	427,794	7,951	18,738	2,262
Public, total	204,825	38,884	14,315	2,286	3,894	121,767	6,232	15,860	1,587
Lincoln University	2,686	0	0	0	0	2,686	0	0	0
SW Missouri State Univ	1,324	27	137	48	58	679	0	375	0
Southeast Missouri St U	250e	61 i	38 i	31 i	18 i	77 i	7 i	13 i	5 i
Truman State University	754e	0e	73e	0e	16e	79e	0e	0e	586e
U of Missouri Columbia	149,002	20,312	5,082	834	1,563	105,545	4,235	11,424	7
U of Missouri Kansas City	14,331	207	1,098	134	1,177	10,066	454	492	703
U of Missouri Rolla	25,893	18,277	5,059	1,239	896	397	22	3	0
U of Missouri St Louis	10,294	0	2,828	0	166	1,947	1,514	3,553	286
U of Missouri Sys Admn	291	0	0	0	0	291	0	0	0
Private, total	345,051	8,930	10,461	4,905	9,456	306,027	1,719	2,878	675
Forest Inst of Prof Psy	0	0	0	0	0	0	0	0	0
Kirkville Col Osteo Med	743	0	0	0	0	743	0	0	0
Saint Louis University	27,817	0	4	520	57	27,118	27	1	90
U of Health Sci (MO)	885e	0 i	0 i	0 i	0 i	885 i	0 i	0 i	0 i
Washington University	315,606	8,930	10,457	4,385	9,399	277,281	1,692	2,877	585
Montana, total	84,460	11,214	8,573	2,912	2,216	49,990	36	4,961	4,558
Public, total	84,460	11,214	8,573	2,912	2,216	49,990	36	4,961	4,558
MT Tech of the U of MT	4,613	2,367	302	1,934	10	0	0	0	0
Montana St U Bozeman	55,475	8,847	7,279	639	477	33,283	0	2,981	1,969
University of Montana, The	24,372	0	992	339	1,729	16,707	36	1,980	2,589
Nebraska, total	205,363	22,112	11,338	12,163	4,942	132,852	1,714	11,907	8,335
Public, total	189,348	22,112	11,167	12,115	4,938	117,127	1,714	11,840	8,335
U of NE Med Ctr	54,205	0	0	0	0	54,205	0	0	0
U of Nebraska at Lincoln	131,046	22,112	10,463	11,314	4,283	62,623	1,536	10,380	8,335
U of Nebraska at Omaha	4,097	0	704	801	655	299	178	1,460	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Nebraska, continued:									
Private, total	16,015	0	171	48	4	15,725	0	67	0
Creighton University	16,015	0	171	48	4	15,725	0	67	0
Nevada, total	91,485	5,088	11,367	31,652	945	21,206	1,328	2,717	17,182
Public, total	91,485	5,088	11,367	31,652	945	21,206	1,328	2,717	17,182
Desert Research Institute	23,376	0	0	17,043	0	0	0	0	6,333
U of Nevada Las Vegas	20,170	1,340	6,374	7,862	698	2,351	171	1,143	231
U of Nevada Reno	47,939	3,748	4,993	6,747	247	18,855	1,157	1,574	10,618
New Hampshire, total	127,135	15,572	5,889	27,834	2,914	66,308	2,422	5,401	795
Public, total	57,613	8,207	2,740	27,107	625	12,765	1,206	4,629	334
U of New Hampshire	57,613	8,207	2,740	27,107	625	12,765	1,206	4,629	334
Private, total	69,522	7,365	3,149	727	2,289	53,543	1,216	772	461
Dartmouth College	69,522	7,365	3,149	727	2,289	53,543	1,216	772	461
New Jersey, total	520,957	95,587	56,241	38,344	26,955	243,594	13,424	37,370	9,442
Public, total	381,097	48,811	25,759	26,491	18,814	223,294	8,155	20,388	9,385
NJ Inst of Technology	40,982	19,714	3,127	8,532	2,914	0	0	169	6,526
Rutgers the State U NJ	213,838	29,097	22,632	17,959	15,900	97,017	8,155	20,219	2,859
U Med & Dent of NJ	126,277	0	0	0	0	126,277	0	0	0
Private, total	139,860	46,776	30,482	11,853	8,141	20,300	5,269	16,982	57
Fairleigh Dickinson U	356	0	3	0	5	85	23	183	57
Monmouth University	357	0	0	1	353	3	0	0	0
Princeton University	124,237	39,080	28,018	10,630	7,125	19,429	5,246	14,709	0
Seton Hall University	1,116	0	333	0	0	783	0	0	0
Stevens Inst of Tech	13,794	7,696	2,128	1,222	658	0	0	2,090	0
New Mexico, total	224,500	92,130	16,594	12,188	8,781	54,983	4,971	7,535	27,318
Public, total	224,500	92,130	16,594	12,188	8,781	54,983	4,971	7,535	27,318
NM Inst Mining & Tech	26,061	16,835	1,984	6,741	193	295	13	0	0
New Mexico Highlands U	2,712	665	1,359	83	38	282	78	10	197
New Mexico State Univ	79,877	47,632	4,572	3,421	5,221	17,582	388	854	207
University of New Mexico	115,850	26,998	8,679	1,943	3,329	36,824	4,492	6,671	26,914
New York, total	2,065,882	223,733	206,327	88,170	83,849	1,350,275	44,793	62,750	5,985
Public, total	518,405	58,205	63,304	35,469	22,661	293,944	18,492	24,492	1,838
CUNY Baruch Col	526	0	28	9	18	25	8	438	0
CUNY Brooklyn College	5,293	0	1,206	142	1,594	843	917	591	0
CUNY City College	13,452	3,104	6,843	1,053	829	1,330	265	28	0
CUNY Col Staten Island	979	11	709	6	93	71	60	22	7
CUNY Grad Ctr	1,098	0	0	0	1	0	12	788	297
CUNY H H Lehman Col	1,370	0	639	22	228	245	208	28	0
CUNY Hunter College	15,934	0	4,448	1,247	330	5,213	1,644	2,785	267
CUNY John Jay Col Cr Just	1,442	0	24	3	11	0	2	970	432
CUNY Queens College	3,083	0	1,090	69	310	1,203	264	147	0
CUNY York College	1,392	0	4	4	6	1,378	0	0	0
SUNY Col Env Sci Frstry	25,385	8,958	1,977	2,607	0	11,745	0	98	0
SUNY Col Old Westbury	691	0	299	0	116	276	0	0	0
SUNY Col at Brockport	676	0	69	64	2	531	0	10	0
SUNY Col at Buffalo	1,689	0	176	1,020	0	414	0	74	5
SUNY Col at Cortland	82	0	27	32	0	19	4	0	0
SUNY Col at Fredonia	92	0	55	0	15	21	0	1	0
SUNY Col at Geneseo	543	0	249	45	51	151	21	26	0
SUNY Col at Oswego	542	0	0	279	13	0	250	0	0
SUNY Col at Plattsburgh	793	0	389	378	0	0	0	26	0
SUNY Col of Optometry	1,135	0	0	0	0	1,135	0	0	0
SUNY Hlth Sci Ctr Brklyn	28,840	0	0	0	0	28,840	0	0	0
SUNY Purchase College	188	0	0	152	0	34	0	2	0
SUNY Upstate Med U	15,099	0	0	0	0	15,099	0	0	0
SUNY at Albany	64,278	0	8,051	6,443	702	38,486	3,054	7,542	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
New York, continued:									
Public, continued:									
SUNY at Binghamton	17,998	5,139	2,320	900	1,221	1,914	3,368	3,136	0
SUNY at Buffalo	166,823	29,946	10,338	1,581	8,554	105,524	5,391	5,317	172
SUNY at Stony Brook	148,982	11,047	24,363	19,413	8,567	79,447	3,024	2,463	658
Private, total	1,547,477	165,528	143,023	52,701	61,188	1,056,331	26,301	38,258	4,147
Adelphi University	254	0	145	0	1	85	23	0	0
Albany Medical College	10,377	0	0	0	0	10,377	0	0	0
Alfred University	5,857	5,857	0	0	0	0	0	0	0
Barnard College	1,181	0	112	35	40	382	394	218	0
Clarkson University	6,989	5,222	1,226	0	295	133	113	0	0
Columbia U in City of NY	279,587	15,645	21,500	44,003	5,892	184,913	2,735	4,899	0
Cooper Union	144	144	0	0	0	0	0	0	0
Cornell University	395,552	49,641	79,447	4,170	20,317	222,855	6,372	12,750	0
Fordham University	3,134	0	68	106	35	1,065	587	1,273	0
Hofstra University	716	680	11	0	0	25	0	0	0
Ithaca College	2,066	0	72	0	1,383	499	94	18	0
Long Island University	1,406	0	635	127	17	436	80	111	0
Manhattan College	485	485	0	0	0	0	0	0	0
Mt Sinai Sch Med	127,765	0	0	0	0	127,765	0	0	0
New School University	5,230	0	0	0	0	692	175	4,363	0
New York Inst Technology	370	88	0	24	0	258	0	0	0
New York Medical College	20,436	0	0	0	0	20,436	0	0	0
New York University	167,179	0	5,775	242	11,611	136,329	4,944	5,979	2,299
Pace University All Cmp	571	0	0	54	0	452	0	0	65
Polytechnic University	9,050	7,035	390	0	1,625	0	0	0	0
Rensselaer Polytech Inst	39,034	28,275	5,484	893	1,924	2,102	29	177	150
Rochester Inst of Tech	9,340e	1,025e	4,283e	1,094e	0	2,830e	0	0	108e
Rockefeller Univ, The	121,519	0	3,579	0	2,225	115,715	0	0	0
Skidmore College	236	0	22	0	19	94	83	18	0
St John's University (NY)	1,617	0	32	0	25	797	258	67	438
Syracuse University	39,640	9,157	6,924	1,189	12,111	4,522	1,873	2,796	1,068
Teachers Col, Columbia U	7,206	0	0	0	300	421	2,250	4,235	0
Union College (NY)	1,043	266	192	204	62	216	11	92	0
University of Rochester	177,126	41,864	13,049	559	3,280	110,841	6,276	1,241	16
Vassar College	596i	144i	77i	1i	26i	320i	4i	21i	3i
Yeshiva University	111,771	0	0	0	0	111,771	0	0	0
North Carolina, total	1,012,576	109,731	61,257	43,950	27,917	713,296	10,096	42,828	3,501
Public, total	571,905	94,779	34,801	36,321	24,681	341,506	5,810	30,949	3,058
Appalachian State U	621	8	73	77	49	196	14	204	0
East Carolina University	9,014	0	703	918	100	6,648	0	645	0
Elizabeth City State U	1,040	402	0	0	361	277	0	0	0
Fayetteville State U	265	0	0	0	0	265	0	0	0
NC A&T State University	14,741	8,922	567	0	429	4,004	155	613	51
NC State University	270,621	80,586	15,759	17,945	12,002	134,338	1,556	5,504	2,931
North Carolina Central U	825e	0i	198i	0i	0i	507i	0i	120i	0i
U of NC Asheville	742	0	74	651	0	17	0	0	0
U of NC Chapel Hill	252,767	0	15,851	11,271	10,206	189,813	3,070	22,556	0
U of NC Greensboro	2,368	5	93	0	56	1,078	248	888	0
U of NC at Charlotte	9,041	4,856	707	311	1,451	1,149	147	394	26
U of NC at Wilmington	7,647	0	588	5,098	25	1,274	590	22	50
Western Carolina U	501	0	188	50	0	230	30	3	0
Winston Salem State U	1,712	0	0	0	2	1,710	0	0	0
Private, total	440,671	14,952	26,456	7,629	3,236	371,790	4,286	11,879	443
Bennett College	811e	0e	151e	0e	50e	264e	10e	150e	186e
Duke University	348,274	14,650	17,061	7,629	2,872	290,206	4,276	11,580	0
Johnson C Smith U	8,659	302i	8,056i	0i	152i	0i	0i	149i	0i
Shaw University	100	0	0	0	0	100	0	0	0
Wake Forest University	82,827	0	1,188	0	162	81,220	0	0	257

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
North Dakota, total	61,695	9,746	5,257	1,607	1,047	38,026	522	4,004	1,486
Public, total	61,695	9,746	5,257	1,607	1,047	38,026	522	4,004	1,486
North Dakota State U	44,696	886	4,776	178	973	33,813	512	3,558	0
Univ of North Dakota	16,999	8,860	481	1,429	74	4,213	10	446	1,486
Ohio, total	830,701	195,723	60,530	12,003	24,047	474,045	10,614	43,418	10,321
Public, total	608,009	135,600	51,272	11,361	23,228	329,826	9,548	37,248	9,926
Air Force Inst of Tech	4,316	3,012	0	470	834	0	0	0	0
Bowling Green State U	3,454	232	1,102	103	67	1,040	623	100	187
Central State University	1,497e	765i	25i	293i	130i	108i	30i	43i	103i
Cleveland State U	11,893e	4,276i	658i	3i	113i	770i	134i	5,939i	0i
Kent State University	11,083	222	6,844	319	783	1,117	1,357	441	0
Med Col of Ohio	12,467	0	0	0	0	12,467	0	0	0
Miami University (OH)	10,964	335i	2,827i	289i	2i	2,486i	679i	1,924i	2,422i
N.E. Ohio Univ Col of Med	3,389	0	0	0	0	3,389	0	0	0
Ohio State University	322,810	77,090	19,535	8,355	18,749	169,780	3,664	21,809	3,828
Ohio University	21,437	9,548	3,840	544	44	5,271	1,148	531	511
University of Akron	16,279	5,102	6,820	191	449	678	77	2,962	0
University of Cincinnati	153,002	25,453	4,892	238	330	115,975	624	3,166	2,324
University of Toledo	11,819	6,096	2,304	138	22	2,624	283	125	227
Wright State University	23,131	3,436	2,201	416	1,701	14,093	928	205	151
Youngstown State Univ	468	33	224	2	4	28	1	3	173
Private, total	222,692	60,123	9,258	642	819	144,219	1,066	6,170	395
Antioch University	0	0	0	0	0	0	0	0	0
Case Western Reserve U	182,332	26,239	6,525	283	489	143,074	662	5,060	0
College of Wooster	379	0	136	119	0	124	0	0	0
Denison University	314	0	161	1	76	48	9	8	11
John Carroll University	1,072	212i	143i	11i	68i	529i	23i	67i	19i
Kenyon College	100e	6i	35i	8i	3i	36i	3i	9i	0i
Ohio Wesleyan University	255	0	92	0	6	157	0	0	0
Union Institute, The	1,023	0	0	0	0	0	0	1,023	0
University of Dayton	36,937	33,386	2,166	220	177	251	369	3	365
Wilberforce University	280i	280i	0i	0i	0i	0i	0i	0i	0i
Oklahoma, total	238,799	36,353	22,130	29,006	4,974	111,541	12,628	17,861	4,306
Public, total	228,706	30,247	20,036	28,591	4,525	110,652	12,518	17,831	4,306
Langston University	2,340	0	0	0	0	2,340	0	0	0
Oklahoma State University	83,108	14,655	7,005	1,573	1,092	45,141	740	8,861	4,041
U of Central Oklahoma	1,173	0	73	0	135	700	0	0	265
University of Oklahoma	142,085	15,592	12,958	27,018	3,298	62,471	11,778	8,970	0
Private, total	10,093	6,106	2,094	415	449	889	110	30	0
Oral Roberts University	53	32	11	0	0	10	0	0	0
University of Tulsa	10,040	6,074	2,083	415	449	879	110	30	0
Oregon, total	319,700	20,570	17,652	39,699	15,954	206,952	7,459	11,228	186
Public, total	298,437	17,462	13,718	35,912	6,412	206,522	7,423	10,805	183
Oregon Health Sciences U	112,197i	0i	0i	0i	0i	106,952i	5,245i	0i	0i
Oregon State University	139,285	14,440	5,332	31,385	2,227	83,992	27	1,827	55
Portland State University	13,940	2,108	576	2,130	474	1,407	48	7,069	128
Southern Oregon Univ	320	0	82	6	0	185	0	47	0
University of Oregon	32,695	914	7,728	2,391	3,711	13,986	2,103	1,862	0
Private, total	21,263	3,108	3,934	3,787	9,542	430	36	423	3
Lewis and Clark College	600	0	260	0	0	39	0	301	0
OR Grad Inst Sci & Tech	19,818	2,988	3,517	3,759	9,519	0	0	35	0
Pacific University	0	0	0	0	0	0	0	0	0
Reed College	400e	20i	142i	24i	15i	143i	21i	32i	3i

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Oregon, continued:									
Private, continued:									
University of Portland	387	100	15	4	8	210	0	50	0
Willamette University	58	0	0	0	0	38	15	5	0
Pennsylvania, total	1,400,286	244,007	94,581	32,860	85,519	789,021	30,635	100,830	22,833
Public, total	698,769	148,434	51,540	27,571	9,889	361,640	19,525	63,820	16,350
East Stroudsburg U of PA	887 ^e	199 ⁱ	119 ⁱ	130 ⁱ	65 ⁱ	265 ⁱ	26 ⁱ	57 ⁱ	26 ⁱ
Indiana U of PA All Cmp	389	0	77	27	0	9	0	276	0
Kutztown U of PA	96	0	57	0	0	39	0	0	0
Lincoln University (PA)	972	0	785	0	0	98	0	0	89
Pennsylvania State U	379,402	138,455	37,420	26,740	4,503	101,867	10,774	45,289	14,354
Temple University	66,777	868	2,303	147	1,380	45,371	4,262	11,909	537
University of Pittsburgh	249,477	8,912	10,668	445	3,839	213,648	4,455	6,166	1,344
West Chester U of PA	769	0	111	82	102	343	8	123	0
Private, total	701,517	95,573	43,041	5,289	75,630	427,381	11,110	37,010	6,483
Allegheny College	734	0	61	421	0	252	0	0	0
MCP Hahnemann Univ	27,516	0	0	0	0	27,254	151	111	0
Bryn Mawr College	3,929	0	1,146	387	475	804	467	650	0
Bucknell University	1,335	951	158	15	44	105	27	35	0
Carnegie Mellon U	142,174	38,676	8,586	1,731	62,589	12,076	6,300	9,101	3,115
Dickinson College	948	0	521	179	52	164	0	12	20
Drexel University	22,397	17,351	1,432	309	1,984	0	0	1,321	0
Duquesne University	2,025	0	641	0	75	1,218	34	57	0
Franklin & Marshall Coll	1,424	0	413	148	0	553	211	52	47
Haverford College	1,104	0	522	0	52	479	33	18	0
Juniata College	164	0	122	0	0	42	0	0	0
La Salle University	244	0	54	44	35	45	66	0	0
Lafayette College	600	175	75	71	90	101	55	14	19
Lehigh University	27,902	22,190	3,276	1,152	312	752	146	74	0
PA College of Optometry	307	0	0	0	0	307	0	0	0
Phila Col Osteopathic Med	1,050	0	0	0	0	1,050	0	0	0
Phila Col of Phar & Sci	358 ^e	0 ^e	0 ^e	0 ^e	0 ^e	358 ^e	0 ^e	0 ^e	0 ^e
St. Joseph's Univ	311	0	55	0	29	225	2	0	0
Swarthmore College	996 ^e	130 ^e	484 ^e	0 ^e	30 ^e	295 ^e	22 ^e	35 ^e	0 ^e
Thomas Jefferson U	78,410	0	0	0	0	78,410	0	0	0
U of Pennsylvania	383,569	13,911	24,775	762	9,778 ^e	302,186	3,470	25,405	3,282
Villanova University	3,950	2,189	720	0	85	705	126	125	0
Widener U All Campuses	70	0	0	70	0	0	0	0	0
Rhode Island, total	120,868	12,955	8,865	28,137	12,189	43,398	6,606	5,092	3,626
Public, total	44,452	3,426	828	22,602	152	9,095	4,365	358	3,626
U of Rhode Island	44,452	3,426	828	22,602	152	9,095	4,365	358	3,626
Private, total	76,416	9,529	8,037	5,535	12,037	34,303	2,241	4,734	0
Brown University	76,330	9,529	8,027	5,535	12,037	34,242	2,236	4,724	0
Providence College	86	0	10	0	0	61	5	10	0
South Carolina, total	267,549	52,216	20,429	20,334	11,599	134,435	4,122	14,594	9,820
Public, total	265,995	52,211	19,709	20,322	11,539	134,072	4,067	14,255	9,820
Clemson University	99,341	30,583	6,049	946	3,299	54,023	112	3,906	423
College of Charleston	2,100	0	191	1,564	24	206	30	85	0
Med U of South Carolina	55,819	0	0	0	0	55,819 ^e	0	0	0
South Carolina State U	2,900	50 ⁱ	1,391 ⁱ	0 ⁱ	0 ⁱ	637 ⁱ	0 ⁱ	822 ⁱ	0 ⁱ
U of South Carolina	105,835	21,578	12,078	17,812	8,216	23,387	3,925	9,442	9,397
Private, total	1,554	5	720	12	60	363	55	339	0
Benedict College	634 ⁱ	0 ⁱ	51 ⁱ	0 ⁱ	0 ⁱ	244 ⁱ	0 ⁱ	339 ⁱ	0 ⁱ
Clafin College	555	5	400	0	50	100	0	0	0
Furman University	365	0	269	12	10	19	55	0	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
South Dakota, total	25,522	2,374	2,602	2,899	7	15,597	47	1,723	273
Public, total	25,522	2,374	2,602	2,899	7	15,597	47	1,723	273
SD Sch of Mines & Tech	4,161	1,440	150	2,298	0	0	0	0	273
South Dakota State U	15,599	934	549	505	1	12,923	0	687	0
U of South Dakota	5,762	0	1,903	96	6	2,674	47	1,036	0
Tennessee, total	371,439	51,523	32,870	15,100	11,903	232,459	10,202	14,349	3,033
Public, total	207,145	41,759	15,321	14,483	9,824	105,137	7,468	10,120	3,033
East Tennessee State U	3,351	0	71	170	10	3,100	0	0	0
Middle Tennessee State U	618	9	233	8	54	185	20	109	0
Tennessee State U	10,762	3,015	1,541	0	621	5,528	0	57	0
Tennessee Tech U	9,204	7,786	334	7	50	1,027	0	0	0
University of Memphis, The	24,280	3,177	738	3,416	1,011	2,340	7,355	5,034	1,209
U of Tennessee	157,328	27,540	12,359	10,882	6,839	92,889	88	4,907	1,824
U of Tennessee Chattanooga	1,601	232	45	0	1,239	67	5	13	0
U of Tennessee, Martin	1	0	0	0	0	1	0	0	0
Private, total	164,294	9,764	17,549	617	2,079	127,322	2,734	4,229	0
Fisk University	4,034	0	2,851	0	250	368	454	111	0
Knoxville College	0	0	0	0	0	0	0	0	0
Le Moyne-Owen Coll	1,053	0	0	1	1,000	52e	0	0	0
Meharry Medical College	9,460	0	0	320	7	9,133	0	0	0
Southern Col of Optometry	72	0	0	0	0	54	18	0	0
Vanderbilt University	149,675	9,764	14,698	296	822	117,715	2,262	4,118	0
Texas, total	1,829,967	280,010	143,100	115,978	68,434	1,151,557	15,168	43,562	12,158
Public, total	1,496,969	269,242	129,157	109,057	54,000	869,240	11,968	43,076	11,229
Lamar University	3,739	3,462	193	0	18	45	0	21	0
Prairie View A&M U	10,157	3,595	924	34	938	4,600	0	66	0
Sam Houston State U	3,892	0	297	860	237	321	5	1,853	319
Southwest Texas St Univ	3,597	11	1,548	246	96	1,696	0	0	0
Stephen F Austin St U	4,892	0	296	0	234	3,991	17	354	0
Sul Ross State University	630	0	0	103	0	267	0	247	13
Tarleton State University	3,905	14	40	3,559	9	40	1	218	24
Texas A&M U-Commerce	168	0	30	0	0	121	6	0	11
Texas A&M Univ Kingsville	6,397	1,107	74	352	42	4,822	0	0	0
Texas A&M University	402,203	108,249	28,733	69,296	6,001	164,646	2,859	16,784	5,635
Texas Southern U	2,507	18	192	188	179	1,765	0	0	165
Texas Tech University	58,488	16,384	6,401	2,565	1,779	24,337	219	5,704	1,099
Texas Woman's University	2,179	0	38	0	35	2,061	5	40	0
U Nort TX Health Sci Ctr	9,689	0	0	0	0	8,694	0	0	995
U TX MD Anderson Cntr Ctr	155,126	0	3,678	0	3,625	147,823	0	0	0
U TX Med Br at Galveston	93,580	1,306	0	0	0	92,274	0	0	0
U TX SW Med Ctr at Dallas	165,520	0	0	0	0	165,520	0	0	0
U TX San An Hlth Sci Ctr	87,804	0	0	0	0	87,804	0	0	0
U TX at Arlington	11,450	6,589	2,236	283	153	1,407	177	605	0
U TX at Austin	258,122	95,987	65,875	20,980	32,020	30,561	2,798	9,295	606
U TX at Dallas	16,028	1,622	4,954	1,576	1,094	3,024	1,194	2,304	260
U TX at El Paso	21,961	6,402	1,803	6,703	896	3,281	565	430	1,881
U TX at San Antonio	7,780	679	244	11	1,130	2,875	0	2,841	0
U of Houston Downtown	1,096	16	56	38	964	22	0	0	0
U of Houston, Clear Lake	5,944	5,147	173	133	294	82	62	50	3
U of TX-Pan American	1,684	376	193	81	89	790	4	151	0
UT Houston Hlth Sci Ctr	105,307	0	0	0	0	105,307	0	0	0
University of Houston	43,370	17,661	9,102	1,033	3,616	7,707	3,024	1,078	149
University of North Texas	7,487	452	2,019	971	547	1,395	1,032	1,032	39
West Texas A&M U	2,267	165	58	45	4	1,962	0	3	30

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

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State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Texas, continued:									
Private, total	332,998	10,768	13,943	6,921	14,434	282,317	3,200	486	929
Abilene Christian Univ	272	0	216	0	4	38	9	5	0
Baylor Col of Dentistry	2,848	0	0	0	0	2,848	0	0	0
Baylor Col of Medicine	272,198	0	0	0	0	272,198	0	0	0
Baylor University	2,032e	0e	747e	208e	90e	338e	0e	0e	649e
Jarvis Christian College	56	0i	0i	0i	0i	56i	0i	0i	0i
Rice University	41,069	7,960	10,698	3,969	13,305	4,722	271	144	0
Southern Methodist U	9,401	2,527	1,100	2,672	1,002	1,419	126	284	271
St. Mary's University	0	0	0	0	0	0	0	0	0
Texas Christian U	4,061	281	820	41	21	58	2,794	46	0
Trinity University	867	0	175	31	12	640	0	0	9
University of Dallas	194	0	187	0	0	0	0	7	0
Wiley College	0	0	0	0	0	0	0	0	0
Utah, total	273,192	60,228	21,518	15,616	15,542	134,932	3,036	5,624	16,696
Public, total	249,207	53,899	18,758	15,468	14,187	131,647	2,503	3,552	9,193
University of Utah	153,843	21,816	13,983	3,756	12,953	98,011	1,627	1,697	0
Utah State University	95,364	32,083	4,775	11,712	1,234	33,636	876	1,855	9,193
Private, total	23,985	6,329	2,760	148	1,355	3,285	533	2,072	7,503
Brigham Young University	23,985	6,329	2,760	148	1,355	3,285	533	2,072	7,503
Vermont, total	64,791	1,596	1,249	360	1,202	56,378	769	154	3,083
Public, total	64,049	1,444	1,148	354	1,159	56,013	754	109	3,068
University of Vermont	64,049	1,444	1,148	354	1,159	56,013	754	109	3,068
Private, total	742	152	101	6	43	365	15	45	15
Middlebury College	742	152i	101i	6i	43i	365i	15i	45i	15i
Virginia, total	531,286	98,057	46,444	58,908	16,013	281,839	10,692	18,578	755
Public, total	495,602	96,088	39,952	57,352	15,585	257,090	10,462	18,476	597
Col of William & Mary	31,322	0	4,525	23,707	701	862	115	1,412	0
George Mason University	26,766	5,943	5,550	52	1,919	4,230	2,165	6,907	0
James Madison University	1,781	44	294	107	227	773	0	54	282
Norfolk State University	2,995	155	2,448	0	311	76	0	5	0
Old Dominion University	23,030	10,056	1,915	6,199	1,569	2,435	381	475	0
Radford University	181	0	12	56	35	52	0	26	0
University of Virginia	157,487	24,276	12,550	5,676	5,941	102,816	3,249	2,664	315
VA Polytech Inst & St U	169,250	53,530	8,030	21,462	4,563	73,781	2,613	5,271	0
Virginia Commonwealth U	79,785	1,886	4,140	93	313	69,763	1,928	1,662	0
Virginia Military Inst	394	198	174	0	6	5	11	0	0
Virginia State University	2,611	0	314	0	0	2,297	0	0	0
Private, total	35,684	1,969	6,492	1,556	428	24,749	230	102	158
Eastern VA Med School	24,096	0	0	0	0	24,096	0	0	0
Hampton University	7,472	392	5,463	1,517	100	0	0	0	0
Institute of Textile Tech	2,346	1,539	575	0	232	0	0	0	0
University of Richmond	1,099	0	284	0	53	382	187	38	155
Virginia Union University	671e	38i	170i	39i	43i	271i	43i	64i	3i
Washington, total	588,075	50,542	31,895	63,408	9,534	395,491	9,830	26,442	933
Public, total	587,583	50,542	31,662	63,237	9,534	395,403	9,830	26,442	933
Central Washington U	1,731	0	81	768	0	110	0	111	661
E Washington Univ	2,356	0	29	114	229	472	9	1,503	0
U of Washington	482,659	34,889	26,090	60,382	8,680	327,975	9,228	15,415	0
W Washington Univ	3,894	1,365	273	581	130	1,214	177	154	0
Washington State U	96,943	14,288	5,189	1,392	495	65,632	416	9,259	272
Private, total	492	0	233	171	0	88	0	0	0
Whitman College	492	0	233	171	0	88	0	0	0

See explanatory information and SOURCE at end of table.

Table B-31. R&D expenditures at universities and colleges, by state, control, and science and engineering field: fiscal year 1999

[Dollars in thousands]

Page 14 of 14

State, control, and institution	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
West Virginia, total	64,340	20,601	4,085	3,335	449	34,157	365	653	695
Public, total	63,636	20,601	4,085	3,335	437	33,465	365	653	695
Bluefield State College	0	0	0	0	0	0	0	0	0
Fairmont State College	24	0	0	0	0	5	0	19	0
Marshall University	66	0	0	0	0	66	0	0	0
WV Sch of Osteo Med	99	0	0	0	0	99	0	0	0
West Virginia State Col	55	0	7	0	0	48	0	0	0
West Virginia University	63,392	20,601	4,078	3,335	437	33,247	365	634	695
Private, total	704	0	0	0	12	692	0	0	0
Salem-Teikyo University	704	0	0	0	12	692	0	0	0
Wisconsin, total	560,648	65,740	44,874	29,359	11,734	347,206	20,188	38,168	3,379
Public, total	490,957	61,503	43,629	29,356	11,437	283,663	20,130	37,860	3,379
U WI-Eau Claire	569	0	210	41	45	145	0	81	47
U WI-Green Bay	466	0	0	186	0	26	0	144	110
U WI-La Crosse	1,184	0	2	8	5	569	0	480	120
U WI-Madison	462,725	57,663	39,757	24,995	10,141	278,796	19,388	31,378	607
U WI-Milwaukee	22,207	3,807	3,529	3,580	1,154	2,563	598	5,553	1,423
U WI-Oshkosh	576	0	39	19	0	288	49	33	148
U WI-Parkside	151	0	43	0	1	95	0	2	10
U WI-River Falls	192	33	1	0	70	87	0	1	0
U WI-Stevens Point	1,195	0	11	132	0	1,041	1	10	0
U WI-Stout	1,098	0	7	0	8	10	1	164	908
U WI-Superior	432	0	12	394	0	26	0	0	0
U WI-Whitewater	162	0	18	1	13	17	93	14	6
Private, total	69,691	4,237	1,245	3	297	63,543	58	308	0
Marquette University	6,469	2,483	1,226	0	297	2,097	58	308	0
Medical Col of Wisconsin	61,446	0	0	0	0	61,446	0	0	0
Milwaukee School of Eng	1,776	1,754	19	3	0	0	0	0	0
Wyoming, total	47,197	5,778	4,992	6,542	624	21,491	252	939	6,579
Public, total	47,197	5,778	4,992	6,542	624	21,491	252	939	6,579
University of Wyoming	47,197	5,778	4,992	6,542	624	21,491	252	939	6,579
Guam, total	2,829	0	0	985	0	1,799	0	45	0
Public, total	2,829	0	0	985	0	1,799	0	45	0
University of Guam	2,829	0	0	985	0	1,799	0	45	0
Puerto Rico, total	90,543	6,690	4,313	6,005	392	69,372	1,509	2,262	0
Public, total	82,647	6,690	4,217	6,005	392	61,572	1,509	2,262	0
U PR Mayaguez Campus	55,648	6,418	2,487	4,421	317	41,981	0	24	0
U PR Med Sci Campus	17,114	0	0	0	0	17,114	0	0	0
U PR Rio Piedras Campus	9,885	272	1,730	1,584	75	2,477	1,509	2,238	0
Private, total	7,896	0	96	0	0	7,800	0	0	0
Ponce School of Medicine	3,105	0	0	0	0	3,105	0	0	0
Pont Catholic U of PR, The	131	0	96	0	0	35	0	0	0
U Ctr Del Caribe Esc Med	4,660	0	0	0	0	4,660	0	0	0
Virgin Islands, total	3,310	0	0	442	819	1,954	0	95	0
Public, total	3,310	0	0	442	819	1,954	0	95	0
U of the Virgin Islands	3,310	0	0	442e	819e	1,954e	0	95e	0

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTES: Because of rounding, detail may not add to totals.

Beginning in fiscal year 1998, this table reports data for all institutions. In prior years this table reported on doctorate-granting institutions only.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

(Dollars in thousands)

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
Total, all institutions	27,489,061	25,837,199	24,338,253	23,035,265	22,161,451	21,019,612	19,950,563	18,817,827
1 Johns Hopkins U ¹	874,518	853,620	829,241	798,468	788,687	784,043	745,515	735,542
2 University of Michigan	508,619	496,761	483,485	468,876	443,070	430,778	425,868	393,059
3 U of Washington	482,659	438,191	409,959	406,472	389,160	353,945	335,329	313,514
4 U CA Los Angeles	477,620	447,367	398,865	354,645	303,668	279,869	277,974	270,954
5 U WI-Madison	462,725	443,695	419,810	412,570	403,541	392,718	372,362	352,706
6 U CA San Diego	461,632	418,790	376,655	371,509	357,333	331,901	307,051	282,114
7 U CA Berkeley ²	451,539	420,426	377,376	316,320	291,200	289,632	284,346	284,545
8 Stanford University	426,549	410,309	395,310	351,526	318,871	318,561	306,676	367,980
9 MA Institute of Tech ²	420,306	413,098	410,930	380,612	370,800	374,768	377,413	333,908
10 U CA San Francisco	417,095	379,970	343,384	320,757	329,742	312,393	314,599	295,784
Total, 1st 10 institutions	4,983,262	4,722,227	4,445,015	4,181,755	3,996,072	3,868,608	3,747,133	3,630,106
11 Texas A&M University	402,203	393,720	366,798	366,983	362,539	355,750	322,691	305,390
12 Cornell University ²	395,552	363,511	351,030	339,534	343,786	312,683	310,949	299,342
13 U of Pennsylvania	383,569	333,477	296,141	288,430	272,393	251,461	233,829	222,424
14 Pennsylvania State U	379,402	362,643	339,955	337,938	330,881	302,997	282,659	278,305
15 University of Minnesota	371,384	360,323	363,095	341,179	336,524	317,865	332,033	317,026
16 U of Illinois Urbana-Cham	358,247	329,266	286,470	268,995	246,174	245,407	252,811	251,970
17 Duke University	348,274	282,388	251,536	242,235	218,703	220,220	202,434	188,678
18 Harvard University	326,193	306,100	299,961	282,443	276,422	278,459e	257,207	253,126
19 Ohio State University	322,810	301,518	289,100	262,147	246,287	230,515	221,460	203,291
20 University of Arizona	320,245	302,328	285,278	279,656	292,351	269,939	235,528	221,999
Total, 1st 20 institutions	8,591,141	8,057,501	7,574,379	7,191,295	6,922,132	6,653,904	6,398,734	6,171,657
21 University of Colorado	318,618	311,203	269,816	251,301	243,932	234,267	193,217	176,266
22 Washington University	315,606	269,550	262,426	218,640	209,100	192,378	179,329	170,339
23 U CA Davis	307,950	288,796	267,341	254,604	244,116	230,147	223,758	209,282
24 University of Florida	304,447	274,862	272,373	255,099	199,216	148,592	142,966	140,189
25 U of Southern California	280,741	268,806	259,246	244,258	222,159	207,275	200,822	194,740
26 Columbia U in City of NY	279,587	267,007	244,337	236,403	244,991	236,417	204,710	199,516
27 Yale University	274,050	262,680	245,536	234,901	231,819	224,939	226,850	211,569
28 Baylor Col of Medicine	272,198	216,528	192,744	184,613	190,375	186,865	172,252	167,998
29 NC State University	270,621	254,254	229,292	190,748	180,191	173,407	155,624	143,008
30 Georgia Institute of Tech	263,725	259,233	240,237	225,633	211,875	193,630	175,873	180,263
Total, 1st 30 institutions	11,478,684	10,730,420	10,057,727	9,487,495	9,099,906	8,681,821	8,274,135	7,964,827
31 U TX at Austin	258,122	244,843	239,021	241,606	228,676	260,602	249,158	228,545
32 U MD at College Park	257,628	223,190	215,927	216,957	209,945	198,348	229,344	219,041
33 U of NC Chapel Hill	252,767	235,296	221,380	208,529	209,118	201,622	179,157	161,549
34 University of Pittsburgh	249,477	213,842	202,533	189,826	186,457	185,377	178,778	157,250
35 University of Georgia	237,493	217,945	225,457	209,357	206,256	187,849	172,274	165,279
36 Northwestern University	233,809	223,235	200,943	187,262	173,731	169,949	162,299	141,975
37 U of Alabama Birmingham	232,115	227,720	203,758	170,193	158,779	141,735	133,790	117,844
38 Purdue University	226,411	216,479	206,588	206,951	203,419	172,733	149,032	140,260
39 Louisiana State U System	225,808	208,928	205,441	196,328	186,723	165,857	158,823	151,844
40 Rutgers the State U NJ	213,838	197,053	183,038	185,103	192,263	173,211	161,025	162,089
Total, 1st 40 institutions	13,866,152	12,938,951	12,161,813	11,499,607	11,055,273	10,539,104	10,047,815	9,610,503
41 California Inst of Tech ²	212,216	185,066	177,888	157,005	138,016	127,946	115,439	111,733
42 Michigan State University	207,912	193,611	190,178	182,589	182,009	163,285	150,861	142,308
43 U of Iowa	207,135	199,063	184,414	178,228	164,893	157,036	148,811	135,418
44 Indiana University	194,790	171,754	165,198	154,260	145,512	136,617	127,877	117,565
45 Emory University	189,170	172,884	163,619	149,168	148,178	136,186	120,125	101,398
46 Case Western Reserve U	182,332	176,330	161,825	143,435	141,089	133,272	124,691	118,391
47 University of Rochester ²	177,126	174,617	155,311	144,914	158,539	167,485	161,810	139,992
48 University of IL Chicago	175,093	151,739	139,296	121,540	119,381	113,741	106,952	102,267
49 University of Kentucky	174,034	161,346	124,804	118,721	111,934	105,539	102,911	92,244
50 VA Polytech Inst & St U	169,250	167,118	169,808	143,815	148,501	148,313	135,771	130,994
Total, 1st 50 institutions	15,755,210	14,692,479	13,794,154	12,993,282	12,513,325	11,928,524	11,343,063	10,802,813

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
51 New York University	167,179	156,452	153,288	145,874	148,935	139,202	129,774	122,399
52 SUNY at Buffalo	166,823	151,650	135,663	137,701	143,768	141,092	128,203	128,428
53 U TX SW Med Ctr at Dallas	165,520	153,711	140,589	130,162	125,301	118,398	114,258	102,263
54 University of Chicago ²	162,805	151,635	150,531	135,693	126,261	121,902	111,877	118,123
55 Iowa State University ²	161,301	156,766	155,433	151,914	154,932	155,982	148,459	132,580
56 U of Tennessee System	158,930	150,694	154,230	149,331	151,316	153,340	143,662	131,240
57 University of Virginia	157,487	139,135	114,085	97,334	136,679	129,504	115,786	110,103
58 Univ of Hawaii at Manoa	156,810	148,007	120,107	111,202	78,429	70,079	73,961	80,258
59 U TX MD Anderson Cnrc Ctr	155,126	141,260	129,578	120,964	122,181	122,357	127,475	112,121
60 University of Utah	153,843	142,956	135,911	114,423	105,642	103,771	105,263	108,486
Total, 1st 60 institutions	17,361,034	16,184,745	15,183,569	14,287,880	13,806,769	13,184,151	12,541,781	11,948,814
61 University of Cincinnati	153,002	159,695	141,604	127,733	91,159	93,599	92,512	90,279
62 Colorado State University	150,281	140,179	128,580	126,701	122,172	112,457	115,385	107,339
63 Vanderbilt University	149,675	135,214	122,598	117,003	111,224	110,105	96,181	95,447
64 U of Missouri Columbia	149,002	136,061	128,178	119,079	122,870	121,256	106,193	97,242
65 SUNY at Stony Brook	148,982	141,766	136,624	126,377	122,611	113,251	107,817	98,906
66 Wayne State University	146,832	138,456	124,383	112,151	106,140	94,632	85,627	81,127
67 Carnegie Mellon U ²	142,174	137,450	134,954	136,514	125,659	122,580	118,261	110,571
68 University of Oklahoma	142,085	126,861	114,387	109,071	102,337	95,747	92,019	92,146
69 U CA Irvine	141,842	130,415	119,669	119,647	109,908	104,778	100,631	89,275
70 Boston University	141,102	130,054	120,392	110,266	103,709	90,504	91,158	83,701
Total, 1st 70 institutions	18,826,011	17,560,896	16,454,938	15,492,422	14,924,558	14,243,060	13,547,565	12,894,847
71 U of MD Baltimore	140,903	143,321	134,808	122,207	107,874	110,866	111,772	100,312
72 University of Miami	139,608	136,972	135,888	130,056	128,736	121,475	120,875	104,165
73 Oregon State University	139,285	138,240	131,467	131,334	123,402	119,772	114,004	107,573
74 University of Connecticut	134,986	134,448	140,840	147,522	139,956	136,740	133,054	124,010
75 University of Kansas	132,752	117,115	108,893	100,649	100,702	95,701	85,134	75,004
76 U of Nebraska at Lincoln	131,046	118,857e	117,100	102,460	107,721	102,746	94,959	91,427
77 Mt Sinai Sch Med	127,765	109,448	94,776	92,405	92,008	86,179	75,337	75,561
78 U Med & Dent of NJ	126,277	114,491	110,383	98,535	96,365	86,866	76,410	84,505
79 Princeton University ²	124,237	115,996	114,549	112,380	104,157	99,287	95,561	93,958
80 U of South Florida	123,961	104,325	99,649	94,157	92,758	86,186	75,322	68,713
Total, 1st 80 institutions	20,146,831	18,794,109	17,643,291	16,624,127	16,018,237	15,288,878	14,529,993	13,820,075
81 Rockefeller Univ, The	121,519	115,494	109,999	105,595	99,348	74,458	74,396	75,102
82 University of New Mexico	115,850	125,910	116,152	116,618	129,354	90,315	76,736	72,863
83 Oregon Health Sciences U	112,197 i	105,208 i	98,319	80,333	74,726	63,875	56,860	49,313
84 Yeshiva University	111,771	99,000	96,819	91,430	94,739e	92,881	89,636	87,196
85 Georgetown University	111,426	116,611	119,114	112,582	102,421	82,661	73,785	64,937
86 Mississippi State U	110,896	100,410	84,157	84,124	72,145	76,201	70,300	65,754
87 Arizona State University	107,184	92,019	80,740	84,653	77,009	62,563	66,142	69,346
88 U of South Carolina	105,835	92,785	77,855	78,619	79,710	74,001	57,062	54,360
89 UT Houston Hlth Sci Ctr	105,307	101,993	95,638	82,803	74,664	66,432	58,786	55,262
90 U CA Santa Barbara	104,561	96,034	91,149	91,284	78,737	73,619	68,775	66,007
Total, 1st 90 institutions	21,253,377	19,839,573	18,613,233	17,552,168	16,901,090	16,045,884	15,222,471	14,480,215
91 Tufts University	101,728	92,130	83,568	79,356	77,093	73,749	68,519e	60,891e
92 Clemson University	99,341	90,150	84,034	84,836	82,883	76,572	78,569	77,579
93 Florida State University	97,673	94,463	95,908	78,125	86,060	76,588	62,929	50,178
94 Washington State U	96,943	95,422	97,700	98,641	96,810	94,819	92,434	85,080
95 Utah State University	95,364	94,228	91,292	81,709	82,468	79,085	75,835	89,776
96 U TX Med Br at Galveston	93,580	86,488	77,683	73,759	72,569	72,773	67,998	57,672
97 U of Alaska Fairbanks	88,825	75,606	70,943	71,381	72,216	76,093	66,796	67,881
98 U TX San An Hlth Sci Ctr	87,804	82,357	86,019	83,028	87,336	83,535	75,239	65,179
99 Tulane University	87,324	87,858	86,427	83,660	100,231	83,885	75,634	72,190
100 U MA Amherst	86,576	89,970	85,811	73,678	66,082	65,344	64,111	62,990
Total, 1st 100 institutions	22,188,535	20,728,245	19,472,618	18,360,341	17,724,838	16,828,327	15,950,535	15,169,631

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
101 Kansas State University	85,580	81,233	76,896	71,222	71,103	65,696	62,562	57,723
102 Oklahoma State University	83,108	71,466	62,480	82,960	75,906	70,808	72,920	71,238
103 U MA Worcester	83,040	82,950	71,346	63,341	62,441	61,790	60,602	53,342
104 Wake Forest University	82,827	76,893	75,290	75,331	68,388	52,581	57,646	49,919
105 Auburn University	80,544	87,768	85,460	87,358	85,566	84,769	68,151	66,773
106 New Mexico State Univ	79,877	77,370	81,024	76,493	81,455	80,286	85,974	83,900
107 Virginia Commonwealth U	79,785	80,538	78,948	79,018	76,529	76,597	77,097	69,189
108 Thomas Jefferson U	78,410	69,460	69,228	69,154	65,705	56,932	51,106	41,329
109 Brown University	76,330	73,977	71,411	67,621	56,269	55,146	57,152	55,585
110 U CA Riverside	75,821	79,775	75,486	71,495	62,539	60,995	59,065	57,536
Total, 1st 110 institutions	22,993,857	21,509,675	20,220,187	19,104,334	18,430,739	17,493,927	16,602,810	15,776,165
111 University of Delaware	73,521	69,896	65,095	54,154	53,161	50,734	52,627	48,970
112 Woods Hole Oceanogr Inst	71,722	75,011	77,407	73,015	80,235	81,345	81,519	82,845
113 Dartmouth College	69,522	64,964	61,619	52,945	50,525	57,845	59,920	53,668
114 Temple University	66,777	63,024	54,500	56,533	54,742	56,308	53,686	53,921
115 George Washington U	66,757	74,481	55,158	49,263	43,488	38,429	41,177	39,335
116 SUNY at Albany	64,278	50,568	57,415	66,247	38,771	43,353	37,860	35,856
117 University of Vermont	64,049	57,832	59,526	53,659	54,065	51,775	49,839	49,542
118 West Virginia University	63,392	62,362	63,312	54,844	53,072	58,604	54,271	52,482
119 University of Idaho	62,531	58,967	57,582	56,198	52,529	49,338	44,655	44,140
120 U Arkansas Main	61,585	71,686	64,868	59,753	59,410	57,815	58,325	44,768
Total, 1st 120 institutions	23,657,991	22,158,466	20,836,669	19,680,945	18,970,737	18,039,473	17,136,689	16,281,692
121 Medical Col of Wisconsin	61,446	56,021	51,629	47,365	44,169	49,604	48,689	43,579
122 Rush University	60,957	55,277	49,969	48,772	44,322	39,736	34,039	26,184
123 Texas Tech University	58,488	53,126	46,645	43,000	40,824	39,455	38,119	36,869
124 U of New Hampshire	57,613	52,359	45,886	45,693	42,548	43,707	39,555	33,744
125 University of Louisville	57,051	39,147	33,434	29,655	22,835	20,475	19,496	17,400
126 Med U of South Carolina	55,819	57,940	57,111	54,426	57,495	46,249	42,543	31,900
127 U PR Mayaguez Campus	55,648	51,181	48,857	44,502	40,393	22,967	23,156	25,238
128 Montana St U Bozeman	55,475	52,292	49,440	50,097	47,998	36,149	32,911	34,419
129 U of NE Med Ctr	54,205	50,453	45,365	42,612	38,287	33,997	31,669	31,564
130 U CA Santa Cruz	52,902	56,533	49,428	51,062	44,294	42,457	37,886	36,413
Total, 1st 130 institutions	24,227,595	22,682,795	21,314,433	20,138,129	19,393,902	18,414,269	17,484,752	16,599,002
131 Brandeis University	48,305	44,589	40,145	36,760	36,451	34,835	36,213	35,229
132 U of Nevada Reno	47,939	45,476	52,703	47,977	46,783	42,176	38,564	37,546
133 University of Wyoming	47,197	48,500	47,753	40,553	40,470	38,464	32,556	30,181
134 San Diego St University	45,579	41,915	40,586	43,201	35,287	29,309	32,493	30,683
135 North Dakota State U	44,696	40,007	35,197	43,661	40,677	36,977	34,971	34,466
136 U of Rhode Island	44,452	37,940	40,522	39,575	43,103	46,631	45,942	40,842e
137 U Arkansas Medical Sci	44,066	39,487	37,336	33,354	28,389	22,762	15,686	15,889
138 University of Houston	43,370	42,297	45,916	49,178	44,993	43,131	55,038	44,957
139 U of Central Florida	42,466	35,530	18,924	21,488	37,147	33,599	33,922	27,629
140 U of Maine	41,452	33,106	33,144	34,684	31,901	29,393	24,879	23,213
Total, 1st 140 institutions	24,677,117	23,091,642	21,706,659	20,528,560	19,779,103	18,771,546	17,835,016	16,919,637
141 Medical Col of Georgia	41,103	39,806	38,725	35,971	31,369	28,020	24,935	21,426
142 Rice University	41,069	41,067	43,601	39,696	34,446	33,309	30,403	29,424
143 NJ Inst of Technology	40,982	40,982	38,728	39,110	30,940	29,983	23,781	21,126
144 U of Alabama Huntsville	40,203	36,946	32,817	38,176	36,736	31,482	34,153	32,017
145 Syracuse University	39,640	37,322	34,642	34,322	33,939	38,650	32,443	32,145
146 Rensselaer Polytech Inst	39,034	38,560	38,803e	37,917	37,247	37,191	44,132	50,769
147 University of Dayton	36,937	45,000	45,437	43,188	46,084	47,768	45,052	41,009
148 Eastern Kentucky U	36,708	30,662	24,621	18,580	12,539	6,498	457	--
149 Georgia State University	36,523	31,153	27,069	18,114	17,867	17,100	12,133	10,026
150 US Naval Postgrad School	34,095e	34,095	32,333	30,706	27,510	26,538	24,296	20,412
Total, 1st 150 institutions	25,063,411	23,467,235	22,063,435	20,864,340	20,087,780	19,068,085	18,106,801	17,177,991

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
151 Sthrn IL U Carbondale	33,169	30,490	30,043	28,578	29,631	30,497	26,376	28,094
152 University of Oregon	32,695	33,315	31,487	33,654	30,386	31,170	30,738	30,242
153 Col of William & Mary	31,322	25,966	24,051	25,183	20,597	20,443	21,793	18,890
154 CA St U Long Beach	31,283	18,563 i	5,843	5,843	5,676 i	5,509 i	5,342 i	5,175 i
155 U MD Biotechnology Inst	31,172	31,861	29,117	22,933	18,062	14,839	--	--
156 U of LA at Lafayette	30,735	24,768	22,381	13,429	13,416	11,099	11,319	10,815
157 University of Notre Dame	30,483	28,873	24,116	24,556	23,332	22,833	23,745	22,679
158 Northeastern University	30,209	26,385	19,822	17,980	19,850	19,104	18,517	15,876
159 Loyola U of Chicago	29,001	34,241	30,994	29,365	33,098 i	36,830	29,232	30,099
160 Univ of Alabama, The	28,909	23,935	23,671	21,806	23,479	21,960	23,149	22,573
Total, 1st 160 institutions	25,372,389	23,745,632	22,304,960	21,087,667	20,305,307	19,282,369	18,297,012	17,362,434
161 SUNY Hlth Sci Ctr Brklyn	28,840	27,517	29,727	30,254 i	30,781	27,773	27,645	24,171
162 Michigan Tech University	28,074	26,522	24,140	23,882	22,798	21,786	18,696	18,179
163 Lehigh University	27,902	26,115	26,451	34,780	35,117	29,188	30,869	31,822
164 Saint Louis University	27,817	26,943	26,517	25,099	22,686	20,844	20,826	19,932
165 MCP Hahnemann Univ	27,516	95,984	85,748	48,790	41,237	45,218	42,752	44,038
166 U MD Ctr for Environ Sci	26,816	24,038	21,377	21,448	21,100	19,817	19,055	18,557
167 George Mason University	26,766	22,543	19,126	23,230	22,221	18,871	15,830	11,930
168 NM Inst Mining & Tech	26,061	22,791	21,974	20,580	19,584	20,945	24,040	25,208
169 U of Missouri Rolla	25,893	21,740	20,895	20,235	21,220	19,706	18,025	15,619
170 SUNY Col Env Sci Frstry	25,385	22,036	20,540	21,969	21,904 i	21,839	21,856	18,456
Total, 1st 170 institutions	25,643,459	24,061,861	22,601,455	21,357,934	20,563,955	19,528,356	18,536,606	17,590,346
171 Florida International U	25,061	17,880	17,359	16,856	16,375	13,520	11,443	--
172 C R Drew U of Med & Sci	24,484	17,205e	17,205e	16,386	12,500	9,347	6,852	7,862
173 Univ of Montana, The	24,372	20,133	21,151	21,421	18,881	16,908	15,169	10,177
174 Univ of Memphis, The	24,280	22,486	21,271	18,429	14,642	13,305	11,740	12,169
175 Eastern VA Med School	24,096	21,672	19,109	17,730	17,823	17,873	15,818	11,238
176 Brigham Young University	23,985	11,963	11,502e	11,791e	14,102	13,859	13,587	14,469
177 Howard University	23,557	23,673	27,873	28,894	24,819	19,836	18,427	17,576
178 Desert Research Institute	23,376	21,500	20,000	20,100	22,851	21,459	21,187	20,579
179 Wright State University	23,131	19,676	17,291	17,381	18,661	19,388	19,791	16,793
180 Old Dominion University	23,030	20,150	18,583	17,577	14,439	14,911	14,097	10,859
Total, 1st 180 institutions	25,882,831	24,258,199	22,792,799	21,544,499	20,739,048	19,688,762	18,684,717	17,712,068
181 Unif Svcs U of Hlth Sci	22,898	20,309	18,812	36,851	39,612	27,334	30,846	27,875 i
182 Drexel University	22,397	19,603	19,267	19,322	19,389	20,886	20,314	23,184
183 U WI-Milwaukee	22,207	20,807	19,995	19,679	19,684	19,180	18,245	18,567
184 U TX at El Paso	21,961	14,092	15,850	13,548	12,705	12,062	12,480	10,147
185 U MD Baltimore County	21,854	18,155	19,799	14,304	11,868	8,117	7,544	7,619
186 Boston College	21,726	17,774	14,746	14,504	13,298	10,724	10,731	10,400
187 Colorado School of Mines	21,715	20,681	19,221	19,291	16,585 i	13,880	13,644	12,783
188 Florida A&M University	21,622	19,066	25,415	22,474	20,797	24,691	22,777	22,230
189 Ohio University	21,437	21,469	21,008	18,329	19,713	16,425	15,452	14,811
190 San Jose State University	21,005e	21,005e	21,005 i	21,005 i	21,005 i	21,005 i	21,005	18,326
Total, 1st 190 institutions	26,101,653	24,451,160	22,987,917	21,743,806	20,933,704	19,863,066	18,857,755	17,878,010
191 New York Medical College	20,436	19,159	16,890	16,372	18,424	18,725	18,491	16,799
192 U of Nevada Las Vegas	20,170	16,912	15,628	16,893	17,268	15,486	19,373	13,300
193 OR Grad Inst Sci & Tech	19,818	21,047e	20,045	21,412	22,141	20,859	18,288	12,332
194 Clark Atlanta University	19,467	29,637	28,893	34,566	25,245	12,709	12,057	11,483
195 U MA Lowell	19,413	19,372	18,695	18,515	15,505	15,155	14,292	14,880
196 Loma Linda University	18,818	12,788	13,396	10,837	9,270	9,204	9,030	8,028
197 SUNY at Binghamton	17,998	20,754	19,310	18,500	17,106	15,803	13,760	12,843
198 U Mississippi, All Camp	17,298	28,079	26,231	26,215	26,862	25,000	23,734	23,361
199 Mercer University	17,250	14,995	13,704	13,641	11,181	14,201	13,771	10,354
200 Florida Atlantic U	17,151	14,265	10,521	10,576	13,776	11,236	11,331	8,021
Total, 1st 200 institutions	26,289,472	24,648,168	23,171,230	21,931,333	21,110,482	20,021,444	19,011,882	18,009,411

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
201 U PR Med Sci Campus	17,114	19,830	15,575	15,005	17,354	17,765	14,622	18,296
202 Univ of North Dakota	16,999	16,938	20,899	28,188	18,940	18,732	19,204	18,265
203 University of Akron	16,279	16,326	17,999	15,507	15,589	16,783	17,558	14,825
204 U Southern Mississippi	16,211	11,117	9,078	9,112	8,827	8,413	7,334	5,375
205 U TX at Dallas	16,028	15,211	14,561	13,562	14,027 i	14,492	13,371	12,995
206 Creighton University	16,015	15,011	13,127	11,641	11,036	9,645	9,109	8,047
207 CUNY Hunter College	15,934	13,497	14,037	15,021	12,421	12,264	10,381	8,939
208 South Dakota State U	15,599	15,631	15,671	14,925	13,448	14,083	14,050	12,692
209 SUNY Upstate Med U	15,099	14,089	14,914	14,093	13,177	11,751	12,453	12,992
210 NC A&T State University	14,741	14,816	15,817	15,991	15,774	13,637	12,090	11,914
Total, 1st 210 institutions	26,449,491	24,800,634	23,322,908	22,084,378	21,251,075	20,159,009	19,142,054	18,133,751
211 Wichita State University	14,555	13,117	11,797	9,904	9,691	7,483	6,407	6,285
212 U of Missouri Kansas City	14,331	12,875	11,734	12,597	11,727	11,420	10,976	9,889
213 Portland State University	13,940	10,507	9,285	9,376	7,920	7,146	5,860	4,433
214 Stevens Inst of Tech	13,794	12,944	12,179	15,249	13,766	13,460	14,004	14,580
215 Western Michigan U	13,727	11,532	10,035	9,606	9,033	9,145	8,630	6,199
216 Morehouse School of Med	13,622	13,614	13,218	13,206	7,896	7,522	7,448	7,106
217 CUNY City College	13,452	21,147	22,526	22,166	22,695	18,831	20,401	16,454
218 Illinois Inst of Tech	13,438	14,013	16,182	16,000	11,923	8,853	8,252	6,293
219 Catholic U of America	13,317	9,418	8,845	7,427	7,670	7,542	7,926	7,346
220 Med Col of Ohio	12,467	11,425	13,469	13,367	13,008	12,471	12,285	10,905
Total, 1st 220 institutions	26,586,134	24,931,226	23,452,178	22,213,276	21,366,404	20,262,882	19,244,243	18,223,241
221 U of South Alabama	11,990e	11,990	13,083	14,873	13,426	13,917	12,650	12,277
222 Cleveland State U	11,893e	11,211e	10,884e	10,690i	10,496	10,570	9,803	10,939
223 Calif Polytechnic	11,892	5,972	5,648 i	5,324 i	5,000 i	4,676 i	4,352	3,079
224 Northern Arizona U	11,857	11,652	10,800	11,572	10,856	10,290	9,051	8,388
225 University of Toledo	11,819	11,512	8,729	8,180e	7,436	8,043	8,441	7,287
226 Alabama A&M University	11,562	14,143	9,813e	9,615 i	9,417	11,098	9,316	7,053
227 CA St U Fresno	11,450	10,345	8,785	7,546 i	6,309 i	5,072 i	3,835	3,388 i
228 U TX at Arlington	11,450	19,075	37,509	24,010	21,135	17,453	14,834	13,896
229 U MA Boston	11,132	11,491	11,194	10,898	9,146	10,962	9,745	7,974
230 Kent State University	11,083	12,690	11,439	11,497	10,802	11,312	12,075	11,655
Total, 1st 230 institutions	26,702,262	25,051,307	23,580,062	22,327,481	21,470,427	20,366,275	19,338,345	18,309,177
231 Miami University (OH)	10,964	6,738	9,644	8,847	7,137	6,731	4,919	3,972
232 Tennessee State U	10,762	9,329	8,629	9,137	7,431	6,916	5,252	4,475
233 Inst of Paper Sci & Tech	10,533e	15,424e	15,424e	12,532 i	9,640	8,995	8,344	7,474
234 Albany Medical College	10,377	8,236	6,965	7,888	14,981	10,324	11,845	9,681
235 U of Missouri St Louis	10,294	9,462	8,150	7,600	7,503	6,664	4,681	4,304
236 University of Denver	10,247	10,589	9,019	8,349	11,091	6,671	8,595	8,284
237 Prairie View A&M U	10,157	9,952	9,768	10,621	8,019	8,306	5,931	6,098
238 Western Illinois U	10,049	15,882	14,152	13,517	14,009	13,780	14,448	11,800 i
239 University of Tulsa	10,040	8,235	9,776	9,565	8,107	7,945	7,889	5,961
240 U PR Rio Piedras Campus	9,885	9,959	6,671	6,116	5,554	5,434	5,502	4,518
Total, 1st 240 institutions	26,805,570	25,155,113	23,678,260	22,421,653	21,563,899	20,448,041	19,415,751	18,375,744
241 U Nort TX Health Sci Ctr	9,689	8,921	7,258	6,499	5,381	5,475	5,718	3,920
242 Worcester Polytech Inst	9,618	9,637	10,710	9,407	11,611	11,602	11,484	8,925
243 Meharry Medical College	9,460	11,212e	11,212e	11,212	10,738	10,336	9,283	7,258
244 Southern Methodist U	9,401	7,964	8,220	9,050	7,595	8,277	7,037	7,722
245 Rochester Inst of Tech	9,340e	8,133e	8,398	8,118	6,370	11,528	6,331	5,343 i
246 Southern U A&M All Camp	9,296	9,063	10,249	10,748	9,639	6,512	6,837	6,813
247 Tuskegee University	9,223	37,354	33,046	9,061	7,446	7,121	5,500	4,800
248 Tennessee Tech U	9,204	9,661	9,053	9,188	10,184	9,357	9,478	9,872
249 Polytechnic University	9,050	6,373	8,452	10,964	10,897	11,869	9,424	9,273
250 U of NC at Charlotte	9,041	6,669	6,340 i	6,014 i	5,688 i	5,362 i	5,036	4,724
Total, 1st 250 institutions	26,898,892	25,270,100	23,791,198	22,511,914	21,649,448	20,535,480	19,491,879	18,444,394

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
251 East Carolina University	9,014	7,644	6,600	6,817	7,772	8,245	7,360	6,067
252 Jackson State University	8,823	6,111	5,135	5,224	4,960i	4,697	4,371	4,065
253 Johnson C Smith U	8,659	4,299	1,546	1,307	1,307	2,083	377	276
254 CA St U Dominguez Hills	8,517	7,191i	5,869i	4,547i	3,225i	1,903i	581	--
255 U of LA Monroe, The	8,135	6,140	7,112	6,134	5,409	5,282	2,644	2,401
256 U TX at San Antonio	7,780	7,220	15,890	5,538	4,760i	3,982	3,286	--
257 Louisiana Tech University	7,659e	7,659	5,379i	3,100	2,707i	2,315	3,582	3,985
258 U of NC at Wilmington	7,647	7,208	6,905i	6,604i	6,303i	6,002i	5,701	--
259 University of North Texas	7,487	8,813	10,678	11,250	10,616	10,110	9,026	10,701
260 Hampton University	7,472	7,140	8,002	3,854	6,344	5,342	4,597	3,272
Total, 1st 260 institutions	26,980,085	25,339,525	23,864,314	22,566,289	21,702,851	20,585,441	19,533,404	18,475,161
261 Teachers Col, Columbia U	7,206	6,775	1,381	1,005	736i	468	79	401
262 Clarkson University	6,989	6,345	6,964	8,264	9,314	10,412	10,586	9,518
263 Finch U Hlth Sci Chicago	6,764	6,672e	6,672	7,022	6,692	7,057	6,928	5,899
264 Marquette University	6,469	6,763	5,855	5,946	5,588	5,322	4,896	4,256
265 Northern Illinois U	6,455	6,725	7,466	11,674	12,600	11,445	11,215	10,708
266 Oakland University	6,422	7,272	6,598	6,832	7,168	6,285	6,096	5,804
267 Texas A&M Univ Kingsville	6,397	7,317	6,623i	5,933i	5,243i	4,553i	3,863	2,937
268 U of Houston, Clear Lake	5,944	1,691	2,513i	3,335i	4,157i	4,979i	5,801	5,422i
269 Alfred University	5,857	5,275	3,694	4,217	4,667	4,712	4,479	4,117
270 Florida Inst of Tech	5,830	5,848	5,077	8,013	7,973	4,384	5,866	5,924
Total, 1st 270 institutions	27,044,418	25,400,208	23,917,157	22,628,530	21,766,989	20,645,058	19,593,213	18,530,147
271 U MA Dartmouth	5,820	4,902	4,197	4,092	3,709	3,134	2,340	1,941
272 U of South Dakota	5,762	4,959	4,586	5,500	3,149	2,879	3,996	1,851
273 Harvey Mudd College	5,699e	5,069i	4,444i	3,819i	3,194i	2,569i	1,944	2,000i
274 Idaho State University	5,642	10,016	5,495	8,732	6,092	6,052	4,119	2,756
275 Humboldt State University	5,557	4,417	4,175i	3,937i	3,699i	3,461i	3,223i	2,985i
276 Wesleyan University	5,373	5,146	5,927	5,245	5,093	5,112	4,804	4,095
277 CUNY Brooklyn College	5,293	3,132e	2,969	2,800	2,436	1,783	2,181	2,311i
278 New School University	5,230	3,705	5,011	4,801i	4,592i	4,383	1,559	1,572
279 Alcorn State University	5,223	5,119	4,243i	3,368	3,233i	3,099	3,129	2,517
280 San Francisco State U	5,000e	5,079i	5,155i	5,231i	5,307i	5,383i	5,459	4,728i
Total, 1st 280 institutions	27,099,017	25,451,752	23,963,359	22,676,055	21,807,493	20,682,913	19,625,967	18,556,903
281 Indiana State University	4,977	5,255	1,265	1,548	1,208	1,042	835	1,267
282 Radcliffe College	4,948	4,340i	3,732i	3,124i	2,516i	1,908i	1,300	--
283 Wellesley College	4,943i	4,943e	4,943	4,944	1,782	1,747	1,731i	1,718i
284 Stephen F Austin St U	4,892	4,213	5,083	3,990	3,392	2,820	1,771	1,490
285 U of Alaska Anchorage	4,782	0e	0i	0i	0i	0i	0e	--
286 U Ctrl Del Caribe Esc Med	4,660	3,558i	2,456	2,626	2,897	2,139	1,977	1,294
287 MT Tech of the U of MT	4,613	4,230i	3,852i	3,474i	3,096i	2,718i	2,340	2,087i
288 Univ of West Florida	4,588	4,294	3,683i	3,072i	2,461i	1,850i	1,239	1,350
289 Illinois State University	4,326	4,688e	4,596	4,608	5,166	5,071	4,535	3,294
290 Air Force Inst of Tech	4,316	4,240	7,619	5,877	5,960	7,057	3,252	3,813
Total, 1st 290 institutions	27,146,062	25,491,513	24,000,588	22,709,318	21,835,971	20,709,265	19,644,947	18,573,216
291 Grinnell College	4,300	332e	332i	332i	332i	332i	332	340i
292 SD Sch of Mines & Tech	4,161	4,550	4,301	5,015	4,795	4,718	4,150	3,693
293 U Arkansas Pine Bluff	4,151e	4,151	3,974	3,424	4,780	3,446	3,247	2,372
294 U of Nebraska at Omaha	4,097	1,879	1,781i	1,685i	1,589i	1,493i	1,397	1,737
295 Texas Christian U	4,061	3,125	3,175	2,787	2,783	3,110	3,170	3,128
296 Fisk University	4,034	2,909	1,969e	1,969	1,800i	1,631	1,502	1,317
297 Villanova University	3,950	4,714	2,141	2,040	1,996	1,848	1,670	1,560
298 Bryn Mawr College	3,929	4,231	7,016	3,432	2,403	2,559	2,310	1,746
299 Tarleton State University	3,905	3,954	2,695	2,987	2,535	2,760	2,839	1,396
300 W Washington Univ	3,894	3,716	3,481i	3,249i	3,017i	2,785i	2,553i	2,321i
Total, 1st 300 institutions	27,186,544	25,525,074	24,031,453	22,736,238	21,862,001	20,733,947	19,668,117	18,592,826

See explanatory information and SOURCE at end of table.

Table B-32. Total R&D expenditures at universities and colleges:

fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
301 Sam Houston State U	3,892	4,532	5,849	5,490	3,905 i	2,321	1,380	1,072
302 US Air Force Academy	3,761	4,163	3,720 i	3,279 i	2,838 i	2,397 i	1,956	1,564 i
303 Lamar University	3,739	3,051	1,988	2,407	2,189	3,052	3,269	2,964
304 Southwest Texas St Univ	3,597	3,299	3,339 i	3,376 i	3,413 i	3,450 i	3,487	2,788 i
305 Boise State University	3,501	3,412	3,211	3,102	3,285	2,453	1,630	--
306 Bowling Green State U	3,454	3,392	3,542	3,942	3,700	3,874	3,430	3,430
307 University of DC	3,394	3,074	3,244 e	3,244	3,227 i	3,211	3,055 i	2,900
308 N.E. Ohio Univ Col of Med	3,389	2,918	2,990	2,493	3,193	2,446	1,892	1,747
309 East Tennessee State U	3,351	3,152	2,252	2,255	2,205	2,283	1,927	1,750
310 U of the Virgin Islands	3,310	4,828 e	4,828 e	4,828	3,811 i	2,794	6,189	5,753 i
Total, 1st 310 institutions	27,221,932	25,560,895	24,066,416	22,770,654	21,893,767	20,762,228	19,696,332	18,616,794
311 Calif State San Bernadino	3,301	390	340 i	294 i	248 i	202 i	156	125 i
312 Xavier University of LA	3,294	5,388	5,527	5,188	10,048	4,176	3,169	2,379
313 Western Kentucky Univ	3,287	6,342	5,249 i	4,160 i	3,071 i	1,982 i	893	786 i
314 Calif State, Northridge	3,230	2,175	3,059 i	3,940 i	4,821 i	5,702 i	6,583	--
315 Fordham University	3,134	2,247	3,663	2,712	2,067	2,241	1,737	1,936
316 CA St U Chico	3,106	3,376	3,558	1,629	3,413	2,158	2,158	1,826 i
317 Nova Southeastern U	3,106	1,986	1,402	1,258	1,265	1,245	1,120	1,323
318 Ponce School of Medicine	3,105	2,953 i	2,802	4,450	3,418	3,102	2,591	1,715
319 CUNY Queens College	3,083	3,353	2,686	2,980	3,397	2,705	2,649	2,328
320 Norfolk State University	2,995	2,524	1,401	2,239	1,273	671	566	793
Total, 1st 320 institutions	27,253,573	25,591,629	24,096,103	22,799,504	21,926,788	20,786,412	19,717,954	18,630,005
321 American University	2,987	3,453	3,029	3,279	3,063	3,226	3,903	4,330
322 Fort Valley State U	2,937	2,989	2,863	2,474	3,009	2,648	2,749	2,711
323 Hampshire College	2,900	2,972	3,185	2,782 i	2,380 i	1,978	1,447	--
324 South Carolina State U	2,900	2,885	2,855	3,000	4,091 i	5,181	4,103	3,665
325 Morehouse College	2,853	592 e	592 e	592	1,074	992	1,119	1,223
326 Baylor Col of Dentistry	2,848	2,359	1,983	1,363	1,131	1,244	754	745
327 University of Guam	2,829	2,819	2,801 i	2,789 i	2,777 i	2,765 i	2,753 i	2,741 i
328 Delaware State University	2,765	2,883	1,947	2,071	1,036	3,987	1,262	1,387
329 New Mexico Highlands U	2,712	2,669 i	2,627 i	2,585	2,035 i	1,485	291	253 i
330 Lincoln University	2,686	3,313	2,899	2,970	2,934	3,121	2,958	3,194
Total, 1st 330 institutions	27,281,990	25,618,563	24,120,884	22,823,409	21,950,318	20,813,039	19,739,293	18,650,254
331 Bowie State University	2,675	4,511	2,672	49	173	937	465	425
332 Clark University	2,651	2,147	2,417	1,954	2,228	2,711	2,311	1,694
333 Embry-Riddle Aero Univ	2,647 e	2,647	2,540 i	2,436 i	2,332 i	2,228 i	2,124	--
334 Virginia State University	2,611	3,338	3,988	3,270	3,134	4,569	4,801	6,075
335 U MD Eastern Shore	2,508	2,265	2,187	1,980	1,880	1,128	3,045	3,640
336 Texas Southern U	2,507	2,690	3,867	3,820	4,173	2,612	4,220	2,329
337 U of NC Greensboro	2,368	2,619	1,882	2,028	2,437	2,309	2,360	2,128
338 E Washington Univ	2,356	2,445 e	2,445 i	2,445 i	2,445 i	2,445 i	2,445	2,646
339 Gallaudet University	2,348	2,212	2,479 i	2,743 i	3,007 i	3,271 i	3,535	3,308 i
340 Institute of Textile Tech	2,346	2,776	2,813	2,781	2,642	2,297	2,412	2,281
Total, 1st 340 institutions	27,307,007	25,646,213	24,148,174	22,846,915	21,974,769	20,837,546	19,767,011	18,674,780
341 Langston University	2,340	2,031	1,828	2,521	3,187	2,046	1,881	1,750
342 Santa Clara University	2,326 i	2,189 i	2,077 i	1,954 i	1,895 i	1,815 e	1,815	2,103
343 US Naval Academy	2,316	2,651	3,268 i	3,881 i	4,494 i	5,107 i	5,720	5,034 i
344 West Texas A&M U	2,267	2,551	2,131 i	1,711 i	1,291 i	871 i	451	550
345 Texas Woman's University	2,179	2,359	2,224	1,818	1,712	1,458	1,380	1,394
346 College of Charleston	2,100	1,989	1,853 i	1,717 i	1,581 i	1,445 i	1,309	--
347 Ithaca College	2,066	1,499	1,256 i	1,013 i	770 i	527 i	284	269 i
348 Ball State University	2,056	2,361	3,076	2,667	2,248	2,002	1,322	1,211
349 Baylor University	2,032 e	2,032	2,233	1,251	1,471	1,179	1,275	1,469
350 Duquesne University	2,025	1,297	1,396	861	1,440	1,115	589	340
Total, 1st 350 institutions	27,328,714	25,667,172	24,169,516	22,866,309	21,994,858	20,855,111	19,783,037	18,688,900

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
351 Spelman College	2,007	1,744	2,553	1,084	1,435	1,089	603	547
352 Grambling State U	1,997e	1,997	2,634	1,455	204	209	210	277i
353 Murray State University	1,966	2,043	1,490	1,059	1,235	976	1,026	892i
354 St. Cloud State Univ	1,935e	1,935	1,617i	1,301i	985i	669i	353	345i
355 Claremont Graduate Sch	1,870	401	902	1,100	1,017	1,229	1,011	639
356 Williams College	1,853e	1,853e	1,853i	1,853i	1,853i	1,853i	1,853	1,716i
357 James Madison University	1,781	1,568	1,434i	1,303i	1,172i	1,041i	910	950i
358 Milwaukee School of Eng	1,776	1,704	1,518i	1,335i	1,152i	969i	786	748
359 Calif State, Fullerton	1,749i	1,749e	1,749i	1,749i	1,749i	1,749i	1,749i	1,749i
360 Central Washington U	1,731	1,563i	1,400i	1,237i	1,074i	911i	748	685i
Total, 1st 360 institutions	27,347,379	25,683,729	24,186,666	22,879,785	22,006,734	20,865,806	19,792,286	18,697,448
361 Mount Holyoke College	1,721	1,033	980i	936i	892i	848i	804i	760i
362 Winston Salem State U	1,712	2,468	2,034	1,406	1,123	940	529	583
363 Midwestern University	1,701	1,840	2,250	1,512	2,126	1,928	1,482	1,097
364 SUNY Col at Buffalo	1,689	1,157	2,448	2,570	1,604	1,460	1,496	1,430
365 U of TX-Pan American	1,684	1,664	1,547i	1,434i	1,321i	1,208i	1,095	1,011i
366 New England Col Opt	1,643	1,734	1,111	723	144	289	333	--
367 Pomona College	1,619	1,010	1,088i	1,164i	1,240i	1,316i	1,392	1,531
368 St John's University (NY)	1,617	1,572	2,216	1,903	1,068	1,103	860	1,069
369 Pittsburg State U	1,614	1,631	361	546	281	281	303	321i
370 Trinity College	1,552	1,390i	1,233i	1,076i	919i	762i	605	588i
Total, 1st 370 institutions	27,363,931	25,699,228	24,201,934	22,893,055	22,017,452	20,875,941	19,801,185	18,705,838
371 U of Northern Iowa	1,542	1,682	1,623	1,944	2,165	1,404	1,079	687
372 Arkansas State University	1,527	962	930i	899i	868i	837i	806	776
373 Eastern Michigan U	1,512	1,444i	1,381i	1,318i	1,255i	1,192i	1,129	1,141i
374 Amherst College	1,498	1,573	1,604i	1,634i	1,664i	1,694i	1,724	2,080
375 Central State University	1,497e	1,497	1,786e	1,786	1,789i	1,791	1,889	1,691
376 Towson State University	1,452	959	247	189	180	146	316	279i
377 Loyola College	1,445	1,303	905	1,023	1,386	1,569	1,158	--
378 CUNY John Jay Col Cr Just	1,442	1,325	688	686	248	181	859	--
379 Franklin & Marshall Coll	1,424	1,158	1,106i	1,056i	1,006i	956i	906	885i
380 Long Island University	1,406	1,221	902	155	238	267	278	217
Total, 1st 380 institutions	27,378,676	25,712,352	24,213,106	22,903,745	22,028,251	20,885,978	19,811,329	18,713,594
381 CUNY York College	1,392	1,526	1,311	952	900	840	930	877
382 CUNY H H Lehman Col	1,370	1,308i	1,247e	1,199	1,327i	1,454	0e	--
383 Univ of Southern Maine	1,366	614	568i	524i	480i	436i	392e	--
384 Alabama State University	1,365	1,177	818	1,000	1,000	1,055	534	614
385 Bradley University	1,341	1,493	1,291i	1,089i	887i	685i	483	481i
386 Bucknell University	1,335	1,221i	1,109i	997i	885i	773i	661	615i
387 SW Missouri State Univ	1,324	1,797	1,923i	2,046i	2,169i	2,292i	2,415	2,269i
388 S Illinois U Edwardsville	1,316	966	1,161i	1,355i	1,549i	1,743i	1,937	1,704i
389 Chicago State University	1,266	713	759	757	740	1,248	1,048	943i
390 Tougaloo College	1,227	1,180	1,815	1,710i	1,606i	1,502	1,415	1,302
Total, 1st 390 institutions	27,391,978	25,724,347	24,225,108	22,915,374	22,039,794	20,898,006	19,821,144	18,722,399
391 U WI-Stevens Point	1,195	1,112	1,324	1,649	1,871	1,649	1,179	827
392 U WI-La Crosse	1,184	1,185	1,045	1,310	1,133	712	708	875
393 Barnard College	1,181	1,172	943e	934	1,246	1,306	1,440	1,150
394 U of Detroit Mercy	1,177	1,853	2,260	2,555	2,950	2,527	2,069	1,731
395 U of Central Oklahoma	1,173	215	196i	180i	164i	148i	132	141i
396 SUNY Col of Optometry	1,135	668	499	641	537	680	377	329
397 Rose-Hulman Inst of Tech	1,132	1,035i	943i	851i	759i	667i	575	--
398 Seton Hall University	1,116	2,400	2,400e	2,400e	2,411e	3,072	2,895i	2,728i
399 Smith College	1,107	1,295	1,344	1,536i	1,728i	1,920	1,788i	1,658i
400 Haverford College	1,104	1,303	1,304	1,077	631	920	914i	913i
Total, 1st 400 institutions	27,403,482	25,736,585	24,237,366	22,928,507	22,053,224	20,911,607	19,833,221	18,732,751

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
401 University of Richmond	1,099	1,035	937	807	454	1,080	652	--
402 CUNY Grad Ctr	1,098	5,109	4,999	4,224 i	3,449 i	2,674	3,125	3,185
403 U WI-Stout	1,098	1,386	1,306	1,523	1,305	1,500	1,433	2,019
404 U of Houston Downtown	1,096	1,060 i	1,028 i	996 i	964 i	932 i	900	--
405 John Carroll University	1,072	983 i	895 i	807 i	719 i	631 i	543	465 i
406 CA St Poly U Pomona	1,069	1,331 i	1,589 i	1,847 i	2,105 i	2,363 i	2,621	1,784
407 Morgan State University	1,066	3,981	3,873 i	3,768 i	3,663 i	3,558	1,496	1,223
408 Le Moyne-Owen Coll	1,053	1,451	--	--	--	--	--	--
409 Phila Col Osteopathic Med	1,050	516	688	869	882	469	1,095	506
410 Union College (NY)	1,043	694	687	1,016	988	1,054	1,032	1,415
Total, 1st 410 institutions	27,414,226	25,754,131	24,253,368	22,944,384	22,067,753	20,925,868	19,846,118	18,743,348
411 Elizabeth City State U	1,040	684	1,379	1,098	758 i	418	1,050	341
412 Hope College	1,039	1,007 i	978 i	949 i	920 i	891 i	862	--
413 Calvin College	1,033	943 i	853 i	763 i	673 i	583 i	493	--
414 DePaul University	1,028	1,233	1,103	1,300	1,182	1,329	1,510	914
415 Union Institute, The	1,023	875	1,024 i	1,173	1,155	1,008	0	0
416 CA Sch Prof Psy S Diego	1,020e	1,020	461	517	510	25	66	69
417 Albany State University	1,019e	1,019	3,687e	3,687e	3,687 i	3,687e	3,733	2,339
418 University of the Pacific	999	886	2,601	860	970	60	1,124	1,020
419 Swarthmore College	996e	996	869	871	875	1,401	1,128	1,102 i
420 Grand Valley State U	992	892	1,247	1,810	727	736	830	730
Total, 1st 420 institutions	27,424,415	25,763,686	24,267,570	22,957,392	22,079,210	20,936,006	19,856,914	18,749,863
421 CUNY Col Staten Island	979	1,014	794	901	954	7,045	1,209	1,236
422 U of Southern Colorado	979	824	884	1,183	1,464	1,251	1,228	--
423 Southeastern Louisiana U	976	875 i	778 i	681 i	584 i	487 i	390	--
424 Lincoln University (PA)	972	1,364	1,032	1,135	818 i	502	505	1,090
425 Dickinson College	948	1,789	--	--	--	--	--	--
426 Simmons College	937	838 i	744 i	650 i	556 i	462 i	368	340 i
427 Carleton College	927	930 i	932 i	934 i	936 i	938 i	940	927 i
428 East Stroudsburg U of PA	887e	766 i	649 i	532 i	415 i	298 i	181	224
429 U of Health Sci (MO)	885e	885	652	677	963	718	75	105
430 Colorado College	877	211	235 i	257 i	279 i	301 i	323	425
Total, 1st 430 institutions	27,433,782	25,773,182	24,274,270	22,964,342	22,086,179	20,948,008	19,862,133	18,754,210
431 Trinity University	867	971 i	1,074 i	1,177 i	1,280 i	1,383 i	1,486	1,321 i
432 Occidental College	862	2,220e	2,220 i	2,220 i	2,220 i	2,220 i	2,220	1,722
433 Georgia Southern U	833	893 i	951 i	1,009 i	1,067 i	1,125 i	1,183	1,007 i
434 North Carolina Central U	825e	869	869e	852 i	835	409	335	755
435 Wentworth Inst of Tech	817	1,146	773	1,234	1,155	1,504	1,634	1,287
436 Bennett College	811e	811	93e	93	112	112	123	914
437 SUNY Col at Plattsburgh	793	1,133	951	1,207	1,520	1,108	846	1,022
438 University of Hartford	773	397	365	466	357	157	0e	--
439 West Chester U of PA	769	672	506	462	1,919	1,113	710	628 i
440 Central Michigan U	755	0	843e	1,043	558e	1,334	1,733	1,715
Total, 1st 440 institutions	27,441,887	25,782,294	24,282,915	22,974,105	22,097,202	20,958,473	19,872,403	18,764,581
441 Bates College	754	682	402	588	340	159	152	--
442 Truman State University	754e	754	764	624	684 i	743e	743	720
443 Kirksville Col Osteo Med	743	509	644	747	910	836	829	856
444 CA Sch Prof Psy-Fresno	742	1,777	1,399	1,570	1,424 i	1,279	616	875
445 Middlebury College	742	753 i	760 i	767 i	774 i	781 i	788	745 i
446 U of NC Asheville	742	706 i	671 i	636 i	601 i	566 i	531	--
447 Allegheny College	734	697 i	662 i	627 i	592 i	557 i	522	--
448 Hofstra University	716	717	717	726	2,218	1,786	1,073	211
449 Kentucky State University	713e	713	2,139	2,773	2,920	2,665	2,349	2,525
450 Salem-Teikyo University	704	752	--	--	--	--	--	--
Total, 1st 450 institutions	27,449,231	25,790,354	24,291,073	22,983,163	22,107,665	20,967,845	19,880,006	18,770,513

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
451 U of Northern Colorado	701	736e	799	561	285	252	240	271
452 McNeese State University	699	410	25	131e	131	0	792	719i
453 SUNY Col Old Westbury	691	777	991	640	610	505	440	--
454 SUNY Col at Brockport	676	609	591	532	460e	458	373	406
455 Des Moines U Ost Med Ctr	673	416	302	316	80	362	396	36
456 Virginia Union University	671e	671	--	--	--	--	--	--
457 Kettering University	647	433	413i	396i	379i	362i	345	--
458 Benedict College	634i	634i	634e	634	850	1,062	600	702
459 Sul Ross State University	630	602	320	316	176	143	179	139
460 Appalachian State U	621	558	511	511	549	494	358	--
Total, 1st 460 institutions	27,455,874	25,796,200	24,295,659	22,987,200	22,111,185	20,971,483	19,883,729	18,772,786
461 Middle Tennessee State U	618	297	465	535	415	327	163	--
462 Lafayette College	600	625	600i	575i	550i	525i	500	--
463 Lewis and Clark College	600	468	425i	386i	347i	308i	269	--
464 Arkansas Tech Univ	598	419	443i	464i	485i	506i	527	--
465 Vassar College	596i	596e	596i	596i	596i	596i	596	622i
466 Bethune Cookman College	583	566	606	451	0	507	221	626
467 U WI-Oshkosh	576	636	574	396	330	380	329	310
468 Pace University All Cmp	571	596	0	0	0	0e	0e	--
469 US Coast Guard Academy	570	300	302i	304i	306i	308i	310	281i
470 U WI-Eau Claire	569	613	479	386	377	666	387	350
Total, 1st 470 institutions	27,461,755	25,801,316	24,300,149	22,991,293	22,114,591	20,975,606	19,887,031	18,774,975
471 Valparaiso University	569	571	443	426e	556e	556	490i	424i
472 Oakwood College	567	845	718	371	300	161	186	206
473 Minnesota State, Mankato	564	1,939	1,730i	1,525i	1,320i	1,115i	910	785i
474 Claflin College	555	1,403	1,254	764	540	103	180	240
475 SUNY Col at Geneseo	543	475	461	651	316	518	344	327
476 SUNY Col at Oswego	542	716	803	920	1,056i	1,192	1,001	792
477 CA St U Los Angeles	535	1,033i	1,531i	2,029i	2,527i	3,025i	3,523	3,274i
478 CUNY Baruch Col	526	319i	113	154	243	383	491	1,459
479 Morris Brown College	525i	525e	525	3,652	3,796	1,010	1,227	1,341e
480 Savannah State Univ	513	331	316	317	214	128	173	195
Total, 1st 480 institutions	27,467,194	25,809,473	24,308,043	23,002,102	22,125,459	20,983,797	19,895,556	18,784,018
481 Bowdoin College	510	474	425	909	459	481	306	319i
482 St Olaf College	506	469i	432i	395i	358i	321i	284	196
483 Western Carolina U	501	442	332	228	228	263	183	--
484 University San Francisco	500e	555i	609i	663i	717i	771i	825	763i
485 CA Sch Prof Psy-Alameda	498	193	118	133	72	0	0	0
486 Mississippi Valley St U	495	350	563	586	471	319	213	71
487 Whitman College	492	444	485i	522i	559i	596i	633	--
488 Manhattan College	485	563	689i	814i	939i	1,064i	1,189	1,363i
489 Youngstown State Univ	468	898	752i	607i	462i	317i	172	188i
490 U WI-Green Bay	466	491	533	590	390	350	449	335
Total, 1st 490 institutions	27,472,115	25,814,352	24,312,981	23,007,549	22,130,114	20,988,279	19,899,810	18,787,253
491 Connecticut College	432i	432e	432i	432i	432i	432i	432	427i
492 U WI-Superior	432	383	494	951	1,611	1,705	1,988	1,881
493 Reed College	400e	441i	481i	521i	561i	601i	641	630i
494 Virginia Military Inst	394	334	429	508	508	394	426	376i
495 Indiana U of PA All Cmp	389	512e	512	562	349	374	333	--
496 University of Portland	387	282	306	447	333	257	117	305
497 College of Wooster	379	323	219	293e	279	220	182	170i
498 New York Inst Technology	370	295	325	278	183	346	402	1,297i
499 Furman University	365	522	665	728	577	283	253	237i
500 Phila Col of Phar & Sci	358e	358	650	695	881	634	755	907
Total, 1st 500 institutions	27,476,021	25,818,234	24,317,494	23,012,964	22,135,828	20,993,525	19,905,339	18,793,483

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
501 Monmouth University	357	382	708	630	776	722	404e	184e
502 Fairleigh Dickinson U	356	394	775	140	140e	140e	140	118
503 Colby College	355	389	368 i	350 i	332 i	314 i	296	--
504 Drake University	349	354 i	359 i	364 i	369 i	374 i	379	190
505 Lawrence Tech Univ	344	104	123 i	139 i	155 i	171 i	187	--
506 University of San Diego	343	484	248	252	701	641	736	--
507 Southern Oregon Univ	320	341	315	278 i	243 i	208 i	173	130
508 Denison University	314	333 i	350 i	367 i	384 i	401 i	418	426 i
509 St. Joseph's Univ	311	595	504 i	413 i	322 i	231 i	140	124 i
510 PA College of Optometry	307	394 i	479 i	564 i	649 i	734 i	819	--
Total, 1st 510 institutions	27,479,377	25,822,004	24,321,723	23,016,461	22,139,899	20,997,461	19,909,031	18,794,655
511 Augsburg College	303	368 i	430 i	492 i	554 i	616 i	678	620
512 Pitzer College	297	260	240	423	544 i	665	290	--
513 Western U of Hlth Sci	295e	295	58	206	152	168	39	6
514 U of Missouri Sys Admn	291	270	209	196	205	740	915	2,969
515 Andrews University	290e	290	381	366	279	247	377	278
516 Wilberforce University	280 i	280e	280	323	384	505	200	--
517 Abilene Christian Univ	272	330	360 i	387 i	414 i	441 i	468	599
518 Fayetteville State U	265	485	139	503	470 i	437	273	187
519 Bridgewater State College	260	330 i	395 i	460 i	525 i	590 i	655	594 i
520 Ohio Wesleyan University	255	197	619	508	319	450	275	--
Total, 1st 520 institutions	27,482,185	25,825,109	24,324,834	23,020,325	22,143,745	21,002,320	19,913,201	18,799,908
521 Adelphi University	254	252	433	317	319	243e	243	355
522 College of the Holy Cross	252	430	437	1,419	564	431	928	827 i
523 Southeast Missouri St U	250e	343 i	432 i	521 i	610 i	699 i	788	--
524 La Salle University	244	157	215	329	166 i	3	296	--
525 Fort Lewis College	243	599	447	235	438	462	660	--
526 Skidmore College	236	151	173 i	192 i	211 i	230 i	249	--
527 Gustavus Adolphus Col	222	256 i	290 i	324 i	358 i	392 i	426	--
528 CA St U, Bakersfield	200e	274 i	346 i	418 i	490 i	562 i	634	--
529 University of New Haven	198	558e	558e	507	505 i	504	244	--
530 University of Dallas	194	490	67	63	0	0	0	13 i
Total, 1st 530 institutions	27,484,478	25,828,619	24,328,232	23,024,650	22,147,406	21,005,846	19,917,669	18,801,103
531 U WI-River Falls	192	242	262	146	115	175	404	370
532 Lake Forest College	190	103	80 i	60 i	40 i	20 i	0	26 i
533 SUNY Purchase College	188	165	241	196	226 i	255	206	--
534 Southern Connecticut St U	188	209 i	227 i	245 i	263 i	281 i	299	--
535 Radford University	181	273	--	--	--	--	--	--
536 Dillard University	175	175e	175	314	145	110	0	0
537 Texas A&M U-Commerce	168	361	290	263	282	213	206	176
538 Juniata College	164	176 i	185 i	194 i	203 i	212 i	221	--
539 U WI-Whitewater	162	282	395	356	287	201	204	164
540 W State Coll, Colorado	158	110	118 i	122 i	126 i	130 i	134	117 i
Total, 1st 540 institutions	27,486,244	25,830,715	24,330,205	23,026,546	22,149,093	21,007,443	19,919,343	18,801,956
541 U WI-Parkside	151	187	339	338	319	373	487	587
542 Cooper Union	144	1,515e	1,515 i	1,515 i	1,515 i	1,515 i	1,515	1,241 i
543 Northern Kentucky U	144	184 i	221 i	258 i	295 i	332 i	369	--
544 Kennesaw State Univ	142	132	158	132	89	164	121	--
545 Sonoma State University	134	194	--	--	--	--	--	--
546 Pont Catholic U of PR, The	131	111	86	20e	20	0	0	91
547 Selma University	116	210e	210	250	495 i	740	420	798
548 Rust College	114	317	0	0	332	389	346	798
549 Northeastern Illinois U	101	186	530	282	1,513	294	197	257
550 Kenyon College	100e	129 i	154 i	179 i	204 i	229 i	254	--
Total, 1st 550 institutions	27,487,521	25,833,880	24,333,418	23,029,520	22,153,875	21,011,479	19,923,052	18,805,728

See explanatory information and SOURCE at end of table.

**Table B-32. Total R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
551 Shaw University	100	110	147	115	56	56	53	6
552 WV Sch of Osteo Med	99	146	146	128	121	142	146	112
553 Kutztown U of PA	96	265	172	175	224	345	182	146
554 Regis University	93	124	117 ⁱ	111 ⁱ	105 ⁱ	99 ⁱ	93	--
555 SUNY Col at Fredonia	92	118	154	204	382	319	271	283
556 MA Col Phar Allied Hlth	89 ^e	89	235	205	275	222	181	156
557 Providence College	86	62	44	70	36	71	100	80
558 SUNY Col at Cortland	82	55	357	373	244	295	173	118
559 Fuller Theological Sem	80	27 ^e	27	11	14	35	110	40
560 U of Alaska, SE	80	248	--	--	--	--	--	--
Total, 1st 560 institutions	27,488,418	25,835,124	24,334,817	23,030,912	22,155,332	21,013,063	19,924,361	18,806,669
561 University of St. Thomas	78	306	297 ⁱ	289 ⁱ	281 ⁱ	273 ⁱ	265	--
562 Philander Smith College	72	73 ^e	73	73	145	157	157	145
563 Southern Col of Optometry	72	61	236	414	414	414	414	--
564 Widener U All Campuses	70	0	0	0	0	0	0	54 ⁱ
565 Marshall University	66	25	180	234	206	540	604	663
566 Willamette University	58	340	--	--	--	--	--	--
567 Jarvis Christian College	56	55	83	102	219	219	336	97
568 West Virginia State Col	55	119	256	10	40	241	190	179
569 Oral Roberts University	53	65	59	30	21	85	140	82
570 Fairmont State College	24	27	--	--	--	--	--	--
Total, 1st 570 institutions	27,489,022	25,836,195	24,336,001	23,032,064	22,156,658	21,014,992	19,926,467	18,807,889
571 Ferris State University	15	78	--	--	--	--	--	--
572 Fitchburg State College	13	34	--	--	--	--	--	--
573 Coppin State College	11	6	15	116	208	218	77	103
574 Antioch University	0	0	0	0	81	128	131	92
575 Biola University	0	0	0	0	0	0	0	0
576 Bluefield State College	0	15	--	--	--	--	--	--
577 CA Inst of Integral Stu	0	0	0	0	0	0	0	--
578 CA Sch Prof Psy-L.A.	0	149	201	225 ^e	338 ⁱ	451	427	378
579 Forest Inst of Prof Psy	0	0	0	5	8	48	2,717	--
580 Golden Gate University	0	0	0	0	0	0	0	--
Total, 1st 580 institutions	27,489,061	25,836,477	24,336,217	23,032,410	22,157,293	21,015,837	19,929,819	18,808,462
581 Knoxville College	0	0	163 ^e	163	124 ⁱ	85	23 ^e	33 ⁱ
582 Maharishi U of Mgmt	0	0	0	0	699	776	0 ^e	--
583 Pacific University	0	0	0	0	0	0	0	22 ⁱ
584 Pepperdine University	0	0	0	0	0	0	0	--
585 Spalding University	0	189	0	0	15	12	2	--
586 St. Mary's University	0	0	118 ⁱ	234 ⁱ	350 ⁱ	466 ⁱ	582	533 ⁱ
587 Talladega College	0	0 ^e	0	0	0	0	0	0
588 US International U	0	0	0	0	0	0	0	0
589 Wiley College	0	0	--	--	--	--	--	0
Total, 1st 589 institutions	27,489,061	25,836,666	24,336,498	23,032,807	22,158,481	21,017,176	19,930,426	18,809,050
Total, all other sampled institutions	0	533	1,755	2,458	2,970	2,436	20,137	8,777

¹ Johns Hopkins University includes Applied Physics Laboratory, with \$436 million in total R&D expenditures.

² These data do not include R&D expenditures at university-administered federally funded research and development centers. See tables B-73 and B-74.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-33. Federally financed R&D expenditures at universities and colleges, fiscal years 1992-1999

[Dollars in thousands]

Page 1 of 12

Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
Total, all institutions	16,046,797	15,130,505	14,300,231	13,833,483	13,325,960	12,644,373	11,956,290	11,092,412
1 Johns Hopkins U ¹	770,580	752,983	724,526	710,119	706,049	711,692	673,601	666,696
2 U of Washington	368,112	342,291	320,784	312,695	291,284	281,033	268,819	257,840
3 Stanford University	353,947	342,426	332,272	295,373	273,157	268,559	254,379	265,687
4 University of Michigan	334,226	311,450	296,028	281,062	275,956	264,722	249,951	223,452
5 MA Institute of Tech ²	308,921	310,741	311,396	271,544	273,543	270,718	267,414	237,972
6 U CA San Diego	292,007	263,103	238,569	291,917	284,445	266,166	243,149	219,843
7 U of Pennsylvania	279,013	247,914	217,125	216,167	200,895	186,409	173,593	159,574
8 Harvard University	266,019	251,876	222,612	203,047	203,965	190,183	181,969	174,632
9 U CA Los Angeles	251,999	234,005	215,937	236,635	201,773	190,202	189,065	180,743
10 U WI-Madison	249,961	240,513	233,760	233,174	229,381	225,403	213,955	199,816
Total, 1st 10 institutions	3,474,785	3,297,302	3,113,009	3,051,733	2,940,448	2,855,087	2,715,895	2,586,255
11 University of Colorado	244,686	228,342	192,201	177,517	169,666	158,163	138,584	129,894
12 Columbia U in City of NY	240,158	229,723	212,180	195,652	206,495	203,101	182,696	174,777
13 Cornell University ²	234,792	204,187	205,521	203,082	207,391	193,981	195,229	180,361
14 U CA San Francisco	233,181	219,630	206,749	221,864	224,271	213,252	210,148	202,283
15 Washington University	218,598	187,173	186,993	155,197	146,921	138,299	129,482	123,863
16 Yale University	213,404	205,046	189,124	176,994	174,868	171,425	168,900	157,345
17 University of Minnesota	207,761	204,741	200,149	198,927	194,819	181,039	174,716	165,926
18 U of Southern California	199,619	190,547	191,809	179,281	163,606	149,735	149,965	141,713
19 Pennsylvania State U	199,105	186,274	185,206	190,688	187,481	168,679	160,152	151,877
20 California Inst of Tech ²	195,303	177,748	164,225	142,474	120,723	112,502	103,888	99,198
Total, 1st 20 institutions	5,661,392	5,330,713	5,047,166	4,893,409	4,736,689	4,545,263	4,329,655	4,113,492
21 University of Pittsburgh	194,618	168,511	160,833	149,960	144,487	148,989	141,934	121,077
22 U CA Berkeley ²	191,025	171,747	159,275	168,171	157,826	152,528	156,394	148,954
23 Duke University	186,757	172,532	155,894	149,631	148,526	148,350	136,377	125,742
24 U of Illinois Urbana-Cham	185,767	171,250	156,366	145,514	139,078	138,734	141,149	129,086
25 U of NC Chapel Hill	182,935	171,505	153,985	157,034	156,626	149,047	130,920	113,774
26 University of Arizona	178,126	161,999	152,221	154,004	168,791	145,696	113,423	105,912
27 U of Alabama Birmingham	165,223	166,830	150,501	125,804	107,440	98,719	94,762	82,392
28 U TX at Austin	164,913	165,082	151,954	147,808	143,939	149,586	139,126	124,614
29 Texas A&M University	149,151	144,938	145,066	148,675	136,734	136,942	122,533	112,918
30 U MD at College Park	145,081	129,198	102,928	99,688	94,071	86,051	85,041	82,469
Total, 1st 30 institutions	7,404,988	6,954,305	6,536,189	6,339,698	6,134,207	5,899,905	5,591,314	5,260,430
31 Baylor Col of Medicine	141,111	110,610	97,829	92,294	94,197	92,404	87,623	85,734
32 Case Western Reserve U	140,178	132,274	120,992	109,901	107,192	97,302	91,867	83,387
33 University of Chicago ²	135,720	125,982	121,683	114,123	104,587	102,530	95,930	97,182
34 Ohio State University	135,216	124,177	122,582	118,811	122,660	113,186	109,069	97,940
35 University of Rochester ²	132,852	130,773	118,477	112,933	125,897	135,863	130,898	110,413
36 Emory University	132,816	118,045	108,522	95,237	92,724	88,735	80,424	69,894
37 Northwestern University	132,647	127,911	108,292	100,810	90,387	83,684	77,687	69,241
38 U CA Davis	124,463	114,018	104,943	130,188	122,645	112,718	105,255	91,318
39 Boston University	123,390	104,428	97,522	87,946	83,473	72,551	71,593	66,677
40 U of Iowa	122,638	115,312	108,534	105,646	103,115	99,536	93,483	88,360
Total, 1st 40 institutions	8,726,019	8,157,835	7,645,565	7,407,587	7,181,084	6,898,414	6,535,143	6,120,576
41 University of Florida	122,296	106,510	94,328	86,973	79,361	79,630	71,704	67,590
42 Vanderbilt University	116,887	106,325	98,744	95,684	92,185	92,439	83,683	78,426
43 Georgia Institute of Tech	112,861	113,643	112,544	116,155	104,892	97,075	98,398	101,295
44 University of Utah	111,716	100,722	99,322	93,788	83,554	81,263	83,237	79,386
45 New York University	111,124	101,426	94,117	90,010	93,759	89,013	93,633	87,081
46 University of Virginia	108,495	99,173	82,488	75,256	85,244	83,670	73,412	68,151
47 Indiana University	102,262	95,840	95,931	90,881	86,041	81,657	77,377	69,871
48 U TX SW Med Ctr at Dallas	101,996	97,200	89,357	81,468	78,892	71,468	67,943	61,499
49 University of Miami	101,883	101,492	101,516	96,716	97,111	91,563	91,472	81,856
50 University of Cincinnati	100,325	90,307	78,292	72,543	55,107	56,361	57,394	56,375
Total, 1st 50 institutions	9,815,864	9,170,473	8,592,204	8,307,061	8,037,230	7,722,553	7,333,396	6,872,106

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
51 Purdue University	95,708	92,844	91,969	91,632	93,256	82,148	72,954	68,224
52 SUNY at Stony Brook	93,937	91,531	86,568	79,570	76,505	72,673	68,023	63,608
53 Univ of Hawaii at Manoa	93,418	86,886	72,421	66,902	44,238	39,392	41,362	47,684
54 Colorado State University	91,943	80,451	79,393	74,930	75,216	66,464	68,733	64,679
55 Carnegie Mellon U ²	90,408	95,046	91,527	91,830	84,758	87,790	78,666	69,848
56 Michigan State University	89,835	81,146	82,977	77,243	77,499	73,855	70,294	66,466
57 Yeshiva University	89,680	80,000	77,936	73,396	72,132 ^e	70,718	71,771	68,152
58 University of IL Chicago	86,406	73,797	70,739	58,991	57,528	57,074	51,445	48,484
59 SUNY at Buffalo	85,490	76,037	78,092	87,813	75,713	81,814	80,723	77,628
60 University of New Mexico	84,976	84,365	76,978	76,850	90,897	51,780	42,866	40,033
Total, 1st 60 institutions	10,717,665	10,012,576	9,400,804	9,086,218	8,784,972	8,406,261	7,980,233	7,486,912
61 Mt Sinai Sch Med	84,624	69,995	60,914	61,599	58,991	55,188	49,800	50,853
62 U of MD Baltimore	84,516	78,037	72,100	65,211	59,596	59,727	53,556	48,088
63 Georgetown University	83,972	84,801	84,198	81,704	74,328	54,992	48,463	42,659
64 Oregon State University	81,649	82,416	80,131	79,977	68,687	65,069	61,118	59,739
65 Oregon Health Sciences U	76,033 ⁱ	71,054 ⁱ	68,637	51,338	49,429	43,629	38,913	33,548
66 Louisiana State U System	75,831	67,090	65,257	64,524	61,456	52,064	52,598	48,641
67 Rutgers the State U NJ	75,664	69,829	68,225	67,588	72,567	68,149	55,169	56,625
68 U CA Irvine	75,505	66,602	64,293	72,994	69,655	67,245	64,546	55,331
69 VA Polytech Inst & St U	75,386	82,734	87,657	80,319	79,074	73,490	61,708	51,281
70 U CA Santa Barbara	74,026	68,680	64,915	73,400	63,443	59,336	54,057	52,777
Total, 1st 70 institutions	11,504,871	10,753,814	10,117,131	9,784,872	9,442,198	9,005,150	8,520,161	7,986,454
71 Princeton University ²	72,974	69,005	69,667	69,386	63,903	58,544	54,369	55,722
72 UT Houston Hlth Sci Ctr	71,288	70,446	67,205	61,456	54,762	46,821	38,664	36,478
73 U of Tennessee System	70,187	69,793	74,049	73,724	76,294	82,288	76,578	72,047
74 U TX MD Anderson Cnrc Ctr	69,413	63,074	49,702	42,794	44,711	42,416	41,158	34,492
75 NC State University	66,310	79,533	69,473	74,485	68,675	69,608	62,470	50,501
76 University of Kentucky	66,184	60,760	62,128	51,450	50,014	48,801	46,774	39,828
77 Tufts University	63,618	61,167	55,421	53,508	50,481	49,672	46,625	42,112
78 U Med & Dent of NJ	61,730	59,828	57,471	47,505	45,734	40,687	35,524	39,092
79 Wake Forest University	60,293	56,705	54,287	55,845	50,719	36,722	41,861	37,505
80 Woods Hole Oceanogr Inst	59,534	64,765	66,386	61,820	72,759	74,219	73,546	74,229
Total, 1st 80 institutions	12,166,402	11,408,890	10,742,920	10,376,845	10,020,250	9,554,928	9,037,730	8,468,460
81 Wayne State University	57,610	57,646	53,707	46,264	46,246	43,354	40,367	35,569
82 University of Oklahoma	57,589	54,451	45,756	42,679	37,112	35,266	33,298	29,733
83 University of Kansas	57,272	50,567	46,733	41,858	42,209	40,816	37,738	31,992
84 U TX San An Hlth Sci Ctr	56,904	51,954	53,478	51,203	54,433	51,671	48,467	41,048
85 New Mexico State Univ	56,875	56,587	57,165	53,552	57,210	59,632	64,821	62,872
86 Thomas Jefferson U	56,369	51,728	49,091	51,475	49,335	43,215	38,293	28,861
87 University of Georgia	56,080	54,712	54,364	56,254	57,509	55,005	52,085	48,962
88 Florida State University	55,666	50,451	52,945	39,527	45,947	39,775	38,690	27,649
89 U MA Worcester	55,516	53,766	43,350	40,198	36,970	34,923	33,820	35,413
90 University of Connecticut	55,496	53,189	49,503	53,009	50,096	48,286	49,051	45,967
Total, 1st 90 institutions	12,731,779	11,943,941	11,249,012	10,852,864	10,497,317	10,006,871	9,474,360	8,856,526
91 U TX Med Br at Galveston	55,061	48,588	42,006	38,323	33,204	32,775	30,555	24,281
92 Utah State University	54,433	54,903	49,594	43,764	48,431	46,128	45,426	54,904
93 Iowa State University ²	54,179	51,196	52,938	54,904	58,766	56,439	50,695	45,144
94 Arizona State University	53,905	41,359	37,700	38,947	35,215	30,699	30,032	33,148
95 U of Missouri Columbia	53,875	45,448	43,335	38,938	32,420	31,299	29,612	28,047
96 Tulane University	50,779	52,924	49,708	49,720	60,837	42,354	36,940	33,304
97 George Washington U	49,944	45,072	34,182	30,490	28,031	24,379	27,698	28,158
98 U of South Carolina	48,490	42,586	37,005	51,269	44,292	37,918	28,250	23,743
99 Virginia Commonwealth U	48,175	48,167	44,982	45,454	46,694	47,923	48,777	45,891
100 Medical Col of Wisconsin	47,087	43,831	39,364	34,527	31,098	31,459	31,261	27,668
Total, 1st 100 institutions	13,247,707	12,418,015	11,679,826	11,279,200	10,916,305	10,388,244	9,833,606	9,200,814

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
101 Dartmouth College	46,741	45,053	43,154	39,682	39,059	41,762	44,092	38,791
102 Mississippi State U	46,528	42,004	34,928	34,637	33,158	33,918	29,616	29,746
103 SUNY at Albany	46,242	33,894	41,190	48,395	24,468	23,607	27,318	25,988
104 Brown University	45,276	44,412	43,664	42,139	37,432	36,864	38,851	37,856
105 Rockefeller Univ, The	45,010	43,845	43,979	37,369	38,993	39,990	36,854	37,832
106 Washington State U	44,610	44,510	45,030	48,807	49,043	45,691	43,678	38,213
107 U of South Florida	42,005	35,930	31,068	29,751	29,558	19,910	16,718	18,010
108 U MA Amherst	39,877	43,196	40,925	37,969	32,126	32,730	32,065	33,408
109 U of Nebraska at Lincoln	36,977	41,888e	41,269	32,352	36,897	35,471	23,930	25,382
110 U of Rhode Island	36,207	33,308	35,733	34,829i	33,927i	33,025	32,609	25,480e
Total, 1st 110 institutions	13,677,180	12,826,055	12,080,766	11,665,130	11,270,966	10,731,212	10,159,337	9,511,520
111 University of Vermont	36,085	31,460	34,042	31,521	32,932	33,695	31,530	32,757
112 Rice University	35,012	34,772	37,935	33,238	26,429	25,672	22,016	21,356
113 U of Alaska Fairbanks	34,647	31,505	28,127	30,351	37,285	40,770	41,616	32,066
114 University of Delaware	34,628	33,688	32,031	29,509	27,352	26,250	26,170	21,629
115 US Naval Postgrad School	33,308e	33,308	31,618	29,873	27,155	26,225	23,640	20,171
116 Rush University	31,119	28,444	24,382	22,480	18,124	14,831	12,787	9,130
117 Med U of South Carolina	30,997	36,473	37,790	40,637	36,417	28,507	21,471	17,174
118 University of Dayton	30,755	36,329	36,196	34,413	37,842	39,994	38,333	34,927
119 U of New Hampshire	30,586	25,913	24,128	23,305	21,072	25,032	23,635	21,591
120 Syracuse University	30,050	29,200	23,780i	18,361	19,341	19,309	16,818	14,715
Total, 1st 120 institutions	14,004,367	13,147,147	12,390,795	11,958,818	11,554,915	11,011,497	10,417,353	9,737,036
121 Temple University	29,734	28,793	26,374	28,720	28,303	27,140	26,548	26,869
122 Brandeis University	29,423	28,098	25,233	23,233	22,741	21,585	21,825	21,800
123 Kansas State University	28,102	27,001	25,781	24,769	25,266	21,547	19,582	18,583
124 University of Oregon	27,336	27,041	26,020	26,411	23,789	22,204	21,465	21,002
125 Clemson University	27,064	28,199	28,092	28,109	28,734	24,133	23,299	18,771
126 Auburn University	27,058	27,706	27,412	31,401	27,544	27,747	17,438	15,415
127 U Arkansas Medical Sci	26,392	21,857	19,249	16,796	16,117	13,410	10,964	9,642
128 West Virginia University	26,264	24,985	29,443	30,800	34,622	34,622	31,092	27,740
129 Montana St U Bozeman	26,231	23,982	19,707	17,667	17,233	15,738	14,096	13,443
130 U of Alabama Huntsville	25,166	23,772	21,731	26,141	25,417	21,583	24,983	24,432
Total, 1st 130 institutions	14,277,137	13,408,581	12,639,837	12,212,865	11,800,317	11,241,206	10,628,645	9,934,733
131 U CA Santa Cruz	25,084	29,881	24,005	31,727	26,043	23,802	21,821	20,237
132 U of Nevada Reno	24,587	20,383	20,813	20,971	21,377	18,799	17,097	14,085
133 University of Idaho	24,263	18,352	17,416i	16,481	18,239	16,586	15,877	16,601
134 U PR Mayaguez Campus	23,784	21,903	21,052	19,568	18,048	9,369	8,487	9,117
135 Saint Louis University	23,722	23,341	23,218	21,483	19,351	18,120	18,583	17,708
136 University of Notre Dame	23,614	23,053	19,173	18,886	17,424	16,358	16,415	15,058
137 Oklahoma State University	23,179	23,220	21,455	25,034	18,951	20,440	20,840	15,384
138 Rensselaer Polytech Inst	22,803	21,774	22,785	24,748	24,250	22,090	22,106	24,313
139 Northeastern University	22,776	21,454	16,321	14,706	17,113	16,037	15,339	12,841
140 C R Drew U of Med & Sci	22,212	16,052e	16,052e	15,288	10,500	7,674	6,483	5,949
Total, 1st 140 institutions	14,513,161	13,627,994	12,842,127	12,421,757	11,991,613	11,410,481	10,791,693	10,086,026
141 Howard University	21,658	21,501	25,884	26,253	21,137	15,196	14,819	13,976
142 NJ Inst of Technology	21,127	21,127	21,287	20,561	15,109	12,572	8,275	5,778
143 SUNY Hlth Sci Ctr Brklyn	21,053	18,318	18,996	18,685i	18,374	16,695	17,916	15,896
144 Florida A&M University	20,693	15,726	22,547	20,118	19,430	20,730	18,954	18,698
145 University of Houston	20,443	22,018	21,695	25,448	22,633	22,830	34,350	21,881
146 Texas Tech University	20,242	17,481	14,901	13,013	11,450	11,360	10,897	11,121
147 U CA Riverside	19,994	22,999	24,006	27,727	25,127	23,743	19,126	17,167
148 San Diego St University	19,724	19,721	20,237	17,181	16,436	12,268	16,862	15,679
149 George Mason University	19,492	17,268	14,652	16,430	14,939	12,679	10,498	8,439
150 U of Maine	19,163	13,028	15,066	16,211	15,789	11,386	8,959	8,975
Total, 1st 150 institutions	14,716,750	13,817,181	13,041,398	12,623,384	12,172,037	11,569,940	10,952,349	10,223,636

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
151 University of Wyoming	19,109	17,806	15,003	14,991	15,373	15,115	14,575	13,298
152 U TX at El Paso	18,292	10,758	12,873	10,471	9,511	9,085	9,229	7,433
153 Univ of Alabama, The	17,601	14,909	13,118	12,238	12,236	11,482	8,583	6,877
154 Loyola U of Chicago	17,588	17,685	14,771	16,831	20,209i	23,587	18,230	18,071
155 MCP Hahnemann Univ	17,281	61,102	48,062	27,723	23,905	26,324	26,664	27,711
156 U of NE Med Ctr	17,167	15,663	13,990	14,029	13,375	12,256	10,131	9,740
157 Desert Research Institute	16,552	15,400	13,900	14,600	15,867	15,272	15,514	11,508
158 Michigan Tech University	16,107	13,938	12,941	12,603	12,807	10,984	9,777	8,242
159 U of Central Florida	16,048	13,502	6,970	18,714	20,077	16,549	12,527	9,151
160 U Arkansas Main	15,851	16,156	15,772	16,019	17,231	16,040	14,398	12,421
Total, 1st 160 institutions	14,888,346	14,014,100	13,208,798	12,781,603	12,332,628	11,726,634	11,091,977	10,348,088
161 Florida International U	15,757	14,243	13,828	13,415	13,030	10,936	9,289	--
162 U MD Baltimore County	15,624	12,618	9,816	8,135	7,131	6,080	4,845	4,893
163 University of Louisville	15,536	15,067	13,521	13,306	9,782	9,274	8,924	7,267
164 OR Grad Inst Sci & Tech	15,303	14,996e	14,282	11,215	11,512	10,458	9,591	7,138
165 Univ of Montana, The	14,627	11,748	11,554	11,591	10,149	8,675	7,303	5,024
166 Boston College	14,492	12,778	11,207	11,137	9,990	7,938	8,151	8,695
167 Georgia State University	14,310	11,284	7,544	5,818	6,277	6,771	5,826	4,021
168 U Southern Mississippi	14,124	9,536	7,766	7,587	7,500	7,291	6,351	4,820
169 New York Medical College	14,029	13,639	11,866	11,657	13,778	14,913	13,468	13,061
170 Medical Col of Georgia	13,991	13,127	11,904	11,338	11,007	9,121	7,713	7,747
Total, 1st 170 institutions	15,036,139	14,143,136	13,322,086	12,886,802	12,432,784	11,818,091	11,173,438	10,410,754
171 U PR Med Sci Campus	13,971	11,843	12,978	12,191	12,433	11,973	9,775	14,619
172 U MD Biotechnology Inst	13,911	11,789	8,719	7,529	7,037	6,079	--	--
173 Old Dominion University	13,706	12,346	10,736	9,266	7,968	7,888	7,050	6,284
174 Univ of North Dakota	13,615	13,404	17,775	23,976	16,157	16,660	16,467	15,895
175 Lehigh University	13,161	13,019	14,882	22,409	21,410	15,363	16,038	17,426
176 Morehouse School of Med	12,948	12,461	12,099	11,747	6,996	6,663	6,597	6,155
177 Drexel University	12,914	10,929	10,545	11,613	9,444	11,006	11,335	9,869
178 Mercer University	12,657	12,043	10,741	10,832	9,178	11,115	10,241	7,325
179 NC A&T State University	12,454	12,924	13,362	12,521	12,501	10,132	8,759	8,196
180 Wright State University	12,365	10,832	10,001	9,502	9,619	9,624	10,081	8,655
Total, 1st 180 institutions	15,167,841	14,264,726	13,443,924	13,018,388	12,545,527	11,924,594	11,269,781	10,505,178
181 North Dakota State U	12,308	9,787	6,432	11,683	11,684	10,877	8,756	8,677
182 Loma Linda University	12,217	7,834	8,061	5,878	5,416	5,082	4,963	4,036
183 Clark Atlanta University	12,116	24,079	25,943	25,345	15,821	11,025	10,484	9,985
184 CA St U Long Beach	11,929	8,471i	5,013e	5,013	4,859i	4,712i	4,565i	4,418i
185 Col of William & Mary	11,892	11,097	10,911	13,020	11,731	10,426	10,335	8,209
186 San Jose State University	11,825e	11,825e	11,825i	11,825i	11,825i	11,825i	11,825	8,948
187 Brigham Young University	11,414	9,694	9,223i	8,752e	8,615	8,126	7,967	8,106
188 Eastern VA Med School	11,354	9,449	10,618	10,203	9,824	10,162	9,753	6,966
189 Catholic U of America	11,064	7,161	6,910	5,901	6,467	6,058	5,796	5,388
190 Florida Atlantic U	11,036	9,582	7,653	6,500	9,643	6,797	5,655	4,431
Total, 1st 190 institutions	15,284,996	14,373,705	13,546,513	13,122,508	12,641,412	12,009,684	11,349,880	10,574,342
191 NM Inst Mining & Tech	10,719	8,959	10,496	7,205	8,447	7,582	5,373	7,682
192 Colorado School of Mines	10,704	8,694	9,330	9,534	8,847i	8,161	7,050	6,348
193 Ohio University	10,544	10,323	9,790	8,046	7,587	5,836	5,168	4,856
194 U MA Lowell	10,354	12,259	11,560	10,257	8,097	7,281	5,959	6,872
195 U of Nevada Las Vegas	10,248	9,713	9,221	11,142	10,464	9,543	10,585	10,006
196 CUNY City College	9,992	14,437	15,221	16,169	15,512	13,585	14,785	12,175
197 U Mississippi, All Camp	9,952	16,463	15,696	15,571	17,466	15,836	14,917	16,097
198 Illinois Inst of Tech	9,777	9,946	11,668	11,183	9,119	6,738	6,349	4,165
199 Unif Svcs U of Hlth Sci	9,696	7,547	9,218	24,621	25,858	18,124	22,319	20,377i
200 U of South Alabama	9,451e	9,451	9,709	9,747	9,135	8,838	8,270	7,769
Total, 1st 200 institutions	15,386,433	14,481,497	13,658,422	13,245,983	12,761,944	12,111,208	11,450,655	10,670,689

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
201 U of LA at Lafayette	9,430	5,834	4,699	2,936	2,307	1,998	1,130	1,007
202 U WI-Milwaukee	9,409	8,936	8,156	8,026	7,749	7,977	7,455	7,641
203 Portland State University	9,313	6,881	5,960	5,675	4,659	4,377	3,869	2,771
204 Med Col of Ohio	9,219	8,107	9,766	9,559	9,243	8,726	8,286	7,083
205 Meharry Medical College	9,192	11,004e	11,004e	11,004	10,208	10,154	9,074	6,673
206 University of Denver	9,081	9,385	7,888	7,415	9,877	6,144	7,555	7,236
207 U of Missouri Rolla	8,731	7,934	8,080	7,542	5,834	6,472	6,128	4,819
208 Prairie View A&M U	8,675	9,612	9,315	10,325	6,284	5,693	4,885	4,824
209 Johnson C Smith U	8,659	4,299	1,546	1,083	1,083	1,803	377	276
210 Alabama A&M University	8,558	10,518	8,423e	8,249i	8,075	8,954	7,295	5,635
Total, 1st 210 institutions	15,476,700	14,564,007	13,733,259	13,317,797	12,827,263	12,173,506	11,506,709	10,718,654
211 Tennessee State U	8,522	7,978	7,569	7,983	6,478	6,031	5,245	4,465
212 Kent State University	8,212	8,251	7,577	7,729	6,506	6,005	6,363	5,806
213 U MD Ctr for Environ Sci	8,116	7,440	6,240	5,998	5,952	5,452	5,413	4,321
214 Jackson State University	7,925	5,326	3,960	4,702	4,461i	4,220	3,831	3,849
215 SUNY Upstate Med U	7,889	6,487	7,188	6,764	6,854	6,555	7,238	7,500
216 U TX at Dallas	7,700	8,115	6,719	5,583	6,404i	7,224	8,031	7,676
217 Calif Polytechnic	7,673	3,948	3,301i	2,658i	2,015i	1,372i	729	579
218 Sthrn IL U Carbondale	7,660	7,801	8,632	8,836	10,100	9,931	7,437	7,382
219 CUNY Hunter College	7,526	6,414	6,895	6,083	6,152	7,156	6,875	5,687
220 Albany Medical College	7,437	6,545	5,632	6,691	8,686	8,344	8,564	6,740
Total, 1st 220 institutions	15,555,360	14,632,312	13,796,972	13,380,824	12,890,871	12,235,796	11,566,435	10,772,659
221 Eastern Kentucky U	7,403	6,229i	5,059i	3,889i	2,719i	1,549i	379	--
222 U of Missouri Kansas City	7,206	6,199	5,380	5,087	4,506	4,758	4,967	4,419
223 Hampton University	7,168	6,801	7,777	3,854	6,130	5,078	4,597	3,272
224 University of Akron	7,140	4,042	5,146	4,793	4,231	4,016	4,329	4,243
225 Northern Arizona U	7,111	6,812	8,176	6,938	6,469	5,614	6,348	4,180
226 Stevens Inst of Tech	7,084	6,667	6,174	9,222	8,677	7,644	10,552	5,435
227 Tuskegee University	6,942	26,894	29,930	8,231	7,200	6,694	5,154	4,498
228 Southern U A&M All Camp	6,689	6,983	7,774	7,724	7,480	4,620	4,828	4,407
229 Western Illinois U	6,595	10,867	8,804	9,016	9,045	8,983	10,096	8,133i
230 Southern Methodist U	6,387	4,836	4,543	6,007	4,352	4,984	4,932	5,138
Total, 1st 230 institutions	15,625,085	14,718,642	13,885,735	13,445,585	12,951,680	12,289,736	11,622,617	10,816,384
231 Univ of Memphis, The	6,364	5,849	5,413	4,954	4,565	4,027	3,504	3,586
232 U TX at Arlington	6,089	11,294	26,829	14,804	8,692	4,637	3,995	3,296
233 South Dakota State U	6,086	5,812	5,650	5,500	5,622	5,711	5,033	4,751
234 SUNY at Binghamton	5,761	6,205	6,218	5,661	5,659	5,100	5,005	4,611
235 University of Toledo	5,682	5,366	2,937	3,506e	3,187	3,505	3,727	3,304
236 U PR Rio Piedras Campus	5,654	5,460	4,275	3,866	3,315	3,660	3,616	2,626
237 U TX at San Antonio	5,463	5,112	11,553	4,111	3,398i	2,685	2,185	--
238 U of Houston, Clear Lake	5,387	1,266	2,095i	2,924i	3,753i	4,582i	5,411	5,033i
239 U Nort TX Health Sci Ctr	5,370	5,645	5,273	4,847	3,985	4,045	3,753	2,804
240 University of Tulsa	5,272	4,002	4,190	5,104	3,441	3,319	2,337	1,369
Total, 1st 240 institutions	15,682,213	14,774,653	13,960,168	13,500,862	12,997,297	12,331,007	11,661,183	10,847,764
241 Alcorn State University	5,223	5,119	4,242i	3,365	3,202i	3,039	3,038	2,132
242 Creighton University	4,929	4,096	5,129	5,046	4,474	4,653	3,962	3,478
243 Finch U Hlth Sci Chicago	4,860	5,022e	5,022	5,209	4,789	5,214	5,033	4,167
244 U of Missouri St Louis	4,841	3,975	3,650	3,349	2,840	2,559	1,818	1,495
245 East Carolina University	4,832	4,027	3,904	4,079	4,964	5,188	4,392	3,605
246 U of NC at Charlotte	4,780	4,150	3,779i	3,411i	3,043i	2,675i	2,307	2,208
247 Polytechnic University	4,595	2,843	3,485	6,329	6,863	6,872	6,394	5,600
248 U of NC at Wilmington	4,431	4,098	4,212i	4,326i	4,440i	4,554i	4,668	--
249 U Ctrf Del Caribe Esc Med	4,345	3,208i	2,072	2,353	2,387	1,664	1,426	1,100
250 Worcester Polytech Inst	4,292	5,230	7,315	6,967	8,552	9,584	9,164	6,018
Total, 1st 250 institutions	15,729,341	14,816,421	14,002,978	13,545,296	13,042,851	12,377,009	11,703,385	10,877,567

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
251 Western Michigan U	4,165	4,023	3,618	3,336	2,753	2,699	2,383	1,436
252 Teachers Col, Columbia U	4,119	2,900	560	262	226 i	190	0	138
253 U MA Dartmouth	3,983	3,731	2,884	3,433	3,221	2,771	1,802	1,425
254 CA St U Dominguez Hills	3,932	3,362 i	2,794 i	2,226 i	1,658 i	1,090 i	522	--
255 SUNY Col Env Sci Frstry	3,874	2,715	2,690	3,021	3,186 i	3,351	3,177	2,427
256 Northern Illinois U	3,727	3,344	3,460	4,809	5,764	6,238	5,663	5,384
257 US Air Force Academy	3,699	4,033	3,616 i	3,201 i	2,786 i	2,371 i	1,956	1,564 i
258 Clarkson University	3,694	3,010	3,368	3,794	4,793	6,115	5,795	4,229
259 Cleveland State U	3,655 e	3,696 e	3,588 e	3,522 i	3,457	4,620	5,187	5,042
260 Wesleyan University	3,640	3,570	3,731	3,889	2,651	2,710	2,611	2,588
Total, 1st 260 institutions	15,767,829	14,850,805	14,033,287	13,576,789	13,073,346	12,409,164	11,732,481	10,901,800
261 San Francisco State U	3,630 e	3,689 i	3,744 i	3,799 i	3,854 i	3,909 i	3,964	3,380 i
262 Univ of West Florida	3,624	2,806	2,356 i	1,908 i	1,460 i	1,012 i	564	569
263 Villanova University	3,470	2,470 i	1,471	1,390	1,362	1,061	980	882
264 Marquette University	3,416	3,510	2,421	2,270	2,394	2,640	2,524	2,612
265 Inst of Paper Sci & Tech	3,398 e	3,746 e	3,746 e	3,043 i	2,341	1,629	1,311	1,317
266 U of South Dakota	3,373	2,669	2,239	2,350	1,632	1,357	1,511	981
267 Miami University (OH)	3,302	2,687	2,876	2,633	2,314	2,789	2,343	1,918
268 SD Sch of Mines & Tech	3,300	3,221	2,990	3,278	3,369	2,903	2,556	2,362
269 Wichita State University	3,260	2,646	2,602	2,196	2,551	1,752	2,315	2,575
270 Texas Christian U	3,257	2,493	2,541	2,159	1,972	2,600	2,693	2,765
Total, 1st 270 institutions	15,801,859	14,880,742	14,060,273	13,601,815	13,096,595	12,430,816	11,753,242	10,921,161
271 Xavier University of LA	3,240	5,355	5,473	5,106	8,979	4,176	3,145	2,365
272 Sam Houston State U	3,225	2,527	4,974	4,495	3,094 i	1,694	380	220
273 Oakland University	3,033	3,218	3,303	3,222	3,860	3,202	3,026	3,013
274 MT Tech of the U of MT	3,014	2,767 i	2,521 i	2,275 i	2,029 i	1,783 i	1,537	1,327 i
275 Norfolk State University	2,970	2,442	1,388	2,187	1,256	671	566	769
276 Ponce School of Medicine	2,960	2,783 i	2,607	4,212	3,150	2,874	2,436	1,573
277 U MA Boston	2,951	3,160	3,075	2,706	2,454	2,382	2,133	2,019
278 Lamar University	2,914	2,307	1,169	1,451	1,549	2,320	2,158	2,046
279 U Arkansas Pine Bluff	2,911 e	2,911	2,838	2,747	3,661	2,341	2,164	2,372
280 Fisk University	2,846	2,909	1,969 e	1,969	1,741 i	1,514	1,418	1,235
Total, 1st 280 institutions	15,831,923	14,911,121	14,089,590	13,632,185	13,128,368	12,453,773	11,772,205	10,938,100
281 U of LA Monroe, The	2,824	1,466	2,308	1,573	1,724	1,600	1,391	2,112
282 American University	2,735	3,163	2,672	2,864	2,807	3,052	3,569	3,926
283 Florida Inst of Tech	2,735	2,152	2,292	2,980	2,213	1,654	1,903	2,080
284 Rochester Inst of Tech	2,690	2,339 e	2,523	2,545	1,731	2,478	1,561	1,341 i
285 Lincoln University	2,686	2,635 i	2,584	2,681	2,702	2,869	2,726	2,851
286 Clark University	2,651	1,660	2,134	1,756	1,910	2,301	1,717	1,121
287 New Mexico Highlands U	2,648	2,547 i	2,446 i	2,345	1,902 i	1,459	283	247 i
288 Nova Southeastern U	2,637	1,500	1,003	861	711	885	805	974
289 Humboldt State University	2,629	2,185	2,003 i	1,822 i	1,641 i	1,460 i	1,279 i	1,098 i
290 University of North Texas	2,617	2,621	3,703	3,492	3,696	2,858	2,277	1,932
Total, 1st 290 institutions	15,858,775	14,933,389	14,113,258	13,655,104	13,149,405	12,474,389	11,789,716	10,955,782
291 Boise State University	2,595	1,892	1,932	1,875	1,597	1,452	557	--
292 U of Alaska Anchorage	2,537	0 e	0 i	0 i	0 i	0 i	0 e	--
293 U MD Eastern Shore	2,508	2,265	2,187	1,980	1,880	1,128	2,691	3,096
294 Radcliffe College	2,361	2,043 i	1,725 i	1,407 i	1,089 i	771 i	453	--
295 Bowie State University	2,360	4,403	2,672	49	93	937	465	425
296 Langston University	2,340	2,031	1,828	2,521	2,661	1,929	1,570	1,446
297 Calif State, Northridge	2,324	1,309	1,374 i	1,439 i	1,504 i	1,569 i	1,634	--
298 Fort Valley State U	2,318	2,359	2,471	2,338	2,936	2,591	2,413	2,384
299 Wellesley College	2,304 i	2,304 e	2,304	2,533	1,568	1,537	1,524 i	1,512 i
300 Texas Southern U	2,292	2,504	3,707	3,474	3,474	2,353	3,652	2,028
Total, 1st 300 institutions	15,882,714	14,954,499	14,133,458	13,672,720	13,166,207	12,488,656	11,804,675	10,966,673

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges, fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
301 Louisiana Tech University	2,287e	2,287	1,840i	1,395i	950i	505	687	1,660
302 Western Kentucky Univ	2,287	3,130	2,606i	2,083i	1,560i	1,037i	514	429i
303 Gallaudet University	2,264	2,119	2,284i	2,449i	2,614i	2,779i	2,944	2,755i
304 University of Guam	2,242	2,206	2,141i	2,076i	2,011i	1,946i	1,881i	1,816i
305 US Naval Academy	2,234	2,534	3,156i	3,777i	4,398i	5,019i	5,640	4,969i
306 CUNY Brooklyn College	2,228	1,574e	1,492	1,408	1,666	1,138	1,373	1,454i
307 U of Nebraska at Omaha	2,153	931	843i	759i	675i	591i	507	540
308 Virginia State University	2,061	2,792	3,453	2,735	2,599	4,529	4,761	6,031
309 Illinois State University	2,057	2,468e	2,420	2,110	2,632	2,347	1,839	1,470
310 Delaware State University	2,055	2,734	1,833	1,787	999	3,686	1,262	1,253
Total, 1st 310 institutions	15,904,582	14,977,274	14,155,526	13,693,299	13,186,311	12,512,233	11,826,083	10,989,050
311 W Washington Univ	2,004	1,954	1,782i	1,619i	1,456i	1,293i	1,130i	967i
312 South Carolina State U	1,978	1,968	1,948	1,910	2,325i	2,739	2,460	2,075
313 U of the Virgin Islands	1,957	2,428e	2,428e	2,428	2,040i	1,653	2,283	2,403i
314 Grambling State U	1,936e	1,936	2,630	1,450	145	155	155	164i
315 CUNY Queens College	1,884	2,323	1,637	1,365	2,023	1,663	1,911	1,787
316 Southwest Texas St Univ	1,871	1,116	1,323i	1,530i	1,737i	1,944i	2,151	1,720i
317 Bowling Green State U	1,847	2,029	2,436	2,391i	2,347	2,317	1,686	1,496
318 Morehouse College	1,843	591e	591e	591	793	730	1,117	1,214
319 Spelman College	1,832	1,700	1,282	988	1,277	954	569	514
320 University of DC	1,829	1,898	1,756e	1,756	1,784i	1,811e	1,705i	1,600
Total, 1st 320 institutions	15,923,563	14,995,217	14,173,339	13,709,327	13,202,238	12,527,492	11,841,250	11,002,990
321 Texas A&M Univ Kingsville	1,771	1,874	1,703i	1,532i	1,361i	1,190i	1,019	996
322 CA St U Fresno	1,749e	1,565i	1,382i	1,199i	1,016i	833i	650	564i
323 Fordham University	1,725	769	1,472	1,421	1,327	1,304	1,006	1,468
324 N.E. Ohio Univ Col of Med	1,693	1,430	1,530	1,068	1,459	1,136	965	936
325 Tarleton State University	1,623	1,483	1,177	911	672	572	570	12
326 Winston Salem State U	1,619	1,898	1,874	1,246	797	780	529	583
327 Ithaca College	1,607	1,075	882i	693i	504i	315i	126	147i
328 College of Charleston	1,553	1,724	1,481i	1,240i	999i	758i	517	--
329 Air Force Inst of Tech	1,540	2,228	4,212	2,291	2,229	2,426	3,252	3,813
330 U of NC Greensboro	1,535	1,829	1,581	1,730	2,172	1,971	1,963	1,800
Total, 1st 330 institutions	15,939,978	15,011,092	14,190,633	13,722,658	13,214,774	12,538,777	11,851,847	11,013,309
331 Duquesne University	1,531	867	711	618	832	712	297	202
332 Alfred University	1,491	1,348	445	600	1,004	859	797	403
333 Baylor Col of Dentistry	1,481	1,337	699	822	682	830	537	437
334 Embry-Riddle Aero Univ	1,432e	1,432	1,470i	1,506i	1,542i	1,578i	1,614	--
335 East Tennessee State U	1,400	1,368	714	738	830	1,026	791	886
336 Loyola College	1,397	1,191	833	981	1,359	1,564	1,131	--
337 CUNY York College	1,372	1,480	1,271	903	882	819	905	872
338 Williams College	1,345	1,010e	1,010i	1,010i	1,010i	1,010i	1,010	925i
339 Texas Woman's University	1,306	1,485	1,304	1,006	882	714	692	583
340 Idaho State University	1,258	5,200	1,128	2,054	1,471	1,489	1,149	742
Total, 1st 340 institutions	15,953,991	15,027,810	14,200,218	13,732,896	13,225,268	12,549,378	11,860,770	11,018,359
341 Chicago State University	1,254	696	738	739	717	1,237	1,048	936i
342 E Washington Univ	1,244	804e	804i	804i	804i	804i	804	669
343 Tennessee Tech U	1,222	1,065	1,205	1,250	1,182	1,208	1,266	1,534
344 CUNY H H Lehman Col	1,216	1,071i	927e	891	1,011i	1,130	0e	--
345 Alabama State University	1,190	1,133	787	970	970	1,026	528	502
346 Central Washington U	1,179	1,055i	934i	813i	692i	571i	450	385i
347 St John's University (NY)	1,177	916	1,230	1,227	941	862	590	743
348 SUNY Col at Buffalo	1,167	1,054	1,207	1,786	1,029	1,095	1,290	1,157
349 Central State University	1,144e	1,144	1,153i	1,162i	1,171i	1,180	1,272	930
350 New England Col Opt	1,118	1,020	715	437	0	120	65	--
Total, 1st 350 institutions	15,965,902	15,037,768	14,209,918	13,742,975	13,233,785	12,558,611	11,868,083	11,025,215

See explanatory information and SOURCE at end of table.

Table B-33: Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
351 Long Island University	1,116	1,197	700	14	77	145	109	142
352 Seton Hall University	1,116	1,243	1,243e	1,228i	1,214e	3,072	2,893i	2,723i
353 John Carroll University	1,072	947i	824i	701i	578i	455i	332	286i
354 CA St Poly U Pomona	1,069	1,043i	1,018i	993i	968i	943i	918	1,258
355 New School University	1,069	773	814	748i	682i	616	376	376
356 U of TX-Pan American	1,068	1,233	1,176i	1,121i	1,066i	1,011i	956	883i
357 Morgan State University	1,066	3,960	3,825i	3,691i	3,557i	3,423	1,456	1,179
358 Elizabeth City State U	1,040	575	1,146	753	497i	241	605	339
359 Harvey Mudd College	1,032	917i	804i	691i	578i	465i	352	392i
360 Le Moyne-Owen Coll	1,031	1,404	--	--	--	--	--	--
Total, 1st 360 institutions	15,976,581	15,051,060	14,221,468	13,752,915	13,243,002	12,568,982	11,876,080	11,032,793
361 Calif State, Fullerton	1,028i	1,028e	1,028i	1,028i	1,028i	1,028i	1,028i	1,028i
362 Towson State University	1,028	268	170	148	178	146	171	151i
363 Albany State University	1,019e	1,019	675e	675e	675i	675	1,068	627
364 Barnard College	1,008	1,038	685e	678	813	1,031	1,007	869
365 St. Cloud State Univ	987e	987	827i	669i	511i	353i	195	201i
366 Mount Holyoke College	975	733	696i	663i	630i	597i	564i	531i
367 Lincoln University (PA)	972	1,364	949	1,135	818i	502	432	953
368 CUNY John Jay Col Cr Just	951	912	565	579	141	164	412	--
369 Haverford College	937	820	933	635	496	584	593i	597i
370 Eastern Michigan U	895	813i	732i	651i	570i	489i	408	400i
Total, 1st 370 institutions	15,986,381	15,060,042	14,228,728	13,759,776	13,248,862	12,574,551	11,881,958	11,038,150
371 Hope College	879	815i	756i	697i	638i	579i	520	--
372 CA St U Chico	850	1,497	1,090	107	295	270	270	222i
373 University of the Pacific	844	254	1,755	860	970	60	1,043	995
374 U of Houston Downtown	838	850i	860i	870i	880i	860i	900	--
375 Ball State University	835	959	1,329	1,459	820	696	606	330
376 Georgia Southern U	833	823i	814i	805i	796i	787i	778	660i
377 University of Richmond	812	781	588	464	288	718	390	--
378 U WI-Stout	790	986	774	881	741	835	954	1,174
379 North Carolina Central U	777e	786i	795i	804i	813	409	313	683
380 Stephen F Austin St U	776	1,125	2,285	1,684	985	441	330	292
Total, 1st 380 institutions	15,994,615	15,068,918	14,239,774	13,768,407	13,256,088	12,580,236	11,888,062	11,042,506
381 Tougaloo College	767	657	929	867i	806i	745	636	702
382 Bryn Mawr College	764	910	871	1,039	1,411	1,294	1,277	801
383 James Madison University	763	722	669i	617i	565i	513i	461	393i
384 SUNY Col of Optometry	755	386	268	327	130	258	164	160
385 Rose-Hulman Inst of Tech	748	642i	540i	438i	336i	234i	132	--
386 Amherst College	726	861	899i	934i	969i	1,004i	1,039	933
387 Kentucky State University	703e	703	2,139	2,761	2,920	2,665	2,349	2,525
388 Calif State San Bernardino	697	258	228i	198i	168i	138i	108	64i
389 Trinity University	692	723i	750i	777i	804i	831i	858	769i
390 Middlebury College	688	664i	643i	622i	601i	580i	559	464i
Total, 1st 390 institutions	16,001,918	15,075,444	14,247,710	13,776,987	13,264,798	12,588,498	11,895,645	11,049,357
391 Bucknell University	679	611i	547i	483i	419i	355i	291	250i
392 U WI-La Crosse	671	562	510	748	601	141	211	315
393 Wentworth Inst of Tech	669	933	591	1,023	1,155	1,434	1,634	1,287
394 Hampshire College	662	1,264	1,155	964i	775i	586	558	--
395 Hofstra University	659	319	319	192	2,218	1,786	1,073	211
396 Pomona College	654	376	395i	410i	425i	440i	455	358
397 Dickinson College	653	1,168	--	--	--	--	--	--
398 U of Southern Colorado	642	538	616	959	1,264	1,131	1,031	--
399 McNeese State University	611	256	25	131e	131	0	26	62i
400 Union College (NY)	608	126	343	610	538	194	444	279
Total, 1st 400 institutions	16,008,426	15,081,597	14,252,211	13,782,507	13,272,324	12,594,565	11,901,368	11,052,119

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
401 CUNY Col Staten Island	595	739	559	557	503	652	705	615
402 Swarthmore College	586e	586	511	661	538	582	592	633i
403 Bennett College	583e	583	93e	93i	111	105	122	784
404 Bethune Cookman College	583	566	472	333	0	358	218	590
405 Bates College	576	411	306	387	285	101	112	--
406 DePaul University	571	822	926	842	856	868	893	594
407 Benedict College	552i	552i	552i	552i	740i	925	600	702
408 Southeastern Louisiana U	550	467i	389i	311i	233i	155i	77	--
409 West Chester U of PA	547	462	148	271	1,017	945	398	346i
410 Virginia Union University	537e	537	--	--	--	--	--	--
Total, 1st 410 institutions	16,014,106	15,087,322	14,256,167	13,786,514	13,276,607	12,599,256	11,905,085	11,056,383
411 Santa Clara University	533i	506i	479i	450i	439i	422e	422	459
412 Trinity College	529	487i	448i	409i	370i	331i	292	290i
413 U of Northern Colorado	526	609e	702	470	196	177	185	158
414 Morris Brown College	525i	525e	525	2,422	3,796	927	1,227	1,217e
415 Baylor University	522e	522	615	433	502	368	407	635
416 CA Sch Prof Psy S Diego	517e	517	267	99	431	0	0	0
417 Vassar College	517i	517e	517i	517i	517i	517i	517	522i
418 CUNY Grad Ctr	515	3,573	3,445	3,077i	2,709i	2,341	2,386	2,811
419 Savannah State Univ	513	331i	316	317	214	128	168	195
420 Valparaiso University	500	259	200	231i	262i	293	260i	228i
Total, 1st 420 institutions	16,019,303	15,095,168	14,263,681	13,794,939	13,286,043	12,604,760	11,910,949	11,062,898
421 Mississippi Valley St U	495	350	563	586	471	319	213	71
422 SUNY Col Old Westbury	485	767	743	510	517	412	400	--
423 SW Missouri State Univ	484	596	539i	482i	425i	368i	311	334i
424 East Stroudsburg U of PA	480	415i	352i	289i	226i	163i	100	100
425 SUNY Col at Oswego	478	480	459	551	595i	638	299	188
426 CA St U Los Angeles	463	912i	1,359i	1,806i	2,253i	2,700i	3,147	2,932i
427 Oakwood College	447	690	716	371	300	161	186	206
428 Midwestern University	443	491	756	613	458	465	303	149
429 Pace University All Cmp	435	555	0	0	0	0e	0e	--
430 SUNY Col at Plattsburgh	432	802	692	740	625	629	741	924
Total, 1st 430 institutions	16,023,945	15,101,226	14,269,860	13,800,887	13,291,913	12,610,615	11,916,649	11,067,802
431 St Olaf College	424	379i	339i	299i	259i	219i	179	179
432 Carleton College	398	386i	376i	366i	356i	346i	336	381i
433 Lewis and Clark College	394	309	271i	234i	197i	160i	123	--
434 Murray State University	388	554	422	362	284	309	325	281i
435 Claremont Graduate Sch	384	123	259	256	201	293	53	15
436 Indiana State University	368	592	669	532	369	367	391	498
437 Indiana U of PA All Cmp	354	491e	491	520	283	159	196	--
438 Lafayette College	354	295	291i	289i	287i	285i	283	--
439 Franklin & Marshall Coll	348	723	684i	647i	610i	573i	536	514i
440 U of Northern Iowa	344	496	588	712	1,099	565	485	108
Total, 1st 440 institutions	16,027,701	15,105,574	14,274,250	13,805,104	13,295,858	12,613,891	11,919,556	11,069,778
441 U WI-Eau Claire	338	395	325	242	224	396	179	178
442 Middle Tennessee State U	319	127	107	119	55	44	36	--
443 College of Wooster	318	244	153	172i	191	179	151	136i
444 Kirksville Col Osteo Med	311	329	381	482	715	478	369	392
445 U of Detroit Mercy	310	494	877	950	1,213	1,339	770	318
446 Des Moines U Ost Med Ctr	309	2	0	0	0	327	343	0
447 Grand Valley State U	309	92	42	30	0	10	0	0
448 SUNY Col at Brockport	308	349	264	288	231e	234	171	165
449 Calvin College	306	297i	290i	283i	276i	269i	262	--
450 U of Health Sci (MO)	305e	305	162	180	163	0	0	0
Total, 1st 450 institutions	16,030,834	15,108,208	14,276,851	13,807,850	13,298,926	12,617,167	11,921,837	11,070,967

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
451 Augsburg College	303	368i	430i	492i	554i	616i	678	620
452 Reed College	300e	315i	329i	343i	357i	371i	385	404i
453 US Coast Guard Academy	300	300	302i	304i	306i	308i	310	281i
454 Western Carolina U	300	277	218	95	116	114	83	--
455 University of Hartford	299	124	27	41	300	148	0e	--
456 Occidental College	297	1,513e	1,513i	1,513i	1,513i	1,513i	1,513e	908
457 U WI-Oshkosh	296	268	199	119	172	207	245	213
458 PA College of Optometry	283	319i	351i	383i	415i	447i	479	--
459 University of San Diego	282	334	157	167	574	502	302	--
460 Milwaukee School of Eng	269	211	170i	130i	90i	50i	10	87
Total, 1st 460 institutions	16,033,763	15,112,237	14,280,547	13,811,437	13,303,323	12,621,443	11,925,842	11,073,480
461 Fayetteville State U	265	378	139	503i	470i	437	273	187
462 U WI-Stevens Point	253	306	413	629	860	701	399	234
463 Western U of Hlth Sci	253e	253	40	115	67	68	0	0
464 Allegheny College	252	253i	254i	255i	256i	257i	258	--
465 Claflin College	250	1,028	1,074	474	290	103	180	240
466 Salem-Teikyo University	247	271	--	--	--	--	--	--
467 Pitzer College	246	197	164	182	190i	197	280	--
468 Smith College	240	634	730	695i	661i	627	544i	462i
469 U WI-Green Bay	240	238	238	215	218	143	152	184
470 Wilberforce University	236i	236e	236	323	384	505	200	--
Total, 1st 470 institutions	16,036,245	15,116,031	14,283,835	13,814,828	13,306,719	12,624,481	11,928,128	11,074,787
471 La Salle University	229	136	192	302	151i	0	143	--
472 Arkansas State University	224	152	125i	102i	79i	56i	33	8
473 Denison University	221	205i	192i	179i	166i	153i	140	152i
474 Appalachian State U	219	247	244	303	440	412	284	--
475 Bradley University	218	632	519i	407i	295i	183i	71	65i
476 U of NC Asheville	213	226i	238i	250i	262i	274i	286	--
477 CA Sch Prof Psy-Fresno	210	608	811	895	673i	452	74	252
478 Grinnell College	210	117e	117i	117i	117i	117i	117	109i
479 Furman University	208	315	533	475	480	200	179	175i
480 Southern Oregon Univ	205	230	241	200i	161i	122i	83	72
Total, 1st 480 institutions	16,038,402	15,118,899	14,287,047	13,818,058	13,309,543	12,626,450	11,929,538	11,075,620
481 Southeast Missouri St U	200e	180i	163i	146i	129i	112i	95	--
482 University San Francisco	200e	249i	296i	343i	390i	437i	484	455i
483 SUNY Purchase College	188	160	211	161	138i	116	67	--
484 Ohio Wesleyan University	185	106	340	444	250	260	245	--
485 St. Joseph's Univ	185	462	395i	330i	265i	200i	135	120i
486 SUNY Col at Geneseo	183	229	218	251	101	194	317	245
487 Whitman College	181	58	84i	108i	132i	156i	180	--
488 Gustavus Adolphus Col	179	160i	145i	130i	115i	100i	85	--
489 Monmouth University	178	248	635	614	739	694	357e	141e
490 Drake University	167	171i	175i	179i	183i	187i	191	63
Total, 1st 490 institutions	16,040,248	15,120,922	14,289,709	13,820,764	13,311,985	12,628,906	11,931,694	11,076,644
491 Dillard University	164	164e	164	314	145	110	0	0
492 Minnesota State, Mankato	164	372	335i	298i	261i	224i	187	158i
493 Phila Col of Phar & Sci	162e	162	269	342	300	250	160	279
494 Fort Lewis College	157	149	323	204	332	460	494	--
495 University of Dallas	157	441	36	34	0	0	0	0i
496 Truman State University	156e	156	223	125	91i	58e	58	52
497 Bowdoin College	154	213	137	388	290	325	257	234i
498 CUNY Baruch Col	151	83i	15	41	142	259	354	223
499 College of the Holy Cross	151	251	265	1,245	379	307	545	473i
500 S Illinois U Edwardsville	147	244	261i	275i	289i	303i	317	324i
Total, 1st 500 institutions	16,041,811	15,123,157	14,291,737	13,824,030	13,314,214	12,631,202	11,934,066	11,078,387

See explanatory information and SOURCE at end of table.

Table B-33. Federally financed R&D expenditures at universities and colleges: fiscal years 1992-1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
501 Youngstown State Univ	144	508	422 i	339 i	256 i	173 i	90	102 i
502 Central Michigan U	142	0	107 i	213	310 i	406	628	734
503 Kennesaw State Univ	142	132	141	111	71	148	121	--
504 Arkansas Tech Univ	137	55	51 i	49 i	47 i	45 i	43	--
505 Juniata College	135	113 i	95 i	77 i	59 i	41 i	23	--
506 Adelphi University	130	80	329	221	220	98e	98	89
507 Univ of Southern Maine	123	236	268 i	299 i	330 i	361 i	392e	--
508 Colby College	121	93	90 i	88 i	86 i	84 i	82	--
509 U of Central Oklahoma	121	65	66 i	66 i	66 i	66 i	66	52 i
510 U WI-Superior	119	96	169	619	1,274	1,411	1,338	1,243
Total, 1st 510 institutions	16,043,125	15,124,535	14,293,475	13,826,112	13,316,933	12,634,035	11,936,947	11,080,607
511 Andrews University	117e	117	106	252	103	109	82	98
512 Selma University	116	210e	210	250	495 i	740	420	798
513 Radford University	115	103	--	--	--	--	--	--
514 Abilene Christian Univ	114	162	176 i	186 i	196 i	206 i	216	162
515 Bridgewater State College	114	179 i	239 i	299 i	359 i	419 i	479	400 i
516 Rust College	114	317	0	0	332	389	346	798
517 U WI-Whitewater	114	145	171	233	197	92	80	65
518 Simmons College	112	155 i	194 i	233 i	272 i	311 i	350	318 i
519 Texas A&M U-Commerce	109	122	55	80	42	41	39	0
520 U WI-Parkside	108	119	132	112	174	220	310	413
Total, 1st 520 institutions	16,044,258	15,126,164	14,294,758	13,827,757	13,319,103	12,636,562	11,939,269	11,083,659
521 University of Portland	105	55	127	119	92	59	48	198
522 Shaw University	100	110	122	115	56	56	53	6
523 Southern Connecticut St U	100	128 i	156 i	184 i	212 i	240 i	268	--
524 Phila Col Osteopathic Med	99	57	95	91	238	304	830	314
525 Pont Catholic U of PR, The	96	78	64	20e	20	0	0	68
526 Pittsburg State U	94	229	69	30	0	0	220	195 i
527 Regis University	93	58	65 i	72 i	79 i	86 i	93	--
528 West Texas A&M U	93	114	93 i	76 i	59 i	42 i	25	16
529 CA St U, Bakersfield	92e	126 i	159 i	192 i	225 i	258 i	291	--
530 New York Inst Technology	92	38	28	30	41	174	141	94 i
Total, 1st 530 institutions	16,045,222	15,127,157	14,295,736	13,828,686	13,320,125	12,637,781	11,941,238	11,084,550
531 Virginia Military Inst	92	67	175	240	217	240	252	224 i
532 Kettering University	89	192	176 i	162 i	148 i	134 i	120	--
533 Kutztown U of PA	82	192	100	157	160	206	46	126
534 Fuller Theological Sem	80	21e	21	0	0 i	0	80	40
535 Lake Forest College	74	28	20 i	15 i	10 i	5 i	0	0 i
536 Sul Ross State University	74	156	148	137	21	9	47	38
537 Philander Smith College	72	73e	73	73	145	137	157	136
538 Northern Kentucky U	71	104 i	132 i	160 i	188 i	216 i	244	--
539 Manhattan College	70	327	424 i	519 i	614 i	709 i	804	906 i
540 Widener U All Campuses	70	0	0	0	0	0	0	0 i
Total, 1st 540 institutions	16,045,996	15,128,317	14,297,005	13,830,149	13,321,628	12,639,437	11,942,988	11,086,020
541 U WI-River Falls	69	69	71	55	19	70	312	268
542 Marshall University	66	25	180	234	206	540	570	623
543 Kenyon College	61e	81 i	101 i	121 i	141 i	161 i	181	--
544 Skidmore College	61	74	56 i	42 i	28 i	14 i	0	--
545 Lawrence Tech Univ	57	51	49 i	48 i	47 i	46 i	45	--
546 U of Alaska, SE	57	127	--	--	--	--	--	--
547 Jarvis Christian College	56	55	83	102	219	219	336	97
548 SUNY Col at Fredonia	52	93	100	144	148	55	98	116
549 Colorado College	47	106	101 i	96 i	91 i	86 i	81	59
550 Cooper Union	34	50e	50 i	50 i	50 i	50 i	50	39 i
Total, 1st 550 institutions	16,046,556	15,129,048	14,297,796	13,831,041	13,322,577	12,640,678	11,944,661	11,087,222

See explanatory information and SOURCE at end of table.

**Table B-33. Federally financed R&D expenditures at
universities and colleges: fiscal years 1992-1999**

[Dollars in thousands]

Page 12 of 12

Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
551 SUNY Col at Cortland	30	26	235	246	168	236	173	113
552 Providence College	29	17	20	39	22	29	55	47
553 Willamette University	29	137	--	--	--	--	--	--
554 CA Sch Prof Psy-Alameda	25	77	69	20	27	0	0	0
555 W State Coll, Colorado	20	37	43i	45i	47i	49i	51	44i
556 University of New Haven	19	104i	188i	272	203i	134	49	--
557 University of St. Thomas	19	158	148i	141i	134i	127i	120	--
558 Northeastern Illinois U	18	68	110	62	16	0	0	0
559 Sonoma State University	16	145	--	--	--	--	--	--
560 Fairmont State College	12	20	--	--	--	--	--	--
Total, 1st 560 institutions	16,046,773	15,129,837	14,298,609	13,831,866	13,323,194	12,641,253	11,945,109	11,087,426
561 Coppin State College	11	6	15	116	208	218	77	103
562 Fairleigh Dickinson U	7	7	17	35i	53e	53e	53	2
563 Oral Roberts University	6	16	20	0	0	28	0	0
564 Antioch University	0	0	0	0	81	85	116	87
565 Biola University	0	0	0	0	0	0	0	0
566 Bluefield State College	0	0	--	--	--	--	--	--
567 CA Inst of Integral Stu	0	0	0	0	0	0	0	--
568 CA Sch Prof Psy-L.A.	0	13	116	76i	38i	0	0	50
569 Connecticut College	0i	0e	34i	65i	96i	127i	158	164i
570 Ferris State University	0	49	--	--	--	--	--	--
Total, 1st 570 institutions	16,046,797	15,129,928	14,298,811	13,832,158	13,323,670	12,641,764	11,945,513	11,087,832
571 Fitchburg State College	0	0	--	--	--	--	--	--
572 Forest Inst of Prof Psy	0	0	0	0	0	0	0	--
573 Golden Gate University	0	0	0	0	0	0	0	--
574 Institute of Textile Tech	0	0	0	0	0	0	0	0
575 Knoxville College	0	0	22i	43i	64i	85	23i	33i
576 MA Col Phar Allied Hlth	0e	0	0	0	0	0	0	0
577 Maharishi U of Mgmt	0	0	0	0	640	776	0e	--
578 Pacific University	0	0	0	0	0	0	0	0i
579 Pepperdine University	0	0	0	0	0	0	0	--
580 Southern Col of Optometry	0	0	0	109	109	109	109	--
Total, 1st 580 institutions	16,046,797	15,129,928	14,298,833	13,832,310	13,324,483	12,642,734	11,945,645	11,087,865
581 Spalding University	0	176	0	0	15	5	0	--
582 St. Mary's University	0	0	56i	108i	160i	212i	264	261i
583 Talladega College	0	0i	0	0	0	0	0	0
584 Union Institute, The	0	0	0i	0	0	0	0	0
585 U of Missouri Sys Admn	0	0	0	0	0	0	0	0
586 US International U	0	0	0	0	0	0	0	0
587 WV Sch of Osteo Med	0	0	0	0	0	0	0	0
588 West Virginia State Col	0	0	196	10	40	195	161	172
589 Wiley College	0	0	--	--	--	--	--	0
Total, 1st 589 institutions	16,046,797	15,130,104	14,299,085	13,832,428	13,324,698	12,643,146	11,946,070	11,088,298
Total, all other sampled institutions	0	401	1,146	1,055	1,262	1,227	10,220	4,114

¹ Johns Hopkins University includes Applied Physics Laboratory, with \$419 million in federally financed R&D expenditures.

² These data do not include R&D expenditures at university-administered federally funded research and development centers. See tables B-73 and B-74.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-34. Non-Federal R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

Page 1 of 5

Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
Total, all institutions	11,442,264	10,706,694	10,038,022	9,201,782	8,835,491	8,375,239	7,994,273	7,725,415
1 U CA Berkeley	260,514	248,679	218,101	148,149	133,374	137,104	127,952	135,591
2 Texas A&M University	253,052	248,782	221,732	218,308	225,805	218,808	200,158	192,472
3 U CA Los Angeles	225,621	213,362	182,928	118,010	101,895	89,667	88,909	90,211
4 U WI-Madison	212,764	203,182	186,050	179,396	174,160	167,315	158,407	152,890
5 NC State University	204,311	174,721	159,819	116,263	111,516	103,799	93,154	92,507
6 Ohio State University	187,594	177,341	166,518	143,336	123,627	117,329	112,391	105,351
7 U CA San Francisco	183,914	160,340	136,635	98,893	105,471	99,141	104,451	93,501
8 U CA Davis	183,487	174,778	162,398	124,416	121,471	117,429	118,503	117,964
9 University of Florida	182,151	168,352	178,045	168,126	119,855	68,962	71,262	72,599
10 University of Georgia	181,413	163,233	171,093	153,103	148,747	132,844	120,189	116,317
Total, 1st 10 institutions	2,074,821	1,932,770	1,783,319	1,468,000	1,365,921	1,252,398	1,195,376	1,169,403
11 Pennsylvania State U	180,297	176,369	154,749	147,250	143,400	134,318	122,507	126,428
12 University of Michigan	174,393	185,311	187,457	187,814	167,114	166,056	175,917	169,607
13 U of Illinois Urbana-Cham	172,480	158,016	130,104	123,481	107,096	106,673	111,662	122,884
14 U CA San Diego	169,625	155,687	138,086	79,592	72,888	65,735	63,902	62,271
15 University of Minnesota	163,623	155,582	162,946	142,252	141,705	136,826	157,317	151,100
16 Duke University	161,517	109,856	95,642	92,604	70,177	71,870	66,057	62,936
17 Cornell University	160,760	159,324	145,509	136,452	136,395	118,702	115,720	118,981
18 Georgia Institute of Tech	150,864	145,590	127,693	109,478	106,983	96,555	77,475	78,968
19 Louisiana State U System	149,977	141,838	140,184	131,804	125,267	113,793	106,225	103,203
20 University of Arizona	142,119	140,329	133,057	125,652	123,560	124,243	122,105	116,087
Total, 1st 20 institutions	3,700,476	3,460,672	3,198,746	2,744,379	2,560,506	2,387,169	2,314,263	2,281,868
21 Rutgers the State U NJ	138,174	127,224	114,813	117,515	119,696	105,062	105,856	105,464
22 Baylor Col of Medicine	131,087	105,918	94,915	92,319	96,178	94,461	84,629	82,264
23 Purdue University	130,703	123,635	114,619	115,319	110,163	90,585	76,078	72,036
24 Michigan State University	118,077	112,465	107,201	105,346	104,510	89,430	80,567	75,842
25 U of Washington	114,547	95,900	89,175	93,777	97,876	72,912	66,510	55,674
26 U MD at College Park	112,547	93,992	112,999	117,269	115,874	112,297	144,303	136,572
27 MA Institute of Tech	111,385	102,357	99,534	109,068	97,257	104,050	109,999	95,936
28 University of Kentucky	107,850	100,586	62,676	67,271	61,920	56,738	56,137	52,416
29 Iowa State University	107,122	105,570	102,495	97,010	96,166	99,543	97,764	87,436
30 U of Pennsylvania	104,556	85,563	79,016	72,263	71,498	65,052	60,236	62,850
Total, 1st 30 institutions	4,876,524	4,513,882	4,176,189	3,731,536	3,531,644	3,277,299	3,196,342	3,108,358
31 Johns Hopkins U ¹	103,938	100,637	104,715	88,349	82,638	72,351	71,914	68,846
32 Northwestern University	101,162	95,324	92,651	86,452	83,344	86,265	84,612	72,734
33 Washington University	97,008	82,377	75,433	63,443	62,179	54,079	49,847	46,476
34 U of Missouri Columbia	95,127	90,613	84,843	80,141	90,450	89,957	76,581	69,195
35 U of Nebraska at Lincoln	94,069	76,969e	75,831	70,108	70,824	67,275	71,029	66,045
36 VA Polytech Inst & St U	93,864	84,384	82,151	63,496	69,427	74,823	74,063	79,713
37 U TX at Austin	93,209	79,761	87,067	93,798	84,737	111,016	110,032	103,931
38 Indiana University	92,528	75,914	69,267	63,379	59,471	54,960	50,500	47,694
39 Wayne State University	89,222	80,810	70,676	65,887	59,894	51,278	45,260	45,558
40 U of Tennessee System	88,743	80,901	80,181	75,607	75,022	71,052	67,084	59,193
Total, 1st 40 institutions	5,825,394	5,361,572	4,999,004	4,482,196	4,269,630	4,010,355	3,897,264	3,767,743
41 University of IL Chicago	88,687	77,942	68,557	62,549	61,853	56,667	55,507	53,783
42 U TX MD Anderson Cnrc Ctr	85,713	78,186	79,876	78,170	77,470	79,941	86,317	77,629
43 U of Iowa	84,497	83,751	75,880	72,582	61,778	57,500	55,328	47,058
44 University of Oklahoma	84,496	72,410	68,631	66,392	65,225	60,481	58,721	62,413
45 U of South Florida	81,956	68,395	68,581	64,406	63,200	66,276	58,604	50,703
46 SUNY at Buffalo	81,333	75,613	57,571	49,888	68,055	59,278	47,480	50,800
47 U of Southern California	81,122	78,259	67,437	64,977	58,553	57,540	50,857	53,027
48 University of Connecticut	79,490	81,259	91,337	94,513	89,860	88,454	84,003	78,043
49 Rockefeller Univ, The	76,509	71,649	66,020	68,226	60,355	34,468	37,542	37,270
50 University of Kansas	75,480	66,548	62,160	58,791	58,493	54,885	47,396	43,012
Total, 1st 50 institutions	6,644,677	6,115,584	5,705,054	5,162,690	4,934,472	4,625,845	4,479,019	4,321,481

See explanatory information and SOURCE at end of table.

**Table B-34. Non-Federal R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
51 University of Colorado	73,932	82,861	77,615	73,784	74,266	76,104	54,633	46,372
52 Stanford University	72,602	67,883	63,038	56,153	45,714	50,002	52,297	102,293
53 Clemson University	72,277	61,951	55,942	56,727	54,149	52,439	55,270	58,808
54 U of NC Chapel Hill	69,832	63,791	67,395	51,495	52,492	52,575	48,237	47,775
55 U of Alabama Birmingham	66,892	60,890	53,257	44,389	51,339	43,016	39,028	35,452
56 U CA Irvine	66,337	63,813	55,376	46,653	40,253	37,533	36,085	33,944
57 U Med & Dent of NJ	64,547	54,663	52,912	51,030	50,631	46,179	40,886	45,413
58 Mississippi State U	64,368	58,406	49,229	49,487	38,987	42,283	40,684	36,008
59 U TX SW Med Ctr at Dallas	63,524	56,511	51,232	48,694	46,409	46,930	46,315	40,764
60 Univ of Hawaii at Manoa	63,392	61,121	47,686	44,300	34,191	30,687	32,599	32,574
Total, 1st 60 institutions	7,322,380	6,747,474	6,278,736	5,685,402	5,422,903	5,103,593	4,925,053	4,800,884
61 Yale University	60,646	57,634	56,412	57,907	56,951	53,514	57,950	54,224
62 Harvard University	60,174	54,224	77,349	79,396	72,457	88,276e	75,238	78,494
63 Oklahoma State University	59,929	48,246	41,025	59,926	56,955	50,368	52,080	55,854
64 Colorado State University	58,338	59,728	49,187	51,771	46,956	45,993	46,652	42,660
65 Oregon State University	57,636	55,824	51,336	51,357	54,715	54,703	52,886	47,834
66 Kansas State University	57,478	54,232	51,115	46,453	45,837	44,149	42,980	39,140
67 U of South Carolina	57,345	50,199	40,850	27,350	35,418	36,083	28,812	30,617
68 U of MD Baltimore	56,387	65,284	62,708	56,996	48,278	51,139	58,216	52,224
69 Emory University	56,354	54,839	55,097	53,931	55,454	47,451	39,701	31,504
70 New York University	56,055	55,026	59,171	55,864	55,176	50,189	36,141	35,318
Total, 1st 70 institutions	7,902,722	7,302,710	6,822,986	6,224,353	5,951,100	5,625,458	5,415,709	5,268,753
71 U CA Riverside	55,827	56,776	51,480	43,768	37,412	37,252	39,939	40,369
72 SUNY at Stony Brook	55,045	50,235	50,056	46,807	46,106	40,578	39,794	35,298
73 University of Pittsburgh	54,859	45,331	41,700	39,866	41,970	36,388	36,844	36,173
74 U of Alaska Fairbanks	54,178	44,101	42,816	41,030	34,931	35,323	25,180	35,815
75 Auburn University	53,486	60,062	58,048	55,957	58,022	57,022	50,713	51,358
76 Arizona State University	53,279	50,660	43,040	45,706	41,794	31,864	36,110	36,198
77 University of Cincinnati	52,677	69,388	63,312	55,190	36,052	37,238	35,118	33,904
78 Washington State U	52,333	50,912	52,670	49,834	47,767	49,128	48,756	46,867
79 Carnegie Mellon U	51,766	42,404	43,427	44,684	40,901	34,790	39,595	40,723
80 Princeton University	51,263	46,991	44,882	42,994	40,254	40,743	41,192	38,236
Total, 1st 80 institutions	8,437,435	7,819,570	7,314,417	6,690,189	6,376,309	6,025,784	5,808,950	5,663,694
81 University of Virginia	48,992	39,962	31,597	22,078	51,435	45,834	42,374	41,952
82 U MA Amherst	46,699	46,774	44,886	35,709	33,956	32,614	32,046	29,582
83 U Arkansas Main	45,734	55,530	49,096	43,734	42,179	41,775	43,927	32,347
84 University of Rochester	44,274	43,844	36,834	31,981	32,642	31,622	30,912	29,579
85 Mt Sinai Sch Med	43,141	39,453	33,862	30,806	33,017	30,991	25,537	24,708
86 Case Western Reserve U	42,154	44,056	40,833	33,534	33,897	35,970	32,824	35,004
87 University of Utah	42,127	42,234	36,589	20,635	22,088	22,508	22,026	29,100
88 Florida State University	42,007	44,012	42,963	38,598	40,113	36,813	24,239	22,529
89 University of Louisville	41,515	24,080	19,913	16,349	13,053	11,201	10,572	10,133
90 Utah State University	40,931	39,325	41,698	37,945	34,037	32,957	30,409	34,872
Total, 1st 90 institutions	8,875,009	8,238,840	7,692,688	7,001,558	6,712,726	6,348,069	6,103,816	5,953,500
91 Columbia U in City of NY	39,429	37,284	32,157	40,751	38,496	33,316	22,014	24,739
92 University of Delaware	38,893	36,208	33,064	24,645	25,809	24,484	26,457	27,341
93 U TX Med Br at Galveston	38,519	37,900	35,677	35,436	39,365	39,998	37,443	33,391
94 University of Idaho	38,268	40,615	40,166i	39,717	34,290	32,752	28,778	27,539
95 Texas Tech University	38,246	35,645	31,744	29,987	29,374	28,095	27,222	25,748
96 Tufts University	38,110	30,963	28,147	25,848	26,612	24,077	21,894e	18,779e
97 University of Miami	37,725	35,480	34,372	33,340	31,625	29,912	29,403	22,309
98 West Virginia University	37,128	37,377	33,869	24,044	22,814	23,982	23,179	24,742
99 Temple University	37,043	34,231	28,126	27,813	26,439	29,168	27,138	27,052
100 U of NE Med Ctr	37,038	34,790	31,375	28,583	24,912	21,741	21,538	21,824
Total, 1st 100 institutions	9,255,408	8,599,333	8,021,385	7,311,722	7,012,462	6,635,594	6,368,882	6,206,964

See explanatory information and SOURCE at end of table.

**Table B-34. Non-Federal R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
101 Tulane University	36,545	34,934	36,719	33,940	39,394	41,531	38,694	38,886
102 Oregon Health Sciences U	36,164 i	34,154 i	29,682	28,995	25,297	20,246	17,947	15,765
103 UT Houston Hlth Sci Ctr	34,019	31,547	28,433	21,347	19,902	19,611	20,122	18,784
104 Vanderbilt University	32,788	28,889	23,854	21,319	19,039	17,666	12,498	17,021
105 North Dakota State U	32,388	30,220	28,765	31,978	28,993	26,100	26,215	25,789
106 U PR Mayaguez Campus	31,864	29,278	27,805	24,934	22,345	13,598	14,669	16,121
107 Virginia Commonwealth U	31,610	32,371	33,966	33,564	29,835	28,674	28,320	23,298
108 Brown University	31,054	29,565	27,747	25,482	18,837	18,282	18,301	17,729
109 U TX San An Hlth Sci Ctr	30,900	30,403	32,541	31,825	32,903	31,864	26,772	24,131
110 University of New Mexico	30,874	41,545	39,174	39,768	38,457	38,535	33,870	32,830
Total, 1st 110 institutions	9,583,614	8,922,239	8,330,071	7,604,874	7,287,464	6,891,701	6,606,290	6,437,318
111 U CA Santa Barbara	30,535	27,354	26,234	17,884	15,294	14,283	14,718	13,230
112 Rush University	29,838	26,833	25,587	26,292	26,198	24,905	21,252	17,054
113 Eastern Kentucky U	29,305	24,433 i	19,562 i	14,691 i	9,820 i	4,949 i	78	--
114 Montana St U Bozeman	29,244	28,310	29,733	32,430	30,765	20,411	18,815	20,976
115 University of Wyoming	28,088	30,694	32,750	25,562	25,097	23,349	17,981	16,883
116 University of Vermont	27,964	26,372	25,484	22,138	21,133	18,080	18,309	16,785
117 U CA Santa Cruz	27,818	26,652	25,423	19,335	18,251	18,655	16,065	16,176
118 U MA Worcester	27,524	29,184	27,996	23,143	25,471	26,867	26,782	17,929
119 Georgetown University	27,454	31,810	34,916	30,878	28,093	27,669	25,322	22,278
120 Medical Col of Georgia	27,112	26,679	26,821	24,633	20,362	18,899	17,222	13,679
Total, 1st 120 institutions	9,868,496	9,200,560	8,604,577	7,841,860	7,507,948	7,089,768	6,782,834	6,592,308
121 University of Chicago	27,085	25,653	28,848	21,570	21,674	19,372	15,947	20,941
122 U of New Hampshire	27,027	26,446	21,758	22,388	21,476	18,675	15,920	12,153
123 U of Central Florida	26,418	22,028	11,954	2,774	17,070	17,050	21,395	18,478
124 San Diego St University	25,855	22,194	20,349	26,020	18,851	17,041	15,631	15,004
125 Sthrn IL U Carbondale	25,509	22,689	21,411	19,742	19,531	20,566	18,939	20,712
126 Med U of South Carolina	24,822	21,467	19,321	13,789	21,078	17,742	21,072	14,726
127 U of Nevada Reno	23,352	25,093	31,890	27,006	25,406	23,377	21,467	23,461
128 New Mexico State Univ	23,002	20,783	23,859	22,941	24,245	20,654	21,153	21,028
129 University of Houston	22,927	20,279	24,221	23,730	22,360	20,301	20,688	23,076
130 Dartmouth College	22,781	19,911	18,465	13,263	11,466	16,083	15,828	14,877
Total, 1st 130 institutions	10,117,274	9,427,103	8,826,653	8,035,083	7,711,105	7,280,629	6,970,874	6,776,764
131 Wake Forest University	22,534	20,188	21,003	19,486	17,669	15,859	15,785	12,414
132 U of Maine	22,289	20,078	18,078	18,473	16,112	18,007	15,920	14,238
133 Georgia State University	22,213	19,869	19,525	12,296	11,590	10,329	6,307	6,005
134 Yeshiva University	22,091	19,000	18,883	18,034	22,607e	22,163	17,865	19,044
135 Thomas Jefferson U	22,041	17,732	20,137	17,679	16,370	13,717	12,813	12,468
136 SUNY Col Env Sci Frstry	21,511	19,321	17,850	18,948	18,718 i	18,488	18,679	16,029
137 U of LA at Lafayette	21,305	18,934	17,682	10,493	11,109	9,101	10,189	9,808
138 NJ Inst of Technology	19,855	19,855	17,441	18,549	15,831	17,411	15,506	15,348
139 Col of William & Mary	19,430	14,869	13,140	12,163	8,866	10,017	11,458	10,681
140 CA St U Long Beach	19,354	10,092 i	830e	830	817 i	797 i	777 i	757 i
Total, 1st 140 institutions	10,329,897	9,607,041	8,991,222	8,182,034	7,850,794	7,416,518	7,096,173	6,893,556
141 Brandeis University	18,882	16,491	14,912	13,527	13,710	13,250	14,388	13,429
142 U MD Ctr for Environ Sci	18,700	16,598	15,137	15,450	15,148	14,365	13,642	14,236
143 SUNY at Albany	18,036	16,674	16,225	17,852	14,303	19,746	10,542	9,868
144 Univ of Memphis, The	17,916	16,637	15,858	13,475	10,077	9,278	8,236	8,583
145 Boston University	17,712	25,626	22,870	22,320	20,236	17,953	19,565	17,024
146 U Arkansas Medical Sci	17,674	17,630	18,087	16,558	12,272	9,352	4,722	6,247
147 U MD Biotechnology Inst	17,261	20,072	20,398	15,404	11,025	8,760	--	--
148 U of Missouri Rolla	17,162	13,806	12,815	12,693	15,386	13,234	11,897	10,800
149 California Inst of Tech	16,913	7,318	13,663	14,531	17,293	15,444	11,551	12,535
150 George Washington U	16,813	29,409	20,976	18,773	15,457	14,050	13,479	11,177
Total, 1st 150 institutions	10,506,966	9,787,302	9,162,163	8,342,617	7,995,701	7,551,950	7,204,195	6,997,455

See explanatory information and SOURCE at end of table.

**Table B-34. Non-Federal R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
151 Rensselaer Polytech Inst	16,231	16,786	16,018	13,169	12,997	15,101	22,026	26,456
152 NM Inst Mining & Tech	15,342	13,832	11,478	13,375	11,137	13,363	18,667	17,526
153 U of Alabama Huntsville	15,037	13,174	11,086	12,035	11,319	9,899	9,170	7,585
154 Lehigh University	14,741	13,096	11,569	12,371	13,707	13,825	14,831	14,396
155 Medical Col of Wisconsin	14,359	12,190	12,265	12,838	13,071	18,145	17,428	15,911
156 Unif Svcs U of Hlth Sci	13,202	12,762	9,594	12,230	13,754	9,210	8,527	7,498i
157 U WI-Milwaukee	12,798	11,871	11,839	11,653	11,935	11,203	10,790	10,926
158 Eastern VA Med School	12,742	12,223	8,491	7,527	7,999	7,711	6,065	4,272
159 Brigham Young University	12,571	2,269	2,279e	3,039e	5,487	5,733	5,620	6,363
160 SUNY at Binghamton	12,237	14,549	13,092	12,839	11,447	10,703	8,755	8,232
Total, 1st 160 institutions	10,646,226	9,910,054	9,269,874	8,453,693	8,108,554	7,666,843	7,326,074	7,116,620
161 Woods Hole Oceanogr Inst	12,188	10,246	11,021	11,195	7,476	7,126	7,973	8,616
162 Michigan Tech University	11,967	12,584	11,199	11,279	9,991	10,802	8,919	9,937
163 Loyola U of Chicago	11,413	16,556	16,223	12,534	12,889i	13,243	11,002	12,028
164 Univ of Alabama, The	11,308	9,026	10,553	9,568	11,243	10,478	14,566	15,696
165 Wichita State University	11,295	10,471	9,195	7,708	7,140	5,731	4,092	3,710
166 Creighton University	11,086	10,915	7,998	6,595	6,562	4,992	5,147	4,569
167 Colorado School of Mines	11,011	11,987	9,891	9,757	7,738i	5,719	6,594	6,435
168 Ohio University	10,893	11,146	11,218	10,283	12,126	10,589	10,284	9,955
169 Wright State University	10,766	8,844	7,290	7,879	9,042	9,764	9,710	8,138
170 MCP Hahnemann Univ	10,235	34,882	37,686	21,067	17,332	18,894	16,088	16,327
Total, 1st 170 institutions	10,758,388	10,046,711	9,402,148	8,561,558	8,210,093	7,764,181	7,420,449	7,212,031
171 U of Nevada Las Vegas	9,922	7,199	6,407	5,751	6,804	5,943	8,788	3,294
172 Univ of Montana, The	9,745	8,385	9,597	9,830	8,732	8,233	7,866	5,153
173 CA St U Fresno	9,701	8,780	7,403	6,347i	5,293i	4,239i	3,185	2,824i
174 Syracuse University	9,590	8,122	10,862	15,961	14,598	19,341	15,625	17,430
175 Western Michigan U	9,562	7,509	6,417	6,270	6,280	6,446	6,247	4,763
176 South Dakota State U	9,513	9,819	10,021	9,425	7,826	8,372	9,017	7,941
177 Drexel University	9,483	8,674	8,722	7,709	9,945	9,880	8,979	13,315
178 Old Dominion University	9,324	7,804	7,847	8,311	6,471	7,023	7,047	4,575
179 Florida International U	9,304	3,637	3,531	3,441	3,345	2,584	2,154	--
180 San Jose State University	9,180e	9,180e	9,180i	9,180i	9,180i	9,180i	9,180	9,378
Total, 1st 180 institutions	10,853,712	10,125,820	9,482,135	8,643,783	8,288,567	7,845,422	7,498,537	7,280,704
181 University of Akron	9,139	12,284	12,853	10,714	11,358	12,767	13,229	10,582
182 U MA Lowell	9,059	7,113	7,135	8,258	7,408	7,874	8,333	8,008
183 CUNY Hunter College	8,408	7,083	7,142	8,938	6,269	5,108	3,506	3,252
184 U TX at Dallas	8,328	7,096	7,842	7,979	7,623i	7,268	5,340	5,319
185 U of Rhode Island	8,245	4,632	4,789	4,746	9,176i	13,606	13,333	15,362e
186 Cleveland State U	8,238e	7,515e	7,296e	7,168i	7,039	5,950	4,616	5,897
187 U MA Boston	8,181	8,331	8,119	8,192	6,692	8,580	7,612	5,955
188 Tennessee Tech U	7,982	8,596	7,848	7,938	9,002	8,149	8,212	8,338
189 SUNY Hlth Sci Ctr Brklyn	7,787	9,199	10,731	11,569i	12,407	11,078	9,729	8,275
190 Miami University (OH)	7,662	4,051	6,768	6,214	4,823	3,942	2,576	2,054
Total, 1st 190 institutions	10,936,741	10,201,720	9,562,658	8,725,499	8,370,364	7,929,744	7,575,023	7,353,746

See explanatory information and SOURCE at end of table.

**Table B-34. Non-Federal R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

Page 5 of 5

Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
191 Northeastern University	7,433	4,931	3,501	3,274	2,737	3,067	3,178	3,035
192 Clark Atlanta University	7,351	5,558	2,950	9,221	9,424	1,684	1,573	1,498
193 U Mississippi, All Camp	7,346	11,616	10,535	10,644	9,396	9,164	8,817	7,264
194 George Mason University	7,274	5,275	4,474	6,800	7,282	6,192	5,332	3,491
195 Boston College	7,234	4,996	3,539	3,367	3,308	2,786	2,580	1,705
196 SUNY Upstate Med U	7,210	7,602	7,726	7,329	6,323	5,196	5,215	5,492
197 Inst of Paper Sci & Tech	7,135e	11,678e	11,678e	9,489i	7,299	7,366	7,033	6,157
198 U of Missouri Kansas City	7,125	6,676	6,354	7,510	7,221	6,662	6,009	5,470
199 University of Notre Dame	6,869	5,820	4,943	5,670	5,908	6,475	7,330	7,621
200 Deser Research Institute	6,824	6,100	6,100	5,500	6,984	6,187	5,673	9,071
Total, 1st 200 institutions	11,008,542	10,271,972	9,624,458	8,794,303	8,436,246	7,984,523	7,627,763	7,404,550
Total, all other sampled institutions	433,722	434,722	413,564	407,479	399,245	390,716	366,510	320,865

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY:
 -- = not available
 e = estimated
 i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-35. R&D expenditures at universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 1 of 5

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
Total, all institutions	27,489,061	16,046,797	2,028,402	2,047,722	5,366,196	1,999,944
1 Johns Hopkins U ¹	874,518	770,580	1,239	15,317	43,317	44,065
2 University of Michigan	508,619	334,226	4,810	34,432	103,072	32,079
3 U of Washington	482,659	368,112	11,636	51,319	42,516	9,076
4 U CA Los Angeles	477,620	251,999	10,004	34,404	108,089	73,124
5 U WI-Madison	462,725	249,961	39,308	14,172	102,342	56,942
6 U CA San Diego	461,632	292,007	22,003	31,356	71,671	44,595
7 U CA Berkeley	451,539	191,025	47,551	21,928	149,496	41,539
8 Stanford University	426,549	353,947	3,198	31,516	18,779	19,109
9 MA Institute of Tech	420,306	308,921	281	75,444	12,663	22,997
10 U CA San Francisco	417,095	233,181	19,355	36,830	71,744	55,985
Total, 1st 10 institutions	4,983,262	3,353,959	159,385	346,718	723,689	399,511
11 Texas A&M University	402,203	149,151	94,660	34,722	115,069	8,601
12 Cornell University	395,552	234,792	37,854	12,053	75,228	35,625
13 U of Pennsylvania	383,569	279,013	1,877	30,269	33,209	39,201
14 Pennsylvania State U	379,402	199,105	16,069	65,698	98,530	0
15 University of Minnesota	371,384	207,761	49,079	23,933	61,579	29,032
16 U of Illinois Urbana-Cham	358,247	185,767	38,122	12,864	106,848	14,646
17 Duke University	348,274	186,757	6,108	121,630	14,135	19,644
18 Harvard University	326,193	266,019	2,056	11,790	0	46,328
19 Ohio State University	322,810	135,216	49,569	52,034	59,410	26,581
20 University of Arizona	320,245	178,126	7,842	16,660	104,499	13,118
Total, 1st 20 institutions	8,591,141	5,375,666	462,621	728,371	1,392,196	632,287
21 University of Colorado	318,618	244,686	6,199	9,867	25,148e	32,718e
22 Washington University	315,606	218,598	6,552	19,964	35,248	35,244
23 U CA Davis	307,950	124,463	22,210	16,242	120,267	24,768
24 University of Florida	304,447	122,296	65,859	28,183	77,719	10,390
25 U of Southern California	280,741	199,619	9,004	23,111	49,007	0
26 Columbia U in City of NY	279,587	240,158	1,428	2,630	10,734	24,637
27 Yale University	274,050	213,404	401	15,242	17,011	27,992
28 Baylor Col of Medicine	272,198	141,111	2,380	19,400	39,048	70,259
29 NC State University	270,621	66,310	97,150	31,478	75,195	488
30 Georgia Institute of Tech	263,725	112,861	13,856	62,752	74,256	0
Total, 1st 30 institutions	11,478,684	7,059,172	687,660	957,240	1,915,829	858,783
31 U TX at Austin	258,122	164,913	17,698	39,729	31,220	4,562
32 U MD at College Park	257,628	145,081	44,749	3,053	56,908	7,837
33 U of NC Chapel Hill	252,767	182,935	14,571	5,886	49,375	0
34 University of Pittsburgh	249,477	194,618	1,413	12,990	22,403	18,053
35 University of Georgia	237,493	56,080	47,128	11,034	121,612	1,639
36 Northwestern University	233,809	132,647	4,038	14,168	58,144	24,812
37 U of Alabama Birmingham	232,115	165,223	1,218	10,181	18,196	37,297
38 Purdue University	226,411	95,708	25,872	28,856	75,824	151
39 Louisiana State U System	225,808	75,831	69,063	13,187	53,522	14,205
40 Rutgers the State U NJ	213,838	75,664	25,334	9,833	85,061	17,946
Total, 1st 40 institutions	13,866,152	8,347,872	938,744	1,106,157	2,488,094	985,285
41 California Inst of Tech	212,216	195,303	290	6,332	8,334	1,957
42 Michigan State University	207,912	89,835	37,257	7,647	65,344	7,829
43 U of Iowa	207,135	122,638	5,191	20,778	48,095	10,433
44 Indiana University	194,790	102,262	1,728	4,820	68,679	17,301
45 Emory University	189,170	132,816	4,271	7,794	18,753	25,536
46 Case Western Reserve U	182,332	140,178	3,129	6,157	16,934	15,934
47 University of Rochester	177,126	132,852	8,456	18,226	6,662	10,930
48 University of IL Chicago	175,093	86,406	5,752	9,683	58,693	14,559
49 University of Kentucky	174,034	66,184	11,297	15,109	78,808	2,636
50 VA Polytech Inst & St U	169,250	75,386	36,738	13,287	39,820	4,019
Total, 1st 50 institutions	15,755,210	9,491,732	1,052,853	1,215,990	2,898,216	1,096,419

See explanatory information and SOURCE at end of table.

**Table B-35. R&D expenditures at universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 2 of 5

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
51 New York University	167,179	111,124	1,193	7,502	17,722	29,638
52 SUNY at Buffalo	166,823	85,490	4,806	5,485	41,885	29,157
53 U TX SW Med Ctr at Dallas	165,520	101,996	5,486	16,197	1,020	40,821
54 University of Chicago	162,805	135,720	567	1,621	8,964	15,933
55 Iowa State University	161,301	54,179	47,923	14,905	41,309	2,985
56 U of Tennessee System	158,930	70,187	29,075	15,093	30,396	14,179
57 University of Virginia	157,487	108,495	6,311	12,989	16,056	13,636
58 Univ of Hawaii at Manoa	156,810	93,418	35,111	13,021	15,260	0
59 U TX MD Anderson Cntr Ctr	155,126	69,413	0	0	50,557	35,156
60 University of Utah	153,843	111,716	2,025	8,951	22,678	8,473
Total, 1st 60 institutions	17,361,034	10,433,470	1,185,350	1,311,754	3,144,063	1,286,397
61 University of Cincinnati	153,002	100,325	4,053	5,989	32,880	9,755
62 Colorado State University	150,281	91,943	16,776	7,213	34,342	7
63 Vanderbilt University	149,675	116,887	68	3,730	14,835	14,155
64 U of Missouri Columbia	149,002	53,875	17,031	3,832	67,631	6,633
65 SUNY at Stony Brook	148,982	93,937	3,164	7,416	38,384	6,081
66 Wayne State University	146,832	57,610	12,592	10,660	49,162	16,808
67 Carnegie Mellon U	142,174	90,408	17,912	17,761	9,112	6,981
68 University of Oklahoma	142,085	57,589	15,803	7,756	45,402	15,535
69 U CA Irvine	141,842	75,505	4,418	16,539	28,079	17,301
70 Boston University	141,102	123,390	1,141	7,601	0	8,970
Total, 1st 70 institutions	18,826,011	11,294,939	1,278,308	1,400,251	3,463,890	1,388,623
71 U of MD Baltimore	140,903	84,516	24,396	11,572	9,418	11,001
72 University of Miami	139,608	101,883	1,341	15,752	6,399	14,233
73 Oregon State University	139,285	81,649	28,847	211	24,395	4,183
74 University of Connecticut	134,986	55,496	10,224	10,355	48,089	10,822
75 University of Kansas	132,752	57,272	11,363	14,393	36,465	13,259
76 U of Nebraska at Lincoln	131,046	36,977	4,297	5,466	77,554	6,752
77 Mt Sinai Sch Med	127,765	84,624	2,729	9,257	16,034	15,121
78 U Med & Dent of NJ	126,277	61,730	8,406	10,736	35,051	10,354
79 Princeton University	124,237	72,974	2,147	5,965	29,163	13,988
80 U of South Florida	123,961	42,005	7,499	6,236	57,058	11,163
Total, 1st 80 institutions	20,146,831	11,974,065	1,379,557	1,490,194	3,803,516	1,499,499
81 Rockefeller Univ, The	121,519	45,010	2,362	2,707	40,420	31,020
82 University of New Mexico	115,850	84,976	2,307	2,940	21,869	3,758
83 Oregon Health Sciences U	112,197	76,033	3,366	7,854	15,483	9,461
84 Yeshiva University	111,771	89,680	0	0	20,600	1,491
85 Georgetown University	111,426	83,972	905	7,939	11,666	6,944
86 Mississippi State U	110,896	46,528	26,461	7,892	30,015	0
87 Arizona State University	107,184	53,905	2,116	4,267	44,231	2,665
88 U of South Carolina	105,835	48,490	3,649	2,176	47,497	4,023
89 UT Houston Hlth Sci Ctr	105,307	71,288	1,594	12,872	6,183	13,370
90 U CA Santa Barbara	104,561	74,026	1,823	4,742	15,781	8,189
Total, 1st 90 institutions	21,253,377	12,847,973	1,424,140	1,543,583	4,057,261	1,580,420
91 Tufts University	101,728	63,618	732	7,342	20,304	9,732
92 Clemson University	99,341	27,064	21,063	8,445	38,341	4,428
93 Florida State University	97,673	55,666	1,947	988	36,736	2,336
94 Washington State U	96,943	44,610	3,583	3,158	34,556	11,036
95 Utah State University	95,364	54,433	16,547	3,998	16,784	3,602
96 U TX Med Br at Galveston	93,580	55,061	9,686	6,366	11,043	11,424
97 U of Alaska Fairbanks	88,825	34,647	3,913	19,340	30,908	17
98 U TX San An Hlth Sci Ctr	87,804	56,904	6,713	10,777	7,899	5,511
99 Tulane University	87,324	50,779	2,599	11,914	17,620	4,412
100 U MA Amherst	86,576	39,877	6,354	5,796	27,796	6,753
Total, 1st 100 institutions	22,188,535	13,130,632	1,497,277	1,621,707	4,299,248	1,639,671

See explanatory information and SOURCE at end of table.

**Table B-35. R&D expenditures at universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
101 Kansas State University	85,580	28,102	34,451	3,746	16,141	3,140
102 Oklahoma State University	83,108	23,179	24,896	3,447	30,459	1,127
103 U MA Worcester	83,040	55,516	18,308	4,265	0	4,951
104 Wake Forest University	82,827	60,293	752	16,320	157	5,305
105 Auburn University	80,544	27,058	782	3,649	44,944	4,111
106 New Mexico State Univ	79,877	56,875	7,832	2,892	11,274	1,004
107 Virginia Commonwealth U	79,785	48,175	2,391	8,062	16,279	4,878
108 Thomas Jefferson U	78,410	56,369	1,605	12,081	880	7,475
109 Brown University	76,330	45,276	95	1,795	25,969	3,195
110 U CA Riverside	75,821	19,994	3,319	3,893	40,525	8,090
Total, 1st 110 institutions	22,993,857	13,551,469	1,591,708	1,681,857	4,485,876	1,682,947
111 University of Delaware	73,521	34,628	5,310	4,152	19,401	10,030
112 Woods Hole Oceanogr Inst	71,722	59,534	244	295	2,746	8,903
113 Dartmouth College	69,522	46,741	2,694	4,544	8,945	6,598
114 Temple University	66,777	29,734	135	1,284	25,380	10,244
115 George Washington U	66,757	49,944	1,554	4,001	0	11,258
116 SUNY at Albany	64,278	46,242	4,135	1,337	5,780	6,784
117 University of Vermont	64,049	36,085	2,718	7,112	11,896	6,238
118 West Virginia University	63,392	26,264	3,149	5,532	24,203	4,244
119 University of Idaho	62,531	24,263	14,322	1,903	15,042	7,001
120 U Arkansas Main	61,585	15,851	30,966	6,198	5,228	3,342
Total, 1st 120 institutions	23,657,991	13,920,755	1,656,935	1,718,215	4,604,497	1,757,589
121 Medical Col of Wisconsin	61,446	47,087	1	2,151	6,460	5,747
122 Rush University	60,957	31,119	527	8,154	17,508	3,649
123 Texas Tech University	58,488	20,242	16,358	5,682	12,577	3,629
124 U of New Hampshire	57,613	30,586	6,267	4,395	9,157	7,208
125 University of Louisville	57,051	15,536	1,144	6,100	28,159	6,112
126 Med U of South Carolina	55,819	30,997	1,881	2,202	14,986	5,753
127 U PR Mayaguez Campus	55,648	23,784	23,845	2,771	4,774	474
128 Montana St U Bozeman	55,475	26,231	12,661	7,079	9,504	0
129 U of NE Med Ctr	54,205	17,167	4,970	5,445	20,126	6,497
130 U CA Santa Cruz	52,902	25,084	1,846	1,094	18,856	6,022
Total, 1st 130 institutions	24,227,595	14,188,588	1,726,435	1,763,288	4,746,604	1,802,680
131 Brandeis University	48,305	29,423	241	0	5,113	13,528
132 U of Nevada Reno	47,939	24,587	1,271	1,374	18,154	2,553
133 University of Wyoming	47,197	19,109	2,730	3,206	20,648	1,504
134 San Diego St University	45,579	19,724	5,113	1,021	15,344	4,377
135 North Dakota State U	44,696	12,308	1,938	1,300	27,310	1,840
136 U of Rhode Island	44,452	36,207	4,390	1,095	2,459	301
137 U Arkansas Medical Sci	44,066	26,392	793	3,889	9,237	3,755
138 University of Houston	43,370	20,443	10,121	1,762	6,704	4,340
139 U of Central Florida	42,466	16,048	5,303	4,873	16,242	0
140 U of Maine	41,452	19,163	1,389	2,324	16,326	2,250
Total, 1st 140 institutions	24,677,117	14,411,992	1,759,724	1,784,132	4,884,141	1,837,128
141 Medical Col of Georgia	41,103	13,991	916	3,603	20,982	1,611
142 Rice University	41,069	35,012	1,431	1,645	0	2,981
143 NJ Inst of Technology	40,982	21,127	6,968	1,258	10,854	775
144 U of Alabama Huntsville	40,203	25,166	1,456	5,071	8,510	0
145 Syracuse University	39,640	30,050	3,130	1,470	1,710	3,280
146 Rensselaer Polytech Inst	39,034	22,803	2,868	10,084	2,387	892
147 University of Dayton	36,937	30,755	252	4,454	1,339	137
148 Eastern Kentucky U	36,708	7,403	28,838	431	36	0
149 Georgia State University	36,523	14,310	5,304	1,075	13,453	2,381
150 US Naval Postgrad School	34,095e	33,308e	210e	287e	0e	290e
Total, 1st 150 institutions	25,063,411	14,645,917	1,811,097	1,813,510	4,943,412	1,849,475

See explanatory information and SOURCE at end of table.

**Table B-35. R&D expenditures at universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
151 Sthrn IL U Carbondale	33,169	7,660	8,305	2,462	11,275	3,467
152 University of Oregon	32,695	27,336	383	131	3,429	1,416
153 Col of William & Mary	31,322	11,892	3,072	1,178	14,206	974
154 CA St U Long Beach	31,283	11,929	13,916	722	3,166	1,550
155 U MD Biotechnology Inst	31,172	13,911	499	848	13,721	2,193
156 U of LA at Lafayette	30,735	9,430	4,488	7,278	8,278	1,261
157 University of Notre Dame	30,483	23,614	218	2,920	3,731	0
158 Northeastern University	30,209	22,776	311	2,981	4,141	0
159 Loyola U of Chicago	29,001	17,588	599	1,922	4,943	3,949
160 Univ of Alabama, The	28,909	17,601	4,375	1,577	5,356	0
Total, 1st 160 institutions	25,372,389	14,809,654	1,847,263	1,835,529	5,015,658	1,864,285
161 SUNY Hlth Sci Ctr Brklyn	28,840	21,053	137	2,261	3,438	1,951
162 Michigan Tech University	28,074	16,107	1,154	3,578	5,818	1,417
163 Lehigh University	27,902	13,161	4,669	6,669	3,062	341
164 Saint Louis University	27,817	23,722	282	3,113	287	413
165 MCP Hahnemann Univ	27,516	17,281	6,900	1,552	0	1,783
166 U MD Ctr for Environ Sci	26,816	8,116	3,637	108	12,372	2,583
167 George Mason University	26,766	19,492	1,669	297	1,178	4,130
168 NM Inst Mining & Tech	26,061	10,719	2,103	7,034	6,117	88
169 U of Missouri Rolla	25,893	8,731	446	2,079	12,996	1,641
170 SUNY Col Env Sci Frstry	25,385	3,874	2,908	2,037	16,033	533
Total, 1st 170 institutions	25,643,459	14,951,910	1,871,168	1,864,257	5,076,959	1,879,165
171 Florida International U	25,061	15,757	6,033	729	1,890	652
172 C R Drew U of Med & Sci	24,484	22,212	1,226	1,046	0	0
173 Univ of Montana, The	24,372	14,627	1,058	1,247	6,024	1,416
174 Univ of Memphis, The	24,280	6,364	5,298	710	10,039	1,869
175 Eastern VA Med School	24,096	11,354	15	8,561	110	4,056
176 Brigham Young University	23,985	11,414	1,280	2,781	6,758	1,752
177 Howard University	23,557	21,658	120	1,774	0	5
178 Desert Research Institute	23,376	16,552	2,193	1,226	1,982	1,423
179 Wright State University	23,131	12,365	1,884	1,717	7,006	159
180 Old Dominion University	23,030	13,706	4,035	2,787	2,502	0
Total, 1st 180 institutions	25,882,831	15,097,919	1,894,310	1,886,835	5,113,270	1,890,497
181 Unif Svcs U of Hlth Sci	22,898	9,696	0	0	13,202	0
182 Drexel University	22,397	12,914	1,035	4,078	4,370	0
183 U WI-Milwaukee	22,207	9,409	4,510	535	6,534	1,219
184 U TX at El Paso	21,961	18,292	2,709	697	263	0
185 U MD Baltimore County	21,854	15,624	1,576	2,649	1,714	291
186 Boston College	21,726	14,492	242	934	3,451	2,607
187 Colorado School of Mines	21,715	10,704	1,570	9,292	149	0
188 Florida A&M University	21,622	20,693	929	0	0	0
189 Ohio University	21,437	10,544	1,444	2,843	5,916	690
190 San Jose State University	21,005e	11,825e	2,537e	4,324e	1,655e	664e
Total, 1st 190 institutions	26,101,653	15,232,112	1,910,862	1,912,187	5,150,524	1,895,968

See explanatory information and SOURCE at end of table.

**Table B-35. R&D expenditures at universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 5 of 5

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
191 New York Medical College	20,436	14,029	118	3,742	0	2,547
192 U of Nevada Las Vegas	20,170	10,248	1,978	2,596	5,348	0
193 OR Grad Inst Sci & Tech	19,818	15,303	699	1,429	1,927	460
194 Clark Atlanta University	19,467	12,116	1,827 ⁱ	695 ⁱ	65 ⁱ	4,764 ⁱ
195 U MA Lowell	19,413	10,354	1,156	6,234	1,669	0
196 Loma Linda University	18,818	12,217	0	4,310	2,291	0
197 SUNY at Binghamton	17,998	5,761	2,514	3,584	4,881	1,258
198 U Mississippi, All Camp	17,298	9,952	4,153	682	1,792	719
199 Mercer University	17,250	12,657	83	1,280	3,230	0
200 Florida Atlantic U	17,151	11,036	434	5,681	0	0
Total, 1st 200 institutions	26,289,472	15,345,785	1,923,824	1,942,420	5,171,727	1,905,716
Total, all other sampled institutions	1,199,589	701,012	104,578	105,302	194,469	94,228

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-36: R&D expenditures at public universities and colleges
by source of funds: fiscal year, 1999**

[Dollars in thousands]

Page 1 of 4

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
Total, all institutions	18,628,230	9,667,129	1,851,683	1,356,583	4,528,550	1,224,285
1 University of Michigan	508,619	334,226	4,810	34,432	103,072	32,079
2 U of Washington	482,659	368,112	11,636	51,319	42,516	9,076
3 U CA Los Angeles	477,620	251,999	10,004	34,404	108,089	73,124
4 U WI-Madison	462,725	249,961	39,308	14,172	102,342	56,942
5 U CA San Diego	461,632	292,007	22,003	31,356	71,671	44,595
6 U CA Berkeley	451,539	191,025	47,551	21,928	149,496	41,539
7 U CA San Francisco	417,095	233,181	19,355	36,830	71,744	55,985
8 Texas A&M University	402,203	149,151	94,660	34,722	115,069	8,601
9 Pennsylvania State U	379,402	199,105	16,069	65,698	98,530	0
10 University of Minnesota	371,384	207,761	49,079	23,933	61,579	29,032
Total, 1st 10 institutions	4,414,878	2,476,528	314,475	348,794	924,108	350,973
11 U of Illinois Urbana-Cham	358,247	185,767	38,122	12,864	106,848	14,646
12 Ohio State University	322,810	135,216	49,569	52,034	59,410	26,581
13 University of Arizona	320,245	178,126	7,842	16,660	104,499	13,118
14 University of Colorado	318,618	244,686	6,199	9,867	25,148e	32,718e
15 U CA Davis	307,950	124,463	22,210	16,242	120,267	24,768
16 University of Florida	304,447	122,296	65,859	28,183	77,719	10,390
17 NC State University	270,621	66,310	97,150	31,478	75,195	488
18 Georgia Institute of Tech	263,725	112,861	13,856	62,752	74,256	0
19 U TX at Austin	258,122	164,913	17,698	39,729	31,220	4,562
20 U MD at College Park	257,628	145,081	44,749	3,053	56,908	7,837
Total, 1st 20 institutions	7,397,291	3,956,247	677,729	621,656	1,655,578	486,081
21 U of NC Chapel Hill	252,767	182,935	14,571	5,886	49,375	0
22 University of Pittsburgh	249,477	194,618	1,413	12,990	22,403	18,053
23 University of Georgia	237,493	56,080	47,128	11,034	121,612	1,639
24 U of Alabama Birmingham	232,115	165,223	1,218	10,181	18,196	37,297
25 Purdue University	226,411	95,708	25,872	28,856	75,824	151
26 Louisiana State U System	225,808	75,831	69,063	13,187	53,522	14,205
27 Rutgers the State U NJ	213,838	75,664	25,334	9,833	85,061	17,946
28 Michigan State University	207,912	89,835	37,257	7,647	65,344	7,829
29 U of Iowa	207,135	122,638	5,191	20,778	48,095	10,433
30 Indiana University	194,790	102,262	1,728	4,820	68,679	17,301
Total, 1st 30 institutions	9,645,037	5,117,041	906,504	746,868	2,263,689	610,935
31 University of IL Chicago	175,093	86,406	5,752	9,683	58,693	14,559
32 University of Kentucky	174,034	66,184	11,297	15,109	78,808	2,636
33 VA Polytech Inst & St U	169,250	75,386	36,738	13,287	39,820	4,019
34 SUNY at Buffalo	166,823	85,490	4,806	5,485	41,885	29,157
35 U TX SW Med Ctr at Dallas	165,520	101,996	5,486	16,197	1,020	40,821
36 Iowa State University	161,301	54,179	47,923	14,905	41,309	2,985
37 U of Tennessee System	158,930	70,187	29,075	15,093	30,396	14,179
38 University of Virginia	157,487	108,495	6,311	12,989	16,056	13,636
39 Univ of Hawaii at Manoa	156,810	93,418	35,111	13,021	15,260	0
40 U TX MD Anderson Cncr Ctr	155,126	69,413	0	0	50,557	35,156
Total, 1st 40 institutions	11,285,411	5,928,195	1,089,003	862,637	2,637,493	768,083
41 University of Utah	153,843	111,716	2,025	8,951	22,678	8,473
42 University of Cincinnati	153,002	100,325	4,053	5,989	32,880	9,755
43 Colorado State University	150,281	91,943	16,776	7,213	34,342	7
44 U of Missouri Columbia	149,002	53,875	17,031	3,832	67,631	6,633
45 SUNY at Stony Brook	148,982	93,937	3,164	7,416	38,384	6,081
46 Wayne State University	146,832	57,610	12,592	10,660	49,162	16,808
47 University of Oklahoma	142,085	57,589	15,803	7,756	45,402	15,535
48 U CA Irvine	141,842	75,505	4,418	16,539	28,079	17,301
49 U of MD Baltimore	140,903	84,516	24,396	11,572	9,418	11,001
50 Oregon State University	139,285	81,649	28,847	211	24,395	4,183
Total, 1st 50 institutions	12,751,468	6,736,860	1,218,108	942,776	2,989,864	863,860

See explanatory information and SOURCE at end of table.

**Table B-36. R&D expenditures at public universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 2 of 4

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
51 University of Connecticut	134,986	55,496	10,224	10,355	48,089	10,822
52 University of Kansas	132,752	57,272	11,363	14,393	36,465	13,259
53 U of Nebraska at Lincoln	131,046	36,977	4,297	5,466	77,554	6,752
54 U Med & Dent of NJ	126,277	61,730	8,406	10,736	35,051	10,354
55 U of South Florida	123,961	42,005	7,499	6,236	57,058	11,163
56 University of New Mexico	115,850	84,976	2,307	2,940	21,869	3,758
57 Oregon Health Sciences U	112,197	76,033	3,366	7,854	15,483	9,461
58 Mississippi State U	110,896	46,528	26,461	7,892	30,015	0
59 Arizona State University	107,184	53,905	2,116	4,267	44,231	2,665
60 U of South Carolina	105,835	48,490	3,649	2,176	47,497	4,023
Total, 1st 60 institutions	13,952,452	7,300,272	1,297,796	1,015,091	3,403,176	936,117
61 UT Houston Hlth Sci Ctr	105,307	71,288	1,594	12,872	6,183	13,370
62 U CA Santa Barbara	104,561	74,026	1,823	4,742	15,781	8,189
63 Clemson University	99,341	27,064	21,063	8,445	38,341	4,428
64 Florida State University	97,673	55,666	1,947	988	36,736	2,336
65 Washington State U	96,943	44,610	3,583	3,158	34,556	11,036
66 Utah State University	95,364	54,433	16,547	3,998	16,784	3,602
67 U TX Med Br at Galveston	93,580	55,061	9,686	6,366	11,043	11,424
68 U of Alaska Fairbanks	88,825	34,647	3,913	19,340	30,908	17
69 U TX San An Hlth Sci Ctr	87,804	56,904	6,713	10,777	7,899	5,511
70 U MA Amherst	86,576	39,877	6,354	5,796	27,796	6,753
Total, 1st 70 institutions	14,908,426	7,813,848	1,371,019	1,091,573	3,629,203	1,002,783
71 Kansas State University	85,580	28,102	34,451	3,746	16,141	3,140
72 Oklahoma State University	83,108	23,179	24,896	3,447	30,459	1,127
73 U MA Worcester	83,040	55,516	18,308	4,265	0	4,951
74 Auburn University	80,544	27,058	782	3,649	44,944	4,111
75 New Mexico State Univ	79,877	56,875	7,832	2,892	11,274	1,004
76 Virginia Commonwealth U	79,785	48,175	2,391	8,062	16,279	4,878
77 U CA Riverside	75,821	19,994	3,319	3,893	40,525	8,090
78 University of Delaware	73,521	34,628	5,310	4,152	19,401	10,030
79 Temple University	66,777	29,734	135	1,284	25,380	10,244
80 SUNY at Albany	64,278	46,242	4,135	1,337	5,780	6,784
Total, 1st 80 institutions	15,680,757	8,183,351	1,472,578	1,128,300	3,839,386	1,057,142
81 University of Vermont	64,049	36,085	2,718	7,112	11,896	6,238
82 West Virginia University	63,392	26,264	3,149	5,532	24,203	4,244
83 University of Idaho	62,531	24,263	14,322	1,903	15,042	7,001
84 U Arkansas Main	61,585	15,851	30,966	6,198	5,228	3,342
85 Texas Tech University	58,488	20,242	16,358	5,682	12,577	3,629
86 U of New Hampshire	57,613	30,586	6,267	4,395	9,157	7,208
87 University of Louisville	57,051	15,536	1,144	6,100	28,159	6,112
88 Med U of South Carolina	55,819	30,997	1,881	2,202	14,986	5,753
89 U PR Mayaguez Campus	55,648	23,784	23,845	2,771	4,774	474
90 Montana St U Bozeman	55,475	26,231	12,661	7,079	9,504	0
Total, 1st 90 institutions	16,272,408	8,433,190	1,585,889	1,177,274	3,974,912	1,101,143
91 U of NE Med Ctr	54,205	17,167	4,970	5,445	20,126	6,497
92 U CA Santa Cruz	52,902	25,084	1,846	1,094	18,856	6,022
93 U of Nevada Reno	47,939	24,587	1,271	1,374	18,154	2,553
94 University of Wyoming	47,197	19,109	2,730	3,206	20,648	1,504
95 San Diego St University	45,579	19,724	5,113	1,021	15,344	4,377
96 North Dakota State U	44,696	12,308	1,938	1,300	27,310	1,840
97 U of Rhode Island	44,452	36,207	4,390	1,095	2,459	301
98 U Arkansas Medical Sci	44,066	26,392	793	3,889	9,237	3,755
99 University of Houston	43,370	20,443	10,121	1,762	6,704	4,340
100 U of Central Florida	42,466	16,048	5,303	4,873	16,242	0
Total, 1st 100 institutions	16,739,280	8,650,259	1,624,364	1,202,333	4,129,992	1,132,332

See explanatory information and SOURCE at end of table.

**Table B-36. R&D expenditures at public universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 3 of 4

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
101 U of Maine	41,452	19,163	1,389	2,324	16,326	2,250
102 Medical Col of Georgia	41,103	13,991	916	3,603	20,982	1,611
103 NJ Inst of Technology	40,982	21,127	6,968	1,258	10,854	775
104 U of Alabama Huntsville	40,203	25,166	1,456	5,071	8,510	0
105 Eastern Kentucky U	36,708	7,403	28,838	431	36	0
106 Georgia State University	36,523	14,310	5,304	1,075	13,453	2,381
107 US Naval Postgrad School	34,095e	33,308e	210e	287e	0e	290e
108 Sthrn IL U Carbondale	33,169	7,660	8,305	2,462	11,275	3,467
109 University of Oregon	32,695	27,336	383	131	3,429	1,416
110 Col of William & Mary	31,322	11,892	3,072	1,178	14,206	974
Total, 1st 110 institutions	17,107,532	8,831,615	1,681,205	1,220,153	4,229,063	1,145,496
111 CA St U Long Beach	31,283	11,929	13,916	722	3,166	1,550
112 U MD Biotechnology Inst	31,172	13,911	499	848	13,721	2,193
113 U of LA at Lafayette	30,735	9,430	4,488	7,278	8,278	1,261
114 Univ of Alabama, The	28,909	17,601	4,375	1,577	5,356	0
115 SUNY Hlth Sci Ctr Brklyn	28,840	21,053	137	2,261	3,438	1,951
116 Michigan Tech University	28,074	16,107	1,154	3,578	5,818	1,417
117 U MD Ctr for Environ Sci	26,816	8,116	3,637	108	12,372	2,583
118 George Mason University	26,766	19,492	1,669	297	1,178	4,130
119 NM Inst Mining & Tech	26,061	10,719	2,103	7,034	6,117	88
120 U of Missouri Rolla	25,893	8,731	446	2,079	12,996	1,641
Total, 1st 120 institutions	17,392,081	8,968,704	1,713,629	1,245,935	4,301,503	1,162,310
121 SUNY Col Env Sci Frstry	25,385	3,874	2,908	2,037	16,033	533
122 Florida International U	25,061	15,757	6,033	729	1,890	652
123 Univ of Montana, The	24,372	14,627	1,058	1,247	6,024	1,416
124 Univ of Memphis, The	24,280	6,364	5,298	710	10,039	1,869
125 Desert Research Institute	23,376	16,552	2,193	1,226	1,982	1,423
126 Wright State University	23,131	12,365	1,884	1,717	7,006	159
127 Old Dominion University	23,030	13,706	4,035	2,787	2,502	0
128 Unif Svcs U of Hlth Sci	22,898	9,696	0	0	13,202	0
129 U WI-Milwaukee	22,207	9,409	4,510	535	6,534	1,219
130 U TX at El Paso	21,961	18,292	2,709	697	263	0
Total, 1st 130 institutions	17,627,782	9,089,346	1,744,257	1,257,620	4,366,978	1,169,581
131 U MD Baltimore County	21,854	15,624	1,576	2,649	1,714	291
132 Colorado School of Mines	21,715	10,704	1,570	9,292	149	0
133 Florida A&M University	21,622	20,693	929	0	0	0
134 Ohio University	21,437	10,544	1,444	2,843	5,916	690
135 San Jose State University	21,005e	11,825e	2,537e	4,324e	1,655e	664e
136 U of Nevada Las Vegas	20,170	10,248	1,978	2,596	5,348	0
137 U MA Lowell	19,413	10,354	1,156	6,234	1,669	0
138 SUNY at Binghamton	17,998	5,761	2,514	3,584	4,881	1,258
139 U Mississippi, All Camp	17,298	9,952	4,153	682	1,792	719
140 Florida Atlantic U	17,151	11,036	434	5,681	0	0
Total, 1st 140 institutions	17,827,445	9,206,087	1,762,548	1,295,505	4,390,102	1,173,203

See explanatory information and SOURCE at end of table.

**Table B-36. R&D expenditures at public universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 4 of 4

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
141 U PR Med Sci Campus	17,114	13,971	44	602	2,303	194
142 Univ of North Dakota	16,999	13,615	27	2,308	472	577
143 University of Akron	16,279	7,140	882	2,150	4,009	2,098
144 U Southern Mississippi	16,211	14,124	524	996	567	0
145 U TX at Dallas	16,028	7,700	1,445	1,336	3,767	1,780
146 CUNY Hunter College	15,934	7,526	915	189	4,896	2,408
147 South Dakota State U	15,599	6,086	6,951	234	1,269	1,059
148 SUNY Upstate Med U	15,099	7,889	257	272	717	5,964
149 NC A&T State University	14,741	12,454	33	383	1,581	290
150 Wichita State University	14,555	3,260	4,486	1,043	5,573	193
Total, 1st 150 institutions	17,986,004	9,299,852	1,778,112	1,305,018	4,415,256	1,187,766
Total, all other sampled institutions	642,226	367,277	73,571	51,565	113,294	36,519

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-37. R&D expenditures at private universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
Total, all institutions	8,860,831	6,379,668	176,719	691,139	837,646	775,659
1 Johns Hopkins U ¹	874,518	770,580	1,239	15,317	43,317	44,065
2 Stanford University	426,549	353,947	3,198	31,516	18,779	19,109
3 MA Institute of Tech	420,306	308,921	281	75,444	12,663	22,997
4 Cornell University	395,552	234,792	37,854	12,053	75,228	35,625
5 U of Pennsylvania	383,569	279,013	1,877	30,269	33,209	39,201
6 Duke University	348,274	186,757	6,108	121,630	14,135	19,644
7 Harvard University	326,193	266,019	2,056	11,790	0	46,328
8 Washington University	315,606	218,598	6,552	19,964	35,248	35,244
9 U of Southern California	280,741	199,619	9,004	23,111	49,007	0
10 Columbia U in City of NY	279,587	240,158	1,428	2,630	10,734	24,637
Total, 1st 10 institutions	4,050,895	3,058,404	69,597	343,724	292,320	286,850
11 Yale University	274,050	213,404	401	15,242	17,011	27,992
12 Baylor Col of Medicine	272,198	141,111	2,380	19,400	39,048	70,259
13 Northwestern University	233,809	132,647	4,038	14,168	58,144	24,812
14 California Inst of Tech	212,216	195,303	290	6,332	8,334	1,957
15 Emory University	189,170	132,816	4,271	7,794	18,753	25,536
16 Case Western Reserve U	182,332	140,178	3,129	6,157	16,934	15,934
17 University of Rochester	177,126	132,852	8,456	18,226	6,662	10,930
18 New York University	167,179	111,124	1,193	7,502	17,722	29,638
19 University of Chicago	162,805	135,720	567	1,621	8,964	15,933
20 Vanderbilt University	149,675	116,887	68	3,730	14,835	14,155
Total, 1st 20 institutions	6,071,455	4,510,446	94,390	443,896	498,727	523,996
21 Carnegie Mellon U	142,174	90,408	17,912	17,761	9,112	6,981
22 Boston University	141,102	123,390	1,141	7,601	0	8,970
23 University of Miami	139,608	101,883	1,341	15,752	6,399	14,233
24 Mt Sinai Sch Med	127,765	84,624	2,729	9,257	16,034	15,121
25 Princeton University	124,237	72,974	2,147	5,965	29,163	13,988
26 Rockefeller Univ, The	121,519	45,010	2,362	2,707	40,420	31,020
27 Yeshiva University	111,771	89,680	0	0	20,600	1,491
28 Georgetown University	111,426	83,972	905	7,939	11,666	6,944
29 Tufts University	101,728	63,618	732	7,342	20,304	9,732
30 Tulane University	87,324	50,779	2,599	11,914	17,620	4,412
Total, 1st 30 institutions	7,280,109	5,316,784	126,258	530,134	670,045	636,888
31 Wake Forest University	82,827	60,293	752	16,320	157	5,305
32 Thomas Jefferson U	78,410	56,369	1,605	12,081	880	7,475
33 Brown University	76,330	45,276	95	1,795	25,969	3,195
34 Woods Hole Oceanogr Inst	71,722	59,534	244	295	2,746	8,903
35 Dartmouth College	69,522	46,741	2,694	4,544	8,945	6,598
36 George Washington U	66,757	49,944	1,554	4,001	0	11,258
37 Medical Col of Wisconsin	61,446	47,087	1	2,151	6,460	5,747
38 Rush University	60,957	31,119	527	8,154	17,508	3,649
39 Brandeis University	48,305	29,423	241	0	5,113	13,528
40 Rice University	41,069	35,012	1,431	1,645	0	2,981
Total, 1st 40 institutions	7,937,454	5,777,582	135,402	581,120	737,823	705,527
41 Syracuse University	39,640	30,050	3,130	1,470	1,710	3,280
42 Rensselaer Polytech Inst	39,034	22,803	2,868	10,084	2,387	892
43 University of Dayton	36,937	30,755	252	4,454	1,339	137
44 University of Notre Dame	30,483	23,614	218	2,920	3,731	0
45 Northeastern University	30,209	22,776	311	2,981	4,141	0
46 Loyola U of Chicago	29,001	17,588	599	1,922	4,943	3,949
47 Lehigh University	27,902	13,161	4,669	6,669	3,062	341
48 Saint Louis University	27,817	23,722	282	3,113	287	413
49 MCP Hahnemann Univ	27,516	17,281	6,900	1,552	0	1,783
50 C R Drew U of Med & Sci	24,484	22,212	1,226	1,046	0	0
Total, 1st 50 institutions	8,250,477	6,001,544	155,857	617,331	759,423	716,322

See explanatory information and SOURCE at end of table.

**Table B-37. R&D expenditures at private universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
51 Eastern VA Med School	24,096	11,354	15	8,561	110	4,056
52 Brigham Young University	23,985	11,414	1,280	2,781	6,758	1,752
53 Howard University	23,557	21,658	120	1,774	0	5
54 Drexel University	22,397	12,914	1,035	4,078	4,370	0
55 Boston College	21,726	14,492	242	934	3,451	2,607
56 New York Medical College	20,436	14,029	118	3,742	0	2,547
57 OR Grad Inst Sci & Tech	19,818	15,303	699	1,429	1,927	460
58 Clark Atlanta University	19,467	12,116	1,827i	695i	65i	4,764i
59 Loma Linda University	18,818	12,217	0	4,310	2,291	0
60 Mercer University	17,250	12,657	83	1,280	3,230	0
Total, 1st 60 institutions	8,462,027	6,139,698	161,276	646,915	781,625	732,513
61 Creighton University	16,015	4,929	1,352	6,242	3,374	118
62 Stevens Inst of Tech	13,794	7,084	1,977	2,424	2,309	0
63 Morehouse School of Med	13,622	12,948	6	129	539	0
64 Illinois Inst of Tech	13,438	9,777	557	2,451	653	0
65 Catholic U of America	13,317	11,064	3	635	678	937
66 Inst of Paper Sci & Tech	10,533e	3,398e	296i	1,250i	5,241i	348i
67 Albany Medical College	10,377	7,437	0	51	1,492	1,397
68 University of Denver	10,247	9,081	118	664	143	241
69 University of Tulsa	10,040	5,272	911	3,561	296	0
70 Worcester Polytech Inst	9,618	4,292	62	870	2,310	2,084
Total, 1st 70 institutions	8,583,028	6,214,980	166,558	665,192	798,660	737,638
71 Meharry Medical College	9,460	9,192	0	0	0	268
72 Southern Methodist U	9,401	6,387	379	772	1,473	390
73 Rochester Inst of Tech	9,340e	2,690	408	769	4,856e	617
74 Tuskegee University	9,223	6,942	0	0	0	2,281
75 Polytechnic University	9,050	4,595	1,230	2,135	1,090	0
76 Johnson C Smith U	8,659	8,659	0	0	0	0
77 Hampton University	7,472	7,168	0	0	290	14
78 Teachers Col, Columbia U	7,206	4,119	36	0	0	3,051
79 Clarkson University	6,989	3,694	490	1,226	1,579	0
80 Finch U Hlth Sci Chicago	6,764	4,860	0	32	778	1,094
Total, 1st 80 institutions	8,666,592	6,273,286	169,101	670,126	808,726	745,353
81 Marquette University	6,469	3,416	608	1,178	299	968
82 Alfred University	5,857	1,491	847	2,414	787	318
83 Florida Inst of Tech	5,830	2,735	681	1,091	1,323	0
84 Harvey Mudd College	5,699e	1,032	83i	406i	499i	3,679i
85 Wesleyan University	5,373	3,640	44	21	1,083	585
86 New School University	5,230	1,069	0	0	0	4,161
87 Radcliffe College	4,948	2,361	13i	267i	831i	1,476i
88 Wellesley College	4,943i	2,304i	31i	27i	800i	1,781i
89 U Ctr Del Caribe Esc Med	4,660	4,345	0	0	313	2
90 Grinnell College	4,300	210	0i	149i	1,316i	2,625i
Total, 1st 90 institutions	8,719,901	6,295,889	171,408	675,679	815,977	760,948

See explanatory information and SOURCE at end of table.

**Table B-37. R&D expenditures at private universities and colleges,
by source of funds: fiscal year 1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total	Federal govt.	State & local govt.	Industry	Institu- tional funds	Other
91 Texas Christian U	4,061	3,257	112	581	111	0
92 Fisk University	4,034	2,846	0	156	0	1,032
93 Villanova University	3,950	3,470	140	340	0	0
94 Bryn Mawr College	3,929	764	30	120	3,015	0
95 Xavier University of LA	3,294	3,240	22	0	0	32
96 Fordham University	3,134	1,725	129	0	224	1,056
97 Nova Southeastern U	3,106	2,637	367	0	15	87
98 Ponce School of Medicine	3,105	2,960	0	0	81	64
99 American University	2,987	2,735	0	0	54	198
100 Hampshire College	2,900	662	25	0	285	1,928
Total, 1st 100 institutions	8,754,401	6,320,185	172,233	676,876	819,762	765,345
Total, all other sampled institutions	106,430	59,483	4,486	14,263	17,884	10,314

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-38. Industry-sponsored R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

Page 1 of 5

Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
Total, all institutions	2,047,722	1,893,525	1,729,432	1,604,790	1,488,477	1,421,801	1,360,357	1,278,952
1 Duke University	121,630	65,114	48,178	42,797	32,560	30,241	34,572	31,977
2 MA Institute of Tech	75,444	60,538	59,204	62,699	52,757	55,500	58,106	49,828
3 Pennsylvania State U	65,698	63,319	56,666	52,771	50,225	45,408	41,736	42,693
4 Georgia Institute of Tech	62,752	58,377	48,094	39,136	26,104	27,832	28,872	23,776
5 Ohio State University	52,034	40,401	36,685	30,870	21,827	14,883	13,647	13,994
6 U of Washington	51,319	38,370	37,744	36,180	36,892	33,199	30,780	26,442
7 U TX at Austin	39,729	31,326	29,887	15,029	3,257	4,268	4,106	4,814
8 U CA San Francisco	36,830	34,369	26,931	16,989	13,890	10,977	9,244	6,573
9 Texas A&M University	34,722	33,674	31,816	26,947	31,452	28,576	27,182	28,675
10 University of Michigan	34,432	33,029	31,411	34,975	28,987	26,732	26,733	24,992
Total, 1st 10 institutions	574,590	458,517	406,616	358,393	297,951	277,616	274,978	253,764
11 U CA Los Angeles	34,404	28,310	23,144	15,788	14,892	13,394	13,606	14,671
12 Stanford University	31,516	27,404	23,839	19,167	16,446	14,714	15,337	14,454
13 NC State University	31,478	31,429	26,834	26,067	26,264	22,101	22,229	20,342
14 U CA San Diego	31,356	27,010	23,725	15,130	11,363	9,764	10,081	7,485
15 U of Pennsylvania	30,269	25,593	18,964	9,445	11,900	12,107	11,440	10,034
16 Purdue University	28,856	26,988	26,090	25,720	25,147	21,639	13,174	12,607
17 University of Florida	28,183	21,393	25,217	23,532	10,611	10,858	11,105	11,849
18 University of Minnesota	23,933	24,094	24,196	23,726	23,427	23,726	21,524	17,529
19 U of Southern California	23,111	24,125	21,606	21,592	17,668	14,502	13,444	15,529
20 U CA Berkeley	21,928	20,902	21,253	15,128	13,842	12,547	12,269	12,553
Total, 1st 20 institutions	859,624	715,765	641,484	553,688	469,511	432,968	419,187	390,817
21 U of Iowa	20,778	17,262	15,712	14,862	11,359	10,205	10,478	13,545
22 Washington University	19,964	19,869	21,205	18,700	21,977	20,629	19,388	15,192
23 Baylor Col of Medicine	19,400	16,588	14,420	13,655	12,217	11,919	9,914	6,630
24 U of Alaska Fairbanks	19,340	16,081	12,769	9,965	5,470	4,441	4,751	3,275
25 University of Rochester	18,226	17,653	14,147	11,605	12,810	10,261	7,868	9,085
26 Carnegie Mellon U	17,761	19,136	18,016	21,521	17,763	14,112	18,180	19,003
27 University of Arizona	16,660	16,392	14,964	13,106	15,300	15,053	13,469	12,292
28 U CA Irvine	16,539	15,981	12,712	10,391	9,139	6,243	4,898	3,825
29 Wake Forest University	16,320	15,546	16,246	12,697	11,144	9,064	8,333	6,392
30 U CA Davis	16,242	14,238	10,731	9,387	8,053	7,423	6,852	6,125
Total, 1st 30 institutions	1,040,854	884,511	792,406	689,577	594,743	542,318	523,318	486,181
31 U TX SW Med Ctr at Dallas ..	16,197	13,926	12,737	13,801	14,986	13,092	11,173	10,874
32 University of Miami	15,752	13,338	12,200	12,321	11,831	11,140	10,828	8,566
33 Johns Hopkins U ¹	15,317	14,761	13,917	12,388	10,652	10,418	12,564	13,296
34 Yale University	15,242	15,829	16,629	15,322	13,623	11,145	9,994	9,442
35 University of Kentucky	15,109	13,668	11,259	13,374	12,011	11,790	9,924	9,253
36 U of Tennessee System	15,093	12,551	12,675	11,759	11,077	10,699	11,722	8,479
37 Iowa State University	14,905	13,717	8,499	7,407	8,017	8,185	7,402	8,011
38 University of Kansas	14,393	8,281	8,201	9,356	8,149	4,320	4,037	4,877
39 U WI-Madison	14,172	14,371	14,832	13,871	12,948	13,729	12,392	12,912
40 Northwestern University	14,168	13,292	10,498	9,378	7,257	9,203	8,784	6,978
Total, 1st 40 institutions	1,191,202	1,018,245	913,853	808,554	705,294	646,039	622,138	578,869
41 VA Polytech Inst & St U	13,287	12,132	11,385	11,365	11,500	12,580	13,224	14,333
42 Louisiana State U System	13,187	12,157	13,331	11,298	10,432	9,037	9,203	9,657
43 Univ of Hawaii at Manoa	13,021	10,949	5,944	8,088	299	434	151	337
44 University of Pittsburgh	12,990	10,436	9,753	7,880	8,208	7,561	9,804	7,873
45 University of Virginia	12,989	12,428	7,627	4,552	15,442	14,826	10,389	8,296
46 UT Houston Hlth Sci Ctr	12,872	11,106	9,780	7,403	6,212	6,313	6,907	5,144
47 U of Illinois Urbana-Cham	12,864	13,636	11,761	12,365	11,832	13,527	16,095	20,070
48 Thomas Jefferson U	12,081	10,155	9,851	9,553	8,105	7,455	6,138	5,029
49 Cornell University	12,053	11,253	8,215	14,915	17,752	17,199	15,789	13,879
50 Tulane University	11,914	10,734	12,913	11,276	10,115	10,018	6,618	7,462
Total, 1st 50 institutions	1,318,460	1,133,231	1,014,413	907,249	805,191	744,989	716,456	670,949

See explanatory information and SOURCE at end of table.

**Table B-38 Industry-sponsored R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
51 Harvard University	11,790	10,361	11,588	12,522	8,395 i	10,228	9,319e	11,647e
52 U of MD Baltimore	11,572	20,783	18,581	19,450	17,797	15,411	14,420	13,724
53 University of Georgia	11,034	10,534	10,283	9,861	10,595	8,773	8,803	6,679
54 U TX San An Hlth Sci Ctr	10,777	10,845	9,051	9,021	8,922	7,300	6,746	5,268
55 U Med & Dent of NJ	10,736	8,841	8,519	7,741	8,164	8,984	7,431	5,337
56 Wayne State University	10,660	11,207	10,959	8,977	7,973	7,988	7,738	7,486
57 University of Connecticut	10,355	9,905	8,572	8,026	6,640	7,651	8,357	5,831
58 U of Alabama Birmingham	10,181	16,842	16,233	17,354	19,219	14,772	10,832	8,907
59 Rensselaer Polytech Inst	10,084	10,974	9,340	6,210	6,135	5,925	10,813	12,161
60 University of Colorado	9,867	9,963	9,403	8,902	7,607	13,312	12,218	10,655
Total, 1st 60 institutions	1,425,516	1,253,486	1,126,942	1,015,313	906,638	845,333	813,133	758,644
61 Rutgers the State U NJ	9,833	9,038	8,848	7,079	7,797	7,796	7,734	7,889
62 University of IL Chicago	9,683	9,424	6,947	6,746	6,174	5,061	4,570	3,539
63 Colorado School of Mines	9,292	9,877	8,038	8,114	6,601 i	5,087	5,770	5,542
64 Mt Sinai Sch Med	9,257	7,588	6,994	3,288	5,571 i	5,934	5,549	4,642
65 University of Utah	8,951	10,007	10,374	3,825	4,319	4,087	4,357	4,124
66 Eastern VA Med School	8,561	7,448	5,762	5,039	5,975	4,064	544	0
67 Clemson University	8,445	6,641	5,253	5,887	5,469	5,410	6,035	7,174
68 Rush University	8,154	8,911	7,232	5,872	4,970	4,993	5,036	3,218
69 Virginia Commonwealth U	8,062	8,478	9,172	7,435	6,074	7,089	6,591	6,285
70 Georgetown University	7,939	9,383	8,421	6,737	6,148	6,773	5,914	4,947
Total, 1st 70 institutions	1,513,693	1,340,281	1,203,983	1,075,335	965,736	901,627	865,233	806,004
71 Mississippi State U	7,892	7,470	5,469	7,599	6,165	5,913	6,012	6,920
72 Oregon Health Sciences U	7,854 i	7,680 i	7,036	4,597	4,685	945	992	1,043
73 Emory University	7,794	7,670	6,700	6,383	11,473	8,966	8,145	7,465
74 University of Oklahoma	7,756	7,661	6,871	6,650	5,630	4,887	3,918	4,319
75 Michigan State University	7,647	7,250	6,973	6,818	7,853	6,271	6,442	6,304
76 Boston University	7,601	9,461	8,916	8,726	8,804	8,695	9,982	8,437
77 New York University	7,502	8,391	8,502	10,461	6,461	5,929	4,917	4,588
78 SUNY at Stony Brook	7,416	6,908	7,119	5,848	5,850	5,012	4,670	2,890
79 Tufts University	7,342	5,560	5,344	4,970	4,687e	5,131	4,647e	3,451e
80 U of LA at Lafayette	7,278	6,251	5,022	0	5	6	54	0
Total, 1st 80 institutions	1,589,775	1,414,583	1,271,935	1,137,387	1,027,349	953,382	915,012	851,421
81 Colorado State University	7,213	6,155	5,712	6,320	5,736	11,793	5,369	5,074
82 University of Vermont	7,112	5,513	5,399	5,231	5,467	4,878	4,573	4,337
83 Montana St U Bozeman	7,079	7,378 i	6,976	5,489	5,143	3,139	2,910	2,983
84 NM Inst Mining & Tech	7,034	6,385	4,723	6,895	5,165	6,057	9,803	9,616
85 Lehigh University	6,669	6,074	6,790	6,832	6,767	7,303	8,088	7,467
86 U TX Med Br at Galveston	6,366	5,319	7,301	6,008	5,991	6,115	4,831	3,978
87 California Inst of Tech	6,332	2,001	3,789	4,447	5,105	4,947	3,835	3,280
88 Creighton University	6,242	6,475	5,094	4,517	3,885	3,467	3,116	2,654
89 U of South Florida	6,236	5,397	3,747	3,282	4,782	6,338	5,041	5,127
90 U MA Lowell	6,234	5,099	4,920	5,779	3,599	3,695	3,691	3,770
Total, 1st 90 institutions	1,656,292	1,470,379	1,326,386	1,192,187	1,078,989	1,011,114	966,269	899,707
91 U Arkansas Main	6,198	5,145	4,130	4,474	4,809	5,605	4,964	4,051
92 Case Western Reserve U	6,157	6,984	5,662	5,784	5,427	5,708	6,480	6,851
93 University of Louisville	6,100	4,800	3,522	6,312	4,616	4,180	3,651	3,547
94 University of Cincinnati	5,989	24,388	22,907	16,697	8,630	10,405	10,621	4,685
95 Princeton University	5,965	5,242	4,441	4,483	6,335	8,089	5,829	4,322
96 U of NC Chapel Hill	5,886	4,860	3,311	2,592	2,403	2,379	2,539	3,298
97 U MA Amherst	5,796	6,236	5,778	5,738	4,760	4,868	5,288	5,466
98 Texas Tech University	5,682	5,549	5,650	5,634	5,441	5,474	5,284	4,815
99 Florida Atlantic U	5,681	3,981	1,922	1,776	1,777	1,909	2,504	1,943
100 West Virginia University	5,532	4,547	3,719	3,608	3,160	4,058	3,973	5,585
Total, 1st 100 institutions	1,715,278	1,542,111	1,387,428	1,249,285	1,126,347	1,063,789	1,017,402	944,270

See explanatory information and SOURCE at end of table.

**Table B-38. Industry-sponsored R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
101 SUNY at Buffalo	5,485	3,021	14,480	13,186	13,390	8,143	5,584	7,831
102 U of Nebraska at Lincoln	5,466	4,721e	4,651	3,465	3,145	3,558	2,287	3,712
103 U of NE Med Ctr	5,445	5,471	3,941	4,286	3,903	3,639	3,488	2,163
104 U of Alabama Huntsville	5,071	5,883	5,110	4,752	3,390	2,948	2,857	1,963
105 U of Central Florida	4,873	4,019	3,081	1,207	2,272	2,272	5,810	3,947
106 Indiana University	4,820	6,333	4,242	5,357	5,815	5,689	4,850	3,569
107 U CA Santa Barbara	4,742	3,809	3,106	2,988	2,576	2,711	2,487	2,447
108 Indiana State University	4,591	4,611	556	477	388	250	233	0
109 Dartmouth College	4,544	2,574	3,280	2,571	2,196	2,833	3,375	2,638
110 University of Dayton	4,454	6,285	5,541	6,160	5,834	5,313	4,813	4,307
Total, 1st 110 institutions	1,764,769	1,588,838	1,435,416	1,293,734	1,169,256	1,101,145	1,053,186	976,847
111 U of New Hampshire	4,395	3,635	1,600	1,315	1,723	1,476	1,467	1,813
112 San Jose State University	4,324e	4,324e	4,324i	4,324i	4,324i	4,324i	4,324	5,498
113 Loma Linda University	4,310	3,192	3,291	3,273	2,499	2,514	2,228	2,750
114 Arizona State University	4,267	4,609	3,376	2,758	7,169	5,780	4,772	5,790
115 U MA Worcester	4,265	2,631	2,129	1,146	2,492	3,776	3,721	3,485
116 University of Delaware	4,152	3,859	3,361	2,964	3,681	4,117	4,857	5,075
117 Drexel University	4,078	4,057	5,086	4,343	5,845	5,764	4,233	3,429
118 George Washington U	4,001	7,575	7,865	5,704	4,314	2,676	2,168	1,181
119 Utah State University	3,998	2,744	3,356	4,614	3,322	2,265	3,268	5,167
120 U CA Riverside	3,893	1,929	1,905	1,702	1,109	1,103	1,208	857
Total, 1st 120 institutions	1,806,452	1,627,393	1,471,709	1,325,877	1,205,734	1,134,940	1,085,432	1,011,892
121 U Arkansas Medical Sci	3,889	3,040	3,440	3,733	2,884	2,158	1,803	1,330
122 U of Missouri Columbia	3,832	4,348	3,777	3,158	10,114	10,299	7,907	7,612
123 Kansas State University	3,746	3,445	2,943	2,243	2,701	3,111	2,889	2,586
124 New York Medical College	3,742	2,461	1,810	1,532	1,792	1,807	1,480	1,429
125 Vanderbilt University	3,730	4,036	2,583	3,097	3,124	3,033	2,523	3,794
126 Auburn University	3,649	4,452	4,644	4,212	3,243	3,055	6,059	6,807
127 Medical Col of Georgia	3,603	3,072	2,578	2,995	3,484	3,575	2,777	2,090
128 SUNY at Binghamton	3,584	2,726	1,516	1,799	2,074	1,502	1,312	1,505
129 Michigan Tech University	3,578	3,747	3,819	3,636	2,840	2,885	3,127	2,946
130 University of Tulsa	3,561	2,772	3,913	2,820	2,921	2,652	2,761	2,649
Total, 1st 130 institutions	1,843,366	1,661,492	1,502,732	1,355,102	1,240,911	1,169,017	1,118,070	1,044,640
131 Oklahoma State University	3,447	2,887	3,252	2,334	2,902	3,381	3,531	3,132
132 University of Wyoming	3,206	3,114	2,226	2,086	1,930	1,185	2,268	2,841
133 Washington State U	3,158	3,158	3,138	3,149	2,537	3,151	2,726	2,459
134 Saint Louis University	3,113	2,733	2,618	2,483	2,087	1,545	1,054	523
135 U MD at College Park	3,053	2,127	5,009	24,044	25,431	18,433	19,271	15,757
136 Northeastern University	2,981	3,530	2,827	2,072	2,334	2,002	1,445	1,444
137 University of New Mexico	2,940	3,331	2,799	2,389	3,087	4,038	5,474	8,886
138 University of Notre Dame	2,920	2,020	1,979	3,511	2,665	3,710	4,024	4,658
139 New Mexico State Univ	2,892	2,843	2,393	2,556	2,444	3,516	3,466	3,958
140 Ohio University	2,843	1,948	2,132	2,322	2,526	2,690	2,201	1,779
Total, 1st 140 institutions	1,873,919	1,689,183	1,531,105	1,402,048	1,288,854	1,212,668	1,163,530	1,090,077
141 Old Dominion University	2,787	1,974	2,357	2,233	1,771	1,061	1,151	1,011
142 Brigham Young University	2,781	751	820i	1,006i	1,815	1,712	1,678	2,241
143 U PR Mayaguez Campus	2,771	2,701	2,307	2,275	1,852	1,241	382	1,008
144 Rockefeller Univ, The	2,707	2,641	2,577	2,800	2,660	4,031	4,907	4,623
145 U MD Baltimore County	2,649	2,858	2,484	1,803	1,231	537	1,349	1,363
146 Columbia U in City of NY	2,630	3,018	1,637	2,559	1,478	1,632	5,919	6,454
147 East Carolina University	2,627	1,996	1,476	1,441	1,624	1,952	2,109	1,470
148 U of Nevada Las Vegas	2,596	2,461	2,058	1,443	1,828	1,582	919	610
149 Sthrn IL U Carbondale	2,462	2,306	1,954	2,033	2,325	2,347	2,033	2,004
150 Illinois Inst of Tech	2,451	2,469	3,524	4,000	1,634	1,254	1,031	1,145
Total, 1st 150 institutions	1,900,380	1,712,358	1,552,299	1,423,641	1,307,072	1,230,017	1,185,008	1,112,006

See explanatory information and SOURCE at end of table.

**Table B-38. Industry-sponsored R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
151 Stevens Inst of Tech	2,424	2,748	2,777	2,087	1,685	1,884	1,659	6,237
152 Alfred University	2,414	1,946	1,633	1,755	1,967	2,012	1,897	1,988
153 U Nort TX Health Sci Ctr	2,389	553	258	384	343	573	744	392
154 U of Maine	2,324	7,074	5,609	4,214	4,158	4,406	4,117	3,545
155 Univ of North Dakota	2,308	2,357	2,166	2,971	1,814	728	982	863
156 SUNY Hlth Sci Ctr Brklyn	2,261	3,045	4,385	4,808 i	5,232	4,306	4,421	3,256
157 U TX at Arlington	2,220	2,642	2,641	3,245	3,205	3,275	3,363	2,351
158 Med U of South Carolina	2,202	2,737	1,371	1,134	6,026	5,534	1,793	2,868
159 U of South Carolina	2,176	2,022	2,058	3,657	7,869	8,046	6,414	9,019
160 Institute of Textile Tech	2,161	2,650	2,792	2,742	2,586	2,239	2,284	2,143
Total, 1st 160 institutions	1,923,259	1,740,132	1,577,989	1,450,638	1,341,957	1,263,020	1,212,682	1,144,668
161 Medical Col of Wisconsin	2,151	1,692	2,757	3,019	2,222	4,164	5,053	4,684
162 University of Akron	2,150	2,767	3,411	3,313	3,542	3,822	4,922	4,697
163 Polytechnic University	2,135	2,093	3,074	2,857	1,566	2,589	1,420e	1,972
164 U of Missouri Rolla	2,079	1,361	1,575	2,364	1,316	1,122	1,717	2,147
165 SUNY Col Env Sci Frstry	2,037	1,768	1,831	1,500	1,772 i	2,044	2,010	1,793
166 Loyola U of Chicago	1,922	3,024	3,211	4,271	3,461 i	3,795	3,614	3,442
167 Idaho State University	1,915	1,055	2,332	3,479	1,431	2,546	1,678	1,083
168 University of Idaho	1,903	6,496	6,551 i	6,478	5,977	7,495	5,608	4,064
169 Calif State San Bernadino	1,847	0	0 i	0 i	0 i	0 i	0	0 i
170 Brown University	1,795	1,603	1,506	1,716	1,057	1,467	1,825	1,882
Total, 1st 170 institutions	1,943,193	1,761,991	1,604,237	1,479,635	1,364,301	1,292,064	1,240,529	1,170,432
171 U of South Alabama	1,779e	1,779	2,353	1,981	1,392	2,063	1,562	1,703
172 Howard University	1,774	1,519	1,059	1,057	2,342	1,741	434	364
173 University of Houston	1,762	1,707	1,815	1,341	1,600	1,183	1,339	1,595
174 Wright State University	1,717	1,325	1,409	1,250	1,641	1,429	539	391
175 Tennessee Tech U	1,715	2,492	1,252	1,367	1,488	1,235	1,288	1,097
176 Western Michigan U	1,648	1,600	1,460	1,403	1,077	1,168	994	947
177 Rice University	1,645	1,435	1,779	1,898	2,726	3,837	4,550	4,147
178 University of Chicago	1,621	1,684	1,634	1,306	1,679	1,324	1,958	1,399
179 CA St U Fresno	1,618 i	1,497 i	1,253 i	1,060 i	884 i	708 i	532	598 i
180 Univ of Alabama, The	1,577	1,301	1,345	1,407	1,920	2,332	2,419	2,240
Total, 1st 180 institutions	1,960,049	1,778,330	1,619,596	1,493,705	1,381,050	1,309,084	1,256,144	1,184,913
181 MCP Hahnemann Univ	1,552	6,835	8,525	5,060	4,675	5,556	4,638	3,290
182 CUNY City College	1,531	950	2,668	1,039	1,322	1,211	1,327	1,105
183 Syracuse University	1,470	1,418	1,910 i	2,550	2,321	4,522	2,166	5,195
184 Cleveland State U	1,448 i	1,330e	1,291 i	1,184 i	1,246	701	593	605
185 Milwaukee School of Eng	1,434	1,463	1,296 i	1,159 i	1,021 i	884 i	746	654
186 OR Grad Inst Sci & Tech	1,429	1,316e	1,253	2,757	3,042	2,973	2,638	2,244
187 U of Nevada Reno	1,374	1,394	1,806	1,399	1,756	1,674	1,033	916
188 SUNY at Albany	1,337	1,426	1,533	1,904	1,709	1,756	1,240	1,080
189 U TX at Dallas	1,336	981	1,275	1,113	1,166 i	1,220	969	1,157
190 Northern Arizona U	1,315	1,124	244	1,235	769	913	648	1,048
Total, 1st 190 institutions	1,974,275	1,796,567	1,641,397	1,513,105	1,400,077	1,330,494	1,272,142	1,202,207

See explanatory information and SOURCE at end of table.

**Table B-38. Industry-sponsored R&D expenditures at universities and colleges:
fiscal years 1992-1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1995	1994	1993	1992
191 North Dakota State U	1,300	1,449	1,273	1,534	1,532	1,261	1,191	1,193
192 Temple University	1,284	8,855	4,690	5,173	5,458	6,011	6,011	4,155
193 Mercer University	1,280	1,718	1,292	1,651	823	849	399	644
194 NJ Inst of Technology	1,258	1,258	1,600	2,313	1,879	3,288	3,459	2,173
195 Inst of Paper Sci & Tech	1,250i	1,976e	1,976e	1,606i	1,235	1,971	1,726	624
196 Univ of Montana, The	1,247	1,059	1,494	1,511	682	826	324	247
197 University of Toledo	1,245	934	1,241	1,613i	1,467	1,694	1,956	1,798
198 Clarkson University	1,226	1,500	1,512	1,779	1,698	1,658	1,455	2,315
199 Desert Research Institute	1,226	1,500	1,600	5,200	3,357	3,798	3,293	4,466
200 Col of William & Mary	1,178	571	424	251	866	831	1,117	630
Total, 1st 200 institutions	1,986,769	1,817,387	1,658,499	1,535,736	1,419,074	1,352,681	1,293,073	1,220,452
Total, all other sampled institutions	60,953	76,138	70,933	69,054	69,403	69,120	67,284	58,500

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-39. R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 1 of 5

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
Total, all institutions	27,489,061	4,257,121	2,599,686	1,689,594	1,172,704	15,591,256	464,858	1,262,002	451,840
1 Johns Hopkins U ¹	874,518	225,813	121,817	44,700	95,352	356,575	3,383	7,760	19,118
2 University of Michigan	508,619	131,570	21,915	6,511	12,715	270,898	8,285	56,723	2
3 U of Washington	482,659	34,889	26,090	60,382	8,680	327,975	9,228	15,415	0
4 U CA Los Angeles	477,620	46,108	41,873	9,960	12,755	327,302	8,623	28,802	2,197
5 U WI-Madison	462,725	57,663	39,757	24,995	10,141	278,796	19,388	31,378	607
6 U CA San Diego	461,632	47,725	36,154	107,958	37,772	215,713	5,012	10,084	1,214
7 U CA Berkeley	451,539	107,062	93,676	7,244	6,129	173,208	7,080	38,531	18,609
8 Stanford University	426,549	114,272	54,521	8,260	22,026	216,764	4,103	6,603	0
9 MA Institute of Tech	420,306	153,789	92,189	23,494	39,199	66,924	1,080	8,908	34,723
10 U CA San Francisco	417,095	0	0	0	0	417,095	0	0	0
Total, 1st 10 institutions	4,983,262	918,891	527,992	293,504	244,769	2,651,250	66,182	204,204	76,470
11 Texas A&M University	402,203	108,249	28,733	69,296	6,001	164,646	2,859	16,784	5,635
12 Cornell University	395,552	49,641	79,447	4,170	20,317	222,855	6,372	12,750	0
13 U of Pennsylvania	383,569	13,911	24,775	762	9,778e	302,186	3,470	25,405	3,282
14 Pennsylvania State U	379,402	138,455	37,420	26,740	4,503	101,867	10,774	45,289	14,354
15 University of Minnesota	371,384	38,564	17,382	12,986	12,294	269,055	7,095	14,008	0
16 U of Illinois Urbana-Cham	358,247	91,373	48,846	28,452	68,062	87,213	7,385	21,908	5,008
17 Duke University	348,274	14,650	17,061	7,629	2,872	290,206	4,276	11,580	0
18 Harvard University	326,193	4,960	30,424	14,089	3,060	221,419	4,548	33,073	14,620
19 Ohio State University	322,810	77,090	19,535	8,355	18,749	169,780	3,664	21,809	3,828
20 University of Arizona	320,245	43,094	83,227	11,071	7,245	158,804	2,612	14,184	8
Total, 1st 20 institutions	8,591,141	1,498,878	914,842	477,054	397,650	4,639,281	119,237	420,994	123,205
21 University of Colorado	318,618	26,187	48,157	71,479	9,003	149,880	7,453	5,921	538e
22 Washington University	315,606	8,930	10,457	4,385	9,399	277,281	1,692	2,877	585
23 U CA Davis	307,950	29,528	14,193	6,981	3,435	248,859	1,494	3,106	354
24 University of Florida	304,447	46,186	21,498	5,070	8,642	208,356	4,478	10,217	0
25 U of Southern California	280,741	42,148	10,415	12,095	58,796	145,206	3,987	6,437	1,657
26 Columbia U in City of NY	279,587	15,645	21,500	44,003	5,892	184,913	2,735	4,899	0
27 Yale University	274,050	6,763	18,596	1,967	4,765	236,121	3,625	2,213	0
28 Baylor Col of Medicine	272,198	0	0	0	0	272,198	0	0	0
29 NC State University	270,621	80,586	15,759	17,945	12,002	134,338	1,556	5,504	2,931
30 Georgia Institute of Tech	263,725	172,053	19,539	13,224	35,222	14,217	3,457	3,026	2,987
Total, 1st 30 institutions	11,478,684	1,926,904	1,094,956	654,203	544,806	6,510,650	149,714	465,194	132,257
31 U TX at Austin	258,122	95,987	65,875	20,980	32,020	30,561	2,798	9,295	606
32 U MD at College Park	257,628	76,548	53,959	6,828	24,266	35,966	1,913	58,148	0
33 U of NC Chapel Hill	252,767	0	15,851	11,271	10,206	189,813	3,070	22,556	0
34 University of Pittsburgh	249,477	8,912	10,668	445	3,839	213,648	4,455	6,166	1,344
35 University of Georgia	237,493	8,252	9,866	12,694	7,484	160,990	6,979	31,228	0
36 Northwestern University	233,809	42,618	18,142	666	4,136	146,887	1,911	6,569	12,880
37 U of Alabama Birmingham	232,115	8,438	3,139	1	459	214,654	5,117	307	0
38 Purdue University	226,411	70,106	21,007	4,272	8,778	101,479	2,727	17,707	335
39 Louisiana State U System	225,808	37,781	16,153	27,441	3,351	130,209	475	9,325	1,073
40 Rutgers the State U NJ	213,838	29,097	22,632	17,959	15,900	97,017	8,155	20,219	2,859
Total, 1st 40 institutions	13,866,152	2,304,643	1,332,248	756,760	655,245	7,831,874	187,314	646,714	151,354
41 California Inst of Tech	212,216	40,470	108,136	14,611	11,260	26,791	0	2,228	8,720
42 Michigan State University	207,912	16,673	31,712	1,757	3,684	130,392	2,526	18,731	2,437
43 U of Iowa	207,135	20,409	14,766	1,991	1,418	157,236	2,788	7,854	673
44 Indiana University	194,790	3,343	25,926	6,428	4,011	119,441	8,552	21,829	5,260
45 Emory University	189,170	0	6,304	0	856	179,929	1,008	1,073	0
46 Case Western Reserve U	182,332	26,239	6,525	283	489	143,074	662	5,060	0
47 University of Rochester	177,126	41,864	13,049	559	3,280	110,841	6,276	1,241	16
48 University of IL Chicago	175,093	15,107	8,317	2,011	3,688	127,786	4,388	8,321	5,475
49 University of Kentucky	174,034	27,478	5,623	612	1,777	126,650	870	3,222	7,802
50 VA Polytech Inst & St U	169,250	53,530	8,030	21,462	4,563	73,781	2,613	5,271	0
Total, 1st 50 institutions	15,755,210	2,549,756	1,560,636	806,474	690,271	9,027,795	216,997	721,544	181,737

See explanatory information and SOURCE at end of table.

**Table B-39. R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

(Dollars in thousands)

Page 2 of 5

Institution and ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
51 New York University	167,179	0	5,775	242	11,611	136,329	4,944	5,979	2,299
52 SUNY at Buffalo	166,823	29,946	10,338	1,581	8,554	105,524	5,391	5,317	172
53 U TX SW Med Ctr at Dallas	165,520	0	0	0	0	165,520	0	0	0
54 University of Chicago	162,805	0	34,942	5,966	2,487	108,200	2,393	8,780	37
55 Iowa State University	161,301	40,019	9,105	3,343	9,275	78,037	614	15,369	5,539
56 U of Tennessee System	158,930	27,772	12,404	10,882	8,078	92,957	93	4,920	1,824
57 University of Virginia	157,487	24,276	12,550	5,676	5,941	102,816	3,249	2,664	315
58 Univ of Hawaii at Manoa	156,810	6,987	24,828	52,019	401	62,503	954	3,409	5,709
59 U TX MD Anderson Cnrc Ctr	155,126	0	3,678	0	3,625	147,823	0	0	0
60 University of Utah	153,843	21,816	13,983	3,756	12,953	98,011	1,627	1,697	0
Total, 1st 60 institutions	17,361,034	2,700,572	1,688,239	889,939	753,196	10,125,515	236,262	769,679	197,632
61 University of Cincinnati	153,002	25,453	4,892	238	330	115,975	624	3,166	2,324
62 Colorado State University	150,281	13,670	8,514	14,773	3,094	96,230	3,252	2,827	7,921
63 Vanderbilt University	149,675	9,764	14,698	296	822	117,715	2,262	4,118	0
64 U of Missouri Columbia	149,002	20,312	5,082	834	1,563	105,545	4,235	11,424	7
65 SUNY at Stony Brook	148,982	11,047	24,363	19,413	8,567	79,447	3,024	2,463	658
66 Wayne State University	146,832	10,823	11,190	19	880	114,217	2,775	5,276	1,652
67 Carnegie Mellon U	142,174	38,676	8,586	1,731	62,589	12,076	6,300	9,101	3,115
68 University of Oklahoma	142,085	15,592	12,958	27,018	3,298	62,471	11,778	8,970	0
69 U CA Irvine	141,842	12,461	17,328	3,023	6,032	94,991	2,057	5,766	184
70 Boston University	141,102	16,110	11,945	3,775	3,245	94,478	2,465	1,868	7,216
Total, 1st 70 institutions	18,826,011	2,874,480	1,807,795	961,059	843,616	11,018,660	275,034	824,658	220,709
71 U of MD Baltimore	140,903	0	0	0	0	140,903	0	0	0
72 University of Miami	139,608	1,368	2,354	28,452	259	97,838	5,914	3,423	0
73 Oregon State University	139,285	14,440	5,332	31,385	2,227	83,992	27	1,827	55
74 University of Connecticut	134,986	23,793	4,671	7,486	1,427	81,970	5,488	6,409	3,742
75 University of Kansas	132,752	13,085	11,388	9,858	3,756	82,370	535	3,426	8,334
76 U of Nebraska at Lincoln	131,046	22,112	10,463	11,314	4,283	62,623	1,536	10,380	8,335
77 Mt Sinai Sch Med	127,765	0	0	0	0	127,765	0	0	0
78 U Med & Dent of NJ	126,277	0	0	0	0	126,277	0	0	0
79 Princeton University	124,237	39,080	28,018	10,630	7,125	19,429	5,246	14,709	0
80 U of South Florida	123,961	12,902	1,414	17,526	440	82,586	6,636	2,456	1
Total, 1st 80 institutions	20,146,831	3,001,260	1,871,435	1,077,710	863,133	11,924,413	300,416	867,288	241,176
81 Rockefeller Univ, The	121,519	0	3,579	0	2,225	115,715	0	0	0
82 University of New Mexico	115,850	26,998	8,679	1,943	3,329	36,824	4,492	6,671	26,914
83 Oregon Health Sciences U	112,197	0	0	0	0	106,952	5,245	0	0
84 Yeshiva University	111,771	0	0	0	0	111,771	0	0	0
85 Georgetown University	111,426	0	5,473e	35e	91e	98,480e	472e	6,816e	59e
86 Mississippi State U	110,896	30,713	2,652	3,199	2,485	65,748	133	3,829	2,137
87 Arizona State University	107,184	34,378	19,937	16,451	3,672	13,203	5,616	9,248	4,679
88 U of South Carolina	105,835	21,578	12,078	17,812	8,216	23,387	3,925	9,442	9,397
89 UT Houston Hlth Sci Ctr	105,307	0	0	0	0	105,307	0	0	0
90 U CA Santa Barbara	104,561	37,147	21,057	24,007	4,565	7,495	1,777	8,037	476
Total, 1st 90 institutions	21,253,377	3,152,074	1,944,890	1,141,157	887,716	12,609,295	322,076	911,331	284,838
91 Tufts University	101,728	7,346	3,843	1,155	1,526	81,075	2,747	4,036	0
92 Clemson University	99,341	30,583	6,049	946	3,299	54,023	112	3,906	423
93 Florida State University	97,673	11,237	41,417	13,871	7,020	10,312	4,589	9,213	14
94 Washington State U	96,943	14,288	5,189	1,392	495	65,632	416	9,259	272
95 Utah State University	95,364	32,083	4,775	11,712	1,234	33,636	876	1,855	9,193
96 U TX Med Br at Galveston	93,580	1,306	0	0	0	92,274	0	0	0
97 U of Alaska Fairbanks	88,825	5,790	32,102	18,756	11,178	17,234	0	3,765	0
98 U TX San An Hlth Sci Ctr	87,804	0	0	0	0	87,804	0	0	0
99 Tulane University	87,324	6,224	2,653	487	467	72,140	566	1,777	3,010
100 U MA Amherst	86,576	15,146	18,041	7,587	12,048	26,596	4,071	1,046	2,041
Total, 1st 100 institutions	22,188,535	3,276,077	2,058,959	1,197,063	924,983	13,150,021	335,453	946,188	299,791

See explanatory information and SOURCE at end of table.

**Table B-39. R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
101 Kansas State University	85,580	13,356	7,916	840	1,102	56,739	857	3,115	1,655
102 Oklahoma State University	83,108	14,655	7,005	1,573	1,092	45,141	740	8,861	4,041
103 U MA Worcester	83,040	0	0	0	0	83,040	0	0	0
104 Wake Forest University	82,827	0	1,188	0	162	81,220	0	0	257
105 Auburn University	80,544	20,575	2,720	470	460	51,324	755	1,876	2,364
106 New Mexico State Univ	79,877	47,632	4,572	3,421	5,221	17,582	388	854	207
107 Virginia Commonwealth U	79,785	1,886	4,140	93	313	69,763	1,928	1,662	0
108 Thomas Jefferson U	78,410	0	0	0	0	78,410	0	0	0
109 Brown University	76,330	9,529	8,027	5,535	12,037	34,242	2,236	4,724	0
110 U CA Riverside	75,821	8,439	6,883	8,968	625	45,241	1,986	2,567	1,112
Total, 1st 110 institutions	22,993,857	3,392,149	2,101,410	1,217,963	945,995	13,712,723	344,343	969,847	309,427
111 University of Delaware	73,521	26,908	10,144	9,288	3,303	17,348	1,569	4,961	0
112 Woods Hole Oceanogr Inst	71,722	12,999	0	58,723	0	0	0	0	0
113 Dartmouth College	69,522	7,365	3,149	727	2,289	53,543	1,216	772	461
114 Temple University	66,777	868	2,303	147	1,380	45,371	4,262	11,909	537
115 George Washington U	66,757	8,781	1,952	104	13,931	23,269	541	6,461	11,718
116 SUNY at Albany	64,278	0	8,051	6,443	702	38,486	3,054	7,542	0
117 University of Vermont	64,049	1,444	1,148	354	1,159	56,013	754	109	3,068
118 West Virginia University	63,392	20,601	4,078	3,335	437	33,247	365	634	695
119 University of Idaho	62,531	10,635	1,921	3,932	175	40,633	644	2,480	2,111
120 U Arkansas Main	61,585	9,638	3,955	1,483	299	43,733	216	2,222	39
Total, 1st 120 institutions	23,657,991	3,491,388	2,138,111	1,302,499	969,670	14,064,366	356,964	1,006,937	328,056
121 Medical Col of Wisconsin	61,446	0	0	0	0	61,446	0	0	0
122 Rush University	60,957	0	0	0	0	58,166	2,791	0	0
123 Texas Tech University	58,488	16,384	6,401	2,565	1,779	24,337	219	5,704	1,099
124 U of New Hampshire	57,613	8,207	2,740	27,107	625	12,765	1,206	4,629	334
125 University of Louisville	57,051	5,111	2,715	236	1,848	42,131	2,220	2,790	0
126 Med U of South Carolina	55,819	0	0	0	0	55,819e	0	0	0
127 U PR Mayaguez Campus	55,648	6,418	2,487	4,421	317	41,981	0	24	0
128 Montana St U Bozeman	55,475	8,847	7,279	639	477	33,283	0	2,981	1,969
129 U of NE Med Ctr	54,205	0	0	0	0	54,205	0	0	0
130 U CA Santa Cruz	52,902	3,061	22,600	12,880	2,195	8,676	1,099	2,296	95
Total, 1st 130 institutions	24,227,595	3,539,416	2,182,333	1,350,347	976,911	14,457,175	364,499	1,025,361	331,553
131 Brandeis University	48,305	0	3,800	0	1,324	20,127	1,372	21,682	0
132 U of Nevada Reno	47,939	3,748	4,993	6,747	247	18,855	1,157	1,574	10,618
133 University of Wyoming	47,197	5,778	4,992	6,542	624	21,491	252	939	6,579
134 San Diego St University	45,579	3,853	3,267	2,861	1,956	19,928	4,436	2,728	6,550
135 North Dakota State U	44,696	886	4,776	178	973	33,813	512	3,558	0
136 U of Rhode Island	44,452	3,426	828	22,602	152	9,095	4,365	358	3,626
137 U Arkansas Medical Sci	44,066	0	0	0	0	44,066	0	0	0
138 University of Houston	43,370	17,661	9,102	1,033	3,616	7,707	3,024	1,078	149
139 U of Central Florida	42,466	8,353	10,970	9,068	945	1,894	687	3,813	6,736
140 U of Maine	41,452	5,725	4,321	11,974	328	16,742	417	1,945	0
Total, 1st 140 institutions	24,677,117	3,588,846	2,229,382	1,411,352	987,076	14,650,893	380,721	1,063,036	365,811
141 Medical Col of Georgia	41,103	0	0	0	0	41,103	0	0	0
142 Rice University	41,069	7,960	10,698	3,969	13,305	4,722	271	144	0
143 NJ Inst of Technology	40,982	19,714	3,127	8,532	2,914	0	0	169	6,526
144 U of Alabama Huntsville	40,203	16,887	8,624	5,287	7,352	661	0	83	1,309
145 Syracuse University	39,640	9,157	6,924	1,189	12,111	4,522	1,873	2,796	1,068
146 Rensselaer Polytech Inst	39,034	28,275	5,484	893	1,924	2,102	29	177	150
147 University of Dayton	36,937	33,386	2,166	220	177	251	369	3	365
148 Eastern Kentucky U	36,708	7,479 i	4,293 i	6,352 i	2,666 i	10,808 i	992 i	2,789 i	1,329 i
149 Georgia State University	36,523	0	3,416	379	1,557	8,375	7,604	15,192	0
150 US Naval Postgrad School	34,095e	9,078 i	2,170 i	8,218 i	6,978 i	0 i	0 i	4,647 i	3,004 i
Total, 1st 150 institutions	25,063,411	3,720,782	2,276,284	1,446,391	1,036,060	14,723,437	391,859	1,089,036	379,562

See explanatory information and SOURCE at end of table.

**Table B-39. R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
151 Strn IL U Carbondale	33,169	5,190	1,914	890	763	18,967	368	2,125	2,952
152 University of Oregon	32,695	914	7,728	2,391	3,711	13,986	2,103	1,862	0
153 Col of William & Mary	31,322	0	4,525	23,707	701	862	115	1,412	0
154 CA St U Long Beach	31,283	23,439i	3,007i	2,196i	0i	2,534i	73i	0i	34i
155 U MD Biotechnology Inst	31,172	0	0	7,747	0	23,425	0	0	0
156 U of LA at Lafayette	30,735	7,516	1,018	287	4,423	14,834	226	771	1,660
157 University of Notre Dame	30,483	8,872	13,360	0	1,415	5,310	974	552	0
158 Northeastern University	30,209	13,118	6,722	0	1,887	6,183	1,368	931	0
159 Loyola U of Chicago	29,001	0	597	28	140	25,799	705	1,732	0
160 Univ of Alabama, The	28,909	13,241	2,952	2,425	4,719	2,139	460	2,256	717
Total, 1st 160 institutions	25,372,389	3,793,072	2,318,107	1,486,062	1,053,819	14,837,476	398,251	1,100,677	384,925
161 SUNY Hlth Sci Ctr Brklyn	28,840	0	0	0	0	28,840	0	0	0
162 Michigan Tech University	28,074	18,896	1,483	1,691	619	5,012	0	175	198
163 Lehigh University	27,902	22,190	3,276	1,152	312	752	146	74	0
164 Saint Louis University	27,817	0	4	520	57	27,118	27	1	90
165 MCP Hahnemann Univ	27,516	0	0	0	0	27,254	151	111	0
166 U MD Ctr for Environ Sci	26,816	0	0	26,816	0	0	0	0	0
167 George Mason University	26,766	5,943	5,550	52	1,919	4,230	2,165	6,907	0
168 NM Inst Mining & Tech	26,061	16,835	1,984	6,741	193	295	13	0	0
169 U of Missouri Rolla	25,893	18,277	5,059	1,239	896	397	22	3	0
170 SUNY Col Env Sci Frstry	25,385	8,958	1,977	2,607	0	11,745	0	98	0
Total, 1st 170 institutions	25,643,459	3,884,171	2,337,440	1,526,880	1,057,815	14,943,119	400,775	1,108,046	385,213
171 Florida International U	25,061	10,359	1,087	4,072	2,074	1,331	368	5,770	0
172 C R Drew U of Med & Sci	24,484	0	0	0	0	24,484	0	0	0
173 Univ of Montana, The	24,372	0	992	339	1,729	16,707	36	1,980	2,589
174 Univ of Memphis, The	24,280	3,177	738	3,416	1,011	2,340	7,355	5,034	1,209
175 Eastern VA Med School	24,096	0	0	0	0	24,096	0	0	0
176 Brigham Young University	23,985	6,329	2,760	148	1,355	3,285	533	2,072	7,503
177 Howard University	23,557	2,182	4,479	60	1,410	13,457	987	956	26
178 Desert Research Institute	23,376	0	0	17,043	0	0	0	0	6,333
179 Wright State University	23,131	3,436	2,201	416	1,701	14,093	928	205	151
180 Old Dominion University	23,030	10,056	1,915	6,199	1,569	2,435	381	475	0
Total, 1st 180 institutions	25,882,831	3,919,710	2,351,612	1,558,573	1,068,664	15,045,347	411,363	1,124,538	403,024
181 Unif Svcs U of Hlth Sci	22,898	0	0	0	0	22,898	0	0	0
182 Drexel University	22,397	17,351	1,432	309	1,984	0	0	1,321	0
183 U WI-Milwaukee	22,207	3,807	3,529	3,580	1,154	2,563	598	5,553	1,423
184 U TX at El Paso	21,961	6,402	1,803	6,703	896	3,281	565	430	1,881
185 U MD Baltimore County	21,854	6,942	2,976	5,442	739	3,015	555	2,185	0
186 Boston College	21,726	0	6,377	547	9,700	2,138	327	2,637	0
187 Colorado School of Mines	21,715	14,578	4,199	1,124	1,702	0	0	112	0
188 Florida A&M University	21,622	3,897	2,017	1,495	1,920	12,272	0	21	0
189 Ohio University	21,437	9,548	3,840	544	44	5,271	1,148	531	511
190 San Jose State University	21,005e	5,770e	1,881e	9,427e	328e	598e	2,938e	63e	0e
Total, 1st 190 institutions	26,101,653	3,988,005	2,379,666	1,587,744	1,087,131	15,097,383	417,494	1,137,391	406,839

See explanatory information and SOURCE at end of table.

**Table B-39. R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
191 New York Medical College	20,436	0	0	0	0	20,436	0	0	0
192 U of Nevada Las Vegas	20,170	1,340	6,374	7,862	698	2,351	171	1,143	231
193 OR Grad Inst Sci & Tech	19,818	2,988	3,517	3,759	9,519	0	0	35	0
194 Clark Atlanta University	19,467	3,237 ⁱ	3,441 ⁱ	5,390 ⁱ	3,610 ⁱ	3,025 ⁱ	0 ⁱ	764 ⁱ	0 ⁱ
195 U MA Lowell	19,413	7,854	5,464	2,061	641	1,384	813	637	559
196 Loma Linda University	18,818	0	0	0	0	18,818	0	0	0
197 SUNY at Binghamton	17,998	5,139	2,320	900	1,221	1,914	3,368	3,136	0
198 U Mississippi, All Camp	17,298	2,805	4,411	0	50	7,783	266	637	1,346
199 Mercer University	17,250	13,928	888	0	133	2,288	7	6	0
200 Florida Atlantic U	17,151	10,035	399	2,613	950	363	1,494	1,067	230
Total, 1st 200 institutions	26,289,472	4,035,331	2,406,480	1,610,329	1,103,953	15,155,745	423,613	1,144,816	409,205
Total, all other sampled institutions	1,199,589	221,790	193,206	79,265	68,751	435,511	41,245	117,186	42,635

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-40. Federally financed R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 1 of 5

Institution and ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total, all institutions	16,046,797	2,438,273	1,859,517	1,100,681	791,389	8,920,220	310,119	472,320	154,278
1 Johns Hopkins U ¹	770,580	221,320	119,458	42,057	94,697	281,249	3,237	5,355	3,207
2 U of Washington	368,112	21,875	19,299	55,954	7,513	246,803	8,432	8,236	0
3 Stanford University	353,947	98,864	49,719	6,041	20,070	174,195	3,420	1,638	0
4 University of Michigan	334,226	83,573	17,108	4,497	5,133	182,255	4,367	37,293	0
5 MA Institute of Tech	308,921	110,676	89,506	20,150	30,753	49,466	832	2,328	5,210
6 U CA San Diego	292,007	25,273	27,724	65,829	29,277	135,740	3,491	4,630	43
7 U of Pennsylvania	279,013	10,598	22,655	66	7,986	227,734	3,380	5,942	652
8 Harvard University	266,019	4,624	29,956	13,424	2,955	183,218	3,953	13,426	14,463
9 U CA Los Angeles	251,999	29,527	27,925	6,611	9,634	169,502	5,680	3,119	1
10 U WI-Madison	249,961	34,501	28,915	16,406	7,148	133,846	15,437	13,703	5
Total, 1st 10 institutions	3,474,785	640,831	432,265	231,035	215,166	1,784,008	52,229	95,670	23,581
11 University of Colorado	244,686	15,925	35,611	61,055	7,089	116,014	4,350	4,178	464e
12 Columbia U in City of NY	240,158	13,450	20,581	40,712	5,631	153,549	2,488	3,747	0
13 Cornell University	234,792	31,243	64,965	2,565	13,603	115,982	2,327	4,107	0
14 U CA San Francisco	233,181	0	0	0	0	233,181	0	0	0
15 Washington University	218,598	5,819	7,644	2,779	6,647	191,983	1,439	2,232	55
16 Yale University	213,404	4,723	16,174	1,780	4,071	183,022	2,450	1,184	0
17 University of Minnesota	207,761	24,055	14,357	6,120	8,388	147,646	5,068	2,127	0
18 U of Southern California	199,619	32,688	8,099	8,698	48,576	94,480	3,705	2,927	446
19 Pennsylvania State U	199,105	80,195	23,617	15,554	2,628	56,182	6,621	12,362	1,946
20 California Inst of Tech	195,303	37,675	103,926	14,141	10,907	26,077	0	966	1,611
Total, 1st 20 institutions	5,661,392	886,604	727,239	384,439	322,706	3,102,124	80,677	129,500	28,103
21 University of Pittsburgh	194,618	4,168	9,009	386	3,494	167,748	4,172	4,340	1,301
22 U CA Berkeley	191,025	51,323	55,380	4,051	3,971	64,757	4,696	5,430	1,417
23 Duke University	186,757	11,002	14,936	3,921	2,225	143,274	3,836	7,563	0
24 U of Illinois Urbana-Cham	185,767	53,912	32,938	10,463	43,211	33,684	4,765	3,688	3,106
25 U of NC Chapel Hill	182,935	0	12,453	6,337	7,017	138,631	2,747	15,750	0
26 University of Arizona	178,126	25,320	53,756	6,625	5,277	80,174	1,133	5,841	0
27 U of Alabama Birmingham	165,223	4,964	2,252	0	255	153,179	4,423	150	0
28 U TX at Austin	164,913	61,383	48,402	5,904	24,396	20,222	2,227	2,273	106
29 Texas A&M University	149,151	31,065	11,842	53,624	3,366	43,653	1,721	3,880	0
30 U MD at College Park	145,081	42,645	32,933	5,381	14,921	12,280	1,536	35,385	0
Total, 1st 30 institutions	7,404,988	1,172,386	1,001,140	481,131	430,839	3,959,726	111,933	213,800	34,033
31 Baylor Col of Medicine	141,111	0	0	0	0	141,111	0	0	0
32 Case Western Reserve U	140,178	17,695	5,413	223	317	114,553	466	1,511	0
33 University of Chicago	135,720	0	32,554	4,617	2,226	91,591	1,289	3,443	0
34 Ohio State University	135,216	20,467	11,827	5,662	3,558	77,926	2,890	12,504	382
35 University of Rochester	132,852	36,235	12,076	474	3,156	75,975	4,036	900	0
36 Emory University	132,816	0	4,845	0	449	126,500	615	407	0
37 Northwestern University	132,647	30,446	12,193	537	2,514	82,942	1,595	1,915	505
38 U CA Davis	124,463	10,069	9,574	1,809	2,548	98,784	1,203	476	0
39 Boston University	123,390	14,767	11,472	3,095	3,071	80,675	2,364	1,118	6,828
40 U of Iowa	122,638	8,495	11,564	460	1,018	96,891	2,060	2,146	4
Total, 1st 40 institutions	8,726,019	1,310,560	1,112,658	498,008	449,696	4,946,674	128,451	238,220	41,752
41 University of Florida	122,296	20,227	13,638	2,527	5,243	75,556	3,127	1,978	0
42 Vanderbilt University	116,887	6,595	13,027	250	707	91,369	1,774	3,165	0
43 Georgia Institute of Tech	112,861	73,638	8,362	5,660	15,075	6,086	1,480	1,295	1,265
44 University of Utah	111,716	13,405	12,515	3,053	12,266	68,423	1,298	756	0
45 New York University	111,124	0	4,288	114	8,625	89,173	3,907	3,334	1,683
46 University of Virginia	108,495	16,824	10,705	4,774	5,005	67,772	2,810	605	0
47 Indiana University	102,262	215	17,701	869	2,042	70,151	6,281	4,919	84
48 U TX SW Med Ctr at Dallas	101,996	0	0	0	0	101,996	0	0	0
49 University of Miami	101,883	937	2,236	25,455	168	63,869	5,829	3,389	0
50 University of Cincinnati	100,325	12,801	2,613	54	62	83,303	156	1,336	0
Total, 1st 50 institutions	9,815,864	1,455,202	1,197,743	540,764	498,889	5,664,372	155,113	258,997	44,784

See explanatory information and SOURCE at end of table.

**Table B-40. Federally financed R&D expenditures at universities and colleges
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 2 of 5

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
51 Purdue University	95,708	36,509	13,162	2,731	4,230	34,525	1,653	2,730	168
52 SUNY at Stony Brook	93,937	6,410	16,514	13,432	5,253	48,971	2,196	1,041	120
53 Univ of Hawaii at Manoa	93,418	5,269	12,752	32,859	343	36,536	729	1,186	3,744
54 Colorado State University	91,943	6,430	6,706	11,630	1,479	56,063	2,764	1,140	5,731
55 Carnegie Mellon U	90,408	24,272	5,804	229	41,873	6,249	4,026	6,464	1,491
56 Michigan State University	89,835	4,913	20,998	522	2,177	49,996	1,645	9,516	68
57 Yeshiva University	89,680	0	0	0	0	89,680	0	0	0
58 University of IL Chicago	86,406	5,696	4,801	348	2,261	67,001	2,607	1,368	2,324
59 SUNY at Buffalo	85,490	14,579	5,312	333	2,767	57,307	3,954	1,238	0
60 University of New Mexico	84,976	21,305	7,562	1,636	2,701	29,014	3,119	2,498	17,141
Total, 1st 60 institutions	10,717,665	1,580,585	1,291,354	604,484	561,973	6,139,714	177,806	286,178	75,571
61 Mt Sinai Sch Med	84,624	0	0	0	0	84,624	0	0	0
62 U of MD Baltimore	84,516	0	0	0	0	84,516	0	0	0
63 Georgetown University	83,972	0	4,372	31	65	76,707	423	2,372	2
64 Oregon State University	81,649	9,648	4,652	26,936	1,688	38,305	23	342	55
65 Oregon Health Sciences U	76,033	0	0	0	0	71,420	4,613	0	0
66 Louisiana State U System	75,831	15,326	9,094	6,223	542	42,673	263	1,523	187
67 Rutgers the State U NJ	75,664	12,867	12,310	8,361	8,152	26,225	3,440	4,294	15
68 U CA Irvine	75,505	4,787	12,187	2,263	3,722	48,827	1,561	2,158	0
69 VA Polytech Inst & St U	75,386	25,584	4,607	20,094	2,896	18,472	1,777	1,956	0
70 U CA Santa Barbara	74,026	27,670	16,479	16,140	2,908	5,194	1,426	4,121	88
Total, 1st 70 institutions	11,504,871	1,676,467	1,355,055	684,532	581,946	6,636,677	191,332	302,944	75,918
71 Princeton University	72,974	22,316	20,381	6,696	3,793	13,148	4,080	2,560	0
72 UT Houston Hlth Sci Ctr	71,288	0	0	0	0	71,288	0	0	0
73 U of Tennessee System	70,187	11,676	7,641	7,051	2,796	38,605	7	1,786	625
74 U TX MD Anderson Cncr Ctr	69,413	0	2,542	0	855	66,016	0	0	0
75 NC State University	66,310	27,008	6,258	5,727	3,904	21,277	360	747	1,029
76 University of Kentucky	66,184	10,140	3,319	428	1,213	46,622	592	1,323	2,547
77 Tufts University	63,618	3,634	2,684	103	1,104	54,020	1,489	584	0
78 U Med & Dent of NJ	61,730	0	0	0	0	61,730	0	0	0
79 Wake Forest University	60,293	0	782	0	152	59,351	0	0	8
80 Woods Hole Oceanogr Inst	59,534	9,297	0	50,237	0	0	0	0	0
Total, 1st 80 institutions	12,166,402	1,760,538	1,398,662	754,774	595,763	7,068,734	197,860	309,944	80,127
81 Wayne State University	57,610	2,925	4,399	18	397	47,371	1,793	707	0
82 University of Oklahoma	57,589	3,176	6,383	13,541	155	28,928	3,231	2,175	0
83 University of Kansas	57,272	5,799	5,693	2,287	1,339	38,866	138	659	2,491
84 U TX San An Hlth Sci Ctr	56,904	0	0	0	0	56,904	0	0	0
85 New Mexico State Univ	56,875	38,257	3,838	2,672	4,158	6,855	348	627	120
86 Thomas Jefferson U	56,369	0	0	0	0	56,369	0	0	0
87 University of Georgia	56,080	747	2,786	5,026	1,032	42,100	2,516	1,873	0
88 Florida State University	55,666	7,431	22,962	9,700	3,554	6,278	3,030	2,711	0
89 U MA Worcester	55,516	0	0	0	0	55,516	0	0	0
90 University of Connecticut	55,496	6,041	2,628	4,107	354	38,767	2,406	1,193	0
Total, 1st 90 institutions	12,731,779	1,824,914	1,447,351	792,125	606,752	7,446,688	211,322	319,889	82,738
91 U TX Med Br at Galveston	55,061	302	0	0	0	54,759	0	0	0
92 Utah State University	54,433	27,360	3,526	6,739	508	14,747	193	501	859
93 Iowa State University	54,179	13,207	4,528	2,006	3,642	21,345	67	8,754	630
94 Arizona State University	53,905	13,841	9,978	15,030	1,808	7,285	4,115	1,472	376
95 U of Missouri Columbia	53,875	6,105	2,809	387	599	37,318	2,964	3,693	0
96 Tulane University	50,779	3,138	1,376	384	395	41,482	476	1,306	2,222
97 George Washington U	49,944	7,506	1,608	94	13,388	15,349	390	1,498	10,111
98 U of South Carolina	48,490	12,595	7,007	6,712	1,937	12,433	2,933	2,359	2,514
99 Virginia Commonwealth U	48,175	1,236	2,341	6	151	42,593	1,129	719	0
100 Medical Col of Wisconsin	47,087	0	0	0	0	47,087	0	0	0
Total, 1st 100 institutions	13,247,707	1,910,204	1,480,524	823,483	629,180	7,741,086	223,589	340,191	99,450

See explanatory information and SOURCE at end of table.

**Table B-40. Federally financed R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
101 Dartmouth College	46,741	5,526	2,243	457	1,710	35,707	428	489	181
102 Mississippi State U	46,528	20,914	1,405	2,162	1,418	17,460	2	1,818	1,349
103 SUNY at Albany	46,242	0	2,064	2,991	369	34,434	2,228	4,156	0
104 Brown University	45,276	5,250	4,179	3,748	8,071	21,568	1,396	1,064	0
105 Rockefeller Univ, The	45,010	0	2,055	0	266	42,689	0	0	0
106 Washington State U	44,610	7,727	4,258	1,124	321	27,895	264	2,981	40
107 U of South Florida	42,005	5,106	557	11,034	123	21,731	2,908	546	0
108 U MA Amherst	39,877	5,747	9,026	2,764	8,455	10,892	2,932	61	0
109 U of Nebraska at Lincoln	36,977	4,257	5,508	6,857	1,129	14,120	182	3,311	1,613
110 U of Rhode Island	36,207	2,645	686	20,105	76	7,132	3,951	351	1,261
Total, 1st 110 institutions	13,677,180	1,967,376	1,512,505	874,725	651,118	7,974,714	237,880	354,968	103,894
111 University of Vermont	36,085	766	739	236	766	31,432	390	0	1,756
112 Rice University	35,012	5,547	8,674	3,784	12,834	3,809	250	114	0
113 U of Alaska Fairbanks	34,647	2,404	16,116	8,091	138	6,254	0	1,644	0
114 University of Delaware	34,628	11,701	7,113	6,173	2,032	4,218	1,079	2,312	0
115 US Naval Postgrad School	33,308e	8,850i	2,087i	8,029i	6,937i	0i	0i	4,564i	2,841i
116 Rush University	31,119	0	0	0	0	30,034	1,085	0	0
117 Med U of South Carolina	30,997	0	0	0	0	30,997	0	0	0
118 University of Dayton	30,755	28,403	1,609	215	95	125	308	0	0
119 U of New Hampshire	30,586	2,889	1,932	18,008	386	4,541	1,087	1,614	129
120 Syracuse University	30,050	6,941	5,249	901	9,181	3,428	1,420	2,120	810
Total, 1st 120 institutions	14,004,367	2,034,877	1,556,024	920,162	683,487	8,089,552	243,499	367,336	109,430
121 Temple University	29,734	171	1,264	40	162	21,570	2,229	4,298	0
122 Brandeis University	29,423	0	2,807	0	1,194	14,534	1,301	9,587	0
123 Kansas State University	28,102	4,526	6,181	203	589	14,633	360	921	689
124 University of Oregon	27,336	516	6,503	2,021	3,219	12,169	1,819	1,089	0
125 Clemson University	27,064	8,331	1,648	259	898	14,718	31	1,064	115
126 Auburn University	27,058	11,392	1,984	341	275	9,971	699	521	1,875
127 U Arkansas Medical Sci	26,392	0	0	0	0	26,392	0	0	0
128 West Virginia University	26,264	10,188	2,872	1,439	251	10,603	216	29	666
129 Montana St U Bozeman	26,231	4,306	5,718	420	350	12,751	0	1,675	1,011
130 U of Alabama Huntsville	25,166	8,556	6,235	4,198	5,024	241	0	14	898
Total, 1st 130 institutions	14,277,137	2,082,863	1,591,236	929,083	695,449	8,227,134	250,154	386,534	114,684
131 U CA Santa Cruz	25,084	2,318	8,250	5,945	1,611	5,603	564	787	6
132 U of Nevada Reno	24,587	1,687	3,774	4,787	168	12,467	766	625	313
133 University of Idaho	24,263	3,243	735	2,046	74	16,173	72	619	1,301
134 U PR Mayaguez Campus	23,784	2,153	1,291	2,916	246	17,154	0	24	0
135 Saint Louis University	23,722	0	0	429	53	23,239	0	1	0
136 University of Notre Dame	23,614	7,012	11,755	0	1,136	2,801	696	214	0
137 Oklahoma State University	23,179	5,706	2,586	349	500	9,637	328	2,840	1,233
138 Rensselaer Polytech Inst	22,803	14,857	4,455	778	1,509	1,008	0	146	50
139 Northeastern University	22,776	9,835	5,036	0	1,466	4,934	1,026	479	0
140 C R Drew U of Med & Sci	22,212	0	0	0	0	22,212	0	0	0
Total, 1st 140 institutions	14,513,161	2,129,674	1,629,118	946,333	702,212	8,342,362	253,606	392,269	117,587
141 Howard University	21,658	1,946	4,226	60	1,314	12,248	980	878	6
142 NJ Inst of Technology	21,127	11,162	1,958	4,014	1,636	0	0	78	2,279
143 SUNY Hlth Sci Ctr Brklyn	21,053	0	0	0	0	21,053	0	0	0
144 Florida A&M University	20,693	3,647	2,017	1,331	1,920	11,778	0	0	0
145 University of Houston	20,443	5,423	4,872	84	2,343	5,220	1,951	548	2
146 Texas Tech University	20,242	6,861	2,700	1,386	766	5,595	139	2,356	439
147 U CA Riverside	19,994	2,141	4,966	2,681	230	7,511	1,985	480	0
148 San Diego St University	19,724	1,155	2,163	1,058	588	10,643	2,391	170	1,556
149 George Mason University	19,492	5,164	5,158	41	1,124	2,365	1,877	3,763	0
150 U of Maine	19,163	2,743	3,654	6,205	241	5,456	311	553	0
Total, 1st 150 institutions	14,716,750	2,169,916	1,660,832	963,193	712,374	8,424,231	263,240	401,095	121,869

See explanatory information and SOURCE at end of table.

**Table B-40. Federally financed R&D expenditures at universities and colleges
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
151 University of Wyoming	19,109	1,652	2,027	3,518	314	10,042	171	401	984
152 U TX at El Paso	18,292	4,806	1,380	6,125	819	2,696	437	277	1,752
153 Univ of Alabama, The	17,601	9,939	1,825	1,588	448	1,675	354	1,415	357
154 Loyola U of Chicago	17,588	0	359	26	133	15,904	622	544	0
155 MCP Hahnemann Univ	17,281	0	0	0	0	17,039	133	109	0
156 U of NE Med Ctr	17,167	0	0	0	0	17,167	0	0	0
157 Desert Research Institute	16,552	0	0	11,720	0	0	0	0	4,832
158 Michigan Tech University	16,107	9,581	1,101	1,517	430	3,420	0	58	0
159 U of Central Florida	16,048	2,774	3,884	2,420	328	1,089	536	1,326	3,691
160 U Arkansas Main	15,851	3,896	2,288	358	119	8,939	8	243	0
Total, 1st 160 institutions	14,888,346	2,202,564	1,673,696	990,465	714,965	8,502,202	265,501	405,468	133,485
161 Florida International U	15,757	8,984	720	3,001	1,390	751	282	629	0
162 U MD Baltimore County	15,624	3,891	2,066	4,602	528	2,761	248	1,528	0
163 University of Louisville	15,536	1,414	1,136	71	163	11,227	1,260	265	0
164 OR Grad Inst Sci & Tech	15,303	1,515	3,214	3,034	7,522	0	0	18	0
165 Univ of Montana, The	14,627	0	773	230	1,366	11,368	36	854	0
166 Boston College	14,492	0	4,708	465	6,879	1,219	262	959	0
167 Georgia State University	14,310	0	1,174	54	494	3,315	2,694	6,579	0
168 U Southern Mississippi	14,124	151	2,832	6,489	143	1,329	123	129	2,928
169 New York Medical College	14,029	0	0	0	0	14,029	0	0	0
170 Medical Col of Georgia	13,991	0	0	0	0	13,991	0	0	0
Total, 1st 170 institutions	15,036,139	2,218,519	1,690,319	1,008,411	733,450	8,562,192	270,406	416,429	136,413
171 U PR Med Sci Campus	13,971	0	0	0	0	13,971	0	0	0
172 U MD Biotechnology Inst	13,911	0	0	5,894	0	8,017	0	0	0
173 Old Dominion University	13,706	6,196	1,405	3,665	1,217	667	235	321	0
174 Univ of North Dakota	13,615	6,892	459	1,365	73	3,641	0	329	856
175 Lehigh University	13,161	9,152	2,127	1,060	115	574	129	4	0
176 Morehouse School of Med	12,948	0	0	0	0	12,948	0	0	0
177 Drexel University	12,914	10,620	1,131	255	846	0	0	62	0
178 Mercer University	12,657	11,608	337	0	0	712	0	0	0
179 NC A&T State University	12,454	7,756	565	0	416	2,956	152	558	51
180 Wright State University	12,365	1,678	1,331	328	347	8,241	409	31	0
Total, 1st 180 institutions	15,167,841	2,272,421	1,697,674	1,020,978	736,464	8,613,919	271,331	417,734	137,320
181 North Dakota State U	12,308	401	3,538	70	657	4,941	415	2,286	0
182 Loma Linda University	12,217	0	0	0	0	12,217	0	0	0
183 Clark Atlanta University	12,116	2,171 i	2,295 i	3,340 i	1,406 i	2,563 i	0 i	341 i	0 i
184 CA St U Long Beach	11,929	8,987 i	802 i	1,103 i	0 i	930 i	73 i	0 i	34 i
185 Col of William & Mary	11,892	0	2,969	7,769	570	386	23	175	0
186 San Jose State University	11,825e	3,077e	1,052e	4,363e	122e	476e	2,698e	37e	0e
187 Brigham Young University	11,414	4,701	2,036	129	863	2,481	46	931	227
188 Eastern VA Med School	11,354	0	0	0	0	11,354	0	0	0
189 Catholic U of America	11,064	2,056	7,042	0	0	763	1,131	64	8
190 Florida Atlantic U	11,036	8,146	316	111	360	97	1,334	523	149
Total, 1st 190 institutions	15,284,996	2,301,960	1,717,724	1,037,863	740,442	8,650,127	277,051	422,091	137,738

See explanatory information and SOURCE at end of table.

**Table B-40. Federally financed R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
191 NM Inst Mining & Tech	10,719	7,807	880	1,827	15	190	0	0	0
192 Colorado School of Mines	10,704	5,967	3,430	799	396	0	0	112	0
193 Ohio University	10,544	5,188	2,484	172	19	1,690	818	168	5
194 U MA Lowell	10,354	3,485	4,108	1,782	122	447	352	1	57
195 U of Nevada Las Vegas	10,248	595	2,317	5,658	190	1,386	102	0	0
196 CUNY City College	9,992	1,940	5,538	428	800	1,021	265	0	0
197 U Mississippi, All Camp	9,952	1,777	3,859	0	22	2,926	260	394	714
198 Illinois Inst of Tech	9,777	3,931	760	0	295	4,781	10	0	0
199 Unif Svcs U of Hlth Sci	9,696	0	0	0	0	9,696	0	0	0
200 U of South Alabama	9,451e	460e	51e	249e	165e	8,456e	42e	28e	0e
Total, 1st 200 institutions	15,386,433	2,333,110	1,741,151	1,048,778	742,466	8,680,720	278,900	422,794	138,514
Total, all other sampled institutions	660,364	105,163	118,366	51,903	48,923	239,500	31,219	49,526	15,764

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-41. Non-Federal R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

(Dollars in thousands)

Page 1 of 5

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
Total, all institutions	11,442,264	1,818,848	740,169	588,913	381,315	6,671,036	154,739	789,682	297,562
1 U CA Berkeley	260,514	55,739	38,296	3,193	2,158	108,451	2,384	33,101	17,192
2 Texas A&M University	253,052	77,184	16,891	15,672	2,635	120,993	1,138	12,904	5,635
3 U CA Los Angeles	225,621	16,581	13,948	3,349	3,121	157,800	2,943	25,683	2,196
4 U WI-Madison	212,764	23,162	10,842	8,589	2,993	144,950	3,951	17,675	602
5 NC State University	204,311	53,578	9,501	12,218	8,098	113,061	1,196	4,757	1,902
6 Ohio State University	187,594	56,623	7,708	2,693	15,191	91,854	774	9,305	3,446
7 U CA San Francisco	183,914	0	0	0	0	183,914	0	0	0
8 U CA Davis	183,487	19,459	4,619	5,172	887	150,075	291	2,630	354
9 University of Florida	182,151	25,959	7,860	2,543	3,399	132,800	1,351	8,239	0
10 University of Georgia	181,413	7,505	7,080	7,668	6,452	118,890	4,463	29,355	0
Total, 1st 10 institutions	2,074,821	335,790	116,745	61,097	44,934	1,322,788	18,491	143,649	31,327
11 Pennsylvania State U	180,297	58,260	13,803	11,186	1,875	45,685	4,153	32,927	12,408
12 University of Michigan	174,393	47,997	4,807	2,014	7,582	88,643	3,918	19,430	2
13 U of Illinois Urbana-Cham	172,480	37,461	15,908	17,989	24,851	53,529	2,620	18,220	1,902
14 U CA San Diego	169,625	22,452	8,430	42,129	8,495	79,973	1,521	5,454	1,171
15 University of Minnesota	163,623	14,509	3,025	6,866	3,906	121,409	2,027	11,881	0
16 Duke University	161,517	3,648	2,125	3,708	647	146,932	440	4,017	0
17 Cornell University	160,760	18,398	14,482	1,605	6,714	106,873	4,045	8,643	0
18 Georgia Institute of Tech	150,864	98,415	11,177	7,564	20,147	8,131	1,977	1,731	1,722
19 Louisiana State U System	149,977	22,455	7,059	21,218	2,809	87,536	212	7,802	886
20 University of Arizona	142,119	17,774	29,471	4,446	1,968	78,630	1,479	8,343	8
Total, 1st 20 institutions	3,700,476	677,159	227,032	179,822	123,928	2,140,129	40,883	262,097	49,426
21 Rutgers the State U NJ	138,174	16,230	10,322	9,598	7,748	70,792	4,715	15,925	2,844
22 Baylor Col of Medicine	131,087	0	0	0	0	131,087	0	0	0
23 Purdue University	130,703	33,597	7,845	1,541	4,548	66,954	1,074	14,977	167
24 Michigan State University	118,077	11,760	10,714	1,235	1,507	80,396	881	9,215	2,369
25 U of Washington	114,547	13,014	6,791	4,428	1,167	81,172	796	7,179	0
26 U MD at College Park	112,547	33,903	21,026	1,447	9,345	23,686	377	22,763	0
27 MA Institute of Tech	111,385	43,113	2,683	3,344	8,446	17,458	248	6,580	29,513
28 University of Kentucky	107,850	17,338	2,304	184	564	80,028	278	1,899	5,255
29 Iowa State University	107,122	26,812	4,577	1,337	5,633	56,692	547	6,615	4,909
30 U of Pennsylvania	104,556	3,313	2,120	696	1,792e	74,452	90	19,463	2,630
Total, 1st 30 institutions	4,876,524	876,239	295,414	203,632	164,678	2,822,846	49,889	366,713	97,113
31 Johns Hopkins U ¹	103,938	4,493	2,359	2,643	655	75,326	146	2,405	15,911
32 Northwestern University	101,162	12,172	5,949	129	1,622	63,945	316	4,654	12,375
33 Washington University	97,008	3,111	2,813	1,606	2,752	85,298	253	645	530
34 U of Missouri Columbia	95,127	14,207	2,273	447	964	68,227	1,271	7,731	7
35 U of Nebraska at Lincoln	94,069	17,855	4,955	4,457	3,154	48,503	1,354	7,069	6,722
36 VA Polytech Inst & St U	93,864	27,946	3,423	1,368	1,667	55,309	836	3,315	0
37 U TX at Austin	93,209	34,604	17,473	15,076	7,624	10,339	571	7,022	500
38 Indiana University	92,528	3,128	8,225	5,559	1,969	49,290	2,271	16,910	5,176
39 Wayne State University	89,222	7,898	6,791	1	483	66,846	982	4,569	1,652
40 U of Tennessee System	88,743	16,096	4,763	3,831	5,282	54,352	86	3,134	1,199
Total, 1st 40 institutions	5,825,394	1,017,749	354,438	238,749	190,850	3,400,281	57,975	424,167	141,185
41 University of IL Chicago	88,687	9,411	3,516	1,663	1,427	60,785	1,781	6,953	3,151
42 U TX MD Anderson Cnrc Ctr	85,713	0	1,136	0	2,770	81,807	0	0	0
43 U of Iowa	84,497	11,914	3,202	1,531	400	60,345	728	5,708	669
44 University of Oklahoma	84,496	12,416	6,575	13,477	3,143	33,543	8,547	6,795	0
45 U of South Florida	81,956	7,796	857	6,492	317	60,855	3,728	1,910	1
46 SUNY at Buffalo	81,333	15,367	5,026	1,248	5,787	48,217	1,437	4,079	172
47 U of Southern California	81,122	9,460	2,316	3,397	10,220	50,726	282	3,510	1,211
48 University of Connecticut	79,490	17,752	2,043	3,379	1,073	43,203	3,082	5,216	3,742
49 Rockefeller Univ, The	76,509	0	1,524	0	1,959	73,026	0	0	0
50 University of Kansas	75,480	7,286	5,695	7,571	2,417	43,504	397	2,767	5,843
Total, 1st 50 institutions	6,644,677	1,109,151	386,328	277,507	220,363	3,956,292	77,957	461,105	155,974

See explanatory information and SOURCE at end of table.

**Table B-41. Non-Federal R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
51 University of Colorado	73,932	10,262	12,546	10,424	1,914	33,866	3,103	1,743	74e
52 Stanford University	72,602	15,408	4,802	2,219	1,956	42,569	683	4,965	0
53 Clemson University	72,277	22,252	4,401	687	2,401	39,305	81	2,842	308
54 U of NC Chapel Hill	69,832	0	3,398	4,934	3,189	51,182	323	6,806	0
55 U of Alabama Birmingham	66,892	3,474	887	1	204	61,475	694	157	0
56 U CA Irvine	66,337	7,674	5,141	760	2,310	46,164	496	3,608	184
57 U Med & Dent of NJ	64,547	0	0	0	0	64,547	0	0	0
58 Mississippi State U	64,368	9,799	1,247	1,037	1,067	48,288	131	2,011	788
59 U TX SW Med Ctr at Dallas	63,524	0	0	0	0	63,524	0	0	0
60 Univ of Hawaii at Manoa	63,392	1,718	12,076	19,160	58	25,967	225	2,223	1,965
Total, 1st 60 institutions	7,322,380	1,179,738	430,826	316,729	233,462	4,433,179	83,693	485,460	159,293
61 Yale University	60,646	2,040	2,422	187	694	53,099	1,175	1,029	0
62 Harvard University	60,174	336	468	665	105	38,201	595	19,647	157
63 Oklahoma State University	59,929	8,949	4,419	1,224	592	35,504	412	6,021	2,808
64 Colorado State University	58,338	7,240	1,808	3,143	1,615	40,167	488	1,687	2,190
65 Oregon State University	57,636	4,792	680	4,449	539	45,687	4	1,485	0
66 Kansas State University	57,478	8,830	1,735	637	513	42,106	497	2,194	966
67 U of South Carolina	57,345	8,983	5,071	11,100	6,279	10,954	992	7,083	6,883
68 U of MD Baltimore	56,387	0	0	0	0	56,387	0	0	0
69 Emory University	56,354	0	1,459	0	407	53,429	393	666	0
70 New York University	56,055	0	1,487	128	2,986	47,156	1,037	2,645	616
Total, 1st 70 institutions	7,902,722	1,220,908	450,375	338,262	247,192	4,855,869	89,286	527,917	172,913
71 U CA Riverside	55,827	6,298	1,917	6,287	395	37,730	1	2,087	1,112
72 SUNY at Stony Brook	55,045	4,637	7,849	5,981	3,314	30,476	828	1,422	538
73 University of Pittsburgh	54,859	4,744	1,659	59	345	45,900	283	1,826	43
74 U of Alaska Fairbanks	54,178	3,386	15,986	10,665	11,040	10,980	0	2,121	0
75 Auburn University	53,486	9,183	736	129	185	41,353	56	1,355	489
76 Arizona State University	53,279	20,537	9,959	1,421	1,864	5,918	1,501	7,776	4,303
77 University of Cincinnati	52,677	12,652	2,279	184	268	32,672	468	1,830	2,324
78 Washington State U	52,333	6,561	931	268	174	37,737	152	6,278	232
79 Carnegie Mellon U	51,766	14,404	2,782	1,502	20,716	5,827	2,274	2,637	1,624
80 Princeton University	51,263	16,764	7,637	3,934	3,332	6,281	1,166	12,149	0
Total, 1st 80 institutions	8,437,435	1,320,074	502,110	368,692	288,825	5,110,743	96,015	567,398	183,578
81 University of Virginia	48,992	7,452	1,845	902	936	35,044	439	2,059	315
82 U MA Amherst	46,699	9,399	9,015	4,823	3,593	15,704	1,139	985	2,041
83 U Arkansas Main	45,734	5,742	1,667	1,125	180	34,794	208	1,979	39
84 University of Rochester	44,274	5,629	973	85	124	34,866	2,240	341	16
85 Mt Sinai Sch Med	43,141	0	0	0	0	43,141	0	0	0
86 Case Western Reserve U	42,154	8,544	1,112	60	172	28,521	196	3,549	0
87 University of Utah	42,127	8,411	1,468	703	687	29,588	329	941	0
88 Florida State University	42,007	3,806	18,455	4,171	3,466	4,034	1,559	6,502	14
89 University of Louisville	41,515	3,697	1,579	165	1,685	30,904	960	2,525	0
90 Utah State University	40,931	4,723	1,249	4,973	726	18,889	683	1,354	8,334
Total, 1st 90 institutions	8,875,009	1,377,477	539,473	385,699	300,394	5,386,228	103,768	587,633	194,337
91 Columbia U in City of NY	39,429	2,195	919	3,291	261	31,364	247	1,152	0
92 University of Delaware	38,893	15,207	3,031	3,115	1,271	13,130	490	2,649	0
93 U TX Med Br at Galveston	38,519	1,004	0	0	0	37,515	0	0	0
94 University of Idaho	38,268	7,392	1,186	1,886	101	24,460	572	1,861	810
95 Texas Tech University	38,246	9,523	3,701	1,179	1,013	18,742	80	3,348	660
96 Tufts University	38,110	3,712	1,159	1,052	422	27,055	1,258	3,452	0
97 University of Miami	37,725	431	118	2,997	91	33,969	85	34	0
98 West Virginia University	37,128	10,413	1,206	1,896	186	22,644	149	605	29
99 Temple University	37,043	697	1,039	107	1,218	23,801	2,033	7,611	537
100 U of NE Med Ctr	37,038	0	0	0	0	37,038	0	0	0
Total, 1st 100 institutions	9,255,408	1,428,051	551,832	401,222	304,957	5,655,946	108,682	608,345	196,373

See explanatory information and SOURCE at end of table.

**Table B-4j. Non-Federal R&D expenditures at universities and colleges,
by science and engineering field, fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
101 Tulane University	36,545	3,086	1,277	103	72	30,658	90	471	788
102 Oregon Health Sciences U	36,164 i	0 i	0 i	0 i	0 i	35,532 i	632 i	0 i	0 i
103 UT Houston Hlth Sci Ctr	34,019	0	0	0	0	34,019	0	0	0
104 Vanderbilt University	32,788	3,169	1,671	46	115	26,346	488	953	0
105 North Dakota State U	32,388	485	1,238	108	316	28,872	97	1,272	0
106 U PR Mayaguez Campus	31,864	4,265	1,196	1,505	71	24,827	0	0	0
107 Virginia Commonwealth U	31,610	650	1,799	87	162	27,170	799	943	0
108 Brown University	31,054	4,279	3,848	1,787	3,966	12,674	840	3,660	0
109 U TX San An Hlth Sci Ctr	30,900	0	0	0	0	30,900	0	0	0
110 University of New Mexico	30,874	5,693	1,117	307	628	7,810	1,373	4,173	9,773
Total, 1st 110 institutions	9,583,614	1,449,678	563,978	405,165	310,287	5,914,754	113,001	619,817	206,934
111 U CA Santa Barbara	30,535	9,477	4,578	7,867	1,657	2,301	351	3,916	388
112 Rush University	29,838	0	0	0	0	28,132	1,706	0	0
113 Eastern Kentucky U	29,305	5,645 i	3,127 i	5,516 i	2,082 i	8,596 i	746 i	2,424 i	1,169 i
114 Montana St U Bozeman	29,244	4,541	1,561	219	127	20,532	0	1,306	958
115 University of Wyoming	28,088	4,126	2,965	3,024	310	11,449	81	538	5,595
116 University of Vermont	27,964	678	409	118	393	24,581	364	109	1,312
117 U CA Santa Cruz	27,818	743	14,350	6,935	584	3,073	535	1,509	89
118 U MA Worcester	27,524	0	0	0	0	27,524	0	0	0
119 Georgetown University	27,454	0	1,101 e	4 e	26 e	21,773 e	49 e	4,444 e	57 e
120 Medical Col of Georgia	27,112	0	0	0	0	27,112	0	0	0
Total, 1st 120 institutions	9,868,496	1,474,888	592,069	428,848	315,466	6,089,827	116,833	634,063	216,502
121 University of Chicago	27,085	0	2,388	1,349	261	16,609	1,104	5,337	37
122 U of New Hampshire	27,027	5,318	808	9,099	239	8,224	119	3,015	205
123 U of Central Florida	26,418	5,579	7,086	6,648	617	805	151	2,487	3,045
124 San Diego St University	25,855	2,698	1,104	1,803	1,368	9,285	2,045	2,558	4,994
125 Sthm IL U Carbondale	25,509	4,389	1,580	437	696	14,077	144	1,833	2,353
126 Med U of South Carolina	24,822	0	0	0	0	24,822 e	0	0	0
127 U of Nevada Reno	23,352	2,061	1,219	1,960	79	6,388	391	949	10,305
128 New Mexico State Univ	23,002	9,375	734	749	1,063	10,727	40	227	87
129 University of Houston	22,927	12,238	4,230	949	1,273	2,487	1,073	530	147
130 Dartmouth College	22,781	1,839	906	270	579	17,836	788	283	280
Total, 1st 130 institutions	10,117,274	1,518,385	612,124	452,112	321,641	6,201,087	122,688	651,282	237,955
131 Wake Forest University	22,534	0	406	0	10	21,869	0	0	249
132 U of Maine	22,289	2,982	667	5,769	87	11,286	106	1,392	0
133 Georgia State University	22,213	0	2,242	325	1,063	5,060	4,910	8,613	0
134 Yeshiva University	22,091	0	0	0	0	22,091	0	0	0
135 Thomas Jefferson U	22,041	0	0	0	0	22,041	0	0	0
136 SUNY Col Env Sci Frstry	21,511	8,489	1,688	2,425	0	8,833	0	76	0
137 U of LA at Lafayette	21,305	3,789	522	258	2,573	11,994	226	676	1,267
138 NJ Inst of Technology	19,855	8,552	1,169	4,518	1,278	0	0	91	4,247
139 Col of William & Mary	19,430	0	1,556	15,938	131	476	92	1,237	0
140 CA St U Long Beach	19,354	14,452 i	2,205 i	1,093 i	0 i	1,604 i	0 i	0 i	0 i
Total, 1st 140 institutions	10,329,897	1,556,649	622,579	482,438	326,783	6,306,341	128,022	663,367	243,718
141 Brandeis University	18,882	0	993	0	130	5,593	71	12,095	0
142 U MD Ctr for Environ Sci	18,700	0	0	18,700	0	0	0	0	0
143 SUNY at Albany	18,036	0	5,987	3,452	333	4,052	826	3,386	0
144 Univ of Memphis, The	17,916	2,282	465	2,533	678	1,887	4,126	4,736	1,209
145 Boston University	17,712	1,343	473	680	174	13,803	101	750	388
146 U Arkansas Medical Sci	17,674	0	0	0	0	17,674	0	0	0
147 U MD Biotechnology Inst	17,261	0	0	1,853	0	15,408	0	0	0
148 U of Missouri Rolla	17,162	12,136	3,023	955	644	379	22	3	0
149 California Inst of Tech	16,913	2,795	4,210	470	353	714	0	1,262	7,109
150 George Washington U	16,813	1,275	344	10	543	7,920	151	4,963	1,607
Total, 1st 150 institutions	10,506,966	1,576,480	638,074	511,091	329,638	6,373,771	133,319	690,562	254,031

See explanatory information and SOURCE at end of table.

**Table B-41. Non-Federal R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
151 Rensselaer Polytech Inst	16,231	13,418	1,029	115	415	1,094	29	31	100
152 NM Inst Mining & Tech	15,342	9,028	1,104	4,914	178	105	13	0	0
153 U of Alabama Huntsville	15,037	8,331	2,389	1,089	2,328	420	0	69	411
154 Lehigh University	14,741	13,038	1,149	92	197	178	17	70	0
155 Medical Col of Wisconsin	14,359	0	0	0	0	14,359	0	0	0
156 Unif Svcs U of Hlth Sci	13,202	0	0	0	0	13,202	0	0	0
157 U WI-Milwaukee	12,798	2,688	1,599	2,072	492	1,195	163	3,284	1,305
158 Eastern VA Med School	12,742	0	0	0	0	12,742	0	0	0
159 Brigham Young University	12,571	1,628	724	19	492	804	487	1,141	7,276
160 SUNY at Binghamton	12,237	3,913	1,446	461	811	1,225	1,888	2,493	0
Total, 1st 160 institutions	10,646,226	1,628,524	647,514	519,853	334,551	6,419,095	135,916	697,650	263,123
161 Woods Hole Oceanogr Inst	12,188	3,702	0	8,486	0	0	0	0	0
162 Michigan Tech University	11,967	9,315	382	174	189	1,592	0	117	198
163 Loyola U of Chicago	11,413	0	238	2	7	9,895	83	1,188	0
164 Univ of Alabama, The	11,308	3,302	1,127	837	4,271	464	106	841	360
165 Wichita State University	11,295	9,646	550	8	258	549	212	72	0
166 Creighton University	11,086	0	3	0	4	11,014	0	65	0
167 Colorado School of Mines	11,011	8,611	769	325	1,306	0	0	0	0
168 Ohio University	10,893	4,360	1,356	372	25	3,581	330	363	506
169 Wright State University	10,766	1,758	870	88	1,354	5,852	519	174	151
170 MCP Hahnemann Univ	10,235	0	0	0	0	10,215	18	2	0
Total, 1st 170 institutions	10,758,388	1,669,218	652,809	530,145	341,965	6,462,257	137,184	700,472	264,338
171 U of Nevada Las Vegas	9,922	745	4,057	2,204	508	965	69	1,143	231
172 Univ of Montana, The	9,745	0	219	109	363	5,339	0	1,126	2,589
173 CA St U Fresno	9,701	1,998i	69i	104i	5i	7,036i	489i	0i	0i
174 Syracuse University	9,590	2,216	1,675	288	2,930	1,094	453	676	258
175 Western Michigan U	9,562	3,767	371	593	853	987	16	2,975	0
176 South Dakota State U	9,513	464	46	394	1	8,214	0	394	0
177 Drexel University	9,483	6,731	301	54	1,138	0	0	1,259	0
178 Old Dominion University	9,324	3,860	510	2,534	352	1,768	146	154	0
179 Florida International U	9,304	1,375	367	1,071	684	580	86	5,141	0
180 San Jose State University	9,180e	2,693e	829e	5,064e	206e	122e	240e	26e	0e
Total, 1st 180 institutions	10,853,712	1,693,067	661,253	542,560	349,005	6,488,362	138,683	713,366	267,416
181 University of Akron	9,139	3,393	4,333	188	135	285	41	764	0
182 U MA Lowell	9,059	4,369	1,356	279	519	937	461	636	502
183 CUNY Hunter College	8,408	0	1,702	894	196	2,243	780	2,326	267
184 U TX at Dallas	8,328	1,040	2,344	799	729	1,150	492	1,652	122
185 U of Rhode Island	8,245	781	142	2,497	76	1,963	414	7	2,365
186 Cleveland State U	8,238e	1,924i	177i	3i	20i	245i	3i	5,866i	0i
187 U MA Boston	8,181	23	76	445	70	1,713	202	5,511	141
188 Tennessee Tech U	7,982	7,085	93	7	17	780	0	0	0
189 SUNY Hlth Sci Ctr Brklyn	7,787	0	0	0	0	7,787	0	0	0
190 Miami University (OH)	7,662	272i	1,796i	109i	0i	1,533i	268i	1,611i	2,073i
Total, 1st 190 institutions	10,936,741	1,711,954	673,272	547,781	350,767	6,506,998	141,344	731,739	272,886

See explanatory information and SOURCE at end of table.

**Table B-41. Non-Federal R&D expenditures at universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 5 of 5

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
191 Northeastern University	7,433	3,283	1,686	0	421	1,249	342	452	0
192 Clark Atlanta University	7,351	1,066i	1,146i	2,050i	2,204i	462i	0i	423i	0i
193 U Mississippi, All Camp	7,346	1,028	552	0	28	4,857	6	243	632
194 George Mason University	7,274	779	392	11	795	1,865	288	3,144	0
195 Boston College	7,234	0	1,669	82	2,821	919	65	1,678	0
196 SUNY Upstate Med U	7,210	0	0	0	0	7,210	0	0	0
197 Inst of Paper Sci & Tech	7,135e	4,159i	2,111i	0i	0i	865i	0i	0i	0i
198 U of Missouri Kansas City	7,125	203	623	63	150	4,507	454	469	656
199 University of Notre Dame	6,869	1,860	1,605	0	279	2,509	278	338	0
200 Desert Research Institute	6,824	0	0	5,323	0	0	0	0	1,501
Total, 1st 200 institutions	11,008,542	1,724,332	683,056	555,310	357,465	6,531,441	142,777	738,486	275,675
Total, all other sampled institutions	433,722	94,516	57,113	33,603	23,850	139,595	11,962	51,196	21,887

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-42. R&D expenditures at public universities and colleges,
by science and engineering field: fiscal year 1999**

(Dollars in thousands)

Page 1 of 4

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
Total, all institutions	18,628,230	3,043,028	1,674,609	1,355,906	682,882	10,233,326	345,138	982,355	310,986
1 University of Michigan	508,619	131,570	21,915	6,511	12,715	270,898	8,285	56,723	2
2 U of Washington	482,659	34,889	26,090	60,382	8,680	327,975	9,228	15,415	0
3 U CA Los Angeles	477,620	46,108	41,873	9,960	12,755	327,302	8,623	28,802	2,197
4 U WI-Madison	462,725	57,663	39,757	24,995	10,141	278,796	19,388	31,378	607
5 U CA San Diego	461,632	47,725	36,154	107,958	37,772	215,713	5,012	10,084	1,214
6 U CA Berkeley	451,539	107,062	93,676	7,244	6,129	173,208	7,080	38,531	18,609
7 U CA San Francisco	417,095	0	0	0	0	417,095	0	0	0
8 Texas A&M University	402,203	108,249	28,733	69,296	6,001	164,646	2,859	16,784	5,635
9 Pennsylvania State U	379,402	138,455	37,420	26,740	4,503	101,867	10,774	45,289	14,354
10 University of Minnesota	371,384	38,564	17,382	12,986	12,294	269,055	7,095	14,008	0
Total, 1st 10 institutions	4,414,878	710,285	343,000	326,072	110,990	2,546,555	78,344	257,014	42,618
11 U of Illinois Urbana-Cham	358,247	91,373	48,846	28,452	68,062	87,213	7,385	21,908	5,008
12 Ohio State University	322,810	77,090	19,535	8,355	18,749	169,780	3,664	21,809	3,828
13 University of Arizona	320,245	43,094	83,227	11,071	7,245	158,804	2,612	14,184	8
14 University of Colorado	318,618	26,187	48,157	71,479	9,003	149,880	7,453	5,921	538e
15 U CA Davis	307,950	29,528	14,193	6,981	3,435	248,859	1,494	3,106	354
16 University of Florida	304,447	46,186	21,498	5,070	8,642	208,356	4,478	10,217	0
17 NC State University	270,621	80,586	15,759	17,945	12,002	134,338	1,556	5,504	2,931
18 Georgia Institute of Tech	263,725	172,053	19,539	13,224	35,222	14,217	3,457	3,026	2,987
19 U TX at Austin	258,122	95,987	65,875	20,980	32,020	30,561	2,798	9,295	606
20 U MD at College Park	257,628	76,548	53,959	6,828	24,266	35,966	1,913	58,148	0
Total, 1st 20 institutions	7,397,291	1,448,917	733,588	516,457	329,636	3,784,529	115,154	410,132	58,878
21 U of NC Chapel Hill	252,767	0	15,851	11,271	10,206	189,813	3,070	22,556	0
22 University of Pittsburgh	249,477	8,912	10,668	445	3,839	213,648	4,455	6,166	1,344
23 University of Georgia	237,493	8,252	9,866	12,694	7,484	160,990	6,979	31,228	0
24 U of Alabama Birmingham	232,115	8,438	3,139	1	459	214,654	5,117	307	0
25 Purdue University	226,411	70,106	21,007	4,272	8,778	101,479	2,727	17,707	335
26 Louisiana State U System	225,808	37,781	16,153	27,441	3,351	130,209	475	9,325	1,073
27 Rutgers the State U NJ	213,838	29,097	22,632	17,959	15,900	97,017	8,155	20,219	2,859
28 Michigan State University	207,912	16,673	31,712	1,757	3,684	130,392	2,526	18,731	2,437
29 U of Iowa	207,135	20,409	14,766	1,991	1,418	157,236	2,788	7,854	673
30 Indiana University	194,790	3,343	25,926	6,428	4,011	119,441	8,552	21,829	5,260
Total, 1st 30 institutions	9,645,037	1,651,928	905,308	600,716	388,766	5,299,408	159,998	566,054	72,859
31 University of IL Chicago	175,093	15,107	8,317	2,011	3,688	127,786	4,388	8,321	5,475
32 University of Kentucky	174,034	27,478	5,623	612	1,777	126,650	870	3,222	7,802
33 VA Polytech Inst & St U	169,250	53,530	8,030	21,462	4,563	73,781	2,613	5,271	0
34 SUNY at Buffalo	166,823	29,946	10,338	1,581	8,554	105,524	5,391	5,317	172
35 U TX SW Med Ctr at Dallas	165,520	0	0	0	0	165,520	0	0	0
36 Iowa State University	161,301	40,019	9,105	3,343	9,275	78,037	614	15,369	5,539
37 U of Tennessee System	158,930	27,772	12,404	10,882	8,078	92,957	93	4,920	1,824
38 University of Virginia	157,487	24,276	12,550	5,676	5,941	102,816	3,249	2,664	315
39 Univ of Hawaii at Manoa	156,810	6,987	24,828	52,019	401	62,503	954	3,409	5,709
40 U TX MD Anderson Cncr Ctr	155,126	0	3,678	0	3,625	147,823	0	0	0
Total, 1st 40 institutions	11,285,411	1,877,043	1,000,181	698,302	434,668	6,382,805	178,170	614,547	99,695
41 University of Utah	153,843	21,816	13,983	3,756	12,953	98,011	1,627	1,697	0
42 University of Cincinnati	153,002	25,453	4,892	238	330	115,975	624	3,166	2,324
43 Colorado State University	150,281	13,670	8,514	14,773	3,094	96,230	3,252	2,827	7,921
44 U of Missouri Columbia	149,002	20,312	5,082	834	1,563	105,545	4,235	11,424	7
45 SUNY at Stony Brook	148,982	11,047	24,363	19,413	8,567	79,447	3,024	2,463	658
46 Wayne State University	146,832	10,823	11,190	19	880	114,217	2,775	5,276	1,652
47 University of Oklahoma	142,085	15,592	12,958	27,018	3,298	62,471	11,778	8,970	0
48 U CA Irvine	141,842	12,461	17,328	3,023	6,032	94,991	2,057	5,766	184
49 U of MD Baltimore	140,903	0	0	0	0	140,903	0	0	0
50 Oregon State University	139,285	14,440	5,332	31,385	2,227	83,992	27	1,827	55
Total, 1st 50 institutions	12,751,468	2,022,657	1,103,823	798,761	473,612	7,374,587	207,569	657,963	112,496

See explanatory information and SOURCE at end of table.

**Table B-42. R&D expenditures at public universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
51 University of Connecticut	134,986	23,793	4,671	7,486	1,427	81,970	5,488	6,409	3,742
52 University of Kansas	132,752	13,085	11,388	9,858	3,756	82,370	535	3,426	8,334
53 U of Nebraska at Lincoln	131,046	22,112	10,463	11,314	4,283	62,623	1,536	10,380	8,335
54 U Med & Dent of NJ	126,277	0	0	0	0	126,277	0	0	0
55 U of South Florida	123,961	12,902	1,414	17,526	440	82,586	6,636	2,456	1
56 University of New Mexico	115,850	26,998	8,679	1,943	3,329	36,824	4,492	6,671	26,914
57 Oregon Health Sciences U	112,197i	0i	0i	0i	0i	106,952i	5,245i	0i	0i
58 Mississippi State U	110,896	30,713	2,652	3,199	2,485	65,748	133	3,829	2,137
59 Arizona State University	107,184	34,378	19,937	16,451	3,672	13,203	5,616	9,248	4,679
60 U of South Carolina	105,835	21,578	12,078	17,812	8,216	23,387	3,925	9,442	9,397
Total, 1st 60 institutions	13,952,452	2,208,216	1,175,105	884,350	501,220	8,056,527	241,175	709,824	176,035
61 UT Houston Hlth Sci Ctr	105,307	0	0	0	0	105,307	0	0	0
62 U CA Santa Barbara	104,561	37,147	21,057	24,007	4,565	7,495	1,777	8,037	476
63 Clemson University	99,341	30,583	6,049	946	3,299	54,023	112	3,906	423
64 Florida State University	97,673	11,237	41,417	13,871	7,020	10,312	4,589	9,213	14
65 Washington State U	96,943	14,288	5,189	1,392	495	65,632	416	9,259	272
66 Utah State University	95,364	32,083	4,775	11,712	1,234	33,636	876	1,855	9,193
67 U TX Med Br at Galveston	93,580	1,306	0	0	0	92,274	0	0	0
68 U of Alaska Fairbanks	88,825	5,790	32,102	18,756	11,178	17,234	0	3,765	0
69 U TX San An Hlth Sci Ctr	87,804	0	0	0	0	87,804	0	0	0
70 U MA Amherst	86,576	15,146	18,041	7,587	12,048	26,596	4,071	1,046	2,041
Total, 1st 70 institutions	14,908,426	2,355,796	1,303,735	962,621	541,059	8,556,840	253,016	746,905	188,454
71 Kansas State University	85,580	13,356	7,916	840	1,102	56,739	857	3,115	1,655
72 Oklahoma State University	83,108	14,655	7,005	1,573	1,092	45,141	740	8,861	4,041
73 U MA Worcester	83,040	0	0	0	0	83,040	0	0	0
74 Auburn University	80,544	20,575	2,720	470	460	51,324	755	1,876	2,364
75 New Mexico State Univ	79,877	47,632	4,572	3,421	5,221	17,582	388	854	207
76 Virginia Commonwealth U	79,785	1,886	4,140	93	313	69,763	1,928	1,662	0
77 U CA Riverside	75,821	8,439	6,883	8,968	625	45,241	1,986	2,567	1,112
78 University of Delaware	73,521	26,908	10,144	9,288	3,303	17,348	1,569	4,961	0
79 Temple University	66,777	868	2,303	147	1,380	45,371	4,262	11,909	537
80 SUNY at Albany	64,278	0	8,051	6,443	702	38,486	3,054	7,542	0
Total, 1st 80 institutions	15,680,757	2,490,115	1,357,469	993,864	555,257	9,026,875	268,555	790,252	198,370
81 University of Vermont	64,049	1,444	1,148	354	1,159	56,013	754	109	3,068
82 West Virginia University	63,392	20,601	4,078	3,335	437	33,247	365	634	695
83 University of Idaho	62,531	10,635	1,921	3,932	175	40,633	644	2,480	2,111
84 U Arkansas Main	61,585	9,638	3,955	1,483	299	43,733	216	2,222	39
85 Texas Tech University	58,488	16,384	6,401	2,565	1,779	24,337	219	5,704	1,099
86 U of New Hampshire	57,613	8,207	2,740	27,107	625	12,765	1,206	4,629	334
87 University of Louisville	57,051	5,111	2,715	236	1,848	42,131	2,220	2,790	0
88 Med U of South Carolina	55,819	0	0	0	0	55,819e	0	0	0
89 U PR Mayaguez Campus	55,648	6,418	2,487	4,421	317	41,981	0	24	0
90 Montana St U Bozeman	55,475	8,847	7,279	639	477	33,283	0	2,981	1,969
Total, 1st 90 institutions	16,272,408	2,577,400	1,390,193	1,037,936	562,373	9,410,817	274,179	811,825	207,685
91 U of NE Med Ctr	54,205	0	0	0	0	54,205	0	0	0
92 U CA Santa Cruz	52,902	3,061	22,600	12,880	2,195	8,676	1,099	2,296	95
93 U of Nevada Reno	47,939	3,748	4,993	6,747	247	18,855	1,157	1,574	10,618
94 University of Wyoming	47,197	5,778	4,992	6,542	624	21,491	252	939	6,579
95 San Diego St University	45,579	3,853	3,267	2,861	1,956	19,928	4,436	2,728	6,550
96 North Dakota State U	44,696	886	4,776	178	973	33,813	512	3,558	0
97 U of Rhode Island	44,452	3,426	828	22,602	152	9,095	4,365	358	3,626
98 U Arkansas Medical Sci	44,066	0	0	0	0	44,066	0	0	0
99 University of Houston	43,370	17,661	9,102	1,033	3,616	7,707	3,024	1,078	149
100 U of Central Florida	42,466	8,353	10,970	9,068	945	1,894	687	3,813	6,736
Total, 1st 100 institutions	16,739,280	2,624,166	1,451,721	1,099,847	573,081	9,630,547	289,711	828,169	242,038

See explanatory information and SOURCE at end of table.

**Table B-42. R&D expenditures at public universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
101 U of Maine	41,452	5,725	4,321	11,974	328	16,742	417	1,945	0
102 Medical Col of Georgia	41,103	0	0	0	0	41,103	0	0	0
103 NJ Inst of Technology	40,982	19,714	3,127	8,532	2,914	0	0	169	6,526
104 U of Alabama Huntsville	40,203	16,887	8,624	5,287	7,352	661	0	83	1,309
105 Eastern Kentucky U	36,708	7,479i	4,293i	6,352i	2,666i	10,808i	992i	2,789i	1,329i
106 Georgia State University	36,523	0	3,416	379	1,557	8,375	7,604	15,192	0
107 US Naval Postgrad School	34,095e	9,078i	2,170i	8,218i	6,978i	0i	0i	4,647i	3,004i
108 Sthm IL U Carbondale	33,169	5,190	1,914	890	763	18,967	368	2,125	2,952
109 University of Oregon	32,695	914	7,728	2,391	3,711	13,986	2,103	1,862	0
110 Col of William & Mary	31,322	0	4,525	23,707	701	862	115	1,412	0
Total, 1st 110 institutions	17,107,532	2,689,153	1,491,839	1,167,577	600,051	9,742,051	301,310	858,393	257,158
111 CA St U Long Beach	31,283	23,439i	3,007i	2,196i	0i	2,534i	73i	0i	34i
112 U MD Biotechnology Inst	31,172	0	0	7,747	0	23,425	0	0	0
113 U of LA at Lafayette	30,735	7,516	1,018	287	4,423	14,834	226	771	1,660
114 Univ of Alabama, The	28,909	13,241	2,952	2,425	4,719	2,139	460	2,256	717
115 SUNY Hlth Sci Ctr Brklyn	28,840	0	0	0	0	28,840	0	0	0
116 Michigan Tech University	28,074	18,896	1,483	1,691	619	5,012	0	175	198
117 U MD Ctr for Environ Sci	26,816	0	0	26,816	0	0	0	0	0
118 George Mason University	26,766	5,943	5,550	52	1,919	4,230	2,165	6,907	0
119 NM Inst Mining & Tech	26,061	16,835	1,984	6,741	193	295	13	0	0
120 U of Missouri Rolla	25,893	18,277	5,059	1,239	896	397	22	3	0
Total, 1st 120 institutions	17,392,081	2,793,300	1,512,892	1,216,771	612,820	9,823,757	304,269	868,505	259,767
121 SUNY Col Env Sci Frstry	25,385	8,958	1,977	2,607	0	11,745	0	98	0
122 Florida International U	25,061	10,359	1,087	4,072	2,074	1,331	368	5,770	0
123 Univ of Montana, The	24,372	0	992	339	1,729	16,707	36	1,980	2,589
124 Univ of Memphis, The	24,280	3,177	738	3,416	1,011	2,340	7,355	5,034	1,209
125 Desert Research Institute	23,376	0	0	17,043	0	0	0	0	6,333
126 Wright State University	23,131	3,436	2,201	416	1,701	14,093	928	205	151
127 Old Dominion University	23,030	10,056	1,915	6,199	1,569	2,435	381	475	0
128 Unif Svcs U of Hlth Sci	22,898	0	0	0	0	22,898	0	0	0
129 U WI-Milwaukee	22,207	3,807	3,529	3,580	1,154	2,563	598	5,553	1,423
130 U TX at El Paso	21,961	6,402	1,803	6,703	896	3,281	565	430	1,881
Total, 1st 130 institutions	17,627,782	2,839,495	1,527,134	1,261,146	622,954	9,901,150	314,500	888,050	273,353
131 U MD Baltimore County	21,854	6,942	2,976	5,442	739	3,015	555	2,185	0
132 Colorado School of Mines	21,715	14,578	4,199	1,124	1,702	0	0	112	0
133 Florida A&M University	21,622	3,897	2,017	1,495	1,920	12,272	0	21	0
134 Ohio University	21,437	9,548	3,840	544	44	5,271	1,148	531	511
135 San Jose State University	21,005e	5,770e	1,881e	9,427e	328e	598e	2,938e	63e	0e
136 U of Nevada Las Vegas	20,170	1,340	6,374	7,862	698	2,351	171	1,143	231
137 U MA Lowell	19,413	7,854	5,464	2,061	641	1,384	813	637	559
138 SUNY at Binghamton	17,998	5,139	2,320	900	1,221	1,914	3,368	3,136	0
139 U Mississippi, All Camp	17,298	2,805	4,411	0	50	7,783	266	637	1,346
140 Florida Atlantic U	17,151	10,035	399	2,613	950	363	1,494	1,067	230
Total, 1st 140 institutions	17,827,445	2,907,403	1,561,015	1,292,614	631,247	9,936,101	325,253	897,582	276,230

See explanatory information and SOURCE at end of table.

**Table B-42. R&D expenditures at public universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 4 of 4

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
141 U PR Med Sci Campus	17,114	0	0	0	0	17,114	0	0	0
142 Univ of North Dakota	16,999	8,860	481	1,429	74	4,213	10	446	1,486
143 University of Akron	16,279	5,102	6,820	191	449	678	77	2,962	0
144 U Southern Mississippi	16,211	190	4,070	6,876	143	1,394	147	152	3,239
145 U TX at Dallas	16,028	1,622	4,954	1,576	1,094	3,024	1,194	2,304	260
146 CUNY Hunter College	15,934	0	4,448	1,247	330	5,213	1,644	2,785	267
147 South Dakota State U	15,599	934	549	505	1	12,923	0	687	0
148 SUNY Upstate Med U	15,099	0	0	0	0	15,099	0	0	0
149 NC A&T State University	14,741	8,922	567	0	429	4,004	155	613	51
150 Wichita State University	14,555	11,369	961	8	584	991	465	177	0
Total, 1st 150 institutions	17,986,004	2,944,402	1,583,865	1,304,446	634,351	10,000,754	328,945	907,708	281,533
Total, all other sampled institutions	642,226	98,626	90,744	51,460	48,531	232,572	16,193	74,647	29,453

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-43. Federally financed R&D expenditures at public universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total, all institutions	9,667,129	1,513,583	1,054,244	822,782	393,867	5,206,304	220,337	355,780	100,232
1 U of Washington	368,112	21,875	19,299	55,954	7,513	246,803	8,432	8,236	0
2 University of Michigan	334,226	83,573	17,108	4,497	5,133	182,255	4,367	37,293	0
3 U CA San Diego	292,007	25,273	27,724	65,829	29,277	135,740	3,491	4,630	43
4 U CA Los Angeles	251,999	29,527	27,925	6,611	9,634	169,502	5,680	3,119	1
5 U WI-Madison	249,961	34,501	28,915	16,406	7,148	133,846	15,437	13,703	5
6 University of Colorado	244,686	15,925	35,611	61,055	7,089	116,014	4,350	4,178	464e
7 U CA San Francisco	233,181	0	0	0	0	233,181	0	0	0
8 University of Minnesota	207,761	24,055	14,357	6,120	8,388	147,646	5,068	2,127	0
9 Pennsylvania State U	199,105	80,195	23,617	15,554	2,628	56,182	6,621	12,362	1,946
10 University of Pittsburgh	194,618	4,168	9,009	386	3,494	167,748	4,172	4,340	1,301
Total, 1st 10 institutions	2,575,656	319,092	203,565	232,412	80,304	1,588,917	57,618	89,988	3,760
11 U CA Berkeley	191,025	51,323	55,380	4,051	3,971	64,757	4,696	5,430	1,417
12 U of Illinois Urbana-Cham	185,767	53,912	32,938	10,463	43,211	33,684	4,765	3,688	3,106
13 U of NC Chapel Hill	182,935	0	12,453	6,337	7,017	138,631	2,747	15,750	0
14 University of Arizona	178,126	25,320	53,756	6,625	5,277	80,174	1,133	5,841	0
15 U of Alabama Birmingham	165,223	4,964	2,252	0	255	153,179	4,423	150	0
16 U TX at Austin	164,913	61,383	48,402	5,904	24,396	20,222	2,227	2,273	106
17 Texas A&M University	149,151	31,065	11,842	53,624	3,366	43,653	1,721	3,880	0
18 U MD at College Park	145,081	42,645	32,933	5,381	14,921	12,280	1,536	35,385	0
19 Ohio State University	135,216	20,467	11,827	5,662	3,558	77,926	2,890	12,504	382
20 U CA Davis	124,463	10,069	9,574	1,809	2,548	98,784	1,203	476	0
Total, 1st 20 institutions	4,197,556	620,240	474,922	332,268	188,824	2,312,207	84,959	175,365	8,771
21 U of Iowa	122,638	8,495	11,564	460	1,018	96,891	2,060	2,146	4
22 University of Florida	122,296	20,227	13,638	2,527	5,243	75,556	3,127	1,978	0
23 Georgia Institute of Tech	112,861	73,638	8,362	5,660	15,075	6,086	1,480	1,295	1,265
24 University of Utah	111,716	13,405	12,515	3,053	12,266	68,423	1,298	756	0
25 University of Virginia	108,495	16,824	10,705	4,774	5,005	67,772	2,810	605	0
26 Indiana University	102,262	215	17,701	869	2,042	70,151	6,281	4,919	84
27 U TX SW Med Ctr at Dallas	101,996	0	0	0	0	101,996	0	0	0
28 University of Cincinnati	100,325	12,801	2,613	54	62	83,303	156	1,336	0
29 Purdue University	95,708	36,509	13,162	2,731	4,230	34,525	1,653	2,730	168
30 SUNY at Stony Brook	93,937	6,410	16,514	13,432	5,253	48,971	2,196	1,041	120
Total, 1st 30 institutions	5,269,790	808,764	581,696	365,828	239,018	2,965,881	106,020	192,171	10,412
31 Univ of Hawaii at Manoa	93,418	5,269	12,752	32,859	343	36,536	729	1,186	3,744
32 Colorado State University	91,943	6,430	6,706	11,630	1,479	56,063	2,764	1,140	5,731
33 Michigan State University	89,835	4,913	20,998	522	2,177	49,996	1,645	9,516	68
34 University of IL Chicago	86,406	5,696	4,801	348	2,261	67,001	2,607	1,368	2,324
35 SUNY at Buffalo	85,490	14,579	5,312	333	2,767	57,307	3,954	1,238	0
36 University of New Mexico	84,976	21,305	7,562	1,636	2,701	29,014	3,119	2,498	17,141
37 U of MD Baltimore	84,516	0	0	0	0	84,516	0	0	0
38 Oregon State University	81,649	9,648	4,652	26,936	1,688	38,305	23	342	55
39 Oregon Health Sciences U	76,033	0	0	0	0	71,420	4,613	0	0
40 Louisiana State U System	75,831	15,326	9,094	6,223	542	42,673	263	1,523	187
Total, 1st 40 institutions	6,119,887	891,930	653,573	446,315	252,976	3,498,712	125,737	210,982	39,662
41 Rutgers the State U NJ	75,664	12,867	12,310	8,361	8,152	26,225	3,440	4,294	15
42 U CA Irvine	75,505	4,787	12,187	2,263	3,722	48,827	1,561	2,158	0
43 VA Polytech Inst & St U	75,386	25,584	4,607	20,094	2,896	18,472	1,777	1,956	0
44 U CA Santa Barbara	74,026	27,670	16,479	16,140	2,908	5,194	1,426	4,121	88
45 UT Houston Hlth Sci Ctr	71,288	0	0	0	0	71,288	0	0	0
46 U of Tennessee System	70,187	11,676	7,641	7,051	2,796	38,605	7	1,786	625
47 U TX MD Anderson Cnrc Ctr	69,413	0	2,542	0	855	66,016	0	0	0
48 NC State University	66,310	27,008	6,258	5,727	3,904	21,277	360	747	1,029
49 University of Kentucky	66,184	10,140	3,319	428	1,213	46,622	592	1,323	2,547
50 U Med & Dent of NJ	61,730	0	0	0	0	61,730	0	0	0
Total, 1st 50 institutions	6,825,580	1,011,662	718,916	506,379	279,422	3,902,968	134,900	227,367	43,966

See explanatory information and SOURCE at end of table.

**Table B-43. Federally financed R&D expenditures at public universities and colleges
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
51 Wayne State University	57,610	2,925	4,399	18	397	47,371	1,793	707	0
52 University of Oklahoma	57,589	3,176	6,383	13,541	155	28,928	3,231	2,175	0
53 University of Kansas	57,272	5,799	5,693	2,287	1,339	38,866	138	659	2,491
54 U TX San An Hlth Sci Ctr	56,904	0	0	0	0	56,904	0	0	0
55 New Mexico State Univ	56,875	38,257	3,838	2,672	4,158	6,855	348	627	120
56 University of Georgia	56,080	747	2,786	5,026	1,032	42,100	2,516	1,873	0
57 Florida State University	55,666	7,431	22,962	9,700	3,554	6,278	3,030	2,711	0
58 U MA Worcester	55,516	0	0	0	0	55,516	0	0	0
59 University of Connecticut	55,496	6,041	2,628	4,107	354	38,767	2,406	1,193	0
60 U TX Med Br at Galveston	55,061	302	0	0	0	54,759	0	0	0
Total, 1st 60 institutions	7,389,649	1,076,340	767,605	543,730	290,411	4,279,312	148,362	237,312	46,577
61 Utah State University	54,433	27,360	3,526	6,739	508	14,747	193	501	850
62 Iowa State University	54,179	13,207	4,528	2,006	3,642	21,345	67	8,754	630
63 Arizona State University	53,905	13,841	9,978	15,030	1,808	7,285	4,115	1,472	376
64 U of Missouri Columbia	53,875	6,105	2,809	387	599	37,318	2,964	3,693	0
65 U of South Carolina	48,490	12,595	7,007	6,712	1,937	12,433	2,933	2,359	2,514
66 Virginia Commonwealth U	48,175	1,236	2,341	6	151	42,593	1,129	719	0
67 Mississippi State U	46,528	20,914	1,405	2,162	1,418	17,460	2	1,818	1,349
68 SUNY at Albany	46,242	0	2,064	2,991	369	34,434	2,228	4,156	0
69 Washington State U	44,610	7,727	4,258	1,124	321	27,895	264	2,981	40
70 U of South Florida	42,005	5,106	557	11,034	123	21,731	2,908	546	0
Total, 1st 70 institutions	7,882,091	1,184,431	806,078	591,921	301,287	4,516,553	165,165	264,311	52,345
71 U MA Amherst	39,877	5,747	9,026	2,764	8,455	10,892	2,932	61	0
72 U of Nebraska at Lincoln	36,977	4,257	5,508	6,857	1,129	14,120	182	3,311	1,613
73 U of Rhode Island	36,207	2,645	686	20,105	76	7,132	3,951	351	1,261
74 University of Vermont	36,085	766	739	236	766	31,432	390	0	1,756
75 U of Alaska Fairbanks	34,647	2,404	16,116	8,091	138	6,254	0	1,644	0
76 University of Delaware	34,628	11,701	7,113	6,173	2,032	4,218	1,079	2,312	0
77 US Naval Postgrad School	33,308e	8,850i	2,087i	8,029i	6,937i	0i	0i	4,564i	2,841i
78 Med U of South Carolina	30,997	0	0	0	0	30,997	0	0	0
79 U of New Hampshire	30,586	2,889	1,932	18,008	386	4,541	1,087	1,614	129
80 Temple University	29,734	171	1,264	40	162	21,570	2,229	4,298	0
Total, 1st 80 institutions	8,225,137	1,223,861	850,549	662,224	321,368	4,647,709	177,015	282,466	59,945
81 Kansas State University	28,102	4,526	6,181	203	589	14,633	360	921	689
82 University of Oregon	27,336	516	6,503	2,021	3,219	12,169	1,819	1,089	0
83 Clemson University	27,064	8,331	1,648	259	898	14,718	31	1,064	115
84 Auburn University	27,058	11,392	1,984	341	275	9,971	699	521	1,875
85 U Arkansas Medical Sci	26,392	0	0	0	0	26,392	0	0	0
86 West Virginia University	26,264	10,188	2,872	1,439	251	10,603	216	29	666
87 Montana St U Bozeman	26,231	4,306	5,718	420	350	12,751	0	1,675	1,011
88 U of Alabama Huntsville	25,166	8,556	6,235	4,198	5,024	241	0	14	898
89 U CA Santa Cruz	25,084	2,318	8,250	5,945	1,611	5,603	564	787	6
90 U of Nevada Reno	24,587	1,687	3,774	4,787	168	12,467	766	625	313
Total, 1st 90 institutions	8,488,421	1,275,681	893,714	681,837	333,753	4,767,257	181,470	289,191	65,518

See explanatory information and SOURCE at end of table.

**Table B-43. Federally financed R&D expenditures at public universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
91 University of Idaho	24,263	3,243	735	2,046	74	16,173	72	619	1,301
92 U PR Mayaguez Campus	23,784	2,153	1,291	2,916	246	17,154	0	24	0
93 Oklahoma State University	23,179	5,706	2,586	349	500	9,637	328	2,840	1,233
94 NJ Inst of Technology	21,127	11,162	1,958	4,014	1,636	0	0	78	2,279
95 SUNY Hlth Sci Ctr Brklyn	21,053	0	0	0	0	21,053	0	0	0
96 Florida A&M University	20,693	3,647	2,017	1,331	1,920	11,778	0	0	0
97 University of Houston	20,443	5,423	4,872	84	2,343	5,220	1,951	548	2
98 Texas Tech University	20,242	6,861	2,700	1,386	766	5,595	139	2,356	439
99 U CA Riverside	19,994	2,141	4,966	2,681	230	7,511	1,985	480	0
100 San Diego St University	19,724	1,155	2,163	1,058	588	10,643	2,391	170	1,556
Total, 1st 100 institutions	8,702,923	1,317,172	917,002	697,702	342,056	4,872,021	188,336	296,306	72,328
Total, all other sampled institutions	964,206	196,411	137,242	125,080	51,811	334,283	32,001	59,474	27,904

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-44. R&D expenditures at private universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
Total, all institutions	8,860,831	1,214,093	925,077	333,688	489,822	5,357,930	119,720	279,647	140,854
1 Johns Hopkins U ¹	874,518	225,813	121,817	44,700	95,352	356,575	3,383	7,760	19,118
2 Stanford University	426,549	114,272	54,521	8,260	22,026	216,764	4,103	6,603	0
3 MA Institute of Tech	420,306	153,789	92,189	23,494	39,199	66,924	1,080	8,908	34,723
4 Cornell University	395,552	49,641	79,447	4,170	20,317	222,855	6,372	12,750	0
5 U of Pennsylvania	383,569	13,911	24,775	762	9,778e	302,186	3,470	25,405	3,282
6 Duke University	348,274	14,650	17,061	7,629	2,872	290,206	4,276	11,580	0
7 Harvard University	326,193	4,960	30,424	14,089	3,060	221,419	4,548	33,073	14,620
8 Washington University	315,606	8,930	10,457	4,385	9,399	277,281	1,692	2,877	585
9 U of Southern California	280,741	42,148	10,415	12,095	58,796	145,206	3,987	6,437	1,657
10 Columbia U in City of NY	279,587	15,645	21,500	44,003	5,892	184,913	2,735	4,899	0
Total, 1st 10 institutions	4,050,895	643,759	462,606	163,587	266,691	2,284,329	35,646	120,292	73,985
11 Yale University	274,050	6,763	18,596	1,967	4,765	236,121	3,625	2,213	0
12 Baylor Col of Medicine	272,198	0	0	0	0	272,198	0	0	0
13 Northwestern University	233,809	42,618	18,142	666	4,136	146,887	1,911	6,569	12,880
14 California Inst of Tech	212,216	40,470	108,136	14,611	11,260	26,791	0	2,228	8,720
15 Emory University	189,170	0	6,304	0	856	179,929	1,008	1,073	0
16 Case Western Reserve U	182,332	26,239	6,525	283	489	143,074	662	5,060	0
17 University of Rochester	177,126	41,864	13,049	559	3,280	110,841	6,276	1,241	16
18 New York University	167,179	0	5,775	242	11,611	136,329	4,944	5,979	2,299
19 University of Chicago	162,805	0	34,942	5,966	2,487	108,200	2,393	8,780	37
20 Vanderbilt University	149,675	9,764	14,698	296	822	117,715	2,262	4,118	0
Total, 1st 20 institutions	6,071,455	811,477	688,773	188,177	306,397	3,762,414	58,727	157,553	97,937
21 Carnegie Mellon U	142,174	38,676	8,586	1,731	62,589	12,076	6,300	9,101	3,115
22 Boston University	141,102	16,110	11,945	3,775	3,245	94,478	2,465	1,868	7,216
23 University of Miami	139,608	1,368	2,354	28,452	259	97,838	5,914	3,423	0
24 Mt Sinai Sch Med	127,765	0	0	0	0	127,765	0	0	0
25 Princeton University	124,237	39,080	28,018	10,630	7,125	19,429	5,246	14,709	0
26 Rockefeller Univ, The	121,519	0	3,579	0	2,225	115,715	0	0	0
27 Yeshiva University	111,771	0	0	0	0	111,771	0	0	0
28 Georgetown University	111,426	0	5,473e	35e	91e	98,480e	472e	6,816e	59e
29 Tufts University	101,728	7,346	3,843	1,155	1,526	81,075	2,747	4,036	0
30 Tulane University	87,324	6,224	2,653	487	467	72,140	566	1,777	3,010
Total, 1st 30 institutions	7,280,109	920,281	755,224	234,442	383,924	4,593,181	82,437	199,283	111,337
31 Wake Forest University	82,827	0	1,188	0	162	81,220	0	0	257
32 Thomas Jefferson U	78,410	0	0	0	0	78,410	0	0	0
33 Brown University	76,330	9,529	8,027	5,535	12,037	34,242	2,236	4,724	0
34 Woods Hole Oceanogr Inst	71,722	12,999	0	58,723	0	0	0	0	0
35 Dartmouth College	69,522	7,365	3,149	727	2,289	53,543	1,216	772	461
36 George Washington U	66,757	8,781	1,952	104	13,931	23,269	541	6,461	11,718
37 Medical Col of Wisconsin	61,446	0	0	0	0	61,446	0	0	0
38 Rush University	60,957	0	0	0	0	58,166	2,791	0	0
39 Brandeis University	48,305	0	3,800	0	1,324	20,127	1,372	21,682	0
40 Rice University	41,069	7,960	10,698	3,969	13,305	4,722	271	144	0
Total, 1st 40 institutions	7,937,454	966,915	784,038	303,500	426,972	5,008,326	90,864	233,066	123,773
41 Syracuse University	39,640	9,157	6,924	1,189	12,111	4,522	1,873	2,796	1,068
42 Rensselaer Polytech Inst	39,034	28,275	5,484	893	1,924	2,102	29	177	150
43 University of Dayton	36,937	33,386	2,166	220	177	251	369	3	365
44 University of Notre Dame	30,483	8,872	13,360	0	1,415	5,310	974	552	0
45 Northeastern University	30,209	13,118	6,722	0	1,887	6,183	1,368	931	0
46 Loyola U of Chicago	29,001	0	597	28	140	25,799	705	1,732	0
47 Lehigh University	27,902	22,190	3,276	1,152	312	752	146	74	0
48 Saint Louis University	27,817	0	4	520	57	27,118	27	1	90
49 MCP Hahnemann Univ	27,516	0	0	0	0	27,254	151	111	0
50 C R Drew U of Med & Sci	24,484	0	0	0	0	24,484	0	0	0
Total, 1st 50 institutions	8,250,477	1,081,913	822,571	307,502	444,995	5,132,101	96,506	239,443	125,446

See explanatory information and SOURCE at end of table.

**Table B-44. R&D expenditures at private universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
51 Eastern VA Med School	24,096	0	0	0	0	24,096	0	0	0
52 Brigham Young University	23,985	6,329	2,760	148	1,355	3,285	533	2,072	7,503
53 Howard University	23,557	2,182	4,479	60	1,410	13,457	987	956	26
54 Drexel University	22,397	17,351	1,432	309	1,984	0	0	1,321	0
55 Boston College	21,726	0	6,377	547	9,700	2,138	327	2,637	0
56 New York Medical College	20,436	0	0	0	0	20,436	0	0	0
57 OR Grad Inst Sci & Tech	19,818	2,988	3,517	3,759	9,519	0	0	35	0
58 Clark Atlanta University	19,467	3,237i	3,441i	5,390i	3,610i	3,025i	0i	764i	0i
59 Loma Linda University	18,818	0	0	0	0	18,818	0	0	0
60 Mercer University	17,250	13,928	888	0	133	2,288	7	6	0
Total, 1st 60 institutions	8,462,027	1,127,928	845,465	317,715	472,706	5,219,644	98,360	247,234	132,975
61 Creighton University	16,015	0	171	48	4	15,725	0	67	0
62 Stevens Inst of Tech	13,794	7,696	2,128	1,222	658	0	0	2,090	0
63 Morehouse School of Med	13,622	0	0	0	0	13,622	0	0	0
64 Illinois Inst of Tech	13,438	4,955	1,826	0	321	6,290	46	0	0
65 Catholic U of America	13,317	2,642	7,987	0	0	979	1,221	480	8
66 Inst of Paper Sci & Tech	10,533e	5,310i	4,358i	0i	0i	865i	0i	0i	0i
67 Albany Medical College	10,377	0	0	0	0	10,377	0	0	0
68 University of Denver	10,247	1,858	3,389	0	200	839	1,743	2,218	0
69 University of Tulsa	10,040	6,074	2,083	415	449	879	110	30	0
70 Worcester Polytech Inst	9,618	7,463	800	0	1,033	320	0	2	0
Total, 1st 70 institutions	8,583,028	1,163,926	868,207	319,400	475,371	5,269,540	101,480	252,121	132,983
71 Meharry Medical College	9,460	0	0	320	7	9,133	0	0	0
72 Southern Methodist U	9,401	2,527	1,100	2,672	1,002	1,419	126	284	271
73 Rochester Inst of Tech	9,340e	1,025e	4,283e	1,094e	0	2,830e	0	0	108e
74 Tuskegee University	9,223	940	173	0	0	6,248	0	1,862	0
75 Polytechnic University	9,050	7,035	390	0	1,625	0	0	0	0
76 Johnson C Smith U	8,659	302i	8,056i	0i	152i	0i	0i	149i	0i
77 Hampton University	7,472	392	5,463	1,517	100	0	0	0	0
78 Teachers Col, Columbia U	7,206	0	0	0	300	421	2,250	4,235	0
79 Clarkson University	6,989	5,222	1,226	0	295	133	113	0	0
80 Finch U Hlth Sci Chicago	6,764	0	0	0	0	6,534	230	0	0
Total, 1st 80 institutions	8,666,592	1,181,369	888,898	325,003	478,852	5,296,258	104,199	258,651	133,362
81 Marquette University	6,469	2,483	1,226	0	297	2,097	58	308	0
82 Alfred University	5,857	5,857	0	0	0	0	0	0	0
83 Florida Inst of Tech	5,830	2,280	923	982	865	608	172	0	0
84 Harvey Mudd College	5,699e	1,541i	865i	58i	206i	2,461i	41i	236i	291i
85 Wesleyan University	5,373	0	1,883	228	86	2,140	842	194	0
86 New School University	5,230	0	0	0	0	692	175	4,363	0
87 Radcliffe College	4,948	346i	1,491i	250i	227i	1,790i	206i	580i	58i
88 Wellesley College	4,943i	0i	972i	0i	225i	2,696i	0i	1,050i	0i
89 U Ctrl Del Caribe Esc Med	4,660	0	0	0	0	4,660	0	0	0
90 Grinnell College	4,300	429i	929i	36i	315i	1,669i	53i	868i	1i
Total, 1st 90 institutions	8,719,901	1,194,305	897,187	326,557	481,073	5,315,071	105,746	266,250	133,712

See explanatory information and SOURCE at end of table.

**Table B-44: R&D expenditures at private universities and colleges
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
91 Texas Christian U	4,061	281	820	41	21	58	2,794	46	0
92 Fisk University	4,034	0	2,851	0	250	368	454	111	0
93 Villanova University	3,950	2,189	720	0	85	705	126	125	0
94 Bryn Mawr College	3,929	0	1,146	387	475	804	467	650	0
95 Xavier University of LA	3,294	0	311	0	0	508	0	0	2,475
96 Fordham University	3,134	0	68	106	35	1,065	587	1,273	0
97 Nova Southeastern U	3,106	0	0	1,860	0	25	1,165	56	0
98 Ponce School of Medicine	3,105	0	0	0	0	3,105	0	0	0
99 American University	2,987	0	1,135	0	261	288	143	1,160	0
100 Hampshire College	2,900	880	234	17	197	309	387	874	2
Total, 1st 100 institutions	8,754,401	1,197,655	904,472	328,968	482,397	5,322,306	111,869	270,545	136,189
Total, all other sampled institutions	106,430	16,438	20,605	4,720	7,425	35,624	7,851	9,102	4,665

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-45. Federally financed R&D expenditures at private universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
Total, all institutions	6,379,668	924,690	805,273	277,899	397,522	3,713,916	89,782	116,540	54,046
1 Johns Hopkins U ¹	770,580	221,320	119,458	42,057	94,697	281,249	3,237	5,355	3,207
2 Stanford University	353,947	98,864	49,719	6,041	20,070	174,195	3,420	1,638	0
3 MA Institute of Tech	308,921	110,676	89,506	20,150	30,753	49,466	832	2,328	5,210
4 U of Pennsylvania	279,013	10,598	22,655	66	7,986	227,734	3,380	5,942	652
5 Harvard University	266,019	4,624	29,956	13,424	2,955	183,218	3,953	13,426	14,463
6 Columbia U in City of NY	240,158	13,450	20,581	40,712	5,631	153,549	2,488	3,747	0
7 Cornell University	234,792	31,243	64,965	2,565	13,603	115,982	2,327	4,107	0
8 Washington University	218,598	5,819	7,644	2,779	6,647	191,983	1,439	2,232	55
9 Yale University	213,404	4,723	16,174	1,780	4,071	183,022	2,450	1,184	0
10 U of Southern California	199,619	32,688	8,099	8,698	48,576	94,480	3,705	2,927	446
Total, 1st 10 institutions	3,085,051	534,005	428,757	138,272	234,989	1,654,878	27,231	42,886	24,033
11 California Inst of Tech	195,303	37,675	103,926	14,141	10,907	26,077	0	966	1,611
12 Duke University	186,757	11,002	14,936	3,921	2,225	143,274	3,836	7,563	0
13 Baylor Col of Medicine	141,111	0	0	0	0	141,111	0	0	0
14 Case Western Reserve U	140,178	17,695	5,413	223	317	114,553	466	1,511	0
15 University of Chicago	135,720	0	32,554	4,617	2,226	91,591	1,289	3,443	0
16 University of Rochester	132,852	36,235	12,076	474	3,156	75,975	4,036	900	0
17 Emory University	132,816	0	4,845	0	449	126,500	615	407	0
18 Northwestern University	132,647	30,446	12,193	537	2,514	82,942	1,595	1,915	505
19 Boston University	123,390	14,767	11,472	3,095	3,071	80,675	2,364	1,118	6,828
20 Vanderbilt University	116,887	6,595	13,027	250	707	91,369	1,774	3,165	0
Total, 1st 20 institutions	4,522,712	688,420	639,199	165,530	260,561	2,628,945	43,206	63,874	32,977
21 New York University	111,124	0	4,288	114	8,625	89,173	3,907	3,334	1,683
22 University of Miami	101,883	937	2,236	25,455	168	63,869	5,829	3,389	0
23 Carnegie Mellon U	90,408	24,272	5,804	229	41,873	6,249	4,026	6,464	1,491
24 Yeshiva University	89,680	0	0	0	0	89,680	0	0	0
25 Mt Sinai Sch Med	84,624	0	0	0	0	84,624	0	0	0
26 Georgetown University	83,972	0	4,372	31	65	76,707	423	2,372	2
27 Princeton University	72,974	22,316	20,381	6,696	3,793	13,148	4,080	2,560	0
28 Tufts University	63,618	3,634	2,684	103	1,104	54,020	1,489	584	0
29 Wake Forest University	60,293	0	782	0	152	59,351	0	0	8
30 Woods Hole Oceanogr Inst	59,534	9,297	0	50,237	0	0	0	0	0
Total, 1st 30 institutions	5,340,822	748,876	679,746	248,395	316,341	3,165,766	62,960	82,577	36,161
31 Thomas Jefferson U	56,369	0	0	0	0	56,369	0	0	0
32 Tulane University	50,779	3,138	1,376	384	395	41,482	476	1,306	2,222
33 George Washington U	49,944	7,506	1,608	94	13,388	15,349	390	1,498	10,111
34 Medical Col of Wisconsin	47,087	0	0	0	0	47,087	0	0	0
35 Dartmouth College	46,741	5,526	2,243	457	1,710	35,707	428	489	181
36 Brown University	45,276	5,250	4,179	3,748	8,071	21,568	1,396	1,064	0
37 Rockefeller Univ, The	45,010	0	2,055	0	266	42,689	0	0	0
38 Rice University	35,012	5,547	8,674	3,784	12,834	3,809	250	114	0
39 Rush University	31,119	0	0	0	0	30,034	1,085	0	0
40-University of Dayton	30,755	28,403	1,609	215	95	125	308	0	0
Total, 1st 40 institutions	5,778,914	804,246	701,490	257,077	353,100	3,459,985	67,293	87,048	48,675
41 Syracuse University	30,050	6,941	5,249	901	9,181	3,428	1,420	2,120	810
42 Brandeis University	29,423	0	2,807	0	1,194	14,534	1,301	9,587	0
43 Saint Louis University	23,722	0	0	429	53	23,239	0	1	0
44 University of Notre Dame	23,614	7,012	11,755	0	1,136	2,801	696	214	0
45 Rensselaer Polytech Inst	22,803	14,857	4,455	778	1,509	1,008	0	146	50
46 Northeastern University	22,776	9,835	5,036	0	1,466	4,934	1,026	479	0
47 C R Drew U of Med & Sci	22,212	0	0	0	0	22,212	0	0	0
48 Howard University	21,658	1,946	4,226	60	1,314	12,248	980	878	6
49 Loyola U of Chicago	17,588	0	359	26	133	15,904	622	544	0
50 MCP Hahnemann Univ	17,281	0	0	0	0	17,039	133	109	0
Total, 1st 50 institutions	6,010,041	844,837	735,377	259,271	369,086	3,577,332	73,471	101,126	49,541

See explanatory information and SOURCE at end of table.

**Table B-45. Federally financed R&D expenditures at private universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
51 OR Grad Inst Sci & Tech	15,303	1,515	3,214	3,034	7,522	0	0	18	0
52 Boston College	14,492	0	4,708	465	6,879	1,219	262	959	0
53 New York Medical College	14,029	0	0	0	0	14,029	0	0	0
54 Lehigh University	13,161	9,152	2,127	1,060	115	574	129	4	0
55 Morehouse School of Med	12,948	0	0	0	0	12,948	0	0	0
56 Drexel University	12,914	10,620	1,131	255	846	0	0	62	0
57 Mercer University	12,657	11,608	337	0	0	712	0	0	0
58 Loma Linda University	12,217	0	0	0	0	12,217	0	0	0
59 Clark Atlanta University	12,116	2,171 i	2,295 i	3,340 i	1,406 i	2,563 i	0 i	341 i	0 i
60 Brigham Young University	11,414	4,701	2,036	129	863	2,481	46	931	227
Total, 1st 60 institutions	6,141,292	884,604	751,225	267,554	386,717	3,624,075	73,908	103,441	49,768
61 Eastern VA Med School	11,354	0	0	0	0	11,354	0	0	0
62 Catholic U of America	11,064	2,056	7,042	0	0	763	1,131	64	8
63 Illinois Inst of Tech	9,777	3,931	760	0	295	4,781	10	0	0
64 Meharry Medical College	9,192	0	0	320	7	8,865	0	0	0
65 University of Denver	9,081	1,503	2,841	0	155	765	1,660	2,157	0
66 Johnson C Smith U	8,659	302 i	8,056 i	0 i	152 i	0 i	0 i	149 i	0 i
67 Albany Medical College	7,437	0	0	0	0	7,437	0	0	0
68 Hampton University	7,168	392	5,159	1,517	100	0	0	0	0
69 Stevens Inst of Tech	7,084	4,443	1,041	177	416	0	0	1,007	0
70 Tuskegee University	6,942	687	151	0	0	4,907	0	1,197	0
Total, 1st 70 institutions	6,229,050	897,918	776,275	269,568	387,842	3,662,947	76,709	108,015	49,776
71 Southern Methodist U	6,387	1,030	618	2,609	605	1,247	80	198	0
72 University of Tulsa	5,272	2,305	1,699	307	360	540	54	7	0
73 Creighton University	4,929	0	168	48	0	4,711	0	2	0
74 Finch U Hlth Sci Chicago	4,860	0	0	0	0	4,647	213	0	0
75 Polytechnic University	4,595	3,404	195	0	996	0	0	0	0
76 U Ctrl Del Caribe Esc Med	4,345	0	0	0	0	4,345	0	0	0
77 Worcester Polytech Inst	4,292	2,662	596	0	745	287	0	2	0
78 Teachers Col, Columbia U	4,119	0	0	0	281	342	1,504	1,992	0
79 Clarkson University	3,694	2,498	718	0	253	112	113	0	0
80 Wesleyan University	3,640	0	1,406	138	2	1,318	687	89	0
Total, 1st 80 institutions	6,275,183	909,817	781,675	272,670	391,084	3,680,496	79,360	110,305	49,776
81 Villanova University	3,470	1,921 i	633 i	0	75 i	619 i	111 i	111 i	0
82 Marquette University	3,416	857	796	0	172	1,441	21	129	0
83 Inst of Paper Sci & Tech	3,398 e	1,151 i	2,247 i	0 i	0 i	0 i	0 i	0 i	0 i
84 Texas Christian U	3,257	106	310	35	13	3	2,790	0	0
85 Xavier University of LA	3,240	0	311	0	0	508	0	0	2,421
86 Ponce School of Medicine	2,960	0	0	0	0	2,960	0	0	0
87 Fisk University	2,846	0	2,524	0	211	55	0	56	0
88 American University	2,735	0	1,123	0	257	288	134	933	0
89 Florida Inst of Tech	2,735	1,195	519	294	344	383	0	0	0
90 Rochester Inst of Tech	2,690	223	1,195	213	0	1,054	0	0	5
Total, 1st 90 institutions	6,305,930	915,270	791,333	273,212	392,156	3,687,807	82,416	111,534	52,202

See explanatory information and SOURCE at end of table.

**Table B-45. Federally financed R&D expenditures at private universities and colleges,
by science and engineering field: fiscal year 1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total	Engi- neering	Physical sciences	Environ- mental sciences	Math & computer sciences	Life sciences	Psy- chology	Social sciences	Other sciences
91 Clark University	2,651	1,506	877	0	10	104	136	18	0
92 Nova Southeastern U	2,637	0	0	1,458	0	2	1,165	12	0
93 Radcliffe College	2,361	91 i	934 i	156 i	80 i	818 i	144 i	120 i	18 i
94 Wellesley College	2,304 i	0 i	455 i	0 i	103 i	1,287 i	0 i	459 i	0 i
95 Gallaudet University	2,264	0	0	0	0	137	788	1,339	0
96 Morehouse College	1,843	0	263	0	63	954	257	94	212
97 Spelman College	1,832	0	1,047	0	10	737	34	4	0
98 Fordham University	1,725	0	0	72	0	517	581	555	0
99 Ithaca College	1,607	0	44	0	1,307	190	66	0	0
100 Duquesne University	1,531	0	389	0	75	1,006	30	31	0
Total, 1st 100 institutions	6,326,685	916,867	795,342	274,898	393,804	3,693,559	85,617	114,166	52,432
Total, all other sampled institutions	52,983	7,823	9,931	3,001	3,718	20,357	4,165	2,374	1,614

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-46. Total and federally financed R&D expenditures at historically black colleges and universities: fiscal years 1996-1999

[Dollars in thousands]

Page 1 of 2

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	254,697	293,024	290,369	263,508	216,331	248,440	254,256	222,262
1 Howard University	23,557	23,673	27,873	28,894	21,658	21,501	25,884	26,253
2 Florida A&M University	21,622	19,066	25,415	22,474	20,693	15,726	22,547	20,118
3 Clark Atlanta University	19,467	29,637	28,893	34,566	12,116	24,079	25,943	25,345
4 NC A&T State University	14,741	14,816	15,817	15,991	12,454	12,924	13,362	12,521
5 Morehouse School of Med	13,622	13,614	13,218	13,206	12,948	12,461	12,099	11,747
6 Alabama A&M University	11,562	14,143	9,813e	9,615i	8,558	10,518	8,423e	8,249i
7 Tennessee State U	10,762	9,329	8,629	9,137	8,522	7,978	7,569	7,983
8 Prairie View A&M U	10,157	9,952	9,768	10,621	8,675	9,612	9,315	10,325
9 Meharry Medical College	9,460	11,212e	11,212e	11,212	9,192	11,004e	11,004e	11,004
10 Southern U A&M All Camp ...	9,296	9,063	10,249	10,748	6,689	6,983	7,774	7,724
Total, 1st 10 institutions	144,246	154,505	160,887	166,464	121,505	132,786	143,920	141,269
11 Tuskegee University	9,223	37,354	33,046	9,061	6,942	26,894	29,930	8,231
12 Jackson State University	8,823	6,111	5,135	5,224	7,925	5,326	3,960	4,702
13 Johnson C Smith U	8,659	4,299	1,546	1,307	8,659	4,299	1,546	1,083
14 Hampton University	7,472	7,140	8,002	3,854	7,168	6,801	7,777	3,854
15 Alcorn State University	5,223	5,119	4,243i	3,368	5,223	5,119	4,242i	3,365
16 U Arkansas Pine Bluff	4,151e	4,151	3,974	3,424	2,911e	2,911	2,838	2,747
17 Fisk University	4,034	2,909	1,969e	1,969	2,846	2,909	1,969e	1,969
18 University of DC	3,394	3,074	3,244e	3,244	1,829	1,898	1,756e	1,756
19 U of the Virgin Islands	3,310	4,828e	4,828e	4,828	1,957	2,428e	2,428e	2,428
20 Xavier University of LA	3,294	5,388	5,527	5,188	3,240	5,355	5,473	5,106
Total, 1st 20 institutions	201,829	234,878	232,401	207,931	170,205	196,726	205,839	176,510
21 Norfolk State University	2,995	2,524	1,401	2,239	2,970	2,442	1,388	2,187
22 Fort Valley State U	2,937	2,989	2,863	2,474	2,318	2,359	2,471	2,338
23 South Carolina State U	2,900	2,885	2,855	3,000	1,978	1,968	1,948	1,910
24 Morehouse College	2,853	592e	592e	592	1,843	591e	591e	591
25 Delaware State University	2,765	2,883	1,947	2,071	2,055	2,734	1,833	1,787
26 Lincoln University	2,686	3,313	2,899	2,970	2,686	2,635i	2,584	2,681
27 Bowie State University	2,675	4,511	2,672	49	2,360	4,403	2,672	49
28 Virginia State University	2,611	3,338	3,988	3,270	2,061	2,792	3,453	2,735
29 U MD Eastern Shore	2,508	2,265	2,187	1,980	2,508	2,265	2,187	1,980
30 Texas Southern U	2,507	2,690	3,867	3,820	2,292	2,504	3,707	3,474
Total, 1st 30 institutions	229,266	262,868	257,672	230,396	193,276	221,419	228,673	196,242
31 Langston University	2,340	2,031	1,828	2,521	2,340	2,031	1,828	2,521
32 Spelman College	2,007	1,744	2,553	1,084	1,832	1,700	1,282	988
33 Grambling State U	1,997e	1,997	2,634	1,455	1,936e	1,936	2,630	1,450
34 Winston Salem State U	1,712	2,468	2,034	1,406	1,619	1,898	1,874	1,246
35 Central State University	1,497e	1,497	1,786e	1,786	1,144e	1,144	1,153i	1,162i
36 Alabama State University	1,365	1,177	818	1,000	1,190	1,133	787	970
37 Tougaloo College	1,227	1,180	1,815	1,710i	767	657	929	867i
38 Morgan State University	1,066	3,981	3,873i	3,768i	1,066	3,960	3,825i	3,691i
39 Le Moyne-Owen Coll	1,053	1,451	--	--	1,031	1,404	--	--
40 Elizabeth City State U	1,040	684	1,379	1,098	1,040	575	1,146	753
Total, 1st 40 institutions	244,570	281,078	276,392	246,224	207,241	237,857	244,127	209,890
41 Albany State University	1,019e	1,019	3,687e	3,687e	1,019e	1,019	675e	675e
42 Lincoln University (PA)	972	1,364	1,032	1,135	972	1,364	949	1,135
43 North Carolina Central U	825e	869	869e	852i	777e	786i	795i	804i
44 Bennett College	811e	811	93e	93	583e	583	93e	93i
45 Kentucky State University	713e	713	2,139	2,773	703e	703	2,139	2,761
46 Virginia Union University	671e	671	--	--	537e	537	--	--
47 Benedict College	634i	634i	634e	634	552i	552i	552i	552i
48 Bethune Cookman College ...	583	566	606	451	583	566	472	333
49 Oakwood College	567	845	718	371	447	690	716	371
50 Claflin College	555	1,403	1,254	764	250	1,028	1,074	474
Total, 1st 50 institutions	251,920	289,973	287,424	256,984	213,664	245,685	251,592	217,088

See explanatory information and SOURCE at end of table.

Table B-46. Total and federally financed R&D expenditures at historically black colleges and universities: fiscal years 1996-1999

[Dollars in thousands]

Page 2 of 2

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 Morris Brown College	525 i	525e	525	3,652	525 i	525e	525	2,422
52 Savannah State Univ	513	331	316	317	513	331 i	316	317
53 Mississippi Valley St U	495	350	563	586	495	350	563	586
54 Wilberforce University	280 i	280e	280	323	236 i	236e	236	323
55 Fayetteville State U	265	485	139	503	265	378	139	503 i
56 Dillard University	175	175e	175	314	164	164e	164	314
57 Selma University	116	210e	210	250	116	210e	210	250
58 Rust College	114	317	0	0	114	317	0	0
59 Shaw University	100	110	147	115	100	110	122	115
60 Philander Smith College	72	73e	73	73	72	73e	73	73
Total, 1st 60 institutions	254,575	292,829	289,852	263,117	216,264	248,379	253,940	221,991
61 Jarvis Christian College	56	55	83	102	56	55	83	102
62 West Virginia State Col	55	119	256	10	0	0	196	10
63 Coppin State College	11	6	15	116	11	6	15	116
64 Bluefield State College	0	15	--	--	0	0	--	--
65 Knoxville College	0	0	163e	163	0	0	22 i	43 i
66 Talladega College	0	0e	0	0	0	0 i	0	0
67 Trenholm State Tech Col	0	0	0	0	0	0	0	0
68 Wiley College	0	0	--	0	0	--	--	--
69 Voorhees College	--	--	0	0	--	--	0	0
Total, 1st 69 institutions	254,697	293,024	290,369	263,508	216,331	248,440	254,256	222,262

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-47. Total and federally financed R&D expenditures in engineering
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	4,257,121	4,068,713	3,847,314	3,706,948	2,438,273	2,353,638	2,258,757	2,232,174
1 Johns Hopkins U ¹	225,813	216,973	204,860	213,465	221,320	212,747	200,568	209,128
2 Georgia Institute of Tech	172,053	165,472	164,359	149,412	73,638	72,542	76,996	76,917
3 MA Institute of Tech	153,789	178,664	166,049	164,816	110,676	127,064	125,617	112,703
4 Pennsylvania State U	138,455	142,907	130,431	138,718	80,195	85,368	79,149	90,452
5 University of Michigan	131,570	109,219	113,193	108,668	83,573	68,083	67,125	65,291
6 Stanford University	114,272	116,364	116,322	101,741	98,864	102,752	104,139	89,558
7 Texas A&M University	108,249	108,306	96,936	97,848	31,065	27,986	31,835	32,278
8 U CA Berkeley	107,062	99,697	88,331	69,000	51,323	48,225	37,062	35,130
9 U TX at Austin	95,987	81,547	108,658	101,222	61,383	46,499	73,615	65,877
10 U of Illinois Urbana-Cham	91,373	87,557	63,113	61,712	53,912	51,751	38,292	35,736
Total, 1st 10 institutions	1,338,623	1,306,706	1,252,252	1,206,602	865,949	843,017	834,398	813,070
11 NC State University	80,586	80,278	70,033	61,709	27,008	33,161	26,624	27,946
12 Ohio State University	77,090	70,275	65,260	61,403	20,467	18,760	18,521	18,412
13 U MD at College Park	76,548	67,267	67,188	65,537	42,645	38,734	33,368	33,374
14 Purdue University	70,106	68,096	65,009	62,490	36,509	34,899	34,032	32,428
15 U WI-Madison	57,663	56,512	55,671	53,094	34,501	34,042	34,233	32,616
16 VA Polytech Inst & St U	53,530	48,844	49,254	39,562	25,584	25,000	27,629	22,086
17 Cornell University	49,641	44,687	44,522	44,724	31,243	28,416	27,116	29,517
18 U CA San Diego	47,725	46,169	33,055	31,373	25,273	27,585	19,434	23,959
19 New Mexico State Univ	47,632	46,187	47,136	42,742	38,257	37,487	39,249	36,132
20 University of Florida	46,186	48,621	38,296	32,000	20,227	21,735	17,426	16,988
Total, 1st 20 institutions	1,945,330	1,883,642	1,787,676	1,701,236	1,167,663	1,142,836	1,112,030	1,086,528
21 U CA Los Angeles	46,108	42,967	34,411	28,509	29,527	28,171	22,732	21,352
22 University of Arizona	43,094	42,394	22,777	20,896	25,320	24,232	12,231	12,466
23 Northwestern University	42,618	42,636	30,502	28,402	30,446	27,047	17,076	17,925
24 U of Southern California	42,148	38,686	42,701	36,933	32,688	30,530	32,964	30,032
25 University of Rochester	41,864	38,158	36,633	31,104	36,235	34,243	31,597	27,679
26 California Inst of Tech	40,470	35,630	32,158	29,238	37,675	31,536	29,158	26,507
27 Iowa State University	40,019	40,370	41,721	42,150	13,207	14,229	17,942	19,036
28 Princeton University	39,080	35,805	35,120	36,447	22,316	20,707	21,719	22,847
29 Carnegie Mellon U	38,676	34,363	30,575	32,827	24,272	23,142	20,330	19,500
30 University of Minnesota	38,564	37,595	38,689	34,080	24,055	24,122	24,508	21,388
Total, 1st 30 institutions	2,357,971	2,272,246	2,132,963	2,021,822	1,443,404	1,400,795	1,342,287	1,305,260
31 Louisiana State U System	37,781	35,605	36,918	34,767	15,326	13,535	13,844	12,889
32 U CA Santa Barbara	37,147	34,985	34,363	37,759	27,670	26,427	25,746	32,039
33 U of Washington	34,889	34,277	32,716	31,787	21,875	21,927	20,333	17,843
34 Arizona State University	34,378	32,745	27,720	28,147	13,841	12,501	10,755	9,826
35 University of Dayton	33,386	41,418	40,719	37,150	28,403	34,141	33,438	30,375
36 Utah State University	32,083	33,933	25,469	24,219	27,360	29,337	18,843	17,793
37 Mississippi State U	30,713	22,862	17,868	18,056	20,914	15,833	13,863	13,058
38 Clemson University	30,583	26,584	26,549	26,066	8,331	8,315	8,876	8,636
39 SUNY at Buffalo	29,946	27,690	22,156	23,367	14,579	14,129	13,538	15,074
40 U CA Davis	29,528	27,726	19,880	17,349	10,069	10,216	6,996	8,187
Total, 1st 40 institutions	2,688,405	2,590,071	2,417,321	2,300,489	1,631,772	1,587,156	1,508,519	1,470,980
41 Rutgers the State U NJ	29,097	25,908	21,065	24,686	12,867	11,517	10,772	11,645
42 Rensselaer Polytech Inst	28,275	23,963	27,369	26,694	14,857	11,925	15,900	17,267
43 U of Tennessee System	27,772	27,827	31,024	27,444	11,676	12,855	13,301	11,854
44 University of Kentucky	27,478	25,174	21,118	19,565	10,140	9,871	10,408	7,283
45 University of New Mexico	26,998	27,243	30,964	36,001	21,305	20,093	22,742	23,927
46 University of Delaware	26,908	23,408	22,717	17,369	11,701	10,647	10,574	9,468
47 Case Western Reserve U	26,239	28,340	28,436	25,625	17,695	18,166	19,105	16,825
48 University of Colorado	26,187	28,935	31,608	30,788	15,925	16,824	17,669	16,142
49 University of Cincinnati	25,453	21,569	18,705	17,898	12,801	11,992	10,894	10,978
50 University of Virginia	24,276	22,490	19,678	19,355	16,824	14,551	13,103	13,284
Total, 1st 50 institutions	2,957,088	2,844,928	2,670,005	2,545,914	1,777,563	1,725,597	1,652,987	1,609,627

See explanatory information and SOURCE at end of table.

Table B-47. Total and federally financed R&D expenditures in engineering at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 University of Connecticut	23,793	24,166	34,110	34,200	6,041	5,564	5,971	7,253
52 CA St U Long Beach	23,439 i	13,961 i	4,394 e	4,394 i	8,987 i	6,381 i	3,775 e	3,775 i
53 Lehigh University	22,190	20,354	20,065	27,915	9,152	8,842	10,204	17,526
54 U of Nebraska at Lincoln	22,112	20,029 i	19,732	15,424	4,257	3,771 i	3,715	3,295
55 University of Utah	21,816	19,174	18,968	18,482	13,405	12,197	12,338	12,866
56 U of South Carolina	21,578	17,116	12,003	18,469	12,595	10,545	7,534	12,632
57 West Virginia University	20,601	18,923	14,102	13,042	10,188	9,472	7,636	7,986
58 Auburn University	20,575	17,239	17,287	18,579	11,392	10,644	11,017	12,270
59 U of Iowa	20,409	21,888	18,169	19,965	8,495	8,642	7,118	8,885
60 U of Missouri Columbia	20,312	16,606	16,712	13,235	6,105	4,254	4,131	3,290
Total, 1st 60 institutions	3,173,913	3,034,384	2,845,547	2,729,619	1,868,180	1,805,909	1,726,426	1,699,405
61 NJ Inst of Technology	19,714	19,714	19,510	17,937	11,162	11,162	12,138	11,203
62 Michigan Tech University	18,896	16,959	15,714	14,801	9,581	8,166	8,140	7,492
63 U of Missouri Rolla	18,277	15,086	14,573	13,896	6,141	5,439	5,754	5,762
64 University of Houston	17,661	19,097	23,311	25,212	5,423	7,783	8,718	11,920
65 Drexel University	17,351	12,867	13,317	12,650	10,620	8,025	8,230	8,685
66 U of Alabama Huntsville	16,887	14,387	12,149	14,156	8,556	7,260	6,603	8,862
67 NM Inst Mining & Tech	16,835	15,526	14,451	13,890	7,807	5,878	7,018	4,513
68 Michigan State University	16,673	17,837	18,764	17,733	4,913	5,096	5,987	5,254
69 Texas Tech University	16,384	16,221	13,498	10,294	6,861	6,628	5,092	3,223
70 Boston University	16,110	14,969	12,878	8,639	14,767	10,610	9,361	6,508
Total, 1st 70 institutions	3,348,701	3,197,047	3,003,712	2,878,827	1,954,011	1,881,956	1,803,467	1,772,827
71 Columbia U in City of NY	15,645	14,901	14,114	12,866	13,450	11,438	9,254	7,663
72 University of Oklahoma	15,592	14,008	15,554	15,564	3,176	3,264	4,066	4,380
73 U MA Amherst	15,146	16,264	14,212	10,685	5,747	5,894	5,100	5,294
74 University of IL Chicago	15,107	12,979	11,892	10,546	5,696	5,007	4,451	4,740
75 Oklahoma State University	14,655	12,899	11,294	19,411	5,706	5,604	5,355	9,277
76 Duke University	14,650	13,710	12,327	10,666	11,002	10,155	8,005	7,015
77 Colorado School of Mines	14,578	14,296	13,486	14,406	5,967	4,977	5,522	7,028
78 Oregon State University	14,440	14,178	14,133	17,305	9,648	9,364	8,922	11,552
79 Washington State U	14,288	12,321	10,525	10,576	7,727	6,982	5,447	5,982
80 Mercer University	13,928	11,561	10,397 i	10,451	11,608	11,140	9,856 i	9,939
Total, 1st 80 institutions	3,496,730	3,334,164	3,131,646	3,011,303	2,033,738	1,955,781	1,869,445	1,845,697
81 U of Pennsylvania	13,911	12,785	11,740	12,564	10,598	10,123	8,609	9,514
82 Colorado State University	13,670	17,998	16,207	17,406	6,430	8,653	8,267	7,940
83 Kansas State University	13,356	12,972	12,825	11,376	4,526	5,110	5,231	4,755
84 Univ of Alabama, The	13,241	11,474	11,377	10,084	9,939	8,518	7,249	6,356
85 Northeastern University	13,118	11,274	8,280	7,617	9,835	8,960	6,318	6,252
86 University of Kansas	13,085	13,751	10,076	8,108	5,799	7,674	4,664	3,771
87 Woods Hole Oceanogr Inst	12,999	12,016	15,891	14,313	9,297	9,096	12,389	11,486
88 U of South Florida	12,902	15,728	16,671	16,501	5,106	6,284	5,458	6,612
89 U CA Irvine	12,461	11,658	10,709	13,048	4,787	4,288	4,474	6,411
90 Wichita State University	11,369	10,531	9,223	8,004	1,723	1,686	1,677	1,265
Total, 1st 90 institutions	3,626,842	3,464,351	3,254,645	3,130,324	2,101,778	2,026,173	1,933,781	1,910,059

See explanatory information and SOURCE at end of table.

**Table B-47. Total and federally financed R&D expenditures in engineering
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 Florida State University	11,237	3,170	2,650	1,635	7,431	1,966	1,798	889
92 SUNY at Stony Brook	11,047	10,083	8,856	7,600	6,410	6,498	5,325	4,197
93 Wayne State University	10,823	10,633	10,768	9,439	2,925	2,613	3,025	2,875
94 University of Idaho	10,635	8,878	8,685 i	8,477	3,243	1,413	1,851 i	1,751
95 Florida International U	10,359	8,906	8,648	8,396	8,984	7,470	7,253	7,034
96 Old Dominion University	10,056	7,933	6,446	6,267	6,196	5,542	4,021	3,927
97 Florida Atlantic U	10,035	8,643	6,485	7,018	8,146	6,920	5,399	4,788
98 Vanderbilt University	9,764	7,529	8,441	8,903	6,595	4,669	6,426	6,586
99 U Arkansas Main	9,638	11,576	9,220	9,096	3,896	4,714	3,816	3,980
100 Ohio University	9,548	9,236	9,984	10,174	5,188	4,949	5,150	4,827
Total, 1st 100 institutions	3,729,984	3,550,938	3,334,828	3,207,329	2,160,792	2,072,927	1,977,845	1,950,913
Total, all other sampled institutions	527,137	517,775	512,486	499,619	277,481	280,711	280,912	281,261

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-48. R&D expenditures in engineering subfields
at universities and colleges: fiscal year 1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total	Aero/ astro- nautical	Bioengin- eering/ Biomed- ical	Chemical	Civil	Elec- trical	Mechan- ical	Metal- lurgical and materials	Other
Total, all institutions	4,257,121	260,343	137,036	349,669	528,830	1,019,659	625,444	384,796	951,344
1 Johns Hopkins U ¹	225,813	21,647i	7,243i	5,538i	5,720i	66,118i	46,423i	1,265i	71,859i
2 Georgia Institute of Tech	172,053	15,506	851	5,852	11,179	82,654	22,853	9,473	23,685
3 MA Institute of Tech	153,789	15,446	10,484	14,840	15,211	24,539	30,684	12,435	30,150
4 Pennsylvania State U	138,455	3,193	2,048	4,712	8,686	35,512	22,396	38,611	23,297
5 University of Michigan	131,570	4,566	4,164	2,404	11,822	41,670	22,771	5,068	39,105
6 Stanford University	114,272	6,290	0	6,901	6,389	29,916	18,175	2,225	44,376
7 Texas A&M University	108,249	4,578	9	8,858	40,308	5,072	12,782	4,188	32,454
8 U CA Berkeley	107,062	0	6	3,687	31,800	51,487	128	6	19,948
9 U TX at Austin	95,987	18,684	2,045	8,265	14,524	13,489	22,852	13,165	2,963
10 U of Illinois Urbana-Cham	91,373	4,151	1	5,219	13,994	29,563	16,291	10,700	11,454
Total, 1st 10 institutions	1,338,623	94,061	26,851	66,276	159,633	380,020	215,355	97,136	299,291
11 NC State University	80,586	3,659	9,071	13,954	10,512	13,150	8,005	9,020	13,215
12 Ohio State University	77,090	3,628	798	4,605	5,259	10,412	7,983	14,140	30,265
13 U MD at College Park	76,548	9,788	0	1,183	6,151	13,640	11,421	6,169	28,196
14 Purdue University	70,106	5,852	6,730	5,833	10,312	16,397	9,239	3,756	11,987
15 U WI-Madison	57,663	0	0	7,124	2,764	9,156	2,406	2,979	33,234
16 VA Polytech Inst & St U	53,530	3,691	936	2,670	9,669	14,157	9,966	3,222	9,219
17 Cornell University	49,641	4,762	0	2,554	5,011	15,694	1,091	3,831	16,698
18 U CA San Diego	47,725	0	6,735	0	0	19,961	4,629	904	15,496
19 New Mexico State Univ	47,632	22,972	0	7,282	1,481	5,442	934	48	9,473
20 University of Florida	46,186	2,899	470	5,689	10,175	4,977	2,388	7,029	12,559
Total, 1st 20 institutions	1,945,330	151,312	51,591	117,170	220,967	503,006	273,417	148,234	479,633
21 U CA Los Angeles	46,108	0	19	2,520	2,388	23,568	14,303	2,949	361
22 University of Arizona	43,094	817	1,991	4,652	6,716	13,858	10,665	2,505	1,890
23 Northwestern University	42,618	0	1,398	2,787	3,560	5,190	2,774	13,330	13,579
24 U of Southern California	42,148	2,313	2,599	1,666	4,031	23,422	1,485	2,137	4,495
25 University of Rochester	41,864	0	0	1,024	0	2,772	31,176	0	6,892
26 California Inst of Tech	40,470	4,517	0	4,195	717	9,741	2,933	1,252	17,115
27 Iowa State University	40,019	1,705	0	1,146	5,846	6,383	1,392	1,224	22,323
28 Princeton University	39,080	6,930	0	2,661	3,715	19,006	0	6,579	189
29 Carnegie Mellon U	38,676	0	0	3,384	2,476	11,929	3,657	5,634	11,596
30 University of Minnesota	38,564	3,561	766	11,419	7,016	6,694	6,532	0	2,576
Total, 1st 30 institutions	2,357,971	171,155	58,364	152,624	257,432	625,569	348,334	183,844	560,649
31 Louisiana State U System	37,781	0	0	2,971	5,677	904	3,505	8,840	15,884
32 U CA Santa Barbara	37,147	0	288	4,766	0	20,052	2,698	9,164	179
33 U of Washington	34,889	2,312	3,207	5,237	5,742	2,835	1,456	14,100	0
34 Arizona State University	34,378	171	1,225	2,991	6,170	10,986	7,863	0	4,972
35 University of Dayton	33,386	1,461	0	677	179	817	10,600	13,886	5,766
36 Utah State University	32,083	0	0	0	791	29,399	956	0	937
37 Mississippi State U	30,713	1,666	1	1,627	1,106	3,142	1,575	0	21,596
38 Clemson University	30,583	0	0	1,040	5,421	6,035	3,572	0	14,515
39 SUNY at Buffalo	29,946	534	450	1,385	10,833	2,905	9,266	0	4,573
40 U CA Davis	29,528	0	4,182	4,322	8,430	4,004	4,806	0	3,784
Total, 1st 40 institutions	2,688,405	177,299	67,717	177,640	301,781	706,648	394,631	229,834	632,855
41 Rutgers the State U NJ	29,097	0	870	2,602	1,757	5,698	5,808	9,576	2,786
42 Rensselaer Polytech Inst	28,275	4	1,469	2,417	4,778	12,257	1,735	2,365	3,250
43 U of Tennessee System	27,772	6,463	0	2,872	6,744	3,133	0	1,722	6,838
44 University of Kentucky	27,478	0	0	1,945	288	1,566	1,793	0	21,886
45 University of New Mexico	26,998	0	0	2,428	5,611	6,924	1,099	8,853	2,083
46 University of Delaware	26,908	0	0	6,871	5,024	5,420	4,940	0	4,653
47 Case Western Reserve U	26,239	0	4,992	5,878	753	5,187	3,814	5,513	102
48 University of Colorado	26,187	8,591e	0e	2,925e	4,819	6,893	2,504	144e	311
49 University of Cincinnati	25,453	2,075	0	1,724	8,183	6,814	2,702	2,644	1,311
50 University of Virginia	24,276	656	2,230	1,442	2,433	4,167	4,889	7,044	1,415
Total, 1st 50 institutions	2,957,088	195,088	77,278	208,744	342,171	764,707	423,915	267,695	677,490

See explanatory information and SOURCE at end of table.

**Table B-48. R&D expenditures in engineering subfields
at universities and colleges: fiscal year 1999**

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total	Aero/ astro- nautical	Bioengin- eering/ Biomed- ical	Chemical	Civil	Elec- trical	Mechan- ical	Metal- lurgical and materials	Other
51 University of Connecticut	23,793	0	0	316	8,537	3,321	1,636	9,569	414
52 CA St U Long Beach	23,439i	17,603i	0i	395i	1,210i	1,603i	114i	0i	2,514i
53 Lehigh University	22,190	0	0	3,436	5,236	3,601	3,087	3,609	3,221
54 U of Nebraska at Lincoln	22,112	0	7,944	790	3,760	2,214	1,715	1,163	4,526
55 University of Utah	21,816	0	2,729	4,937	6,935	1,976	1,834	2,843	562
56 U of South Carolina	21,578	0	0	6,071	1,098	9,547	2,679	832	1,351
57 West Virginia University	20,601	0	0	1,250	5,664	2,139	7,624	121	3,803
58 Auburn University	20,575	926	0	3,660	1,809	2,486	2,160	1,274	8,260
59 U of Iowa	20,409	0	789	1,564	5,928	1,546	6,610	0	3,972
60 U of Missouri Columbia	20,312	35	0	2,714	3,939	4,528	1,527	2,323	5,246
Total, 1st 60 institutions	3,173,913	213,652	88,740	233,877	386,287	707,338	452,901	239,429	711,359
61 NJ Inst of Technology	19,714	0	0	1,145	2,019	2,450	603	0	13,497
62 Michigan Tech University	18,896	0	390	3,157	5,201	1,426	4,829	2,724	1,169
63 U of Missouri Rolla	18,277	48	0	330	1,686	3,859	3,163	6,757	2,434
64 University of Houston	17,661	2,049	0	2,106	1,481	1,975	2,761	7,129	160
65 Drexel University	17,351	0	1,397	660	4,718	3,012	783	2,619	4,162
66 U of Alabama Huntsville	16,887	0	0	2,365	642	5,052	5,421	594	2,813
67 NM Inst Mining & Tech	16,835	0	0	4,884	0	156	0	1,277	10,518
68 Michigan State University	16,673	0	0	5,083	3,034	2,472	2,517	1,393	2,174
69 Texas Tech University	16,384	0	0	1,031	4,462	6,151	1,071	2,346	1,323
70 Boston University	16,110	715	7,919	0	0	4,470	716	2,243	47
Total, 1st 70 institutions	3,348,701	216,464	98,446	254,638	409,530	828,691	474,765	316,511	749,656
71 Columbia U in City of NY	15,645	0	530	1,154	714	1,770	851	1,723	8,903
72 University of Oklahoma	15,592	0	0	6,475	3,311	2,445	1,813	0	1,548
73 U MA Amherst	15,146	0	0	3,232	2,861	4,948	3,725	0	380
74 University of IL Chicago	15,107	0	0	1,269	2,493	5,637	3,530	0	2,178
75 Oklahoma State University	14,655	289	0	1,301	1,473	1,900	2,424	8	7,260
76 Duke University	14,650	0	5,238	0	524	5,278	3,610	0	0
77 Colorado School of Mines	14,578	0	0	4,375	0	0	0	7,832	2,371
78 Oregon State University	14,440	58	417	349	4,005	2,716	1,287	1,191	4,417
79 Washington State U	14,288	0	0	911	2,524	4,228	1,542	1,567	3,516
80 Mercer University	13,928	405	0	274	0	336	915	11,527	471
Total, 1st 80 institutions	3,496,730	217,216	104,631	273,978	427,435	857,949	494,462	340,359	780,700
81 U of Pennsylvania	13,911	0	1,718	1,789	515	1,140	1,679	3,721	3,349
82 Colorado State University	13,670	0	0	2,243	4,473	2,299	4,014	0	641
83 Kansas State University	13,356	0	0	2,019	1,934	495	1,989	0	6,919
84 Univ of Alabama, The	13,241	2,816	0	3,037	514	316	1,162	3,401	1,995
85 Northeastern University	13,118	0	0	2,311	209	6,650	949	0	2,999
86 University of Kansas	13,085	630	0	2,238	1,952	6,995	362	0	908
87 Woods Hole Oceanogr Inst	12,999	922i	0i	938i	1,007i	3,154i	2,903i	0i	4,075i
88 U of South Florida	12,902	0	0	593	7,760	2,944	721	509	375
89 U CA Irvine	12,461	0	0	2,243	4,031	2,461	3,612	0	114
90 Wichita State University	11,369	9,378	0	0	0	238	774	0	979
Total, 1st 90 institutions	3,626,842	230,962	106,349	291,389	449,830	884,641	512,627	347,990	803,054

See explanatory information and SOURCE at end of table.

**Table B-48. R&D expenditures in engineering subfields
at universities and colleges: fiscal year 1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total	Aero/ astro- nautical	Bioengin- eering/ Biomed- ical	Chemical	Civil	Elec- trical	Mechan- ical	Metal- lurgical and materials	Other
91 Florida State University	11,237	0	0	239	1,107	521	9,155	170	45
92 SUNY at Stony Brook	11,047	0	168	0	0	2,309	3,484	4,760	326
93 Wayne State University	10,823	0	1,924	1,526	878	1,728	2,424	13	2,330
94 University of Idaho	10,635	0	0	287	736	1,769	649	1,906	5,288
95 Florida International U	10,359	6	114	0	740	1,578	6,185	3	1,733
96 Old Dominion University	10,056	1,988	0	0	486	3,847	1,522	21	2,192
97 Florida Atlantic U	10,035	0	0	0	0	1,793	345	0	7,897
98 Vanderbilt University	9,764	0	686	624	755	5,131	2,007	561	0
99 U Arkansas Main	9,638	0	0	887	2,237	3,509	719	0	2,286
100 Ohio University	9,548	4,308	0	1,473	1,274	1,083	609	84	717
Total, 1st 100 institutions	3,729,984	237,264	109,241	296,425	458,042	907,909	539,726	355,508	825,868
Total, all other sampled institutions	527,137	23,079	27,795	53,244	70,787	111,750	85,718	29,288	125,476

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-49. Federally financed R&D expenditures in engineering subfields at universities and colleges: fiscal year 1999

[Dollars in thousands]

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Institution and ranking	Total	Aero/astro-nautical	Bioengineering/Biomedical	Chemical	Civil	Electrical	Mechanical	Metal-lurgical and materials	Other
Total, all institutions	2,438,273	182,926	72,318	179,421	216,207	651,605	387,784	217,950	530,062
1 Johns Hopkins U ¹	221,320	21,218	5,654	4,953	4,760	65,977	45,912	1,032	71,814
2 MA Institute of Tech	110,676	14,550	8,373	9,200	10,847	17,098	19,338	8,961	22,309
3 Stanford University	98,884	5,416	0	5,896	4,675	25,206	14,852	1,717	41,102
4 University of Michigan	83,573	3,450	1,265	1,574	7,777	29,874	13,318	3,296	23,019
5 Pennsylvania State U	80,195	1,718	1,459	1,522	1,122	23,932	13,595	22,233	14,614
6 Georgia Institute of Tech	73,638	6,636	384	2,505	4,784	35,376	9,781	4,055	10,137
7 U TX at Austin	61,383	17,148	1,025	4,185	595	9,639	20,302	7,440	1,049
8 U of Illinois Urbana-Cham	53,912	3,178	0	3,108	7,691	18,247	9,308	7,594	4,786
9 U CA Berkeley	51,323	0	0	1,973	7,193	32,633	0	0	9,524
10 U MD at College Park	42,645	6,525	0	902	3,408	10,858	5,068	4,052	11,832
Total, 1st 10 institutions	877,529	79,839	18,140	35,818	52,852	268,840	151,474	60,380	210,186
11 New Mexico State Univ	38,257	20,355	0	6,497	546	4,355	540	0	5,984
12 California Inst of Tech	37,675	4,132	0	3,297	608	9,477	2,882	1,113	16,166
13 Purdue University	36,509	3,438	1,750	2,390	5,778	11,380	3,104	2,988	5,671
14 University of Rochester	36,235	0	0	935	0	2,414	29,047	0	3,839
15 U WI-Madison	34,501	0	0	3,966	1,372	5,842	1,314	2,081	19,926
16 U of Southern California	32,688	1,679	2,364	1,127	2,702	18,687	1,309	1,841	2,979
17 Cornell University	31,243	2,921	0	1,587	2,398	9,574	722	2,281	11,760
18 Texas A&M University	31,065	2,372	0	1,867	9,037	1,411	2,945	206	13,227
19 Northwestern University	30,446	0	821	1,658	2,443	4,167	1,796	10,049	9,512
20 U CA Los Angeles	29,527	0	0	1,569	647	15,331	10,757	1,223	0
Total, 1st 20 institutions	1,215,675	114,736	23,075	60,711	78,383	351,478	205,890	82,172	299,230
21 University of Dayton	28,403	1,033	0	677	160	451	8,548	12,568	4,966
22 U CA Santa Barbara	27,670	0	0	3,794	0	15,485	1,935	6,456	0
23 Utah State University	27,360	0	0	0	306	26,260	647	0	147
24 NC State University	27,008	1,671	1,869	4,554	2,184	5,458	2,933	3,750	4,589
25 VA Polytech Inst & St U	25,584	2,538	290	658	4,313	6,877	6,414	1,245	3,249
26 University of Arizona	25,320	561	840	2,596	4,841	7,977	6,217	1,442	846
27 U CA San Diego	25,273	0	5,159	0	0	11,076	2,920	630	5,488
28 Carnegie Mellon U	24,272	0	0	1,845	1,697	8,637	2,054	3,426	6,613
29 University of Minnesota	24,055	3,102	73	8,599	2,431	4,880	4,122	0	848
30 Princeton University	22,316	4,442	0	1,366	1,996	9,618	0	4,894	0
Total, 1st 30 institutions	1,472,936	128,083	31,306	84,800	96,311	448,197	241,680	116,583	325,976
31 U of Washington	21,875	2,140	1,717	2,642	3,037	2,025	478	9,836	0
32 University of New Mexico	21,305	0	0	2,116	4,177	5,985	744	6,967	1,316
33 Mississippi State U	20,914	866	0	433	252	1,957	842	0	16,564
34 Ohio State University	20,467	839	228	785	1,311	3,556	3,563	5,210	4,975
35 University of Florida	20,227	1,668	0	2,114	3,290	2,629	1,214	3,638	5,674
36 Case Western Reserve U	17,695	0	3,107	3,118	598	3,520	3,231	4,121	0
37 University of Virginia	16,824	588	1,284	1,065	1,571	3,089	2,288	5,949	990
38 University of Colorado	15,925	5,502e	0e	1,804e	3,345	3,157	1,890	132e	95
39 Louisiana State U System	15,326	0	0	819	1,124	206	772	2,230	10,175
40 Rensselaer Polytech Inst	14,857	0	933	1,387	1,407	5,700	1,233	1,593	2,604
Total, 1st 40 institutions	1,658,351	139,686	38,575	101,083	116,423	480,021	257,935	156,259	368,369
41 Boston University	14,767	696	7,215	0	0	4,005	697	2,107	47
42 SUNY at Buffalo	14,579	0	0	557	4,985	465	7,920	0	652
43 Arizona State University	13,841	102	526	2,316	2,392	4,135	3,439	0	931
44 Columbia U in City of NY	13,450	0	422	37	266	1,661	706	1,563	8,795
45 University of Utah	13,405	0	1,332	4,169	3,131	529	1,539	2,226	479
46 Iowa State University	13,207	1,273	0	565	1,584	1,531	556	688	7,010
47 Rutgers the State U NJ	12,867	0	115	546	84	2,072	4,627	3,826	1,597
48 University of Cincinnati	12,801	938	0	524	5,419	4,124	766	931	99
49 U of South Carolina	12,595	0	0	2,677	560	7,205	1,223	288	842
50 University of Delaware	11,701	0	0	3,473	2,182	1,796	2,221	0	2,029
Total, 1st 50 institutions	1,791,564	142,695	48,185	115,947	137,026	507,544	281,629	167,888	390,650

See explanatory information and SOURCE at end of table.

Table B-49. Federally financed R&D expenditures in engineering subfields at universities and colleges: fiscal year 1999

[Dollars in thousands]

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Institution and ranking	Total	Aero/astro-nautical	Bioengineering/Biomedical	Chemical	Civil	Electrical	Mechanical	Metal-lurgical and materials	Other
51 U of Tennessee System	11,676	2,292	0	2,028	1,886	2,499	0	1,081	1,890
52 Mercer University	11,608	195	0	274	0	336	914	9,586	303
53 Auburn University	11,392	802	0	1,239	1,027	1,742	1,579	780	4,223
54 NJ Inst of Technology	11,162	0	0	563	1,089	559	119	0	8,832
55 Duke University	11,002	0	4,159	0	216	4,126	2,501	0	0
56 Drexel University	10,620	0	715	365	2,383	2,005	566	1,191	3,395
57 U of Pennsylvania	10,598	0	1,270	1,282	0	844	1,489	2,766	2,947
58 West Virginia University	10,188	0	0	265	3,331	1,129	3,470	25	1,968
59 University of Kentucky	10,140	0	0	993	152	1,089	1,138	0	6,768
60 U CA Davis	10,069	0	723	2,472	1,207	1,731	1,080	0	2,856
Total, 1st 60 institutions	1,900,019	145,984	55,052	125,428	148,317	523,604	294,485	183,317	423,832
61 Univ of Alabama, The	9,939	2,541	0	2,900	357	239	547	2,082	1,273
62 Northeastern University	9,835	0	0	2,056	161	5,160	647	0	1,811
63 Oregon State University	9,648	58	369	285	2,865	1,696	481	460	3,434
64 Michigan Tech University	9,581	0	21	747	4,016	905	2,231	1,529	132
65 Woods Hole Oceanogr Inst ...	9,297	663i	0i	723i	730i	2,430i	1,803i	0i	2,948i
66 Lehigh University	9,152	0	0	982	1,123	2,607	1,331	2,602	507
67 CA St U Long Beach	8,987i	8,361i	0i	213i	317i	0i	96i	0i	0i
68 Florida International U	8,984	6	0	0	377	1,571	5,814	0	1,216
69 US Naval Postgrad School ...	8,850i	2,928i	0i	0i	0i	3,621i	1,782i	519i	0i
70 U of Alabama Huntsville	8,556	0	0	859	414	2,491	3,124	239	1,429
Total, 1st 70 institutions	1,992,848	160,541	55,442	134,193	158,677	544,324	312,341	190,748	436,582
71 U of Iowa	8,495	0	135	873	2,175	968	2,261	0	2,083
72 Clemson University	8,331	0	0	283	1,477	1,644	973	0	3,954
73 Florida Atlantic U	8,146	0	0	0	0	1,463	157	0	6,526
74 NM Inst Mining & Tech	7,807	0	0	1,454	49	0	0	137	6,167
75 NC A&T State University	7,756	0	0	711	1,408	1,542	2,790	0	1,305
76 Washington State U	7,727	0	0	775	1,580	1,986	883	1,105	1,398
77 George Washington U	7,506	1,492	0	53	25	1,973	1,650	0	2,313
78 Florida State University	7,431	0	0	173	513	112	6,492	131	10
79 University of Notre Dame	7,012	1,578	0	1,586	1,179	2,634	0	0	35
80 Syracuse University	6,941	84	1,324	538	836	1,039	478	134	2,508
Total, 1st 80 institutions	2,070,000	163,695	56,901	140,639	167,870	557,734	328,025	192,255	462,881
81 Univ of North Dakota	6,892	0	0	18	33	81	0	0	6,760
82 Texas Tech University	6,861	0	0	215	2,409	3,605	295	127	210
83 Vanderbilt University	6,595	0	545	406	379	3,218	1,567	480	0
84 Colorado State University	6,430	0	0	1,193	2,368	1,593	892	0	384
85 SUNY at Stony Brook	6,410	0	0	0	0	1,619	1,997	2,794	0
86 Old Dominion University	6,196	1,064	0	0	261	3,216	804	0	851
87 U of Missouri Rolla	6,141	25	0	30	639	1,938	1,293	1,959	257
88 U of Missouri Columbia	6,105	0	0	630	2,085	1,282	577	0	1,531
89 University of Connecticut	6,041	0	0	151	986	1,244	1,062	2,429	169
90 Colorado School of Mines	5,967	0	0	2,162	0	0	0	2,241	1,564
Total, 1st 90 institutions	2,133,638	164,784	57,446	145,444	177,030	575,530	336,512	202,285	474,607

See explanatory information and SOURCE at end of table.

**Table B-49. Federally financed R&D expenditures in engineering subfields
at universities and colleges: fiscal year 1999**

[Dollars in thousands]

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Institution and ranking	Total	Aero/ astro- nautical	Bioengin- eering/ Biomed- ical	Chemical	Civil	Elec- trical	Mechan- ical	Metal- lurgical and materials	Other
91 Washington University	5,819	0	2,259	174	226	1,705	818	146	491
92 University of Kansas	5,799	229	0	872	1,064	3,457	177	0	0
93 U MA Amherst	5,747	0	0	1,170	429	2,546	1,477	0	125
94 Oklahoma State University	5,706	52	0	202	140	586	646	6	4,074
95 University of IL Chicago	5,696	0	0	601	598	2,864	1,487	0	146
96 Rice University	5,547	0	2,331	958	173	1,315	648	0	122
97 Dartmouth College	5,526	0	0	0	794	2,192	1,114	0	1,426
98 University of Houston	5,423	781	0	878	617	697	1,290	1,071	89
99 Univ of Hawaii at Manoa	5,269	0	0	0	724	2,194	875	125	1,351
100 Brown University	5,250	373i	0i	404i	415i	1,379i	1,017i	0i	1,662i
Total, 1st 100 institutions	2,189,420	166,219	62,036	150,703	182,210	594,465	340,001	203,633	464,093
Total, all other sampled institutions	248,853	16,707	10,282	28,718	33,997	57,140	41,723	14,317	45,969

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-50. R&D expenditures in the physical sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Astronomy	Chemistry	Physics	Other
Total, all institutions	2,599,686	2,482,819	2,361,551	2,255,729	389,306	915,075	1,142,322	152,983
1 Johns Hopkins U ¹	121,817	131,662	128,348	118,464	30,195	18,297	65,247	8,078
2 California Inst of Tech	108,136	86,036	83,752	75,331	42,732	16,310	45,343	3,751
3 U CA Berkeley	93,676	76,164	74,465	67,181	19,375	21,071	53,113	117
4 MA Institute of Tech	92,189	100,899	105,971	97,350	19,168	17,050	55,054	917
5 University of Arizona	83,227	71,248	83,110	84,643	70,423	8,524	4,280	0
6 Cornell University	79,447	60,854	54,955	50,239	24,140	14,132	38,721	2,454
7 U TX at Austin	65,875	83,029	51,871	50,515	8,768	11,159	44,967	981
8 Stanford University	54,521	58,555	62,903	53,574	0	11,835	4,777	37,909
9 U MD at College Park	53,959	50,105	54,987	56,690	7,137	8,330	26,869	11,623
10 U Illinois Urbana-Cham	48,846	45,258	39,270	42,032	5,851	19,426	23,569	0
Total, 1st 10 institutions	801,693	763,810	739,632	696,019	227,789	146,134	361,940	65,830
11 University of Colorado	48,157	45,369	40,041	40,795	25,702e	11,889	10,396	170e
12 U CA Los Angeles	41,873	36,402	32,665	24,079	3,494	13,158	25,023	198
13 Florida State University	41,417	50,612	54,209	41,672	0	9,395	31,861	161
14 U WI-Madison	39,757	38,814	37,401	38,439	3,656	12,383	17,694	6,024
15 Pennsylvania State U	37,420	25,966	25,055	25,164	3,583	15,962	15,964	1,911
16 U CA San Diego	36,154	37,948	35,297	39,637	9,491	10,725	14,206	1,732
17 University of Chicago	34,942	29,352	28,594	27,859	16,353	9,484	8,940	165
18 U of Alaska Fairbanks	32,102	14,507i	13,473i	13,752i	10,998i	3,138i	16,548i	1,418i
19 Michigan State University	31,712	30,143	28,738	27,871	0	6,106	25,606	0
20 Harvard University	30,424	27,527	22,040	25,245	3,837	14,112	10,456	2,019
Total, 1st 20 institutions	1,175,651	1,100,450	1,057,145	1,000,532	304,903	252,486	538,634	79,628
21 Texas A&M University	28,733	20,765	22,927	22,552	0	17,576	8,683	2,474
22 Princeton University	28,018	28,114	28,337	24,918	3,618	9,477	14,923	0
23 U of Washington	26,090	22,595	19,729	20,099	4,441	8,100	13,549	0
24 Indiana University	25,926	21,275	26,206	26,645	639	8,202	17,050	35
25 Univ of Hawaii at Manoa	24,828	26,192	19,855	18,436	20,757	1,892	2,179	0
26 U of Pennsylvania	24,775	24,546	26,132	24,478	0	10,994	13,781	0
27 SUNY at Stony Brook	24,363	23,978	21,382	22,815	1,710	7,240	15,406	7
28 Rutgers the State U NJ	22,632	20,261	19,797	18,396	0	11,543	11,089	0
29 U CA Santa Cruz	22,600	22,681	21,905	23,722	12,481	4,793	5,326	0
30 University of Michigan	21,915	23,072	22,831	19,179	7,155	7,744	6,509	507
Total, 1st 30 institutions	1,425,531	1,333,929	1,286,246	1,221,772	355,704	340,047	647,129	82,651
31 Columbia U in City of NY	21,500	24,154	21,789	20,537	2,957	7,377	2,108	9,058
32 University of Florida	21,498	21,774	16,453	14,689	1,596	11,034	8,275	593
33 U CA Santa Barbara	21,057	18,068	17,988	20,133	0	6,997	14,060	0
34 Purdue University	21,007	22,130	21,122	19,092	0	12,021	8,986	0
35 Arizona State University	19,937	19,916	17,559	18,962	202	8,782	4,579	6,374
36 Georgia Institute of Tech	19,539	21,968	20,384	17,984	0	8,919	10,620	0
37 Ohio State University	19,535	19,733	18,826	20,229	1,386	8,110	9,932	107
38 Yale University	18,596	17,397	15,988	15,853	793	7,329	10,474	0
39 Northwestern University	18,142	15,888	11,913	11,844	0	10,471	4,247	3,424
40 U MA Amherst	18,041	23,045	22,167	20,647	0	10,269	7,243	529
Total, 1st 40 institutions	1,624,383	1,538,002	1,470,435	1,401,742	362,638	431,356	727,653	102,736
41 University of Minnesota	17,382	17,404	17,439	15,922	2,516	7,241	7,625	0
42 U CA Irvine	17,328	17,542	18,224	20,496	0	10,036	7,240	52
43 Duke University	17,061	15,187	12,604	13,366	0	3,851	13,210	0
44 Louisiana State U System	16,153	13,540	13,576	11,141	0	8,350	6,982	821
45 U of NC Chapel Hill	15,851	11,750	10,360	9,760	0	8,583	7,268	0
46 NC State University	15,759	15,387	11,672	12,234	0	4,372	11,387	0
47 U of Iowa	14,766	15,049	17,241	14,860	1,126	3,505	10,135	0
48 Vanderbilt University	14,698	10,725	8,625	7,908	0	2,873	11,825	0
49 U CA Davis	14,193	13,053	11,208	10,505	0	5,010	4,892	4,291
50 University of Utah	13,983	11,105	12,085	9,512	0	9,359	4,624	0
Total, 1st 50 institutions	1,781,557	1,678,744	1,603,469	1,527,446	366,280	494,536	812,841	107,900

See explanatory information and SOURCE at end of table.

Table B-50. R&D expenditures in the physical sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Astronomy	Chemistry	Physics	Other
51 University of Notre Dame	13,360	13,158	11,382	11,532	0	9,006	4,354	0
52 University of Rochester	13,049	13,815	13,000	12,803	921	5,405	6,723	0
53 University of Oklahoma	12,958	12,401	10,382	9,675	0	10,225	2,733	0
54 University of Virginia	12,550	11,639	11,655	11,166	1,118	6,811	4,615	6
55 U of Tennessee System	12,404	11,586	11,130	11,203	0	4,333	8,071	0
56 U of South Carolina	12,078	11,655	8,906	9,968	0	7,727	4,351	0
57 Boston University	11,945	12,897	11,973	13,155	888	1,914	4,034	5,109
58 University of Kansas	11,388	10,356	9,862	8,645	0	8,800	2,153	435
59 Wayne State University	11,190	10,777	9,358	8,649	0	5,841	5,349	0
60 U of Central Florida	10,970	9,795	3,318	5,091	0	1,416	9,554	0
Total, 1st 60 institutions	1,903,449	1,796,823	1,704,435	1,629,333	369,207	556,014	864,778	113,450
61 Rice University	10,698	9,187	8,820	8,696	2,415	5,516	2,767	0
62 University of Pittsburgh	10,668	10,108	11,805	10,660	519	6,435	3,584	130
63 U of Nebraska at Lincoln	10,463	5,467	5,387	5,782	0	6,005	4,458	0
64 Washington University	10,457	8,942	8,967	8,368	0	5,323	5,134	0
65 U of Southern California	10,415	11,068	9,958	9,288	200	7,545	2,670	0
66 SUNY at Buffalo	10,338	10,913	7,801	8,038	0	7,347	2,395	596
67 University of Delaware	10,144	9,466	8,888	8,501	0	4,711	1,543	3,890
68 University of Georgia	9,866	10,061	9,416	9,601	0	6,266	3,600	0
69 Iowa State University	9,105	9,599	9,439	9,407	0	5,023	4,082	0
70 University of Houston	9,102	7,770	7,793	8,666	0	5,891	3,211	0
Total, 1st 70 institutions	2,004,705	1,889,404	1,792,709	1,716,340	372,341	616,076	898,222	118,066
71 University of New Mexico	8,679	10,518	7,409	6,257	0	2,648	5,448	583
72 U of Alabama Huntsville	8,624	6,447	8,320	8,906	0	1,708	6,916	0
73 Carnegie Mellon U	8,586	8,485	8,293	8,065	0	3,220	4,871	495
74 Colorado State University	8,514	10,450	8,943	8,126	0	6,401	2,081	32
75 University of IL Chicago	8,317	8,597	7,567	6,453	0	3,770	4,547	0
76 Johnson C Smith U	8,056 i	4,000	384	25	0 i	8,056 i	0 i	0 i
77 SUNY at Albany	8,051	6,201	4,638	4,139	0	1,354	6,697	0
78 VA Polytech Inst & St U	8,030	9,015	9,969	9,342	0	6,257	1,635	138
79 Brown University	8,027	8,005	9,050	8,791	0	3,638	4,389	0
80 Catholic U of America	7,987	5,094	4,842	4,141	0	995	2,248	4,744
Total, 1st 80 institutions	2,087,576	1,966,216	1,862,124	1,780,585	372,341	654,123	937,054	124,058
81 Kansas State University	7,916	7,348	7,766	5,734	0	2,521	5,395	0
82 University of Oregon	7,728	7,325	6,706	7,305	0	3,071	4,657	0
83 Montana St U Bozeman	7,279	6,682	4,918	7,223	0	3,180	4,099	0
84 Oklahoma State University	7,005	5,432	5,002	6,193	0	2,433	4,375	197
85 Syracuse University	6,924	5,975	5,393 i	5,231	0	2,671	4,123	130
86 U CA Riverside	6,883	6,516	5,616	5,475	0	4,028	2,855	0
87 Kent State University	6,844	8,213	7,055	8,013 i	0	369	1,042	5,433
88 CUNY City College	6,843	8,273	8,949	8,220	0	2,696	3,657	490
89 University of Akron	6,820	8,380	8,443	7,571	0	6,775	45	0
90 Northeastern University	6,722	6,158	4,572	3,717	0	2,566	4,156	0
Total, 1st 90 institutions	2,158,540	2,036,518	1,926,544	1,845,267	372,341	684,433	971,458	130,308

See explanatory information and SOURCE at end of table.

**Table B-50. R&D expenditures in the physical sciences at universities
and colleges: fiscal years 1996-1999 and by subfield for 1999**

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Astronomy	Chemistry	Physics	Other
91 Case Western Reserve U	6,525	8,183	5,978	5,451	228	4,379	1,918	0
92 Texas Tech University	6,401	5,435	4,823	4,571	0	4,483	1,918	0
93 Boston College	6,377	4,410	4,042	4,323	0	5,549	828	0
94 U of Nevada Las Vegas	6,374	5,308	4,739	3,047 ⁱ	152	591	1,573	4,058
95 Emory University	6,304	5,989	8,049	6,289	0	5,535	769	0
96 Clemson University	6,049	5,769	4,800	5,212	0	3,294	2,755	0
97 New York University	5,775	6,919	6,403	7,000	0	4,112	1,663	0
98 University of Kentucky	5,623	5,386	3,688	3,173	0	2,760	2,863	0
99 George Mason University	5,550	3,869	2,992	2,416	4,941	286	196	127
100 Rensselaer Polytech Inst	5,484	6,779	5,470 ⁱ	5,365	0	2,931	2,287	266
Total, 1st 100 institutions	2,219,002	2,094,565	1,977,528	1,892,114	377,662	718,353	988,228	134,759
Total, all other sampled institutions	380,684	388,254	384,023	363,615	11,644	196,722	154,094	18,224

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-51. Federally financed R&D expenditures in the physical sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Astronomy	Chemistry	Physics	Other
Total, all institutions	1,859,517	1,761,609	1,679,334	1,629,123	277,222	615,465	862,097	104,733
1 Johns Hopkins U ¹	119,458	129,077	124,228	115,030	28,864	17,961	64,556	8,077
2 California Inst of Tech	103,926	85,615	80,025	70,337	42,281	13,829	44,186	3,630
3 MA Institute of Tech	89,506	88,749	97,740	84,821	19,144	15,244	54,205	913
4 Cornell University	64,965	42,519	42,486	40,847	19,862	9,633	33,610	1,860
5 U CA Berkeley	55,380	41,521	44,972	48,383	3,523	14,195	37,628	34
6 University of Arizona	53,756	43,855	49,995	52,810	44,127	6,396	3,233	0
7 Stanford University	49,719	54,226	58,039	48,890	0	9,778	4,546	35,395
8 U TX at Austin	48,402	73,686	38,712	37,281	4,432	6,547	37,271	152
9 University of Colorado	35,611	30,826	24,307	24,514	16,995e	9,618	8,855	143e
10 U of Illinois Urbana-Cham	32,938	31,570	29,002	32,154	3,689	11,621	17,628	0
Total, 1st 10 institutions	653,661	621,644	589,506	555,067	182,917	114,822	305,718	50,204
11 U MD at College Park	32,933	31,953	28,373	29,390	6,073	4,580	16,990	5,290
12 University of Chicago	32,554	26,486	25,455	25,134	15,834	8,349	8,352	19
13 Harvard University	29,956	26,770	19,797	23,200	3,827	13,890	10,314	1,925
14 U WI-Madison	28,915	28,330	26,782	29,470	2,265	8,287	14,600	3,763
15 U CA Los Angeles	27,925	24,211	22,813	20,674	1,128	10,604	16,193	0
16 U CA San Diego	27,724	28,576	28,344	35,088	6,892	8,710	10,920	1,202
17 Pennsylvania State U	23,617	14,039	16,191	16,779	2,725	9,727	11,165	0
18 Florida State University	22,962	25,596	28,615	19,908	0	4,536	18,284	142
19 U of Pennsylvania	22,655	23,326	22,194	22,397	0	10,624	12,031	0
20 Michigan State University	20,998	19,658	18,594	17,951	0	3,969	17,029	0
Total, 1st 20 institutions	923,900	870,589	826,664	795,058	221,661	198,098	441,596	62,545
21 Columbia U in City of NY	20,581	21,098	19,636	17,757	2,931	6,899	2,063	8,688
22 Princeton University	20,381	19,863	20,299	18,380	1,723	6,092	12,566	0
23 U of Washington	19,299	16,608	13,804	14,935	2,224	5,578	11,497	0
24 Indiana University	17,701	17,336	20,317	20,317	289	5,733	11,674	5
25 University of Michigan	17,108	17,171	16,389	13,688	5,893	5,862	5,166	187
26 SUNY at Stony Brook	16,514	16,404	14,758	15,076	1,067	4,892	10,555	0
27 U CA Santa Barbara	16,479	13,938	14,601	17,661	0	5,364	11,115	0
28 Yale University	16,174	15,267	14,081	14,097	524	5,914	9,736	0
29 U of Alaska Fairbanks	16,116	7,805i	6,967i	7,518i	4,997i	713i	10,163i	243i
30 Duke University	14,936	12,906	10,770	11,461	0	2,187	12,749	0
Total, 1st 30 institutions	1,099,189	1,028,985	978,286	945,948	241,309	247,332	538,880	71,668
31 University of Minnesota	14,357	14,874	14,998	13,231	2,065	5,799	6,493	0
32 University of Florida	13,638	10,061	9,008	7,181	1,129	7,682	4,801	26
33 Purdue University	13,162	14,045	13,538	13,035	0	7,523	5,639	0
34 Vanderbilt University	13,027	9,043	7,273	6,985	0	2,499	10,528	0
35 Univ of Hawaii at Manoa	12,752	12,873	10,432	11,262	9,334	1,419	1,999	0
36 University of Utah	12,515	9,158	10,714	8,812	0	8,668	3,847	0
37 U of NC Chapel Hill	12,453	8,181	7,199	7,775	0	6,159	6,294	0
38 Rutgers the State U NJ	12,310	10,537	10,316	9,614	0	7,673	4,637	0
39 Northwestern University	12,193	10,954	8,592	8,677	0	8,126	3,404	663
40 U CA Irvine	12,187	12,479	12,916	16,247	0	7,289	4,898	0
Total, 1st 40 institutions	1,227,783	1,141,190	1,083,272	1,048,767	253,837	310,169	591,420	72,357
41 University of Rochester	12,076	12,645	12,123	12,030	886	4,901	6,289	0
42 Texas A&M University	11,842	11,139	12,435	13,688	0	5,571	5,301	970
43 Ohio State University	11,827	11,209	12,647	13,950	961	4,629	6,237	0
44 University of Notre Dame	11,755	11,410	9,684	9,944	0	7,998	3,757	0
45 U of Iowa	11,564	11,749	12,493	11,140	921	2,361	8,282	0
46 Boston University	11,472	10,550	9,855	9,903	886	1,756	3,882	4,948
47 University of Virginia	10,705	10,171	10,162	9,874	888	5,774	4,043	0
48 Arizona State University	9,978	9,996	8,939	9,740	0	4,035	3,341	2,602
49 U CA Davis	9,574	8,968	8,628	9,142	0	4,196	3,180	2,198
50 Louisiana State U System	9,094	8,015	7,221	6,057	0	5,085	4,009	0
Total, 1st 50 institutions	1,337,670	1,247,042	1,187,459	1,154,235	258,379	356,475	639,741	83,075

See explanatory information and SOURCE at end of table.

Table B-51. Federally financed R&D expenditures in the physical sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Astronomy	Chemistry	Physics	Other
51 U MA Amherst	9,026	13,750	14,079	13,024	0	4,921	4,105	0
52 University of Pittsburgh	9,009	8,348	9,787	9,267	515	5,270	3,109	115
53 Rice University	8,674	7,225	7,081	7,451	2,332	3,892	2,450	0
54 Georgia Institute of Tech	8,362	9,631	9,549	9,258	0	3,817	4,545	0
55 U CA Santa Cruz	8,250	8,323	8,210	12,064	1,882	3,133	3,235	0
56 U of Southern California	8,099	8,799	8,270	7,608	147	5,758	2,194	0
57 Johnson C Smith U	8,056 i	4,000	384	0	0 i	8,056 i	0 i	0 i
58 Washington University	7,644	6,770	7,178	6,272	0	3,921	3,723	0
59 U of Tennessee System	7,641	7,175	6,620	6,874	0	2,764	4,877	0
60 University of New Mexico	7,562	7,997	5,027	4,507	0	2,027	5,085	450
Total, 1st 60 institutions	1,419,993	1,329,060	1,263,644	1,230,560	263,255	400,034	673,064	83,640
61 University of Delaware	7,113	6,868	5,927	5,996	0	2,735	970	3,408
62 Catholic U of America	7,042	3,865	3,809	3,250	0	641	2,093	4,308
63 U of South Carolina	7,007	7,236	5,554	7,748	0	4,849	2,158	0
64 Colorado State University	6,706	7,529	7,538	6,502	0	5,072	1,630	4
65 University of Oregon	6,503	6,034	5,542	5,933	0	2,566	3,937	0
66 University of Oklahoma	6,383	6,079	4,932	4,516	0	4,817	1,566	0
67 NC State University	6,258	8,565	6,728	7,124	0	1,998	4,260	0
68 U of Alabama Huntsville	6,235	4,940	6,613	6,694	0	1,015	5,220	0
69 Kansas State University	6,181	5,819	5,109	4,804	0	1,870	4,311	0
70 Carnegie Mellon U	5,804	5,728	5,539	6,133	0	2,014	3,725	65
Total, 1st 70 institutions	1,485,225	1,391,723	1,320,935	1,289,260	263,255	427,611	702,934	91,425
71 Montana St U Bozeman	5,718	5,355	4,053	4,154	0	2,507	3,211	0
72 University of Kansas	5,693	5,484	4,642	4,010	0	4,335	1,352	6
73 CUNY City College	5,538	6,683	7,086	6,906	0	2,539	2,955	44
74 U of Nebraska at Lincoln	5,508	4,269 i	4,206	4,271	0	3,387	2,121	0
75 Kent State University	5,414	5,274	4,606	5,152 i	0	207	902	4,305
76 Case Western Reserve U	5,413	5,044	4,489	4,080	123	3,661	1,629	0
77 SUNY at Buffalo	5,312	5,380	4,571	5,124	0	4,045	955	312
78 Syracuse University	5,249	5,954	4,859 i	3,745	0	2,025	3,125	99
79 Hampton University	5,159	4,603	5,186	1,715	0	150	5,009	0
80 George Mason University	5,158	3,645	2,790	2,105	4,681	273	186	18
Total, 1st 80 institutions	1,539,387	1,443,414	1,367,423	1,330,522	268,059	450,740	724,379	96,209
81 Northeastern University	5,036	5,474	4,300	3,401	0	1,887	3,149	0
82 U CA Riverside	4,966	5,299	4,893	4,948	0	2,810	2,156	0
83 University of Houston	4,872	4,051	3,812	4,134	0	3,077	1,795	0
84 Emory University	4,845	4,701	5,808	4,468	0	4,162	683	0
85 University of IL Chicago	4,801	4,840	3,881	3,671	0	2,064	2,737	0
86 Boston College	4,708	3,420	3,064	3,147	0	4,120	588	0
87 Oregon State University	4,652	5,123	4,909	4,562	45	4,206	401	0
88 VA Polytech Inst & St U	4,607	4,852	5,634	5,232	0	3,271	1,248	88
89 Iowa State University	4,528	5,258	5,272	5,640	0	2,158	2,370	0
90 Rensselaer Polytech Inst	4,455	4,579	3,294 i	3,576	0	2,317	2,138	0
Total, 1st 90 institutions	1,586,857	1,491,011	1,412,290	1,373,301	268,104	480,812	741,644	96,297

See explanatory information and SOURCE at end of table.

Table B-51. Federally financed R&D expenditures in the physical sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 3 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Astronomy	Chemistry	Physics	Other
91 Wayne State University	4,399	4,376	4,167	3,479	0	3,489	910	0
92 Georgetown University	4,372	3,364	3,530	3,828	0	4,137	235	0
93 New York University	4,288	3,557	3,773	3,544	0	2,741	1,547	0
94 Washington State U	4,258	3,615	3,222	3,738	0	2,209	2,049	0
95 Howard University	4,226	3,519	6,352	5,007	2,989	1,214	0	23
96 Brown University	4,179	4,117	4,983	5,362	0	1,909	2,270	0
97 U MA Lowell	4,108	4,506	5,067	4,626	0	1,480	2,628	0
98 U of Central Florida	3,884	4,300	1,730	4,619	0	736	3,148	0
99 U Mississippi, All Camp	3,859	3,206	2,917	3,178	0	382	3,477	0
100 New Mexico State Univ	3,838	3,395	3,434	2,606	1,110	1,194	1,423	111
Total, 1st 100 institutions	1,628,268	1,528,966	1,451,465	1,413,288	272,203	500,303	759,331	96,431
Total, all other sampled institutions	231,249	232,643	227,869	215,835	5,019	115,162	102,766	8,302

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-52. Total and federally financed R&D expenditures in chemistry
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	915,075	877,501	819,369	800,806	615,465	587,549	551,060	553,125
1 U CA Berkeley	21,071	20,638	18,305	14,277	14,195	14,637	13,714	12,050
2 U of Illinois Urbana-Cham	19,426	18,038	13,606	12,956	11,621	11,436	8,174	7,616
3 Johns Hopkins U ¹	18,297	18,541	9,264	5,581	17,961	18,280	8,981	5,293
4 Texas A&M University	17,576	9,560	11,133	12,478	5,571	5,211	6,252	7,518
5 MA Institute of Tech	17,050	11,050	9,440	14,856	15,244	9,201	8,823	13,735
6 California Inst of Tech	16,310	17,760	17,600	15,599	13,829	17,629	15,200	12,478
7 Pennsylvania State U	15,962	16,075	12,883	12,670	9,727	8,852	8,631	8,294
8 Cornell University	14,132	12,031	11,380	11,712	9,633	8,682	8,065	8,805
9 Harvard University	14,112	11,185	9,495	11,362	13,890	10,639	8,128	10,608
10 U CA Los Angeles	13,158	11,769	10,220	10,859	10,604	9,521	8,728	9,338
Total, 1st 10 institutions	167,094	146,647	123,326	122,350	122,275	114,088	94,696	95,735
11 U WI-Madison	12,383	12,011	11,437	12,910	8,287	7,695	7,693	9,318
12 Purdue University	12,021	12,548	12,254	10,927	7,523	8,212	8,260	7,657
13 University of Colorado	11,889	12,948	11,026	12,701	9,618	10,446	8,762	9,442
14 Stanford University	11,835	12,306	12,199	12,010	9,778	10,658	10,449	10,509
15 Rutgers the State U NJ	11,543	9,622	8,130	7,523	7,673	6,790	5,763	5,467
16 U TX at Austin	11,159	11,397	11,328	11,393	6,547	7,123	6,872	6,294
17 University of Florida	11,034	11,675	9,779	8,182	7,682	5,309	5,332	4,197
18 U of Pennsylvania	10,994	11,669	11,579	12,855	10,624	11,283	10,423	12,181
19 U CA San Diego	10,725	10,297	9,956	9,683	8,710	7,802	7,922	8,118
20 Northwestern University	10,471	9,843	7,848	7,476	8,126	7,096	5,166	5,266
Total, 1st 20 institutions	281,148	260,963	228,862	228,010	206,843	196,502	171,338	174,184
21 U MA Amherst	10,269	11,131	10,650	9,322	4,921	6,240	5,894	5,320
22 University of Oklahoma	10,225	9,922	8,057	7,042	4,817	4,656	3,545	3,198
23 U CA Irvine	10,036	8,425	8,724	10,127	7,289	6,335	6,646	7,529
24 University of Chicago	9,484	8,189	8,730	7,791	8,349	6,671	7,487	6,938
25 Princeton University	9,477	8,973	8,123	7,610	6,092	5,727	5,961	5,979
26 Florida State University	9,395	7,890	7,534	5,273	4,536	3,304	3,950	2,933
27 University of Utah	9,359	7,398	6,366	6,371	8,668	6,122	5,493	5,949
28 University of Notre Dame	9,006	8,658	7,053	8,030	7,998	7,740	6,390	7,100
29 Georgia Institute of Tech	8,919	10,869	10,816	8,302	3,817	4,765	5,067	4,274
30 University of Kansas	8,800	7,177	7,333	6,521	4,335	3,805	3,378	2,995
Total, 1st 30 institutions	376,118	349,595	312,248	304,399	267,665	251,867	225,149	226,399
31 Arizona State University	8,782	9,583	8,227	9,087	4,035	4,287	3,760	4,426
32 U of NC Chapel Hill	8,583	8,368	7,788	7,492	6,159	5,905	5,672	6,285
33 University of Arizona	8,524	6,588	5,045	5,601	6,396	4,682	3,400	3,912
34 Louisiana State U System	8,350	5,752	5,893	4,761	5,085	3,297	3,105	2,511
35 U MD at College Park	8,330	6,635	9,822	8,901	4,580	4,269	6,039	5,995
36 Indiana University	8,202	7,982	10,889	9,081	5,733	6,047	7,750	6,648
37 Ohio State University	8,110	9,679	9,291	10,784	4,629	5,069	6,291	7,827
38 U of Washington	8,100	7,097	6,341	6,914	5,578	4,978	4,521	4,847
39 Johnson C Smith U	8,056 ⁱ	4,000	384 ⁱ	25 ⁱ	8,056 ⁱ	4,000	384 ⁱ	0
40 University of Michigan	7,744	7,820	6,834	6,007	5,862	6,230	5,058	4,449
Total, 1st 40 institutions	458,899	423,099	382,762	373,052	323,778	300,831	271,129	273,299
41 U of South Carolina	7,727	7,357	4,645	6,321	4,849	4,679	3,279	5,164
42 U of Southern California	7,545	7,900	7,203	5,908	5,758	6,089	5,865	4,735
43 Columbia U in City of NY	7,377	8,753	8,292	7,996	6,899	7,849	6,531	6,475
44 SUNY at Buffalo	7,347	7,426	5,538	5,630	4,045	4,110	3,410	3,740
45 Yale University	7,329	6,997	6,688	5,544	5,914	5,921	5,863	4,848
46 University of Minnesota	7,241	7,574	7,662	7,468	5,799	6,446	6,290	5,864
47 SUNY at Stony Brook	7,240	6,533	5,439	6,291	4,892	4,320	3,552	4,068
48 U CA Santa Barbara	6,997	5,620	4,449	5,544	5,364	4,175	3,861	4,935
49 University of Virginia	6,811	5,847	6,219	5,250	5,774	4,918	5,116	4,413
50 University of Akron	6,775	8,326	8,395	7,483	2,487	1,497	2,238	1,940
Total, 1st 50 institutions	531,288	495,432	447,292	436,487	375,559	350,835	317,134	319,481

See explanatory information and SOURCE at end of table.

**Table B-52. Total and federally financed R&D expenditures in chemistry
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 University of Pittsburgh	6,435	6,097	7,316	5,904	5,270	4,765	5,968	5,234
52 Colorado State University	6,401	7,753	6,378	5,807	5,072	5,650	5,414	4,830
53 University of Georgia	6,266	6,118	6,512	6,332	1,691	1,839	2,472	2,412
54 VA Polytech Inst & St U	6,257	7,037	7,538	6,737	3,271	3,482	4,105	3,604
55 Michigan State University	6,106	5,507	5,856	6,007	3,969	3,641	3,935	3,839
56 U of Nebraska at Lincoln	6,005	3,308i	3,259	3,607	3,387	2,492i	2,455	2,608
57 University of Houston	5,891	5,008	4,898	5,196	3,077	2,537	2,094	2,231
58 Wayne State University	5,841	5,330	4,581	4,062	3,489	3,116	2,744	2,482
59 Boston College	5,549	3,942	3,595	3,887	4,120	3,087	2,885	2,967
60 Emory University	5,535	5,230	7,337	5,031	4,162	4,181	5,338	3,821
Total, 1st 60 institutions	591,574	550,762	504,562	489,057	413,067	385,625	354,544	353,509
61 Rice University	5,516	4,518	3,990	3,545	3,892	3,094	2,956	2,853
62 University of Rochester	5,405	6,734	6,469	7,012	4,901	6,120	6,026	6,484
63 Washington University	5,323	4,321	4,504	3,856	3,921	3,376	3,738	3,134
64 Georgetown University	5,176e	4,868	4,613	4,575	4,137	3,170	3,438	3,762
65 Iowa State University	5,023	6,003	5,567	5,618	2,158	3,107	2,902	3,191
66 U CA Davis	5,010	4,562	3,897	3,589	4,196	3,480	3,153	3,371
67 Oregon State University	4,860	4,996	4,386	4,259	4,206	4,110	3,741	3,536
68 U CA Santa Cruz	4,793	4,448	5,288	6,439	3,133	2,774	3,598	4,564
69 University of Delaware	4,711	4,243	4,286	3,857	2,735	2,877	2,553	2,722
70 Texas Tech University	4,483	3,877	3,517	3,183	1,781	1,029	1,146	1,032
Total, 1st 70 institutions	641,874	599,332	551,079	534,990	448,127	418,762	387,795	388,158
71 North Dakota State U	4,414	4,403	4,214	3,079	3,249	2,621	933	1,680
72 Case Western Reserve U	4,379	5,307	3,665	3,025	3,661	3,095	2,735	2,387
73 NC State University	4,372	4,507	3,267	3,444	1,998	2,288	1,859	2,532
74 U of Tennessee System	4,333	3,963	3,841	4,331	2,764	2,433	2,163	2,620
75 U of Missouri Rolla	4,126	3,061	2,837	2,672	1,312	908	1,049	643
76 New York University	4,112	5,415	4,708	5,905	2,741	2,056	2,311	2,542
77 U CA Riverside	4,028	3,495	3,257	3,124	2,810	2,861	2,891	2,631
78 U Southern Mississippi	3,902	4,315	4,693	4,518	2,667	3,245	3,770	3,523
79 Duke University	3,851	4,485	3,591	4,636	2,187	2,767	2,498	3,445
80 University of Wyoming	3,844	4,082	4,263	2,532	1,475	1,669	1,891	1,352
Total, 1st 80 institutions	683,235	642,365	589,415	572,256	472,991	442,705	409,895	411,513
81 University of IL Chicago	3,770	3,244	4,318	3,519	2,064	2,158	2,246	2,041
82 Brown University	3,638	3,450	3,691	3,746	1,909	1,793	1,971	2,278
83 Virginia Commonwealth U	3,604	2,799	2,512	3,065	1,928	1,395	1,106	1,293
84 OR Grad Inst Sci & Tech	3,517	3,020e	2,876	3,347	3,214	2,697e	2,569	2,323
85 U of Iowa	3,505	3,421	3,332	2,970	2,361	2,125	1,912	1,724
86 CUNY Hunter College	3,469	2,956	2,318	2,370	2,164	1,823	1,537	1,620
87 Clemson University	3,294	2,865	2,558	2,583	897	896	855	856
88 Carnegie Mellon U	3,220	3,032	2,648	2,928	2,014	1,962	1,797	2,303
89 Montana St U Bozeman	3,180	2,961	2,032	2,879	2,507	2,596	1,819	1,910
90 U of Alaska Fairbanks	3,138i	1,362i	1,295i	1,279i	713i	345i	308i	333i
Total, 1st 90 institutions	717,570	671,475	616,995	600,942	492,762	460,495	426,015	428,194

See explanatory information and SOURCE at end of table.

**Table B-52. Total and federally financed R&D expenditures in chemistry
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 U of Missouri Columbia	3,083	2,670	3,138	4,458	1,448	1,181	1,103	1,056
92 University of Oregon	3,071	2,923	2,491	2,806	2,566	2,432	2,179	2,357
93 Rensselaer Polytech Inst	2,931	2,690	3,328 ⁱ	3,264	2,317	2,317	2,004 ⁱ	2,175
94 Vanderbilt University	2,873	3,068	2,930	2,491	2,499	2,506	2,344	1,944
95 University of Cincinnati	2,763	2,778	2,558	2,378	1,392	1,288	1,309	1,033
96 University of Kentucky	2,760	2,614	1,780	1,269	1,574	1,662	1,506	1,090
97 Jackson State University	2,736	830	800	933	2,458	713	596	840
98 Utah State University	2,710	2,180	2,189	2,329	1,725	1,491	1,525	1,528
99 CUNY City College	2,696	4,336	4,289	3,795	2,539	3,862	3,703	3,466
100 Syracuse University	2,671	1,971	1,776 ⁱ	1,705	2,025	1,965	1,776 ⁱ	1,373
Total, 1st 100 institutions	745,864	697,535	642,274	626,370	513,305	479,912	444,060	445,056
Total, all other sampled institutions	169,211	179,966	177,095	174,436	102,160	107,637	107,000	108,069

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-53. Total and federally financed R&D expenditures in physics
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	1,142,322	1,077,293	1,050,602	986,569	862,097	817,522	800,311	756,942
1 Johns Hopkins U ¹	65,247	74,433	71,693	74,032	64,556	73,601	70,382	72,852
2 MA Institute of Tech	55,054	83,416	90,357	74,821	54,205	75,875	84,623	67,327
3 U CA Berkeley	53,113	37,263	41,325	38,998	37,628	23,724	27,949	31,842
4 California Inst of Tech	45,343	57,992	56,972	50,553	44,186	57,790	55,933	49,186
5 U TX at Austin	44,967	15,293	12,013	12,008	37,271	12,278	8,635	8,801
6 Cornell University	38,721	35,255	34,248	30,405	33,610	30,184	30,323	27,473
7 Florida State University	31,861	10,348	12,020	9,326	18,284	4,174	5,119	4,349
8 U MD at College Park	26,869	27,699	28,617	31,259	16,990	17,999	14,307	14,208
9 Michigan State University	25,606	24,636	22,882	21,864	17,029	16,017	14,659	14,112
10 U CA Los Angeles	25,023	20,943	22,445	10,775	16,193	13,465	14,085	9,825
Total, 1st 10 institutions	411,804	387,278	392,572	354,041	339,952	325,107	326,015	299,975
11 U of Illinois Urbana-Cham	23,569	21,928	9,983	9,055	17,628	16,908	8,290	7,165
12 U WI-Madison	17,694	16,192	15,020	13,867	14,600	13,343	11,620	11,151
13 Indiana University	17,050	12,613	14,002	16,362	11,674	10,922	11,724	13,011
14 U of Alaska Fairbanks	16,548	7,599	6,991	7,229	10,163	4,922	4,393	4,740
15 Pennsylvania State U	15,964	5,532	7,139	7,988	11,165	2,962	4,507	5,354
16 SUNY at Stony Brook	15,406	16,078	14,427	14,545	10,555	10,826	9,950	9,606
17 Princeton University	14,923	15,542	15,120	12,237	12,566	12,188	11,710	9,593
18 U CA San Diego	14,206	16,504	16,640	19,636	10,920	13,073	13,464	18,025
19 U CA Santa Barbara	14,060	12,448	9,059	8,819	11,115	9,763	7,322	7,699
20 U of Pennsylvania	13,781	12,877	14,553	11,623	12,031	12,043	11,771	10,216
Total, 1st 20 institutions	575,005	524,591	515,506	475,402	462,369	432,057	420,766	396,535
21 U of Washington	13,549	11,303	8,919	9,196	11,497	9,859	7,580	8,311
22 Duke University	13,210	10,702	9,013	8,730	12,749	10,139	8,272	8,016
23 Vanderbilt University	11,825	7,657	5,695	5,417	10,528	6,537	4,929	5,041
24 NC State University	11,387	10,861	8,400	8,790	4,260	6,277	4,869	4,592
25 Rutgers the State U NJ	11,089	10,639	11,667	10,873	4,637	3,747	4,553	4,147
26 Georgia Institute of Tech	10,620	11,097	9,568	9,682	4,545	4,865	4,482	4,984
27 Yale University	10,474	9,619	8,521	9,213	9,736	8,910	7,795	8,607
28 Harvard University	10,456	8,957	9,837	10,365	10,314	8,883	9,430	9,583
29 University of Colorado	10,396	9,983	9,912	10,527	8,855	8,487	8,110	8,362
30 U of Iowa	10,135	10,488	12,518	10,701	8,282	8,662	9,523	8,474
Total, 1st 30 institutions	688,146	625,897	609,556	568,896	547,772	508,423	490,309	466,652
31 Ohio State University	9,932	8,725	8,502	8,509	6,237	5,188	5,583	5,503
32 U of Central Florida	9,554	9,273	2,921	4,666	3,148	3,953	1,684	4,326
33 Purdue University	8,986	9,582	8,868	8,165	5,639	5,833	5,278	5,378
34 University of Chicago	8,940	8,112	8,435	9,365	8,352	7,567	7,632	8,696
35 Texas A&M University	8,883	6,963	6,691	6,097	5,301	3,862	4,152	3,544
36 University of Florida	8,275	8,025	5,573	5,627	4,801	3,904	2,952	2,421
37 U of Tennessee System	8,071	7,623	7,289	6,872	4,877	4,742	4,457	4,254
38 University of Minnesota	7,625	7,054	7,317	6,416	6,493	5,948	6,545	5,604
39 U of NC Chapel Hill	7,268	3,382	2,572	2,268	6,294	2,276	1,527	1,490
40 U MA Amherst	7,243	11,238	10,603	10,342	4,105	7,510	8,185	7,704
Total, 1st 40 institutions	772,723	705,874	678,327	637,223	603,019	559,206	538,304	515,572
41 U CA Irvine	7,240	9,068	9,449	10,204	4,898	6,144	6,270	8,715
42 Louisiana State U System	6,982	7,155	7,114	5,838	4,009	4,718	4,116	3,539
43 U of Alabama Huntsville	6,916	4,730	5,807	5,302	5,220	3,564	4,715	3,944
44 University of Rochester	6,723	5,259	5,970	5,207	6,289	4,774	5,553	4,991
45 SUNY at Albany	6,697	4,903	3,356	2,954	1,285	1,631	955	761
46 University of Michigan	6,509	13,187	13,677	11,415	5,166	9,695	9,919	8,122
47 University of New Mexico	5,448	7,409	4,367	3,527	5,085	5,840	3,456	2,572
48 Kansas State University	5,395	5,394	4,819	3,772	4,311	4,478	3,952	3,451
49 Wayne State University	5,349	5,447	4,777	4,587	910	1,260	1,423	997
50 U CA Santa Cruz	5,326	5,511	4,347	5,353	3,235	4,034	3,030	4,333
Total, 1st 50 institutions	835,308	773,937	742,010	695,382	643,427	605,344	581,693	556,997

See explanatory information and SOURCE at end of table.

**Table B-53. Total and federally financed R&D expenditures in physics
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 Hampton University	5,313	4,502	5,311	1,625	5,009	4,163	5,086	1,625
52 Washington University	5,134	4,621	4,463	4,512	3,723	3,394	3,440	3,138
53 U CA Davis	4,892	4,829	2,987	3,481	3,180	3,548	2,560	3,117
54 Carnegie Mellon U	4,871	4,879	5,077	4,506	3,725	3,696	3,662	3,705
55 Stanford University	4,777	4,060	4,490	4,106	4,546	3,836	4,151	3,959
56 University of Oregon	4,657	4,402	4,215	4,499	3,937	3,602	3,363	3,576
57 University of Utah	4,624	3,707	5,719	3,141	3,847	3,036	5,221	2,863
58 University of Virginia	4,615	4,627	4,433	4,848	4,043	4,235	4,126	4,492
59 Arizona State University	4,579	4,498	4,599	5,033	3,341	3,370	3,449	3,754
60 University of IL Chicago	4,547	5,353	3,249	2,934	2,737	2,682	1,635	1,630
Total, 1st 60 institutions	883,317	819,415	786,553	734,067	681,515	640,906	618,386	588,856
61 U of Nebraska at Lincoln	4,458	2,159	2,128	2,175	2,121	1,777	1,751	1,663
62 Brown University	4,389	4,555	5,359	5,045	2,270	2,324	3,012	3,084
63 Oklahoma State University	4,375	3,765	2,961	3,807	1,344	1,798	1,327	989
64 University of Notre Dame	4,354	4,500	4,329	3,502	3,757	3,670	3,294	2,844
65 U of South Carolina	4,351	4,298	3,992	3,384	2,158	2,557	2,275	2,584
66 University of Arizona	4,280	4,371	20,525	16,666	3,233	3,288	12,386	9,679
67 Northwestern University	4,247	4,535	4,064	4,352	3,404	3,568	3,426	3,411
68 Northeastern University	4,156	3,516	2,565	1,896	3,149	3,339	2,479	1,855
69 Syracuse University	4,123	3,882	3,501	3,416	3,125	3,870	2,967	2,263
70 Montana St U Bozeman	4,099	3,721	2,886	4,344	3,211	2,759	2,234	2,244
Total, 1st 70 institutions	926,149	858,717	838,863	782,654	709,287	669,856	653,537	619,472
71 Iowa State University	4,082	3,596	3,872	3,789	2,370	2,151	2,370	2,449
72 Boston University	4,034	4,440	4,466	5,116	3,882	4,033	4,299	4,622
73 U of Maine	3,932	1,364	666	592	3,367	542	170	275
74 U Mississippi, All Camp	3,896	3,254	2,841	2,782	3,477	2,635	2,345	2,231
75 U TX MD Anderson Cntr	3,678	3,445	2,395	2,538	2,542	2,583	1,948	1,858
76 CUNY City College	3,657	3,937	4,660	4,425	2,955	2,821	3,383	3,440
77 University of Georgia	3,600	3,943	2,904	3,269	1,095	1,155	767	1,191
78 University of Pittsburgh	3,584	3,141	3,340	3,682	3,109	2,801	2,796	3,212
79 Colorado School of Mines	3,348	2,520	2,568	1,684	2,979	2,069	2,160	1,170
80 U MA Lowell	3,313	3,106	3,346	2,912	2,628	2,609	2,964	2,493
Total, 1st 80 institutions	963,273	891,463	869,921	813,443	737,691	693,255	676,739	642,413
81 University of Houston	3,211	2,762	2,895	3,470	1,795	1,514	1,718	1,903
82 Ohio University	2,999	2,908	2,260	1,603	2,202	2,148	1,686	1,035
83 University of Kentucky	2,863	2,772	1,908	1,786	1,745	1,760	1,636	1,729
84 U TX at Dallas	2,857	3,108	3,995	3,819	1,615	2,060	2,117	977
85 U CA Riverside	2,855	3,021	2,359	2,351	2,156	2,438	2,002	2,317
86 Rice University	2,767	2,604	2,432	2,398	2,450	2,408	2,249	2,197
87 Clemson University	2,755	2,904	2,242	2,629	751	909	750	871
88 Col of William & Mary	2,733	2,429	2,464	2,906	2,392	2,122	2,106	2,447
89 University of Oklahoma	2,733	2,479	2,325	2,633	1,566	1,423	1,387	1,318
90 U of Southern California	2,670	2,990	2,724	3,196	2,194	2,572	2,378	2,717
Total, 1st 90 institutions	991,716	919,440	895,525	840,234	756,557	712,609	694,768	659,924

See explanatory information and SOURCE at end of table.

**Table B-53. Total and federally financed R&D expenditures in physics
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 Fisk University	2,639	2,323	1,651 i	1,651	2,342	2,323	1,651 i	1,651
92 University of Connecticut	2,516	2,108	2,167	1,958	1,584	1,236	1,042	1,074
93 Alabama A&M University	2,493	2,004	4,650e	4,556 i	2,149	1,745	4,188e	4,102 i
94 U of Nevada Reno	2,486	474	211	115	2,398	419	154	68
95 Washington State U	2,470	2,272	2,178	2,616	2,049	1,902	1,835	2,235
96 West Virginia University	2,413	1,855	592	797	1,704	1,253	357	499
97 SUNY at Buffalo	2,395	2,953	1,566	1,635	955	937	774	924
98 Rensselaer Polytech Inst	2,287	1,889	2,142 i	2,101	2,138	1,736	1,290 i	1,401
99 Catholic U of America	2,248	1,934	1,407	1,132	2,093	1,929	1,407	1,132
100 Univ of Hawaii at Manoa	2,179	2,002	1,766	0	1,999	1,722	1,462	0
Total, 1st 100 institutions	1,015,842	939,254	913,855	856,795	775,968	727,811	708,928	673,010
Total, all other sampled institutions	126,480	138,039	136,747	129,774	86,129	89,711	91,383	83,932

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY:
 -- = not available
 e = estimated
 i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-54. R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[(Dollars in thousands)]

Page 1 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Atmospheric	Earth sciences	Oceanography	Other
Total, all institutions	1,689,594	1,623,148	1,522,857	1,487,878	287,999	543,936	601,830	255,829
1 U CA San Diego	107,958	100,882	98,926	109,260	11,964	22,928	73,066	0
2 University of Colorado	71,479	74,325	48,055	40,719	37,859	32,014	1,449e	157
3 Texas A&M University	69,296	69,912	70,605	71,841	3,712	4,723	58,320	2,541
4 U of Washington	60,382	61,755	54,545	58,398	13,069	7,369	39,944	0
5 Woods Hole Oceanogr Inst	58,723	62,995	61,516	58,702	4,230 i	19,504 i	15,261 i	19,728 i
6 Univ of Hawaii at Manoa	52,019	48,594	37,975	36,334	1,355	13,896	26,279	10,489
7 Johns Hopkins U ¹	44,700	43,528	32,187	30,178	10,314 i	3,071 i	16,499 i	14,816 i
8 Columbia U in City of NY	44,003	43,154	36,811	37,387	3,889	203	36,056	3,855
9 Oregon State University	31,385	30,233	27,642	24,779	1,467	2,314	20,662	6,942
10 U of Illinois Urbana-Cham	28,452	25,265	26,017	27,238	2,727	23,869	0	1,856
Total, 1st 10 institutions	568,397	560,643	494,279	494,836	90,586	129,891	287,536	60,384
11 University of Miami	28,452	31,067	27,480	28,375	16,480	30	10,988	954
12 Louisiana State U System	27,441	22,684	21,738	23,221	0	6,290	14,923	6,228
13 U of New Hampshire	27,107	25,772	25,167	26,305	7,303	2,625	7,191	9,988
14 University of Oklahoma	27,018	23,374	18,760	16,832	19,028	7,990	0	0
15 U MD Ctr for Environ Sci	26,816	24,038	21,377	21,448	0	2,667	24,149	0
16 Pennsylvania State U	26,740	23,552	25,010	23,222	6,209	8,374	0	12,157
17 U WI-Madison	24,995	24,864	25,176	23,908	14,378	3,371	3,028	4,218
18 U CA Santa Barbara	24,007	16,853	14,157	12,405	0	2,907	14,683	6,417
19 Col of William & Mary	23,707	18,538	16,684	16,700	0	245	23,462	0
20 MA Institute of Tech	23,494	15,900	15,068	14,361	8,289	11,129	3,673	403
Total, 1st 20 institutions	828,174	787,285	704,896	701,613	162,273	175,519	389,633	100,749
21 U of Rhode Island	22,602	19,105	22,231 i	22,249 i	353	27	22,141	81
22 VA Polytech Inst & St U	21,462	29,232	32,709	31,786	0	2,071	0	19,391
23 U TX at Austin	20,980	19,477	26,568	26,030	0	15,991	4,499	490
24 SUNY at Stony Brook	19,413	16,566	19,394	17,501	2,058	6,664	10,891	0
25 U of Alaska Fairbanks	18,756	33,814 i	31,441 i	32,044 i	0	0	15,633	3,123
26 Rutgers the State U NJ	17,959	14,668	14,486	13,296	47	906	7,904	9,102
27 NC State University	17,945	16,743	14,091	11,818	8,778	0	9,167	0
28 U of South Carolina	17,812	13,496	13,405	8,704	0	10,301	3,703	3,808
29 U of South Florida	17,526	14,243	12,919	11,631	0	1,020	16,489	17
30 Desert Research Institute	17,043	14,400	13,400	13,500	11,105	5,938	0	0
Total, 1st 30 institutions	1,019,672	979,029	905,540	890,172	184,614	218,237	480,060	136,761
31 Arizona State University	16,451	5,154	4,900	7,166	0	16,451	0	0
32 Colorado State University	14,773	14,656	12,366	12,853	12,350	2,423	0	0
33 California Inst of Tech	14,611	18,285	16,710	15,444	0	14,611	0	0
34 Harvard University	14,089	13,271	9,871	11,595	0 i	13,999 i	90 i	0 i
35 Florida State University	13,871	15,775	16,126	14,683	5,520	4,476	3,810	65
36 Georgia Institute of Tech	13,224	14,505	11,191	12,696	376	11,231	0	1,617
37 University of Minnesota	12,986	10,824	9,929	10,447	0	5,661	2,433	4,892
38 U CA Santa Cruz	12,880	11,390	11,361	11,504	0	3,980	7,462	1,438
39 University of Georgia	12,694	11,229	10,107	9,885	0	4,455	8,239	0
40 U of Southern California	12,095	14,202	12,501	13,067	0	10,271	1,377	447
Total, 1st 40 institutions	1,157,346	1,108,320	1,020,602	1,009,512	202,860	305,795	503,471	145,220
41 U of Maine	11,974	10,269	8,734	6,122	0	4,854	7,120	0
42 Utah State University	11,712	11,134	13,629	12,990	5,812	5,900	0	0
43 U of Nebraska at Lincoln	11,314	11,863 i	11,687	8,775	1,152	10,162	0	0
44 U of NC Chapel Hill	11,271	10,127	9,884	9,516	0	6,646	4,267	358
45 University of Arizona	11,071	10,067	10,742	9,156	4,308	6,763	0	0
46 U of Tennessee System	10,882	11,609	12,989	13,086	0	1,587	0	9,295
47 Princeton University	10,630	8,816	8,657	8,871	2,636	6,639	0	1,355
48 U CA Los Angeles	9,960	8,060	7,071	15,086	4,484	3,957	0	1,519
49 University of Kansas	9,858	9,463	9,574	9,360	0	9,120	0	738
50 San Jose State University	9,427e	9,427e	9,427 i	9,427 i	906e	380e	8,141e	0e
Total, 1st 50 institutions	1,265,445	1,209,155	1,122,996	1,111,901	222,158	361,803	522,999	158,485

See explanatory information and SOURCE at end of table.

Table B-54. R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1996-1999, and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Atmospheric	Earth sciences	Oceanography	Other
51 University of Delaware	9,288	8,180	9,930	8,205	0	813	8,475	0
52 U of Central Florida	9,068	8,353	0	0	9,068	0	0	0
53 U CA Riverside	8,968	9,394	2,630	4,259	0	2,975	0	5,993
54 NJ Inst of Technology	8,532	8,532	8,424	9,540	0	0	0	8,532
55 Ohio State University	8,355	9,481	9,424	9,878	0	4,171	0	4,184
56 Stanford University	8,260	8,025	7,159	6,294	0	6,235	2,025	0
57 US Naval Postgrad School ...	8,218 i	8,218 i	7,792	5,068 i	4,850 i	0 i	3,368 i	0 i
58 U of Nevada Las Vegas	7,862	6,331	5,150	5,611 i	0	806	0	7,056
59 U MD Biotechnology Inst	7,747	7,917	6,929	6,157	0	0	7,747	0
60 Duke University	7,629	7,554	6,485	2,970	0	1,289	1,954	4,386
Total, 1st 60 institutions	1,349,372	1,291,140	1,186,919	1,169,883	236,076	378,092	546,568	188,636
61 U MA Amherst	7,587	7,143	9,564	6,042	0	5,540	0	2,047
62 University of Connecticut	7,486	9,224	7,074	8,516	0	404	7,082	0
63 U CA Berkeley	7,244	5,755	4,766	5,232	0	7,204	0	40
64 U CA Davis	6,981	6,547	6,910	5,633	0	1,447	4,735	799
65 U Southern Mississippi	6,876	2,535	1,619	2,130	0	251	6,543	82
66 U MD at College Park	6,828	8,331	10,195	10,426	5,804	1,024	0	0
67 U of Nevada Reno	6,747	4,476	6,130	7,522	93	5,268	0	1,386
68 NM Inst Mining & Tech	6,741	4,868	4,818	3,709	0	5,308	0	1,433
69 U TX at El Paso	6,703	1,832	5,069	3,382	0	6,082	0	621
70 University of Wyoming	6,542	10,387	11,650	8,640	2,407	4,109	0	26
Total, 1st 70 institutions	1,419,107	1,352,238	1,254,714	1,231,115	244,380	414,729	564,928	195,070
71 University of Michigan	6,511	24,737	27,112	22,940	1,282	3,485	1,744	0
72 SUNY at Albany	6,443	6,152	6,534	6,741	6,443	0	0	0
73 Indiana University	6,428	1,762	2,296	1,853	0	6,428	0	0
74 Eastern Kentucky U	6,352 i	1,006 i	808 i	609 i	235 i	2,453 i	3,011 i	653 i
75 Old Dominion University	6,199	5,380	5,604	5,559	74	0	4,686	1,439
76 University of Chicago	5,966	7,742	7,009	4,790	0	5,966	0	0
77 University of Virginia	5,676	4,771	4,105	3,794	5,676	0	0	0
78 Brown University	5,535	5,372	5,275	5,341	0 i	5,311 i	0 i	224 i
79 U MD Baltimore County	5,442	0	0	0	5,442	0	0	0
80 Clark Atlanta University	5,390 i	8,187	7,460	9,020	0 i	1,264 i	0 i	4,126 i
Total, 1st 80 institutions	1,479,049	1,417,347	1,320,917	1,291,762	263,532	439,636	574,369	201,512
81 U of Alabama Huntsville	5,287	5,177	6,218	6,246	5,287	0	0	0
82 U of NC at Wilmington	5,098	5,469	6,548 i	6,262 i	0	447	4,487	164
83 University of Florida	5,070	6,709	3,890	3,660	0	2,788	2,282	0
84 U PR Mayaguez Campus	4,421	4,601	4,894	4,707	0	1,247	3,174	0
85 Washington University	4,385	3,420	3,295	3,167	0	4,385	0	0
86 Purdue University	4,272	3,614	3,609	4,175	1,507	754	0	2,011
87 Cornell University	4,170	4,101	3,670	3,858	0	2,631	0	1,539
88 Florida International U	4,072	450	437	427	39	616	0	3,417
89 Rice University	3,969	7,585	11,203	8,016	0	1,076	0	2,893
90 University of Idaho	3,932	5,112	2,884 i	2,814	0	1,648	0	2,284
Total, 1st 90 institutions	1,523,725	1,463,585	1,367,565	1,335,094	270,365	455,228	584,312	213,820

See explanatory information and SOURCE at end of table.

Table B-54. R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 3 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Atmospheric	Earth sciences	Oceanography	Other
91 Boston University	3,775	3,473	2,214	1,205	0	214	0	3,561
92 OR Grad Inst Sci & Tech	3,759	4,964 ^e	4,728	3,388	592	0	0	3,167
93 University of Utah	3,756	4,057	4,074	3,820	1,785	1,971	0	0
94 U WI-Milwaukee	3,580	3,325	3,246	3,301	0	499	2,975	106
95 Tarleton State University	3,559	3,659	2,638	2,923	0	3,559	0	0
96 New Mexico State Univ	3,421	5,053	5,724	6,046	1,767	560	0	1,094
97 Univ of Memphis, The	3,416	2,916	3,018	3,379	0	3,416	0	0
98 Iowa State University	3,343	1,737	1,700	1,359	0	3,343	0	0
99 West Virginia University	3,335	2,348	7,452	6,879	0	944	0	2,391
100 Mississippi State U	3,199	4,060	2,887	2,900	0	6	32	3,161
Total, 1st 100 institutions	1,558,868	1,499,177	1,405,246	1,370,294	274,509	469,740	587,319	227,300
Total, all other sampled institutions	130,726	123,971	117,611	117,584	13,490	74,196	14,511	28,529

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY:
 -- = not available
 e = estimated
 i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-55. Federally financed R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Atmos- pheric	Earth sciences	Ocean- ography	Other
Total, all institutions	1,100,681	1,075,412	1,010,067	1,005,520	222,486	320,241	403,665	154,289
1 U CA San Diego	65,829	60,437	61,622	83,625	10,357	10,221	45,251	0
2 University of Colorado	61,055	62,358	38,706	32,039	32,684	27,504	735e	132
3 U of Washington	55,954	58,248	51,175	55,434	12,547	6,933	36,474	0
4 Texas A&M University	53,624	52,659	53,790	54,241	2,644	838	48,975	1,167
5 Woods Hole Oceanogr Inst ...	50,237	55,669	53,997	50,334	3,416i	17,595i	12,761i	16,465i
6 Johns Hopkins U ¹	42,057	42,063	29,605	29,088	10,314i	2,161i	16,498i	13,084i
7 Columbia U in City of NY	40,712	40,462	35,871	34,634	3,789	203	32,994	3,726
8 Univ of Hawaii at Manoa	32,859	33,624	27,482	25,969	781	8,619	15,670	7,789
9 Oregon State University	26,936	25,699	24,576	23,016	1,408	1,748	19,722	4,058
10 University of Miami	25,455	27,452	24,387	23,795	14,825	27	9,696	907
Total, 1st 10 institutions	454,718	458,671	401,211	412,175	92,765	75,849	238,776	47,328
11 MA Institute of Tech	20,150	14,147	13,679	10,993	8,053	8,348	3,578	171
12 U of Rhode Island	20,105	18,314	21,188i	20,639i	353	3	19,668	81
13 VA Polytech Inst & St U	20,094	27,820	31,202	29,860	0	703	0	19,391
14 U of New Hampshire	18,008	15,315	15,048	15,206	3,462	1,956	4,307	8,283
15 U WI-Madison	16,406	17,243	17,798	16,228	11,908	1,501	749	2,248
16 U CA Santa Barbara	16,140	11,478	8,852	8,987	0	1,446	9,933	4,761
17 Pennsylvania State U	15,554	12,290	14,726	13,128	4,303	4,774	0	6,477
18 Arizona State University	15,030	4,721	4,311	6,748	0	15,030	0	0
19 California Inst of Tech	14,141	16,912	15,512	14,065	0	14,141	0	0
20 University of Oklahoma	13,541	11,419	8,745	7,149	11,127	2,414	0	0
Total, 1st 20 institutions	623,887	608,330	552,272	555,178	131,971	126,165	277,011	88,740
21 SUNY at Stony Brook	13,432	11,187	13,676	11,468	1,804	4,377	7,251	0
22 Harvard University	13,424	12,839	6,906	8,452	0i	13,424i	0i	0i
23 Desert Research Institute	11,720	9,300	8,400	8,600	6,868	4,852	0	0
24 Colorado State University	11,630	10,630	10,744	10,331	10,551	1,079	0	0
25 U of South Florida	11,034	10,314	9,058	8,212	0	755	10,279	0
26 U of Illinois Urbana-Cham	10,463	9,168	5,637	6,658	2,237	7,808	0	418
27 Florida State University	9,700	9,725	11,015	9,084	4,380	2,863	2,393	64
28 U of Southern California	8,698	10,277	10,362	10,695	0	7,143	1,125	430
29 Rutgers the State U NJ	8,361	6,082	5,931	4,946	0	713	6,146	1,502
30 U MD Ctr for Environ Sci	8,116	7,440	6,240	5,998	0	586	7,530	0
Total, 1st 30 institutions	730,465	705,292	640,241	639,622	157,811	169,765	311,735	91,154
31 U of Alaska Fairbanks	8,091	17,767i	15,862i	17,114i	0	0	8,011	80
32 US Naval Postgrad School	8,029i	8,029i	7,621	4,866i	4,793i	0i	3,236i	0i
33 Col of William & Mary	7,769	6,828	6,339	7,286	0	116	7,653	0
34 U of Tennessee System	7,051	6,744	7,835	8,343	0	1,055	0	5,996
35 U of Nebraska at Lincoln	6,857	8,821i	8,690	6,328	0	6,857	0	0
36 Utah State University	6,739	6,682	9,570	8,880	5,407	1,332	0	0
37 U of South Carolina	6,712	6,062	6,533	6,033	0	3,040	1,543	2,129
38 Princeton University	6,696	5,815	5,991	5,696	2,046	3,488	0	1,162
39 University of Arizona	6,625	5,990	5,464	4,837	2,625	4,000	0	0
40 U CA Los Angeles	6,611	5,663	5,503	9,948	3,873	1,818	0	920
Total, 1st 40 institutions	801,645	783,693	719,649	718,953	176,555	191,471	332,178	101,441
41 U Southern Mississippi	6,489	2,358	1,541	2,024	0	251	6,156	82
42 U of NC Chapel Hill	6,337	6,048	5,616	6,299	0	4,786	1,494	57
43 Louisiana State U System	6,223	5,886	6,947	7,585	0	1,153	4,263	807
44 U of Maine	6,205	5,085	3,718	3,524	0	1,812	4,393	0
45 University of Delaware	6,173	5,596	6,633	6,043	0	494	5,679	0
46 U TX at El Paso	6,125	1,308	4,326	2,680	0	5,620	0	505
47 University of Minnesota	6,120	4,587	3,976	4,486	0	3,143	1,576	1,401
48 Stanford University	6,041	5,920	5,796	4,936	0	4,993	1,048	0
49 U CA Santa Cruz	5,945	5,519	5,568	8,231	0	2,236	3,541	168
50 U TX at Austin	5,904	6,537	8,483	10,274	0	3,721	1,715	468
Total, 1st 50 institutions	863,207	832,537	772,253	775,035	176,555	219,680	362,043	104,929

See explanatory information and SOURCE at end of table.

Table B-55. Federally financed R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 2 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Atmospheric	Earth sciences	Oceanography	Other
51 U MD Biotechnology Inst	5,894	4,995	4,104	3,423	0	0	5,894	0
52 NC State University	5,727	6,654	5,294	6,164	4,402	0	1,325	0
53 Ohio State University	5,662	6,145	6,337	6,641	0	2,542	0	3,120
54 Georgia Institute of Tech	5,660	6,359	5,244	6,536	161	4,807	0	692
55 U of Nevada Las Vegas	5,658	4,328	3,560	4,153 i	0	718	0	4,940
56 U MD at College Park	5,381	6,704	6,246	6,853	4,514	867	0	0
57 University of Georgia	5,026	3,683	3,231	2,888	0	848	4,178	0
58 U of Nevada Reno	4,787	2,650	3,978	3,967	81	4,698	0	8
59 University of Virginia	4,774	4,048	3,349	3,107	4,774	0	0	0
60 University of Chicago	4,617	6,420	6,055	3,999	0	4,617	0	0
Total, 1st 60 institutions	916,393	884,523	819,651	822,766	190,487	238,777	373,440	113,689
61 U MD Baltimore County	4,602	0	0	0	4,602	0	0	0
62 University of Michigan	4,497	18,623	19,134	17,551	982	2,176	1,339	0
63 San Jose State University	4,363 e	4,363 e	4,363 i	4,363 i	714 e	132 e	3,517 e	0 e
64 U of Alabama Huntsville	4,198	4,165	5,137	5,274	4,198	0	0	0
65 University of Connecticut	4,107	3,689	2,703	3,425	0	280	3,827	0
66 U CA Berkeley	4,051	2,525	2,354	3,043	0	4,048	0	3
67 NJ Inst of Technology	4,014	4,014	4,496	4,610	0	0	0	4,014
68 Duke University	3,921	3,235	3,012	2,057	0	1,081	1,029	1,811
69 Rice University	3,784	7,285	10,936	7,127	0	1,074	0	2,710
70 Brown University	3,748	3,718	3,637	3,869	0 i	3,715 i	0 i	33 i
Total, 1st 70 institutions	957,678	936,140	875,423	874,085	200,983	251,283	383,152	122,260
71 Old Dominion University	3,665	2,333	2,448	1,858	0	0	3,563	102
72 University of Wyoming	3,518	4,453	3,393	3,933	2,027	1,491	0	0
73 Clark Atlanta University	3,340 i	6,637	6,220	6,072	0 i	605 i	0 i	2,735 i
74 U of NC at Wilmington	3,191	3,321	3,995 i	4,104 i	0	55	3,136	0
75 Boston University	3,095	2,560	1,562	833	0	206	0	2,889
76 University of Utah	3,053	3,097	2,993	2,835	1,700	1,353	0	0
77 OR Grad Inst Sci & Tech	3,034	3,997 e	3,807	1,429	469	0	0	2,565
78 Florida International U	3,001	225	218	212	37	360	0	2,604
79 SUNY at Albany	2,991	2,619	3,129	3,324	2,991	0	0	0
80 U PR Mayaguez Campus	2,916	3,051	3,555	4,424	0	1,171	1,745	0
Total, 1st 80 institutions	989,482	968,433	906,743	903,109	208,207	256,524	391,596	133,155
81 Washington University	2,779	2,594	2,537	2,666	0	2,779	0	0
82 U MA Amherst	2,764	2,967	4,734	2,373	0	2,383	0	381
83 Purdue University	2,731	2,411	2,386	2,840	929	465	0	1,337
84 U CA Riverside	2,681	3,196	1,652	2,425	0	1,106	0	1,575
85 New Mexico State Univ	2,672	4,151	4,210	3,904	1,570	178	0	924
86 Southern Methodist U	2,609	1,726	842	2,489	0	2,609	0	0
87 Cornell University	2,565	2,170	2,118	2,366	0	1,696	0	869
88 University of Florida	2,527	2,073	1,475	1,134	0	1,146	1,381	0
89 U of Central Florida	2,420	2,117	0	0	2,420	0	0	0
90 University of Kansas	2,287	2,173	2,047	2,275	0	1,805	0	482
Total, 1st 90 institutions	1,015,517	994,011	928,744	925,581	213,126	270,691	392,977	138,723

See explanatory information and SOURCE at end of table.

Table B-55. Federally financed R&D expenditures in the environmental sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 3 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Atmos- pheric	Earth sciences	Ocean- ography	Other
91 U CA Irvine	2,263	1,590	1,719	1,788	0	2,263	0	0
92 Mississippi State U	2,162	2,677	2,155	2,496	0	0	0	2,162
93 University of Idaho	2,046	2,451	498 i	472	0	429	0	1,617
94 University of Oregon	2,021	2,307	1,924	1,565	0	854	475	692
95 Iowa State University	2,006	914	625	677	0	2,006	0	0
96 NM Inst Mining & Tech	1,827	1,954	2,119	1,323	0	1,827	0	0
97 U CA Davis	1,809	1,995	3,450	3,528	0	872	759	178
98 SD Sch of Mines & Tech	1,796	1,712	2,068	2,186	1,796	0	0	0
99 U MA Lowell	1,782	3,109	2,059	23	0	1,782	0	0
100 Yale University	1,780	1,840	1,770	1,836	570	1,086	0	124
Total, 1st 100 institutions	1,035,009	1,014,560	947,131	941,475	215,492	281,810	394,211	143,496
Total, all other sampled institutions	65,672	60,852	62,936	64,045	6,994	38,431	9,454	10,793

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-56. Total and federally financed R&D expenditures in the mathematical sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	312,727	310,144	289,261	288,088	209,147	214,048	201,949	207,954
1 Johns Hopkins U ¹	24,302	29,293	34,207	38,508	24,238	29,271	34,171	38,447
2 U TX at Austin	13,911	15,683	7,242	3,471	9,585	10,156	3,980	895
3 George Washington U	13,910	13,477	10,272	7,205	13,376	11,537	7,653	6,529
4 Rutgers the State U NJ	9,748	10,335	7,048	6,803	5,664	6,266	3,207	3,064
5 Boston College	9,562	7,951	6,776	6,675	6,780	6,331	5,667	5,744
6 NC State University	8,995	9,088	7,454	5,798	2,511	3,444	3,361	2,669
7 U of South Carolina	7,546	8,501	7,047	7,088	1,586	1,986	2,209	3,660
8 Brown University	7,308	7,499	6,703	6,033	5,035	4,675	4,391	3,938
9 Iowa State University	6,272	5,771	5,885	6,469	2,782	2,727	2,746	3,026
10 New York University	5,652	5,828	3,377	3,310	5,005	5,570	3,251	3,167
Total, 1st 10 institutions	107,206	113,426	96,011	91,360	76,562	81,963	70,636	71,139
11 MA Institute of Tech	5,138	2,469	3,529	3,880	4,131	2,303	3,104	3,200
12 SUNY at Stony Brook	5,071	4,575	5,165	4,119	3,447	3,002	3,149	2,641
13 University of Minnesota	5,069	5,965	5,997	6,676	4,172	4,844	4,945	5,960
14 University of Georgia	4,778	4,362	4,464	3,750	634	578	748	581
15 U CA Los Angeles	4,748	4,226	3,717	3,213	4,115	3,553	2,907	3,145
16 University of Florida	4,687	4,676	3,703	2,517	2,564	2,739	2,401	2,190
17 Stanford University	4,577	4,049	3,219	3,402	4,303	3,804	2,993	3,224
18 Florida State University	4,346	1,772	982	848	1,499	995	812	660
19 U CA Berkeley	4,069	4,602	4,958	4,832	3,230	3,927	4,265	4,471
20 Georgia Institute of Tech	3,963	4,403	4,014	4,155	1,696	1,931	1,881	2,139
Total, 1st 20 institutions	153,652	154,525	135,759	128,752	106,353	109,639	97,841	99,350
21 Carnegie Mellon U	3,845	3,671	2,868	3,179	3,164	3,015	2,396	2,540
22 U of Washington	3,724	3,247	2,639	2,627	3,259	3,000	2,501	2,440
23 U TX MD Anderson Cntr Ctr	3,625	2,715	2,733	2,559	855	144	230	227
24 U WI-Madison	3,361	3,180	3,052	3,061	1,857	1,832	1,939	2,060
25 Pennsylvania State U	3,358	2,986	3,092	2,576	2,140	1,832	1,974	1,836
26 Purdue University	3,195	3,762	3,626	3,788	1,452	1,869	2,022	2,020
27 University of Michigan	3,170	3,127	3,050	3,399	2,573	2,230	2,393	1,730
28 US Naval Postgrad School	3,048	3,048	2,891	3,882	3,021	3,021	2,867	3,845
29 Texas A&M University	2,764	2,600	1,846	1,570	1,791	1,674	1,377	1,156
30 University of IL Chicago	2,694	1,944	3,556	2,981	1,680	1,292	2,583	2,135
Total, 1st 30 institutions	186,436	184,805	165,112	158,374	128,145	129,548	118,123	119,339
31 Cornell University	2,634	2,448	3,000	2,942	1,889	1,547	2,445	2,656
32 Princeton University	2,560	1,791	2,057	2,588	1,781	1,448	1,364	1,552
33 Boston University	2,545	3,042	2,347	2,612	2,402	2,857	2,265	2,521
34 Rice University	2,466	2,392	2,241	2,335	2,239	2,253	1,858	1,760
35 University of Arizona	2,409	3,121	2,850	2,897	1,753	2,270	2,060	2,151
36 U CA Santa Barbara	2,403	2,157	1,868	1,652	1,656	1,655	1,272	1,143
37 VA Polytech Inst & St U	2,395	2,973	2,788	2,474	1,370	1,958	1,831	1,374
38 Yale University	2,357	2,439	1,503	1,365	2,173	2,305	1,342	1,247
39 Western Michigan U	2,321	2,759	2,442	2,089	1,578	1,842	1,575	1,339
40 U of Illinois Urbana-Cham	2,259	2,011	1,598	1,832	1,235	1,102	851	973
Total, 1st 40 institutions	210,785	209,938	187,806	181,160	146,221	148,785	134,986	136,055
41 U of Southern California	2,051	2,043	2,372	1,868	1,835	1,846	2,123	1,657
42 University of Colorado	2,013	1,875	1,606	2,149	1,418	1,417	1,198	1,751
43 Clemson University	2,005	2,265	1,922	2,424	546	710	642	803
44 San Diego St University	1,956	998	736	750	588	196	218	169
45 U of Nebraska at Lincoln	1,891	540	533	249	389	403	398	178
46 Colorado School of Mines	1,702	1,561	1,485	2,022	396	486	446	529
47 Harvard University	1,674	1,462	1,275	1,489	1,647	1,379	1,070	1,299
48 Colorado State University	1,599	1,503	1,764	1,592	557	433	548	545
49 U MA Amherst	1,567	1,788	1,527	1,791	1,190	1,167	1,146	1,366
50 Indiana University	1,519	1,290	1,385	1,400	930	785	993	1,035
Total, 1st 50 institutions	228,762	225,263	202,411	196,894	155,717	157,607	143,768	145,387

See explanatory information and SOURCE at end of table.

Table B-56. Total and federally financed R&D expenditures in the mathematical sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 University of Chicago	1,514	1,519	1,576	1,558	1,511	1,444	1,430	1,444
52 University of Utah	1,512	1,290	1,143	1,265	1,249	1,112	1,093	1,241
53 Ohio State University	1,500	1,370	1,731	1,617	1,202	997	1,234	1,348
54 University of Louisville	1,483	132	364	395	163	84	285	331
55 U of Missouri Columbia	1,447	1,348	1,113	972	541	608	484	379
56 Univ of Montana, The	1,396	1,562	1,859	2,608	1,138	1,436	1,849	2,553
57 U of Alabama Huntsville	1,381	2,085	966	1,231	1,307	1,453	557	712
58 Ithaca College	1,379	845	0 ⁱ	0 ⁱ	1,307	777	0 ⁱ	0 ⁱ
59 University of Delaware	1,288	1,527	1,591	728	940	1,184	1,201	666
60 SUNY at Buffalo	1,284	1,431	629	390	191	297	304	223
Total, 1st 60 institutions	242,946	238,372	213,383	207,658	165,020	166,999	152,205	154,284
61 Duke University	1,277	904	1,007	1,039	1,143	844	843	883
62 Louisiana State U System	1,247	1,550	1,926	1,536	227	307	433	421
63 Washington University	1,194	1,208	918	773	981	1,127	844	725
64 U CA Irvine	1,178	471	538	517	789	336	486	497
65 California Inst of Tech	1,147	357	310	305	866	237	270	287
66 Arizona State University	1,132	1,245	1,239	1,453	735	582	788	918
67 U CA San Diego	1,115	1,477	1,056	1,227	938	1,226	842	1,190
68 Clark Atlanta University	1,047 ⁱ	792	705	840	0 ⁱ	0	705	683
69 U MA Dartmouth	1,043	1,266	817	1,082	964	1,208	807	1,074
70 Temple University	1,040	423	504	159	162	305	359	93
Total, 1st 70 institutions	254,366	248,065	222,403	216,589	171,825	173,171	158,582	161,055
71 Le Moyne-Owen Coll	1,000	12	--	--	1,000	0	--	--
72 Northwestern University	963	1,198	998	1,409	699	924	724	915
73 U of Pennsylvania	949 ^e	747	1,120	1,455	949	731	1,117	1,422
74 Columbia U in City of NY	926	953	761	718	893	852	701	637
75 U CA Davis	913	1,100	778	583	652	692	619	539
76 Tufts University	907	783	974	847	660	630	737	650
77 University of Pittsburgh	904	319	488	735	838	293	358	564
78 Rensselaer Polytech Inst	903	1,170	1,440 ⁱ	1,415	836	1,057	870 ⁱ	946
79 University of Houston	836	673	1,307	1,525	545	457	910	980
80 Air Force Inst of Tech	834	794	1,089	875	287	644	397	260
Total, 1st 80 institutions	263,501	255,814	231,358	226,151	179,184	179,451	165,015	167,968
81 Northeastern University	829	677	591	711	634	567	471	374
82 U of the Virgin Islands	819 ^e	1,477 ^e	1,477 ^e	1,477	0	0 ^e	0 ^e	0
83 Drexel University	812	403	462	293	676	319	116	149
84 Oklahoma State University	783	400	370	1,371	297	353	342	484
85 Texas Tech University	763	1,024	672	525	483	656	356	226
86 Western Illinois U	757	903	750	632	602	650	540	585
87 U of Iowa	750	497	458	659	551	334	291	467
88 U MD at College Park	745	773	1,671	1,801	745	773	902	944
89 Rockefeller Univ, The	727	307	240	294	173	125	135	146
90 Emory University	725	908	918	1,003	383	619	812	766
Total, 1st 90 institutions	271,211	263,183	238,967	234,917	183,728	183,847	168,980	172,111

See explanatory information and SOURCE at end of table.

Table B-56. Total and federally financed R&D expenditures in the mathematical sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 U of LA at Lafayette	709	652	623	630	21	3	17	53
92 Michigan State University	694	712	1,185	2,085	542	481	931	1,540
93 University of Kentucky	693	421	325	613	465	247	323	587
94 Georgia State University	691	419	513	270	220	124	72	50
95 Illinois State University	690	982 ^e	963	762	550	950 ^e	932	664
96 U of NC Chapel Hill	675	840	1,166	1,015	616	751	966	1,004
97 NJ Inst of Technology	665	665	795	703	455	455	473	437
98 George Mason University	654	959	770	815	538	834	612	685
99 Mount Holyoke College	646	50	411 ⁱ	391 ⁱ	438	50	355 ⁱ	340 ⁱ
100 Syracuse University	616	358	157 ⁱ	149	467	233	157 ⁱ	147
Total, 1st 100 institutions	277,944	269,241	245,875	242,350	188,040	187,975	173,818	177,618
Total, all other sampled institutions	34,783	40,903	43,386	45,738	21,107	26,073	28,131	30,336

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY:
 -- = not available
 e = estimated
 i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-57. Total and federally financed R&D expenditures in the computer sciences at universities and colleges, fiscal years, 1996-1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	859,977	746,049	708,975	689,743	582,242	513,091	505,785	501,429
1 Johns Hopkins U ¹	71,050	72,991	79,097	78,243	70,459	72,340	78,103	77,311
2 U of Illinois Urbana-Cham	65,803	56,715	9,130	7,496	41,976	34,823	6,692	4,949
3 Carnegie Mellon U	58,744	58,795	61,763	61,615	38,709	45,249	46,705	48,274
4 U of Southern California	56,745	49,893	42,063	36,158	46,741	40,661	39,458	34,729
5 U CA San Diego	36,657	18,913	3,561	359	28,339	11,057	0	0
6 MA Institute of Tech	34,061	14,590	16,979	15,714	26,622	11,366	12,446	10,313
7 Georgia Institute of Tech	31,259	29,329	27,597	26,551	13,379	12,858	12,928	13,668
8 U MD at College Park	23,521	19,868	18,478	19,359	14,176	12,005	8,498	9,646
9 U TX at Austin	18,109	6,919	10,084	9,629	14,811	5,261	7,417	6,856
10 Cornell University	17,683	19,309	28,976	28,418	11,714	14,195	23,034	22,774
Total, 1st 10 institutions	413,632	347,322	297,728	283,542	306,926	259,815	235,281	228,520
11 Stanford University	17,449	18,390	18,160	16,899	15,767	16,270	15,873	14,649
12 Ohio State University	17,249	13,761	14,779	11,068	2,356	2,522	3,332	3,009
13 Syracuse University	11,495	10,823	9,909	10,052	8,714	6,376	4,383	3,380
14 University of Utah	11,441	11,181	9,159	9,412	11,017	10,057	8,815	9,237
15 U of Alaska Fairbanks	11,178	0	0	0	138	0	0	0
16 Rice University	10,839	10,275	10,053	10,208	10,595	9,819	9,803	9,976
17 U MA Amherst	10,481	9,314	9,852	10,105	7,265	6,120	5,262	5,716
18 California Inst of Tech	10,113	11,000	11,060	10,175	10,041	10,996	10,061	9,745
19 University of Michigan	9,545	5,295	5,008	9,718	2,560	1,452	2,010	3,263
20 U of NC Chapel Hill	9,531	8,339	7,859	7,613	6,401	5,358	4,176	5,371
Total, 1st 20 institutions	532,953	445,700	393,567	378,792	381,780	328,785	298,996	292,866
21 OR Grad Inst Sci & Tech	9,519	9,073	8,641	8,548	7,522	6,797	6,473	5,416
22 U of Pennsylvania	8,829	8,207	7,947	6,791	7,037	5,905	5,789	6,155
23 Washington University	8,205	8,019	7,510	6,313	5,666	5,304	5,863	5,117
24 U CA Los Angeles	8,007	6,763	7,108	7,721	5,519	5,139	5,695	6,561
25 U of Tennessee System	7,494	7,016	8,151	10,560	2,600	3,622	5,258	6,890
26 SUNY at Buffalo	7,270	5,656	5,539	6,031	2,576	1,977	1,593	5,076
27 University of Minnesota	7,225	6,285	6,428	9,590	4,216	3,900	4,242	7,187
28 University of Colorado	6,990	6,718	7,159	6,837	5,671	4,851	5,342	5,047
29 U WI-Madison	6,780	7,481	8,153	6,679	5,291	5,837	6,597	5,599
30 Rutgers the State U NJ	6,152	6,617	9,138	9,451	2,488	2,383	5,505	5,746
Total, 1st 30 institutions	609,424	517,535	469,341	457,313	430,366	374,500	351,353	351,660
31 U of Alabama Huntsville	5,971	4,923	3,217	3,916	3,963	3,178	1,950	2,088
32 New York University	5,959	6,306	7,935	7,633	3,620	3,892	5,428	5,305
33 Purdue University	5,583	4,925	4,836	4,781	2,778	2,345	2,751	3,186
34 University of Virginia	5,566	5,680	4,115	3,088	4,717	4,982	3,431	2,656
35 New Mexico State Univ	5,129	4,338	3,009	2,716	4,091	3,504	2,505	2,341
36 Columbia U in City of NY	4,966	4,074	4,927	4,722	4,738	3,830	4,569	3,927
37 U of Washington	4,956	5,676	5,537	5,714	4,254	4,818	4,965	4,769
38 U CA Irvine	4,854	4,259	4,152	2,979	2,933	2,296	2,160	1,742
39 University of Arizona	4,836	6,293	6,751	4,509	3,524	4,421	5,116	3,629
40 Brown University	4,729	5,149	4,915	4,496	3,036	3,462	3,245	2,930
Total, 1st 40 institutions	661,973	569,158	518,735	501,867	468,020	411,228	387,473	384,233
41 Univ of Alabama, The	4,667	2,980	2,397	1,535	412	311	343	402
42 Calif Polytechnic	4,647	16	306	288	4,646	14	171	125
43 Princeton University	4,565	4,493	4,032	4,118	2,012	2,216	2,307	2,186
44 University of Florida	3,955	3,578	3,021	3,160	2,679	2,371	1,645	1,884
45 US Naval Postgrad School	3,930	3,930	3,731	3,738	3,916	3,916	3,718	3,682
46 U of LA at Lafayette	3,714	2,526	3,312	2,517	1,829	965	846	645
47 SUNY at Stony Brook	3,496	3,341	3,251	2,323	1,806	2,206	1,938	1,510
48 University of Oregon	3,252	2,707	2,673	3,010	2,921	2,404	2,312	2,460
49 Texas A&M University	3,237	4,476	5,384	5,808	1,575	1,259	1,848	1,730
50 University of Kansas	3,223	768	101	110	958	246	27	110
Total, 1st 50 institutions	700,659	597,973	546,943	528,474	490,774	427,136	402,628	398,967

See explanatory information and SOURCE at end of table.

**Table B-57. Total and federally financed R&D expenditures in the computer sciences
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 Jackson State University	3,203	959	884	893	2,880	824	775	804
52 Northwestern University	3,173	3,011	2,818	3,321	1,815	1,769	1,798	3,140
53 University of Rochester	3,103	2,652	3,212	2,922	2,986	2,549	3,093	2,831
54 Univ of West Florida	3,022	2,247	1,145i	956i	2,332	1,468	945i	759i
55 NC State University	3,007	2,876	2,786	1,759	1,393	1,713	1,281	884
56 Iowa State University	3,003	5,129	4,913	4,598	860	483	324	230
57 Michigan State University	2,990	2,848	2,070	2,283	1,635	1,440	1,280	1,131
58 University of Pittsburgh	2,935	2,690	1,789	1,667	2,656	2,353	1,268	1,429
59 University of New Mexico	2,797	2,601	2,823	2,877	2,246	1,926	2,595	2,565
60 University of Houston	2,780	2,561	2,406	2,121	1,798	1,780	1,643	1,316
Total, 1st 60 institutions	730,672	625,547	571,789	551,871	511,375	443,441	417,630	414,056
61 University of Oklahoma	2,709	2,322	1,842	1,563	74	128	384	459
62 University of Georgia	2,706	2,529	2,992	2,438	398	88	40	426
63 Florida State University	2,674	2,053	2,635	2,939	2,055	1,518	1,912	1,986
64 Clark Atlanta University	2,563i	3,668	2,955	3,525	1,406i	2,793	2,158	2,119
65 Arizona State University	2,540	2,851	2,091	1,614	1,073	1,141	1,028	760
66 U CA Davis	2,522	2,458	1,942	1,629	1,896	1,961	1,720	1,496
67 Indiana University	2,492	2,827	3,215	2,880	1,112	1,505	2,595	2,213
68 Yale University	2,408	1,998	2,181	2,585	1,898	1,682	1,797	1,971
69 U of Nebraska at Lincoln	2,392	711i	702	1,081	740	515i	508	398
70 Calif State San Bernadino	2,287	175	0i	0i	412	175	0i	0i
Total, 1st 70 institutions	755,965	647,139	592,344	572,125	522,439	454,947	429,772	425,884
71 NJ Inst of Technology	2,249	2,249	2,310	2,853	1,181	1,181	744	1,054
72 VA Polytech Inst & St U	2,168	2,315	2,275	1,859	1,526	1,617	1,755	1,411
73 U CA Santa Barbara	2,162	7,039	5,611	5,067	1,252	5,046	4,157	4,046
74 Bowie State University	2,109	2,026	1,991	49	1,913	2,026	1,991	49
75 Louisiana State U System	2,104	1,377	832	1,189	315	80	148	298
76 Eastern Kentucky U	2,063i	0i	0i	0i	392i	0i	0i	0i
77 U CA Berkeley	2,060	1,182	945	312	741	1	5	92
78 University of Delaware	2,015	3,947	3,830	3,779	1,092	2,431	2,157	2,464
79 Dartmouth College	2,010	899	442	325	1,469	526	237	279
80 Florida International U	2,003	906	880	854	1,319	184	179	174
Total, 1st 80 institutions	776,908	669,079	611,460	588,412	533,639	468,039	441,145	435,751
81 Mississippi State U	1,960	1,125	1,004	569	1,367	709	926	553
82 Florida A&M University	1,902	794	847	968	1,902	369	847	968
83 Oregon State University	1,887	1,888	1,061	1,529	1,505	1,515	900	632
84 U CA Santa Cruz	1,605	1,520	912	1,018	1,329	1,165	668	953
85 Duke University	1,595	1,758	1,484	1,889	1,082	1,076	787	1,299
86 CUNY Brooklyn College	1,583	563e	534	504	893	416e	394	372
87 Polytechnic University	1,525	537i	736	2,875	948	114i	140	1,400
88 Rockefeller Univ, The	1,498	1,927	2,179	1,585	93	442	645	210
89 Colorado State University	1,495	1,780	1,405	1,264	922	819	661	693
90 Wright State University	1,429	265	267	66	185	125	195	0
Total, 1st 90 institutions	793,387	681,236	621,889	600,679	543,865	474,789	447,308	442,831

See explanatory information and SOURCE at end of table.

Table B-57. Total and federally financed R&D expenditures in the computer sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 Harvard University	1,386	1,277	1,042	1,178	1,308	1,229	685	982
92 Old Dominion University	1,321	1,542	1,402	1,222	973	1,153	1,024	858
93 Clemson University	1,294	1,807	1,139	1,268	352	565	381	420
94 George Mason University	1,265	726	1,402	2,148	586	690	1,305	1,778
95 Western Illinois U	1,229	2,146	1,853	1,790	904	1,245	1,054	1,151
96 U of Missouri Kansas City	1,177	938	606	1,329	1,027	734	199	139
97 Drexel University	1,172	1,273	1,109	1,082	170	132	29	162
98 Howard University	1,171	1,536	3,284	5,914	1,075	1,416	3,081	5,531
99 Brigham Young University	1,150	511	491 ^e	237 ^e	680	100	96 ⁱ	91 ⁱ
100 Pennsylvania State U	1,145	1,020	4,819	5,127	488	448	3,426	3,810
Total, 1st 100 institutions	805,697	694,012	639,036	621,974	551,428	482,501	458,588	457,753
Total, all other sampled institutions	54,280	52,037	69,939	67,769	30,814	30,590	47,197	43,676

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-58. R&D expenditures in the life sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 1 of 4

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
Total, all institutions	15,591,256	14,583,198	13,586,297	12,711,906	2,031,367	5,012,512	7,990,865	556,512
1 U CA San Francisco	417,095	379,970	343,384	320,757	0	0	417,095	0
2 Johns Hopkins U ¹	356,575	332,458	318,588	290,860	0	89,017	242,613	24,945
3 U of Washington	327,975	288,925	274,310	266,595	16,516	98,301	208,752	4,406
4 U CA Los Angeles	327,302	313,422	278,650	241,194	0	47,043	280,259	0
5 U of Pennsylvania	302,186	266,318	226,426	216,836	301	116,607	176,630	8,648
6 Duke University	290,206	228,396	203,326	197,213	0	62,002	227,513	691
7 U WI-Madison	278,796	265,262	246,501	241,824	28,630	91,009	155,109	4,048
8 Washington University	277,281	234,810	231,303	192,578	0	121,658	150,302	5,321
9 Baylor Col of Medicine	272,198	216,528	192,744	184,613	0	134,205	137,993	0
10 University of Michigan	270,898	270,466	241,824	230,469	3,313	77,403	159,844	30,338
Total, 1st 10 institutions	3,120,512	2,796,555	2,557,056	2,382,939	48,760	837,245	2,156,110	78,397
11 University of Minnesota	269,055	261,207	263,510	244,893	58,619	53,502	148,885	8,049
12 U CA Davis	248,859	232,976	221,022	214,906	104,295	62,830	81,734	0
13 Yale University	236,121	225,403	210,570	199,028	1,548	78,469	156,104	0
14 Cornell University	222,855	215,404	200,441	193,361	48,153	49,823	124,879	0
15 Harvard University	221,419	195,472	183,081	178,308	0	108,751	112,668	0
16 Stanford University	216,764	195,377	177,006	160,399	0	13,799	202,810	155
17 U CA San Diego	215,713	199,279	191,799	179,999	0	35,619	179,946	148
18 U of Alabama Birmingham	214,654	211,039	187,877	159,287	0	62,859	150,941	854
19 University of Pittsburgh	213,648	182,827	170,225	157,903	0	6,557	202,368	4,723
20 University of Florida	208,356	177,226	191,088	189,659	87,218	51,030	68,348	1,760
Total, 1st 20 institutions	5,387,956	4,892,765	4,553,675	4,260,682	348,593	1,360,484	3,584,793	94,086
21 U of NC Chapel Hill	189,813	176,442	162,616	146,892	0	80,602	90,829	18,382
22 Columbia U in City of NY	184,913	170,957	157,028	151,274	0	75,186	109,152	575
23 Emory University	179,929	163,709	150,242	136,343	0	40,742	109,007	30,180
24 U CA Berkeley	173,208	174,394	151,055	125,648	26,553	84,488	62,167	0
25 Ohio State University	169,780	163,913	145,702	133,876	45,548	46,073	66,430	11,729
26 U TX SW Med Ctr at Dallas	165,520	153,711	140,589	130,162	0	73,654	91,496	370
27 Texas A&M University	164,646	159,093	144,744	143,595	57,792	87,757	19,097	0
28 University of Georgia	160,990	148,995	157,095	146,618	75,994	64,073	20,872	51
29 University of Arizona	158,804	153,625	144,319	142,920	45,495	50,545	60,917	1,847
30 U of Iowa	157,236	148,007	135,873	131,084	0	37,860	116,988	2,388
Total, 1st 30 institutions	7,092,795	6,505,611	6,042,938	5,649,094	599,975	2,001,464	4,331,748	159,608
31 University of Colorado	149,880	142,135	130,305	116,864	18	40,601	105,120	4,141
32 U TX MD Anderson Cncr Ctr	147,823	135,100	124,450	115,867	0	67,760	80,063	0
33 Northwestern University	146,887	133,916	113,615	103,209	0	51,343	88,008	7,536
34 U of Southern California	145,206	141,502	137,378	135,848	0	3,999	133,378	7,829
35 Case Western Reserve U	143,074	133,979	121,432	106,472	0	45,270	97,140	664
36 U of MD Baltimore	140,903	143,321	134,808	122,207	0	21,135	112,723	7,045
37 New York University	136,329	124,351	123,371	116,437	0	43,356	54,225	38,748
38 NC State University	134,338	121,736	110,190	88,772	72,724	58,039	0	3,575
39 Michigan State University	130,392	120,904	117,219	116,166	58,591	55,665	13,505	2,631
40 Louisiana State U System	130,209	124,209	121,908	115,734	52,601	50,931	26,301	376
Total, 1st 40 institutions	8,497,836	7,826,764	7,277,614	6,786,670	783,909	2,439,563	5,042,211	232,153
41 University of IL Chicago	127,786	110,518	103,074	88,861	0	32,830	86,864	8,092
42 Mt Sinai Sch Med	127,765	109,448	94,776	92,405	0	49,611	78,154	0
43 University of Kentucky	126,650	117,731	90,936	85,515	52,996	2,141	67,909	3,604
44 U Med & Dent of NJ	126,277	114,491	110,383	98,535	0	50,211	76,066	0
45 Indiana University	119,441	110,220	99,219	93,812	22	38,367	75,755	5,297
46 Vanderbilt University	117,715	109,534	98,318	93,514	0	57,323	52,456	7,936
47 University of Cincinnati	115,975	129,578	115,869	103,213	0	42,373	71,409	2,193
48 Rockefeller Univ, The	115,715	106,492	101,395	97,284	0	110,870	4,845	0
49 Wayne State University	114,217	104,460	93,689	84,603	0	3,255	108,818	2,144
50 Yeshiva University	111,771	99,000	96,819	91,430	0	27,093	60,965	23,713
Total, 1st 50 institutions	9,701,148	8,938,236	8,282,092	7,715,842	836,927	2,853,637	5,725,452	285,132

See explanatory information and SOURCE at end of table.

Table B-58. R&D expenditures in the life sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 2 of 4

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
51 University of Rochester	110,841	111,899	94,688	90,143	0	30,292	75,767	4,782
52 University of Chicago	108,200	103,348	104,122	96,240	0	35,140	72,861	199
53 Oregon Health Sciences U	106,952 i	100,300 i	93,635 i	76,710 i	0 i	26,332 i	71,837 i	8,783 i
54 U of Missouri Columbia	105,545	98,662	91,673	84,921	48,200	29,330	26,870	1,145
55 SUNY at Buffalo	105,524	93,114	90,923	87,207	0	47,346	51,472	6,706
56 UT Houston Hlth Sci Ctr	105,307	101,993	95,638	82,800	0	24,590	69,756	10,961
57 University of Virginia	102,816	88,752	69,703	56,261	0	35,555	63,111	4,150
58 Pennsylvania State U	101,867	99,746	93,820	94,400	23,190	53,873	21,693	3,111
59 Purdue University	101,479	96,025	93,060	91,770	38,538	44,636	14,042	4,263
60 Georgetown University	98,480e	106,347	110,351	103,154	0	11,119e	85,697e	1,664e
Total, 1st 60 institutions	10,748,159	9,938,422	9,219,705	8,579,448	946,855	3,191,850	6,278,558	330,896
61 University of Utah	98,011	94,383	89,029	70,658	0	26,549	66,691	4,771
62 University of Miami	97,838	92,385	94,398	89,080	0	18,474	79,299	65
63 Rutgers the State U NJ	97,017	91,706	85,290	84,431	32,266	39,776	20,506	4,469
64 Colorado State University	96,230	77,765	68,218	66,166	56,396	30,081	9,184	569
65 U CA Irvine	94,991	86,093	75,840	73,801	0	48,952	45,305	734
66 Boston University	94,478	83,544	79,997	75,059	0	6,418	86,658	1,402
67 U of Tennessee System	92,957	85,380	83,464	79,094	30,481	22,621	36,393	3,462
68 U TX Med Br at Galveston	92,274	85,219	76,484	73,759	0	43,909	48,263	102
69 U TX San An Hlth Sci Ctr	87,804	82,357	86,019	83,028	0	31,316	56,488	0
70 U of Illinois Urbana-Cham	87,213	81,436	71,006	64,036	45,334	35,384	4,571	1,924
Total, 1st 70 institutions	11,686,972	10,798,690	10,029,450	9,338,560	1,111,332	3,495,330	6,731,916	348,394
71 Oregon State University	83,992	83,238	80,008	76,770	55,105	25,311	2,222	1,354
72 U MA Worcester	83,040	82,950	71,346	63,341	0	30,079	31,531	21,430
73 U of South Florida	82,586	63,616	58,771	56,446	0	1,275	80,608	703
74 University of Kansas	82,370	66,492	61,927	60,097	57	41,879	23,220	17,214
75 University of Connecticut	81,970	79,719	75,564	78,643	7,933	28,864	42,471	2,702
76 Wake Forest University	81,220	75,987	74,089	73,003	0	542	80,678	0
77 Tufts University	81,075	73,437	67,094	62,376	0	72,019	7,241	1,815
78 SUNY at Stony Brook	79,447	77,768	72,394	66,034	0	44,046	34,518	883
79 Thomas Jefferson U	78,410	69,460	69,228	69,154	0	39,632	38,053	725
80 Iowa State University	78,037	75,816	74,475	71,154	40,154	32,699	4,316	868
Total, 1st 80 institutions	12,499,119	11,547,173	10,734,346	10,015,578	1,214,581	3,811,676	7,076,774	396,088
81 VA Polytech Inst & St U	73,781	66,495	65,396	52,424	59,805	8,539	3,947	1,490
82 Tulane University	72,140	72,246	70,668	68,169	0	8,930	28,675	34,535
83 Virginia Commonwealth U	69,763	70,968	70,273	72,016	0	24,843	42,880	2,040
84 MA Institute of Tech	66,924	42,744	42,738	36,104	113	52,411	13,541	859
85 Mississippi State U	65,748	62,253	53,238	53,126	57,964	1,137	6,451	196
86 Washington State U	65,632	64,805	59,631	59,458	22,959	36,994	3,433	2,246
87 U of Nebraska at Lincoln	62,623	74,011 i	72,914	65,873	40,257	20,762	0	1,604
88 Univ of Hawaii at Manoa	62,503	57,016	49,719	44,325	19,409	11,818	17,716	13,560
89 University of Oklahoma	62,471	56,247	50,649	47,858	0	26,202	31,709	4,560
90 Medical Col of Wisconsin	61,446	56,021	51,629	47,365	0	22,674	38,772	0
Total, 1st 90 institutions	13,162,150	12,169,979	11,321,201	10,562,296	1,415,088	4,025,986	7,263,898	457,178
91 Rush University	58,166	52,378	47,357	45,056	0	10,742	44,802	2,622
92 Kansas State University	56,739	54,268	50,095	48,419	41,091	15,511	137	0
93 University of Vermont	56,013	51,015	52,487	46,766	5,436	20,324	25,662	4,591
94 Med U of South Carolina	55,819e	57,940	57,111	54,426	0	17,804e	28,395e	9,620e
95 U of NE Med Ctr	54,205	50,453	45,365	42,612	0	34,363	19,842	0
96 Clemson University	54,023	47,941	40,781	40,820	23,451	26,765	768	3,039
97 Dartmouth College	53,543	49,978	41,417	40,927	0	2,403	51,140	0
98 Auburn University	51,324	48,586	47,797	46,720	37,693	9,091	2,948	1,592
99 Temple University	45,371	46,219	39,912	40,334	0	21,905	22,839	627
100 U CA Riverside	45,241	49,242	56,461	52,873	21,974	22,588	679	0
Total, 1st 100 institutions	13,692,594	12,677,999	11,799,984	11,021,249	1,544,733	4,207,482	7,461,110	479,269

See explanatory information and SOURCE at end of table.

Table B-58. R&D expenditures in the life sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 3 of 4

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
101 Oklahoma State University	45,141	38,293	35,653	47,049	26,327	14,784	3,828	202
102 U Arkansas Medical Sci	44,066	39,487	37,336	33,354	0	12,489	31,577	0
103 U Arkansas Main	43,733	46,523	42,188	38,720	42,254	1,479	0	0
104 University of Louisville	42,131	31,008	26,998	23,571	0	15,049	25,256	1,826
105 U PR Mayaguez Campus	41,981	37,691	35,732	33,724	40,971	988	22	0
106 Medical Col of Georgia	41,103	39,806	38,725	35,971	0	21,783	19,217	103
107 University of Idaho	40,633	41,187	42,226i	41,210	33,437	6,684	509	3
108 SUNY at Albany	38,486	28,221	37,106	44,725	0	38,486	0	0
109 University of New Mexico	36,824	40,612	34,492	33,096	0	19,727	11,274	5,823
110 U MD at College Park	35,966	33,772	31,579	31,285	25,565	9,404	0	997
Total, 1st 110 institutions	14,102,658	13,054,599	12,162,019	11,383,954	1,713,287	4,348,355	7,552,793	488,223
111 Brown University	34,242	30,976	28,892	26,204	0	4,730	26,100	3,412
112 North Dakota State U	33,813	32,362	25,193	30,408	31,589	1,467	757	0
113 Utah State University	33,636	32,316	32,815	26,561	22,692	7,046	3,898	0
114 Montana St U Bozeman	33,283	32,362	31,996	30,569	24,454	8,553	0	276
115 West Virginia University	33,247	34,199	28,469	25,308	7,195	8,562	17,038	452
116 U TX at Austin	30,561	25,821	26,363	22,176	106	21,507	8,573	375
117 SUNY Hlth Sci Ctr Brklyn	28,840	27,517	29,727	30,254i	0	17,322	11,443	75
118 MCP Hahnemann Univ	27,254	95,984	85,748	48,790	0	9,590	15,329	2,335
119 Saint Louis University	27,118	26,000	25,356	23,950	0	11,072	12,987	3,059
120 California Inst of Tech	26,791	32,425	31,240	24,137	0	26,791	0	0
Total, 1st 120 institutions	14,411,443	13,424,561	12,507,818	11,672,311	1,799,323	4,464,995	7,648,918	498,207
121 U MA Amherst	26,596	26,555	23,134	20,387	16,051	7,831	0	2,714
122 Loyola U of Chicago	25,799	28,980	25,888	24,437	0	12,443	12,919	437
123 C R Drew U of Med & Sci	24,484	17,205e	17,205e	16,386	0	0	24,484	0
124 Texas Tech University	24,337	22,446	21,078	22,260	10,365	8,834	5,017	121
125 Eastern VA Med School	24,096	21,672	19,109	17,730	0	8,299	15,687	110
126 U MD Biotechnology Inst	23,425	23,944	22,188	16,776	5,599	17,633	0	193
127 U of South Carolina	23,387	18,180	17,431	19,819	0	4,778	18,609	0
128 George Washington U	23,269	26,872	21,627	24,344	0	334	22,905	30
129 Unif Svcs U of Hlth Sci	22,898	20,309	18,812	36,851	0	9,548	13,350	0
130 University of Wyoming	21,491	19,657	17,640	17,625	11,822	8,430	1,239	0
Total, 1st 130 institutions	14,651,225	13,650,381	12,711,930	11,888,926	1,843,160	4,543,125	7,763,128	501,812
131 New York Medical College	20,436	19,159	16,890	16,372	0	11,656	8,780	0
132 Brandeis University	20,127	20,304	19,992	17,513	0	20,127	0	0
133 San Diego St University	19,928	19,023	20,185	22,479	357	10,777	7,363	1,431
134 Princeton University	19,429	17,843	17,693	18,840	0	19,429	0	0
135 Sthm IL U Carbondale	18,967	16,616	16,445	15,455	6,116	4,860	7,386	605
136 U of Nevada Reno	18,855	21,761	21,862	18,264	5,149	10,416	3,150	140
137 Loma Linda University	18,818	12,788	12,397	9,724	0	9,261	8,638	919
138 New Mexico State Univ	17,582	16,330	19,466	20,257	15,672	1,830	34	46
139 University of Delaware	17,348	17,180	13,272	11,544	14,657	2,321	0	370
140 U of Alaska Fairbanks	17,234	19,562i	18,612i	18,357i	7,374	9,860	0	0
Total, 1st 140 institutions	14,839,949	13,830,947	12,888,744	12,057,731	1,892,485	4,643,662	7,798,479	505,323

See explanatory information and SOURCE at end of table.

Table B-58. R&D expenditures in the life sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 4 of 4

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Agric- cultural sciences	Bio- logical sciences	Medical sciences	Other
141 U PR Med Sci Campus	17,114	19,830	15,575	15,005	0	0	17,114	0
142 U of Maine	16,742	14,276	16,547	21,837	6,550	9,498	0	694
143 Univ of Montana, The	16,707	13,896	14,736	13,891	6,135	8,328	968	1,276
144 Creighton University	15,725	14,758	12,642	11,446	0	3,875	11,834	16
145 SUNY Upstate Med U	15,099	14,089	14,914	14,093 ⁱ	0	8,339	6,760	0
146 U of LA at Lafayette	14,834	12,461	12,156	3,189	348	3,402	10,321	763
147 Georgia Institute of Tech	14,217	15,886	6,810	4,790	2,483	3,062	8,672	0
148 Wright State University	14,093	11,943	10,031	10,450	0	2,241	11,787	65
149 University of Oregon	13,986	14,451	14,652	15,249	0	7,411	6,575	0
150 Morehouse School of Med	13,622	13,213	12,828	12,455	0	6,925	6,697	0
Total, 1st 150 institutions	14,992,088	13,975,750	13,019,635	12,180,136	1,908,001	4,696,743	7,879,207	508,137
Total, all other sampled institutions	599,168	607,448	566,662	531,770	123,366	315,769	111,658	48,375

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY:
 -- = not available
 e = estimated
 i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-59. Federally financed R&D expenditures in the life sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 1 of 4

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
Total, all institutions	8,920,220	8,316,215	7,760,228	7,402,806	545,563	3,203,327	4,848,097	323,233
1 Johns Hopkins U ¹	281,249	259,454	244,682	228,357	0	69,030	190,804	21,415
2 U of Washington	246,803	222,448	214,307	202,810	10,939	75,050	158,060	2,754
3 U CA San Francisco	233,181	219,630	206,749	221,864	0	0	233,181	0
4 U of Pennsylvania	227,734	198,815	170,897	164,593	51	89,125	131,420	7,138
5 Washington University	191,983	161,884	163,180	135,203	0	93,845	94,916	3,222
6 Harvard University	183,218	163,991	138,054	129,710	0	95,605	87,613	0
7 Yale University	183,022	174,414	161,454	149,625	752	65,121	117,149	0
8 University of Michigan	182,255	171,935	154,678	144,865	1,579	57,611	101,076	21,989
9 Stanford University	174,195	155,050	140,805	130,014	0	11,594	162,450	151
10 U CA Los Angeles	169,502	159,433	148,140	161,934	0	31,370	138,132	0
Total, 1st 10 institutions	2,073,142	1,887,054	1,742,946	1,668,975	13,321	588,351	1,414,801	56,669
11 University of Pittsburgh	167,748	145,487	136,957	125,971	0	4,832	159,532	3,384
12 Columbia U in City of NY	153,549	144,577	135,093	124,483	0	64,933	88,544	72
13 U of Alabama Birmingham	153,179	154,908	138,895	119,858	0	49,015	103,675	489
14 University of Minnesota	147,646	144,826	139,674	139,154	10,790	35,396	97,117	4,343
15 Duke University	143,274	133,454	122,374	115,906	0	51,986	90,674	614
16 Baylor Col of Medicine	141,111	110,610	97,829	92,294	0	85,138	55,973	0
17 U of NC Chapel Hill	138,631	131,183	114,807	108,904	0	60,698	71,610	6,323
18 U CA San Diego	135,740	126,944	122,177	143,141	0	26,043	109,662	35
19 U WI-Madison	133,846	126,814	122,349	120,169	8,167	48,355	75,795	1,529
20 Emory University	126,500	111,682	99,422	88,425	0	33,978	68,489	24,033
Total, 1st 20 institutions	3,514,366	3,217,539	2,972,523	2,847,280	32,278	1,048,725	2,335,872	97,491
21 University of Colorado	116,014	104,521	98,022	89,607	0	34,279	80,370	1,365
22 Cornell University	115,982	110,388	103,585	99,877	12,719	28,845	74,618	0
23 Case Western Reserve U	114,553	106,938	94,708	86,625	0	34,726	79,194	633
24 U TX SW Med Ctr at Dallas	101,996	97,200	89,357	81,468	0	48,467	53,209	320
25 U CA Davis	98,784	88,045	81,350	105,275	28,573	25,046	45,165	0
26 U of Iowa	96,891	89,203	83,511	81,645	0	23,798	72,901	192
27 U of Southern California	94,480	91,664	92,577	88,447	0	3,277	84,793	6,410
28 University of Chicago	91,591	87,762	84,766	80,687	0	30,216	61,186	189
29 Vanderbilt University	91,369	86,936	79,651	77,157	0	47,819	36,745	6,805
30 Yeshiva University	89,680	80,000	77,936	73,396	0	21,738	48,914	19,028
Total, 1st 30 institutions	4,525,706	4,160,196	3,857,986	3,711,484	73,570	1,346,736	2,972,967	132,433
31 New York University	89,173	81,747	75,150	72,872	0	33,815	31,967	23,391
32 Mt Sinai Sch Med	84,624	69,995	60,914	61,599	0	38,074	46,550	0
33 U of MD Baltimore	84,516	78,037	72,100	65,211	0	12,677	67,613	4,226
34 University of Cincinnati	83,303	74,095	63,654	58,523	0	30,223	52,887	193
35 Northwestern University	82,942	78,649	67,983	56,999	0	37,665	40,965	4,312
36 Boston University	80,675	67,475	64,981	59,631	0	6,001	73,418	1,256
37 University of Arizona	80,174	75,275	71,555	72,090	14,366	27,421	36,930	1,457
38 Ohio State University	77,926	72,194	66,322	61,724	13,773	24,205	34,223	5,725
39 Georgetown University	76,707	79,223	78,981	75,805	0	9,311	66,170	1,226
40 University of Rochester	75,975	76,928	67,532	65,869	0	24,938	48,650	2,387
Total, 1st 40 institutions	5,341,721	4,913,814	4,547,158	4,361,787	101,709	1,591,066	3,472,340	176,606
41 University of Florida	75,556	63,549	57,850	54,724	12,776	29,159	32,326	1,295
42 Oregon Health Sciences U	71,420	66,743	64,472	48,222	0	20,366	43,222	7,832
43 UT Houston Hlth Sci Ctr	71,288	70,446	67,205	61,456	0	17,247	46,343	7,698
44 Indiana University	70,151	64,970	60,771	56,549	2	24,406	43,415	2,328
45 University of Utah	68,423	63,895	62,182	57,785	0	23,490	42,186	2,747
46 University of Virginia	67,772	61,600	49,517	43,423	0	25,905	39,605	2,262
47 University of IL Chicago	67,001	56,850	52,832	42,757	0	19,257	42,909	4,835
48 U TX MD Anderson Cnrc Ctr	66,016	60,347	47,524	40,709	0	32,330	33,686	0
49 U CA Berkeley	64,757	65,728	62,703	67,682	2,822	48,568	13,367	0
50 University of Miami	63,869	62,022	65,103	61,623	0	15,210	48,646	13
Total, 1st 50 institutions	6,027,974	5,549,964	5,137,317	4,896,717	117,309	1,847,004	3,858,045	205,616

See explanatory information and SOURCE at end of table.

Table B-59. Federally financed R&D expenditures in the life sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Agricultural sciences	Biological sciences	Medical sciences	Other
51 U Med & Dent of NJ	61,730	59,828	57,471	47,505	0	32,100	29,630	0
52 Wake Forest University	59,351	56,023	53,480	54,124	0	483	58,868	0
53 SUNY at Buffalo	57,307	48,799	52,694	52,205	0	29,596	23,637	4,074
54 U TX San An Hlth Sci Ctr	56,904	51,954	53,478	51,203	0	23,446	33,458	0
55 Thomas Jefferson U	56,369	51,728	49,091	51,475	0	29,724	25,985	660
56 Pennsylvania State U	56,182	52,397	50,925	48,236	6,099	32,794	15,691	1,598
57 Colorado State University	56,063	42,266	42,396	39,003	32,246	17,158	6,572	87
58 U MA Worcester	55,516	53,766	43,350	40,198	0	26,301	26,260	2,955
59 U TX Med Br at Galveston	54,759	48,310	41,831	38,323	0	27,303	27,456	0
60 Tufts University	54,020	51,225	46,538	43,697	0	49,215	3,687	1,118
Total, 1st 60 institutions	6,596,175	6,066,260	5,628,571	5,362,686	155,654	2,115,124	4,109,289	216,108
61 Michigan State University	49,996	45,496	46,774	43,889	12,697	28,137	7,985	1,177
62 MA Institute of Tech	49,466	33,826	32,907	29,882	89	40,848	7,697	832
63 SUNY at Stony Brook	48,971	48,990	43,766	41,015	0	28,424	20,160	387
64 U CA Irvine	48,827	41,652	38,718	42,129	0	33,036	15,406	385
65 Wayne State University	47,371	46,472	43,004	37,545	0	1,727	44,983	661
66 Medical Col of Wisconsin	47,087	43,831	39,364	34,527	0	17,375	29,712	0
67 University of Kentucky	46,622	41,679	43,247	36,567	8,197	1,203	37,086	136
68 Texas A&M University	43,653	43,610	37,707	40,087	14,068	18,399	11,186	0
69 Rockefeller Univ, The	42,689	39,107	39,910	33,525	0	37,924	4,765	0
70 Louisiana State U System	42,673	37,833	35,538	35,603	4,476	29,572	8,549	76
Total, 1st 70 institutions	7,063,530	6,488,756	6,029,506	5,737,455	195,181	2,351,769	4,296,818	219,762
71 Virginia Commonwealth U	42,593	43,479	41,288	42,904	0	18,163	23,477	953
72 University of Georgia	42,100	42,412	43,187	43,627	12,238	27,675	2,187	0
73 Tulane University	41,482	44,002	40,477	40,152	0	6,583	11,043	23,856
74 University of Kansas	38,866	28,377	28,565	25,069	26	19,769	10,765	8,306
75 University of Connecticut	38,767	37,120	34,607	35,719	1,384	15,804	20,281	1,298
76 U of Tennessee System	38,605	37,064	38,469	36,635	5,443	15,550	15,093	2,519
77 Oregon State University	38,305	40,011	39,935	39,057	25,608	10,745	655	1,297
78 U of Missouri Columbia	37,318	31,875	30,421	27,666	13,752	11,459	11,886	221
79 Univ of Hawaii at Manoa	36,536	31,608	28,715	22,993	8,322	7,136	13,016	8,062
80 Dartmouth College	35,707	34,859	33,103	30,703	0	1,809	33,898	0
Total, 1st 80 institutions	7,453,809	6,859,563	6,388,273	6,081,980	261,954	2,486,462	4,439,119	266,274
81 Purdue University	34,525	32,707	33,033	33,653	9,052	17,221	6,125	2,127
82 SUNY at Albany	34,434	23,274	30,678	37,400	0	34,434	0	0
83 U of Illinois Urbana-Cham	33,684	31,887	30,867	29,716	9,814	22,213	1,386	271
84 University of Vermont	31,432	27,751	30,379	27,716	2,500	15,413	11,468	2,051
85 Med U of South Carolina	30,997	36,473	37,790	40,637	0	11,056	15,457	4,484
86 Rush University	30,034	27,465	23,717	21,876	0	7,337	21,752	945
87 University of New Mexico	29,014	26,611	23,287	22,345	0	15,098	9,293	4,623
88 University of Oklahoma	28,928	26,845	24,753	20,909	0	14,314	14,234	380
89 Washington State U	27,895	28,160	24,049	23,722	7,292	18,217	780	1,606
90 U Arkansas Medical Sci	26,392	21,857	19,249	16,796	0	8,786	17,606	0
Total, 1st 90 institutions	7,761,144	7,142,593	6,666,075	6,356,750	290,612	2,650,551	4,537,220	282,761
91 Rutgers the State U NJ	26,225	24,892	23,854	22,617	6,243	11,494	8,322	166
92 California Inst of Tech	26,077	31,416	27,510	20,351	0	26,077	0	0
93 Saint Louis University	23,239	22,595	22,087	20,380	0	9,218	11,037	2,984
94 C R Drew U of Med & Sci	22,212	16,052	16,052e	15,288	0	0	22,212	0
95 U of South Florida	21,731	14,694	12,169	10,704	0	295	21,188	248
96 Temple University	21,570	21,568	18,876	19,628	0	13,509	7,770	291
97 Brown University	21,568	19,938	19,015	16,920	0	3,004	16,459	2,105
98 Iowa State University	21,345	20,402	19,014	20,134	9,416	10,270	963	696
99 NC State University	21,277	23,450	23,550	26,979	8,152	12,774	0	351
100 SUNY Hlth Sci Ctr Brklyn	21,053	18,318	18,996	18,685i	0	14,272	6,781	0
Total, 1st 100 institutions	7,987,441	7,355,918	6,867,198	6,548,436	314,423	2,751,464	4,631,952	289,602

See explanatory information and SOURCE at end of table.

Table B-59. Federally financed R&D expenditures in the life sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Agricultural sciences	Bio-logical sciences	Medical sciences	Other
101 U TX at Austin	20,222	18,220	15,235	15,812	0	14,733	5,132	357
102 VA Polytech Inst & St U	18,472	18,391	17,317	17,614	14,411	2,957	889	215
103 Mississippi State U	17,460	17,370	13,117	13,709	16,490	163	762	45
104 U of NE Med Ctr	17,167	15,663	13,990	14,029	0	12,732	4,435	0
105 U PR Mayaguez Campus	17,154	13,985	12,897	13,081	16,282	872	0	0
106 MCP Hahnemann Univ	17,039	61,102	48,062	27,723	0	8,405	6,641	1,993
107 University of Idaho	16,173	13,446	14,002	13,249	12,234	3,697	239	3
108 Loyola U of Chicago	15,904	15,676	13,032	14,410	0	8,485	7,130	289
109 George Washington U	15,349	13,989	11,838	12,226	0	334	14,985	30
110 Utah State University	14,747	13,189	14,353	9,548	9,487	2,842	2,418	0
Total, 1st 110 institutions	8,157,128	7,556,949	7,041,041	6,699,837	383,327	2,806,684	4,674,583	292,534
111 Clemson University	14,718	14,996	13,633	13,525	6,389	7,292	209	828
112 Kansas State University	14,633	13,771	13,409	13,470	7,505	7,099	29	0
113 Brandeis University	14,534	14,762	14,375	12,497	0	14,534	0	0
114 U of Nebraska at Lincoln	14,120	22,279	21,948	16,583	8,323	5,550	0	247
115 New York Medical College	14,029	13,639	11,866	11,657	0	9,086	4,943	0
116 Medical Col of Georgia	13,991	13,127	11,904	11,338	0	8,825	5,166	0
117 U PR Med Sci Campus	13,971	11,843	12,978	12,191	0	0	13,971	0
118 Princeton University	13,148	11,424	11,512	11,985	0	13,148	0	0
119 Morehouse School of Med	12,948	12,060	11,709	11,084	0	6,375	6,573	0
120 Montana St U Bozeman	12,751	12,094	9,775	9,257	6,994	5,494	0	263
Total, 1st 120 institutions	8,295,971	7,696,944	7,174,150	6,823,424	412,538	2,884,087	4,705,474	293,872
121 U of Nevada Reno	12,467	12,327	11,352	10,974	2,077	7,934	2,399	57
122 U of South Carolina	12,433	8,925	9,060	11,586	0	2,961	9,472	0
123 U MD at College Park	12,280	11,181	10,872	8,899	5,088	6,195	0	997
124 Howard University	12,248	12,066	10,708	7,762	0	5,354	6,810	84
125 Loma Linda University	12,217	7,834	7,062	4,863	0	7,364	3,934	919
126 University of Oregon	12,169	11,903	12,566	12,841	0	6,358	5,811	0
127 Florida A&M University	11,778	8,888	11,006	9,673	4,647	5,901	193	1,037
128 Univ of Montana, The	11,368	9,047	8,551	8,044	3,470	6,107	647	1,144
129 Eastern VA Med School	11,354	9,449	10,618	10,203	0	2,962	8,392	0
130 University of Louisville	11,227	11,308	10,444	10,388	0	4,761	6,084	382
Total, 1st 130 institutions	8,415,512	7,799,872	7,276,389	6,918,657	427,820	2,939,984	4,749,216	298,492
131 U MA Amherst	10,892	10,256	7,926	7,890	5,184	4,730	0	978
132 San Diego St University	10,643	11,024	11,101	9,548	290	6,068	3,859	426
133 West Virginia University	10,603	10,774	8,243	10,856	1,510	4,204	4,825	64
134 University of Wyoming	10,042	8,552	6,803	7,071	6,570	3,213	259	0
135 Auburn University	9,971	11,062	10,418	10,334	6,111	2,007	740	1,113
136 Unif Svcs U of Hlth Sci	9,696	7,547	9,218	24,621	0	4,043	5,653	0
137 Oklahoma State University	9,637	9,232	9,132	11,812	4,316	5,028	264	29
138 Med Col of Ohio	9,219	8,107	9,766	9,559	0	7,549	1,279	391
139 U Arkansas Main	8,939	8,196	8,463	8,369	8,347	592	0	0
140 Meharry Medical College	8,865	10,331e	10,331e	10,331	0	4,593	3,991	281
Total, 1st 140 institutions	8,514,019	7,894,953	7,367,790	7,029,048	460,148	2,982,011	4,770,086	301,774

See explanatory information and SOURCE at end of table.

Table B-59. Federally financed R&D expenditures in the life sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Agri-cultural sciences	Bio-logical sciences	Medical sciences	Other
141 U of South Alabama	8,456e	8,456	8,425	8,225	0e	4,320e	3,821e	315
142 Wright State University	8,241	7,081	6,271	6,351	0	855	7,386	0
143 U MD Biotechnology Inst	8,017	6,794	4,615	4,106	2,356	5,623	0	38
144 SUNY Upstate Med U	7,889	6,487	7,188	6,764 i	0	5,627	2,262	0
145 U CA Riverside	7,511	9,242	14,001	16,940	2,209	4,731	571	0
146 Albany Medical College	7,437	6,545	5,632	6,691	0	6,006	1,431	0
147 Arizona State University	7,285	6,371	6,111	4,963	320	5,456	0	1,509
148 U of Rhode Island	7,132	6,783	3,815 i	3,719 i	4,854	756	896	626
149 New Mexico State Univ	6,855	6,936	6,586	7,455	5,456	1,376	23	0
150 Florida State University	6,278	5,780	5,211	5,062	0	5,799	19	460
Total, 1st 150 institutions	8,589,120	7,965,428	7,435,645	7,099,324	475,343	3,022,560	4,786,495	304,722
Total, all other sampled institutions	331,100	350,787	324,583	303,482	70,220	180,767	61,602	18,511

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-60. Total and federally financed R&D expenditures in the agricultural sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	2,031,367	1,995,484	1,966,003	1,910,064	545,563	533,362	548,291	559,571
1 U CA Davis	104,295	106,546	140,881	141,827	28,573	28,416	40,536	59,858
2 University of Florida	87,218	72,476	81,807	92,824	12,776	11,111	10,185	11,461
3 University of Georgia	75,994	73,069	73,530	72,109	12,238	12,355	13,045	13,435
4 NC State University	72,724	60,168	61,817	45,573	8,152	8,259	9,163	11,176
5 VA Polytech Inst & St U	59,805	54,399	53,623	43,785	14,411	14,582	13,831	14,851
6 University of Minnesota	58,619	55,693	52,624	52,015	10,790	10,424	10,076	10,589
7 Michigan State University	58,591	54,954	54,085	62,953	12,697	11,320	13,247	13,555
8 Mississippi State U	57,964	55,294	44,736	45,191	16,490	16,127	11,670	11,773
9 Texas A&M University	57,792	59,860	56,394	58,429	14,068	15,812	14,771	17,681
10 Colorado State University	56,396	42,874	39,154	36,459	32,246	23,151	24,760	20,507
Total, 1st 10 institutions	689,398	635,333	658,651	651,165	162,441	151,557	161,284	184,886
11 Oregon State University	55,105	57,866	56,740	56,312	25,608	27,826	27,871	28,888
12 University of Kentucky	52,996	50,143	36,894	35,651	8,197	4,472	8,023	7,782
13 Louisiana State U System	52,601	52,166	51,680	48,396	4,476	1,954	2,219	2,017
14 U of Missouri Columbia	48,200	43,951	42,330	40,336	13,752	11,304	11,842	11,336
15 Cornell University	48,153	45,628	44,405	41,747	12,719	12,154	12,983	11,305
16 Ohio State University	45,548	51,776	47,492	40,420	13,773	10,281	9,218	6,496
17 University of Arizona	45,495	46,049	42,715	41,710	14,366	13,850	13,318	11,736
18 U of Illinois Urbana-Cham	45,334	40,450	39,608	35,912	9,814	8,790	10,166	10,786
19 U Arkansas Main	42,254	45,060	40,784	37,056	8,347	7,862	8,132	7,832
20 Kansas State University	41,091	38,347	34,494	33,971	7,505	6,562	6,034	6,616
Total, 1st 20 institutions	1,166,175	1,106,769	1,095,793	1,062,676	280,998	256,612	271,090	289,680
21 U PR Mayaguez Campus	40,971	36,801	34,974	33,307	16,282	13,280	12,229	12,785
22 U of Nebraska at Lincoln	40,257	54,227	53,424	47,038	8,323	16,974	16,722	10,957
23 Iowa State University	40,154	38,808	37,570	36,758	9,416	9,615	9,556	11,254
24 Purdue University	38,538	35,625	35,018	33,401	9,052	7,821	8,176	7,239
25 Auburn University	37,693	36,228	34,609	33,640	6,111	7,367	6,549	6,685
26 University of Idaho	33,437	33,782	34,208	33,384	12,234	9,843	10,446	9,884
27 Rutgers the State U NJ	32,266	30,425	28,036	28,536	6,243	5,300	5,908	5,506
28 North Dakota State U	31,589	30,113	21,990	21,765	3,592	4,062	2,541	3,763
29 U of Tennessee System	30,481	28,216	28,540	27,670	5,443	4,786	5,115	5,556
30 U WI-Madison	28,630	28,767	26,333	26,935	8,167	8,301	8,023	7,879
Total, 1st 30 institutions	1,520,191	1,459,761	1,430,495	1,385,110	365,861	343,961	356,355	371,188
31 U CA Berkeley	26,553	53,831	51,107	48,670	2,822	13,167	13,501	16,215
32 Oklahoma State University	26,327	26,528	24,958	24,206	4,316	4,567	4,556	6,500
33 U MD at College Park	25,565	27,036	23,152	21,707	5,088	6,068	6,259	3,865
34 Montana St U Bozeman	24,454	23,132	24,063	23,523	6,994	5,855	4,956	5,487
35 Clemson University	23,451	25,778	24,942	25,649	6,389	8,063	8,338	8,498
36 Pennsylvania State U	23,190	23,151	21,869	27,342	6,099	5,494	5,761	6,537
37 Washington State U	22,959	24,214	22,722	24,096	7,292	7,925	7,235	7,653
38 Utah State University	22,692	21,294	20,574	17,542	9,487	8,531	8,234	6,004
39 U CA Riverside	21,974	23,552	50,698	46,622	2,209	2,241	11,067	13,153
40 Univ of Hawaii at Manoa	19,409	18,099	15,466	15,244	8,322	6,737	6,258	3,476
Total, 1st 40 institutions	1,756,765	1,726,376	1,710,046	1,659,711	424,879	412,609	432,520	448,576
41 U of Washington	16,516	16,167	16,793	18,763	10,939	11,160	11,360	11,319
42 U MA Amherst	16,051	16,364	12,689	12,667	5,184	4,859	2,493	3,367
43 New Mexico State Univ	15,672	13,880	17,464	17,345	5,456	5,071	4,874	5,494
44 University of Delaware	14,657	14,927	12,308	10,910	2,335	2,367	1,875	1,868
45 University of Wyoming	11,822	11,805	9,851	10,847	6,570	5,427	4,210	4,340
46 South Dakota State U	10,436	10,361	10,504	9,406	3,419	3,621	3,154	3,027
47 Texas Tech University	10,365	9,030	8,472	9,101	1,392	1,472	1,588	1,876
48 University of Connecticut	7,933	7,331	6,334	6,523	1,384	1,171	1,131	1,112
49 U of Alaska Fairbanks	7,374	9,136	8,738	8,553	2,465	1,668	1,488	1,606
50 West Virginia University	7,195	6,222	6,366	12,519	1,510	1,382	1,278	3,995
Total, 1st 50 institutions	1,874,786	1,841,599	1,819,565	1,776,345	465,533	450,807	465,971	486,580

See explanatory information and SOURCE at end of table.

Table B-60. Total and federally financed R&D expenditures in the agricultural sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 U of Maine	6,550	5,556	7,086	10,010	2,262	1,823	3,407	4,198
52 CA St U Fresno	6,524 i	5,810 i	4,935 i	4,240 i	287 i	257 i	228 i	198 i
53 Univ of Montana, The	6,135	5,623	5,587	5,457	3,470	3,118	2,902	2,659
54 Sthm IL U Carbondale	6,116	5,817	5,117	4,772	974	981	1,485	1,549
55 Eastern Kentucky U	5,925 i	536 i	431 i	325 i	991 i	0 i	0 i	0 i
56 U of Rhode Island	5,648	4,781	2,007 i	1,492 i	4,854	4,219	403 i	395 i
57 U MD Biotechnology Inst	5,599	5,723	5,145	4,958	2,356	1,997	1,510	1,140
58 University of Vermont	5,436	5,681	5,816	6,182	2,500	2,400	2,247	2,593
59 U of Nevada Reno	5,149	6,788	10,334	5,820	2,077	2,036	2,122	2,691
60 Florida A&M University	5,094	4,737	5,309	5,063	4,647	3,506	4,417	4,335
Total, 1st 60 institutions	1,932,962	1,892,651	1,871,332	1,824,664	489,951	471,144	484,692	506,338
61 U of New Hampshire	4,845	4,918	4,535	3,696	1,224	1,089	1,261	1,055
62 Alabama A&M University	4,476	4,734	4,209e	4,124 i	3,505	3,421	3,369e	3,300 i
63 Prairie View A&M U	4,209	3,357	3,490	3,956	3,058	3,230	3,263	3,818
64 SUNY Col Env Sci Frstry	3,887	3,293 i	3,066 i	3,277 i	516	359 i	356 i	400 i
65 Alcorn State University	3,863	3,913	3,148 i	2,498	3,863	3,913	3,148 i	2,498
66 Tennessee State U	3,821	3,462	3,619	3,812	2,548	2,314	2,597	2,849
67 Texas A&M Univ Kingsville	3,651	4,002	4,636 i	4,154 i	395	495	417 i	374 i
68 Michigan Tech University	3,479	3,146	2,901	2,143	2,683	2,309	2,007	1,198
69 Stephen F Austin St U	3,477	2,420	3,423	1,847	434	408	1,504	255
70 NC A&T State University	3,314	2,879	3,265	3,754	2,503	2,396	2,589	3,238
Total, 1st 70 institutions	1,971,984	1,928,775	1,907,624	1,857,925	510,680	491,078	505,203	525,323
71 University of Michigan	3,313	2,592	0	0	1,579	1,533	0	0
72 U Arkansas Pine Bluff	3,077e	3,077	3,022	1,987	2,225e	2,225	2,287	1,638
73 Fort Valley State U	2,674	2,696	1,975	1,741	2,268	2,281	1,975	1,741
74 Southern U A&M All Camp	2,627	2,639	2,861	3,144	1,821	1,946	2,026	2,268
75 Georgia Institute of Tech	2,483	2,258	2,440	2,249	1,063	990	1,143	1,158
76 Humboldt State University	2,448	2,249	0 i	0 i	1,580	1,455	0 i	0 i
77 Lincoln University	2,405	3,031 i	2,623	2,712	2,405	2,381 i	2,321	2,428
78 Langston University	2,340	2,031	1,828	2,521	2,340	2,031	1,828	2,521
79 Virginia State University	2,297	1,597	2,140	2,124	1,747	1,051	1,605	1,589
80 Calif Polytechnic	2,197	855	954 i	898 i	963	39	583 i	437 i
Total, 1st 80 institutions	1,997,845	1,951,800	1,925,467	1,875,301	528,671	507,010	518,971	539,103
81 Tuskegee University	2,121	15,305	13,540	3,935	1,975	10,906	12,137	3,551
82 Northern Arizona U	1,987	2,059	2,532 i	2,962	695	710	1,640 i	1,391
83 West Texas A&M U	1,946	2,130	308 i	248 i	6	4	90 i	73 i
84 U MD Eastern Shore	1,683	1,200	1,129	800	1,683	1,200	1,129	800
85 Yale University	1,548	1,529	1,557	1,610	752	776	678	711
86 Delaware State University	1,509	1,964	1,420	581	1,143	1,839	1,311	505
87 U CA Santa Cruz	1,488	1,276	1,503	1,563	30	28	12	58
88 U of the Virgin Islands	1,466e	1,821e	1,821e	1,821	1,466e	1,818e	1,818e	1,818
89 Harvey Mudd College	1,452 i	0 i	0 i	0 i	277 i	0 i	0 i	0 i
90 CA St U Dominguez Hills	1,299 i	0 i	0 i	0 i	526 i	0 i	0 i	0 i
Total, 1st 90 institutions	2,014,344	1,979,084	1,949,277	1,888,821	537,224	524,291	537,786	548,010

See explanatory information and SOURCE at end of table.

Table B-60. Total and federally financed R&D expenditures in the agricultural sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 University of Guam	1,212	1,223	1,434 i	1,426 i	1,201e	1,206	1,434 i	1,426 i
92 Western Illinois U	1,093	1,613	1,519	1,320	420	1,122	1,010	977
93 U WI-Stevens Point	966	888	1,222	1,525	181	251	397	627
94 U MA Dartmouth	865	688	824	739	799	688	758	710
95 University of DC	847	727	892e	892	426	362	362e	362
96 Illinois State University	762	468e	458	423	0	147e	144	185
97 San Francisco State U	717 i	0 i	0 i	0 i	486 i	0 i	0 i	0 i
98 U of Northern Iowa	706	146	169	94	228	64	98	18
99 Arkansas State University	694	417	602 i	582 i	24	13	0 i	0 i
100 Arizona State University	693	706	567	505	320	304	256	268
Total, 1st 100 institutions	2,022,899	1,985,960	1,956,964	1,896,327	541,309	528,448	542,245	552,583
Total, all other sampled institutions	8,468	9,524	9,039	13,737	4,254	4,914	6,046	6,988

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-61. Total and federally financed R&D expenditures in the biological sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	5,012,512	4,573,160	4,178,701	3,908,094	3,203,327	2,928,147	2,681,562	2,527,509
1 Baylor Col of Medicine	134,205	102,767	90,293	85,229	85,138	66,773	57,942	56,642
2 Washington University	121,658	95,844	100,405	81,179	93,845	72,471	74,634	61,519
3 U of Pennsylvania	116,607	98,883	81,693	74,468	89,125	74,506	63,478	59,160
4 Rockefeller Univ, The	110,870	102,569	97,090e	93,175	37,924	35,284	35,705e	29,516
5 Harvard University	108,751	98,793	90,128	85,984	95,605	87,418	75,938	71,178
6 U of Washington	98,301	83,666	79,935	80,653	75,050	69,824	68,837	68,981
7 U WI-Madison	91,009	86,299	82,079	71,681	48,355	45,740	44,225	39,104
8 Johns Hopkins U ¹	89,017	79,603i	74,819	69,186	69,030	61,961i	59,159	54,846
9 Texas A&M University	87,757	88,641	75,452	73,982	18,399	20,423	15,428	14,897
10 U CA Berkeley	84,488	57,018	49,104	46,823	48,568	38,030	35,686	37,843
Total, 1st 10 institutions	1,042,663	894,083	820,998	762,360	661,039	572,430	531,032	493,686
11 U of NC Chapel Hill	80,602	77,094	73,124	67,728	60,698	59,372	52,158	51,406
12 Yale University	78,469	73,251	72,801	71,417	65,121	61,187	59,995	56,911
13 University of Michigan	77,403	81,606	67,366	68,429	57,611	55,139	46,141	46,486
14 Columbia U in City of NY	75,186	67,051	62,300	58,347	64,933	59,234	54,053	48,345
15 U TX SW Med Ctr at Dallas	73,654	70,310	65,159	57,223	48,467	48,414	44,924	38,544
16 Tufts University	72,019	65,091	58,311	53,902	49,215	46,613	41,922	38,386
17 U TX MD Anderson Cnrc Ctr	67,760	61,342	54,206	52,929	32,330	27,871	23,572	20,211
18 University of Georgia	64,073	57,443	66,483	57,002	27,675	27,760	27,786	27,379
19 U of Alabama Birmingham	62,859	59,679	57,694	45,692	49,015	45,928	44,772	35,906
20 U CA Davis	62,830	45,546	9,202	8,272	25,046	16,220	2,945	3,757
Total, 1st 20 institutions	1,757,518	1,552,496	1,407,644	1,303,301	1,141,150	1,020,168	929,300	861,017
21 Duke University	62,002	52,402	38,865	35,819	51,986	44,178	31,929	28,942
22 NC State University	58,039	59,658	48,201	37,116	12,774	14,900	14,387	13,358
23 Vanderbilt University	57,323	55,890	50,932	50,517	47,819	48,206	43,197	42,082
24 Michigan State University	55,665	51,575	49,779	39,366	28,137	26,600	26,286	22,840
25 Pennsylvania State U	53,873	46,249	43,595	40,491	32,794	20,790	27,385	25,677
26 University of Minnesota	53,502	50,431	46,667	44,279	35,396	33,549	30,417	28,772
27 MA Institute of Tech	52,411	42,744	42,427	36,104	40,848	33,826	32,807	29,882
28 Northwestern University	51,343	53,124	42,983	40,760	37,665	35,196	29,391	26,349
29 University of Florida	51,030	45,592	48,499	39,176	29,159	23,676	23,676	18,350
30 Louisiana State U System	50,931	42,916	43,784	41,588	29,572	25,422	23,000	22,993
Total, 1st 30 institutions	2,303,637	2,053,077	1,863,376	1,708,517	1,487,300	1,326,511	1,211,775	1,120,262
31 University of Arizona	50,545	51,099	47,202	46,851	27,421	27,714	25,141	25,248
32 U Med & Dent of NJ	50,211	45,160	46,139	41,253	32,100	27,962	26,830	19,702
33 Cornell University	49,823	52,606	49,038	47,432	28,645	29,908	27,844	27,213
34 Mt Sinai Sch Med	49,611	39,868	27,337	23,239	38,074	30,207	20,184	16,350
35 U CA Irvine	48,952	46,390	44,763	41,790	33,036	28,833	28,318	30,306
36 SUNY at Buffalo	47,346	43,013	38,429	36,007	29,596	27,738	27,854	25,605
37 U CA Los Angeles	47,043	50,563	16,047	16,444	31,370	36,659	12,335	13,771
38 Ohio State University	46,073	43,622	41,428	36,717	24,205	24,693	24,511	23,204
39 Case Western Reserve U	45,270	42,420	37,709	36,931	34,726	31,789	27,331	28,920
40 Purdue University	44,636	43,305	42,484	43,824	17,221	17,283	17,621	20,026
Total, 1st 40 institutions	2,783,147	2,511,123	2,253,952	2,079,005	1,783,694	1,609,297	1,449,744	1,350,607
41 SUNY at Stony Brook	44,046	42,708	37,263	35,557	28,424	28,204	24,638	23,086
42 U TX Med Br at Galveston	43,909	0	0	0	27,303	0	0	0
43 New York University	43,356	41,339	40,876	38,676	33,815	33,767	31,367	29,443
44 University of Cincinnati	42,373	45,159	35,761	33,198	30,223	29,132	22,736	21,652
45 University of Kansas	41,879	37,581	39,529	36,775	19,769	20,141	19,116	16,246
46 Emory University	40,742	37,531	34,336	29,654	33,978	31,097	27,045	24,593
47 University of Colorado	40,601	41,438	38,274	36,427	34,279	32,731	31,599	28,302
48 Rutgers the State U NJ	39,776	40,216	35,644	34,800	11,494	11,162	9,769	10,122
49 Thomas Jefferson U	39,632	37,076	36,870	37,474	29,724	30,322	28,351	31,257
50 SUNY at Albany	38,486	28,221	37,106	44,725	34,434	23,274	30,678	37,400
Total, 1st 50 institutions	3,197,947	2,862,392	2,589,611	2,406,291	2,067,137	1,849,127	1,675,043	1,572,708

See explanatory information and SOURCE at end of table.

Table B-61. Total and federally financed R&D expenditures in the biological sciences at universities and colleges: fiscal years 1996-1999

(Dollars in thousands)

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 Indiana University	38,367	34,999	32,255	31,579	24,406	22,259	21,954	20,661
52 U of Iowa	37,860	34,996	31,113	27,391	23,798	21,700	20,347	18,067
53 Washington State U	36,994	35,230	31,275	29,619	18,217	18,043	14,685	13,997
54 U CA San Diego	35,619	21,625	23,342	20,249	26,043	15,227	16,373	16,849
55 University of Virginia	35,555	28,444	22,762	22,379	25,905	22,523	18,180	18,133
56 U of Illinois Urbana-Cham	35,384	34,894	28,296	25,003	22,213	21,253	19,655	17,576
57 University of Chicago	35,140	33,593	34,951	33,029	30,216	28,013	28,666	28,469
58 U of NE Med Ctr	34,363	29,850	27,035	25,774	12,732	10,148	9,438	8,917
59 University of IL Chicago	32,830	27,997	26,615	23,469	19,257	16,080	16,624	13,986
60 Iowa State University	32,699	31,045	29,661	27,422	10,270	9,505	8,322	8,020
Total, 1st 60 institutions	3,552,758	3,175,065	2,876,916	2,672,205	2,280,194	2,033,878	1,849,287	1,737,383
61 U TX San An Hlth Sci Ctr	31,316	30,312	29,050	28,612	23,446	22,118	19,757	20,748
62 University of Rochester	30,292	32,171	31,879	31,883	24,938	26,412	26,405	26,461
63 Colorado State University	30,081	23,940	23,184	23,366	17,158	13,233	14,143	14,559
64 U MA Worcester	30,079	29,038	21,357	18,338	26,301	26,023	18,105	15,461
65 U of Missouri Columbia	29,330	28,980	27,651	26,197	11,459	11,328	11,572	11,091
66 University of Connecticut	28,864	26,519	26,697	30,027	15,804	14,489	14,493	16,464
67 Yeshiva University	27,093	24,000	25,173	23,772	21,738	18,400	20,263	20,551
68 California Inst of Tech	26,791	32,425	31,240	24,137	26,077	31,416	27,510	20,351
69 Clemson University	26,765	18,366	11,310	11,093	7,292	5,745	3,781	3,675
70 University of Utah	26,549	30,992	32,361	26,829	23,490	24,931	25,067	22,654
Total, 1st 70 institutions	3,839,918	3,451,808	3,136,818	2,916,459	2,477,897	2,227,973	2,030,383	1,909,398
71 Oregon Health Sciences U	26,332 i	24,666 i	23,281 i	18,534 i	20,366 i	19,032 i	18,384 i	13,750 i
72 University of Oklahoma	26,202	23,860	23,022	22,121	14,314	13,559	12,804	11,156
73 Oregon State University	25,311	21,883	19,696	17,982	10,745	10,497	10,018	9,511
74 Virginia Commonwealth U	24,843	23,729	24,490	24,509	18,163	17,491	17,595	17,357
75 UT Houston Hlth Sci Ctr	24,590	23,716	20,458	16,964	17,247	16,123	13,168	12,633
76 Medical Col of Wisconsin	22,674	20,448	17,037	14,446	17,375	15,998	12,990	10,531
77 U of Tennessee System	22,621	23,363	23,300	22,344	15,550	16,148	16,485	15,821
78 U CA Riverside	22,588	25,184	4,130	4,020	4,731	6,541	1,757	2,015
79 Temple University	21,905	19,655	19,650	20,449	13,509	12,220	10,226	10,869
80 Medical Col of Georgia	21,783	20,246	16,640	12,668	8,825	7,561	6,141	5,214
Total, 1st 80 institutions	4,078,767	3,678,558	3,328,522	3,090,496	2,618,722	2,363,143	2,149,951	2,018,255
81 U TX at Austin	21,507	16,100	19,348	15,040	14,733	12,589	11,117	10,901
82 U of MD Baltimore	21,135	21,498	20,221	18,331	12,677	11,706	10,815	9,782
83 U of Nebraska at Lincoln	20,762	12,986 i	12,793	12,226	5,550	3,929 i	3,870	4,212
84 University of Vermont	20,324	17,619	18,590	17,820	15,413	12,569	13,931	12,913
85 Brandeis University	20,127	20,304	19,992	17,513	14,534	14,762	14,375	12,497
86 University of New Mexico	19,727	20,134	16,193	15,644	15,098	15,085	12,072	11,125
87 Princeton University	19,429	17,843	17,693	18,840	13,148	11,424	11,512	11,985
88 University of Miami	18,474	18,103	16,977	14,833	15,210	14,783	14,689	12,848
89 Med U of South Carolina	17,804 e	13,848 i	12,028	11,803	11,056	8,130	8,733	9,106
90 U MD Biotechnology Inst	17,633	18,024	16,823	11,578	5,623	4,765	3,000	2,793
Total, 1st 90 institutions	4,275,689	3,855,017	3,499,180	3,244,124	2,741,764	2,472,885	2,254,065	2,116,417

See explanatory information and SOURCE at end of table.

Table B-61. Total and federally financed R&D expenditures in the biological sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 SUNY Hlth Sci Ctr Brklyn	17,322	7,633	7,931	7,903 i	14,272	4,604	5,209	5,154 i
92 Kansas State University	15,511	15,689	15,504	14,030	7,099	7,206	7,369	6,831
93 University of Louisville	15,049	9,221	7,589	6,913	4,761	4,580	3,758	3,382
94 Oklahoma State University	14,784	10,421	9,238	11,915	5,028	4,404	4,051	4,391
95 Stanford University	13,799	10,837	11,495	11,941	11,594	8,712	9,310	9,898
96 U Arkansas Medical Sci	12,489	7,112	7,347	8,995	8,786	6,661	6,161	5,508
97 Loyola U of Chicago	12,443	13,570	8,573	12,243	8,485	9,131	5,456	5,441
98 Univ of Hawaii at Manoa	11,818	9,905	7,531	6,930	7,136	5,839	4,721	4,413
99 New York Medical College	11,656	10,916	10,325	9,081	9,086	8,374	8,190	7,527
100 Georgetown University	11,119e	11,698	12,243	11,282	9,311	9,055	9,786	9,188
Total, 1st 100 institutions	4,411,679	3,962,019	3,596,956	3,345,357	2,827,322	2,541,451	2,318,076	2,178,150
Total, all other sampled institutions	600,833	611,141	581,745	562,737	376,005	386,696	363,486	349,359

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-62. Total and federally financed R&D expenditures in the medical sciences at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	7,990,865	7,465,880	6,907,687	6,390,735	4,848,097	4,548,854	4,226,893	4,023,857
1 U CA San Francisco	417,095	379,970	343,384	320,757	233,181	219,630	206,749	221,864
2 U CA Los Angeles	280,259	262,859	257,687	219,548	138,132	122,774	131,347	143,838
3 Johns Hopkins U ¹	242,613	228,317	221,924	203,375	190,804	176,533	168,051	158,357
4 Duke University	227,513	175,432	163,325	158,088	90,674	88,740	89,368	85,907
5 U of Washington	208,752	184,673	173,628	163,576	158,060	138,569	131,118	119,752
6 Stanford University	202,810	184,049	164,997	148,022	162,450	145,985	131,199	119,809
7 University of Pittsburgh	202,368	172,822	159,996	148,581	159,532	138,271	130,338	119,929
8 U CA San Diego	179,946	176,274	166,771	159,294	109,662	111,688	105,804	126,292
9 U of Pennsylvania	176,630	160,236	137,670	135,127	131,420	118,314	101,955	100,931
10 University of Michigan	159,844	169,739	151,075	141,748	101,076	105,041	93,761	86,399
Total, 1st 10 institutions	2,297,830	2,094,371	1,940,457	1,798,116	1,474,991	1,365,545	1,289,690	1,283,078
11 Yale University	156,104	150,623	136,212	126,001	117,149	112,451	100,781	92,003
12 U WI-Madison	155,109	146,515	134,944	139,136	75,795	71,332	68,726	70,926
13 U of Alabama Birmingham	150,941	150,571	126,832	111,179	103,675	108,723	91,176	82,208
14 Washington University	150,302	134,460	126,331	107,633	94,916	86,250	85,426	71,038
15 University of Minnesota	148,885	148,478	157,561	141,957	97,117	97,374	95,593	95,649
16 Baylor Col of Medicine	137,993	113,761	102,451	99,384	55,973	43,837	39,887	35,652
17 U of Southern California	133,378	128,732	122,287	121,104	84,793	81,569	81,078	76,323
18 Cornell University	124,879	117,170	106,998	104,182	74,618	68,326	62,758	61,359
19 U of Iowa	116,988	110,821	103,642	101,434	72,901	67,335	62,836	62,411
20 U of MD Baltimore	112,723	114,657	107,847	97,766	67,613	62,430	57,680	52,168
Total, 1st 20 institutions	3,685,132	3,410,159	3,165,562	2,947,892	2,319,541	2,165,172	2,035,631	1,982,815
21 Harvard University	112,668	96,679	92,939	92,294	87,613	76,573	62,116	58,532
22 Columbia U in City of NY	109,152	103,503	94,368	92,565	88,544	85,197	80,920	76,048
23 Emory University	109,007	98,669	90,209	83,002	68,489	61,269	54,810	47,361
24 Wayne State University	108,818	99,380	89,512	81,331	44,983	43,857	40,706	35,670
25 University of Colorado	105,120	97,047	88,172	75,876	80,370	70,452	65,335	59,285
26 Case Western Reserve U	97,140	90,884	83,224	69,401	79,194	74,591	66,908	57,591
27 U TX SW Med Ctr at Dallas	91,496	83,166	75,254	72,753	53,209	48,602	44,310	42,781
28 U of NC Chapel Hill	90,829	85,172	78,781	67,640	71,610	67,008	57,697	52,578
29 Northwestern University	88,008	73,987	67,978	60,163	40,965	38,843	36,230	29,944
30 University of IL Chicago	86,864	76,133	69,364	58,920	42,909	37,183	33,486	26,762
Total, 1st 30 institutions	4,684,234	4,314,779	3,995,363	3,701,837	2,977,427	2,768,747	2,580,149	2,469,367
31 Boston University	86,658	76,460	73,202	68,016	73,418	61,463	59,729	54,743
32 Georgetown University	85,697e	92,522	95,233	89,366	66,170	68,439	67,431	64,997
33 U CA Davis	81,734	80,792	70,939	64,807	45,165	43,409	37,869	41,660
34 Wake Forest University	80,678	75,480	73,572	72,320	58,868	55,568	52,972	53,451
35 U of South Florida	80,608	61,344	56,343	54,903	21,188	14,157	11,465	10,167
36 U TX MD Anderson Cncr Ctr	80,063	73,758	70,244	62,938	33,686	32,476	23,952	20,498
37 University of Miami	79,299	74,257	77,420	74,202	48,646	47,239	50,413	48,739
38 Mt Sinai Sch Med	78,154	69,580	67,439	69,166	46,550	39,788	40,730	45,249
39 U Med & Dent of NJ	76,066	69,331	64,244	57,282	29,630	31,866	30,641	27,803
40 University of Rochester	75,767	74,785	57,731	55,063	48,650	47,813	37,770	37,575
Total, 1st 40 institutions	5,488,958	5,063,088	4,701,730	4,369,900	3,449,398	3,210,965	2,993,121	2,874,249
41 Indiana University	75,755	70,782	63,429	58,467	43,415	39,839	36,330	33,469
42 University of Chicago	72,861	69,343	68,044	60,704	61,186	59,667	56,063	51,379
43 Oregon Health Sciences U	71,837i	67,415i	62,501i	52,123i	43,222i	40,391i	39,017i	29,183i
44 University of Cincinnati	71,409	84,419	80,108	70,015	52,887	44,963	40,918	36,871
45 UT Houston Hlth Sci Ctr	69,756	67,368	62,298	40,231	46,343	47,636	25,104	24,668
46 University of Florida	68,348	58,587	56,988	54,237	32,326	28,364	22,517	23,762
47 University of Kentucky	67,909	62,164	50,812	46,568	37,086	35,993	34,133	27,624
48 University of Utah	66,691	38,269	41,520	39,448	42,186	30,127	31,693	32,528
49 Ohio State University	66,430	57,282	50,447	49,981	34,223	31,983	29,391	28,564
50 University of Virginia	63,111	56,724	43,795	31,474	39,605	36,432	28,989	23,198
Total, 1st 50 institutions	6,183,065	5,695,441	5,261,672	4,873,148	3,881,877	3,606,360	3,337,276	3,185,495

See explanatory information and SOURCE at end of table.

**Table B-62. Total and federally financed R&D expenditures in the medical sciences
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 U CA Berkeley	62,167	63,545	50,061	29,585	13,367	14,531	12,750	13,082
52 Yeshiva University	60,965	54,000	50,346	47,543	48,914	44,000	40,527	38,166
53 University of Arizona	60,917	53,700	51,266	51,353	36,930	31,479	30,558	32,658
54 U TX San An Hlth Sci Ctr	56,488	52,045	56,969	54,416	33,458	29,836	33,721	30,455
55 New York University	54,225	47,809	48,259	49,825	31,967	27,970	28,446	29,632
56 Vanderbilt University	52,456	45,505	39,362	34,104	36,745	31,623	29,497	27,280
57 SUNY at Buffalo	51,472	43,556	45,886	44,628	23,637	16,871	19,859	21,398
58 Dartmouth College	51,140	47,545	39,507	39,034	33,898	33,129	31,328	28,985
59 U TX Med Br at Galveston	48,263	85,150	76,466	73,707	27,456	48,310	41,831	38,323
60 U CA Irvine	45,305	38,868	31,077	32,011	15,406	12,378	10,400	11,823
Total, 1st 60 institutions	6,726,463	6,227,164	5,750,871	5,329,354	4,183,655	3,896,487	3,616,193	3,457,297
61 Rush University	44,802	40,024	35,549	30,684	21,752	19,531	16,267	12,429
62 Virginia Commonwealth U	42,880	45,006	43,122	44,793	23,477	25,062	22,671	24,642
63 University of Connecticut	42,471	43,083	41,994	41,544	20,281	19,884	18,751	17,938
64 Medical Col of Wisconsin	38,772	35,573	34,592	32,919	29,712	27,833	26,374	23,996
65 Thomas Jefferson U	38,053	31,765	31,999	31,460	25,985	20,905	20,381	20,009
66 U of Tennessee System	36,393	30,813	28,708	26,544	15,093	14,057	14,965	13,758
67 SUNY at Stony Brook	34,518	35,060	34,523	29,217	20,160	20,786	18,927	17,751
68 University of Oklahoma	31,709	28,875	23,475	23,168	14,234	12,987	11,592	9,650
69 U Arkansas Medical Sci	31,577	32,375	29,989	24,359	17,606	15,196	13,088	11,288
70 U MA Worcester	31,531	29,843	27,134	25,196	26,260	26,152	23,841	23,130
Total, 1st 70 institutions	7,099,169	6,579,581	6,081,956	5,639,238	4,398,215	4,098,880	3,803,050	3,631,888
71 Tulane University	28,675	26,425	25,827	23,849	11,043	10,415	10,279	9,649
72 Med U of South Carolina	28,395e	29,028i	37,884	30,745	15,457	16,107	22,704	20,381
73 U of Missouri Columbia	26,870	24,529	20,972	17,746	11,886	9,114	6,896	5,011
74 Louisiana State U System	26,301	19,686	19,972	17,691	8,549	8,459	8,410	8,429
75 Brown University	26,100	23,617	21,656	19,402	16,459	15,621	14,437	12,750
76 University of Vermont	25,662	24,124	25,134	21,041	11,468	11,216	13,142	11,901
77 University of Louisville	25,256	20,056	17,924	13,495	6,084	5,952	5,880	4,939
78 C R Drew U of Med & Sci	24,484	17,205e	17,205e	16,386i	22,212	16,052e	16,052e	15,288i
79 University of Kansas	23,220	13,755	13,139	13,735	10,765	3,762	4,789	4,653
80 George Washington U	22,905	26,576	21,538	24,208	14,985	13,740	11,749	12,105
Total, 1st 80 institutions	7,357,037	6,804,582	6,303,207	5,837,536	4,527,123	4,209,318	3,917,388	3,736,994
81 Temple University	22,839	24,852	20,110	19,807	7,770	8,402	8,551	8,701
82 Pennsylvania State U	21,693	26,030	24,330	21,902	15,691	24,068	15,855	13,189
83 University of Georgia	20,872	18,324	16,635	16,998	2,187	2,182	2,032	2,452
84 Rutgers the State U NJ	20,506	16,364	16,520	16,311	8,322	8,356	8,159	6,987
85 U of NE Med Ctr	19,842	20,603	18,330	16,838	4,435	5,515	4,552	5,112
86 Medical Col of Georgia	19,217	19,434	22,003	22,962	5,166	5,566	5,763	6,118
87 Texas A&M University	19,097	10,592	12,898	11,180	11,186	7,375	7,508	7,509
88 U of South Carolina	18,609	13,375	13,016	13,887	9,472	6,377	6,552	7,256
89 Univ of Hawaii at Manoa	17,716	16,630	15,129	11,519	13,016	11,987	10,631	8,556
90 U PR Med Sci Campus	17,114	19,830	15,575	15,005	13,971	11,843	12,978	12,191
Total, 1st 90 institutions	7,554,542	6,990,616	6,477,753	6,003,945	4,618,339	4,300,989	3,999,969	3,815,065

See explanatory information and SOURCE at end of table.

**Table B-62. Total and federally financed R&D expenditures in the medical sciences
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 West Virginia University	17,038	18,671	16,136	9,327	4,825	5,430	4,214	4,249
92 Eastern VA Med School	15,687	15,247	11,911	12,047	8,392	6,868	7,968	8,383
93 MCP Hahnemann Univ	15,329	65,697	55,887	23,225	6,641	37,048	28,038	10,583
94 Purdue University	14,042	13,218	12,064	10,883	6,125	5,576	5,330	4,398
95 MA Institute of Tech	13,541	0	311	0	7,697	0	100	0
96 Michigan State University	13,505	12,554	11,133	11,638	7,985	6,381	5,670	5,928
97 Unif Svcs U of Hlth Sci	13,350	10,995	9,824	23,852	5,653	4,086	4,814	15,936
98 Saint Louis University	12,987	13,278	12,142	12,273	11,037	11,213	10,167	9,462
99 Loyola U of Chicago	12,919	15,410	17,315	10,665	7,130	6,545	7,576	7,454
100 Creighton University	11,834	11,652	10,388	9,212	3,155	2,833	3,847	3,837
Total, 1st 100 institutions	7,694,774	7,167,338	6,634,864	6,127,067	4,686,979	4,386,969	4,077,693	3,885,295
Total, all other sampled institutions	296,091	298,542	272,823	263,668	161,118	161,885	149,200	138,562

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

**Table B-63. Total and federally financed R&D expenditures in psychology
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	464,858	445,347	395,941	381,360	310,119	299,574	271,270	258,322
1 U WI-Madison	19,388	17,973	15,738	14,989	15,437	14,027	11,896	11,671
2 University of Oklahoma	11,778	7,845	5,731	4,580	3,231	3,006	1,981	1,354
3 Pennsylvania State U	10,774	8,864	6,345	6,612	6,621	5,676	4,640	4,352
4 U of Washington	9,228	9,911	8,753	8,305	8,432	8,925	7,910	7,400
5 U CA Los Angeles	8,623	7,374	7,233	7,676	5,680	5,074	5,028	5,568
6 Indiana University	8,552	7,210	6,863	6,846	6,281	5,460	5,236	4,660
7 University of Michigan	8,285	10,712	8,648	9,718	4,367	5,412	4,443	5,571
8 Rutgers the State U NJ	8,155	7,153	6,013	6,943	3,440	3,087	3,087	3,502
9 Georgia State University	7,604	7,412	5,621	3,812	2,694	3,030	2,668	2,049
10 University of Colorado	7,453	7,348	6,814	7,119	4,350	4,099	4,491	4,835
Total, 1st 10 institutions	99,840	91,802	77,759	76,600	60,533	57,796	51,380	50,962
11 U of Illinois Urbana-Cham	7,385	6,881	4,923	5,566	4,765	4,332	3,358	4,042
12 Univ of Memphis, The	7,355	6,405	5,832	4,353	3,229	2,711	2,637	2,090
13 University of Minnesota	7,095	6,930	6,983	7,198	5,068	5,471	5,389	5,672
14 U CA Berkeley	7,080	7,449	5,942	6,331	4,696	4,500	3,517	4,334
15 University of Georgia	6,979	6,025	5,271	5,697	2,516	2,221	1,663	2,206
16 U of South Florida	6,636	7,004	5,066	4,674	2,908	3,259	1,877	1,696
17 Cornell University	6,372	5,642	4,577	4,757	2,327	2,103	1,937	2,252
18 Carnegie Mellon U	6,300	6,382	5,558	5,291	4,026	4,134	4,124	3,780
19 University of Rochester	6,276	6,649	5,927	6,101	4,036	3,323	2,707	3,230
20 University of Miami	5,914	5,276	4,204	2,599	5,829	5,055	4,114	2,499
Total, 1st 20 institutions	167,232	156,445	132,042	129,167	99,933	94,905	82,703	82,763
21 Arizona State University	5,616	5,960	5,573	4,566	4,115	4,426	4,147	3,196
22 University of Connecticut	5,488	5,189	5,477	5,655	2,406	2,545	2,486	2,670
23 SUNY at Buffalo	5,391	5,590	4,340	6,998	3,954	4,223	3,594	6,417
24 Princeton University	5,246	5,978	5,277	5,743	4,080	5,086	4,072	4,518
25 Oregon Health Sciences U	5,245 i	4,908 i	4,684 i	3,623 i	4,613 i	4,311 i	4,165 i	3,116 i
26 U of Alabama Birmingham	5,117	5,403	5,916	970	4,423	4,989	5,408	793
27 U CA San Diego	5,012	3,552	3,391	4,216	3,491	2,480	2,377	3,367
28 New York University	4,944	5,455	5,287	4,773	3,907	4,251	4,555	4,112
29 Florida State University	4,589	4,027	3,363	2,659	3,030	2,728	2,242	1,346
30 Harvard University	4,548	3,854	3,142	3,173	3,953	3,422	2,521	2,602
Total, 1st 30 institutions	218,428	206,361	178,492	171,543	137,905	133,366	118,270	114,900
31 University of New Mexico	4,492	3,950	3,916	3,283	3,119	2,663	2,822	2,446
32 University of Florida	4,478	3,472	2,910	2,365	3,127	2,289	2,062	1,444
33 University of Pittsburgh	4,455	4,293	3,037	3,023	4,172	4,037	2,790	2,909
34 San Diego St University	4,436	4,650	3,383	3,327	2,391	2,761	2,610	2,676
35 University of IL Chicago	4,388	3,445	4,160	3,487	2,607	2,298	3,142	2,621
36 U of Rhode Island	4,365	4,855	3,457 i	3,471 i	3,951	4,490	3,326 i	3,242 i
37 Duke University	4,276	4,472	4,705	4,243	3,836	4,031	3,732	3,296
38 Temple University	4,262	5,829	3,507	4,167	2,229	3,151	2,158	3,103
39 U of Missouri Columbia	4,235	3,474	2,548	2,716	2,964	2,426	1,511	1,560
40 Stanford University	4,103	3,834	4,082	3,488	3,420	3,418	3,477	3,026
Total, 1st 40 institutions	261,918	248,635	214,197	205,113	169,721	164,930	145,900	141,223
41 U MA Amherst	4,071	4,135	3,447	2,529	2,932	3,009	2,515	1,992
42 U of Southern California	3,987	3,483	2,227	2,446	3,705	3,140	1,912	2,122
43 U of South Carolina	3,925	3,231	1,828	1,419	2,933	2,470	1,374	1,348
44 Ohio State University	3,664	3,830	3,879	2,982	2,890	2,716	2,846	1,961
45 Yale University	3,625	3,089	3,212	4,894	2,450	2,401	2,157	2,388
46 U of Pennsylvania	3,470	3,111	2,752	2,152	3,380	2,937	2,626	1,920
47 Georgia Institute of Tech	3,457	2,920	2,450	2,440	1,480	1,280	1,148	1,256
48 Johns Hopkins U ¹	3,383	3,484	1,641	1,031	3,237	3,371	1,543	1,004
49 SUNY at Binghamton	3,368	3,171	4,005	3,594	1,480	1,230	1,348	1,253
50 Colorado State University	3,252	3,916	2,729	2,394	2,764	3,044	2,480	2,095
Total, 1st 50 institutions	298,120	283,005	242,367	230,994	196,972	190,528	165,849	158,562

See explanatory information and SOURCE at end of table.

**Table B-63. Total and federally financed R&D expenditures in psychology
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 2 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 University of Virginia	3,249	3,115	2,702	2,545	2,810	2,657	2,225	2,151
52 U of NC Chapel Hill	3,070	3,149	3,643	4,048	2,747	2,979	3,101	3,798
53 SUNY at Albany	3,054	2,416	2,403	3,309	2,228	1,975	1,803	2,401
54 SUNY at Stony Brook	3,024	2,705	2,798	2,614	2,196	2,077	2,051	2,039
55 University of Houston	3,024	3,002	2,852	2,865	1,951	2,090	1,888	2,036
56 San Jose State University	2,938e	2,938e	2,938i	2,938i	2,698e	2,698e	2,698i	2,698i
57 Texas A&M University	2,859	2,236	2,334	1,592	1,721	1,402	1,162	643
58 U TX at Austin	2,798	3,072	2,663	4,347	2,227	2,584	2,404	3,255
59 Texas Christian U	2,794	2,225	2,176	1,948	2,790	2,221	2,169	1,868
60 Rush University	2,791	2,899	2,612	3,716	1,085	979	665	604
Total, 1st 60 institutions	327,721	310,762	269,488	260,916	219,425	212,190	186,015	180,055
61 U of Iowa	2,788	2,689	2,724	1,923	2,060	2,269	2,282	1,580
62 Wayne State University	2,775	2,980	1,929	1,886	1,793	2,035	1,406	1,155
63 Tufts University	2,747	2,168	2,040	1,918	1,489	1,300	1,347	1,192
64 Columbia U in City of NY	2,735	2,932	2,685	2,387	2,488	2,818	2,619	2,222
65 Purdue University	2,727	2,497	2,553	2,426	1,653	1,771	1,565	1,522
66 VA Polytech Inst & St U	2,613	2,971	2,358	2,191	1,777	2,046	1,551	1,473
67 University of Arizona	2,612	2,205	2,053	1,939	1,133	874	774	744
68 Michigan State University	2,526	2,205	2,671	2,250	1,645	1,256	1,805	1,227
69 Boston University	2,465	2,271	1,659	250	2,364	1,800	1,307	157
70 University of Chicago	2,393	1,887	1,297	1,685	1,289	1,225	810	1,347
Total, 1st 70 institutions	354,102	335,567	291,457	279,771	237,116	229,584	201,481	192,674
71 Vanderbilt University	2,262	2,011	2,369	2,453	1,774	1,644	1,885	1,994
72 Teachers Col, Columbia U	2,250	2,145	680	395	1,504	1,490	465	262
73 Brown University	2,236	2,514	2,574	2,140	1,396	1,600	1,611	1,403
74 University of Louisville	2,220	251	52	64	1,260	112	25	44
75 George Mason University	2,165	1,954	1,532	1,624	1,877	1,787	1,265	1,279
76 University of Oregon	2,103	2,036	2,011	1,920	1,819	1,552	1,637	1,281
77 U CA Irvine	2,057	2,658	2,187	1,953	1,561	2,313	1,958	1,896
78 U CA Riverside	1,986	2,364	1,466	1,174	1,985	2,209	1,319	1,151
79 Virginia Commonwealth U	1,928	2,864	1,771	1,141	1,129	1,007	825	372
80 U MD at College Park	1,913	1,530	2,455	1,979	1,536	1,156	1,318	1,317
Total, 1st 80 institutions	375,222	355,894	308,554	294,614	252,957	244,454	213,789	203,673
81 Northwestern University	1,911	1,962	1,308	1,458	1,595	1,522	1,112	1,196
82 Syracuse University	1,873	1,798	959i	960	1,420	701	573i	442
83 U CA Santa Barbara	1,777	1,420	4,979	3,564	1,426	1,240	3,800	2,589
84 University of Denver	1,743	1,699	1,532	1,385	1,660	1,627	1,464	1,304
85 Washington University	1,692	964	1,311	849	1,439	887	1,057	700
86 CUNY Hunter College	1,644	1,913	1,597	1,723	864	1,000	922	1,009
87 University of Utah	1,627	1,043	1,093	953	1,298	871	926	779
88 University of Delaware	1,569	1,439	1,312	1,106	1,079	957	858	608
89 NC State University	1,556	579	1,001	964	360	470	360	433
90 U of Nebraska at Lincoln	1,536	1,177i	1,161	1,418	182	333i	329	512
Total, 1st 90 institutions	392,150	369,888	324,807	308,994	264,280	254,062	225,190	213,245

See explanatory information and SOURCE at end of table.

**Table B-63. Total and federally financed R&D expenditures in psychology
at universities and colleges: fiscal years 1996-1999**

[Dollars in thousands]

Page 3 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 U of Missouri St Louis	1,514	2,000	922	906	902	821	544	681
92 U PR Rio Piedras Campus ...	1,509	1,307	1,311	750	1,281	1,148	1,205	681
93 Florida Atlantic U	1,494	1,342	1,613	1,297	1,334	1,205	1,420	1,000
94 U CA Davis	1,494	1,558	1,743	1,642	1,203	1,375	1,481	1,547
95 Brandeis University	1,372	1,483	1,275	1,212	1,301	1,272	1,025	1,003
96 Northeastern University	1,368	900	749	847	1,026	818	715	815
97 Kent State University	1,357	2,045	2,188	1,246 i	1,030	1,415	1,558	868 i
98 Catholic U of America	1,221	1,444	924	639	1,131	1,396	860	592
99 Dartmouth College	1,216	1,132	887	607	428	500	618	579
100 U of New Hampshire	1,206	1,819	1,207	299	1,087	1,624	1,095	237
Total, 1st 100 institutions	405,901	384,918	337,626	318,439	275,003	265,636	235,711	221,248
Total, all other sampled institutions	58,957	60,429	58,315	62,921	35,116	33,938	35,559	37,074

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY:
 -- = not available
 e = estimated
 i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-64. R&D expenditures in the social sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Economics	Political science	Sociology	Other
Total, all institutions	1,262,002	1,130,119	1,118,680	1,095,926	270,007	201,173	269,858	520,964
1 U MD at College Park	58,148	41,544	29,374	29,880	6,207	5,868	2,356	43,717
2 University of Michigan	56,723	48,299	58,366	58,942	9,196	6,919	11,708	28,900
3 Pennsylvania State U	45,289	44,048	38,006	30,178	13,748	1,679	10,485	19,377
4 U CA Berkeley	38,531	35,559	39,638	32,559	4,874	13,326	6,957	13,374
5 Harvard University	33,073	39,501	44,843	45,553	18,361	14,418	172	122
6 U WI-Madison	31,378	28,827	27,384	29,744	13,196	1,288	6,481	10,413
7 University of Georgia	31,228	27,512	27,111	26,422	11,418	2,612	1,988	15,210
8 U CA Los Angeles	28,802	25,580	25,272	24,962	1,134	316	5,522	21,830
9 U of Pennsylvania	25,405	17,289	19,457	23,532	2,586	8,179	6,078	8,562
10 U of NC Chapel Hill	22,556	24,649	25,852	29,685	247	0	7,108	15,201
Total, 1st 10 institutions	371,133	332,808	335,303	331,457	80,967	54,605	58,855	176,706
11 U of Illinois Urbana-Cham	21,908	19,426	16,895	16,141	8,482	855	3,426	9,145
12 Indiana University	21,829	15,629	16,870	12,674	2,152	9,156	4,845	5,676
13 Ohio State University	21,809	18,786	21,124	17,826	3,514	1,688	2,039	14,568
14 Brandeis University	21,682	17,329	13,883	12,928	266	675	20,116	625
15 Rutgers the State U NJ	20,219	17,698	17,074	17,162	1,379	8,205	3,697	6,938
16 Michigan State University	18,731	15,681	15,998	11,508	8,449	2,933	1,487	5,862
17 Purdue University	17,707	15,046	12,278	17,959	5,973	319	1,960	9,455
18 Texas A&M University	16,784	19,593	17,826	18,540	8,779	3,350	866	3,789
19 U of Washington	15,415	11,805	11,730	12,947	208	5,181	633	9,393
20 Iowa State University	15,369	12,943	11,982	11,355	5,544	308	9,257	260
Total, 1st 20 institutions	562,586	496,744	490,963	480,497	125,713	87,275	107,181	242,417
21 Georgia State University	15,192	8,868	7,488	4,619	10,093	1,066	3,716	317
22 Princeton University	14,709	13,156	13,376	10,855	3,185	10,364	839	321
23 University of Arizona	14,184	13,208	11,927	11,661	4,577	199	6,656	2,752
24 University of Minnesota	14,008	14,113	14,120	12,373	7,395	1,786	1,744	3,083
25 Cornell University	12,750	11,066	10,889	11,235	4,042	67	1,462	7,179
26 Temple University	11,909	7,359	7,683	9,697	795	368	2,776	7,970
27 Duke University	11,580	10,407	9,594	10,849	1,298	3,351	4,573	2,358
28 U of Missouri Columbia	11,424	10,719	10,517	10,308	6,813	1,351	1,466	1,794
29 U of Nebraska at Lincoln	10,380	5,041	4,966	3,513	3,895	770	1,891	3,824
30 University of Florida	10,217	8,682	12,468	5,437	7,039	153	784	2,241
Total, 1st 30 institutions	688,939	599,363	593,991	571,044	174,845	106,750	133,088	274,256
31 U CA San Diego	10,084	9,302	8,583	5,066	809	3,133	5,599	543
32 U of South Carolina	9,442	7,679	5,925	7,755	1,319	3,772	2,293	2,058
33 Louisiana State U System	9,325	8,223	6,753	7,225	4,090	320	1,735	3,180
34 U TX at Austin	9,295	7,195	5,090	17,198	134	125	5,355	3,681
35 Washington State U	9,259	9,834	11,271	12,691	6,008	122	2,924	205
36 Arizona State University	9,248	8,564	7,684	8,347	2,432	1,085	438	5,293
37 Florida State University	9,213	6,097	5,087	3,697	102	2,442	2,425	4,244
38 Carnegie Mellon U	9,101	8,416	7,367	6,163	2,036	3,807	540	2,718
39 University of Oklahoma	8,970	10,061	10,768	12,306	1,830	1,391	385	5,364
40 MA Institute of Tech	8,908	11,627	16,839	14,408	2,578	3,095	675	2,560
Total, 1st 40 institutions	781,784	686,361	679,358	665,900	196,183	126,042	155,457	304,102
41 Oklahoma State University	8,861	5,205	4,731	4,700	4,567	207	1,276	2,811
42 University of Chicago	8,780	6,949	7,295	2,281	360	3,339	1,425	3,656
43 University of IL Chicago	8,321	5,080	7,942	7,528	354	143	2,232	5,592
44 U CA Santa Barbara	8,037	7,451	7,472	6,933	14	103	150	7,770
45 U of Iowa	7,854	7,851	6,766	6,218	350	1,980	2,456	3,068
46 Johns Hopkins U ¹	7,760	3,688	14,845	11,961	652	771	4,320	2,711
47 SUNY at Albany	7,542	6,882	6,118	6,549	70	1,623	3,300	2,549
48 Portland State University	7,069	4,996	4,130	4,455	103	282	12	6,672
49 George Mason University	6,907	6,312	4,864	6,539	578	5,808	118	403
50 Georgetown University	6,816e	4,663	3,220	2,791	104e	3,314e	2,139e	1,259e
Total, 1st 50 institutions	859,731	745,438	746,741	725,855	203,335	142,918	172,885	340,593

See explanatory information and SOURCE at end of table.

Table B-64: R&D expenditures in the social sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 2 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Eco-nomics	Political science	Soci-ology	Other
51 U MA Boston	6,776	6,311	5,916	5,065	6	678	596	5,496
52 University of New Mexico	6,671	5,446	4,510	7,684	121	1,593	499	4,458
53 Stanford University	6,603	5,715	6,459	5,729	494	295	429	5,385
54 Northwestern University	6,569	5,993	5,079	4,821	528	3,906	525	1,610
55 George Washington U	6,461	7,303	6,461	6,346	344	1,845	518	3,754
56 U of Southern California	6,437	6,404	7,859	6,640	269	1,321	1,709	3,138
57 University of Connecticut	6,409	7,772	9,033	12,157	2,514	122	930	2,843
58 University of Pittsburgh	6,166	4,142	5,439	4,699	644	184	767	4,571
59 New York University	5,979	5,798	5,702	5,319	1,216	2,438	601	1,724
60 Cleveland State U	5,939i	5,425e	5,267i	5,270i	6i	0i	307i	5,626i
Total, 1st 60 institutions	923,741	805,747	808,466	789,585	209,477	155,300	179,766	379,198
61 University of Colorado	5,921	3,375	4,215	5,993	400	383	4,237	901e
62 Florida International U	5,770	2,758	2,676	2,598	0	0	4,519	1,251
63 U CA Irvine	5,766	4,457	4,644	4,236	0	2,153	226	3,387
64 Texas Tech University	5,704	4,621	3,433	3,056	1,392	625	2,981	706
65 U WI-Milwaukee	5,553	5,075	5,606	5,746	452	426	253	4,422
66 NC State University	5,504	4,866	6,221	4,931	2,882	96	1,135	1,391
67 SUNY at Buffalo	5,317	5,710	3,558	4,593	525	380	492	3,920
68 Wayne State University	5,276	6,373	5,868	4,923	163	57	1,036	4,020
69 VA Polytech Inst & St U	5,271	5,273	5,059	4,177	882	1,764	10	2,615
70 Case Western Reserve U	5,060	4,708	4,791	4,356	991	0	841	3,228
Total, 1st 70 institutions	978,883	852,963	854,537	834,194	217,164	161,184	195,496	405,039
71 Univ of Memphis, The	5,034	4,138	3,708	2,858	3,020	199	1,650	165 ¹
72 University of Delaware	4,961	4,749	3,555	2,922	499	52	2,797	1,613
73 U of Tennessee System	4,920	4,720	4,908	4,769	2,982	801	777	360
74 Columbia U in City of NY	4,899	5,882	6,222	6,512	176	236	4,324	163
75 Brown University	4,724	4,894	4,386	4,367	1,240	668	556	2,260
76 US Naval Postgrad School ...	4,647i	4,647i	4,409	5,730i	1,427i	902i	2,070i	248i
77 U of New Hampshire	4,629	4,381	2,867	3,611	0	11	2,104	2,514
78 Indiana State University	4,373	4,537	334	64	0	0	4,373	0
79 New School University	4,363	3,287	4,454	4,190i	797	1,170	243	2,153
80 Teachers Col, Columbia U	4,235	3,910	122	125	1,264	0	0	2,971
Total, 1st 80 institutions	1,025,668	898,108	889,502	869,342	228,569	165,223	214,390	417,486
81 Vanderbilt University	4,118	4,379	3,648	3,137	95	3,997	25	1
82 Tufts University	4,036	5,697	4,433	3,758	0	3,209	650	177
83 Clemson University	3,906	4,014	6,345	6,886	892	1,999	173	842
84 Mississippi State U	3,829	3,506	4,771	4,448	65	399	417	2,948
85 U of Central Florida	3,813	4,641	275	48	141	13	1,057	2,602
86 U of Alaska Fairbanks	3,765	3,668i	3,528i	3,430i	311	0	0	3,454
87 North Dakota State U	3,558	1,113	1,847	2,951	771	0	166	2,621
88 U of Missouri St Louis	3,553	2,911	2,985	1,985	151	1,963	288	1,151
89 University of Kansas	3,426	3,776	4,843	2,519	1,929	146	932	419
90 University of Miami	3,423	3,934	4,469	5,326	0	16	1,464	1,943
Total, 1st 90 institutions	1,063,095	935,747	926,646	903,830	232,924	176,965	219,562	433,644

See explanatory information and SOURCE at end of table.

Table B-64. R&D expenditures in the social sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Eco-nomics	Political science	Soci-ology	Other
91 Univ of Hawaii at Manoa	3,409	4,002	3,332	2,612	755	3	243	2,408
92 Western Michigan U	3,279	3,345	2,677	3,019	11	1,012	697	1,559
93 University of Kentucky	3,222	3,371	2,323	2,114	520	125	1,900	677
94 University of Cincinnati	3,166	2,397	1,087	715	109	205	239	2,613
95 SUNY at Binghamton	3,136	3,152	3,422	2,581	182	548	281	2,125
96 Kansas State University	3,115	3,006	2,638	2,195	1,761	0	270	1,084
97 U CA Davis	3,106	3,276	3,486	2,152	80	1,885	625	516
98 Georgia Institute of Tech	3,026	2,595	2,468	6,029	1,651	589	589	197
99 Montana St U Bozeman	2,981	2,286	1,435	1,909	2,422	0	69	490
100 University of Akron	2,962	458	1,073	927	51	54	2,799	58
Total, 1st 100 institutions	1,094,497	963,635	950,587	928,083	240,466	181,386	227,274	445,371
Total, all other sampled institutions	167,505	166,484	168,093	167,843	29,541	19,787	42,584	75,593

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-65. Federally financed R&D expenditures in the social sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Eco-nomics	Political science	Soci-ology	Other
Total, all institutions	472,320	425,030	406,446	422,698	89,951	53,763	119,404	209,202
1 University of Michigan	37,293	26,179	28,063	25,039	7,150	4,160	7,290	18,693
2 U MD at College Park	35,385	26,692	13,351	9,265	3,239	641	1,144	30,361
3 U of NC Chapel Hill	15,750	17,005	18,120	23,883	114	0	5,829	9,807
4 U WI-Madison	13,703	12,377	12,164	15,356	5,293	100	3,378	4,932
5 Harvard University	13,426	21,225	24,151	25,660	9,011	4,400	7	8
6 Ohio State University	12,504	9,265	10,783	10,311	1,342	1,018	648	9,496
7 Pennsylvania State U	12,362	11,806	11,288	9,831	3,300	212	4,080	4,770
8 Brandeis University	9,587	7,475	5,842	5,671	30	24	9,522	11
9 Michigan State University	9,516	7,457	7,364	6,132	4,751	661	435	3,669
10 Iowa State University	8,754	6,961	6,483	5,744	2,032	8	6,570	144
Total, 1st 10 institutions	168,280	146,442	137,609	136,892	36,262	11,224	38,903	81,891
11 U of Washington	8,236	6,317	5,789	7,064	81	517	83	7,555
12 Duke University	7,563	6,831	6,371	7,714	818	1,439	3,833	1,473
13 Georgia State University	6,579	2,777	847	453	6,533	0	46	0
14 Carnegie Mellon U	6,464	5,698	3,862	3,113	1,373	2,637	187	2,267
15 U of Pennsylvania	5,942	5,971	5,817	10,068	1,307	9	2,247	2,379
16 University of Arizona	5,841	4,955	4,616	4,654	1,455	96	2,816	1,474
17 U CA Berkeley	5,430	4,123	3,493	4,320	1,461	1,334	1,043	1,592
18 Portland State University	5,388	3,558	2,716	2,592	0	42	2	5,344
19 Johns Hopkins U ¹	5,355	1,924	9,272	8,301	553i	77i	3,008i	1,717i
20 Indiana University	4,919	4,710	3,729	3,004	154	1,638	2,456	671
Total, 1st 20 institutions	229,997	193,306	184,121	188,175	49,997	19,013	54,624	106,363
21 U CA San Diego	4,630	4,759	3,621	1,547	655	490	3,391	94
22 US Naval Postgrad School	4,564i	4,564i	4,333	5,660i	1,427i	840i	2,049i	248i
23 University of Pittsburgh	4,340	2,637	3,087	2,154	592	113	681	2,954
24 Temple University	4,298	2,114	3,415	4,855	0	15	0	4,283
25 Rutgers the State U NJ	4,294	5,011	5,516	6,405	321	308	1,359	2,306
26 University of Colorado	4,178	2,403	2,464	3,578	190	334	3,132	522e
27 SUNY at Albany	4,156	3,502	3,453	3,348	48	318	1,693	2,097
28 U CA Santa Barbara	4,121	3,491	3,718	4,356	0	1	5	4,115
29 Cornell University	4,107	2,849	2,800	2,793	1,637	0	659	1,811
30 Texas A&M University	3,880	4,833	4,509	4,602	1,611	1,064	675	530
Total, 1st 30 institutions	272,565	229,469	221,037	227,473	56,478	22,496	68,268	125,323
31 George Mason University	3,763	3,852	3,128	3,909	0	3,584	47	132
32 Columbia U in City of NY	3,747	4,648	4,437	4,329	135	8	3,487	117
33 U of Missouri Columbia	3,693	3,718	4,216	3,566	2,504	592	511	86
34 U of Illinois Urbana-Cham	3,688	4,057	3,875	4,281	1,103	409	374	1,802
35 University of Chicago	3,443	2,296	2,623	310	220	2,562	100	561
36 University of Miami	3,389	3,511	3,721	5,184	0	16	1,464	1,909
37 New York University	3,334	1,738	1,700	806	737	1,477	537	583
38 U of Nebraska at Lincoln	3,311	1,497i	1,475	645	69	47	202	2,993
39 Vanderbilt University	3,165	3,247	2,618	2,046	87	3,053	25	0
40 U CA Los Angeles	3,119	2,753	3,118	6,476	313	59	596	2,151
Total, 1st 40 institutions	307,217	260,786	251,948	259,025	61,646	34,303	75,611	135,657
41 Washington State U	2,981	3,153	4,318	5,283	1,947	17	1,015	2
42 U of Southern California	2,927	3,042	3,316	3,200	250	51	1,225	1,401
43 Oklahoma State University	2,840	1,508	581	625	521	122	822	1,375
44 Purdue University	2,730	2,647	2,444	2,733	1,932	49	365	384
45 Florida State University	2,711	2,143	1,340	592	52	257	606	1,796
46 Princeton University	2,560	2,446	2,403	2,222	412	2,073	75	0
47 University of New Mexico	2,498	1,890	1,532	2,221	88	725	219	1,466
48 Georgetown University	2,372	1,837	1,222	1,383	81	250	1,911	130
49 U of South Carolina	2,359	2,398	2,121	4,264	393	328	615	1,023
50 Texas Tech University	2,356	1,972	1,464	1,264	353	5	1,952	46
Total, 1st 50 institutions	333,551	283,822	272,689	282,812	67,675	38,180	84,416	143,280

See explanatory information and SOURCE at end of table.

Table B-65. Federally financed R&D expenditures in the social sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Eco-nomics	Political science	Soci-ology	Other
51 U of LA Monroe, The	2,353	1,190	1,671	1,558	1,813	0	540	0
52 MA Institute of Tech	2,328	5,922	5,268	2,941	509	722	82	1,015
53 University of Delaware	2,312	2,890	2,259	2,040	226	2	1,892	192
54 North Dakota State U	2,286	705	660	760	422	0	55	1,809
55 U TX at Austin	2,273	2,088	2,108	7,246	33	12	1,831	397
56 U WI-Milwaukee	2,269	1,905	2,091	2,562	130	122	9	2,008
57 Washington University	2,232	2,092	1,874	1,352	9	124	2,017	82
58 University of Akron	2,198	326	595	538	0	0	2,156	42
59 University of Oklahoma	2,175	3,571	721	3,702	108	55	45	1,967
60 U CA Irvine	2,158	1,648	1,841	2,247	0	1,156	69	933
Total, 1st 60 institutions	356,135	306,159	291,777	307,758	70,925	40,373	93,112	151,725
61 University of Denver	2,157	2,012	1,240	480	0	47	113	1,997
62 U of Iowa	2,146	2,299	1,949	1,092	236	383	1,262	265
63 University of Minnesota	2,127	2,117	2,417	1,849	1,043	194	799	91
64 Syracuse University	2,120	1,994	1,626i	1,254	271	268	555	1,026
65 Teachers Col, Columbia U	1,992	1,213	94	0	207	0	0	1,785
66 University of Florida	1,978	1,674	2,350	1,131	831	17	361	769
67 VA Polytech Inst & St U	1,956	1,050	738	1,269	36	1,279	3	638
68 Northwestern University	1,915	2,699	2,095	2,260	171	1,432	206	106
69 University of Georgia	1,873	2,123	1,838	2,319	480	3	0	1,390
70 Mississippi State U	1,818	1,858	1,967	1,781	0	79	139	1,600
Total, 1st 70 institutions	376,217	325,198	308,091	321,193	74,200	44,075	96,550	161,392
71 U of Tennessee System	1,786	1,538	1,620	1,701	835	336	502	113
72 Montana St U Bozeman	1,675	1,401	578	746	1,253	0	5	417
73 U of Alaska Fairbanks	1,644	446i	399i	431i	131	0	0	1,513
74 Stanford University	1,638	986	1,150	1,076	141	244	321	932
75 Sam Houston State U	1,620	37i	74	43	0	0	54	1,566
76 U of New Hampshire	1,614	1,777	949	1,517	0	0	1,393	221
77 U MD Baltimore County	1,528	806	755	258	0	0	301	1,227
78 Louisiana State U System	1,523	1,148	975	1,481	504	0	454	565
79 Case Western Reserve U	1,511	1,175	1,740	1,394	26	0	769	716
80 George Washington U	1,498	1,600	2,234	2,918	189	834	113	362
Total, 1st 80 institutions	392,254	336,112	318,565	332,758	77,279	45,489	100,462	169,024
81 Arizona State University	1,472	1,351	1,560	2,183	100	55	97	1,220
82 Northern Arizona U	1,442	1,677	1,657i	1,406	0	0	479	963
83 Univ of Alabama, The	1,415	1,000	1,314	1,412	0	551	34	830
84 U TX at San Antonio	1,395	1,270	3,037i	1,081	0	0	0	1,395
85 University of IL Chicago	1,368	1,350	3,409	2,895	162	65	460	681
86 Gallaudet University	1,339	1,281	563i	603i	0	0	1,077	262
87 University of Cincinnati	1,336	1,440	655	351	0	45	70	1,221
88 U of Central Florida	1,326	1,499	44	2	0	0	774	552
89 University of Kentucky	1,323	1,696	1,449	1,190	213	18	910	182
90 Tulane University	1,306	228	228	204	15	41	176	1,074
Total, 1st 90 institutions	405,976	348,904	332,481	344,085	77,769	46,264	104,539	177,404

See explanatory information and SOURCE at end of table.

Table B-65. Federally financed R&D expenditures in the social sciences at universities and colleges: fiscal years 1996-1999 and by subfield for 1999

[Dollars in thousands]

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Institution and ranking	1999	1998	1997	1996	1999, by subfield			
					Eco-nomics	Political science	Soci-ology	Other
91 Georgia Institute of Tech	1,295	1,137	1,156	3,104	707	252	252	84
92 U of Missouri St Louis	1,290	541	857	630	60	87	150	993
93 U MA Boston	1,265	1,093	897	805	1	23	53	1,188
94 SUNY at Buffalo	1,238	922	1,426	3,278	0	2	88	1,148
95 Tuskegee University	1,197	1,110	1,236	82	133	0	0	1,064
96 University of Connecticut	1,193	1,903	1,510	1,598	523	98	367	205
97 Univ of Hawaii at Manoa	1,186	1,081	1,169	536	105	0	45	1,036
98 Yale University	1,184	897	630	849	879	46	0	259
99 Colorado State University	1,140	686	1,539	2,227	193	0	137	810
100 Boston University	1,118	766	764	923	409	0	218	491
Total, 1st 100 institutions	418,082	359,040	343,665	358,117	80,779	46,772	105,849	184,682
Total, all other sampled institutions	54,238	65,990	62,781	64,581	9,172	6,991	13,555	24,520

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-66. Current fund expenditures for research equipment at universities and colleges, by science and engineering field and source of funds: fiscal years 1992, 1998, and 1999

[Dollars in thousands]

Field	Total			Federal			Non-Federal		
	1999	1998	1992	1999	1998	1992	1999	1998	1992
Total	1,318,667	1,290,612	1,033,188	763,968	771,445	618,049	554,699	519,167	415,139
Engineering	286,187	298,277	225,120	167,738	177,935	126,842	118,449	120,342	98,278
Aeronautical and astronautical	22,090	19,539	11,696	15,696	13,509	8,784	6,394	6,030	2,912
Bioengineering/bio- medical	7,686	6,183	--	3,592	2,615	--	4,094	3,568	--
Chemical	27,495	28,465	19,961	13,555	15,838	10,084	13,940	12,627	9,877
Civil	23,368	21,424	15,665	11,556	9,267	7,038	11,812	12,157	8,627
Electrical	70,001	82,409	57,188	45,741	54,953	33,956	24,260	27,456	23,232
Mechanical	50,818	51,054	31,204	32,431	32,821	18,744	18,387	18,233	12,460
Metallurgical and materials	28,464	29,041	28,557	17,396	17,270	13,934	11,068	11,771	14,623
Other, n.e.c.	56,265	60,162	60,849	27,771	31,662	34,302	28,494	28,500	26,547
All sciences	1,032,480	992,335	808,068	596,230	593,510	491,207	436,250	398,825	316,861
Physical sciences	248,324	253,217	198,304	186,214	187,293	151,507	62,110	65,924	46,797
Astronomy	28,827	25,303	14,125	25,025	20,718	9,731	3,802	4,585	4,394
Chemistry	101,873	90,827	70,254	68,762	61,015	50,529	33,111	29,812	19,725
Physics	106,342	121,417	93,952	84,822	92,787	75,889	21,520	28,630	18,063
Other, n.e.c.	11,282	15,670	19,973	7,605	12,773	15,358	3,677	2,897	4,615
Environmental sciences	100,825	101,486	77,977	67,651	68,914	52,527	33,174	32,572	25,450
Atmospheric	14,699	14,614	10,985	11,700	11,910	8,587	2,999	2,704	2,398
Earth sciences	34,665	37,275	30,029	20,438	24,771	17,485	14,227	12,504	12,544
Oceanography	37,373	32,792	27,898	26,996	23,220	21,378	10,377	9,572	6,520
Other, n.e.c.	14,088	16,805	9,065	8,517	9,013	5,077	5,571	7,792	3,988
Mathematical sciences	11,855	14,406	10,318	7,665	10,198	7,044	4,190	4,208	3,274
Computer sciences	63,783	63,443	45,179	43,907	44,676	29,701	19,876	18,767	15,478
Life sciences	546,119	491,783	429,019	267,602	249,821	230,477	278,517	241,962	198,542
Agricultural sciences	73,265	75,851	59,019	23,859	24,149	21,569	49,406	51,702	37,450
Biological sciences	241,485	188,958	173,930	136,625	106,581	106,104	104,860	82,377	67,826
Medical sciences	212,681	211,127	175,110	99,337	112,157	93,505	113,344	98,970	81,605
Other, n.e.c.	18,688	15,847	20,960	7,781	6,934	9,299	10,907	8,913	11,661
Psychology	11,597	13,229	11,095	7,584	8,280	7,065	4,013	4,949	4,030
Social sciences	17,949	22,117	17,752	6,978	8,879	7,659	10,971	13,238	10,093
Economics	3,921	3,798	4,997	1,482	1,311	2,421	2,439	2,487	2,576
Political science	2,040	3,369	2,477	678	1,594	1,135	1,362	1,775	1,342
Sociology	3,412	3,953	3,436	1,474	1,895	1,792	1,938	2,058	1,644
Other, n.e.c.	8,576	10,997	6,842	3,344	4,079	2,311	5,232	6,918	4,531
Other sciences, n.e.c.	32,028	32,654	18,424	8,629	15,449	5,227	23,399	17,205	13,197

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-67. Current fund expenditures for research equipment at doctorate-granting institutions, by science and engineering field and source of funds: fiscal years 1992, 1998, and 1999

[Dollars in thousands]

Field	Total			Federal			Non-Federal		
	1999	1998	1992	1999	1998	1992	1999	1998	1992
Total	1,282,469	1,255,385	1,005,324	742,657	749,593	604,128	539,812	505,792	401,196
Engineering	279,323	292,364	217,518	164,007	174,389	125,204	115,316	117,975	92,314
Aeronautical and astronautical	21,380	19,173	11,388	15,080	13,203	8,554	6,300	5,970	2,834
Bioengineering/bio- medical	7,245	6,016	--	3,499	2,452	--	3,746	3,564	--
Chemical	27,278	28,321	19,830	13,462	15,717	10,077	13,816	12,604	9,753
Civil	23,141	21,229	15,283	11,417	9,190	6,773	11,724	12,039	8,510
Electrical	69,221	81,348	55,973	45,084	54,043	33,670	24,137	27,305	22,303
Mechanical	48,751	49,231	30,104	30,842	31,332	18,212	17,909	17,899	11,892
Metallurgical and materials	28,296	28,983	28,250	17,293	17,239	13,904	11,003	11,744	14,346
Other, n.e.c.	54,011	58,063	56,690	27,330	31,213	34,014	26,681	26,850	22,676
All sciences	1,003,146	963,021	787,806	578,650	575,204	478,924	424,496	387,817	308,882
Physical sciences	237,917	242,949	191,837	179,644	180,640	147,850	58,273	62,309	43,987
Astronomy	28,701	25,068	13,980	24,909	20,525	9,655	3,792	4,543	4,325
Chemistry	95,361	85,636	66,156	64,888	57,999	48,356	30,473	27,637	17,800
Physics	102,839	116,795	91,808	82,343	89,442	74,520	20,496	27,353	17,288
Other, n.e.c.	11,016	15,450	19,893	7,504	12,674	15,319	3,512	2,776	4,574
Environmental sciences	96,693	97,815	75,591	65,231	67,087	51,343	31,462	30,728	24,248
Atmospheric	14,390	14,487	10,884	11,505	11,883	8,561	2,885	2,604	2,323
Earth sciences	32,447	34,997	28,707	19,362	24,008	17,071	13,085	10,989	11,636
Oceanography	36,031	31,682	27,468	25,925	22,249	21,028	10,106	9,433	6,440
Other, n.e.c.	13,825	16,649	8,532	8,439	8,947	4,683	5,386	7,702	3,849
Mathematical sciences	11,115	13,479	9,386	7,233	9,555	6,558	3,882	3,924	2,828
Computer sciences	61,083	61,885	44,125	42,510	43,786	29,129	18,573	18,099	14,996
Life sciences	537,359	480,741	421,753	261,878	242,595	225,494	275,481	238,146	196,259
Agricultural sciences	70,939	72,670	56,136	22,074	22,143	19,203	48,865	50,527	36,933
Biological sciences	236,129	181,767	169,955	133,254	101,796	103,791	102,875	79,971	66,164
Medical sciences	211,939	210,580	174,787	98,922	111,770	93,240	113,017	98,810	81,547
Other, n.e.c.	18,352	15,724	20,875	7,628	6,886	9,260	10,724	8,838	11,615
Psychology	10,901	12,554	10,346	7,299	7,944	6,505	3,602	4,610	3,841
Social sciences	17,080	21,554	16,845	6,514	8,464	7,048	10,566	13,090	9,797
Economics	3,763	3,677	4,518	1,377	1,204	2,017	2,386	2,473	2,501
Political science	1,997	3,296	2,406	660	1,579	1,100	1,337	1,717	1,306
Sociology	3,179	3,847	3,225	1,411	1,824	1,649	1,768	2,023	1,576
Other, n.e.c.	8,141	10,734	6,696	3,066	3,857	2,282	5,075	6,877	4,414
Other sciences, n.e.c.	30,998	32,044	17,923	8,341	15,133	4,997	22,657	16,911	12,926

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-68. Current fund expenditures for research equipment at universities and colleges, by science and engineering field, source of funds, and type of control: fiscal year 1999

[Dollars in thousands]

Field	Total			Federal			Non-Federal		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
Total	1,318,667	886,179	432,488	763,968	465,232	298,736	554,699	420,947	133,752
Engineering	286,187	205,947	80,240	167,738	108,137	59,601	118,449	97,810	20,639
Aeronautical and aeronautical	22,090	14,944	7,146	15,696	10,032	5,664	6,394	4,912	1,482
Bioengineering/bio- medical	7,686	4,067	3,619	3,592	1,688	1,904	4,094	2,379	1,715
Chemical	27,495	20,891	6,604	13,555	9,509	4,046	13,940	11,382	2,558
Civil	23,368	20,051	3,317	11,556	9,175	2,381	11,812	10,876	936
Electrical	70,001	51,105	18,896	45,741	31,050	14,691	24,260	20,055	4,205
Mechanical	50,818	32,232	18,586	32,431	18,141	14,290	18,387	14,091	4,296
Metallurgical and materials	28,464	20,787	7,677	17,396	11,656	5,740	11,068	9,131	1,937
Other, n.e.c.	56,265	41,870	14,395	27,771	16,886	10,885	28,494	24,984	3,510
All sciences	1,032,480	680,232	352,248	596,230	357,095	239,135	436,250	323,137	113,113
Physical sciences	248,324	146,035	102,289	186,214	99,076	87,138	62,110	46,959	15,151
Astronomy	28,827	11,532	17,295	25,025	8,331	16,694	3,802	3,201	601
Chemistry	101,873	68,548	33,325	68,762	43,421	25,341	33,111	25,127	7,984
Physics	106,342	62,005	44,337	84,822	45,722	39,100	21,520	16,283	5,237
Other, n.e.c.	11,282	3,950	7,332	7,605	1,602	6,003	3,677	2,348	1,329
Environmental sciences	100,825	74,968	25,857	67,651	48,069	19,582	33,174	26,899	6,275
Atmospheric	14,699	11,555	3,144	11,700	8,685	3,015	2,999	2,870	129
Earth sciences	34,665	23,197	11,468	20,438	12,616	7,822	14,227	10,581	3,646
Oceanography	37,373	31,068	6,305	26,996	21,207	5,789	10,377	9,861	516
Other, n.e.c.	14,088	9,148	4,940	8,517	5,561	2,956	5,571	3,587	1,984
Mathematical sciences	11,855	8,128	3,727	7,665	4,919	2,746	4,190	3,209	981
Computer sciences	63,783	40,754	23,029	43,907	27,344	16,563	19,876	13,410	6,466
Life sciences	546,119	372,801	173,318	267,602	161,968	105,634	278,517	210,833	67,684
Agricultural sciences	73,265	69,993	3,272	23,859	22,793	1,066	49,406	47,200	2,206
Biological sciences	241,485	153,314	88,171	136,625	75,132	61,493	104,860	78,182	26,678
Medical sciences	212,681	138,106	74,575	99,337	60,195	39,142	113,344	77,911	35,433
Other, n.e.c.	18,688	11,388	7,300	7,781	3,848	3,933	10,907	7,540	3,367
Psychology	11,597	7,653	3,944	7,584	4,485	3,099	4,013	3,168	845
Social sciences	17,949	14,458	3,491	6,978	5,438	1,540	10,971	9,020	1,951
Economics	3,921	3,379	542	1,482	1,198	284	2,439	2,181	258
Political science	2,040	1,459	581	678	454	224	1,362	1,005	357
Sociology	3,412	2,833	579	1,474	1,251	223	1,938	1,582	356
Other, n.e.c.	8,576	6,787	1,789	3,344	2,535	809	5,232	4,252	980
Other sciences, n.e.c.	32,028	15,435	16,593	8,629	5,796	2,833	23,399	9,639	13,760

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-69. Total and federally financed current fund expenditures for research equipment at universities and colleges, fiscal years 1996-1999

[Dollars in thousands]

Page 1 of 3

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	1,318,667	1,290,612	1,284,459	1,210,265	763,968	771,445	753,081	720,232
1 U of Washington	36,663	22,543	26,498	24,182	22,514	14,997	21,824	19,946
2 Johns Hopkins U ¹	35,278	37,117	35,197	30,463	16,231	20,195	17,502	17,191
3 U of Illinois Urbana-Cham	27,524	25,576	33,828	27,027	22,903	19,518	23,205	17,251
4 Cornell University	27,301	25,050	30,323	24,765	14,554	14,371	17,529	16,994
5 California Inst of Tech	27,234	29,467	22,300	21,830	20,788	28,136	21,115	20,805
6 University of Florida	26,494	12,756	10,516	11,576	16,226	5,222	3,343	3,588
7 MA Institute of Tech	26,250	31,276	23,978	37,523	20,601	22,214	14,693	30,844
8 Stanford University	25,401	26,271	26,143	25,382	21,920	23,290	24,120	22,057
9 Georgia Institute of Tech	24,331	22,388	27,228	23,246	10,414	9,815	12,756	11,967
10 U WI-Madison	24,071	23,212	31,659	31,180	12,938	12,914	15,850	15,814
Total, 1st 10 institutions	280,547	255,656	267,670	257,174	179,089	170,672	171,937	176,457
11 Texas A&M University	22,401	18,513	16,360	15,709	11,111	6,932	7,213	6,527
12 University of Georgia	18,292	17,187	25,744	14,851	2,442	3,132	3,724	3,518
13 Washington University	17,863	13,365	12,551	11,546	14,955	9,525	10,275	8,774
14 University of Michigan	17,565	14,354	15,264	14,712	11,511	9,767	8,161	8,942
15 Ohio State University	16,971	15,930	11,339	10,263	4,304	3,955	3,573	5,424
16 Purdue University	16,527	14,171	13,767	12,727	9,789	8,321	7,650	6,621
17 Pennsylvania State U	16,476	15,829	22,951	21,092	8,334	5,803	11,706	12,003
18 Louisiana State U System	16,230	13,298	15,274	16,392	3,797	2,693	2,841	3,463
19 U CA San Diego	15,648	13,923	10,411	8,133	7,710	8,114	5,323	5,888
20 U CA Los Angeles	15,013	12,731	7,702	7,570	8,174	7,114	4,983	4,765
Total, 1st 20 institutions	453,533	404,957	419,033	390,169	261,216	236,028	237,386	242,382
21 U TX at Austin	14,813	11,448	14,952	14,561	8,593	8,423	9,027	9,254
22 U CA Davis	14,571	13,778	6,237	5,417	7,471	7,338	2,995	2,667
23 University of Arizona	14,566	14,447	13,297	14,184	10,068	10,197	8,301	8,519
24 University of Rochester	14,523	15,396	11,685	10,396	12,717	13,363	9,602	8,408
25 Columbia U in City of NY	14,172	16,866	12,575	10,145	12,463	12,618	10,259	8,386
26 University of Minnesota	14,014	13,827	12,938	14,206	8,498	8,784	8,411	9,439
27 Baylor Col of Medicine	13,248	4,465	7,186	4,688	6,780	2,442	3,612	2,251
28 NC State University	12,802	19,152	12,950	13,067	5,247	7,089	5,837	6,393
29 University of Chicago	12,704	13,037	12,832	10,869	11,628	11,015	11,078	9,446
30 U MD at College Park	12,226	13,045	17,088	15,043	8,965	9,078	7,825	6,345
Total, 1st 30 institutions	591,172	540,418	540,773	502,745	353,646	326,375	314,333	313,490
31 U of Pennsylvania	11,617	10,699	9,175	10,007	8,597	8,820	6,995	7,177
32 Harvard University	11,533	12,057	9,768	11,139	9,418	10,186	7,595	8,437
33 Duke University	11,385	13,602	10,124	9,780	7,441	8,307	6,763	6,266
34 Univ of Hawaii at Manoa	10,920	8,733	6,151	3,676	6,673	5,858	4,262	1,901
35 US Naval Postgrad School	10,418	10,418	10,418	8,759	10,316	10,316	10,316	8,521
36 U CA Berkeley	9,854	8,950	8,837	7,277	6,295	5,780	5,415	4,196
37 Yale University	9,774	7,817	8,716	7,381	8,610	6,941	7,379	6,268
38 Rutgers the State U NJ	9,544	9,248	8,079	8,245	3,880	3,267	3,431	4,232
39 University of Utah	9,240	6,900	11,399	9,622	6,319	5,856	9,484	8,073
40 U of Tennessee System	9,174	7,159	8,767	5,980	3,659	3,108	3,703	2,623
Total, 1st 40 institutions	694,631	636,001	632,207	584,611	424,854	394,814	379,676	371,184
41 U CA San Francisco	9,131	9,740	8,903	7,496	4,489	5,575	5,775	4,311
42 University of Virginia	9,116	7,049	7,054	5,506	6,237	5,194	5,280	4,909
43 Kansas State University	8,846	6,819	6,277	4,720	3,683	3,674	2,801	2,384
44 University of Miami	8,801	8,574	8,606	6,866	6,565	6,573	7,007	5,366
45 Case Western Reserve U	8,524	8,625	9,793	7,034	5,381	4,325	4,335	4,360
46 University of IL Chicago	8,421	8,334	10,027	5,047	3,096	3,750	4,749	2,496
47 U of Iowa	8,237	9,568	8,490	9,539	4,562	4,714	4,357	3,787
48 Carnegie Mellon U	8,215	10,241	15,641	13,969	5,892	6,926	10,643	10,477
49 U of South Florida	8,201	7,226	6,649	5,913	2,285	3,682	2,701	2,238
50 U of Southern California	8,148	9,667	14,074	11,682	5,590	6,061	10,749	9,260
Total, 1st 50 institutions	780,271	721,844	727,721	662,383	472,634	445,288	438,073	420,772

See explanatory information and SOURCE at end of table.

Table B-69. Total and federally financed current fund expenditures for research equipment at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
51 University of Oklahoma	8,041	6,222	5,660	6,482	2,879	2,748	2,461	2,837
52 Princeton University	8,020	8,963	6,973	5,710	7,130	7,465	6,013	4,995
53 Michigan State University	7,930	9,744	6,941	10,066	4,534	5,357	3,352	4,517
54 Yeshiva University	7,836	4,350	5,062	3,421	2,891	3,530	3,439	2,776
55 Florida State University	7,736	7,012	10,590	9,315	5,751	5,272	6,490	5,146
56 Indiana University	7,712	8,486	9,257	10,001	3,836	3,217	5,625	5,264
57 Colorado State University	7,653	8,405	7,570	7,302	4,513	4,634	5,260	3,115
58 VA Polytech Inst & St U	7,609	6,724	4,596	2,653	3,218	2,688	2,046	1,624
59 Vanderbilt University	7,450	5,008	3,206	3,896	6,672	3,932	2,389	3,066
60 University of Delaware	7,394	6,529	5,370	4,133	2,798	2,346	2,814	1,753
Total, 1st 60 institutions	857,652	793,287	792,946	725,362	516,856	486,477	477,962	455,865
61 U TX SW Med Ctr at Dallas	7,282	6,659	5,631	5,809	3,150	2,825	2,999	3,144
62 University of Kentucky	7,062	6,047	6,322	4,981	3,827	3,819	2,689	2,045
63 Arizona State University	7,025	5,791	6,137	6,494	2,990	2,893	2,192	3,160
64 U of Alabama Birmingham	6,934	12,156	8,988	6,456	3,603	9,581	6,871	3,419
65 Northwestern University	6,875	9,850	14,286	11,877	4,321	5,074	6,558	6,230
66 U CA Santa Barbara	6,862	5,092	4,878	5,227	5,604	4,134	3,615	4,309
67 University of Colorado	6,853	10,747	11,433	11,427	5,886	9,186	7,153	8,025
68 Wayne State University	6,851	5,706	5,759	6,094	1,756	1,628	1,379	1,371
69 U of Alaska Fairbanks	6,786	6,101 i	5,418 i	4,735 i	1,845	3,572 i	3,172 i	2,772 i
70 U CA Irvine	6,643	5,716	4,011	5,552	4,051	2,900	2,442	2,861
Total, 1st 70 institutions	926,825	867,152	865,809	794,014	553,889	532,089	517,032	493,201
71 Clark Atlanta University	6,480 i	6,480	5,483 i	4,487 i	2,873 i	2,873	5,453 i	4,463 i
72 University of New Mexico	6,475	13,019	10,747	9,659	4,292	10,548	7,724	7,139
73 U of South Carolina	6,404	3,659	3,135	2,034	3,845	3,045	2,068	1,297
74 U of Missouri Columbia	6,348	5,590	6,009	5,141	2,488	1,665	2,103	1,861
75 Clemson University	6,051	7,597	3,888	4,137	1,479	2,760	1,149	1,484
76 U MA Amherst	5,915	6,704	6,149	5,366	3,403	4,154	4,031	3,533
77 New York University	5,898	6,045	3,896	5,879	3,256	4,109	3,070	1,758
78 Oklahoma State University	5,894	4,718	3,925	3,460	1,475	1,316	1,782	886
79 U TX MD Anderson Cnrc Ctr	5,710	1,888	2,687	2,326	622	734	746	759
80 SUNY at Stony Brook	5,697	7,106	5,837	5,199	3,664	4,946	2,888	4,226
Total, 1st 80 institutions	987,697	929,958	917,565	841,702	581,286	568,239	548,046	520,607
81 Mississippi State U	5,680	5,833	6,507	4,790	4,777	3,559	2,903	2,612
82 University of Pittsburgh	5,582	4,415	5,841	4,741	4,052	3,453	4,946	3,449
83 U of New Hampshire	5,553	3,784	2,593	2,756	4,428	2,563	1,564	1,237
84 Iowa State University	5,414	6,201	5,434	5,554	1,566	1,977	1,912	1,473
85 University of Kansas	5,297	5,313	4,185	3,732	2,053	2,491	1,987	2,025
86 Emory University	5,124	5,744	5,545	5,585	2,875	2,950	2,804	2,330
87 U of NC Chapel Hill	5,105	8,341	8,543	9,901	2,422	3,966	4,497	4,509
88 University of Connecticut	5,063	6,331	5,203	6,283	1,734	1,191	1,391	2,674
89 University of Notre Dame	4,050	5,394	4,084	3,934	2,108	2,932	2,365	2,593
90 Texas Tech University	3,958	4,462	2,689	2,409	1,554	1,939	1,167	598
Total, 1st 90 institutions	1,038,523	985,776	968,189	891,387	608,855	595,260	573,582	544,107

See explanatory information and SOURCE at end of table.

Table B-69. Total and federally financed current fund expenditures for research equipment at universities and colleges: fiscal years 1996-1999

[Dollars in thousands]

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Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
91 Rice University	3,927	2,565	2,373	2,675	3,150	1,943	1,874	1,890
92 New Mexico State Univ	3,874	5,566	4,246	3,977	3,136	5,001	3,632	3,262
93 San Diego St University	3,860	2,691	2,462	3,442	705	611	587	751
94 U of MD Baltimore	3,732	2,747	4,620	3,203	1,537	955	711	802
95 Boston University	3,677	5,581	5,289	3,959	3,406	4,835	4,849	3,468
96 U of Nebraska at Lincoln	3,584	6,547 ^e	6,547	6,004	351	2,339 ^e	2,339	1,976
97 University of Vermont	3,542	2,055	2,390	1,614	1,718	868	1,294	818
98 Rockefeller Univ, The	3,444	3,965	5,860	4,259	1,376	1,381	1,070	983
99 U of Central Florida	3,430	1,580	2,046	1,389	2,100	992	732	1,146
100 U Arkansas Medical Sci	3,389	1,756	1,762	1,452	2,634	1,048	678	371
Total, 1st 100 institutions	1,074,982	1,020,829	1,005,784	923,361	628,968	615,233	591,348	559,574
Total, all other sampled institutions	243,685	269,783	278,675	286,904	135,000	156,212	161,733	160,658

¹ Johns Hopkins University includes Applied Physics Laboratory.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated
i. = imputed

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-70. R&D expenditures at university-administered federally funded research and development centers, by character of work: fiscal years 1953-1999

[Dollars in millions]

Fiscal year	Total	Character of work			
		Basic research		Applied research and development	
		Amount	Percent of total	Amount	Percent of total
1953	121	33	27.3	88	72.7
1954	141	39	27.7	102	72.3
1955	180	49	27.2	131	72.8
1956	194	51	26.3	143	73.7
1957	240	65	27.1	175	72.9
1958	293	78	26.6	215	73.4
1959	338	92	27.2	246	72.8
1960	360	97	26.9	263	73.1
1961	410	115	28.0	295	72.0
1962	470	136	28.9	334	71.1
1963	530	159	30.0	371	70.0
1964	629	191	30.4	438	69.6
1965	629	208	33.1	421	66.9
1966	630	227	36.0	403	64.0
1967	673	250	37.1	423	62.9
1968	719	276	38.4	443	61.6
1969	725	275	37.9	450	62.1
1970	737	269	36.5	468	63.5
1971	716	260	36.3	456	63.7
1972	753	244	32.4	509	67.6
1973	817	296	36.2	521	63.8
1974	865	390	45.1	475	54.9
1975	987	439	44.5	548	55.5
1976	1,147	512	44.6	635	55.4
1977	1,384	600	43.4	784	56.6
1978 ¹	1,717	--	--	--	--
1979	1,935	1,022	52.8	913	47.2
1980	2,246	1,132	50.4	1,114	49.6
1981	2,486	1,270	51.1	1,216	48.9
1982	2,479	1,327	53.5	1,152	46.5
1983	2,737	1,484	54.2	1,253	45.8
1984	3,150	1,690	53.6	1,461	46.4
1985	3,523	1,765	50.1	1,758	49.9
1986	3,895	1,876	48.2	2,018	51.8
1987	4,206	2,033	48.3	2,173	51.7
1988	4,531	2,245	49.6	2,285	50.4
1989	4,730	2,352	49.7	2,377	50.3
1990	4,832	2,428	50.2	2,404	49.8
1991	5,078	2,595	51.1	2,484	48.9
1992	5,247	2,843	54.2	2,404	45.8
1993	5,295	2,938	55.5	2,357	44.5
1994	5,271	2,998	56.9	2,273	43.1
1995	5,363	2,742	51.1	2,622	48.9
1996	5,380	2,580	48.0	2,800	52.0
1997	5,440	2,683	49.3	2,757	50.7
1998	5,531	2,636	47.7	2,895	52.3
1999	5,646	2,734	48.4	2,912	51.6

¹ Separate data for basic research and applied research and development were not collected for fiscal year 1978.

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-71. R&D expenditures at university-administered federally funded research and development centers, by science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Field	1999	1998	1997	1996	1995	1994	1993	1992
Total	5,645,853	5,531,324	5,440,490	5,380,278	5,363,351	5,270,884	5,295,403	5,247,271
Engineering	2,168,580	2,196,497	2,041,582	1,869,832	1,939,425	1,786,215	1,713,257	1,804,266
Aeronautical and astronautical	400,690	386,771	370,590	332,884	339,325	223,562	158,952	162,722
Bioengineering/bio- medical	53,023	46,169	40,515	--	--	--	--	--
Chemical	63,364	60,804	63,124	68,650	68,742	78,613	76,470	78,425
Civil	45,527	41,129	36,073	29,427	31,354	30,703	32,575	33,583
Electrical	557,583	600,297	474,815	468,574	460,668	508,204	534,275	597,540
Mechanical	591,379	600,921	539,365	549,156	535,102	502,033	417,492	468,827
Metallurgical and materials	63,881	62,442	63,378	62,109	65,889	64,274	131,835	147,082
Other, n.e.c.	393,133	397,964	453,722	359,032	438,345	378,826	361,658	316,087
All sciences	3,477,273	3,334,827	3,398,908	3,510,446	3,423,926	3,484,669	3,582,146	3,443,005
Physical sciences	2,073,687	1,974,459	2,103,076	2,163,671	2,182,412	2,155,549	2,209,274	2,010,283
Astronomy	145,110	142,924	132,459	147,269	141,826	157,987	145,361	138,273
Chemistry	277,312	266,992	253,451	244,274	251,704	273,236	281,492	267,909
Physics	1,381,658	1,327,239	1,439,675	1,625,074	1,688,458	1,630,359	1,674,567	1,498,258
Other, n.e.c.	269,607	237,304	277,491	147,054	100,424	93,967	107,854	105,843
Environmental sciences	433,122	468,718	462,826	400,512	368,294	396,919	344,502	352,893
Atmospheric	194,671	202,661	227,590	208,820	187,953	183,995	156,327	149,233
Earth sciences	146,924	164,524	123,509	63,337	50,864	59,455	62,907	77,051
Oceanography	0	80	2,526	12,489	11,997	13,406	17,185	15,811
Other, n.e.c.	91,527	101,453	109,201	115,866	117,480	140,063	108,083	110,798
Mathematical sciences	46,684	29,747	29,504	98,501	83,330	113,971	119,938	124,313
Computer sciences	719,606	699,167	652,078	626,078	572,435	618,965	649,363	699,551
Life sciences	181,799	150,483	134,090	126,482	120,484	122,311	191,261	191,166
Agricultural sciences	0	0	1,320	1,286	1,067	1,216	1,077	1,153
Biological sciences	137,946	122,085	101,212	105,354	90,100	99,479	136,797	139,047
Medical sciences	29,557	18,832	19,448	13,663	20,875	13,059	14,897	16,250
Other, n.e.c.	14,296	9,566	12,110	6,179	8,442	8,557	38,490	34,716
Psychology	0	0	602	600	0	807	887	945
Social sciences	564	0	625	7,660	9,047	10,594	21,729	21,417
Economics	560	0	317	294	338	540	578	613
Political science	0	0	0	0	0	0	5,350	5,055
Sociology	0	0	0	0	0	0	0	0
Other, n.e.c.	4	0	308	7,366	8,709	10,054	15,801	15,749
Other sciences, n.e.c.	21,811	12,253	16,107	86,942	87,924	65,553	45,192	42,437

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-72. Federally financed R&D expenditures at university-administered federally funded research and development centers, by science and engineering field: fiscal years 1992-1999

[Dollars in thousands]

Field	1999	1998	1997	1996	1995	1994	1993	1992
Total	5,482,129	5,404,630	5,321,913	5,299,366	5,272,548	5,202,526	5,241,537	5,197,986
Engineering	2,127,385	2,156,261	2,005,888	1,849,464	1,914,876	1,769,468	1,700,839	1,794,182
Aeronautical and astronautical	399,211	385,600	369,335	331,875	338,161	222,178	158,832	162,602
Bioengineering/bio- medical	52,097	45,386	39,913	--	--	--	--	--
Chemical	62,079	59,482	61,745	67,713	67,841	77,714	75,541	77,551
Civil	44,736	40,425	35,511	29,067	30,960	30,275	32,050	33,068
Electrical	544,458	587,828	464,213	462,651	453,185	503,721	531,629	595,600
Mechanical	576,737	586,198	526,898	542,243	525,487	497,730	415,151	467,487
Metallurgical and materials	63,255	61,881	62,874	61,715	65,464	63,828	130,109	145,561
Other, n.e.c.	384,812	389,461	445,399	354,200	433,778	374,022	357,527	312,313
All sciences	3,354,744	3,248,369	3,316,025	3,449,902	3,357,672	3,433,058	3,540,698	3,403,804
Physical sciences	2,015,409	1,927,157	2,065,092	2,138,207	2,147,101	2,132,477	2,187,407	1,992,759
Astronomy	144,698	142,756	131,688	147,037	141,621	157,580	144,302	137,832
Chemistry	270,105	260,439	248,001	241,416	247,826	270,088	277,458	265,103
Physics	1,353,689	1,300,773	1,414,325	1,606,907	1,662,116	1,617,090	1,663,784	1,489,596
Other, n.e.c.	246,917	223,189	271,078	142,847	95,538	87,719	101,863	100,228
Environmental sciences	405,265	449,889	441,900	382,726	352,146	378,043	335,223	339,449
Atmospheric	184,636	191,968	214,027	194,896	176,071	169,125	149,637	138,362
Earth sciences	131,956	159,533	120,258	62,095	49,644	58,355	61,990	76,103
Oceanography	0	78	2,526	12,489	11,997	13,406	17,185	15,811
Other, n.e.c.	88,673	98,310	105,089	113,246	114,434	137,157	106,411	109,173
Mathematical sciences	45,519	28,890	28,694	96,973	81,796	112,468	118,872	123,471
Computer sciences	708,997	691,995	646,633	623,471	568,227	616,498	647,575	698,151
Life sciences	165,838	141,277	119,877	115,446	113,092	118,182	185,328	186,711
Agricultural sciences	0	0	1,320	1,286	1,067	1,216	1,077	1,153
Biological sciences	125,311	116,272	88,679	96,070	84,366	95,702	131,711	135,405
Medical sciences	26,414	15,561	17,881	11,960	19,277	12,784	14,619	15,987
Other, n.e.c.	14,113	9,444	11,997	6,130	8,382	8,480	37,921	34,166
Psychology	0	0	602	600	0	806	887	945
Social sciences	564	0	625	7,580	8,945	10,465	21,404	21,074
Economics	560	0	317	294	338	540	578	613
Political science	0	0	0	0	0	0	5,264	4,969
Sociology	0	0	0	0	0	0	0	0
Other, n.e.c.	4	0	308	7,286	8,607	9,925	15,562	15,492
Other sciences, n.e.c.	13,152	9,161	12,602	84,899	86,365	64,119	44,002	41,244

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-73. R&D expenditures at university-administered federally funded research and development centers, by science and engineering field: fiscal year 1999

[Dollars in thousands]

Institution and ranking	Total	Engineering	Physical sciences	Environmental sciences	Math & computer sciences	Life sciences	Psychology	Social sciences	Other sciences
Total, all institutions	5,645,853	2,168,580	2,073,687	433,122	766,290	181,799	0	564	21,811
1 Los Alamos National Lab	1,278,901	733,801	536,376	0	0	8,724	0	0	0
2 Jet Propulsion Laboratory	1,232,170e	628,288e	93,785e	69,403e	432,858e	4,478e	0e	0e	3,358e
3 Lawrence Livermore Lab	1,075,536	402,243	351,693	115,360	168,072	38,168	0	0	0
4 Argonne Natl Laboratory	461,985	189,745	149,310	86,978	13,934	22,018	0	0	0
5 MIT Lincoln Laboratory	353,321	199,344	86,210	0	59,994	1,943	0	0	5,830
6 Lawrence Berkeley Lab	347,618	8,657	167,670	22,190	59,164	77,314	0	0	12,623
7 Fermi Natl Accel Lab	296,105	0	296,105	0	0	0	0	0	0
8 Stanford Linear Accel Ctr	144,711	0	144,711	0	0	0	0	0	0
9 Natl Ctr Atmospheric Res	132,587	0	0	132,587	0	0	0	0	0
10 T J Natl Accel Facility	74,604	0	74,604	0	0	0	0	0	0
Total, 1st 10 institutions	5,397,538	2,162,078	1,900,464	426,518	734,022	152,645	0	0	21,811
11 Plasma Physics Lab	53,693	0	53,693	0	0	0	0	0	0
12 Oak Ridge Associated Univ	51,943	679	16,949	4,568	29	29,154	0	564	0
13 Natl Optical Astro Obs	37,308	0	37,308	0	0	0	0	0	0
14 Natl Radio Astronomy Obs	37,162	0	37,162	0	0	0	0	0	0
15 Software Engineering Inst	31,821	0	0	0	31,821	0	0	0	0
16 Ames Laboratory	25,438	5,823	19,039	158	418	0	0	0	0
17 Natl Astron & Ionos Ctr	10,950	0	9,072	1,878	0	0	0	0	0
Total, 1st 17 institutions	5,645,853	2,168,580	2,073,687	433,122	766,290	181,799	0	564	21,811

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

Table B-74. Total and federally financed R&D expenditures at university-administered federally funded research and development centers: fiscal years 1996-1999

[Dollars in thousands]

Institution and ranking	Total				Federally financed			
	1999	1998	1997	1996	1999	1998	1997	1996
Total, all institutions	5,645,853	5,531,324	5,440,490	5,380,278	5,482,129	5,404,630	5,321,913	5,299,366
1 Los Alamos National Lab	1,278,901	1,187,000	1,121,670	1,019,512	1,258,082	1,168,302	1,106,000	1,008,000
2 Jet Propulsion Laboratory	1,232,170e	1,232,170	1,210,890	1,089,420	1,232,170e	1,232,170	1,210,890	1,089,420
3 Lawrence Livermore Lab	1,075,536	1,076,800	908,700	1,049,100	1,028,629	1,032,192	870,900	1,029,957
4 Argonne Natl Laboratory	461,985	477,133	451,769	488,627	444,479	457,515	432,602	476,542
5 MIT Lincoln Laboratory	353,321	364,783	352,591	338,264	345,762	356,661	346,410	334,038
6 Lawrence Berkeley Lab	347,618	330,300	307,077	304,180	288,714	308,870	284,729	287,011
7 Fermi Natl Accel Lab	296,105	282,049	272,796	264,325	296,105	282,049	272,796	264,325
8 Stanford Linear Accel Ctr	144,711	131,680	122,441	119,606	144,711	131,680	122,441	119,606
9 Natl Ctr Atmospheric Res	132,587	130,865	135,980	132,394	123,327	121,121	123,663	118,965
10 T J Natl Accel Facility	74,604	75,963	79,647	73,658	73,920	74,963	75,778	70,947
Total, 1st 10 institutions	5,397,538	5,288,743	4,963,561	4,879,086	5,235,899	5,165,523	4,846,209	4,798,811
11 Plasma Physics Lab	53,693	53,005	59,146	61,313	52,027	49,699	58,692	60,978
12 Oak Ridge Associated Univ ..	51,943	50,750	44,022	45,733	51,943	50,750	44,022	45,733
13 Natl Optical Astro Obs	37,308	38,283	29,058	46,995e	37,308	38,283	29,058	46,995e
14 Natl Radio Astronomy Obs ..	37,162	34,708	33,172	30,832	36,771	34,540	32,401	30,675
15 Software Engineering Inst	31,821	30,113	32,229	33,675	31,821	30,113	32,229	33,675
16 Ames Laboratory	25,438	24,637	27,680	30,075	25,438	24,637	27,680	30,075
17 Natl Astron & Ionos Ctr	10,950	11,085	12,570	17,951	10,922	11,085	12,570	17,806
18 Brookhaven Natl Lab	--	--	239,052	234,618	--	--	239,052	234,618
Total, 1st 18 institutions	5,645,853	5,531,324	5,440,490	5,380,278	5,482,129	5,404,630	5,321,913	5,299,366

NOTE: Because of rounding, detail may not add to totals.

KEY: -- = not available
e = estimated

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Research and Development Expenditures at Universities and Colleges, Fiscal Year 1999

SECTION C.

UNIVERSITY-ADMINISTERED FEDERALLY FUNDED
RESEARCH AND DEVELOPMENT CENTERS:
FY 1999

DEPARTMENT OF DEFENSE

Lincoln Laboratory
(Massachusetts Institute of Technology)
Software Engineering Institute
(Carnegie Mellon University)

DEPARTMENT OF ENERGY

Ames Laboratory
(Iowa State University of Science
and Technology)
Argonne National Laboratory
(University of Chicago and
Argonne Universities Association)
Continuous Electron Beam Accelerator Facility
(Southeastern Universities Research Association)
E.O. Lawrence Berkeley Laboratory
(University of California)
E.O. Lawrence Livermore Laboratory
(University of California)
Fermi National Accelerator Laboratory
(Universities Research Association)
Los Alamos National Laboratory
(University of California)
Oak Ridge Institute of Science and Education
(Oak Ridge Associated Universities)

Plasma Physics Laboratory
(Princeton University)
Stanford Linear Accelerator Center
(Stanford University)

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Jet Propulsion Laboratory
(California Institute of Technology)

NATIONAL SCIENCE FOUNDATION

National Astronomy and Ionosphere Center
(Cornell University)
National Center for Atmospheric Research
(University Corporation for Atmospheric
Research)
National Optical Astronomy Observatory
(Association of Universities for Research in
Astronomy, Inc.)
National Radio Astronomy Observatory
(Associated Universities, Inc.)

NOTE: Information enclosed in the parentheses is the
administering entity for Federally Funded Research and
Development Centers.

SECTION D.

SURVEY INSTRUMENTS

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NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

Dear Colleague:

The National Science Foundation (NSF) and I would like to thank you in advance for your continued participation in its annual Survey of Research and Development Expenditures at Universities and Colleges (academic R&D expenditures survey). By contributing timely and accurate information to this fiscal year (FY) 1999 survey, you can ensure that your institution is represented in data used by members of Congress, Federal and state government planners, and officials in the academic sector to assess the adequacy of the nation's research base.

Coverage for the academic R&D expenditures survey includes U.S. institutions that currently have doctoral programs in science and engineering (S&E) fields with any amount of R&D expenditures, institutions that have the status of Historically Black College or University (HBCU) with any amount of R&D expenditures, or institutions that annually perform at least \$150,000 in separately budgeted research and development S&E activities. The reliability of the data and therefore the soundness of institutional, state, and national decisions based upon them are in large measure contingent upon receipt of complete and accurate data from all surveyed institutions. **The survey questionnaire is due January 24, 2000.**

This packet contains the following items:

1. Postcard to acknowledge that you have received this package
2. FY 1999 academic R&D expenditures survey questionnaire (NSF Form 411), with instructions, NSF/NCES Crosswalk, and Web User ID and Password
3. FY 1999 Optional Non-S&E Item 2A survey form
4. FY 1999 Optional Item 2B survey form
5. Proposed New Item for FY 2000
6. Facsimile showing data reported for your institution on the FY 1996-98 surveys
7. Informational brochure on the new Web Data Collection System
8. Question-and-Answer booklet
9. "FYT" flyer describing the NSF academic survey system
10. "Accessing NSF Data on the Internet"
11. Envelope for returning the completed survey questionnaire

Please let us know if your package is not complete!

POSTCARD

Please take a moment to let us know you have received this package by completing and mailing the enclosed postcard, giving the name and telephone number of the person responsible for completing the survey form.

FY 1999 SURVEY

There has been a **minor change** on the enclosed FY 1999 questionnaire from the survey form used for FY 1998. The FY 1999 questionnaire includes a check-off item on whether your institution includes the R&D expenditures performed at a **hospital**, and, if so, the hospital's name.

You will find an informational brochure about using the academic R&D expenditures survey Web data collection system in this packet. **Please note that your Web user ID and password are printed on the questionnaire label, which also contains your name and address.**

OPTIONAL ITEM 2A SURVEY FORM: FY 1999

To help NSF better understand how much **non-science and engineering R&D** is conducted at universities and colleges, please complete the Optional Item 2A and return it with the completed survey questionnaire. **Please note that you are encouraged to provide the Total and Total Federal non-S&E data if detailed field data are not available.** This format may become part of the survey questionnaire in FY 2000 but remains optional this year. All data reported by individual institutions on the optional item are **STRICTLY CONFIDENTIAL**. These data will not be published nor made available at the institutional level to the public.

OPTIONAL ITEM 2B SURVEY FORM: FY 1999

Please also take a moment to complete this item, which collects Federal R&D support statistics for major **individual Federal agencies**. This format may become part of the survey questionnaire in FY 2000 but remains optional this year. All data reported by individual institutions on the optional item are **STRICTLY CONFIDENTIAL**. These data will not be published nor made available at any level to the public; they will be used for internal analyses.

PROPOSED NEW ITEM FOR FY 2000

Please take a moment to review and comment on the new item that collects data on R&D expenditures your institution received **as a subrecipient**. Several university respondents recommended adding this question in addition to the current Item 1A.

WORLD WIDE WEB

An academic R&D expenditures survey home page is now available through the World Wide Web on the Internet. The page contains information about the survey and provides direct access to publications and data. To reach it, direct your browser to the following URL address: <http://www.nsf.gov/sbe/srs/rdexp/start.htm>. For more extensive S&E statistics, please try the Science Resources Studies home page: <http://www.nsf.gov/sbe/srs/stats.htm>. To submit your institution's data over the Web, the address for the Web data collection survey is <http://www.qrc.com/expweb>. **Please note that your Web user ID and password are printed on the questionnaire label, which also contains your name and address.**

FOR MORE INFORMATION

Please review the enclosed Question-and-Answer booklet, which contains useful information for completing the survey. If you have questions about the survey or would like information about our publications or data, please call Marge Machen of NSF at (703) 306-1772 or Hilary Jones of Quantum Research Corporation at (301) 657-3077, ext. 136.

If you prefer to submit your data electronically (in a layout similar to the questionnaire), please send email to Jennifer Greer at jgreer@qrc.com.

Thank you for your efforts in providing timely and meaningful statistics to NSF.

Sincerely,



John E. Jankowski, Jr., Director
Research and Development Statistics Program
Division of Science Resources Studies

Enclosures



NATIONAL SCIENCE FOUNDATION
ARLINGTON, VA 22230

**SURVEY OF RESEARCH AND DEVELOPMENT EXPENDITURES
AT UNIVERSITIES AND COLLEGES, FY 1999**

Organizations are requested to complete and return this form to:

Quantum Research Corporation
7315 Wisconsin Avenue, Suite 400W
Bethesda, MD 20814-3202

If you prefer, your response to the survey may be sent by email to:
jgreer@qrc.com

This form should be returned by January 24, 2000.

REMEMBER: Now you can submit your data on the Web at <http://www.qrc.com/expweb>. For more information, please see the informational brochure on the Web collection. Please note that your Web user ID and password are printed on the adjacent label, which also contains your name and address.

Your cooperation in returning the survey questionnaire promptly is very important.

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. Your response is entirely voluntary and your failure to provide some or all of the information will in no way adversely affect your institution.

All financial data requested on this form should be reported in thousands of dollars; for example, an expenditure of \$25,342 should be rounded to the nearest thousand dollars and reported as \$25.

Where exact data are not available, estimates are acceptable. Your estimates will be better than ours.

Include data for branches and all organizational units of your institution, such as medical schools and agricultural experiment stations. Data on research centers and facilities administered by your institution should be included. In addition, include hospitals or clinics owned, operated, or controlled by universities, and integrated operationally with the clinical programs of your medical schools.

NOTE: Academic institutions should exclude data for federally funded research and development centers (FFRDCs). Data for these facilities are collected separately.

Please correct if name or address has changed

If you have any questions please contact Marge Machen of NSF at (703) 306-1772, or Jennifer Greer of QRC at (301) 657-3077, ext. 132.

Financial data are requested for your Institution's 1999 fiscal year.

Please circle the month in which your institution's fiscal year begins

1	2	3	4	5	6	7	8	9	10	11	12
JAN											DEC

Do you include expenditure data for R&D performed at a hospital?

Yes No

If so, please name the hospital. _____

It is estimated that response to this survey will require 13 hours. If you wish to comment on this burden, please contact Suzanne H. Plimpton of NSF at (703) 306-1125, ext. 2017, or email splimpto@nsf.gov.

How many person hours were required to complete this form? _____

Date submitted _____

Scope:

This survey collects data on expenditures by universities and colleges for separately budgeted research and development (R&D) in science and engineering. Definitions used are compatible with OMB Circular A-21, revised April 26, 1996. Items 1 and 2 ask for *current fund expenditures* by source of funds and by field of science and engineering. Item 3 collects data on that *portion of current fund expenditures* reported in Items 1 and 2 that went for the purchase of scientific and engineering research equipment.

Definitions:

Research and Development (R&D). R&D for purposes of this survey is the same as "organized research" as defined in Section B.1.b. of OMB Circular A-21 (revised). It includes all R&D activities of an institution that are *separately budgeted and accounted for*. R&D includes both "sponsored research" activities (sponsored by Federal and non-Federal agencies and organizations) and "university research" (separately budgeted under an internal application of institutional funds).

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

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

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

PERSON WHO SUBMITTED THIS FORM (PLEASE TYPE OR PRINT)

NAME:	TELEPHONE NUMBER:
TITLE:	EMAIL:
	FAX:

PERSON WHO PREPARED THIS FORM (IF DIFFERENT FROM ABOVE)

NAME:	TELEPHONE NUMBER:
TITLE:	EMAIL:
	FAX:

Instructions for Items 1 and 2

Separately budgeted research and development (R&D) includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. *Include* research equipment purchased under research project awards from "current fund" accounts. Also *include* research funds for which an outside organization, educational or other, is a subrecipient. *Exclude* training grants, public service grants, demonstration projects, clinical trials, and departmental research expenditures that are not separately budgeted. Also, *exclude* any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, as well as all other non-science fields. Allocate funding to the original sources whenever possible, as specified below. If this information is unknown, report the proximate funding source.

- Total**
- a. Federal Government.** Report awards for R&D (including direct and reimbursed indirect costs) by all agencies of the Federal Government.
 - b. State and local governments.** Include funds for R&D (including direct and reimbursed indirect costs) from state, county, municipal, or other local governments and their agencies. Include here state funds that support R&D at agricultural and other experiment stations.
 - c. Industry.** Include all awards for R&D (including direct and reimbursed indirect costs) from profit-making organizations, whether engaged in production, distribution, research, service, or other activities. Do not include awards from nonprofit foundations financed by industry; these should be reported under "All other sources" (line 1175).
 - d. Institution funds.** Report funds, *including* related indirect costs, that your institution spent for R&D activities from the following unrestricted sources: general-purpose state or local government appropriations; general-purpose awards from industry, foundations, or other outside sources; tuition and fees; endowment income; gifts; and other institutional funds. In addition, estimate your institution's on-campus and off-campus unreimbursed indirect costs associated with externally funded R&D projects, including mandatory and voluntary cost sharing. To estimate unreimbursed indirect costs, preferably on a project-by-project basis, use your appropriate on-campus or off-campus *negotiated research indirect cost rate(s)* multiplied by the corresponding base(s) minus actual indirect cost recovery.
 - e. All other sources.** Include awards for R&D (including direct and reimbursed indirect costs) from nonprofit foundations and voluntary health agencies as well as from all other sources not elsewhere classified. Funds from foundations that are affiliated with, or granted solely to your institution, should be included under line 1160, "Institution funds." Funds for R&D received from a health agency that is a unit of a state or local government should be reported under "State and local governments" (line 1125). Also include gifts from individuals that are restricted by the donor to research.

ITEM 1. CURRENT FUND EXPENDITURES FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT IN THE SCIENCES AND ENGINEERING, BY SOURCE OF FUNDS: FY 1999 (Include Indirect costs)

Source of Funds	Line No.	(1) Total (Dollars in Thousands)	(2) Percentages of Total & Federal Funds That Are Basic Research
a. Federal Government	1110	\$	_____ %
b. State and local governments	1125		Basic research is directed toward an increase of knowledge; it is research where the primary aim of the investigator is a fuller knowledge or understanding of the subject under study rather than a specific application thereof.
c. Industry	1150		
d. Institution funds (sum of lines 1161 and 1162)	1160		
(1) Institutionally financed organized research	1161		
(2) Unreimbursed indirect costs and related sponsored research	1162		
e. All other sources	1175		
f. TOTAL (sum of a through e)	1100	\$	_____ %

BASIC RESEARCH
Please provide the percentages of total and Federal expenditures that are basic research (not applied research) as defined in column (2).

CONFIDENTIALITY
Information received from individual institutions in lines 1161 and 1162, or estimates for basic research expenditures, will NOT be published or released; only aggregate totals will appear in tabulations.

ITEM 1A. CURRENT FUND EXPENDITURES (TOTAL AND FEDERALLY FINANCED) FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT IN THE SCIENCES AND ENGINEERING PASSED THROUGH THE INSTITUTION TO SUBRECIPIENTS

How much of your total R&D (line 1100) and Federal R&D (line 1110) expenditures was passed through by your institution to subrecipients?

Subrecipients	Line No.	Dollars in Thousands	
		(1) Total	(2) Federal
Educational subrecipients	1910		
Other subrecipients	1920		
Total	1900		

For Federal awards, **subrecipient** means the entity that expends Federal awards received from a pass-through entity to carry out a Federal program, but does not include an individual that is a beneficiary of such a program. A subrecipient may also be a recipient of other Federal awards directly from a Federal awarding agency. —OMB Circular A-133, Section .105 (revised April 22, 1996) For awards from non-Federal sources, the subrecipient definition is analogous to the Federal one.

Educational [subrecipients] refers to all academic colleges and universities and all units owned, operated, and controlled by such institutions.

**ITEM 2. CURRENT FUND EXPENDITURES
(TOTAL AND FEDERALLY FINANCED)
FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT,
BY FIELD OF SCIENCE AND ENGINEERING: FY 1999
(Include indirect costs)**

Please note that total R&D expenditures in line 1400, column (1) should be the same as reported in Item 1, line 1100, column 1.

Federally financed R&D expenditures in line 1400, column (2) should be the same as reported in Item 1, line 1110, column 1.

Field of science & engineering	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. ENGINEERING (TOTAL)	1410	\$	\$
(1) Aeronautical & astronautical	1411		
(2) Bioengineering/biomedical engineering	1418		
(3) Chemical	1412		
(4) Civil	1413		
(5) Electrical	1414		
(6) Mechanical	1415		
(7) Metallurgical & materials	1417		
(8) Other	1416		
b. PHYSICAL SCIENCES (TOTAL)	1420		
(1) Astronomy	1421		
(2) Chemistry	1422		
(3) Physics	1423		
(4) Other	1424		
c. ENVIRONMENTAL SCIENCES (TOTAL)	1430		
(1) Atmospheric	1431		
(2) Earth sciences	1432		
(3) Oceanography	1433		
(4) Other	1434		
d. MATHEMATICAL SCIENCES (TOTAL)	1441		
e. COMPUTER SCIENCES (TOTAL)	1442		
f. LIFE SCIENCES (TOTAL)	1450		
(1) Agricultural	1451		
(2) Biological	1452		
(3) Medical	1453		
(4) Other	1454		
g. PSYCHOLOGY (TOTAL)	1460		
h. SOCIAL SCIENCES (TOTAL)	1470		
(1) Economics	1471		
(2) Political science	1472		
(3) Sociology	1473		
(4) Other	1474		
i. OTHER SCIENCES, not elsewhere classified (TOTAL)	1480		
j. TOTAL (sum of a through i)	1400	\$	\$

Please EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields.

**ITEM 3. CURRENT FUND EXPENDITURES FOR RESEARCH EQUIPMENT (TOTAL AND FEDERALLY FINANCED)
FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT,
BY FIELD OF SCIENCE AND ENGINEERING: FY 1999**

Please report that portion of current fund expenditures reported in items 1 and 2 that went for the purchase of research equipment. This includes all research equipment purchased under sponsored research project awards from current fund accounts.

For column (1), report current fund expenditures for R&D from all sources: Federal Government, state, county, municipal or other governments and their agencies (including state funds supporting R&D at agricultural experiment stations); industry; institution funds; and private foundations and voluntary health agencies, individuals, and associations.

For column (2), include funds from awards for R&D sponsored by agencies of the Federal Government.

Field of science & engineering	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. ENGINEERING (TOTAL)	1810	\$	\$
(1) Aeronautical & astronautical	1811		
(2) Bioengineering/biomedical engineering	1818		
(3) Chemical	1812		
(4) Civil	1813		
(5) Electrical	1814		
(6) Mechanical	1815		
(7) Metallurgical & materials	1817		
(8) Other	1816		
b. PHYSICAL SCIENCES (TOTAL)	1820		
(1) Astronomy	1821		
(2) Chemistry	1822		
(3) Physics	1823		
(4) Other	1824		
c. ENVIRONMENTAL SCIENCES (TOTAL)	1830		
(1) Atmospheric	1831		
(2) Earth sciences	1832		
(3) Oceanography	1833		
(4) Other	1834		
d. MATHEMATICAL SCIENCES (TOTAL)	1841		
e. COMPUTER SCIENCES (TOTAL)	1842		
f. LIFE SCIENCES (TOTAL)	1850		
(1) Agricultural	1851		
(2) Biological	1852		
(3) Medical	1853		
(4) Other	1854		
g. PSYCHOLOGY (TOTAL)	1860		
h. SOCIAL SCIENCES (TOTAL)	1870		
(1) Economics	1871		
(2) Political science	1872		
(3) Sociology	1873		
(4) Other	1874		
i. OTHER SCIENCES, not elsewhere classified (TOTAL)	1880		
j. TOTAL (sum of a through i)	1800	\$	\$

Current fund expenditures in each field for scientific research equipment is that PORTION or SUBTOTAL of the amounts reported in the corresponding cells of the "Total" and "Federal" columns in Item 2.

**CROSSWALK BETWEEN NSF FIELDS OF SCIENCE & ENGINEERING AND THE
NATIONAL CENTER FOR EDUCATION STATISTICS (NCES) CLASSIFICATION OF INSTRUCTIONAL PROGRAMS**

The left-hand column shows each of the detailed fields as displayed on the questionnaire form. The right-hand column shows the NCES fields that are included within the NSF category as well as some additional illustrative disciplines. These additional disciplines are intended to be guidelines—not sharp definitions—as to what should be reported under a particular field.

Questionnaire Field	NCES Classification and Additional Illustrative Disciplines			
a. ENGINEERING				
(1) Aeronautical & Astronautical	14.02 Aerospace, Aeronautical, and Astronautical Engineering (also aerodynamics, space technology)			
(2) Bioengineering/ Biomedical Engineering	14.05 Bioengineering and Biomedical Engineering			
(3) Chemical	03.0509 Wood Science (also petroleum refining process)	14.07 Chemical Engineering 14.32 Polymer/Plastics Engineering	14.25 Petroleum Engineering	
(4) Civil	04.02 Architecture 14.14 Environmental/Environmental Health Engineering (also geotechnical, hydraulic, hydrologic, sanitary and environmental, structural, transportation)		14.04 Architectural Engineering	14.08 Civil Engineering
(5) Electrical	14.09 Computer Engineering (also power engineering)	14.10 Electrical, Electronics, and Communications Engineering		
(6) Mechanical	14.11 Engineering Mechanics	14.19 Mechanical Engineering		
(7) Metallurgical & Materials	14.06 Ceramic Sciences and Eng. 14.18 Materials Engineering 14.28 Textile Sciences and Eng. (also welding)	14.15 Geological Engineering 14.20 Metallurgical Engineering 14.31 Materials Science	14.16 Geophysical Engineering 14.21 Mining and Mineral Eng. 40.0701 Metallurgy	
(8) Other	14.01 Engineering, General 14.13 Engineering Science 14.23 Nuclear Engineering 14.27 Systems Engineering 14.99 Engineering, Other (also marine and ocean engineering systems)	14.03 Agricultural Engineering 14.17 Industrial/Manufacturing Eng. 14.24 Ocean Engineering 14.29 Engineering Design 30.06 Systems Science and Theory	14.12 Engineering Physics 14.22 Naval Architecture and Marine Engineering 14.30 Eng./Industrial Management	
b. PHYSICAL SCIENCES				
(1) Astronomy	40.02 Astronomy (also Gamma-ray, neutrino, optical and radio, X-ray)		40.03 Astrophysics	
(2) Chemistry	40.05 Chemistry (also analytical, inorganic, organic, organo-metallic, pharmaceutical, physical, polymer sciences (except biochemistry))			
(3) Physics	40.08 Physics (also acoustics, atomic/molecular, chemical, condensed matter, elementary particles, nuclear structure, optics, plasma, theoretical/mathematical)			
(4) Other	40.01 Physical Sciences, General	40.0799 Miscellaneous Physical Sciences, Other	40.99 Physical Sciences, Other (used for multidisciplinary projects within physical sciences and for disciplines not requested separately)	
c. ENVIRONMENTAL SCIENCES (Earth, Atmospheric, & Ocean)				
(1) Atmospheric	40.04 Atmospheric Sciences and Meteorology (also aeronomy, extraterrestrial atmospheres, solar, weather modification)			
(2) Earth Sciences	15.1102 Surveying 40.0703 Earth & Planetary Sciences		40.06 Geological and Related Sciences 45.0702 Cartography (also engineering geophysics, general geology, geodesy and gravity, geomagnetism, hydrology, inorganic, isotopic, lab geophysics, organic geochemistry, paleomagnetism, paleontology, physical geography, seismology)	
(3) Oceanography	26.0607 Marine/Aquatic Biology (also biological, chemical, geological, physical)		40.0702 Oceanography	
(4) Other	(used for multidisciplinary projects within Earth, Atmospheric, and Ocean Sciences)			
d. MATHEMATICAL SCIENCES				
	27.01 Mathematics, General 27.05 Mathematical Statistics (also algebra, analysis, foundations and logic, geometry, numerical analysis, topology)	27.03 Applied Mathematics 27.99 Mathematics, Other	27.0302 Operations Research 30.08 Math./Computer Sciences	

Questionnaire Field	NCES Classification and Additional Illustrative Disciplines (cont.)			
e. COMPUTER SCIENCES	11 Computer and Information Science, General (also design, development, and application of computer capabilities to data storage and manipulation, information science) 52.1201 Management Information Systems			
f. LIFE SCIENCES	01.03 Agricultural Production 01.0303 Aquaculture 01.07 International Agriculture 02.01 Agricultural Sciences 02.04 Plant Sciences 02.05 Soil Science 03 Renewable Natural Resources 04.06 Landscape Architecture (also agricultural chemistry, agronomy, animal science, conservation, fish and wildlife, forestry, horticulture)			
(1) Agricultural				
(2) Biological	19.05 Foods and Nutrition Studies 26.01 Biology, General 26.0202 Biochemistry 26.0203 Biophysics 26.03 Botany 26.04 Cell and Molecular Biology 26.05 Microbiology/Bacteriology 26.0601 Anatomy 26.0603 Ecology 26.0609 Nutritional Sciences 26.0610 Parasitology 26.0612 Toxicology 26.0613 Genetics, Plant and Animal 26.0614 Biometrics 26.0615 Biostatistics 26.0699 Misc. Bio. Specializations, Other 26.0701 Zoology 26.0702 Entomology 26.0704 Pathology, Human and Animal 26.0705 Pharmacology, Human and Animal 26.0706 Physiology, Human and Animal 26.0799 Zoology, Other 26.99 Biolog./Life Sciences, Other 51.1301 Medical Anatomy 51.1302 Medical Biochemistry 51.1307 Medical Immunology 51.1308 Medical Microbiology 51.1312 Medical Pathology 51.1313 Medical Physiology 51.1314 Medical Toxicology 51.2203 Epidemiology (also allergies and immunology, biogeography, biotechnology, pathology, physical anthropology, virology)			
(3) Medical	26.0608 Neurosciences 26.0611 Radiation Biology/Radiobiol. 51.04 Dentistry 51.1201 Medicine, General 51.1399 Med. Basic Sciences, Other 51.1610 Nursing Psychiatry/ 51.17 Optometry 51.19 Osteopathic Medicine Mental Health 51.20 Pharmacy 51.21 Podiatry 51.22 Public Health 51.24 Veterinary Medicine ¹ Anesthesiology Cardiology Colon and Rectal Surgery Dental/Oral Surgery Dermatology Family Medicine Gastroenterology General Surgery Geriatric Medicine Hematology Internal Medicine Medical Programs, Other Neonatal-Perinatal Medicine Neurological Surgery Neurology Nuclear Medicine Nuclear Radiology Obstetrics and Gynecology Oncology Ophthalmology Orthopedics/Orthopedic Surgery Otorhinolaryngology Pediatrics Pharmacology Physical and Rehabilitative Medicine Plastic Surgery Preventive Medicine Psychiatry Thoracic Surgery Urology (exclude all residency programs)			
(4) Other	30.11 Gerontology 51.02 Communication Disorders 51.07 Health and Medical 51.10 Health and Medical Laboratory Sciences and Services Administrative Services Technologies 51.16 Nursing Technologies 51.2306 Occupational Therapy 51.2308 Physical Therapy 51.2399 Rehab./Therapeutic Services 51.99 Health Professions and Related Services, Other (used for multidisciplinary projects within life sciences)			
g. PSYCHOLOGY	42.01 Psychology, General 42.02 Clinical Psychology 42.17 School Psychology 51.2301 Art Therapy (also animal behavior, educational, experimental, human development and personality, social)			
h. SOCIAL SCIENCES	01.0103 Agricultural Economics 45.06 Economics 52.06 Business/Managerial Econ. (also applied, development, econometrics, industrial, international, labor, public finance and fiscal policy, quantitative, resource)			
(1) Economics				
(2) Political Science	44.04 Public Administration 44.05 Public Policy Analysis 44.99 Public Admin. and Services, Other 45.09 International Relations and Affairs 45.10 Political Science and Government (also comparative government, legal systems, political theory, regional studies)			
(3) Sociology	45.02 Anthropology (Social and Cultural only) 45.05 Demography and Population Studies 45.11 Sociology (also comparative and historical, complex organizations, cultural and social structure, group interactions, social problems and welfare theory)			
(4) Other	04.03 City/Urban, Community, and Regional Planning 05 Area and Ethnic Studies 16.0102 Linguistics 43.01 Crim'l. Justice & Corrections 44.02 Community Services 45.01 Social Sciences, General 45.03 Archaeology 45.07 Geography 45.12 Urban Studies/Affairs 45.99 Social Sciences, Other (also history of science, socioeconomic geography)			
i. OTHER SCIENCES, n.e.c.	(used when the multidisciplinary and interdisciplinary aspects make the classification under one primary field impossible)			

¹ Institutions with schools of veterinary medicine should distribute R&D expenditures among the appropriate disciplines (agricultural, biological, and medical) rather than only in medical sciences.



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**OPTIONAL ITEM 2A. CURRENT FUND EXPENDITURES
(TOTAL AND FEDERALLY FINANCED)
FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT
BY NON-SCIENCE AND ENGINEERING FIELD: FY 1999
(Include indirect costs)**

NOTE: For rows 2A(a) through 2A(i), report only data that have not been reported in Items 1 and 2 on this survey. Non-S&E R&D should **include** any separately budgeted scholarly and creative activity, but should **exclude** training.

Non-science & engineering fields	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. EDUCATION	1510		
b. LAW	1520		
c. HUMANITIES	1530		
d. VISUAL & PERFORMING ARTS	1540		
e. BUSINESS AND MANAGEMENT	1550		
f. COMMUNICATIONS, JOURNALISM, AND LIBRARY SCIENCE	1560		
g. SOCIAL WORK	1570		
h. OTHER NON-S&E FIELDS, please specify:	1580		
i. TOTAL, NON-S&E FIELDS	1500		
j. TOTAL, S&E (from Item 2, line j)	1400		
k. GRAND TOTAL	1600		

NOTE: If you cannot provide expenditures by non-S&E fields, please provide the Total (column 1, line 1500) and Federal Total (column 2, line 1500).

**CROSSWALK BETWEEN NSF NON-SCIENCE & ENGINEERING FIELDS AND THE NATIONAL CENTER FOR
EDUCATION STATISTICS (NCES) CLASSIFICATION OF INSTRUCTIONAL PROGRAMS**

Questionnaire Field	CIP Code	CIP Program Category Title
Education	13.xx	Education
Law	22.xx	Law and Legal Studies
Humanities	16.xx 23.xx 24.xx 38.xx 39.xx 45.08	Foreign Languages & Literature English Language and Literature/Letters Liberal Arts & Sciences, General Studies & Humanities Philosophy and Religion Theological Studies and Religious Vocations History (except History of Science)
Visual & Performing Arts	50.xx	Visual and Performing Arts
Business and Management	52.xx 08.xx	Business Management and Administrative Services Marketing Operations/Marketing Distribution
Communications, Journalism, and Library Science	09.xx 25.xx 10.xx	Communications Library Science Communications Technologies
Social Work	44.07	Social Work
Other Non-S&E Fields	31.xx 29.xx	Parks, Recreation, Leisure and Fitness Studies Military Technologies

OPTIONAL ITEM 2B

CURRENT FUND EXPENDITURES (TOTAL AND FEDERALLY FINANCED) FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT, BY FIELD OF SCIENCE & ENGINEERING: FY 1999 (Include indirect costs)

Please note that total R&D expenditures in line 1400, column (1) should be the same as reported in Item 1, line 1100, column 1. Federally financed R&D expenditures in line 1400, column (2) should be the same as reported in Item 1, line 1110, column 1.

Allocate funding to the original sources whenever possible. If that information is unknown, report the proximate funding source.

KEY: USDA, Department of Agriculture; DoD, Department of Defense; DOE, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NSF, National Science Foundation. "Other" Federal sources include all other Federal agencies.

		(Dollars in thousands)								
Field of science and engineering	Line No.	TOTAL ALL	TOTAL FEDERAL	SPECIFIC FEDERAL AGENCIES						
				USDA	DoD	DOE	HHS*	NASA	NSF	Other
a. Engineering (Total)	1410									
(1) Aeronautical & astronautical	1411									
(2) Bioengineering/biomedical engineering	1418									
(3) Chemical	1412									
(4) Civil	1413									
(5) Electrical	1414									
(6) Mechanical	1415									
(7) Metallurgical & materials	1417									
(8) Other	1416									
b. Physical Sciences (Total)	1420									
(1) Astronomy	1421									
(2) Chemistry	1422									
(3) Physics	1423									
(4) Other	1424									
c. Environmental Sciences (Total)	1430									
(1) Atmospheric	1431									
(2) Earth sciences	1432									
(3) Oceanography	1433									
(4) Other	1434									
d. Mathematical Sciences (Total)	1441									
e. Computer Sciences (Total)	1442									
f. Life Sciences (Total)	1450									
(1) Agricultural	1451									
(2) Biological	1452									
(3) Medical	1453									
(4) Other	1454									
g. Psychology (Total)	1460									
h. Social Sciences (Total)	1470									
(1) Economics	1471									
(2) Political science	1472									
(3) Sociology	1473									
(4) Other	1474									
i. Other Sciences (Total)	1480									
j. Total (sum of a through i)	1400									

Please EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields. * Includes NIH.

PROPOSED NEW ITEM FOR FY 2000

NSF would like to include the following item in the FY 2000 survey. This item will be in addition to the current Item 1A. Please review the proposed item and provide your comments and suggestions in the space below.

**CURRENT FUND EXPENDITURES (TOTAL AND FEDERALLY FINANCED) FOR
SEPARATELY BUDGETED R&D IN THE SCIENCES AND ENGINEERING
RECEIVED AS A SUBRECIPIENT**

How much of your total R&D (line 1100) and Federal R&D (line 1110) expenditures did your institution receive as a subrecipient?

Pass-through entity providing the funds	Line No.	Dollars in Thousands	
		(1) Total	(2) Federal
Educational	2010		
Other	2020		
Total	2000		

COMMENTS/SUGGESTIONS:

BASIC RESEARCH

How should basic research be calculated?

The percentage of basic research should be defined at the individual grant level by each principal researcher. Where this is not possible, grants should be reviewed by each department head or other relevant research coordinator.

Here is another method used by one institution to estimate the amounts of basic and applied research: All federally funded grants and R&D funded from other universities, foundations, and nonprofit organizations are considered to be basic research. R&D funds received through Federal cooperative agreements and Federal contracts, all state-funded R&D (except that from the state's Advanced Research Program), and R&D funds received from private for-profit institutions are considered to be applied research.

DATA USES AND AVAILABILITY

How are these data typically used?

Congress and Federal and state government planners use the data for science policy analysis, national and international studies, legislative hearing reports, budget formulation sessions, and other measurements of the adequacy of the nation's research base. Academic institutions use the information for policy analysis, publicity, and other purposes. Industrial firms often request data to prepare for on-campus recruiting. The data often appear in higher education studies and publications.

How are the data made available?

NSF's annual *Academic Research and Development Expenditures Survey* compiles detailed data in a comprehensive document, available on request. Institutional profiles show trend data for responses at the institutional level from all academic S&E surveys.

Survey data are now available through the World Wide Web on the Internet. To obtain the most recent survey publications and data tables, data files, institutional profiles, and access to WebCASPAR, the Web-based Computer-Aided Science Policy Analysis and Research database system, direct your browser to <http://www.nsf.gov/sbe/srs/stats.htm>.

For more information, contact Marge Machen at (703) 306-1772
(email: mmachen@nsf.gov).

Questions and Answers

This booklet answers common questions about the academic R&D expenditures survey.

FIELD OF SCIENCE CLASSIFICATIONS

How should I assign field classifications for research and development (R&D) performed in interdisciplinary centers?

Interdisciplinary research should be categorized by individual research project according to the nature of the research performed. When individual projects encompass multiple fields of science and engineering (S&E), prorate expenditures to report the proportions of each discipline involved. Do not lump funds together into "other" field categories unless the type of research is actually defined as "other." NSF recommends crediting such research to the appropriate S&E discipline when the project first begins.

How should I allocate research dollars spent for computing or supercomputing services?

Report research dollars spent for computer usage to the individual fields of science and engineering for which the R&D is performed. Do not report these funds in computer science, unless computer science research was performed.

What fields should be excluded?

Exclude fields that are considered to be non-science—education, law, humanities, business, music, the arts, library science, and physical education. Note that you would report separately budgeted R&D for the philosophy of science (a science category), but not philosophy (one of the humanities). The NSF/NCES Crosswalk included with the questionnaire lists all S&E fields.

SOURCES OF FUNDING

Should faculty practice plan income be included in the survey?

Expenditures for faculty practice plans are not considered research and should not be included. If income from such plans is used to fund other research and the funds are separately budgeted, then the expenditures should be included in institutional funds.

How much of our administrative costs can be reported in the survey?

Administrative salaries and other administrative costs, particularly at your organized research units, can be reported only if funded through projects specifically restricted and budgeted for research. General administrative costs should not be reported.

How should I report institutional funds?

All research dollars reported for your institution should be funds that are separately budgeted and restricted for research, such as sponsored research accounts or general accounts that are specifically budgeted for research. Do not include funds not specifically budgeted for research.

If your institution does not track underrecovery of indirect costs, use the underrecovery formula included in the questionnaire instructions. Do not forget to include and distribute unreimbursed indirect costs by detailed field in survey Item 2.

Be sure to report all indirect costs related to your institutional funds.

Can I report donated research equipment in the survey?

Since donated research equipment is not typically captured in university accounting systems, the value of donated research equipment should not be reported.

COLLABORATIVE RESEARCH ARRANGEMENTS

Should I report expenditures received through collaborative research ventures with other institutions?

Report only what your institution actually expends and accounts for when participating in joint research ventures.

How do I distinguish between being a subrecipient of pass-through funds and being a subcontractor of R&D services?

A subrecipient is an entity that receives Federal financial assistance from the state or any other entity to administer a program (OMB Circular A-110). The subrecipient actually administers or controls the program, as opposed to the subcontractor who contracts for a specific service on a per-unit basis. A key factor in determining if a subrecipient arrangement exists is determining if the entity assumes the responsibility to administer the program. Subrecipients tend to be the co-authors of publications, writers of technical reports discussing findings, inventors, etc. Unlike a subrecipient relationship, a subcontract is a procurement of goods and/or services. Payments to subcontractors are expenditures for services, not expenditures for research, and are different from pass-through funds to subrecipients.

ORGANIZATIONAL UNITS

Which organizational units should I include in the survey?

Include research conducted through units that are considered part of your institution's organizational structure. For example, report expenditures from branch campuses, medical schools, agricultural stations, research centers and institutes, and any other units whose expenditures are separately budgeted and are accounted for by your institution's financial system. Exclude R&D expenditures performed by federally funded research and development centers (FFRDCs), nonprofit institutions, and private laboratories. Do not report salaries of faculty doing research at outside institutions unless your institution accounts for the funding of that research.

Academic R&D Expenditures

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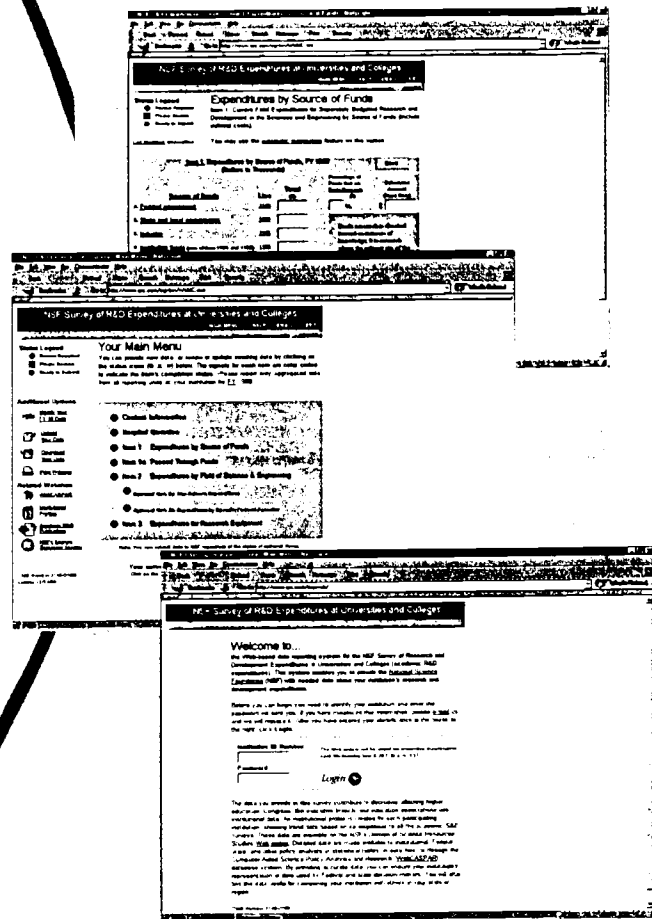
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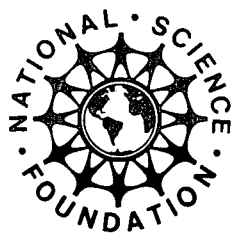
If you have any questions about this Web survey, please contact Jennifer Greer or Hilary Jones by telephone at (301) 657-3070 or by email at expweb@qrc.com.

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EFF-089 (3/2000)