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ABSTRACT Data are presented from a survey covering the period of October 1, 1977 through September 30, 1978. The figures given represent all obligations to institutions of higher education in the United States by 14 federal agencies. A summary analysis is given for three categories of data: those on colleges and universities in general, university-administered federally-funded research and development centers, and independent nonprofit institutions and nonprofit-administered federally funded research and development centers. Detailed statistical tables and some technical notes are appended. The federal agencies represented are the Agency for International Development; Department of Commerce; Department of Defense; Department of Transportation; Environmental Protection Agency; Department of Energy; Department of Health, Education, and Welfare; Department of Housing and Urban Development; Department of the Interior; Department of Labor, National Aeronautics and Space Administration; Nuclear Regulatory Commission; National Science Foundation; and Department of Agriculture. Dollar amounts of obligations are given for each institution and each agency funding it. (MSE)

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ED192656

a report to the president and congress

federal support to universities, colleges, and selected nonprofit institutions fiscal year 1978

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letter of transmittal

Washington, D.C.

DEAR MR. PRESIDENT:

I have the honor to transmit to you the statistical report *Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 1978*, as required by the National Science Foundation Act of 1950, as amended.

This year, in order to increase the utility of the data, a condensed analysis of the survey findings is included with the detailed statistical tables. This will replace the detailed analyses formerly published later in the year.

Sincerely,

Richard C. Atkinson
Director
National Science Foundation

The Honorable
The President of the United States

Identical letters have been sent to:
The President of the Senate
The Speaker of the House of Representatives

related publications

Reports	NSF No.	Price
Federal Funds for Research and Development, Fiscal Years 1978, 1979, and 1980, Volume XXVIII	80-315	In press
National Patterns of R&D Resources: Funds & Personnel in the United States, 1953-1978-79	78-313	\$2.40
1985 R&D Funding Projections	76-314	\$0.75
R&D Activities of Independent Nonprofit Institutions, 1973	75-308	\$1.90
Reviews of Data on Science Resources		
No. 35. "State and Local Government R&D Expenditures, FY 1977"	80-302	\$1.25
Detailed Statistical Tables		
Academic Science: Scientists and Engineers, January 1979 ..	79-328	---
Research and Development in State and Local Governments, Fiscal Year 1977	79-327	---
Academic Science: R&D Funds, Fiscal Year 1978	79-320	---
Federal Funds for Research and Development, Fiscal Years 1978, 1979, and 1980, Volume XXVIII	79-318	---
Academic Science: Graduate Enrollment and Support, Fall 1978	79-316	---
Highlights		
"Academic Employment of Scientists and Engineers Increased 4% in Doctorate Institutions in 1979"	80-309	---
"Doctoral Institutions Report 6% Real Increase in R&D Expenditures in FY 1978"	80-301	---
"Graduate Science Enrollment in Doctorate-Granting Institutions Levelled Off in 1978"	79-321	---

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(See inside back cover for Other Science Resources Publications.)

foreword

Under the terms of the National Science Foundation Act of 1950, as amended in 1968, the Foundation is required to "... initiate and maintain a program for the determination of the total amount of money for scientific research, including money for the construction of facilities wherein such research is conducted, received by each educational institution and appropriate nonprofit organization in the United States, by grant, contract, or other arrangement from agencies of the Federal Government, and to report annually thereon to the President and Congress." To fulfill this requirement, the Foundation assumed responsibility for the survey system originally designed by the Committee on Academic Science and Engineering (CASE) of the Federal Council on Science and Technology. The present report is the thirteenth in a series presenting data on Federal support to academic institutions; data on support to selected nonprofit institutions were added in 1968.

Institutions of higher education, the major source of trained scientific personnel in the United States, perform more than one-half of the Nation's basic research and nearly one-half of the basic research sponsored by the Federal Government. The level and distribution of Federal obligations to this sector, therefore, are of interest not only to those in the executive and legislative branches of the Federal Government, but also to officials at the State and local levels and in nongovernmental sectors. Academic administrators, for example, rely on these data for information on a single institution's progress from year to year and for comparisons with other institutions. This survey system is the only source of data on Federal funding to individual institutions for all purposes, scientific and non-scientific.

We extend our appreciation to the responsible staff in the participating agencies for their continued cooperation. Without their effort such a survey would be impossible.

Richard C. Atkinson
Director
National Science Foundation

May 1980

acknowledgments

This report was prepared in the Division of Science Resources Studies, Charles E. Falk, Division Director. J.G. Huckenpahler of the Universities and Nonprofit Institutions Studies Group prepared the report with the assistance of Richard J. Bennof. The survey was conducted and the report prepared under the supervision of Richard M. Berry, Study Director. William L. Stewart, Head, R&D Economic Studies Section, provided special guidance and statistical assistance was provided by M. Margaret Machen.

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¹Federally funded research and development centers.

general notes

This report presents data collected in the National Science Foundation's (NSF) Survey of Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 1978, covering the period October 1, 1977 through September 30, 1978. The reporting system is based on the program established in 1965 by the Committee on Academic Science and Engineering (CASE) of the Federal Council on Science and Technology (FCST).

The figures shown in these tables represent *all* obligations to institutions of higher education in the United States. The 14 Federal agencies represented accounted for an estimated 95 percent of total obligations to universities and colleges and over 99 percent of all funding for scientific and engineering (S/E) research and development at such institutions.

Some agencies not surveyed, such as the Department of Justice, may obligate significant proportions of the total receipts of some institutions, although these funds account for only a small share of all academic research and development. Agencies not surveyed funded only \$15 million to universities and colleges for research and development in 1978.¹

For fiscal year 1980, parts of the Department of Health, Education, and Welfare (HEW) were combined to form the new Education Department (ED). As a result, the HEW was renamed the Department of Health and Human Services (HHS). Data from these sources will continue to be reported under HEW in the FY 1979 survey but will be reported under the revised organizational titles beginning with the FY 1980 survey.

¹Based on data presented in National Science Foundation, *Federal Funds for Research and Development, Fiscal Years 1978, 1979, and 1980*, Volume XXVIII (Detailed Statistical Tables) (NSF 79-318) (Washington, D.C., 1980.)

Obligations shown for universities and colleges do not include funds obligated to federally funded research and development centers (FFRDC's) administered by academic institutions. Obligations to these organizations are presented separately, as are obligations to independent nonprofit institutions and nonprofit-administered FFRDC's (parts II and III and tables 36 through 42).

Obligations differ from expenditures in that funds allocated during one fiscal year may be spent by the recipient either partially or entirely during one or more subsequent years. Totals presented herein exclude loans to individuals, such as Federal guaranteed student loan programs sponsored by the Office of Education (OE), and Federal employee training and development activities, as well as funds allocated to State agencies, even though the final recipient of such funds is known to be an academic institution. Tuition support programs such as HEW's Basic Educational Opportunity Grants (BEOG's) are included in these figures.

Interagency transfers of funds are reported by the agency actually obligating the funds to an academic or nonprofit institution, rather than by the agency where the funds originated. For example, funds transferred from the Department of Agriculture (USDA) to the Department of Commerce and then obligated to a university are reported by Commerce. In contrast, the NSF survey series entitled *Federal Funds for Research and Development* includes such transferred funds under the agency in which the funds originated, or USDA in the example above.

Obligations to FFRDC's administered by academic institutions represent only S/E obligations to such installations by the 14 participating agencies.

Data presented for "selected nonprofit institutions" and for nonprofit-admin-

istered federally funded research and development centers (FFRDC's) represent obligations for research, development, and R&D plant by the 14 participating agencies regardless of amount. The 305 nonprofit research institutes account for about three-fifths of all Federal R&D funding to all nonprofit institutions (of which there are an estimated 800,000 in the Nation), and for approximately nine-tenths of all Federal R&D funds obligated to research institutes.²

In the case of nonprofit-administered FFRDC's, funding by the Department of Justice, the Department of the Treasury, and the United States Arms Control and Disarmament Agency, which were not included in the survey, totaled about \$2 million.³

Unless constant dollars are specified, data shown in this report are in current dollars. When constant-dollar figures are discussed, they are adjusted to 1972 levels and are converted to a fiscal year basis using the annual gross national product (GNP) implicit price deflator prepared by the Department of Commerce.

Numbers and percents in the text or tabulations may not add to totals or subtotals because of rounding.

Requests for additional information concerning survey results should be addressed to J. G. Huckenpahler or Richard J. Bennof, Division of Science Resources Studies, National Science Foundation, Washington, D.C. 20550 (202-634-4673). Data tapes can be purchased from: Moshman Associates, Inc., 6400 Goldsboro Road, Washington, D.C. 20034, (301) 229-3000.

²Estimates based on figures derived from National Science Foundation, *R&D Activities of Independent Nonprofit Institutions, 1973* (NSF 75-308) (Washington, D.C.: U.S. Government Printing Office, 1975.)

³National Science Foundation, *Federal Funds for Research and Development*, op. cit.

universities and colleges

- Federal obligations to universities and colleges for all activities¹ reached \$7.5 billion in 1978, a rise of 15 percent over the 1977 total. When discounted for the effects of inflation, the increase was 8 percent, making this the third consecutive year of real growth. The impetus for the increase was a 21-percent jump in obligations for research and development, the third highest R&D increase in the history of the survey series (chart 1).²

- Federal support to universities and colleges grew between 1977 and 1978 by 15 percent, three times the 5-percent growth rate of all expenditures of universities and colleges, and nearly three times the rate of all Government purchases of goods and services (6 percent). Between 1967 and 1975, however, the growth rates of both Federal academic funding and total Federal purchases of goods and services (4 percent per year) were less than one-half of the rate for total expenditures of institutions of higher education (11 percent) (chart 2).

- HEW accounted for nearly three-fourths of all 1978 funding and three-fifths of the total increase between 1977 and 1978. The bulk of the HEW increase was traceable to the Office of Education's (OE's) Basic Educational Opportunity Grants. Each of the 14 agencies increased their support levels by at least the 7-percent inflation rate (chart 3).

¹For a description of the types of science and non-science activities involved, see technical notes, p. 16.

²Two former university-administered FFRDC's, Johns Hopkins University's Applied Physics Laboratory (APL) (receiving \$136 million in R&D obligations in 1978) and Pennsylvania State University's Applied Research Laboratory (ARL) (\$12 million) were reclassified in 1978 as part of their parent institutions within the academic sector. Funding for APL and ARL accounted for 2 percentage points of the 15-percent increase between 1977 and 1978.

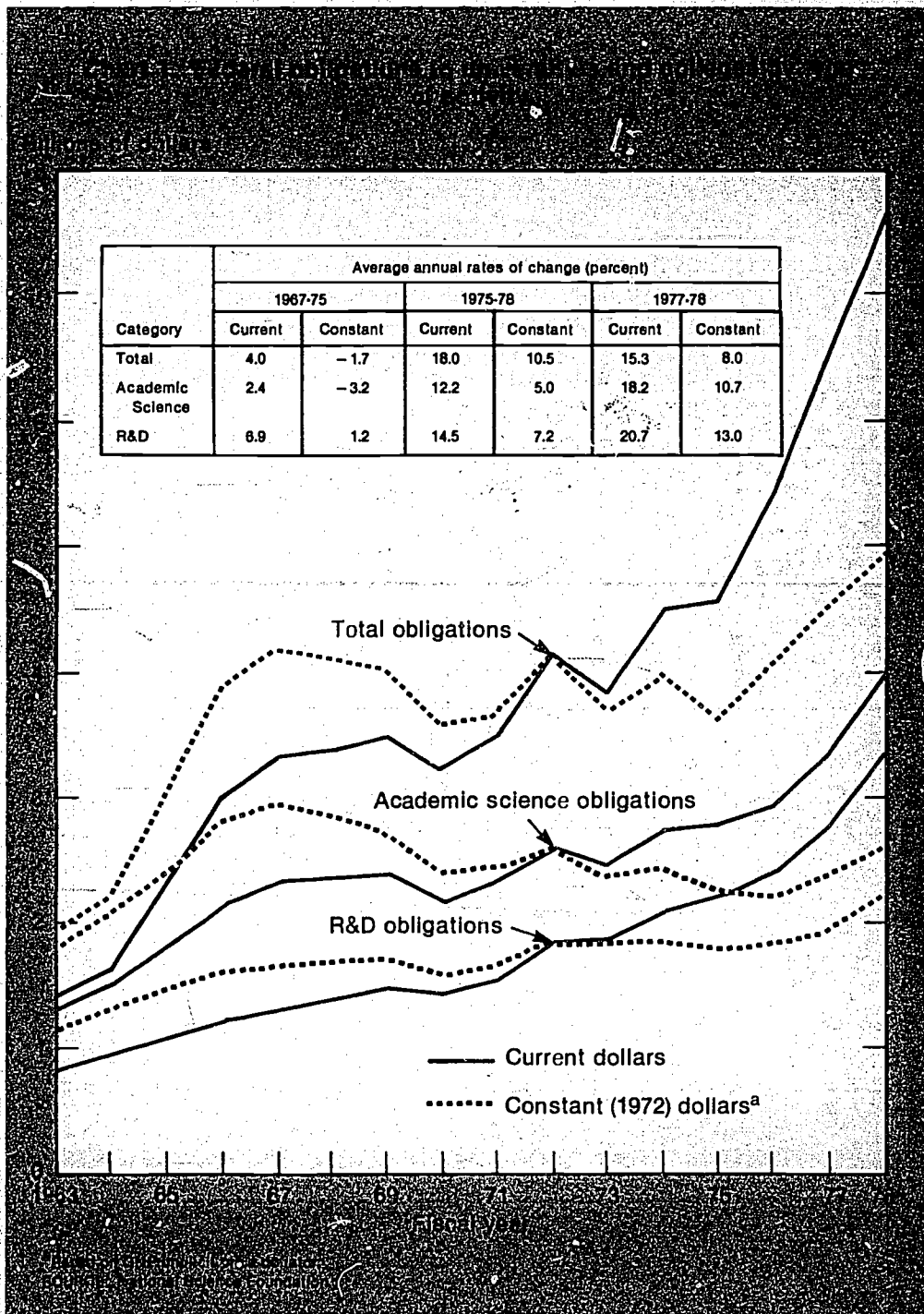
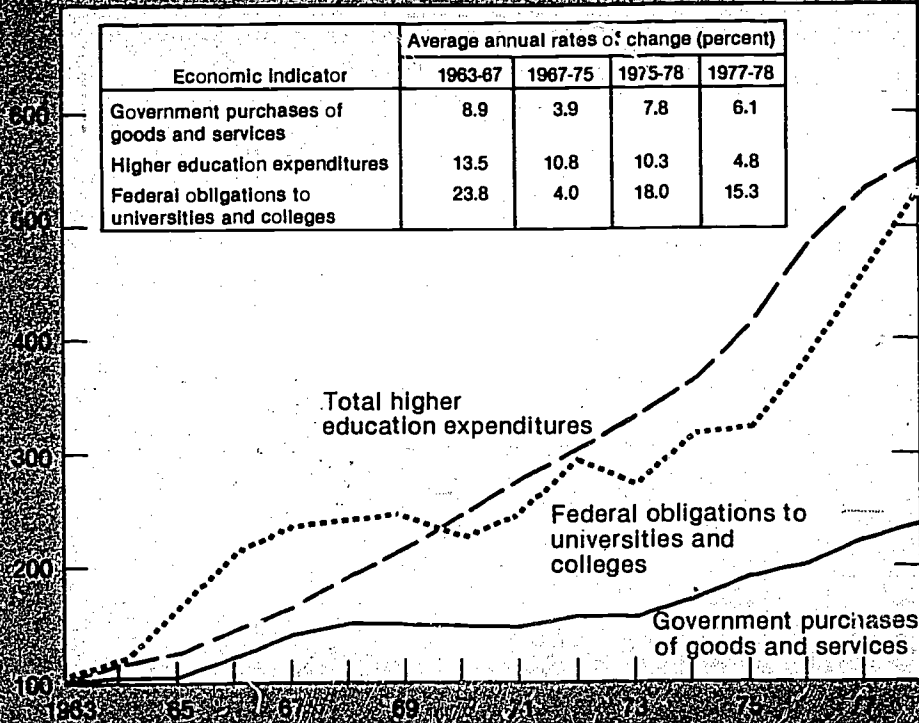


Chart 2: Index of Federal obligations to universities and colleges compared with other economic variables

Index 1963 = 100

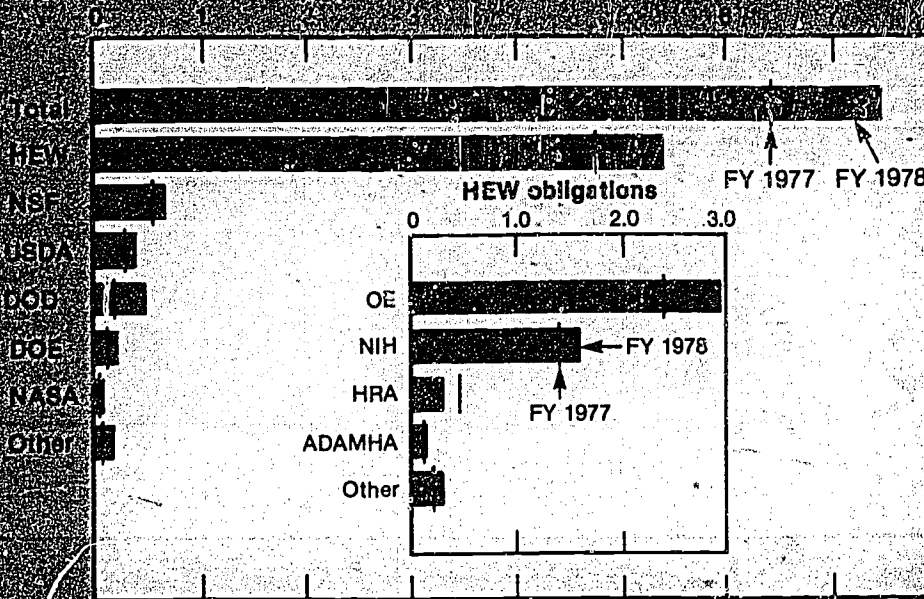


SOURCE: Bureau of Economic Analysis

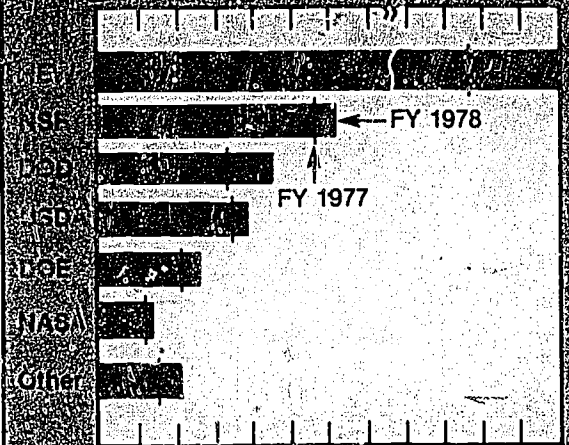
Chart 3: Federal obligations to universities and colleges, by agency

Total Federal Obligations, \$1.1 billion

Billions of dollars



SOURCE: National Science Foundation

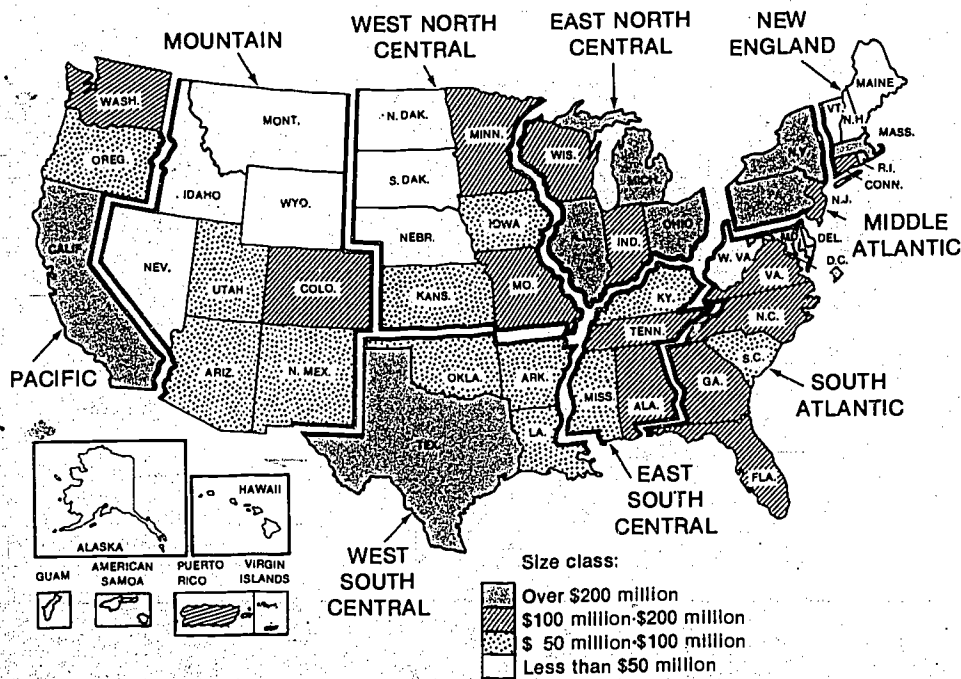


- Federal obligations to universities and colleges have historically been concentrated among a few States. Institutions in California, as in prior years, received the largest amount, reflective of the large sums funded to three institutions in the University of California system (the universities at San Diego, Los Angeles, and Berkeley), as well as to Stanford University and the University of Southern California. Institutions in the leading nine States and the District of Columbia (shown as receiving over \$200 million in chart 4) accounted for about 54 percent of all funding received by all universities and colleges in the Nation. In general, the geographic distribution of Federal obligations to academic institutions is closely correlated with the concentration of such related parameters as academically employed scientists and engineers and total science and engineering (S/E) degrees awarded.
- Universities and colleges that grant S/E doctorates or equivalent degrees (including health-professional doc-

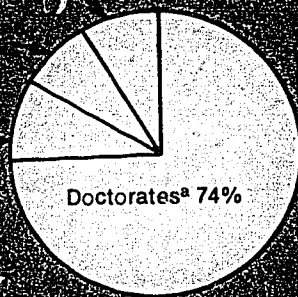
torates) received 74 percent of all Federal support in 1978—up from 72 percent in 1977 and 70 percent in 1976—with the remainder nearly equally divided among those groups of institutions granting master's degrees, bachelor's degrees, and those who do not offer degrees in any S/E program. The high level of concentration of support in doctorate-granting institutions reflects the predominance of R&D programs in institutions which have staff and facilities capable of achieving research objectives (chart 5).

- Although universities and colleges receiving Federal funding were almost equally divided between publicly controlled and privately controlled institutions (1,328 and 1,407, respectively), among doctorate-granting institutions those under public control outnumbered those under private control by more than 3 to 2. Consequently, publicly controlled universities and colleges received 61 percent of all Federal academic obligations (chart 6).

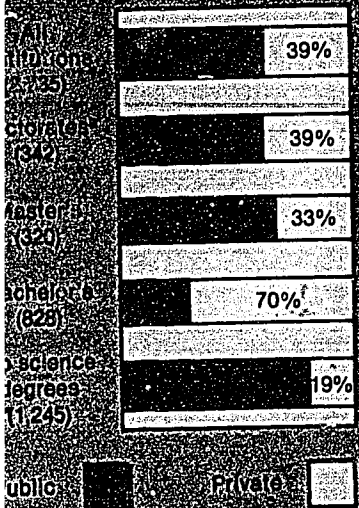
Chart 4. Federal obligations to universities and colleges by State: FY 1978



SOURCE: National Science Foundation.

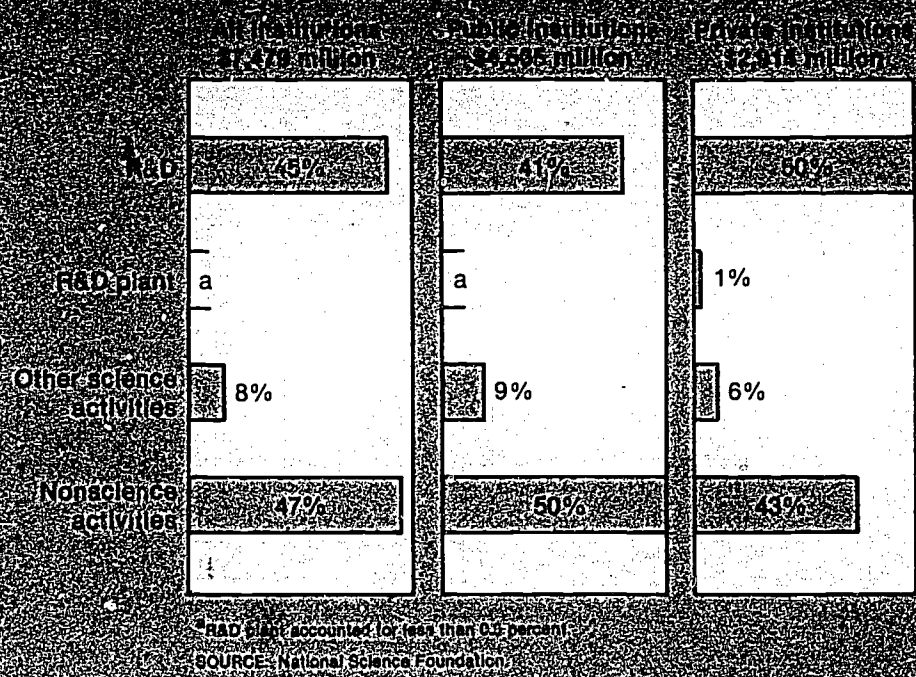


Types of Institutions

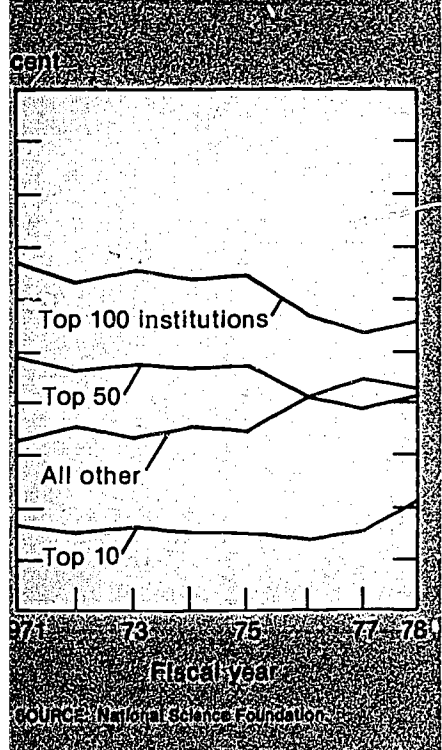


^a Includes Ph.D. and S.D., as well as M.D., D.D.S., M.A., and other health professional degrees.
^f NSF, National Science Foundation.

Chart 7. Federal obligations to universities and colleges by activity and institutional control, FY 1978



Part 7. Concentration of Federal obligations to the universities and colleges receiving the largest amounts



- The leading 100 institutions in 1978 received 57 percent of all Federal academic obligations. This is down from 67 percent in 1971. The decrease in the funding concentration reflects the wider distribution of nonscience support, which comprised nearly one-half of total Federal support in 1978 (chart 7).

- Federal obligations to universities and colleges for research and development increased by 21 percent between 1977 and 1978. After discounting the effects of the reclassification of two former FFRDC's (Johns Hopkins University's Applied Physics Laboratory and Pennsylvania State University's Applied Research Laboratory) as integral components of their parent institutions, Federal academic R&D support rose by 15 percent between 1977 and 1978, equal to 8 percent in constant dollars. HEW funded about one-half of all academic R&D support in 1978 and was the source of nearly one-third of the 1977-78 increase (chart 8).

Chart 8. Federal R&D obligations to universities and colleges by agency

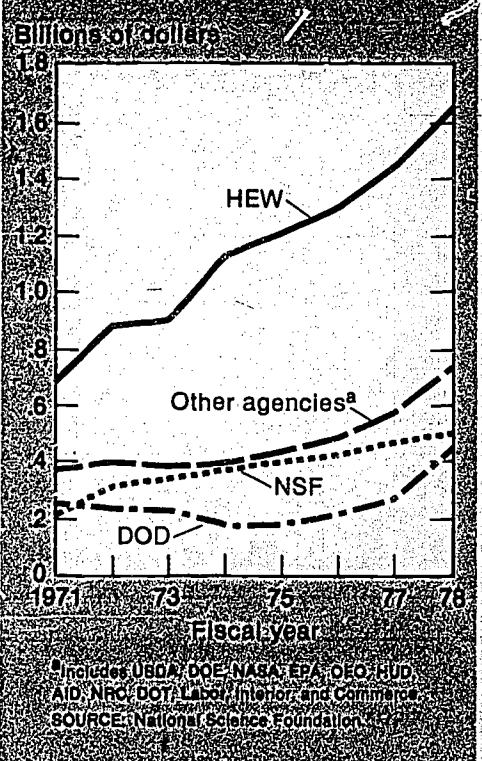
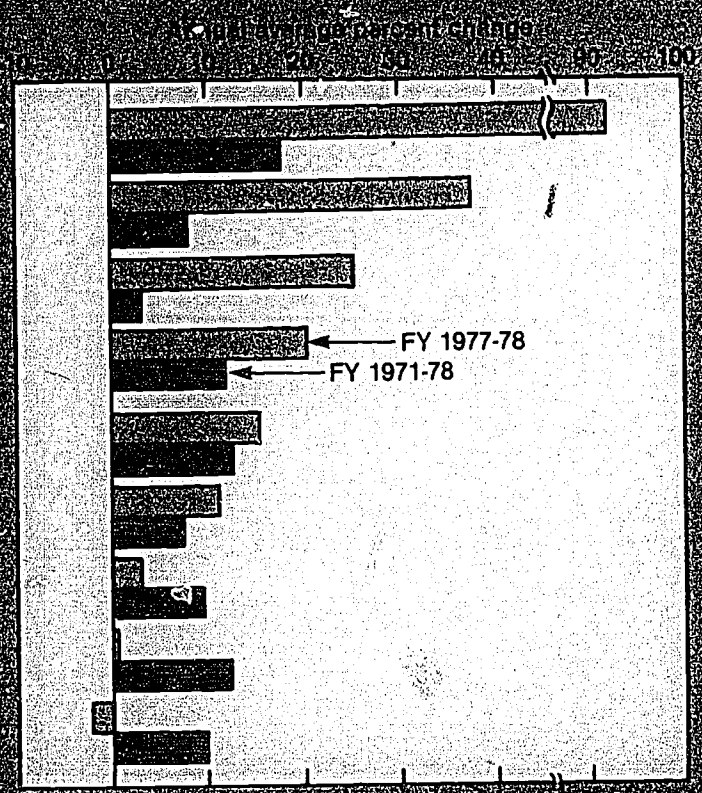


Chart 9. Federal R&D obligations to universities and colleges, by discipline

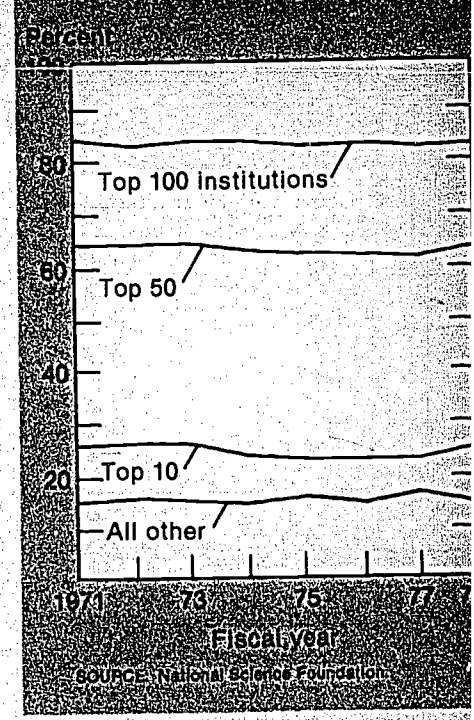


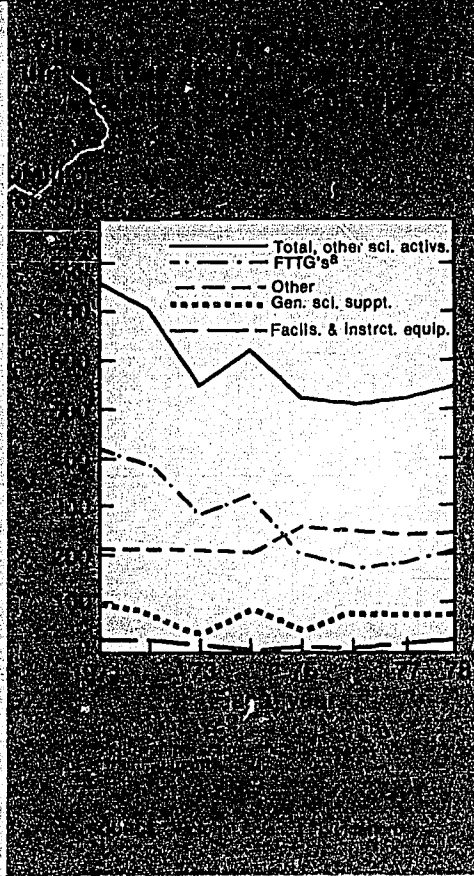
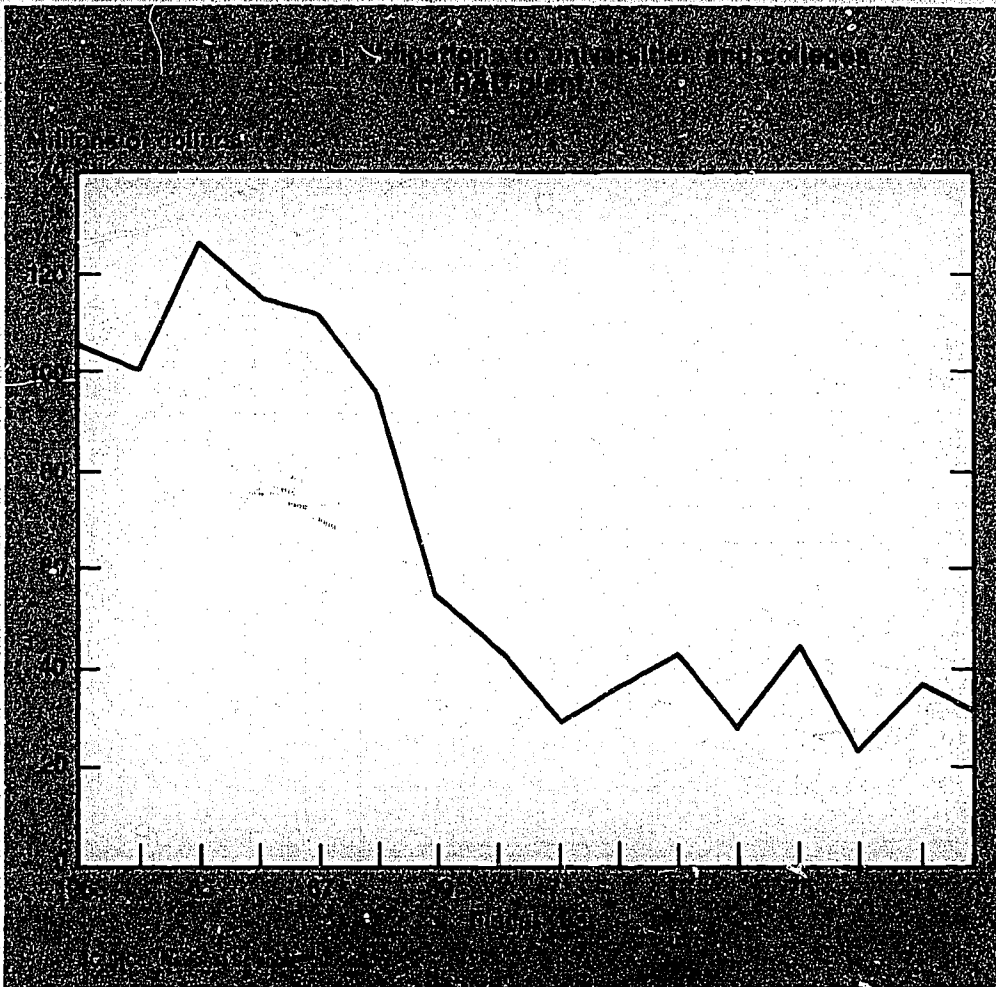
Source: National Science Foundation

- R&D support rose within all science areas, except for the residual category "other sciences, not elsewhere classified." Funding for the social sciences increased 38 percent over the 1977 amount, while engineering support, even excluding the funding for Applied Physics Laboratory (APL) and Applied Research Laboratory (ARL), was up 34 percent (chart 9).
- In 1978 the leading 100 institutions in Federal R&D obligations, all doctorate-granting institutions, accounted for about five-sixths of all R&D obligations, the same proportion as in 1971 (chart 10).
- Federal support to universities and colleges for R&D plant declined by 6

- percent between 1977 and 1978 to \$34 million, remaining at only about one-fourth the amount funded in the peak year of 1965 (chart 11).
- Federal support to universities and colleges for all science activities other than research and development and R&D plant rose by 7 percent since 1977. These 1977 and 1978 increases in the levels of support mark the first time in more than a decade that funding for these activities has increased in two successive years. The level of funding, however, for these activities remained at only about three-fourths of the 1971 total, when the survey first gathered separate data on these programs (chart 12).

Chart 10. Federal R&D obligations to the university and college institutions, by percent of total obligations



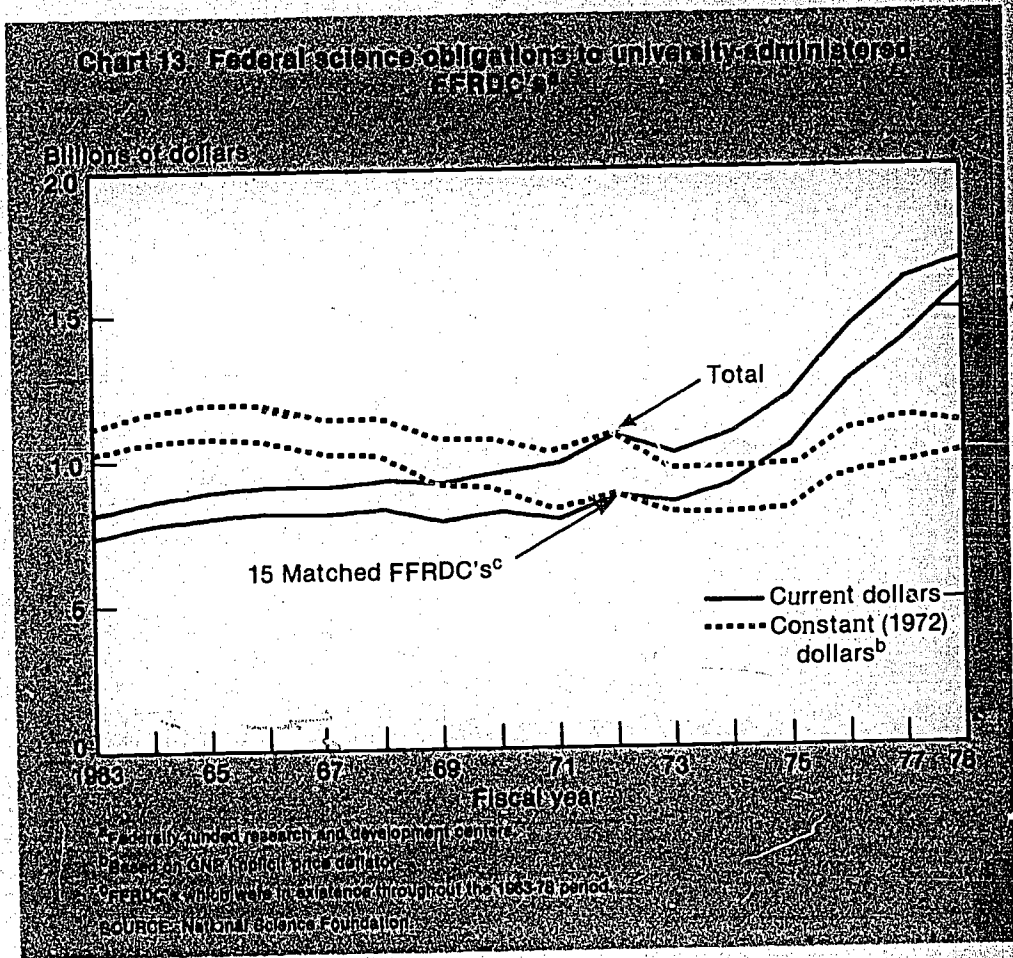


university-administered ffrdc's

- Federal obligations for S/E activities to FFRDC's administered by universities and colleges increased by 4 percent in current dollars between 1977 and 1978. Fluctuations in the number of organizations classified as FFRDC's have characterized this subsector throughout the 15-year-period covered by the survey series. Of the 40 such organizations classified as FFRDC's since 1963, the 15 which have been classified as FFRDC's every year have accounted annually for 80 percent or more of the total; the shifts resulting from organizational changes (even the \$148 million in APL and ARL funding) have not resulted in significant changes in the slope of the trend line (chart 13).

- The four agencies that sponsored academic FFRDC's in 1978 accounted for 99 percent of the funding for S/E activities, with the remainder contributed by agencies such as HEW and DOT which do not actually sponsor FFRDC's of their own. The Department of Energy (DOE) accounted for three-fourths of the total amount reported (chart 14).

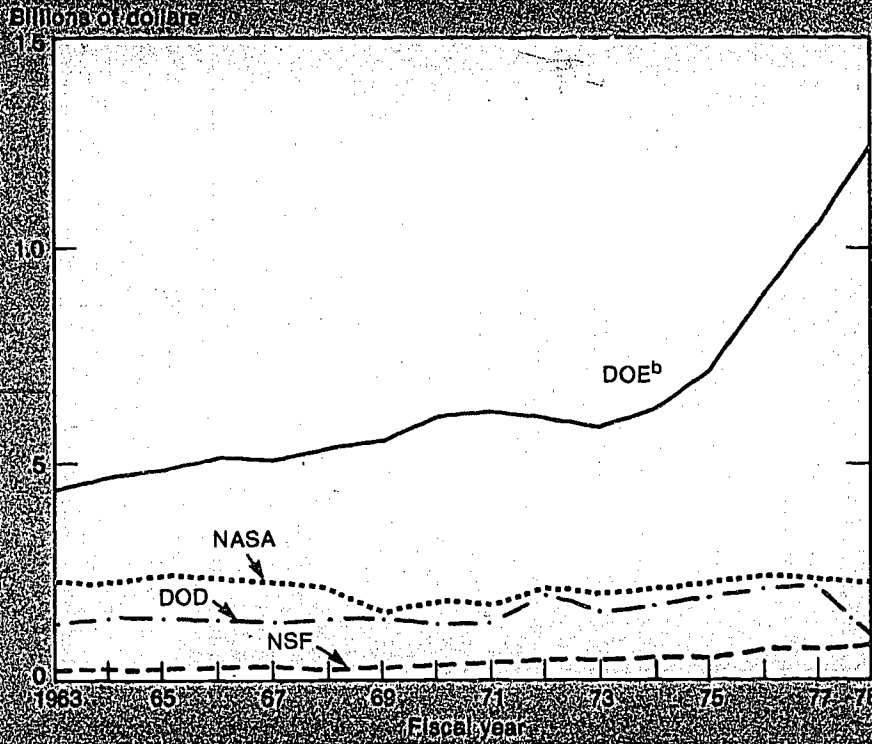
- While funding to all academic FFRDC's grew by 4 percent in current-dollars between 1977 and 1978, obligations to the leading 10 rose 13 percent. Of the 20 university-administered



FFRDC's for which Federal science obligations were reported in 1978, the leading 5 organizations received 69 percent

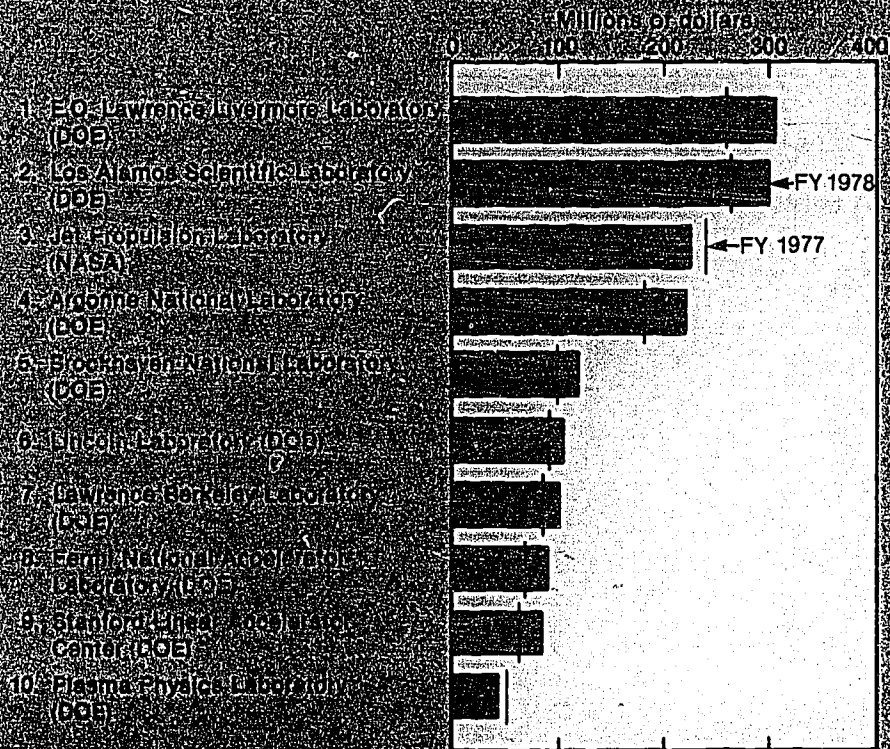
of the funds and the first 10 received 94 percent, similar proportions as in recent years (chart 15).

Chart 14. Obligations of selected Federal agencies to university-administered FFRC's for scientific activities



^aFederally funded research and development dollars.
^bObligations for 1963-74 represent AEC; for 1975-78 represent ERDA.
 SOURCE: National Science Foundation.

Chart 15. Federal science obligations to the 10 university-administered FFRC's receiving the largest amounts



^aFederally funded research and development dollars.
 SOURCE: National Science Foundation.

independent nonprofit institutions and nonprofit-administered ffrdc's

- The 14 surveyed Federal agencies reported obligations to 305 independent nonprofit institutions (excluding nonprofit-administered FFRDC's) for research, development, and R&D plant of \$642 million in 1978.¹ DOD and HEW together funded about two-thirds of all Federal support to the leading 10 nonprofit institutes, similar to the funding concentration by these two agencies to all the nonprofit organizations (chart 16).
- The five FFRDC's administered by nonprofit institutions received a total of \$313 million in 1978, up 14 percent from the previous year in current terms. This is the highest amount ever reported for this subsector, even though the number of organizations so classified has declined significantly from the 31 for which obligations were reported in 1968 when obligations data were first collected for these organizations. Aerospace Corporation remained in first place, with 36 percent of the total, down slightly from 38 percent in 1977, while the Battelle Pacific Northwest Laboratory and MITRE Corporation continued to be ranked second and third, respectively (chart 17).

¹For a description of the selection process for nonprofit institutions, see appendix A, technical notes, p. 18.

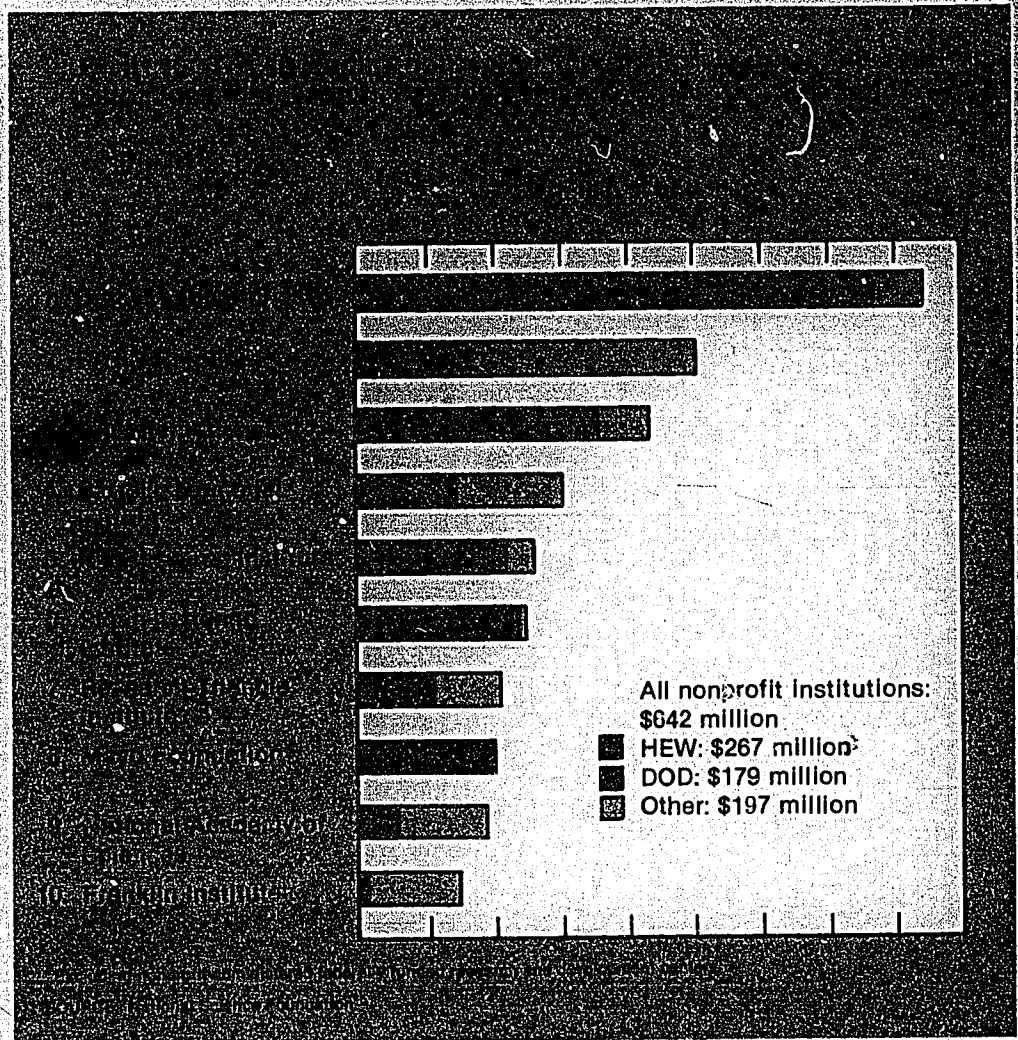
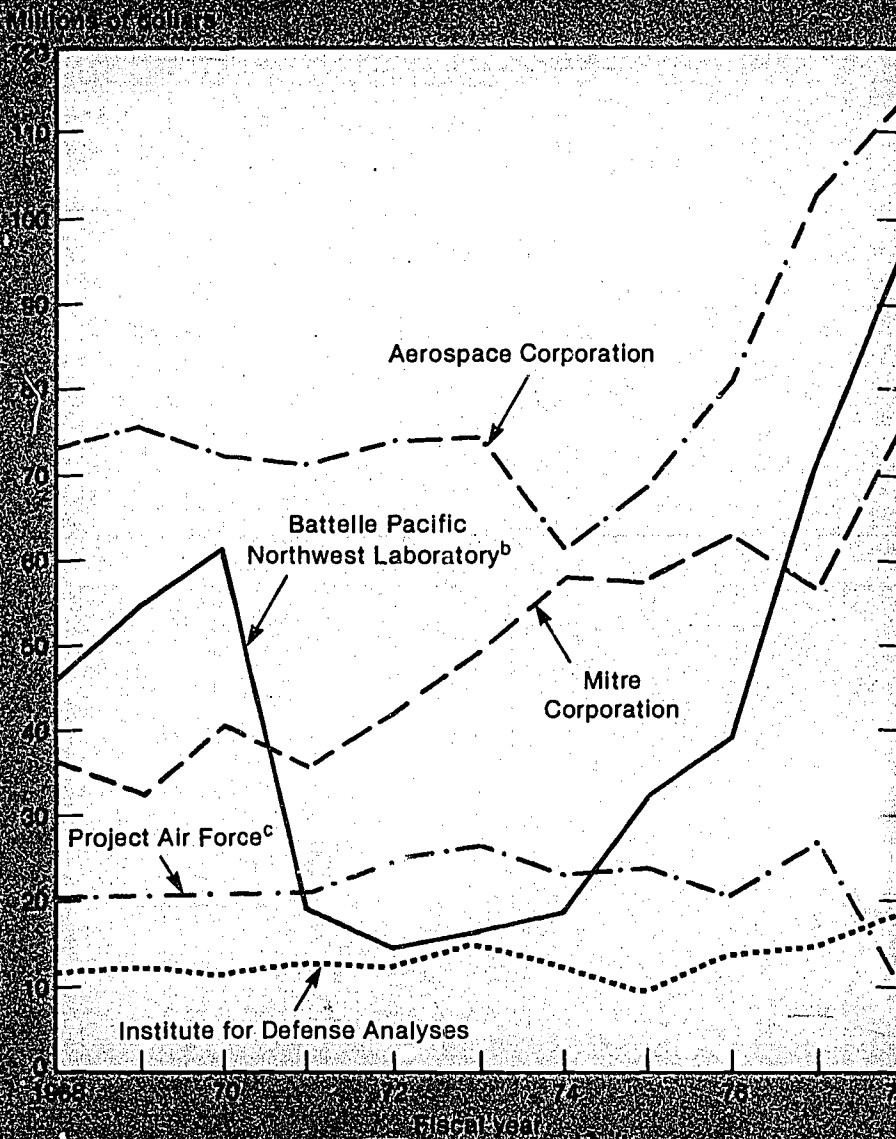


Chart 17: Federal Appropriations to Nonprofit Administrators of FFRDC's for Research, Development, and R&D Plans



^a Data for 1972-1973 are based on the annual report of the National Engineering Development Laboratory, which was the predecessor of the Aerospace Corporation. The Aerospace Corporation was established in 1973. ^b Battelle Pacific Northwest Laboratory was established as a nonprofit research institute in 1971. ^c Project Air Force was established as a nonprofit research institute in 1971.
 SOURCE: National Science Foundation.

appendixes

- a. technical notes
- b. detailed statistical tables

technical notes

scope of survey

The fiscal year 1978 data shown in this report were submitted by the following 14 Federal agencies, listed by the acronyms under which data were reported for them:

- AID—Agency for International Development
- COMMERCE—Department of Commerce
- DOD—Department of Defense
- DOT—Department of Transportation
- EPA—Environmental Protection Agency
- DOE—Department of Energy
- HEW—Department of Health, Education, and Welfare (will be reported as Health and Human Services and as Education Department, in FY 1980 survey)
- ADAMHA—Alcohol, Drug Abuse, and Mental Health Administration
- CDC—Center for Disease Control
- FDA—Food and Drug Administration
- HRA—Health Resources Administration
- HSA—Health Services Administration
- NIE—National Institute of Education
- NIH—National Institutes of Health
- OE—Office of Education
- HUD—Department of Housing and Urban Development
- INTERIOR—Department of the Interior

- LABOR—Department of Labor
- NASA—National Aeronautics and Space Administration
- NRC—Nuclear Regulatory Commission
- NSF—National Science Foundation
- USDA—Department of Agriculture

These 14 agencies accounted for about 95 percent of all Federal obligations to universities and colleges and over 99 percent of all Federal obligations for research and development to these institutions.

Data reported by the Agency for International Development (AID), the Department of Housing and Urban Development (HUD), the Department of Labor, and the Nuclear Regulatory Commission (NRC) were combined to constitute the "Other" category in tables showing funding by agency. As of October 1, 1977, or fiscal year 1978, the Energy Research and Development Administration (ERDA) was merged with the Federal Energy Administration (FEA) and certain branches of the Department of the Interior to form the Department of Energy (DOE); data for these components have been combined in the FY 1978 survey. As of October 1, 1979, the Office of Education (OE), the National Institute of Education (NIE), and the Office of the Assistant Secretary of Education were separated from the Department of Health, Education, and Welfare (HEW) and merged to form the new Department of Education; HEW was then renamed the Department of

Health and Human Services (HHS). These changes will not effect the data, however, until the 1980 survey. It should be noted that some agencies not surveyed, such as the Department of Justice, may account for a significant proportion of the total receipts at some institutions even though they may comprise a small proportion of total academic research and development.

Obligation figures listed for individual institutions reflect direct Federal support, so that amounts subcontracted to other institutions are included, while those received via subcontract arrangement from prime contractors are excluded.

Also excluded from the survey data are specified types of Federal financial assistance, particularly loans, such as those made by OE, agency support of Federal employee training and development activities, and financial support of an indirect nature, such as obligations designated to State agencies even though it is known that such funds are destined for an academic institution. Federal obligations to academic institutions exclude funds obligated to FFRDC's administered by universities and colleges; data for these organizations are shown separately, as are the FFRDC's administered by nonprofit institutions.

Obligations reported were rounded to the nearest thousand dollars. Obligations differ from expenditures in that funds allocated during one fiscal

year may be spent by the recipient either in part or in whole during one or more later years.

Unless constant dollars are specified, data shown in this report are in current dollars. When constant-dollar figures are discussed, they are adjusted to 1972 levels and are based on the gross national product (GNP) implicit price deflator prepared by the Department of Commerce, which measures the impact of economic conditions on the dollar amounts at the time the awards are made by the granting agencies. When there is a time lag between the obligating of the funds by the agency and the actual expenditure of the money by the recipient institution, economic conditions in the interval also have an impact on the real value of goods and services.

Federal obligations to systems of institutions are presented on the basis of the individual institutions that comprise the system, but obligations awarded directly to the central administration of a system are listed separately. If the funding agency, however, does not know of the final destination of the funds, the agencies report the funds as obligations to a system's administrative office, or "central system," from which the funds are distributed to the system's individual institutions. The 14 agencies in 1978 reported obligations to 2,692 universities and colleges and 43 system offices (totaling \$221 million).

It should be noted that the funding categories reported by Federal agencies may not fully portray the category for which the dollars were actually spent by the individual institutions receiving the funds. DOD obligations, for example, were reported solely for research and development, but some of the monies were spent for R&D plant and facilities.

A pilot evaluation study undertaken by Columbia Research Associates in 1976 under a contract with the NSF revealed some recurring sources of discrepancies between data supplied by the surveyed agencies and those found in institutions' own records. Among these are differences between the date of an agency's obligations and the date the funds were received by an institution and adjustments in indirect cost reimbursement. Also, it was found that "institutions' own funds" include

Federal funds that were in fact transmitted via an intermediate source, such as a State government agency, treated as "unrestricted" in the accounts of recipient institutions, and later invested in research projects. Finally, agencies seem uncertain as to the institutional affiliation of some organizations such as branch campuses or research bureaus. As a result of an ongoing series of workshops with respondent agencies, it is hoped that NSF has assisted in reducing the number of discrepancies associated with the above problems and that the quality of agency reporting will continue to improve in future surveys.

In 1979 NSF instituted a policy of sending each doctorate-granting institution a copy of its "Institutional Profile," showing the obligations reported by each funding agency since 1971, along with the totals reported in previous years by the institution for NSF's three other surveys of institutions of higher education, covering R&D expenditures, S/E personnel, and graduate students and postdoctorates. Institutional administrators are thereby given the opportunity to verify the accuracy of agency reporting and to resolve inconsistencies arising over time.

relationship of this survey to the survey of federal funds for research and development

The following differences exist between the data presented in this report and those presented in the annual NSF survey, Federal Funds for Research and Development referred to hereafter as the *Federal Funds* survey:

(1) The *Federal Support* survey receives data on all Federal obligations to institutions of higher education by 14 Federal agencies that are heavily involved in S/E support within academic institutions. The *Federal Funds* survey

is limited to gathering data on R&D and R&D plant obligations only, from all 37 Federal agencies which have such programs. Also, the *Federal Funds* series presents separate data on funding for basic research, applied research, and development by type of performer, without listing individual academic recipients.

(2) Certain funding categories are classified differently in the two programs. The National Institutes of Health (NIH) reports its General Research Grants Program under "general support for science" in this survey but under "research and development" in the *Federal Funds* survey. Also, the National Science Foundation reported that portion of institutional development funds used to support R&D activities as "general support for science" in this survey, but as "research and development" in the *Federal Funds* survey.

(3) In this study, "selected nonprofit institutions" are primarily independent nonprofit research institutes. Federal agencies reported funding for these organizations for research, development, and R&D plant. Although in previous years this survey generally excluded voluntary nonprofit hospitals, professional and technical societies, academies of science, private philanthropic foundations, science exhibitors, trade and agricultural associations, and other types of nonprofit organizations, the *Federal Funds* program includes data for all nonprofit organizations in the country. As noted below, however, coverage of the nonprofit sector is currently being expanded to include those of all types with significant R&D programs.

(4) Interagency transfers of funds that are obligated to an academic or nonprofit institution are reported in the *Federal Support* program by the agency that actually obligates the funds to an institution. In the *Federal Funds* report, the initiating agency reports the obligations.

definitions

Universities and colleges include all institutions of higher education in the United States that offer at least one

year of college-level studies leading toward a degree. A university or college comprises all parts of an academic institution, such as colleges of liberal arts, professional schools, hospitals, schools of agriculture, agricultural experiment stations, etc., including bureaus, offices, and research centers (excluding FFRDC's), whether located on or off the main campus, and branch campuses controlled directly by the parent institution. The universe of academic institutions that is the foundation of this survey is derived from the *Education Directory, Colleges and Universities: 1978-79*, prepared by the National Center for Education Statistics (NCES) and from NSF's Institutional Technical Reference File. Institutions included are those which received Federal support during fiscal year 1978 and possess a significant degree of academic and administrative autonomy. Therefore, institutions within a system (groups of institutions having a collective legal status and generally recognized by a State government, a board of education, or other relevant organization), where a significant degree of autonomy remains at the individual institution level, are presented separately, while obligations to branch campuses are included in the totals for their parent institutions. The study excludes all obligations to the service academies and to the U.S. Department of Agriculture Graduate School.

Independent nonprofit institutions included in this report total 305 plus 5 FFRDC's administered by nonprofit organizations. They are defined as legal entities other than universities and colleges which are privately organized or chartered to serve the public interest and are exempt from most forms of Federal taxation. Before the data collection phase of the 1978 survey, the agencies received a list of nonprofit institutions believed to have received a minimum of \$100,000 in Federal obligations for research and development during fiscal year 1978. So that the sample could be as complete as possible, the survey included some institutions receiving less than \$100,000 of funding. Also, some of the agencies reported their obligations to other institutions not on the original list, where these obligations exceeded the \$100,000

minimum. Since the survey produced data on these smaller institutions, they are included in these tables. In general, as noted earlier, nonprofit organizations other than research institutes and FFRDC's are excluded except where the size of their R&D programs is comparable to that of research institutions. In view of the fact that no survey of R&D activities of independent nonprofit institutions has been conducted by NSF since 1973, however, coverage of nonprofit institutions in the *Federal Support* survey is in the process of being significantly expanded. It is anticipated that by fiscal year 1979 the coverage of nonprofit institutions will be roughly equivalent to that of the 1973 Survey of R&D Activities of Independent Nonprofit Institutions.¹

FFRDC's in this report are organizational units administered by universities and colleges or other nonprofit institutions. These units have been established, in general, to achieve a particular R&D objective of a Federal agency. Uniform identification and classification criteria have been developed for use by all sponsoring agencies. To be classified as an FFRDC, an organization should:

(a) Perform primarily at least one of the following: Basic research, applied research, development, or management of research and development. Specifically excluded are organizations engaged primarily in routine quality control and testing, routine service activities, production mapping surveys, and information dissemination;

(b) Be organized as a separate operational entity within the parent organization or as a separately incorporated organization;

(c) Perform actual research and development or R&D management either on direct request of the Government or under a broad charter from the Government but in either case under the direct monitorship of the Government;

(d) Receive its major financial support—70 percent or more—from the Federal Government, usually from one agency;

(e) Have, or be expected to have, a

¹National Science Foundation, *R&D Activities of Independent Nonprofit Institutions, 1973* (NSF 75-308) (Washington, D.C.: U.S. Government Printing Office, 1975.)

long-term relationship—about 5 years or more—with its sponsoring agency as evidenced by the specific obligations it and the agency assume;

(f) Be established in the contract so that most of all of the facilities are owned or funded by the Government; and

(g) Have an average annual budget, including operating and capital equipment, of at least \$500,000.

This study includes 20 FFRDC's administered by universities and colleges and 5 by nonprofit institutions. Of the academic-administered FFRDC's, 11 were managed by individual institutions, 8 by consortia of universities, and 1, Argonne National Laboratory, was jointly managed by the University of Chicago and the Argonne Universities Association. Prior to fiscal year 1978, the Applied Physics Laboratory (APL) and the Applied Research Laboratory (ARL) were categorized as FFRDC's. Beginning with this study, APL and ARL were reclassified into the academic sector.

Academic science includes all obligations for the following activities: Research and development; R&D plant; facilities and equipment for instruction in the sciences and engineering; fellowships, traineeships, and training grants; general support for science and engineering; and other S/E activities. These activities are defined as follows:

Research and development includes all research activities, both basic and applied, and all development activities that are supported at universities and colleges. Demonstration projects conducted to discover whether a technology or method is workable are considered to be within the scope of research and development if their objective is to produce new information within a specific time period. "Research" is defined as systematic study directed toward fuller scientific knowledge or understanding of the subject matter. Research can be basic or applied in nature, although data reported here are not separated into these categories. In basic research, the investigation is oriented toward gaining a better knowledge or understanding of the subject under study. In applied research, the investigation is aimed at discovering practical uses of the knowledge gained to meet a recognized need. "Development" is

the systematic use of knowledge and understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes. Research and development exclude topographical mapping and surveys, collection of general-purpose statistics, and activities concerned primarily with the dissemination of scientific information. Research and development in the arts and humanities are excluded from this category but are included in "nonscience activities."

R&D plant includes all costs—direct, indirect, and related—of all projects whose main objective is to provide support for the construction, acquisition, renovation, modification, repair, or rental of facilities, land, works, or equipment for use in scientific or engineering research and development. A facility is interpreted generally to be any physical resource important to the conduct of research and development.

Facilities and equipment for instruction in the sciences and engineering includes all programs whose main objective is to provide support for the construction, acquisition, renovation, modification, repair, or rental of facilities, land, works, or equipment for use in instruction in science and engineering.

Fellowships, traineeships, and training grants include graduate programs in support of the development and maintenance of scientific and technical personnel resources. The total amounts pertaining to such awards (stipends and cost-of-education allowances) are reported on the basis of the institution chosen by the recipient. Excluded are programs that support research and educational institutes, seminars, and conferences such as teacher training activities provided through teacher institutes, short courses, research participation, and inservice seminars; activities aimed at the development of educational techniques and materials for use in S/E training; and programs which provide special opportunities for increasing the scientific knowledge and experience of precollege and undergraduate students. These activities are included in "other science activities," or if not science-oriented, in "nonscience activities."

General support for science and engineering includes programs which support nonspecific or generalized purposes related to scientific research and education. Such projects are generally oriented toward academic departments, institutes, or institutions as a whole, and embody varying types of support—ranging from support provided without any specification of purpose other than that the funds be used for scientific projects, to projects that provide funds for activities within a specified field of science without a specific purpose. NIH's Biomedical Sciences Support Grants and General Research Support Grants and NSF's Institutional Grants for Science are examples of these types of programs.

Other S/E activities include all academic science activities that cannot meaningfully be assigned to one of the preceding five categories. Types of activities included are obligations in support of technical conferences, teacher institutes, and activities aimed at increasing the scientific knowledge of precollege and undergraduate students.

Nonscience activities include all other obligations excluded from the six science categories defined above but which represent direct funding (excluding loans) from a Federal agency to an academic institution for activities or purposes not specifically related to science and engineering. Included are all obligations for research, education, and facilities in the arts and humanities, as well as generalized projects for which the proportion utilized for scientific or engineering activities is unknown.

fields of science

Physical sciences are concerned with the understanding of the material universe and its phenomena. They comprise the fields of astronomy, chemistry, physics, and physical sciences not elsewhere classified. Examples of disciplines under each of these fields are

- **Astronomy:** laboratory astrophysics; optical astronomy; radio astronomy; theoretical astrophysics; X-ray, Gamma-ray, neutrino astronomy.
- **Chemistry:** inorganic; organo-metallic; organic; physical.
- **Physics:** acoustics; atomic and molec-

ular; condensed matter; elementary particles; nuclear structure; optics; plasma.

Physical sciences, n.e.c.*

Mathematical and computer sciences employ logical reasoning with the aid of symbols and are concerned with the development of methods of operations employing such symbols. They comprise the following subcategories:

Mathematics: algebra; analysis; applied mathematics; foundations and logic; geometry; numerical analysis; statistics; topology.

Computer sciences: computer programming; computer and information sciences (general); design, development, and application of computer capabilities to data storage and manipulation; information sciences and systems; systems analysis.

Mathematical and computer sciences, n.e.c.*

Environmental sciences: (terrestrial and extraterrestrial) are concerned with the gross nonbiological properties of the areas of the solar system that directly or indirectly affect man's survival and welfare; they comprise the fields of atmospheric sciences, geological sciences, oceanography, and environmental sciences not elsewhere classified. Examples of disciplines under each of these fields are

— **Atmospheric sciences:** aeronomy; solar; weather modification; extraterrestrial atmospheres; meteorology.

— **Geological sciences:** engineering geophysics; general geology; geodesy and gravity; geomagnetism; hydrology; inorganic geochemistry, isotopic geochemistry; organic geochemistry; laboratory geophysics; paleomagnetism; paleontology; physical geography and cartography; seismology; soil sciences.

— **Oceanography:** biological oceanography; chemical oceanography; geological oceanography; physical oceanography; marine geophysics.

Environmental sciences, n.e.c.*

Engineering is concerned with studies directed toward developing engineering principles or toward making spe-

* Not elsewhere classified. To be used for multidisciplinary projects within the primary field and for single discipline projects for which a separate discipline code has not been assigned.

cific scientific principles usable in engineering practice. Engineering is divided into eight fields: aeronautical, astronautical, chemical, civil, electrical, mechanical, metallurgy and materials, and engineering not elsewhere classified. Examples of disciplines under each of these fields are

Aeronautical: aerodynamics.

Astronautical: aerospace; space technology.

Chemical: petroleum; petroleum refining; process.

Civil: architectural; hydraulic; hydrologic; marine; sanitary and environmental; structural; transportation.

Electrical: communication; electronic; power.

Mechanical: engineering mechanics.

Metallurgy and materials: ceramic; mining; textile; welding.

Engineering, n.e.c.*: agricultural; bioengineering; biomedical; industrial and management; nuclear; ocean engineering; systems.

Life sciences consist of five detailed fields: biological (excluding environmental), environmental biology, agricultural, medical, and life sciences not elsewhere classified. The illustrative disciplines provided below under each of these detailed fields are intended to be guidelines, not sharp definitions, as to what should be reported under a particular field; they represent examples of disciplines generally classified under each detailed field. A discipline, however, may be classified under another detailed field when the major emphasis is elsewhere. Research in biochemistry could be reported as biological, agricultural, or medical, depending on the orientation of the project; human biochemistry should be classified under biological, but animal biochemistry or plant biochemistry should be under agricultural.

The detailed fields within the life sciences were modified slightly in the 1978 survey; because not all agencies were able to make the conversion to the new taxonomy on such short notice, only three subfields are shown in this report, as follows:

Biological sciences: anatomy; biochemistry; biology, biometry and biostatistics; biophysics; botany; cell biology; entomology and parasitology; genetics; microbiology; neuroscience (biological); nutrition; physiology; zoology; ecosystem sciences; evolutionary biology; limnology; physiological ecology; population biology; population and biotic community ecology; systematics; agronomy; animal sciences; food science and technology; fish and wildlife; forestry; horticulture; plant sciences; soils and soil science; phytopathology; phytoproduction; agriculture, general; other biological n.e.c.*

Medical sciences: internal medicine; neurology; obstetrics and gynecology; ophthalmology; otolaryngology; pediatrics; preventive medicine; pathology; pharmacology; psychiatry; radiology; surgery; dentistry; pharmacy; veterinary medicine; other medical, n.e.c.*

Life sciences, n.e.c.*

Psychology deals with behavior, mental processes, and individual and group characteristics and abilities. Psychology is divided into three categories: biological aspects, social aspects, and psychological sciences, not elsewhere classified. Examples of the disciplines under each of these fields are

Biological aspects: experimental psychology; animal behavior; clinical psychology; comparative psychology; ethology.

Social aspects: social psychology; educational, personnel, vocational

psychology and testing; industrial and engineering psychology; development and personality.

Psychological sciences, n.e.c.*

Social sciences are directed toward an understanding of the behavior of social institutions and groups and of individuals as members of a group. Social sciences include anthropology, economics, history, linguistics, political science, sociology, and social sciences not elsewhere classified. Examples of disciplines under the fields of social science are

Anthropology: archaeology; cultural and personality; social and ethnology; applied anthropology.

Economics: econometrics and economic statistics; history of economic thought; international economics; industrial, labor and agricultural economics; macroeconomics; microeconomics; public finance and fiscal policy; theory; economic systems and development.

History: history and philosophy of science.

Linguistics: anthropological-archeological; computational; psycholinguistics; sociolinguistics.

Political science: area or regional studies; comparative government; history of political ideas; international relations and law; national political and legal systems; political theory; public administration.

Sociology: comparative and historical; complex organizations; culture and social structure; demography; group interactions; social problems and social welfare; sociological theory.

Social sciences, n.e.c.*: research in law and education not elsewhere classified; socioeconomic geography.

Other sciences, n.e.c.* to be used for multidisciplinary and interdisciplinary projects that cannot be classified within one of the above broad fields of science.

statistical tables

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¹ Federally funded research and development centers.

TABLE B-1. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY TYPE OF ACTIVITY:
FY 1963 - 78

(DOLLARS IN THOUSANDS)

FISCAL YEAR	TOTAL OBLIGATIONS	ACADEMIC SCIENCE							NONSCIENCE ACTIVITIES
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACILITIES FOR INSTRUCTION IN THE SCIENCES & ENGINEERING	FELLOWSHIPS, TRAINEESHIPS, & TRAINING GRANTS	GENERAL SUPPORT FOR SCIENCE	OTHER SCIENCE ACTIVITIES	
1963	1,413,015	1,328,511	829,524	105,896	1/	1/	1/	393,091	84,504
1964	1,624,961	1,528,604	975,597	100,837	1/	1/	1/	452,170	96,359
1965	2,305,455	1,816,171	1,094,963	126,196	1/	1/	1/	595,012	489,284
1966	3,009,950	2,163,504	1,252,146	114,767	1/	365,550	1/	431,031	846,446
1967	3,317,709	2,323,795	1,301,242	111,309	1/	447,236	1/	464,008	993,914
1968	3,386,637	2,349,817	1,398,305	96,148	1/	440,895	1/	414,469	1,036,820
1969	3,462,370	2,361,399	1,474,681	54,516	1/	436,270	1/	395,932	1,100,971
1970	3,236,612	2,187,579	1,446,618	44,778	1/	429,408	1/	266,775	1,049,033
1971	3,498,596	2,343,129	1,551,391	29,942	28,729	421,029	99,669	212,369	1,155,467
1972	4,144,570	2,598,989	1,852,963	36,917	26,341	387,898	93,281	211,592	1,545,581
1973	3,838,919	2,464,179	1,870,507	43,338	13,372	287,210	38,904	210,788	1,374,740
1974	4,480,169	2,736,781	2,085,001	29,009	3,506	326,600	96,974	205,691	1,743,388
1975	4,547,075	2,805,667	2,238,628	44,787	12,370	201,273	46,353	262,256	1,741,408
1976	5,402,506	2,959,398	2,422,814	23,899	11,108	174,871	74,483	252,223	2,443,108
1977	6,486,103	3,347,705	2,784,885	36,471	17,782	184,671	75,928	247,968	3,138,398
1978	7,479,177	3,957,638	3,362,174	34,328	26,664	205,865	74,102	254,505	3,521,539

1/ NOT SEPARATELY IDENTIFIED BUT INCLUDED UNDER "OTHER SCIENCE ACTIVITIES".

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 3-2. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY TYPE OF ACTIVITY AND AGENCY:
FY 1963 - 78

(DOLLARS IN MILLIONS)

ACTIVITY & YEAR	TOTAL	USDA	COM	DDO	DEO	DOE 1/	EPA	HEW	HUD	INT	AID	LABOR	NASA	NSF	NRC	DOT
TOTAL OBLIGATIONS																
1963	1,413.0	104.0	1.8	218.0	N/A	76.1	-	665.3	-	4.0	N/A	N/A	87.4	256.3	-	-
1964	1,625.0	115.0	1.7	258.1	N/A	79.9	-	780.0	-	5.3	N/A	N/A	107.6	277.5	-	-
1965	2,305.5	135.6	2.6	267.9	N/A	84.4	-	1,345.6	-	9.7	N/A	N/A	134.3	325.2	-	-
1966	3,010.0	141.0	2.8	278.0	N/A	96.9	-	1,952.2	-	22.4	N/A	N/A	142.2	374.5	-	-
1967	3,317.7	144.8	7.9	264.1	N/A	109.6	-	2,237.8	-	27.4	N/A	N/A	131.5	394.5	-	-
1968	3,386.6	144.2	9.8	243.1	54.7	119.7	-	2,222.2	1.7	28.2	N/A	6.6	129.8	422.8	-	3.8
1969	3,462.4	155.9	3.9	278.7	60.4	121.0	-	2,302.4	1.1	24.3	10.0	10.4	127.2	367.0	-	N/A
1970	3,236.6	182.1	4.9	265.5	35.6	114.5	-	2,060.9	.6	27.7	10.9	5.2	131.2	387.4	-	10.1
1971	3,498.6	214.6	9.7	249.0	37.5	105.8	27.2	2,274.6	.7	22.6	19.1	5.2	134.1	387.7	-	10.8
1972	4,144.6	238.6	26.0	243.9	30.0	95.3	23.3	2,842.0	1.5	24.4	18.7	7.5	119.0	458.7	-	15.9
1973	3,838.9	256.8	28.6	232.8	30.1	96.0	27.7	2,576.3	.9	23.8	10.7	8.3	111.4	419.6	-	15.9
1974	4,480.2	260.7	29.5	184.4	10.0	99.3	30.9	3,250.4	2.9	23.8	19.9	7.2	98.9	449.6	-	12.8
1975	4,547.1	290.7	26.4	190.5	-	124.2	38.8	3,207.9	2.3	28.8	12.4	5.5	108.0	490.5	.1	20.8
1976	5,462.5	328.6	39.1	211.9	-	143.8	33.0	3,964.3	1.4	28.2	13.5	4.5	118.9	496.3	3.3	15.7
1977	6,486.1	346.7	32.5	267.3	-	211.6	46.3	4,813.6	4.3	29.5	24.4	7.2	121.0	565.8	4.7	11.4
1978	7,479.2	394.8	35.9	452.2	-	269.5	55.8	5,411.8	10.5	44.0	28.1	12.6	130.2	607.1	8.8	17.6
TOTAL ACADEMIC SCIENCE																
1963	1,328.5	104.0	1.8	218.0	N/A	76.1	-	581.0	-	3.8	N/A	N/A	87.4	256.3	-	-
1964	1,528.6	115.0	1.7	258.1	N/A	79.9	-	683.8	-	5.1	N/A	N/A	107.6	277.5	-	-
1965	1,816.2	135.6	2.6	267.9	N/A	84.4	-	856.5	-	9.6	N/A	N/A	134.3	325.2	-	-
1966	2,163.5	141.0	2.8	278.0	N/A	96.9	0	1,109.2	-	19.1	N/A	N/A	142.2	374.5	0	0
1967	2,323.8	144.8	4.4	264.1	N/A	109.6	0	1,251.0	-	23.9	N/A	N/A	131.5	394.5	0	0
1968	2,349.8	144.2	7.7	243.1	12.5	119.7	0	1,229.4	1.7	28.2	N/A	6.6	129.8	422.8	0	3.7
1969	2,361.4	155.9	2.2	278.7	9.3	121.0	0	1,261.8	1.1	24.3	3.9	9.1	127.2	367.0	0	N/A
1970	2,187.6	182.1	3.9	265.5	18.9	114.5	0	1,036.7	.5	27.7	5.5	3.5	131.2	387.4	0	10.1
1971	2,343.1	214.6	7.6	249.0	16.4	105.8	27.2	1,142.3	.7	22.6	19.1	5.2	134.1	387.7	-	10.8
1972	2,599.0	238.6	26.0	243.9	8.3	95.3	23.3	1,318.4	1.5	24.3	18.7	7.3	119.0	458.7	-	15.9
1973	2,464.2	256.8	28.4	232.8	8.7	96.0	27.7	1,225.0	.9	23.7	10.7	6.3	111.4	419.6	-	15.9
1974	2,736.8	260.7	29.4	184.4	4.1	99.3	30.9	1,515.4	.6	23.8	19.9	7.1	98.9	449.6	-	12.8
1975	2,805.7	290.7	25.8	190.5	-	124.2	38.8	1,467.3	2.3	28.8	12.4	5.5	108.0	490.5	0	20.8
1976	2,959.4	328.6	38.2	211.9	-	143.8	33.0	1,522.2	1.4	28.2	13.5	4.5	118.9	496.3	3.2	15.7
1977	3,347.7	343.2	32.5	267.3	-	207.9	46.3	1,683.1	4.3	29.5	24.4	7.2	121.0	565.8	4.5	10.9
1978	3,957.6	391.7	35.9	452.2	-	267.0	54.7	1,899.2	10.5	42.5	28.1	12.6	130.2	607.1	8.4	17.3
RESEARCH AND DEVELOPMENT																
1963	829.5	40.6	1.5	218.0	N/A	68.3	-	332.9	-	3.8	N/A	N/A	59.8	104.6	-	-
1964	975.6	47.5	1.1	258.1	N/A	70.5	-	399.2	-	5.0	N/A	N/A	78.2	115.8	-	-
1965	1,095.0	59.1	2.1	267.9	N/A	74.8	-	441.9	-	9.5	N/A	N/A	100.6	139.2	-	-
1966	1,252.1	62.9	2.1	278.0	N/A	83.2	-	507.3	-	18.7	N/A	N/A	107.4	192.5	-	-
1967	1,301.2	64.0	3.4	264.1	N/A	89.7	-	577.0	-	23.9	N/A	N/A	109.0	170.2	-	-
1968	1,398.3	62.2	6.7	243.1	12.5	101.8	-	619.1	1.0	27.8	N/A	6.6	126.1	187.7	-	3.7
1969	1,474.7	63.6	1.7	278.7	9.3	103.1	-	667.1	1.0	23.5	3.9	9.1	122.3	191.5	-	N/A
1970	1,446.6	67.4	3.2	265.5	18.9	101.4	-	614.9	.5	27.1	5.5	3.5	127.4	201.2	-	10.1
1971	1,551.4	74.8	6.9	249.0	16.4	95.9	17.0	695.7	.7	21.3	17.1	3.3	128.5	216.9	-	8.0
1972	1,853.0	88.6	23.6	243.9	8.3	86.8	17.7	879.3	1.5	23.0	13.5	7.3	112.4	334.7	-	12.4
1973	1,870.5	93.8	24.9	232.8	8.7	85.0	18.6	903.8	.9	22.2	8.4	5.0	102.6	348.5	-	15.2
1974	2,085.0	96.7	26.6	184.4	3.4	94.4	24.1	1,129.0	.6	22.2	18.4	5.6	92.0	376.1	-	11.5
1975	2,238.6	110.5	22.2	190.5	-	119.1	33.8	1,205.2	2.3	27.2	8.3	4.0	100.2	397.3	0	18.1
1976	2,422.8	124.2	29.0	211.9	-	137.8	29.3	1,296.2	1.4	25.7	10.7	3.0	106.8	428.7	3.2	14.9
1977	2,784.9	142.2	32.2	267.3	-	186.9	45.0	1,448.7	4.3	27.4	20.2	7.2	113.7	476.5	3.8	9.6
1978	3,362.2	175.3	35.0	452.2	-	250.9	51.1	1,656.4	10.5	34.3	24.9	12.6	124.5	509.7	8.4	16.2

SEE FOOTNOTES AT END OF TABLE.

TABLE B-2. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY TYPE OF ACTIVITY AND AGENCY:
 CONTINUED
 FY 1963 - 78

(DOLLARS IN MILLIONS)

ACTIVITY & YEAR	TOTAL	USDA	COM	DDO	DED	DOE 1/	EPA	HEW	HUD	INT	AID	LABOR	NASA	NSF	NRC	DOT
RED PLANT																
1963	105.9	0	0	0	N/A	2.6	-	39.2	-	.1	N/A	N/A	13.4	50.6	-	-
1964	100.8	0	0	0	N/A	4.0	-	39.9	-	0	N/A	N/A	9.1	47.8	-	-
1965	126.2	3.2	0	0	N/A	3.8	-	54.8	-	**	N/A	N/A	8.4	56.0	-	-
1966	114.6	2.0	0	0	N/A	7.4	-	48.5	-	.2	N/A	N/A	7.4	49.3	-	-
1967	111.3	2.0	.3	0	N/A	13.8	-	38.1	-	0	N/A	N/A	5.0	52.1	-	-
1968	96.1	1.9	.2	0	0	11.9	-	36.9	0	0	N/A	0	0	45.3	-	0
1969	54.5	1.2	0	0	0	11.4	-	20.5	0	**	0	0	0	21.4	-	N/A
1970	44.8	1.1	**	0	0	7.1	-	20.0	0	0	0	0	0	16.5	-	0
1971	29.9	0	0	0	0	4.8	0	15.2	0	0	0	0	.2	9.7	-	0
1972	36.9	0	0	0	0	4.1	0	22.2	0	0	0	0	.6	10.0	-	0
1973	43.3	0	.3	0	0	5.6	0	26.7	0	.2	0	0	3.0	7.4	-	0
1974	29.0	0	0	0	0	4.2	0	14.5	0	0	0	0	.1	10.2	-	0
1975	44.8	0	0	0	-	4.2	0	22.9	0	0	0	0	.1	17.6	0	0
1976	23.9	0	1.0	0	-	5.6	0	11.4	0	0	0	0	.1	5.9	0	0
1977	36.5	0	0	0	-	17.5	0	11.1	0	0	0	0	**	7.3	0	.5
1978	34.3	0	0	0	-	13.4	**	9.9	0	0	0	0	0	11.0	0	**
FACILITIES FOR INSTRUCTION																
1971 2/...	28.7	.3	0	0	0	2.3	0	13.9	0	.1	0	0	0	12.1	-	0
1972	26.3	.5	0	0	0	1.9	0	20.9	0	0	0	0	0	3.0	-	0
1973	13.4	0	0	0	0	2.3	0	9.4	0	.1	0	0	0	1.6	-	0
1974	3.5	0	0	0	0	0	0	.4	0	**	0	0	0	3.1	-	0
1975	12.4	0	.1	0	0	0	0	4.9	0	0	0	0	0	7.4	0	0
1976	11.1	0	.3	0	-	0	0	0	0	0	0	0	0	10.8	0	0
1977	17.8	0	0	0	-	.4	0	0	0	0	0	0	0	17.4	0	0
1978	26.7	0	0	0	-	1.3	0	0	0	**	0	0	0	25.3	0	0
FELLOWSHIPS, TRAINEESHIPS, & TRNG GRNTS																
1966 2/...	365.6	-	0	-	N/A	3.2	0	289.9	-	0	N/A	N/A	25.0	47.5	0	0
1967	447.2	-	0	-	N/A	3.7	0	379.2	-	0	N/A	N/A	15.0	49.4	0	0
1968	440.9	-	0	-	0	3.6	0	387.0	-	0	N/A	0	.9	49.4	0	0
1969	436.3	-	0	-	0	5.5	0	375.7	-	0	-	0	1.3	53.8	0	N/A
1970	429.4	-	0	-	0	5.0	0	369.6	-	0	-	0	2.1	52.7	0	0
1971	421.0	0	**	0	0	2.6	10.1	361.4	0	**	0	0	.6	42.3	-	2.8
1972	387.9	0	.4	0	0	2.0	5.6	346.6	0	0	0	0	1.1	28.8	-	3.5
1973	287.2	0	.6	0	0	2.3	9.2	256.8	0	0	0	0	1.3	16.4	-	.7
1974	326.6	0	**	0	.7	.5	6.8	301.5	0	0	0	0	1.2	14.4	-	1.3
1975	201.3	0	**	0	-	.7	5.0	181.7	0	0	0	0	1.3	9.7	0	2.7
1976	174.9	0	0	0	-	.1	3.6	155.6	0	0	0	0	1.3	13.4	**	.8
1977	184.7	0	0	0	-	.2	1.3	165.9	0	0	0	0	1.4	14.8	.1	.8
1978	205.9	0	0	0	-	.7	3.6	184.1	0	3.2	.6	0	1.3	11.7	**	.6
GENERAL SUPPORT FOR SCIENCE																
1971 2/...	99.7	0	.2	0	0	0	0	40.2	0	1.1	0	1.2	0	56.9	-	0
1972	83.3	0	1.5	0	0	0	0	40.7	0	1.2	5.2	0	0	34.7	-	0
1973	39.0	0	0	0	0	0	0	20.2	0	1.3	2.3	.9	0	14.2	-	0
1974	87.0	0	.5	0	0	0	0	64.2	0	1.6	1.5	1.4	0	17.8	-	0
1975	46.4	0	1.8	0	-	0	0	37.3	0	1.6	4.2	1.5	0	0	0	0
1976	74.5	0	4.4	0	-	0	0	41.8	0	2.4	2.8	1.5	0	21.6	0	0
1977	75.9	0	0	0	-	2.5	0	42.0	0	1.8	4.1	0	0	24.8	.7	0
1978	74.1	0	0	0	-	.3	0	44.7	0	5.0	0	0	0	23.8	0	.3

SEE FOOTNOTES AT END OF TABLE.

TABLE B-2. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY TYPE OF ACTIVITY AND AGENCY:
 CONTINUED
 FY 1963 - 78

(DOLLARS IN MILLIONS)

ACTIVITY & YEAR	TOTAL	USOA	COM	DOD	OEI	DOE 1/	EPA	HEW	HUD	INT	AID	LABOR	NASA	NSF	NRC	DOT
OTHER SCIENCE ACTIVITIES																
1963	393.1	63.4	.3	0	N/A	5.3	-	208.9	-	**	N/A	N/A	14.1	101.1	-	-
1964	452.2	67.5	.6	0	N/A	5.4	-	244.6	-	**	N/A	N/A	20.2	113.9	-	-
1965	595.0	73.3	.6	0	N/A	5.9	-	359.8	-	**	N/A	N/A	25.4	130.1	-	-
1966	431.0	76.1	.7	0	N/A	3.1	-	263.4	-	.2	N/A	N/A	2.3	85.2	-	-
1967	464.0	78.8	.7	0	N/A	2.5	-	256.7	-	**	N/A	N/A	2.4	122.8	-	-
1968	414.5	80.1	1.0	0	0	2.5	-	186.4	.7	.4	N/A	0	2.8	140.5	-	**
1969	395.9	91.1	.5	**	0	1.0	-	198.4	.1	.9	0	0	3.7	100.2	-	N/A
1970	266.8	113.5	.7	**	0	1.0	-	32.2	0	.6	0	0	1.7	117.0	-	0
1971	212.4	139.5	.5	0	0	.3	0	15.9	0	0	2.0	.1	4.2	49.9	-	0
1972	211.6	149.5	.6	0	0	.5	0	8.6	0	0	0	0	4.9	47.5	-	0
1973	210.8	163.0	2.7	0	0	.8	0	8.0	0	0	0	.4	4.5	31.4	-	0
1974	205.7	164.0	2.2	0	0	.2	0	5.7	0	0	0	0	5.7	27.9	-	0
1975	262.3	180.2	1.7	0	-	.1	0	15.3	0	0	0	**	6.4	58.6	**	0
1976	252.2	204.4	3.6	0	-	.3	0	17.1	0	.1	0	0	10.7	16.0	0	0
1977	248.0	201.0	.3	0	-	.3	0	15.4	0	.3	0	0	5.9	24.9	0	0
1978	254.5	216.4	.9	0	-	.3	0	4.1	0	0	2.6	0	4.4	25.6	0	.2
NONSCIENCE ACTIVITIES																
1963	84.5	0	0	0	N/A	0	-	84.3	-	.2	N/A	N/A	0	0	-	-
1964	96.4	0	0	0	N/A	0	-	96.2	-	.2	N/A	N/A	0	0	-	-
1965	489.3	**	0	0	N/A	0	-	489.1	-	.1	N/A	N/A	0	0	-	-
1966	846.4	**	0	0	N/A	0	-	843.1	-	3.4	N/A	N/A	0	0	-	-
1967	993.9	**	3.5	0	N/A	0	-	986.8	-	3.5	N/A	N/A	0	0	-	-
1968	1,036.8	0	1.8	0	42.2	0	-	992.8	0	0	N/A	0	0	0	-	.1
1969	1,101.0	0	1.8	**	51.1	0	-	1,040.6	**	0	6.1	1.3	0	0	-	N/A
1970	1,049.0	0	1.0	**	16.7	0	-	1,024.2	**	0	5.4	1.7	0	0	-	0
1971	1,155.5	0	2.0	0	21.1	0	-	1,132.3	0	**	0	0	0	0	-	0
1972	1,545.6	0	0	0	21.7	0	-	1,523.5	0	.1	0	.2	0	0	-	0
1973	1,374.7	0	.1	0	21.3	**	0	1,351.2	0	.1	0	2.0	0	0	-	0
1974	1,743.4	0	.1	0	5.9	0	0	1,735.0	2.2	0	0	.1	0	0	-	0
1975	1,741.4	0	.7	0	-	0	0	1,740.6	0	**	0	0	0	0	0	.1
1976	2,443.1	0	.9	0	-	0	0	2,442.1	0	.1	0	0	0	0	**	0
1977	3,138.4	3.5	0	0	-	3.7	0	3,130.5	0	0	0	0	0	0	.2	.5
1978	3,521.5	3.2	0	0	-	2.5	1.1	3,512.6	0	1.5	0	0	0	0	.4	.2

** INDICATES AMOUNT LESS THAN \$50,000.

1/ DATA SHOWN FOR FISCAL YEARS 1963 - 74 AND FISCAL YEARS 1975 - 77 REPRESENT OBLIGATIONS OF ATOMIC ENERGY COMMISSION AND ENERGY RESEARCH & DEVELOPMENT ADMINISTRATION, RESPECTIVELY.

2/ DATA PREVIOUS TO THIS YEAR ARE NOT SEPARATELY IDENTIFIED BUT ARE INCLUDED UNDER "OTHER SCIENCE ACTIVITIES".

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-3. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY GEOGRAPHIC DIVISION AND STATE:
FY 1971 - 78

GEOGRAPHIC DIVISION AND STATE	(DOLLARS IN THOUSANDS)							
	1971	1972	1973	1974	1975	1976	1977	1978
UNITEO STATES, TDOTAL	3,498,596	4,144,570	3,838,919	4,480,169	4,547,075	5,402,506	6,486,103	7,479,177
NEW ENGLAND, TOTAL	348,556	418,516	403,097	397,431	417,449	470,718	580,619	673,576
CONNECTICUT	57,182	69,697	62,809	80,189	76,159	84,959	101,262	115,839
MAINE	6,832	8,877	11,077	9,921	16,520	21,972	23,893	28,439
MASSACHUSETTS	238,776	288,183	281,024	255,810	261,968	289,431	367,233	430,892
NEW HAMPSHIRE	19,357	16,652	14,623	16,068	17,411	21,925	28,624	29,910
RHODE ISLAND	16,188	21,671	21,399	21,273	24,901	29,896	34,191	37,776
VERMONT	10,221	13,436	12,165	14,170	20,490	22,535	25,416	30,720
MIDDLE ATLANTIC, TOTAL	569,573	672,437	604,825	629,893	746,888	846,896	1,037,293	1,220,170
NEW JERSEY	55,629	67,660	60,266	71,023	79,734	86,202	106,675	124,017
NEW YORK	339,996	403,601	358,677	405,904	454,385	508,470	626,079	746,768
PENNSYLVANIA	173,948	201,176	185,884	212,966	212,769	252,224	304,539	349,385
EAST NORTH CENTRAL, TOTAL	529,890	630,134	597,858	672,463	661,752	803,526	953,363	1,084,344
ILLINOIS	154,078	178,309	169,548	208,488	200,671	231,731	277,479	322,243
INDIANA	64,777	81,014	68,857	77,613	75,960	90,898	104,988	120,287
MICHIGAN	121,246	141,409	122,720	147,492	139,803	182,214	220,516	238,897
OHIO	110,017	134,184	125,082	135,519	137,595	168,744	201,509	235,323
WISCONSIN	79,772	95,218	111,651	103,351	107,723	129,939	148,871	167,594
WEST NORTH CENTRAL, TOTAL	315,180	320,919	291,088	356,149	341,949	411,377	472,236	515,077
IOWA	53,272	49,990	48,674	57,858	58,184	68,093	73,498	82,763
KANSAS	34,022	41,020	37,709	45,348	40,552	50,588	59,760	67,527
MINNESOTA	84,098	78,318	69,106	81,455	88,627	99,315	125,116	128,795
MISSOURI	94,021	93,450	84,912	107,258	98,058	114,321	135,044	143,624
NEBRASKA	28,371	27,081	27,354	36,530	28,047	42,131	37,848	40,761
NORTH DAKOTA	10,119	14,781	10,852	15,720	15,741	18,965	19,656	25,952
SOUTH DAKOTA	11,277	16,279	12,481	11,980	12,740	17,964	21,314	23,655
SOUTH ATLANTIC, TOTAL	519,756	646,793	599,493	719,057	730,564	849,559	1,029,621	1,296,693
DELAWARE	5,570	7,512	6,920	8,704	9,090	13,741	13,197	14,696
DISTRICT OF COLUMBIA	109,645	122,189	123,858	140,422	159,792	154,232	206,026	206,219
FLORIDA	72,962	102,154	83,952	96,618	101,027	120,654	159,458	186,917
GEORGIA	57,734	70,529	65,208	81,164	82,368	98,191	117,467	135,529
MARYLAND	80,129	96,468	100,441	109,664	110,536	130,301	147,596	308,507
NORTH CAROLINA	104,894	130,693	110,685	145,029	132,535	155,247	181,694	199,436
SOUTH CAROLINA	24,087	35,305	31,721	42,390	41,196	57,530	61,765	68,768
VIRGINIA	44,976	59,254	58,009	72,364	70,979	90,562	110,444	141,647
WEST VIRGINIA	19,759	22,689	18,699	22,702	23,041	29,101	31,974	34,974
EAST SOUTH CENTRAL, TOTAL	194,765	244,892	208,731	270,000	268,109	325,678	390,540	424,632
ALABAMA	53,802	74,725	67,628	78,682	83,966	102,411	114,508	125,687
KENTUCKY	35,877	42,601	35,512	45,719	46,148	54,122	73,659	73,190
MISSISSIPPI	29,623	40,905	32,948	46,236	47,734	58,191	72,129	83,002
TENNESSEE	75,463	86,661	72,643	99,363	90,261	110,954	130,244	142,753
WEST SOUTH CENTRAL, TOTAL	276,326	312,988	304,675	373,167	350,411	453,692	532,757	593,127
ARKANSAS	21,855	27,544	21,099	24,143	29,870	29,818	43,904	50,061
LOUISIANA	65,939	58,026	59,384	58,918	53,403	93,025	95,898	94,428
OKLAHOMA	31,936	38,595	33,839	51,974	48,472	55,740	62,257	71,260
TEXAS	156,596	188,823	190,353	238,132	218,666	275,109	330,698	377,378
MDUNTAIN, TOTAL	178,885	223,755	197,568	227,250	240,519	277,841	345,108	388,785
ARIZONA	27,282	34,809	32,944	36,492	40,917	46,822	65,851	71,867
COLORADO	59,997	69,220	64,170	73,447	76,187	86,191	106,053	118,303
IDAHO	6,103	7,886	7,545	8,023	10,809	7,767	13,388	15,928
MONTANA	9,712	12,973	9,807	10,809	12,880	15,924	17,940	19,637
NEVADA	6,261	6,978	6,552	6,351	6,861	9,062	12,004	11,636
NEW MEXICO	26,254	37,147	30,500	36,419	40,438	49,972	62,741	75,826
UTAH	37,582	47,370	39,742	49,142	47,116	49,128	55,736	65,105
WYOMING	5,694	7,372	6,308	6,567	8,353	9,722	11,395	10,483
PACIFIC, TOTAL	540,345	646,185	601,970	728,014	737,318	872,380	1,016,244	1,131,526
ALASKA	9,571	10,902	12,938	13,649	14,220	15,810	22,635	28,275
CALIFORNIA	394,525	465,559	429,062	526,467	529,184	612,517	718,743	800,246
HAWAII	19,834	22,936	24,251	30,850	28,023	37,615	34,827	44,070
OREGON	42,749	51,122	48,782	49,495	56,233	71,764	86,013	93,217
WASHINGTON	73,666	95,666	86,937	107,553	109,658	134,674	154,026	165,718
OUTLYING AREAS, TOTAL	25,320	27,951	29,614	46,745	52,116	90,839	128,322	151,247
GUAM	430	493	347	1,268	1,172	1,941	2,497	3,071
PUERTO RICO	24,126	26,896	28,621	43,936	49,550	87,284	124,115	145,192
AMERICAN SAMOA	0	0	63	0	125	166	195	411
VIRGIN ISLANDS	764	562	583	1,541	1,269	1,291	1,422	2,056
TRUST TERRITORY PAC ISL	0	0	0	0	0	157	93	517

NOTE: DATA FOR EACH YEAR REFLECT THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-4. FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS:
FY 1971 - 78

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL 1978 FEDERAL OBLIGATIONS)	1971	1972	1973	1974	1975	1976	1977	1978
	UNITED STATES TOTAL	3,498,596	4,144,570	3,838,919	4,480,169	4,547,075	5,402,506	6,486,103	7,479,177
1	JOHNS HOPKINS UNIVERSITY ^{1/}	45,548	54,681	56,062	58,347	57,234	58,742	64,435	712,866
2	MASS INST OF TECHNOLOGY	96,835	112,472	125,530	69,511	80,342	79,580	109,439	130,586
3	HOWARD UNIVERSITY	62,728	65,078	72,719	83,815	94,762	99,939	116,381	116,195
4	UNIVERSITY OF WASHINGTON	56,535	73,284	67,258	81,890	81,015	85,448	96,953	105,671
5	UNIV OF WIS-MADISON	57,320	62,512	79,554	73,602	65,513	69,019	77,878	99,330
6	UNIV OF CAL LOS ANGELES	54,030	63,893	60,884	73,685	75,105	75,156	86,257	97,779
7	STANFORD UNIVERSITY	54,648	62,224	56,861	66,789	70,269	73,513	84,946	94,009
8	UNIVERSITY OF MINNESOTA	72,534	64,246	57,614	68,065	73,651	71,858	92,684	93,558
9	HARVARD UNIVERSITY	54,037	65,072	61,405	72,539	65,186	67,149	76,711	89,949
10	UNIV OF CAL SAN DIEGO	49,650	57,693	55,214	71,112	63,210	70,821	77,051	88,508
	TOTAL 1ST 10 INSTITUTIONS	603,865	681,155	693,101	719,355	726,287	751,225	882,735	1,128,451
11	UNIVERSITY OF MICHIGAN	60,881	66,810	56,880	63,870	59,149	63,478	74,883	86,527
12	COLUMBIA UNIV MAIN DIV	52,219	60,654	52,812	59,992	65,808	63,766	74,507	84,941
13	CORNELL UNIVERSITY	41,367	45,868	44,123	49,452	53,866	57,574	69,979	79,729
14	UNIV OF PENNSYLVANIA	41,385	44,875	44,478	53,987	58,900	61,149	68,829	78,250
15	YALE UNIVERSITY	38,400	44,504	41,389	55,508	51,321	52,557	60,261	67,892
16	PENNSYLVANIA STATE UNIV ^{1/}	24,629	28,831	27,755	32,211	34,268	41,141	49,223	66,767
17	UNIV OF CAL BERKELEY	52,279	57,305	58,419	63,428	60,368	66,682	67,881	65,720
18	OHIO STATE UNIVERSITY	42,160	47,875	44,134	41,955	44,772	45,579	54,091	64,107
19	UNIVERSITY OF CHICAGO	37,819	42,369	39,967	50,535	47,629	49,778	54,209	61,262
20	UNIV OF SOUTHERN CAL	30,733	31,698	32,086	37,940	42,508	53,018	54,422	61,039
	TOTAL 1ST 20 INSTITUTIONS	1,025,737	1,151,944	1,135,144	1,228,233	1,244,876	1,305,947	1,511,020	1,844,785
21	UNIV OF CAL SAN FRANCISCO	26,906	36,472	30,916	44,803	45,202	51,769	48,034	59,488
22	UNIV OF ILL URBANA	44,244	42,433	42,163	44,374	46,627	46,678	52,603	58,840
23	NEW YORK UNIVERSITY	40,496	44,093	37,259	43,820	38,418	57,923	48,615	54,905
24	UNIVERSITY OF COLORADO	32,720	35,587	32,530	36,708	35,425	39,299	48,078	53,375
25	WASHINGTON UNIVERSITY	28,480	33,548	31,878	38,575	40,529	37,663	45,367	52,162
26	UNIV OF TEXAS AT AUSTIN	24,666	22,761	23,062	29,009	28,564	28,079	30,146	47,701
27	DUKE UNIVERSITY	29,157	35,266	34,157	34,950	35,490	36,655	40,847	46,870
28	UNIVERSITY OF ROCHESTER	25,497	27,531	26,068	29,246	33,959	31,276	42,944	46,653
29	PURDUE UNIVERSITY	24,443	27,895	28,451	29,801	32,973	36,551	37,853	44,383
30	UNIV OF NC AT CHAPEL HILL	30,321	34,005	27,400	40,256	33,169	37,330	38,906	43,691
	TOTAL 1ST 30 INSTITUTIONS	1,332,667	1,491,535	1,449,028	1,599,775	1,615,232	1,709,170	1,944,413	2,352,853
31	MICHIGAN STATE UNIVERSITY	26,810	28,349	25,530	35,433	33,038	36,578	42,641	43,666
32	UNIVERSITY OF UTAH	26,072	32,342	26,837	33,681	31,142	31,566	35,713	42,863
33	UNIVERSITY OF MIAMI	22,848	27,830	27,940	29,425	33,526	28,807	40,550	41,713
34	UNIVERSITY OF PITTSBURGH	25,931	29,701	29,099	32,901	31,838	30,214	35,543	41,319
35	UNIVERSITY OF ARIZONA	18,100	23,011	21,658	22,556	26,636	27,446	37,443	39,534
36	UNIVERSITY OF FLORIDA	23,357	27,552	25,128	27,952	28,160	27,830	31,701	38,751
37	UNIV OF CAL DAVIS	18,141	22,389	20,272	28,283	27,339	26,005	31,137	38,476
38	NORTHWESTERN UNIVERSITY	22,245	21,829	20,885	25,208	25,853	27,008	31,911	38,401
39	INTER AM U P R-SAN GERMAN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	37,894
40	UNIV ALABAMA BIRMINGHAM	19,516	26,077	25,728	28,993	29,702	33,030	31,548	37,552
	TOTAL 1ST 40 INSTITUTIONS	1,535,687	1,730,615	1,672,105	1,864,207	1,882,466	1,977,654	2,262,600	2,753,022
41	UNIVERSITY OF IOWA	24,914	24,864	25,403	30,773	27,529	32,250	32,027	37,326
42	BOSTON UNIVERSITY	15,445	20,478	20,115	23,165	25,195	26,904	33,020	36,948
43	YESHIVA UNIVERSITY	24,926	29,950	28,256	33,479	44,419	32,011	34,410	36,340
44	UNIVERSITY OF NEW MEXICO	11,005	18,597	12,633	18,525	18,229	23,420	29,449	34,786
45	CASE WESTERN RESERVE UNIV	22,979	25,378	21,967	28,557	27,046	26,265	28,808	34,659
46	TEXAS A&M UNIVERSITY	20,479	21,301	21,716	23,131	23,332	28,275	28,799	34,204
47	U TENNESSEE KNOXVILLE	14,024	16,817	15,366	17,795	20,112	24,174	21,784	33,329
48	GALLAUDET COLLEGE	9,504	12,744	10,521	9,913	29,415	15,548	18,725	33,103
49	RUTGERS THE ST UNIV OF NJ	19,489	20,072	15,734	17,634	19,229	20,607	23,889	32,552
50	UNIVERSITY OF KENTUCKY	18,701	21,086	19,276	22,834	21,314	26,746	30,179	31,988
	TOTAL 1ST 50 INSTITUTIONS	1,717,153	1,941,902	1,863,092	2,090,013	2,138,286	2,233,854	2,543,690	3,098,257

SEE FOOTNOTES AT END OF TABLE.

TABLE B-4. FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS:
 CONTINUED
 FY 1971 - 78

(DOLLARS IN THOUSANDS)

INSTITUTION (RANKED BY TOTAL 1978 FEDERAL OBLIGATIONS)	1971	1972	1973	1974	1975	1976	1977	1978
51 CALIFORNIA INST OF TECH	20,490	19,908	20,358	22,024	22,984	24,212	27,099	30,907
52 UNIV OF MISSOURI COLUMBIA	22,348	20,632	22,992	16,821	22,417	22,937	26,085	30,113
53 BAYLOR COL OF MEDICINE	16,811	17,155	20,115	28,820	22,356	21,558	24,000	30,042
54 COLORADO STATE UNIVERSITY	15,155	16,951	16,282	18,975	23,127	22,090	31,016	29,017
55 UNIVERSITY OF VIRGINIA	13,922	16,174	17,750	20,807	19,838	21,269	25,791	28,913
56 UNIV OF MD COLLEGE PARK	16,877	17,764	17,846	16,692	19,115	23,005	27,102	28,562
57 LOUISIANA STATE UNIV	34,767	16,600	25,219	16,309	15,134	34,876	22,272	27,901
58 UNIV OF MASS AT AMHERST	9,741	12,253	11,760	14,249	16,614	19,913	24,964	27,876
59 UNIVERSITY OF KANSAS	17,130	21,113	20,440	24,861	20,108	20,654	25,861	27,541
60 OREGON STATE UNIVERSITY	14,465	16,879	16,061	16,870	19,226	22,066	26,009	27,462
TOTAL 1ST 60 INSTITUTIONS	1,898,859	2,117,331	2,051,915	2,286,441	2,339,205	2,466,434	2,803,889	3,386,591
61 INDIANA UNIV-BLOOMINGTON	13,497	17,573	12,453	14,652	14,838	17,902	19,566	26,383
62 UNIV OF HAWAII-MANOA	19,011	22,451	23,450	30,412	26,888	34,937	28,465	25,884
63 TEMPLE UNIVERSITY	17,647	19,829	18,260	19,620	17,892	20,906	23,707	25,845
64 UNIVERSITY OF CONNECTICUT	11,585	14,323	13,839	15,495	16,457	18,379	22,380	25,526
65 VANDERBILT UNIVERSITY	16,347	20,872	15,164	18,576	16,413	25,409	21,203	25,050
66 GEORGIA INSTITUTE OF TECH	7,304	7,606	7,970	7,976	10,380	13,723	21,015	24,877
67 NEW MEXICO STATE UNIV	10,672	11,681	11,458	11,005	13,710	16,747	19,630	24,695
68 UNIV OF MD BALT PROF SCH	10,479	12,075	11,741	18,519	18,206	18,625	21,605	23,467
69 UNIV OF ALASKA-FAIRBANKS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23,424
70 N C STATE UNIV AT RALEIGH	18,174	16,439	15,995	16,573	17,831	19,338	22,425	23,315
TOTAL 1ST 70 INSTITUTIONS	2,023,575	2,260,180	2,182,245	2,439,269	2,495,020	2,652,400	3,003,885	3,635,057
71 U TEX-ANDRSN HOSP&TUMOR 1	323	14,636	14,450	11,361	16,262	16,597	19,021	23,301
72 VA POLYTECH INST & ST U	9,320	11,184	11,652	13,362	14,410	15,959	17,783	23,090
73 UNIVERSITY OF GEORGIA	16,845	17,261	17,706	17,450	19,795	20,215	22,123	22,876
74 WAYNE STATE UNIVERSITY	11,865	14,461	12,910	14,825	12,954	19,196	22,673	22,732
75 UNIVERSITY OF CINCINNATI	11,375	15,211	15,655	18,632	16,014	20,698	21,517	22,631
76 CUNY MT SINAI SCH OF MED	10,988	12,274	10,061	17,404	18,069	18,446	20,184	22,317
77 U TEX HLTH SCI CTR-DALLAS	16,298	0	12,054	16,729	15,768	15,733	20,581	22,211
78 WASHINGTON STATE UNIV	8,969	9,035	9,270	10,567	12,279	19,908	25,384	22,178
79 WOODS HOLE OCEANOGRAPHIC INST	13,493	19,527	13,241	18,854	15,507	16,615	18,011	21,465
80 UNIV OF VT & ST AGRIC COL	8,159	10,238	9,396	11,414	17,146	16,676	17,353	21,090
TOTAL 1ST 80 INSTITUTIONS	2,131,210	2,384,007	2,308,640	2,589,867	2,653,224	2,832,443	3,208,515	3,858,948
81 PRINCETON UNIVERSITY	16,145	18,438	16,278	16,662	19,728	18,487	19,970	20,721
82 VIRGINIA COMMONWLTN UNIV	8,175	10,088	10,424	11,825	10,707	12,523	17,657	20,456
83 FLORIDA STATE UNIVERSITY	9,629	12,614	8,889	12,801	10,459	11,582	14,042	20,303
84 SUNY AT BUFFALO	15,305	16,844	14,631	17,084	17,503	19,186	19,166	20,187
85 PUERTO RICO JR COL	883	720	776	3,354	3,390	9,781	13,555	19,942
86 GEORGETOWN UNIVERSITY	13,476	15,715	13,837	18,868	9,551	13,493	34,387	19,895
87 UNIV OF ILL MED CTR CHGO	8,710	13,111	12,486	18,900	15,841	15,241	14,339	19,835
88 UNIV OF OKLAHOMA	12,134	13,371	12,117	26,646	21,749	15,313	13,643	19,459
89 CITY COLLEGES OF CHICAGO	3,322	6,394	6,220	5,472	8,741	14,860	15,900	19,370
90 IOWA ST U OF SCI & TECH	17,369	12,275	11,681	12,916	17,433	14,042	16,953	19,248
TOTAL 1ST 90 INSTITUTIONS	2,236,358	2,503,577	2,415,979	2,734,395	2,788,326	2,976,951	3,388,127	4,058,365
91 OKLAHOMA STATE UNIVERSITY	11,003	12,158	11,243	12,264	13,152	14,577	18,137	18,926
92 ROCKEFELLER UNIVERSITY	8,469	10,769	13,151	12,540	13,536	14,067	16,814	18,868
93 GEORGE WASHINGTON UNIV	12,698	15,385	15,633	17,594	15,404	12,671	19,615	18,842
94 EMORY UNIVERSITY	11,717	14,139	13,856	16,356	18,625	19,128	18,268	18,540
95 MISSISSIPPI STATE UNIV	9,438	10,363	10,291	10,517	11,876	14,133	15,814	18,283
96 AUBURN UNIVERSITY	10,999	11,199	10,851	11,733	13,288	13,850	16,256	18,126
97 CARNEGIE MELLON UNIV	10,436	10,331	9,311	8,258	11,504	12,331	16,028	17,699
98 UNIV OF CAL IRVINE	9,095	7,961	7,258	14,614	12,799	13,077	15,226	17,624
99 WEST VIRGINIA UNIVERSITY	11,913	11,675	11,772	12,609	13,114	12,488	14,069	17,357
100 SUNY AT STONY BROOK	5,172	7,235	7,576	9,621	10,839	13,014	15,204	17,173
TOTAL 1ST 100 INSTITUTIONS	2,337,298	2,614,792	2,526,921	2,860,501	2,922,463	3,116,287	3,553,558	4,239,803

NOTE: DATA FOR EACH YEAR REFLECT THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

1/ Data shown for Johns Hopkins University and Pennsylvania State University for 1978 include funding for components formerly shown separately as university-administered federally funded research and development centers. The amounts involved are as follows:

Applied Physics Laboratory (Johns Hopkins University): \$136,140
 Applied Research Laboratory (Pennsylvania State University): 12,205

SOURCE: National Science Foundation

TABLE B-5. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR RESEARCH AND DEVELOPMENT,
BY DETAILED FIELD OF SCIENCE: FY 1971 - 78

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE	1971	1972	1973	1974	1975	1976	1977	1978
TOTAL, ALL FIELDS	1,551,391	1,852,963	1,870,507	2,085,001	2,238,628	2,422,814	2,784,885	3,362,174
PHYSICAL SCIENCES, TOTAL	270,733	279,124	272,336	261,865	306,718	327,728	394,813	438,707
ASTRONOMY	30,507	35,595	32,066	31,823	33,373	32,831	32,427	37,864
CHEMISTRY	75,848	77,588	77,280	83,157	85,570	99,043	119,192	134,530
PHYSICS	161,677	141,626	140,249	131,493	149,835	160,779	196,806	229,617
PHYSICAL SCIENCES, NEC	2,701	24,315	22,741	15,392	37,940	35,075	46,388	36,696
MATHEMATICAL & COMPUTER SCIENCES, TOTAL ..	41,922	50,712	45,904	51,931	61,514	78,767	73,863	75,965
MATHEMATICS	N/A	N/A	N/A	N/A	N/A	N/A	48,872	41,683
COMPUTER SCIENCES	N/A	N/A	N/A	N/A	N/A	N/A	24,991	33,227
MATHEMATICAL & COMPUTER SCIENCES, NEC ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,055
ENVIRONMENTAL SCIENCES, TOTAL	135,582	186,788	168,470	174,769	201,809	215,092	302,030	303,189
ATMOSPHERIC SCIENCES	41,414	45,045	41,737	46,158	47,038	49,576	88,184	85,443
GEOLOGICAL SCIENCES	39,191	31,053	33,716	37,748	45,260	68,406	106,784	115,385
OCEANOGRAPHY	43,551	68,091	66,584	67,098	54,455	57,410	55,888	57,218
ENVIRONMENTAL SCIENCES, NEC	11,426	42,599	26,433	23,765	55,056	39,700	51,174	45,143
ENGINEERING, TOTAL	158,101	192,993	203,869	174,803	210,845	217,535	261,200	498,495
AERONAUTICAL	9,874	11,335	8,348	11,901	13,972	10,587	12,951	20,732
ASTRONAUTICAL	16,539	7,955	6,996	1,196	899	797	1,674	849
CHEMICAL	5,916	10,516	11,655	10,089	14,120	20,962	30,428	40,934
CIVIL	15,414	17,379	24,268	23,327	25,808	21,242	24,349	36,943
ELECTRICAL	48,182	51,921	48,620	34,151	37,996	37,978	44,584	75,123
MECHANICAL	8,929	18,363	13,658	15,476	15,512	19,391	21,749	24,825
METALLURGY & MATERIALS	23,335	41,686	36,690	39,129	30,261	29,991	34,120	38,880
ENGINEERING, NEC	29,912	33,838	53,634	39,534	72,277	76,587	91,345	260,209
LIFE SCIENCES, TOTAL	741,998	896,376	934,177	1,128,083	1,222,698	1,340,141	1,483,852	1,713,436
BIOLOGICAL	424,188	409,784	447,510	516,214	549,229	622,337	671,787	972,309
MEDICAL, TOTAL	313,006	482,218	483,173	589,473	641,212	692,149	779,667	710,193
CLINICAL MEDICAL	250,248	304,997	309,518	376,594	442,727	472,313	547,741	N/A
OTHER MEDICAL	62,758	177,221	173,655	212,879	198,485	219,836	231,926	N/A
LIFE SCIENCES, NEC	4,804	4,374	3,494	22,396	32,257	25,655	32,398	30,934
PSYCHOLOGY, TOTAL	56,433	55,232	52,833	56,265	46,987	53,330	57,148	71,785
BIOLOGICAL ASPECTS	22,920	29,040	28,159	33,784	24,627	21,504	19,715	22,259
SOCIAL ASPECTS	20,599	18,692	22,861	21,323	19,977	19,543	21,318	27,908
PSYCHOLOGY, NEC	12,914	7,500	1,813	1,158	2,383	12,283	16,115	21,618
SOCIAL SCIENCES, TOTAL	106,162	119,827	106,155	114,679	130,620	117,167	134,020	184,423
ANTHROPOLOGY	3,730	3,260	3,518	3,973	4,533	5,147	5,882	7,286
ECONOMICS	22,968	18,857	17,803	19,704	19,580	19,931	21,581	52,748
HISTORY	722	1,439	933	975	929	843	1,017	1,426
LINGUISTICS	4,221	2,951	2,417	2,334	2,451	2,563	2,300	2,176
POLITICAL SCIENCE	2,535	3,146	2,606	3,600	3,554	4,064	3,837	4,843
SOCIOLOGY	21,589	23,437	17,831	18,186	16,525	19,058	27,457	39,894
SOCIAL SCIENCES, NEC	50,397	66,737	61,047	65,907	83,048	65,561	71,946	76,050
OTHER SCIENCES, NEC	40,460	71,911	86,763	122,606	57,437	73,054	77,959	76,174

NOTE: DATA FOR EACH YEAR REFLECT THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-6. FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS: FY 1971 - 78

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED FOR FY 1978)	1971	1972	1973	1974	1975	1976	1977	1978
	UNITED STATES TOTAL	1,551,391	1,852,963	1,870,507	2,085,001	2,238,628	2,422,814	2,784,885	3,362,174
1	JOHNS HOPKINS UNIVERSITY ^{1/}	28,955	35,535	35,127	39,569	41,238	44,956	51,075	196,081
2	MASS INST OF TECHNOLOGY	88,792	104,882	113,768	61,074	68,655	67,715	91,771	114,021
3	STANFORD UNIVERSITY	41,786	48,216	46,237	53,565	58,391	62,695	73,400	80,110
4	UNIV OF CAL SAN DIEGO	36,593	50,027	48,693	53,384	48,523	63,241	70,686	77,033
5	UNIVERSITY OF WASHINGTON	36,079	48,241	44,659	56,909	60,189	62,232	69,530	76,080
6	UNIV OF CAL LOS ANGELES	36,825	41,929	43,570	53,402	54,123	58,408	63,126	69,595
7	HARVARD UNIVERSITY	37,109	45,450	45,694	48,486	48,532	52,447	58,108	68,520
8	UNIV OF WIS-MADISON	36,871	40,943	43,882	51,095	49,118	53,134	58,291	65,225
9	COLUMBIA UNIV MAIN DIV	37,589	45,493	41,206	46,054	46,235	50,663	60,129	64,687
10	UNIVERSITY OF MINNESOTA	26,707	36,453	32,255	36,471	39,695	46,339	50,013	59,582
	TOTAL 1ST 10 INSTITUTIONS	407,306	497,169	495,091	500,009	516,699	561,830	646,129	870,934
11	UNIVERSITY OF MICHIGAN	40,819	44,481	36,912	39,931	38,403	42,152	52,430	58,444
12	CORNELL UNIVERSITY	23,893	31,034	31,360	33,810	39,578	41,542	49,550	58,258
13	UNIV OF PENNSYLVANIA	25,241	28,379	29,430	36,712	43,390	41,215	48,119	50,138
14	YALE UNIVERSITY	23,092	27,506	30,030	37,671	36,601	40,693	47,425	53,805
15	UNIV OF CAL BERKELEY	32,979	37,455	41,371	44,090	40,357	45,297	44,657	49,663
16	UNIVERSITY OF CHICAGO	26,479	31,079	30,954	33,217	38,082	42,247	45,852	48,984
17	UNIV OF CAL SAN FRANCISCO	16,064	20,382	21,734	28,329	33,689	32,737	38,088	46,388
18	UNIV OF ILL URBANA	31,331	28,253	28,086	32,700	33,841	33,947	38,435	42,947
19	UNIV OF SOUTHERN CAL	14,978	20,027	22,060	23,493	28,660	33,682	37,611	42,458
20	PENNSYLVANIA STATE UNIV ^{1/}	12,386	15,989	15,566	17,754	20,211	21,688	23,003	41,974
	TOTAL 1ST 20 INSTITUTIONS	654,568	781,754	782,594	827,716	869,511	942,030	1,071,299	1,369,993
21	WASHINGTON UNIVERSITY	18,224	21,752	22,738	28,753	30,679	31,234	37,755	41,974
22	NEW YORK UNIVERSITY	20,780	23,045	24,932	27,719	27,994	33,104	35,645	38,235
23	UNIV OF TEXAS AT AUSTIN	14,116	14,793	16,387	21,169	23,307	21,291	25,003	37,232
24	DUKE UNIVERSITY	16,714	17,768	19,717	22,974	24,426	27,220	30,033	34,632
25	OHIO STATE UNIVERSITY	15,546	23,069	22,429	19,642	20,913	21,701	25,244	33,983
26	UNIVERSITY OF ROCHESTER	16,633	18,371	18,853	21,250	25,371	23,478	26,388	33,616
27	UNIVERSITY OF COLORADO	16,447	19,926	20,728	22,628	22,270	26,055	29,966	32,091
28	PURDUE UNIVERSITY	14,728	16,607	17,756	17,953	21,236	23,994	23,742	29,554
29	UNIVERSITY OF UTAH	12,786	17,312	15,652	20,336	19,726	22,394	24,542	29,352
30	YESHIVA UNIVERSITY	14,458	19,068	18,641	21,036	24,782	23,733	26,244	28,710
	TOTAL 1ST 30 INSTITUTIONS	815,000	973,465	980,427	1,051,176	1,110,215	1,196,234	1,355,861	1,709,372
31	CALIFORNIA INST OF TECH	17,074	17,467	18,411	19,807	20,995	22,112	24,700	28,106
32	UNIV OF CAL DAVIS	11,408	15,734	15,668	18,837	19,837	19,403	22,343	27,721
33	NORTHWESTERN UNIVERSITY	11,052	13,026	13,719	16,546	18,655	20,027	23,319	26,635
34	UNIV OF NC AT CHAPEL HILL	16,160	16,811	14,867	20,781	19,102	23,414	21,249	26,555
35	BAYLOR COL OF MEDICINE	11,125	11,291	14,573	19,161	18,615	18,120	20,338	26,476
36	UNIVERSITY OF PITTSBURGH	10,984	13,197	15,603	18,774	18,512	19,471	21,548	25,984
37	UNIVERSITY OF ARIZONA	10,148	10,649	11,635	12,424	16,067	17,704	25,145	25,828
38	UNIVERSITY OF MIAMI	12,424	16,606	17,552	18,668	22,896	20,765	24,116	25,744
39	CASE WESTERN RESERVE UNIV	12,259	14,833	13,813	17,774	18,808	18,768	19,869	24,730
40	UNIVERSITY OF IOWA	10,798	11,278	14,027	18,549	16,645	17,605	21,447	24,371
	TOTAL 1ST 40 INSTITUTIONS	938,432	1,114,357	1,130,295	1,232,497	1,300,347	1,393,623	1,579,935	1,971,522
41	GEORGIA INSTITUTE OF TECH	5,792	6,194	6,174	6,747	9,369	12,607	19,138	22,122
42	MICHIGAN STATE UNIVERSITY	10,957	11,270	12,752	14,371	17,924	17,927	19,993	21,792
43	UNIV ALABAMA BIRMINGHAM	8,823	12,966	12,494	15,854	15,507	19,864	18,862	21,466
44	UNIVERSITY OF FLORIDA	10,368	13,561	12,664	13,026	16,206	15,517	18,432	21,464
45	U TEX-ANDRSON HOSPGTUMOR 1	237	8,316	8,090	10,033	14,881	15,622	17,060	21,213
46	COLORADO STATE UNIVERSITY	10,278	10,799	11,938	13,588	16,085	16,947	18,878	20,371
47	TEXAS A&M UNIVERSITY	9,486	10,640	11,234	12,067	12,249	14,499	14,431	20,168
48	VANDERBILT UNIVERSITY	9,268	11,142	10,566	12,746	13,735	14,141	16,789	20,139
49	UNIV OF ALASKA-FAIRBANKS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20,133
50	BOSTON UNIVERSITY	6,471	8,748	9,557	12,422	13,325	15,536	17,199	19,726
	TOTAL 1ST 50 INSTITUTIONS	1,010,112	1,207,993	1,225,764	1,343,351	1,429,628	1,536,283	1,740,717	2,180,116

SEE FOOTNOTES AT END OF TABLE.

TABLE B-6. FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS: FY 1971 - 78

(DOLLARS IN THOUSANDS)

INSTITUTION (RANKED BY AMOUNT RECEIVED FOR FY 1978)	1971	1972	1973	1974	1975	1976	1977	1978
51 WOODS HOLE OCEANOGRAPHIC INST	11,247	16,372	12,987	15,070	14,384	15,222	15,988	19,621
52 UNIV OF MD COLLEGE PARK	10,389	11,675	12,604	11,746	13,772	15,959	18,535	19,347
53 UNIVERSITY OF VIRGINIA	6,279	8,137	8,296	11,325	12,064	14,126	17,212	18,883
54 CUNY MT SINAI SCH OF MED	7,173	8,922	7,385	13,627	15,507	15,613	16,707	18,868
55 OREGON STATE UNIVERSITY	9,486	11,697	11,488	12,297	13,699	15,619	19,182	18,532
56 U TENNESSEE KNOXVILLE	5,210	5,997	6,438	8,093	8,674	11,522	13,311	18,462
57 UNIVERSITY OF NEW MEXICO	4,189	4,320	5,211	8,692	9,295	11,222	14,151	18,392
58 ROCKEFELLER UNIVERSITY	7,539	9,203	10,891	10,916	11,943	12,894	15,344	17,473
59 UNIV OF HAWAII-MANOA	11,021	12,977	13,506	15,668	15,029	16,504	19,164	17,233
60 PRINCETON UNIVERSITY	13,284	14,456	12,801	13,334	15,896	14,876	16,331	16,759
TOTAL 1ST 60 INSTITUTIONS	1,095,929	1,311,749	1,327,371	1,464,119	1,559,891	1,679,840	1,906,642	2,363,686
61 UNIV OF MD BALT PROF SCH	5,447	5,591	5,757	10,143	11,925	13,121	15,312	16,592
62 NEW MEXICO STATE UNIV	6,983	6,865	7,198	6,794	8,994	10,416	12,268	16,260
63 UNIVERSITY OF KANSAS	7,847	9,663	8,777	10,234	10,743	12,365	14,236	16,179
64 U TEX HLTH SCI CTR-DALLAS	5,365	0	7,574	10,290	10,662	11,474	15,688	16,084
65 UNIVERSITY OF CONNECTICUT	5,220	6,455	7,005	8,495	9,488	10,482	12,773	14,923
66 VA POLYTECH INST & ST U	3,871	5,477	5,515	6,591	7,836	8,313	9,845	14,501
67 UNIVERSITY OF GEORGIA	6,884	7,310	7,210	7,327	9,417	9,301	10,741	14,180
68 LOUISIANA STATE UNIV	5,756	7,405	7,119	7,960	7,980	8,480	10,058	13,799
69 UNIV OF MISSOURI COLUMBIA	7,343	8,108	9,396	8,959	9,397	9,784	12,402	13,676
70 CARNEGIE MELLON UNIV	6,860	8,469	7,004	7,097	9,829	10,761	13,303	13,569
TOTAL 1ST 70 INSTITUTIONS	1,157,505	1,377,092	1,399,926	1,548,009	1,656,162	1,784,337	2,033,268	2,513,449
71 RUTGERS THE ST UNIV OF NJ	8,143	8,506	7,599	9,415	9,969	9,037	10,188	13,537
72 UNIVERSITY OF CINCINNATI	4,169	6,447	6,169	9,317	8,703	11,629	9,584	13,362
73 SUNY AT BUFFALO	7,338	8,208	7,991	9,348	11,039	12,432	12,376	13,155
74 GEORGE WASHINGTON UNIV	6,795	9,268	7,929	9,532	10,511	9,439	13,437	13,003
75 EMORY UNIVERSITY	5,378	7,790	8,382	9,724	12,067	13,683	12,234	12,921
76 TEMPLE UNIVERSITY	8,735	9,419	9,992	10,314	10,285	12,044	12,434	12,559
77 SUNY AT STONY BROOK	4,188	5,163	5,833	6,894	7,661	9,749	11,470	12,372
78 UNIVERSITY OF DAYTON	4,037	4,988	4,713	5,697	6,306	6,625	10,685	12,222
79 UNIV OF VT & ST AGRIC COL	3,714	4,901	5,603	6,147	9,323	8,234	9,574	12,059
80 UNIVERSITY OF KENTUCKY	7,243	7,004	6,164	7,585	7,977	8,757	10,095	11,921
TOTAL 1ST 80 INSTITUTIONS	1,217,245	1,448,786	1,470,301	1,631,982	1,750,003	1,885,966	2,145,345	2,640,560
81 UNIV OF CAL IRVINE	6,454	4,347	4,865	8,409	8,801	9,402	10,129	11,861
82 BROWN UNIVERSITY	6,848	8,197	7,329	7,527	8,015	9,743	9,988	11,618
83 GEORGETOWN UNIVERSITY	4,018	5,162	4,768	6,172	3,991	7,999	12,270	11,595
84 N C STATE UNIV AT RALEIGH	7,269	7,850	7,233	7,725	8,363	8,464	11,448	11,368
85 VIRGINIA COMMONWELTH UNIV	3,611	3,636	5,372	5,267	5,720	7,290	9,415	11,368
86 INDIANA UNIV-BLOOMINGTON	6,345	7,659	6,445	8,204	8,391	9,556	10,906	10,949
87 UNIV OF MASS AT AMHERST	4,307	6,282	5,791	7,539	8,101	8,178	9,749	10,602
88 WAYNE STATE UNIVERSITY	4,083	4,579	4,819	5,465	6,276	7,512	10,324	10,385
89 FLORIDA STATE UNIVERSITY	5,530	5,152	5,309	8,536	5,417	6,749	7,097	9,511
90 BRANDEIS UNIVERSITY	3,265	3,384	3,691	3,840	4,426	5,181	6,145	9,040
TOTAL 1ST 90 INSTITUTIONS	1,268,975	1,505,034	1,525,923	1,700,666	1,817,504	1,966,048	2,242,816	2,748,925
91 IOWA ST U OF SCI & TECH	4,676	5,597	5,190	5,917	5,780	5,685	7,572	8,958
92 WASHINGTON STATE UNIV	3,789	4,042	4,626	4,783	5,933	6,436	7,725	8,831
93 U TEX HLTH SC CTR HOUSTON	7,489	2,626	3,728	7,267	2,782	8,711	5,584	8,727
94 U TEX MED BRNCH GALVESTON	2,916	3,148	3,677	5,241	5,989	6,358	7,725	8,530
95 UNIV OF RHODE ISLAND	2,582	5,340	4,618	5,292	4,689	6,134	9,402	8,413
96 UNIV OF CAL SANTA BARBARA	3,495	3,148	3,532	3,467	4,332	4,806	6,728	8,288
97 U OREGON HLTH SCI CTR	3,855	3,829	4,520	5,651	5,598	6,505	6,945	8,242
98 OKLAHOMA STATE UNIVERSITY	4,100	3,944	4,908	4,986	5,646	5,938	7,166	8,181
99 UNIVERSITY OF OREGON MAIN	5,553	5,669	6,679	5,409	6,045	7,112	6,979	8,129
100 INDIANA U-PURDUE U INDPLS	3,454	5,760	4,879	6,034	4,609	5,977	7,756	8,063
TOTAL 1ST 100 INSTITUTIONS	1,310,884	1,548,137	1,572,280	1,754,713	1,868,907	2,029,710	2,316,398	2,833,287

NOTE: DATA FOR EACH YEAR REFLECT THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

1/ Data shown for Johns Hopkins University and Pennsylvania State University for 1978 include funding for components formerly shown separately as university-administered federally funded research and development centers. The amounts involved are as follows:

Applied Physics Laboratory (Johns Hopkins University): \$136,140
 Applied Research Laboratory (Pennsylvania State University): 12,205

SOURCE: National Science Foundation

TABLE B-7. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR FELLOWSHIPS, TRAINEESHIPS,
AND TRAINING GRANTS, BY DETAILED FIELD OF SCIENCE:
FY 1971 - 78

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE	1971	1972	1973	1974	1975	1976	1977	1978
TOTAL, ALL FIELDS	421,029	387,888	287,210	326,600	201,273	174,871	184,671	205,865
PHYSICAL SCIENCES, TOTAL	15,821	6,403	3,901	4,051	3,238	3,049	3,675	1,441
ASTRONOMY	500	189	116	117	100	116	123	0
CHEMISTRY	10,227	4,753	2,699	2,777	2,368	1,998	2,320	1,117
PHYSICS	4,993	1,406	1,031	1,042	734	901	1,176	281
PHYSICAL SCIENCES, NEC	99	55	55	115	36	34	56	43
MATHEMATICAL & COMPUTER SCIENCES, TOTAL ..	9,276	3,866	3,189	3,975	2,389	1,956	1,875	558
MATHEMATICS	N/A	N/A	N/A	N/A	N/A	N/A	1,852	496
COMPUTER SCIENCES	N/A	N/A	N/A	N/A	N/A	N/A	23	62
MATHEMATICAL & COMPUTER SCIENCES, NEC ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
ENVIRONMENTAL SCIENCES, TOTAL	5,385	5,741	4,124	4,927	3,285	1,629	764	663
ATMOSPHERIC SCIENCES	89	780	446	511	95	42	55	442
GEOLOGICAL SCIENCES	2,010	521	458	472	1,001	503	560	4
OCEANOGRAPHY	490	432	417	97	39	22	29	0
ENVIRONMENTAL SCIENCES, NEC	2,796	4,008	2,803	3,847	2,150	1,062	120	217
ENGINEERING, TOTAL	22,085	12,631	12,631	10,361	10,821	8,100	10,015	12,626
AERONAUTICAL	94	52	46	40	76	57	72	0
ASTRONAUTICAL	196	0	0	0	0	40	0	0
CHEMICAL	1,526	375	679	374	277	269	312	53
CIVIL	4,996	5,188	6,587	4,632	3,869	3,101	1,032	443
ELECTRICAL	1,613	828	639	700	492	454	449	6
MECHANICAL	1,623	395	211	245	306	336	354	274
METALLURGY & MATERIALS	731	192	148	269	678	180	4,045	4,425
ENGINEERING, NEC	11,306	5,601	4,321	4,101	4,438	3,663	3,751	7,425
LIFE SCIENCES, TOTAL	225,177	223,977	179,222	225,575	135,600	105,631	118,799	130,840
BIOLOGICAL	69,885	62,757	48,784	60,270	50,950	47,348	36,939	34,885
MEDICAL, TOTAL	149,242	148,194	122,004	145,890	70,135	58,248	81,812	95,955
CLINICAL MEDICAL	129,545	122,094	99,462	125,245	62,510	41,267	51,729	N/A
OTHER MEDICAL	19,697	26,100	22,542	20,645	7,625	16,981	30,083	N/A
LIFE SCIENCES, NEC	6,050	13,026	8,434	19,415	14,515	35	48	0
PSYCHOLOGY, TOTAL	42,491	32,706	20,513	27,209	12,819	9,541	17,274	16,937
BIOLOGICAL ASPECTS	17,289	16,893	13,417	17,718	5,762	463	407	0
SOCIAL ASPECTS	16,477	12,799	4,994	6,219	4,756	2,255	10,251	10,947
PSYCHOLOGY, NEC	8,725	3,014	2,102	3,272	2,301	6,823	6,616	5,990
SOCIAL SCIENCES, TOTAL	66,676	68,150	43,515	40,741	30,243	39,743	21,755	20,311
ANTHROPOLOGY	3,663	2,377	1,302	1,312	2,520	1,311	982	0
ECONOMICS	1,132	606	516	528	561	715	656	3
HISTORY	233	175	194	105	125	122	130	0
LINGUISTICS	826	316	1,837	1,515	833	167	152	0
POLITICAL SCIENCE	411	418	217	313	159	216	181	0
SOCIOLOGY	30,811	32,365	34,787	30,942	4,701	9,289	1,946	1,608
SOCIAL SCIENCES, NEC	29,600	31,893	4,662	6,026	21,344	27,923	17,708	18,700
OTHER SCIENCES, NEC	34,118	34,414	20,115	9,761	2,878	5,222	10,514	22,489

NOTE: DATA FOR EACH YEAR REFLECT THE AGENCIES INCLUDED IN THE SURVEY SYSTEM FOR THAT YEAR.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-8. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY AGENCY AND TYPE OF ACTIVITY:
FY 1978

(DOLLARS IN THOUSANDS)

AGENCY	TOTAL OBLIGATIONS	ACADEMIC SCIENCE							NONSCIENCE ACTIVITIES
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOW-SHIP, TRAINEE-SHIP, TRAINING GRANTS	GENERAL SUPPORT FOR SCIENCE	OTHER SCIENCE ACTIVITIES	
TOTAL	7,479,177	3,957,638	3,362,174	34,328	26,664	205,865	74,102	254,505	3,521,539
DEPARTMENT OF AGRICULTURE	394,815	391,656	175,269	0	0	0	0	216,387	3,159
DEPARTMENT OF COMMERCE	35,919	35,919	35,042	0	0	0	0	877	0
DEPARTMENT OF DEFENSE, TOTAL	452,249	452,249	452,249	0	0	0	0	0	0
ARMY	69,413	69,413	69,413	0	0	0	0	0	0
NAVY	280,596	280,596	280,596	0	0	0	0	0	0
AIR FORCE	91,909	91,909	91,909	0	0	0	0	0	0
OTHER DOD	10,331	10,331	10,331	0	0	0	0	0	0
DEPARTMENT OF ENERGY	269,506	266,966	250,912	13,424	1,314	665	329	322	2,540
ENVIRONMENTAL PROTECTION AGENCY	55,844	54,719	51,145	9	0	3,565	0	0	1,125
DEPARTMENT OF HEALTH, EDUCATION AND WELFARE	5,411,826	1,899,233	1,656,410	9,888	0	184,147	44,677	4,111	3,512,593
NATIONAL INSTITUTES OF HEALTH	1,641,673	1,641,673	1,451,877	9,888	0	131,238	44,677	3,993	0
HEALTH RESOURCES ADMINISTRATION	363,893	0	0	0	0	0	0	0	363,893
HEALTH SERVICES ADMINISTRATION	58,724	3,673	3,673	0	0	0	0	0	55,051
ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION	179,617	110,481	94,534	0	0	15,829	0	118	69,136
CENTER FOR DISEASE CONTROL	15,667	6,078	6,078	0	0	0	0	0	9,589
FOOD AND DRUG ADMINISTRATION	9,467	9,467	9,467	0	0	0	0	0	0
OFFICE OF EDUCATION	2,894,006	13,699	9,296	0	0	4,403	0	0	2,880,307
NATIONAL INSTITUTE OF EDUCATION	22,818	22,818	22,818	0	0	0	0	0	0
OFFICE OF HUMAN DEVELOPMENT SERVICES	68,291	66,991	34,314	0	0	32,677	0	0	1,300
HEALTH CARE FINANCING ADMINISTRATION	6,783	6,783	6,783	0	0	0	0	0	0
SOCIAL SECURITY ADMINISTRATION	1,007	0	0	0	0	0	0	0	1,007
OFFICE OF HEALTH POLICY RESEARCH AND STATISTICS	16,098	14,884	14,884	0	0	0	0	0	1,214
OTHER DHEW	133,782	2,686	2,686	0	0	0	0	0	131,096
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT	10,547	10,547	10,547	0	0	0	0	0	0
DEPARTMENT OF THE INTERIOR	43,983	42,511	34,258	0	46	3,200	5,007	0	1,472
AGENCY FOR INTERNATIONAL DEVELOPMENT	28,137	28,137	24,945	0	0	599	0	2,593	0
DEPARTMENT OF LABOR	12,613	12,613	12,613	0	0	0	0	0	0
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION	130,206	130,206	124,482	0	0	1,287	0	4,437	0
NATIONAL SCIENCE FOUNDATION	607,119	607,119	509,732	11,005	25,304	11,739	23,783	25,556	0
NUCLEAR REGULATORY COMMISSION	8,827	8,415	8,387	0	0	28	0	0	412
DEPARTMENT OF TRANSPORTATION	17,586	17,348	16,183	2	0	635	306	222	238

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-9. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES AND THE NUMBER OF RECIPIENT INSTITUTIONS, BY GEOGRAPHIC DIVISION, STATE, AND TYPE OF ACTIVITY: FY 1976

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION AND STATE	AMT NU.	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE						FELLOWSHIPS TRAINING GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON- SCIENCE
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTK IN SCI & ENG						
UNITED STATES, TOTAL		7,479,177 2,735	3,957,638 982	3,362,174 705	34,326 55	20,664 344	205,865 373	74,102 308	254,505 496	3,521,539 2,705		
NEW ENGLAND, TOTAL		673,576 229	444,609 83	367,751 63	9,761 5	2,836 30	24,629 30	4,901 26	14,131 39	229,567 222		
CONNECTICUT		115,639 42	81,397 13	70,414 10	314 1	386 3	7,124 6	1,335 5	2,124 6	34,442 41		
MAINE		28,439 25	5,970 7	3,769 5	0 0	47 3	105 1	314 2	1,715 3	22,469 24		
MASSACHUSETTS		430,892 113	305,500 44	268,109 34	9,335 3	1,952 14	15,347 16	2,748 14	7,009 22	125,392 110		
NEW HAMPSHIRE		29,510 20	14,912 6	13,122 6	0 0	177 4	235 3	316 2	1,062 3	14,998 19		
RHODE ISLAND		37,776 11	22,225 5	20,174 4	112 1	217 2	463 3	283 2	976 3	15,551 11		
VERMONT		30,720 10	14,005 6	12,143 4	0 0	57 4	355 1	205 1	1,245 2	16,715 17		
MIDDLE ATLANTIC, TOTAL		1,220,170 421	650,179 168	563,960 128	8,613 11	4,459 56	33,623 59	9,530 63	24,994 80	559,991 417		
NEW JERSEY		124,017 55	45,298 23	41,151 17	45 2	434 8	2,626 7	1,030 7	3,012 9	75,719 55		
NEW YORK		746,766 232	402,663 90	348,061 74	8,303 6	2,292 30	25,195 37	5,376 40	12,436 44	344,105 229		
PENNSYLVANIA		349,385 134	199,218 55	174,748 37	265 3	1,733 18	9,802 15	3,124 16	9,546 27	150,167 133		
EAST NORTH CENTRAL, TOTAL		1,084,344 425	559,292 130	471,450 95	5,033 9	3,811 58	32,244 48	9,294 49	37,460 72	525,052 422		
ILLINOIS		322,243 134	170,214 30	145,068 24	1,447 3	1,364 11	11,592 14	2,711 16	8,032 16	152,629 134		
INDIANA		120,287 44	65,481 19	54,955 14	237 3	570 11	2,377 5	960 6	6,382 9	54,806 43		
MICHIGAN		238,697 88	114,550 23	95,286 14	525 2	733 12	7,026 8	2,430 9	6,553 12	124,347 88		
OHIO		235,323 100	110,468 35	94,304 26	0 0	658 17	4,768 14	1,949 12	8,769 24	124,855 100		
WISCONSIN		167,594 59	98,579 23	81,837 17	2,824 1	486 7	6,461 7	1,244 6	5,727 11	69,015 57		
WEST NORTH CENTRAL, TOTAL		515,077 300	256,504 96	202,802 62	43 2	2,032 36	15,617 28	4,193 30	31,817 50	258,573 300		
IOWA		82,763 57	42,573 12	33,536 7	4 1	406 7	2,328 4	476 4	5,823 9	40,190 57		
KANSAS		67,527 50	29,907 14	23,587 7	0 0	94 5	1,386 4	884 5	3,956 6	37,620 50		
MINNESOTA		128,795 57	71,547 24	59,948 13	0 0	486 10	4,061 5	1,138 6	5,914 11	57,248 57		
MISSOURI		145,624 75	81,925 23	65,746 17	39 1	383 8	7,057 9	1,075 6	7,625 11	63,699 75		
NEBRASKA		40,761 30	16,858 9	11,830 7	0 0	632 4	521 3	164 3	3,711 6	23,903 30		
NORTH DAKOTA		25,952 14	7,390 7	4,530 6	0 0	16 1	176 2	380 4	2,286 2	18,562 14		
SOUTH DAKOTA		23,655 17	6,304 7	3,625 5	0 0	15 1	86 1	76 2	2,502 3	17,351 17		
SOUTH ATLANTIC, TOTAL		1,296,693 444	647,973 159	553,559 108	2,108 12	3,674 52	26,640 63	16,352 67	45,640 77	648,720 441		
DELAWARE		14,696 7	8,776 3	7,373 2	0 1	160 2	47 1	92 1	1,098 2	5,918 7		
DISTRICT OF COLUMBIA		206,219 14	42,971 8	36,319 8	947 1	174 4	2,052 7	2,087 6	1,392 7	163,248 14		
FLORIDA		186,917 68	77,152 18	65,243 16	654 3	426 6	2,937 5	2,710 6	5,182 11	109,765 67		
GEORGIA		135,529 64	71,205 24	55,705 16	203 2	267 5	2,254 10	4,447 12	8,329 15	64,324 63		

SEE FOOTNOTES AT END OF TABLE.

TABLE B-9. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES AND THE NUMBER OF RECIPIENT INSTITUTIONS, BY GEOGRAPHIC DIVISION, STATE, AND TYPE OF ACTIVITY: FY 1978

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION AND STATE		TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON-SCIENCE
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FUR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
SOUTH ATLANTIC, CONT'D										
MARYLAND	AMT	308,507	247,411	235,404	59	945	5,016	1,453	3,534	61,096
	NO.	50	23	16	2	7	12	7	7	50
NORTH CAROLINA	AMT	199,436	104,039	82,107	60	611	8,483	2,021	10,757	95,397
	NO.	105	28	20	1	8	11	11	10	105
SOUTH CAROLINA	AMT	68,768	21,695	13,992	0	601	592	1,143	5,367	47,073
	NO.	45	17	7	0	6	5	9	7	44
VIRGINIA	AMT	141,647	62,681	50,202	177	422	3,485	1,835	6,560	78,966
	NO.	64	27	20	2	9	8	10	14	64
WEST VIRGINIA	AMT	34,974	12,041	7,214	0	68	774	564	3,421	22,933
	NO.	27	11	3	0	5	4	3	4	27
EAST SOUTH CENTRAL, TOTAL										
	AMT	424,632	160,433	110,992	3,014	697	8,620	6,489	30,621	264,199
	NO.	196	65	51	3	24	25	36	39	196
ALABAMA	AMT	125,687	49,830	34,570	2,244	274	3,189	1,809	7,744	75,857
	NO.	53	22	17	1	9	6	10	11	53
KENTUCKY	AMT	73,190	26,108	16,361	4	212	862	1,081	7,588	47,082
	NO.	34	12	11	1	6	4	5	9	34
MISSISSIPPI	AMT	83,002	21,267	11,597	0	54	791	1,592	7,233	61,735
	NO.	40	10	8	0	2	6	7	8	40
TENNESSEE	AMT	142,753	63,228	48,464	766	157	3,778	2,007	8,056	79,525
	NO.	69	21	15	1	7	9	14	11	69
WEST SOUTH CENTRAL, TOTAL										
	AMT	593,127	282,880	234,502	837	1,253	10,604	6,700	28,984	310,247
	NO.	235	99	72	5	25	43	45	47	234
ARKANSAS	AMT	50,061	17,651	11,774	0	43	465	167	5,182	32,430
	NO.	28	12	7	0	3	7	3	3	28
LOUISIANA	AMT	94,428	32,893	24,516	0	157	1,079	1,602	5,539	61,535
	NO.	26	16	10	0	4	6	9	10	26
OKLAHOMA	AMT	71,260	23,785	16,779	0	227	1,386	652	4,741	47,475
	NO.	40	15	10	0	4	6	5	6	40
TEXAS	AMT	377,378	208,571	181,433	837	826	7,674	4,279	13,522	168,807
	NO.	141	56	45	5	14	24	28	28	140
MOUNTAIN, TOTAL										
	AMT	388,785	220,241	189,123	230	2,215	9,203	5,243	14,247	168,544
	NO.	116	51	39	6	25	24	24	26	111
ARIZONA	AMT	71,867	35,366	30,122	21	753	1,388	978	2,104	36,501
	NO.	22	8	4	2	5	2	5	3	20
COLORADO	AMT	118,303	71,951	62,492	46	889	4,211	1,067	3,246	46,352
	NO.	32	12	10	1	5	6	5	7	32
IDAHO	AMT	15,928	6,582	4,085	12	45	508	175	1,757	9,346
	NO.	8	5	3	1	3	2	1	3	8
MONTANA	AMT	19,637	8,527	6,280	0	20	335	159	1,733	11,110
	NO.	13	6	4	0	3	5	2	4	13
NEVADA	AMT	11,636	4,773	3,660	0	20	158	100	835	6,863
	NO.	8	5	5	0	1	2	1	1	6
NEW MEXICO	AMT	75,826	43,536	38,832	50	82	823	1,691	2,058	32,290
	NO.	12	8	6	1	3	3	6	3	12
UTAH	AMT	65,105	43,146	38,729	101	381	1,546	912	1,477	21,955
	NO.	13	5	5	1	4	3	3	4	12
WYOMING	AMT	10,483	6,360	4,923	0	25	234	161	1,017	4,123
	NO.	8	2	2	0	1	1	1	1	8
PACIFIC, TOTAL										
	AMT	1,131,525	718,460	638,657	4,437	5,687	39,211	9,510	20,958	413,066
	NO.	345	117	80	11	38	49	38	58	339
ALASKA	AMT	28,275	24,591	22,716	411	11	390	191	872	3,684
	NO.	6	2	2	1	1	1	1	2	6
CALIFORNIA	AMT	800,246	523,273	467,315	3,702	4,515	29,445	7,052	11,244	276,973
	NO.	238	80	53	7	23	33	27	37	233
HAWAII	AMT	44,070	28,206	24,864	30	173	794	429	1,886	15,864
	NO.	13	4	4	1	1	2	2	2	13
OREGON	AMT	93,217	44,285	37,416	119	370	2,132	949	3,299	48,932
	NO.	42	16	12	1	6	6	5	9	42
WASHINGTON	AMT	165,718	98,105	86,346	175	618	6,450	859	3,657	67,613
	NO.	46	15	9	1	7	7	3	8	45

SEE FOOTNOTES AT END OF TABLE.

TABLE B-9. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES AND THE NUMBER OF RECIPIENT INSTITUTIONS, BY GEOGRAPHIC DIVISION, STATE, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION AND STATE		TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	REQ PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
OUTLYING AREAS, TOTAL	AMT	151,297	17,667	9,378	252	0	474	1,890	5,673	133,580
	NO.	24	14	7	1	0	4	10	8	22
GUAM	AMT	3,071	1,044	557	0	0	3	15	469	2,027
	NO.	1	1	1	0	0	1	1	1	1
PUERTO RICO	AMT	145,192	15,269	8,118	252	0	471	1,683	4,745	129,923
	NO.	20	12	5	1	0	3	8	6	19
AMERICAN SAMOA	AMT	411	0	0	0	0	0	0	0	411
	NO.	1	0	0	0	0	0	0	0	1
VIRGIN ISLANDS	AMT	2,056	1,354	703	0	0	0	192	459	702
	NO.	1	1	1	0	0	0	1	1	1
TRUST TERRITORY PAC ISL	AMT	517	0	0	0	0	0	0	0	517
	NO.	1	0	0	0	0	0	0	0	1

NOTE: TABLE INCLUDES DATA FROM 14 FEDERAL AGENCIES RESPONSIBLE FOR MORE THAN 95 PERCENT OF ALL FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-10. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY GEOGRAPHIC DIVISION, STATE, AND AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION AND STATE	TOTAL	USDA	COM	ODD	DOE	EPA	HEW	INT	NASA	NSF	DDT	OTHER*
UNITED STATES, TOTAL	7,479,177	394,815	35,919	452,249	269,506	55,844	5,411,826	43,983	130,206	607,119	17,586	60,124
NEW ENGLAND, TOTAL	673,576	16,873	5,466	39,888	62,418	3,499	436,156	2,964	17,654	82,664	922	5,072
CONNECTICUT	115,839	2,260	134	3,023	5,064	133	94,913	178	662	9,033	0	439
MAINE	28,439	3,036	184	105	119	22	23,208	379	0	1,371	0	15
MASSACHUSETTS	430,892	5,369	2,514	33,711	54,799	2,214	249,100	1,761	14,313	61,723	876	4,512
NEW HAMPSHIRE	29,910	2,163	1,294	272	622	4	21,386	196	2,096	1,725	46	106
RHODE ISLAND	37,776	1,700	1,340	2,672	1,736	1,126	20,117	221	383	8,481	0	0
VERMONT	30,720	2,375	0	105	78	0	27,432	229	200	331	0	0
MIDDLE ATLANTIC, TOTAL	1,220,170	31,439	3,152	52,047	39,332	4,279	947,287	3,619	12,404	113,589	2,924	10,098
NEW JERSEY	124,017	4,748	740	4,022	3,665	498	94,902	538	1,603	11,503	571	1,227
NEW YORK	746,768	13,529	2,108	21,240	24,154	2,583	591,408	1,306	7,784	74,901	645	7,110
PENNSYLVANIA	349,385	13,162	304	26,785	11,513	1,198	260,977	1,775	3,017	27,185	1,708	1,761
EAST NORTH CENTRAL, TOTAL	1,084,344	56,361	3,812	40,168	35,877	10,481	795,052	3,573	20,152	101,849	4,585	12,434
ILLINOIS	322,243	12,268	578	8,706	12,991	2,621	240,654	1,498	6,417	34,107	505	1,898
INDIANA	120,287	9,748	325	3,241	7,007	774	78,636	248	2,598	16,816	734	760
MICHIGAN	238,897	11,411	1,083	5,163	6,492	2,478	178,635	788	5,810	21,978	2,670	2,389
OHIO	235,323	12,199	85	19,374	2,679	3,600	174,261	450	2,647	13,211	586	6,231
WISCONSIN	167,594	10,735	1,741	3,684	6,708	1,008	123,466	589	2,680	15,737	90	1,156
WEST NORTH CENTRAL, TOTAL	515,077	53,520	477	5,543	6,384	3,924	402,889	4,267	8,032	25,663	381	3,997
IDWA	82,763	10,319	0	967	544	809	62,095	406	3,516	3,679	62	366
KANSAS	67,527	6,203	13	1,217	777	89	52,680	189	1,070	3,103	59	2,127
MINNESOTA	128,795	10,463	103	1,198	2,887	1,830	101,301	794	1,577	8,387	60	1,195
MISSOURI	145,624	12,092	35	1,828	1,145	1,095	118,365	1,074	1,519	7,066	136	1,219
NEBRASKA	40,761	5,665	0	230	456	60	31,449	458	120	2,253	0	70
NORTH DAKOTA	25,952	4,690	76	60	421	0	19,147	827	0	711	0	20
SOUTH DAKOTA	23,655	4,088	200	43	154	41	17,852	519	230	464	64	0
SOUTH ATLANTIC, TOTAL	1,296,693	73,035	4,107	176,525	28,465	12,315	907,823	4,462	15,793	66,468	2,897	4,803
DELAWARE	14,696	2,249	967	724	521	101	7,058	381	262	2,433	0	0
DISTRICT OF COLUMBIA	206,219	1,475	64	5,293	3,830	549	187,722	89	2,482	3,561	158	996
FLORIDA	186,917	8,321	1,629	7,982	4,954	2,684	141,330	716	2,001	14,993	423	1,884
GEORGIA	135,529	12,904	244	15,254	5,352	554	88,169	481	1,365	10,234	541	431
MARYLAND	308,507	6,151	719	140,251	4,908	2,850	134,713	265	4,117	13,286	423	824
NORTH CAROLINA	199,436	16,963	189	2,811	2,105	3,463	161,513	460	709	10,379	572	272
SOUTH CAROLINA	68,768	8,728	110	568	198	985	54,675	276	143	2,915	170	0
VIRGINIA	141,647	11,069	185	3,584	4,656	984	107,280	389	4,714	7,978	412	396
WEST VIRGINIA	34,974	5,175	0	58	1,941	145	29,363	1,405	0	689	198	0
EAST SOUTH CENTRAL, TOTAL	424,632	48,740	289	4,258	13,640	1,443	310,496	1,768	3,238	9,867	641	1,052
ALABAMA	125,687	12,732	77	1,618	1,064	374	105,331	486	1,351	2,083	80	491
KENTUCKY	73,190	12,471	100	647	541	352	55,109	522	467	2,480	273	228
MISSISSIPPI	83,002	11,549	0	344	1,215	455	66,827	465	580	1,132	198	237
TENNESSEE	142,753	11,988	112	1,649	10,820	262	113,229	295	840	3,372	90	96
WEST SOUTH CENTRAL, TOTAL	593,127	45,164	4,018	25,557	22,024	4,681	445,555	3,065	10,081	26,042	3,424	3,516
ARKANSAS	50,061	8,781	740	107	4,273	263	35,119	234	117	371	54	0
LOUISIANA	94,428	8,710	1,197	1,365	1,460	668	76,995	250	252	2,560	0	971
OKLAHOMA	71,260	7,766	172	2,082	1,703	877	53,502	1,072	465	2,552	378	691
TEXAS	377,378	19,907	1,909	22,001	14,588	2,873	279,939	1,509	9,247	20,559	2,992	1,854
MOUNTAIN, TOTAL	388,785	29,303	1,555	30,719	16,202	7,871	245,200	11,470	11,720	30,918	203	3,624
ARIZONA	71,867	3,619	208	3,648	1,030	879	48,953	1,270	2,767	8,276	0	1,217
COLORADO	118,303	6,600	875	4,979	5,523	5,137	75,951	2,631	4,466	10,901	65	1,175
IDAHO	15,928	3,894	0	10	406	115	9,953	853	0	697	0	0
MONTANA	19,637	3,589	71	146	284	720	11,416	2,308	26	623	0	454
NEVADA	11,636	1,704	0	289	708	191	6,579	584	300	1,151	0	130
NEW MEXICO	75,826	4,777	130	17,339	1,942	371	45,136	1,044	2,105	2,487	0	495
UTAH	65,105	3,035	271	3,941	6,085	182	42,603	1,420	1,547	5,760	108	153
WYOMING	10,483	2,085	0	367	224	276	4,609	1,360	509	1,023	30	0
PACIFIC, TOTAL	1,131,526	30,881	13,043	77,544	42,826	7,228	754,512	8,607	31,132	149,391	1,609	14,753
ALASKA	28,275	1,700	2,543	10,770	686	100	3,944	2,301	332	5,844	55	0
CALIFORNIA	800,246	13,948	4,505	53,630	34,349	3,773	534,385	4,463	26,591	114,560	1,026	9,016
HAWAII	44,070	2,116	1,572	2,255	1,667	480	24,438	420	2,135	4,324	56	4,607
OREGON	93,217	6,145	1,475	2,590	1,392	1,082	69,277	361	811	9,579	102	403
WASHINGTON	165,718	6,972	2,948	8,299	4,732	1,793	122,468	1,062	1,263	15,084	370	727
OUTLYING AREAS, TOTAL	151,247	9,499	0	0	2,338	123	136,856	188	0	1,468	0	775
GUAM	3,071	1,002	0	0	0	3	2,027	39	0	0	0	0
PUERTO RICO	145,192	7,488	0	0	2,338	0	133,199	110	0	1,282	0	775
AMERICAN SAMOA	411	0	0	0	0	0	411	0	0	0	0	0
VIRGIN ISLANDS	2,056	1,009	0	0	0	120	702	39	0	186	0	0
TRUST TERRITORY PAC ISL	517	0	0	0	0	0	517	0	0	0	0	0

* INCLUDES A10, HUD, LABOR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION



TABLE B-11. FEDERAL ACADEMIC SCIENCE OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY GEOGRAPHIC DIVISION, STATE, AND AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION AND STATE	TOTAL	USDA	COM	DOD	DOE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
UNITED STATES, TOTAL	3,957,638	391,656	35,919	452,249	266,966	54,719	1,899,233	42,511	130,206	607,119	17,348	59,712
NEW ENGLAND, TOTAL	444,009	16,743	5,466	39,888	62,353	3,474	206,859	2,914	17,654	82,664	922	5,072
CONNECTICUT	81,397	2,242	134	3,023	5,064	133	60,539	128	662	9,033	0	439
MAINE	5,970	3,010	184	105	119	22	765	379	0	1,371	0	15
MASSACHUSETTS	305,500	5,301	2,514	33,711	54,799	2,214	123,776	1,761	14,313	61,723	876	4,512
NEW HAMPSHIRE	14,912	2,158	1,294	272	622	4	6,393	196	2,096	1,725	46	106
RHODE ISLAND	22,225	1,700	1,340	2,672	1,671	1,101	4,656	221	383	8,481	0	0
VERMONT	14,005	2,332	0	105	78	0	10,730	229	200	331	0	0
MIDDLE ATLANTIC, TOTAL	650,179	31,370	3,152	52,047	39,329	4,264	377,501	3,603	12,404	113,589	2,912	10,008
NEW JERSEY	48,298	4,732	740	4,022	3,665	498	19,199	538	1,603	11,503	571	1,227
NEW YORK	402,663	13,480	2,108	21,240	24,151	2,568	247,386	1,290	7,784	74,901	645	7,110
PENNSYLVANIA	199,218	13,158	304	26,785	11,513	1,198	110,916	1,775	3,017	27,185	1,696	1,671
EAST NORTH CENTRAL, TOTAL	559,292	55,797	3,812	40,168	35,834	9,850	271,612	3,342	20,152	101,849	4,517	12,359
ILLINOIS	170,214	12,165	578	8,706	12,991	2,621	88,881	1,345	6,417	34,107	505	1,898
INDIANA	65,481	9,679	325	3,241	6,964	774	23,442	205	2,598	16,816	734	703
MICHIGAN	114,550	11,136	1,083	5,163	6,492	2,027	55,032	788	5,810	21,978	2,670	2,371
OHIO	110,468	12,173	85	19,374	2,679	3,420	49,680	450	2,647	13,211	518	6,231
WISCONSIN	98,579	10,644	1,741	3,684	6,708	1,008	54,577	554	2,680	15,737	90	1,156
WEST NORTH CENTRAL, TOTAL	256,504	52,791	477	5,543	6,336	3,882	145,244	4,267	8,032	25,663	381	3,888
IOVA	42,573	9,933	0	967	544	809	22,354	406	3,516	3,679	62	297
KANSAS	29,907	6,174	13	1,217	777	89	15,089	189	1,070	3,103	59	2,127
MINNESOTA	71,547	10,452	103	1,198	2,887	1,817	44,077	794	1,577	8,387	60	195
MISSOURI	81,925	12,030	95	1,828	2,145	1,095	54,768	1,074	1,519	7,066	136	1,179
NEBRASKA	16,858	5,514	0	230	408	31	7,774	458	12	2,253	0	70
NORTH DAKOTA	7,390	4,686	76	60	421	0	589	827	0	711	0	20
SOUTH DAKOTA	6,304	3,996	200	43	154	41	593	519	230	464	54	0
SOUTH ATLANTIC, TOTAL	647,973	72,867	4,107	176,525	28,340	12,148	259,757	4,409	15,793	66,468	2,814	4,745
DELAWARE	8,778	2,249	967	724	521	101	1,140	381	262	2,433	0	0
DISTRICT OF COLUMBIA	42,971	1,472	64	5,293	3,830	549	24,560	89	2,482	3,561	75	996
FLORIDA	77,152	8,262	1,629	7,982	4,867	2,679	31,769	663	2,001	14,993	423	1,884
GEORGIA	71,205	12,867	244	15,254	5,314	554	23,938	481	1,365	10,234	541	413
MARYLAND	247,411	6,138	719	140,251	4,908	2,850	73,630	265	4,117	13,286	423	824
NORTH CAROLINA	104,039	16,920	189	2,811	2,105	3,301	66,313	460	709	10,379	572	272
NORTH CAROLINA	21,695	8,714	110	568	198	985	7,616	276	143	2,915	170	0
SOUTH CAROLINA	62,681	11,067	185	3,584	4,656	984	28,356	389	4,714	7,978	412	356
VIRGINIA	12,041	5,170	0	58	1,941	145	2,435	1,405	0	689	198	0
WEST VIRGINIA	12,041	5,170	0	58	1,941	145	2,435	1,405	0	689	198	0
EAST SOUTH CENTRAL, TOTAL	160,433	48,645	289	4,258	13,640	1,443	76,467	1,708	3,238	9,067	641	1,037
ALABAMA	49,830	12,709	77	1,618	1,064	374	29,497	486	1,351	2,083	80	491
KENTUCKY	26,108	12,447	100	647	541	352	8,066	522	467	2,480	273	213
MISSISSIPPI	21,267	11,525	0	344	1,215	455	5,116	465	580	1,132	198	237
TENNESSEE	63,228	11,964	112	1,649	10,820	262	33,788	235	840	3,372	90	96
WEST SOUTH CENTRAL, TOTAL	282,880	44,983	4,018	25,557	21,527	4,565	136,715	2,461	10,081	26,042	3,424	3,507
ARKANSAS	17,631	8,769	740	109	4,273	263	2,701	234	117	371	54	0
LOUISIANA	32,893	8,705	1,197	1,365	1,460	668	15,474	250	252	2,560	0	962
OKLAHOMA	23,785	7,723	172	2,082	1,703	865	6,656	498	465	2,552	378	691
TEXAS	208,571	19,786	1,909	22,001	14,091	2,769	111,884	1,479	9,247	20,559	2,992	1,854
MOUNTAIN, TOTAL	220,241	28,407	1,555	30,719	15,518	7,871	78,541	11,246	11,720	30,918	178	3,568
ARIZONA	35,366	3,535	208	3,648	1,030	879	12,536	1,270	2,767	8,276	0	1,217
COLORADO	71,951	6,124	875	4,979	5,523	5,137	30,156	2,631	4,466	10,901	40	1,119
IDAHO	6,582	3,852	0	10	406	115	649	853	0	697	0	0
MONTANA	8,527	3,531	71	146	284	720	567	2,105	26	623	0	454
NEVADA	4,773	1,704	0	289	24	191	400	584	300	1,151	0	130
NEW MEXICO	43,536	4,599	130	17,339	1,942	371	13,024	1,044	2,105	2,487	0	495
UTAH	43,146	2,978	271	3,941	6,085	182	20,722	1,399	1,547	5,760	108	153
WYOMING	6,360	2,084	0	367	224	276	487	1,360	509	1,023	30	0
PACIFIC, TOTAL	718,460	30,608	13,043	77,544	41,751	7,099	343,207	8,373	31,132	149,391	1,559	14,753
ALASKA	24,591	1,657	2,543	10,770	686	100	415	2,189	332	5,844	55	0
CALIFORNIA	523,273	13,797	4,505	53,630	34,289	3,761	257,719	4,429	26,591	114,560	976	9,016
HAWAII	28,206	2,094	1,572	2,255	1,304	480	8,959	420	2,135	4,324	56	4,607
OREGON	44,285	6,134	1,475	2,590	1,392	965	20,488	346	811	9,579	102	403
WASHINGTON	98,105	6,926	2,948	8,299	4,080	1,793	55,626	989	1,263	15,084	370	727
OUTLYING AREAS, TOTAL	17,667	9,445	0	0	2,338	123	3,330	188	0	1,468	0	775
GUAM	1,044	1,002	0	0	0	3	0	39	0	0	0	0
PUERTO RICO	15,269	7,434	0	0	2,338	0	3,330	110	0	1,282	0	775
VIRGIN ISLANDS	1,354	1,009	0	0	0	120	0	39	0	186	0	0

* INCLUDES AID, HUD, LABOR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-12. FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY TYPE OF ACTIVITY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON-SCIENCE	
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPRT FOR SCI	OTHER SCIENCE		
	UNITED STATES TOTAL	7,479,177	3,957,638	3,362,174	34,328	26,664		205,865	74,102	254,505	3,521,539
1	JOHNS HOPKINS UNIVERSITY ^{1/}	212,866	202,533	196,081	21	846		4,826	542	217	10,333
2	MASS INST OF TECHNOLOGY	130,586	126,604	114,021	7,082	697		3,784	577	443	3,982
3	HOWARD UNIVERSITY	116,195	7,903	5,715	0	125		946	997	120	108,292
4	UNIVERSITY OF WASHINGTON	105,671	83,370	76,080	175	419		5,477	571	648	22,301
5	UNIV OF WIS-MADISON	99,330	79,896	65,225	2,824	324		5,532	482	5,509	19,434
6	UNIV OF CAL LOS ANGELES	97,779	76,428	69,595	597	914		4,334	718	270	21,351
7	STANFORD UNIVERSITY	94,009	89,738	80,110	2,557	723		5,659	473	216	4,271
8	UNIVERSITY OF MINNESOTA	93,558	70,028	59,582	0	397		3,755	622	5,672	23,530
9	HARVARD UNIVERSITY	89,949	81,609	68,520	2,062	569		8,196	665	1,597	8,340
10	UNIV OF CAL SAN DIEGO	88,508	82,031	77,033	147	383		3,512	600	356	6,477
	TOTAL 1ST 10 INSTITUTIONS	1,128,451	900,140	811,962	15,465	5,397		46,021	6,247	15,048	228,311
11	UNIVERSITY OF MICHIGAN	86,527	64,895	58,444	125	318		4,632	874	502	21,632
12	COLUMBIA UNIV MAIN DIV	84,941	73,257	64,687	140	577		4,628	463	2,762	11,684
13	CORNELL UNIVERSITY	79,729	72,313	58,258	1,627	492		3,383	590	7,963	7,416
14	UNIV OF PENNSYLVANIA	78,350	63,174	56,138	180	820		5,316	515	205	15,176
15	YALE UNIVERSITY	67,892	60,733	53,805	314	232		5,812	437	133	7,159
16	PENNSYLVANIA STATE UNIV ^{1/}	66,767	52,252	41,974	10	135		1,659	476	7,998	14,515
17	UNIV OF CAL BERKELEY	65,720	55,399	49,663	0	823		4,009	467	437	10,321
18	OHIO STATE UNIVERSITY	64,107	43,691	33,983	0	223		1,255	418	7,812	20,416
19	UNIVERSITY OF CHICAGO	61,262	55,430	48,984	200	255		5,551	325	115	5,832
20	UNIV OF SOUTHERN CAL	61,039	45,281	42,458	28	479		1,749	384	183	15,758
	TOTAL 1ST 20 INSTITUTIONS	1,844,785	1,486,565	1,320,356	18,089	9,751		84,015	11,196	43,158	258,220
21	UNIV OF CAL SAN FRANCISCO	59,488	51,369	46,388	0	240		4,291	386	64	8,119
22	UNIV OF ILL URBANA	58,840	53,010	42,947	73	567		1,760	399	7,264	5,830
23	NEW YORK UNIVERSITY	54,905	42,847	38,235	420	48		3,685	270	189	12,058
24	UNIVERSITY OF COLORADO	53,375	35,912	32,091	46	166		2,586	469	554	17,463
25	WASHINGTON UNIVERSITY	52,162	47,561	41,974	0	302		4,729	449	107	4,601
26	UNIV OF TEXAS AT AUSTIN	47,701	39,236	37,232	14	120		1,227	335	308	8,465
27	DUKE UNIVERSITY	46,870	40,374	34,632	60	158		4,726	299	499	6,496
28	UNIVERSITY OF ROCHESTER	46,653	42,355	33,616	5,682	217		2,507	308	25	4,298
29	PURDUE UNIVERSITY	44,383	37,014	29,554	62	332		832	341	5,893	7,369
30	UNIV OF NC AT CHAPEL HILL	43,691	30,188	26,555	0	219		2,680	642	92	13,503
	TOTAL 1ST 30 INSTITUTIONS	2,352,853	1,906,431	1,683,580	24,446	12,120		113,038	15,094	58,153	446,422
31	MICHIGAN STATE UNIVERSITY	43,666	31,055	21,792	400	129		874	339	7,521	12,611
32	UNIVERSITY OF UTAH	42,863	31,975	29,352	101	224		1,435	820	43	10,888
33	UNIVERSITY OF MIAMI	41,713	28,074	25,744	441	17		842	858	172	13,639
34	UNIVERSITY OF PITTSBURGH	41,319	27,737	25,984	0	81		1,030	438	204	13,582
35	UNIVERSITY OF ARIZONA	39,534	30,354	25,828	9	636		1,381	543	1,957	9,180
36	UNIVERSITY OF FLORIDA	38,751	27,851	21,464	0	227		1,266	746	4,148	10,900
37	UNIV OF CAL OAVIS	38,476	29,997	27,721	25	286		1,120	736	109	8,479
38	NORTHWESTERN UNIVERSITY	38,401	30,501	26,635	1,174	340		1,861	332	159	7,900
39	INTER AM U P R-SAN GERMAN	37,894	124	0	0	0		0	111	13	37,770
40	UNIV ALABAMA BIRMINGHAM	37,552	26,270	21,466	2,244	63		1,957	296	244	11,282
	TOTAL 1ST 40 INSTITUTIONS	2,753,022	2,170,369	1,909,566	28,840	14,123		124,804	20,313	72,723	582,653
41	UNIVERSITY OF IOWA	37,326	27,208	24,371	4	207		2,160	353	113	10,118
42	BOSTON UNIVERSITY	36,948	22,160	19,726	0	74		1,984	245	131	14,788
43	YESHIVA UNIVERSITY	36,340	32,634	28,710	105	0		3,619	200	0	3,706
44	UNIVERSITY OF NEW MEXICO	34,786	19,861	18,392	0	48		421	641	359	14,925
45	CASE WESTERN RESERVE UNIV	34,659	27,666	24,730	0	123		2,319	349	145	6,993
46	TEXAS A&M UNIVERSITY	34,204	31,750	20,168	57	94		86	101	11,244	2,454
47	U TENNESSEE KNOXVILLE	33,329	27,648	18,462	766	83		1,052	224	7,061	5,681
48	GALLAUDET COLLEGE	33,103	516	371	0	0		79	0	66	32,587
49	RUTGERS THE ST UNIV OF NJ	32,552	16,820	13,537	0	124		403	211	2,545	15,732
50	UNIVERSITY OF KENTUCKY	31,988	19,721	11,921	4	146		642	271	6,737	12,267
	TOTAL 1ST 50 INSTITUTIONS	3,098,257	2,396,353	2,089,954	29,776	15,022		137,569	22,908	101,124	701,904

SEE FOOTNOTES AT END OF TABLE.

TABLE B-12. FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON-SCIENCE
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
51	CALIFORNIA INST OF TECH	30,907	30,509	28,106	341	293	1,425	196	148	398
52	UNIV OF MISSOURI COLUMBIA	30,113	21,795	13,676	39	20	1,161	204	6,695	8,318
53	BAYLOR COL OF MEDICINE	30,042	27,689	26,476	0	0	1,013	200	0	2,353
54	COLORADO STATE UNIVERSITY	29,017	23,952	20,371	0	595	607	205	2,174	5,065
55	UNIVERSITY OF VIRGINIA	28,913	21,078	18,883	57	268	1,545	264	61	7,835
56	UNIV OF MD COLLEGE PARK	28,562	22,787	19,347	38	54	410	109	2,829	5,775
57	LOUISIANA STATE UNIV	27,901	19,614	13,799	0	87	445	327	4,956	8,287
58	UNIV OF MASS AT AMHERST	27,876	14,146	10,602	0	387	284	146	2,727	13,730
59	UNIVERSITY OF KANSAS	27,541	18,082	16,179	0	60	1,055	587	201	9,459
60	OREGON STATE UNIVERSITY	27,462	22,259	18,532	119	159	500	262	2,687	5,203
TOTAL 1ST 60 INSTITUTIONS		3,386,591	2,618,264	2,275,925	30,370	16,945	146,014	25,408	123,602	768,327
61	INDIANA UNIV-BLOOMINGTON	26,383	12,181	10,949	45	121	683	174	209	14,202
62	UNIV OF HAWAII-MANOA	25,884	19,536	17,233	30	173	791	399	910	6,348
63	TEMPLE UNIVERSITY	25,845	13,412	12,559	0	0	550	267	36	12,433
64	UNIVERSITY OF CONNECTICUT	25,526	18,563	14,923	0	149	1,138	512	1,841	6,963
65	VANDERBILT UNIVERSITY	25,050	22,326	20,139	0	38	1,811	279	59	2,724
66	GEORGIA INSTITUTE OF TECH	24,877	23,355	22,122	19	164	648	243	159	1,522
67	NEW MEXICO STATE UNIV	24,695	18,513	16,260	50	17	187	319	1,680	6,182
68	UNIV OF MD BALT PROF SCH	23,467	16,970	16,592	0	0	234	144	0	6,497
69	UNIV OF ALASKA-FAIRBANKS	23,424	21,991	20,133	411	11	390	191	855	1,433
70	N C STATE UNIV AT RALEIGH	23,315	21,028	11,436	0	170	170	121	9,131	2,287
TOTAL 1ST 70 INSTITUTIONS		3,635,057	2,806,139	2,438,271	30,925	17,788	152,616	28,057	138,482	828,918
71	U TEX-ANDRSN HOSPTUMOR 1	23,301	22,692	21,213	735	0	544	200	0	609
72	VA POLYTECH INST & ST U	23,090	20,567	14,501	120	51	193	104	5,598	2,523
73	UNIVERSITY OF GEORGIA	22,876	22,103	14,180	184	78	343	239	7,079	773
74	WAYNE STATE UNIVERSITY	22,732	12,124	10,385	0	129	823	427	360	10,608
75	UNIVERSITY OF CINCINNATI	22,631	14,256	13,362	0	77	608	168	41	8,375
76	CUNY MT SINAI SCH OF MED	22,317	20,261	18,868	0	0	1,123	200	70	2,056
77	U TEX HLTH SCI CTR-DALLAS	22,211	18,389	16,084	0	0	1,635	393	276	3,823
78	WASHINGTON STATE UNIV	22,178	12,363	8,831	0	139	333	181	2,879	9,815
79	WOODS HOLE OCNRPHIC INST	21,465	21,465	19,621	191	4	0	0	1,649	0
80	UNIV OF VT & ST AGRIC COL	21,090	13,894	12,059	0	42	355	205	1,233	7,196
TOTAL 1ST 80 INSTITUTIONS		3,858,948	2,984,252	2,587,375	32,155	18,308	158,573	30,174	157,667	874,696
81	PRINCETON UNIVERSITY	20,721	18,827	16,759	43	209	1,679	117	20	1,894
82	VIRGINIA COMMONWLTN-UNIV	20,456	13,030	11,368	0	11	1,306	260	85	7,426
83	FLORIDA STATE UNIVERSITY	20,303	10,532	9,511	127	154	638	77	25	9,771
84	SUNY AT BUFFALO	20,187	14,879	13,155	0	53	1,204	351	116	5,308
85	PUERTO RICO JR COL	19,942	0	0	0	0	0	0	0	19,942
86	GEORGETOWN UNIVERSITY	19,896	13,336	11,595	947	14	368	360	52	6,560
87	UNIV OF ILL MED CTR CHGO	19,835	8,659	7,924	0	0	498	237	0	11,176
88	UNIV OF OKLAHOMA	19,459	8,879	7,347	0	128	1,033	248	123	10,580
89	CITY COLLEGES OF CHICAGO	19,370	1,58	0	0	13	0	145	0	19,212
90	IOWA ST U OF SCI & TECH	19,248	14,894	8,958	0	161	92	96	5,587	4,354
TOTAL 1ST 90 INSTITUTIONS		4,058,365	3,087,446	2,673,992	33,272	19,051	165,391	32,065	163,675	970,919
91	OKLAHOMA STATE UNIVERSITY	18,926	12,705	8,181	0	78	140	182	4,124	6,221
92	ROCKEFELLER UNIVERSITY	18,868	18,868	17,473	0	0	1,195	200	0	0
93	GEORGE WASHINGTON UNIV	18,842	13,937	13,003	0	31	484	188	233	4,903
94	EMORY UNIVERSITY	18,540	14,140	12,921	0	9	644	287	279	4,400
95	MISSISSIPPI STATE UNIV	18,283	13,035	6,445	0	0	133	20	6,437	5,248
96	AUBURN UNIVERSITY	18,126	12,605	5,957	0	48	454	14	6,132	5,521
97	CARNEGIE MELLON UNIV	17,699	14,681	13,569	75	403	325	117	192	3,018
98	UNIV OF CAL IRVINE	17,624	13,361	11,861	0	71	916	453	60	4,263
99	WEST VIRGINIA UNIVERSITY	17,357	11,426	7,087	0	30	735	210	3,364	5,931
100	SUNY AT STONY BROOK	17,173	13,997	12,372	329	279	696	258	63	3,176
TOTAL 1ST 100 INSTITUTIONS		4,239,803	3,226,203	2,782,861	33,676	20,000	171,113	33,994	184,559	1,013,600

NOTE: TABLE INCLUDES DATA FROM 14 FEDERAL AGENCIES RESPONSIBLE FOR MORE THAN 95 PERCENT OF ALL FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES.

1/ Total and R&D data for Johns Hopkins University and Pennsylvania State University include funding for components formerly shown separately as university-administered federally-funded research and development centers. The amounts involved are as follows:

Applied Physics Laboratory (Johns Hopkins University): \$136,140
Applied Research Laboratory (Pennsylvania State University): 12,205

SOURCE: National Science Foundation

TABLE B-13. FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS,
BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL	USDA	COM	DDO	DDE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
	UNITED STATES TOTAL	7,479,177	394,815	35,919	452,249	269,506	55,844	5,411,826	43,983	130,206	607,119	17,586	60,124
1	JOHNS HOPKINS UNIVERSITY	212,866	346	89	137,344	1,386	1,098	65,481	51	1,275	5,020	366	410
2	MASS INST OF TECHNOLOGY	130,586	385	1,926	15,273	49,044	608	26,280	1,124	9,154	25,100	820	872
3	HOWARD UNIVERSITY	116,195	17	0	35	178	188	114,130	0	626	863	158	0
4	UNIVERSITY OF WASHINGTON	105,671	910	2,466	7,797	4,157	1,028	73,915	412	1,209	12,925	255	597
5	UNIV OF WIS-MADISON	99,330	10,656	0	3,395	6,521	7	61,799	529	2,563	13,658	15	187
6	UNIV OF CAL LOS ANGELES	97,779	329	15	4,289	9,899	61	69,738	138	2,073	10,431	65	741
7	STANFORD UNIVERSITY	94,009	112	433	9,735	4,504	539	49,161	264	5,955	22,949	154	203
8	UNIVERSITY OF MINNESOTA	93,558	10,458	4	1,198	2,887	1,830	67,181	793	1,558	7,394	60	195
9	HARVARD UNIVERSITY	89,949	524	323	3,046	2,059	430	66,994	49	4,246	10,763	0	1,515
10	UNIV OF CAL SAN DIEGO	88,508	115	3,612	11,226	2,348	142	36,010	241	4,827	29,987	0	0
	TOTAL 1ST 10 INSTITUTIONS	1,128,451	23,852	8,868	193,338	82,983	5,931	630,689	3,601	33,486	139,090	1,893	4,720
11	UNIVERSITY OF MICHIGAN	86,527	341	1,063	3,260	3,051	1,651	56,706	41	5,636	11,016	2,670	1,092
12	COLUMBIA UNIV MAIN DIV	84,941	0	153	4,875	2,439	118	54,587	458	2,572	16,252	0	3,487
13	CORNELL UNIVERSITY	79,729	12,623	0	2,337	2,950	720	33,671	548	1,289	24,092	50	1,449
14	UNIV OF PENNSYLVANIA	78,350	15	5	3,785	2,531	31	61,373	17	248	9,186	252	907
15	YALE UNIVERSITY	67,892	74	60	2,052	4,701	72	53,635	0	236	6,638	0	424
16	PENNSYLVANIA STATE UNIV	66,767	13,086	173	15,415	2,598	506	27,442	1,524	842	4,656	445	80
17	UNIV OF CAL BERKELEY	65,720	1,633	0	9,277	2,987	315	28,352	911	4,439	15,736	134	1,936
18	OHIO STATE UNIVERSITY	64,107	12,076	32	4,185	1,041	1,650	34,332	435	700	3,564	278	5,814
19	UNIVERSITY OF CHICAGO	61,262	100	0	520	4,240	0	42,706	0	4,780	8,823	0	93
20	UNIV OF SOUTHERN CAL	61,039	48	215	11,597	1,603	227	40,249	612	615	5,356	226	291
	TOTAL 1ST 20 INSTITUTIONS	1,844,785	63,848	10,569	250,641	111,124	11,221	1,063,742	8,147	54,843	244,409	5,948	20,293
21	UNIV OF CAL SAN FRANCISCO	59,488	0	0	254	1,699	43	56,246	0	187	1,059	0	0
22	UNIV OF ILL URBANA	58,840	11,779	0	4,962	6,495	2,065	17,870	768	992	13,847	55	7
23	NEW YORK UNIVERSITY	54,905	25	0	1,314	3,379	364	44,058	252	516	4,444	0	553
24	UNIVERSITY OF COLORADO	53,375	337	850	1,881	2,048	202	39,369	623	2,733	5,307	0	25
25	WASHINGTON UNIVERSITY	52,162	0	65	472	526	511	45,238	5	1,209	3,541	0	595
26	UNIV OF TEXAS AT AUSTIN	47,701	28	71	15,875	7,206	378	13,945	445	2,787	6,510	183	273
27	DUKE UNIVERSITY	46,870	94	0	1,288	1,209	311	40,099	0	131	3,708	5	25
28	UNIVERSITY OF ROCHESTER	46,653	0	0	3,186	10,718	0	27,998	0	65	4,686	0	0
29	PURDUE UNIVERSITY	44,383	9,602	241	2,645	4,233	654	15,754	205	2,220	8,160	20	649
30	UNIV OF NC AT CHAPEL HILL	43,691	109	39	702	381	2,162	36,294	118	30	3,675	81	100
	TOTAL 1ST 30 INSTITUTIONS	2,352,853	85,822	11,835	283,220	149,018	17,911	1,400,613	10,563	65,713	299,346	6,292	22,520
31	MICHIGAN STATE UNIVERSITY	43,666	10,908	20	571	2,332	665	21,001	134	120	6,901	0	1,014
32	UNIVERSITY OF UTAH	42,863	51	227	823	5,535	116	30,447	758	496	4,355	55	0
33	UNIVERSITY OF MIAMI	41,713	0	60	2,497	1,151	828	29,947	67	308	6,605	250	0
34	UNIVERSITY OF PITTSBURGH	41,319	58	126	1,499	599	216	33,984	54	927	3,491	185	180
35	UNIVERSITY OF ARIZONA	39,534	3,358	23	3,382	860	864	20,611	1,019	2,189	6,347	0	881
36	UNIVERSITY OF FLORIDA	38,751	7,267	28	1,710	2,779	1,044	20,444	253	859	3,694	173	500
37	UNIV OF CAL DAVIS	38,476	2,859	0	462	3,490	323	22,197	380	160	3,927	0	4,678
38	NORTHWESTERN UNIVERSITY	38,401	120	0	1,646	1,200	11	27,083	250	154	6,489	106	1,342
39	INTER AM U P R-SAN GERMAN	37,894	0	0	0	0	0	37,770	0	0	124	0	0
40	UNIV ALABAMA BIRMINGHAM	37,552	80	0	128	66	0	36,573	0	96	609	0	0
	TOTAL 1ST 40 INSTITUTIONS	2,753,022	110,523	12,319	295,938	167,030	21,978	1,680,670	13,478	71,022	341,888	7,061	31,115
41	UNIVERSITY OF IOWA	37,326	1	0	764	246	390	30,638	0	3,282	1,908	62	35
42	BOSTON UNIVERSITY	36,948	127	0	941	295	0	34,045	0	149	1,118	0	273
43	YESHIVA UNIVERSITY	36,340	0	0	251	0	0	35,469	0	25	595	0	0
44	UNIVERSITY OF NEW MEXICO	34,786	81	130	5,203	367	25	26,313	519	410	1,163	0	495
45	CASE WESTERN RESERVE UNIV	34,659	12	53	1,139	1,056	184	26,379	0	953	4,663	175	45
46	TEXAS A&M UNIVERSITY	34,204	16,982	1,598	1,838	925	104	4,103	375	1,301	5,101	1,847	30
47	UNIV TENNESSEE KNOXVILLE	32,529	10,083	62	1,300	10,536	119	9,409	163	538	1,119	0	0
48	GALLAUDET COLLEGE	33,103	0	0	0	0	0	33,018	0	0	85	0	0
49	RUTGERS THE ST UNIV OF NJ	32,552	4,748	120	488	299	205	21,608	449	60	3,840	40	695
50	UNIVERSITY OF KENTUCKY	31,988	10,814	100	423	541	322	17,380	453	298	1,371	273	13
	TOTAL 1ST 50 INSTITUTIONS	3,026,257	153,371	14,382	308,365	181,295	23,327	1,919,032	15,437	78,038	362,851	9,458	32,701

SEE FOOTNOTES AT END OF TABLE.

TABLE B-13. FEDERAL OBLIGATIONS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS.
BY AGENCY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL	USDA	COM	DOD	DDE	EPA	HEW	INT	NASA	NSF	DDT	OTHER*
51	CALIFORNIA INST OF TECH	30,907	20	80	2,743	4,130	141	7,956	835	3,820	11,182	0	0
52	UNIV OF MISSOURI COLUMBIA	30,113	10,531	0	703	314	579	15,587	435	159	1,664	0	141
53	BAYLOR COL OF MEDICINE	30,042	0	0	197	0	162	29,255	0	266	156	0	6
54	COLORADO STATE UNIVERSITY	29,017	6,223	25	1,273	2,176	2,120	10,441	810	821	3,998	60	1,070
55	UNIVERSITY OF VIRGINIA	28,913	0	25	1,056	1,702	188	21,570	37	522	3,482	266	65
56	UNIV OF MD COLLEGE PARK	28,562	4,361	0	2,407	3,495	973	7,614	214	2,420	6,956	57	65
57	LOUISIANA STATE UNIV	27,901	7,378	1,165	933	1,409	386	15,147	201	0	1,273	0	9
58	UNIV OF MASS AT AMHERST	27,876	4,272	131	1,231	448	324	16,149	213	262	4,703	56	87
59	UNIVERSITY OF KANSAS	27,541	152	0	659	75	89	22,972	20	850	1,781	59	864
60	OREGON STATE UNIVERSITY	27,462	5,983	1,475	1,827	971	873	9,602	361	351	5,514	102	403
TOTAL 1ST 60 INSTITUTIONS		3,386,591	192,291	17,283	321,394	196,015	29,162	2,075,325	18,563	87,509	403,560	10,058	35,431
61	INDIANA UNIV-BLOOMINGTON	26,383	48	0	294	727	0	18,615	43	137	6,274	245	0
62	UNIV OF HAWAII-MANOA	25,884	147	62	2,255	1,667	0	14,878	360	2,135	4,324	56	0
63	TEMPLE UNIVERSITY	25,845	0	0	188	150	100	24,070	0	72	940	0	325
64	UNIVERSITY OF CONNECTICUT	25,526	2,186	74	952	338	55	19,706	128	426	1,646	0	15
65	VANDERBILT UNIVERSITY	25,050	150	0	180	193	83	23,102	0	138	1,164	0	40
66	GEORGIA INSTITUTE OF TECH	24,377	0	200	14,795	2,476	39	3,205	286	938	2,329	378	231
67	NEW MEXICO STATE UNIV	24,695	4,696	0	9,037	1,143	32	7,129	171	1,650	837	0	0
68	UNIV OF MD BALT PROF SCH	23,467	0	0	410	0	450	22,251	0	38	318	0	0
69	UNIV OF ALASKA-FAIRBANKS	23,424	1,617	0	10,770	686	100	1,736	2,301	332	5,827	55	0
70	N C STATE UNIV AT RALEIGH	23,315	14,517	0	663	459	918	4,236	322	303	1,820	70	7
TOTAL 1ST 70 INSTITUTIONS		3,635,057	215,652	17,619	360,938	203,854	30,939	2,214,253	22,174	93,678	429,039	10,862	36,049
71	U TEX-ANORNS HOSP&TUMDR 1	23,301	0	0	0	0	0	22,976	0	0	325	0	0
72	VA POLYTECH INST & ST U	23,090	9,636	160	1,851	2,900	88	3,835	331	1,500	2,617	75	97
73	UNIVERSITY OF GEORGIA	22,876	11,393	44	334	2,681	260	4,139	195	84	3,746	0	0
74	WAYNE STATE UNIVERSITY	22,732	25	0	611	699	0	19,630	0	27	1,740	0	0
75	UNIVERSITY OF CINCINNATI	22,631	34	0	1,121	310	1,594	18,184	0	212	1,176	0	0
76	CUNY MT SINAI SCH OF MED	22,317	0	0	8	0	0	21,339	0	0	214	0	756
77	U TEX HLTH SCI CTR-DALLAS	22,211	0	0	0	0	0	21,834	0	35	342	0	0
78	WASHINGTON STATE UNIV	22,178	6,054	175	314	575	656	12,380	364	41	1,554	65	0
79	WOODS HOLE OCEANOGR INST	21,465	0	114	6,793	1,263	34	0	110	0	13,151	0	0
80	UNIV OF VT & ST AGRIC COL	21,090	2,345	0	105	68	0	17,848	229	200	295	0	0
TOTAL 1ST 80 INSTITUTIONS		3,858,948	245,139	18,112	372,075	212,350	33,571	2,356,418	23,403	95,777	454,199	11,002	36,902
81	PRINCETON UNIVERSITY	20,721	0	248	2,438	3,120	160	6,472	89	1,533	5,917	511	233
82	VIRGINIA COMMONWLTN UNIV	20,456	0	0	443	0	253	19,324	0	30	406	0	0
83	FLORIDA STATE UNIVERSITY	20,303	85	1,392	1,088	870	299	12,641	215	166	3,129	0	418
84	SUNY AT BUFFALO	20,187	0	0	756	148	6	16,384	0	44	2,774	75	0
85	PUERTO RICO JR COL	19,942	0	0	0	0	0	19,942	0	0	0	0	0
86	GEORGETOWN UNIVERSITY	19,896	186	0	927	3,092	0	15,020	0	15	656	0	0
87	UNIV OF ILL MED CTR CHGO	19,835	0	0	0	0	0	19,835	0	0	202	0	0
88	UNIV OF OKLAHOMA	19,459	71	137	316	331	346	15,335	869	135	1,220	175	524
89	CITY COLLEGES OF CHICAGO	19,370	0	0	0	0	0	19,212	0	0	158	0	0
90	IOWA ST U OF SCI & TECH	19,248	10,318	0	203	298	407	5,553	333	234	1,571	0	331
TOTAL 1ST 90 INSTITUTIONS		4,058,365	255,799	19,889	378,246	220,209	35,042	2,505,934	24,909	97,934	470,232	11,763	38,408
91	OKLAHOMA STATE UNIVERSITY	18,926	6,610	35	1,766	1,337	286	6,877	199	277	1,169	203	167
92	ROCKEFELLER UNIVERSITY	18,868	72	0	91	525	60	15,674	0	0	2,232	0	214
93	GEORGE WASHINGTON UNIV	18,842	31	50	2,388	410	219	13,212	0	1,533	900	0	99
94	EMORY UNIVERSITY	18,540	0	0	79	157	43	17,441	0	194	626	0	0
95	MISSISSIPPI STATE UNIV	18,283	10,075	0	196	976	325	5,545	190	456	95	198	227
96	AUBURN UNIVERSITY	18,126	9,726	77	805	1,184	216	6,176	156	133	162	0	491
97	CARNEGIE MELLON UNIV	17,699	0	0	4,302	3,256	40	5,325	148	67	4,417	144	0
98	UNIV OF CAL IRVINE	17,624	75	0	740	1,373	151	11,925	0	160	2,963	237	0
99	WEST VIRGINIA UNIVERSITY	17,357	5,174	0	58	1,682	135	8,287	1,405	0	418	198	0
100	SUNY AT STONY BROOK	17,173	0	0	110	528	1	10,208	22	816	5,488	0	0
TOTAL 1ST 100 INSTITUTIONS		4,239,803	287,562	20,051	388,781	230,637	36,518	2,606,604	27,029	101,570	488,702	12,743	39,606

* INCLUDES AID, HUD, LABOR, AND NRC.

1/ Total and DOD data for Johns Hopkins University and Pennsylvania State University include funding for components formerly shown separately as university-administered federally funded research and development centers. The amounts involved are as follows:

Applied Physics Laboratory (Johns Hopkins University): \$136,140
Applied Research Laboratory (Pennsylvania State University): 12,205

SOURCE: National Science Foundation

TABLE B-14. FEDERAL OBLIGATIONS FOR ACADEMIC SCIENCE TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	ODD	ODE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
UNITED STATES TOTAL		3,957,638	391,656	35,919	452,249	266,966	54,719	1,899,233	42,511	130,206	607,119	17,348	59,712
1	JOHNS HOPKINS UNIVERSITY 1/	202,533	346	89	137,344	1,386	1,098	55,148	51	1,275	5,020	366	410
2	MASS INST OF TECHNOLOGY	126,604	385	1,926	15,273	49,044	608	22,298	1,124	9,154	25,100	820	872
3	STANFORD UNIVERSITY	89,738	109	433	9,735	4,504	539	44,893	264	5,955	22,949	154	203
4	UNIVERSITY OF WASHINGTON	83,370	906	2,466	7,797	3,505	1,028	52,315	367	1,209	12,925	255	597
5	UNIV OF CAL SAN DIEGO	82,031	115	3,612	11,226	2,348	142	29,533	241	4,827	29,987	0	0
6	HARVARD UNIVERSITY	81,609	515	323	3,046	2,059	430	58,663	49	4,246	10,763	0	1,515
7	UNIV OF WIS-MADISON	79,896	10,574	0	3,395	6,521	7	42,447	529	2,563	13,658	15	187
8	UNIV OF CAL LOS ANGELES	76,428	329	15	4,289	7,839	61	48,447	138	2,073	10,431	65	741
9	COLUMBIA UNIV MAIN DIV	73,257	0	153	4,875	2,439	103	42,934	442	2,572	16,252	0	3,487
10	CORNELL UNIVERSITY	72,313	12,596	0	2,337	2,950	720	26,282	548	1,289	24,092	50	1,449
TOTAL 1ST 10 INSTITUTIONS		967,779	25,875	9,017	199,317	84,595	4,736	422,960	3,753	35,163	171,177	1,725	9,461
11	UNIVERSITY OF MINNESOTA	70,028	10,447	4	1,198	2,887	1,817	43,675	793	1,558	7,394	60	195
12	UNIVERSITY OF MICHIGAN	64,895	335	1,063	3,260	3,051	1,200	35,549	41	5,636	11,016	2,670	1,074
13	UNIV OF PENNSYLVANIA	63,174	15	5	3,785	2,531	31	46,197	17	248	9,186	252	907
14	YALE UNIVERSITY	60,733	65	60	2,052	4,701	72	46,485	0	236	6,638	0	424
15	UNIVERSITY OF CHICAGO	55,430	99	0	520	4,240	0	36,875	0	4,780	8,823	0	93
16	UNIV OF CAL BERKELEY	55,399	1,623	0	9,277	2,987	315	18,041	911	4,439	15,736	134	1,936
17	UNIV OF ILL URBANA	53,010	11,753	0	4,962	6,495	2,065	12,066	768	992	13,847	55	7
18	PENNSYLVANIA STATE UNIV 1/	52,252	13,085	173	15,415	2,598	506	12,937	1,524	842	4,656	445	71
19	UNIV OF CAL SAN FRANCISCO	51,369	0	0	254	1,699	43	48,127	0	187	1,059	0	0
20	WASHINGTON UNIVERSITY	47,561	0	65	472	526	511	40,677	5	1,209	3,541	0	555
TOTAL 1ST 20 INSTITUTIONS		1,541,630	63,297	10,387	240,512	116,310	11,296	763,589	7,812	55,290	253,073	5,341	14,723
21	UNIV OF SOUTHERN CAL	45,281	40	215	11,597	1,603	227	24,499	612	615	5,356	226	291
22	OHIO STATE UNIVERSITY	43,691	12,057	32	4,185	1,041	1,650	13,935	435	700	3,564	278	5,814
23	NEW YORK UNIVERSITY	42,847	25	0	1,314	3,379	364	32,000	252	516	4,444	0	553
24	UNIVERSITY OF ROCHESTER	42,355	0	0	3,186	10,718	0	23,700	0	65	4,686	0	0
25	DUKE UNIVERSITY	40,374	94	0	1,288	1,209	311	33,603	0	131	3,708	5	25
26	UNIV OF TEXAS AT AUSTIN	39,236	21	71	15,875	6,709	378	5,984	445	2,787	6,510	183	273
27	PURDUE UNIVERSITY	37,014	9,561	241	2,645	4,190	654	8,469	205	2,220	8,160	20	649
28	UNIVERSITY OF COLORADO	35,912	276	850	1,881	2,048	202	21,967	623	2,733	5,307	0	25
29	YESHIVA UNIVERSITY	32,634	0	0	251	0	0	31,763	0	25	595	0	0
30	UNIVERSITY OF UTAH	31,975	50	227	823	5,535	116	19,560	758	496	4,355	55	0
TOTAL 1ST 30 INSTITUTIONS		1,932,949	85,421	12,023	283,557	152,742	15,198	979,069	11,142	65,578	299,758	6,108	22,353
31	TEXAS A&M UNIVERSITY	31,750	16,940	1,598	1,838	925	0	1,795	375	1,301	5,101	1,847	30
32	MICHIGAN STATE UNIVERSITY	31,055	10,639	20	571	2,332	665	8,659	134	120	6,901	0	1,014
33	CALIFORNIA INST OF TECH	30,509	20	80	2,743	4,130	141	7,558	835	3,820	11,182	0	0
34	NORTHWESTERN UNIVERSITY	30,501	120	0	1,646	1,200	11	19,183	250	154	6,489	106	1,342
35	UNIVERSITY OF ARIZONA	30,354	3,317	23	3,382	860	864	11,472	1,019	2,189	6,347	0	881
36	UNIV OF NC AT CHAPEL HILL	30,188	109	39	702	381	2,000	22,953	118	30	3,675	81	100
37	UNIV OF CAL DAVIS	29,997	2,818	0	462	3,490	311	13,771	380	160	3,927	0	4,678
38	UNIVERSITY OF MIAHI	28,074	0	60	2,497	1,151	828	16,308	67	308	6,605	250	0
39	UNIVERSITY OF FLORIDA	27,851	7,211	28	1,710	2,779	1,044	9,600	253	859	3,694	173	500
40	UNIVERSITY OF PITTSBURGH	27,737	58	126	1,499	599	216	20,402	54	927	3,491	185	180
TOTAL 1ST 40 INSTITUTIONS		2,230,965	126,653	13,997	300,607	170,589	21,278	1,110,770	14,627	75,446	357,170	8,750	31,078
41	BAYLOR COL OF MEDICINE	27,689	0	0	197	0	162	26,902	0	266	156	0	6
42	CASE WESTERN RESERVE UNIV	27,666	12	53	1,139	1,056	184	19,386	0	953	4,663	175	45
43	UNIV OF TENNESSEE KNOXVILLE	27,648	10,059	62	1,300	10,536	119	3,812	103	538	1,119	0	0
44	UNIVERSITY OF IOWA	27,208	0	0	764	246	390	20,521	0	3,282	1,908	62	35
45	UNIV ALABAMA BIRMINGHAM	26,270	80	0	128	66	0	25,291	0	96	609	0	0
46	COLORADO STATE UNIVERSITY	23,952	5,808	25	1,273	2,176	2,120	5,816	810	821	3,998	35	1,070
47	GEORGIA INSTITUTE OF TECH	23,355	0	200	14,795	2,476	39	1,701	286	938	2,329	378	213
48	UNIV OF MD COLLEGE PARK	22,787	4,350	0	2,407	3,495	973	1,850	214	2,420	6,956	57	65
49	U TEX-ANDRSON HOSPETUMOR I	22,692	0	0	0	0	0	22,367	0	0	325	0	0
50	VANDERBILT UNIVERSITY	22,326	150	0	180	193	83	20,378	0	138	1,164	0	40
TOTAL 1ST 50 INSTITUTIONS		2,482,558	147,112	14,337	322,790	190,833	25,348	1,258,794	16,040	84,898	380,397	9,457	32,552

SEE FOOTNOTES AT END OF TABLE.

TABLE R-14. FEDERAL OBLIGATIONS FOR ACADEMIC SCIENCE TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USOA	COM	ODD	ODE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
51	OREGON STATE UNIVERSITY	22,259	5,974	1,475	1,827	971	756	4,540	346	351	5,514	102	403
52	BOSTON UNIVERSITY	22,160	127	0	961	295	0	19,257	0	149	1,118	0	273
53	UNIVERSITY OF GEORGIA	22,103	11,356	44	334	2,681	260	3,403	195	84	3,746	0	0
54	UNIV OF ALASKA-FAIRBANKS	21,991	1,617	0	10,770	686	100	415	2,189	332	5,827	55	0
55	UNIV OF MISSOURI COLUMBIA	21,795	10,486	0	703	314	579	7,314	435	159	1,664	0	141
56	WOODS HOLE OCEANOGRAPHIC INST	21,465	0	114	6,793	1,263	34	0	110	0	13,151	0	0
57	UNIVERSITY OF VIRGINIA	21,078	0	25	1,056	1,702	188	13,775	37	522	3,402	266	25
58	N C STATE UNIV AT RALEIGH	21,028	14,486	0	663	459	918	1,980	322	303	1,820	70	7
59	VA POLYTECH INST & ST U	20,567	9,634	160	1,851	2,900	88	1,314	331	1,500	2,617	75	97
60	CUNY MT SINAI SCH OF MED	20,261	0	0	8	0	0	19,283	0	0	214	0	756
TOTAL 1ST 60 INSTITUTIONS		2,697,265	200,792	16,155	347,736	202,104	28,271	1,330,075	20,005	88,298	419,550	10,025	34,254
61	UNIVERSITY OF NEW MEXICO	19,861	80	130	5,283	367	25	11,389	519	410	1,163	0	495
62	UNIVERSITY OF KENTUCKY	19,721	10,791	100	423	541	322	5,136	453	298	1,371	273	13
63	LOUISIANA STATE UNIV	19,614	7,378	1,165	933	1,409	386	6,869	201	0	1,273	0	0
64	UNIV OF HAWAII-HONOLULU	19,536	147	62	2,255	1,304	0	8,893	360	2,135	4,324	56	0
65	ROCKEFELLER UNIVERSITY	18,868	72	0	91	525	60	15,674	0	0	2,232	0	214
66	PRINCETON UNIVERSITY	18,827	0	248	2,438	3,120	160	4,578	89	1,533	5,917	511	233
67	UNIVERSITY OF CONNECTICUT	18,563	2,177	74	952	338	55	12,752	128	426	1,646	0	15
68	NEW MEXICO STATE UNIV	18,513	4,519	0	9,037	1,143	32	1,124	171	1,650	837	0	0
69	U TEX HLTH SCI CTR-DALLAS	18,388	0	0	0	0	0	18,011	0	35	342	0	0
70	UNIVERSITY OF KANSAS	18,082	151	0	659	75	89	13,514	20	850	1,781	59	884
TOTAL 1ST 70 INSTITUTIONS		2,887,238	226,107	17,934	369,807	210,926	29,400	1,428,015	21,946	95,635	440,436	10,924	36,108
71	UNIV OF MD BALT PROF SCH	16,970	0	0	410	0	450	15,754	0	38	318	0	0
72	RUTGERS THE ST UNIV OF NJ	16,820	4,732	120	488	299	205	5,892	449	60	3,840	40	695
73	IOWA ST U OF SCI & TECH	14,894	9,939	0	203	298	407	1,647	333	234	1,571	0	262
74	SUNY AT BUFFALO	14,879	0	0	756	145	6	11,079	0	44	2,774	75	0
75	CARNEGIE MELLON UNIV	14,681	0	0	4,302	3,256	40	2,319	148	67	4,417	132	0
76	UNIVERSITY OF CINCINNATI	14,256	34	0	1,121	310	1,414	9,989	0	212	1,176	0	0
77	UNIV OF MASS AT AMHERST	14,146	4,213	131	1,231	448	324	2,478	213	262	4,703	56	87
78	EMORY UNIVERSITY	14,140	0	0	79	157	43	13,041	0	194	626	0	0
79	SUNY AT STONY BROOK	13,997	0	0	110	528	1	7,032	22	816	5,488	0	0
80	GEORGE WASHINGTON UNIV	13,939	29	50	2,388	410	219	8,311	0	1,533	900	0	99
TOTAL 1ST 80 INSTITUTIONS		3,035,960	245,054	18,235	380,895	216,777	32,509	1,505,557	23,111	99,095	466,249	11,227	37,251
81	UNIV OF VT & ST AGRIC COL	13,894	2,332	0	105	68	0	10,665	229	200	295	0	0
82	TEMPLE UNIVERSITY	13,412	0	0	188	150	100	11,637	0	72	940	0	325
83	UNIV OF CAL IRVINE	13,361	75	0	740	1,373	151	7,712	0	160	2,963	187	0
84	GEORGETOWN UNIVERSITY	13,336	186	0	927	3,092	0	8,460	0	15	656	0	0
85	MISSISSIPPI STATE UNIV	13,035	10,051	0	196	976	325	321	190	456	95	198	227
86	VIRGINIA COMMONWLTN UNIV	13,030	0	0	443	0	253	11,898	0	30	406	0	0
87	OKLAHOMA STATE UNIVERSITY	12,705	6,574	35	1,766	1,337	286	692	199	277	1,169	203	167
88	AUBURN UNIVERSITY	12,605	9,706	77	805	184	216	675	156	133	162	0	491
89	UNIVERSITY OF DAYTON	12,445	0	0	11,515	0	67	109	0	278	360	65	51
90	BROWN UNIVERSITY	12,437	50	0	1,627	939	0	4,001	93	328	5,399	0	0
TOTAL 1ST 90 INSTITUTIONS		3,166,220	274,028	18,347	399,207	224,896	33,907	1,561,727	23,978	101,044	478,694	11,880	38,512
91	WASHINGTON STATE UNIV	12,363	6,014	175	314	575	656	2,605	364	41	1,554	65	0
92	INDIANA UNIV-BLOOMINGTON	12,181	48	0	294	727	0	4,456	0	137	6,274	245	0
93	WAYNE STATE UNIVERSITY	12,124	25	0	611	699	0	9,022	0	27	1,740	0	0
94	WEST VIRGINIA UNIVERSITY	11,426	5,170	0	58	1,682	135	2,360	1,405	0	418	198	0
95	KANS ST U - AG & APP SCI	11,072	6,023	13	558	702	0	1,304	166	123	940	0	1,243
96	FLORIDA STATE UNIVERSITY	10,532	85	1,392	1,088	870	299	2,923	162	166	3,129	0	418
97	BRANDEIS UNIVERSITY	9,985	40	0	77	406	0	6,902	0	39	1,927	0	594
98	UNIV OF NEBRASKA LINCOLN	9,855	5,499	0	181	408	7	1,037	456	120	2,077	0	70
99	UNIV OF RHODE ISLAND	9,605	1,650	1,340	1,045	732	1,101	481	128	55	3,073	0	0
100	UTAH STATE UNIVERSITY	9,538	2,742	0	2,992	186	66	783	606	1,049	908	53	153
TOTAL 1ST 100 INSTITUTIONS		3,274,901	301,324	21,267	406,425	231,883	36,171	1,593,600	27,265	102,801	500,734	12,441	40,990

* INCLUDES AID, HUD, LABOR, AND NRC.

1/ Total and ODD data for Johns Hopkins University and Pennsylvania State University include funding for components formerly shown separately as university-administered federally funded research and development centers. The amounts involved are as follows:

Applied Physics Laboratory (Johns Hopkins University): \$136,140
Applied Research Laboratory (Pennsylvania State University): 12,205

SOURCE: National Science Foundation

TABLE B-15. FEDERAL OBLIGATIONS FOR RESEARCH & DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	ODD	DDE	EPA	HEW	INT	NASA	NSF	DDT	OTHER*
UNITED STATES TOTAL		3,362,174	175,269	35,042	452,249	250,912	51,145	1,656,410	34,258	124,482	509,732	16,183	56,492
1	JOHNS HOPKINS UNIVERSITY	196,081	346	89	137,344	1,386	1,081	49,843	5	1,275	4,052	250	410
2	MASS INST OF TECHNOLOGY	114,021	385	1,926	15,273	45,564	602	19,466	854	9,154	19,107	818	872
3	STANFORD UNIVERSITY	80,110	109	433	9,735	4,498	512	40,413	264	5,664	18,305	154	23
4	UNIV OF CAL SAN DIEGO	77,033	115	3,612	11,226	2,181	142	25,680	241	4,827	29,009	0	0
5	UNIVERSITY OF WASHINGTON	76,080	906	2,466	7,797	3,378	923	46,235	367	1,184	12,025	202	597
6	UNIV OF CAL LOS ANGELES	69,595	329	15	4,289	9,220	61	42,642	138	2,073	10,022	65	741
7	HARVARD UNIVERSITY	68,520	515	323	3,046	1,883	341	48,609	49	4,173	8,066	0	1,515
8	UNIV OF WIS-MADISON	65,225	5,138	0	3,395	6,236	7	35,710	486	2,563	11,488	15	187
9	COLUMBIA UNIV MAIN DIV	64,687	0	153	4,875	2,379	100	37,932	442	2,507	15,305	0	994
10	UNIVERSITY OF MINNESOTA	59,582	4,922	4	1,198	2,887	1,750	39,732	481	1,558	6,795	60	195
TOTAL 1ST 10 INSTITUTIONS		870,934	12,765	9,021	198,178	79,612	5,519	386,262	3,327	34,978	134,174	1,564	5,534
11	UNIVERSITY OF MICHIGAN	58,444	335	1,051	3,260	2,926	1,189	30,900	41	5,636	9,549	2,608	949
12	CORNELL UNIVERSITY	58,258	4,737	0	2,337	2,908	623	22,633	516	1,289	21,716	50	1,449
13	UNIV OF PENNSYLVANIA	56,138	15	5	3,785	2,351	0	40,522	17	248	8,036	252	907
14	YALE UNIVERSITY	53,805	65	60	2,052	4,387	60	40,538	0	236	5,983	0	424
15	UNIV OF CAL BERKELEY	49,663	1,623	0	9,277	2,985	298	14,591	641	4,439	13,739	134	1,936
16	UNIVERSITY OF CHICAGO	48,984	99	0	520	4,040	0	31,481	0	4,780	7,971	0	93
17	UNIV OF CAL SAN FRANCISCO	46,388	0	0	254	1,599	43	43,439	0	187	866	0	0
18	UNIV OF ILL URBANA	42,947	4,566	0	4,962	6,422	2,037	10,275	730	992	12,901	55	7
19	UNIV OF SOUTHERN CAL	42,458	40	215	11,597	1,603	0	22,799	612	600	4,701	0	291
20	WASHINGTON UNIVERSITY	41,974	0	0	472	526	511	35,744	5	1,209	2,952	0	555
TOTAL 1ST 20 INSTITUTIONS		1,369,993	24,245	10,352	236,694	109,359	10,280	679,184	5,889	54,594	222,588	4,663	12,145
21	PENNSYLVANIA STATE UNIV	41,974	5,194	173	15,415	2,588	479	11,260	1,193	842	4,314	445	71
22	NEW YORK UNIVERSITY	38,235	25	0	1,314	2,959	364	28,065	252	516	4,187	0	553
23	UNIV OF TEXAS AT AUSTIN	37,232	21	71	15,875	6,709	309	4,929	175	2,787	5,900	183	273
24	DUKE UNIVERSITY	34,632	94	0	1,288	1,209	305	28,692	0	131	2,883	5	25
25	OHIO STATE UNIVERSITY	33,983	4,450	32	4,185	1,041	1,549	12,728	132	657	3,127	278	5,804
26	UNIVERSITY OF ROCHESTER	33,616	0	0	3,186	5,326	0	20,602	0	65	4,437	0	0
27	UNIVERSITY OF COLORADO	32,091	276	450	1,881	2,002	202	19,002	623	2,733	4,897	0	25
28	PURDUE UNIVERSITY	29,554	3,940	94	2,645	4,128	640	7,424	97	2,202	7,715	20	649
29	UNIVERSITY OF UTAH	29,352	50	227	823	5,434	105	17,920	381	496	3,861	55	0
30	YESHIVA UNIVERSITY	28,710	0	0	251	0	0	27,839	0	25	595	0	0
TOTAL 1ST 30 INSTITUTIONS		1,709,372	38,295	11,399	283,557	140,755	14,233	857,645	8,742	65,048	264,504	5,649	19,545
31	CALIFORNIA INST OF TECH	28,106	20	80	2,743	3,966	141	6,052	835	3,820	10,449	0	0
32	UNIV OF CAL DAVIS	27,721	2,818	0	462	3,295	213	12,400	375	160	3,320	0	4,678
33	NORTHWESTERN UNIVERSITY	26,635	120	0	1,646	1,200	11	15,904	250	139	6,017	106	1,242
34	UNIV OF NC AT CHAPEL HILL	26,555	109	39	702	381	1,957	19,877	116	30	3,163	81	100
35	BAYLOR COL OF MEDICINE	26,476	0	0	197	0	162	25,710	0	266	141	6	0
36	UNIVERSITY OF PITTSBURGH	25,984	58	126	1,499	599	195	18,939	54	927	3,222	185	180
37	UNIVERSITY OF ARIZONA	25,828	1,748	23	3,382	851	845	9,955	690	2,102	5,351	0	881
38	UNIVERSITY OF MIAMI	25,744	0	60	2,497	1,011	828	15,260	67	308	5,713	0	0
39	CASE WESTERN RESERVE UNIV	24,730	12	53	1,139	1,056	184	16,740	0	822	4,504	175	45
40	UNIVERSITY OF IOWA	24,371	0	0	764	242	384	18,018	0	3,282	1,551	62	35
TOTAL 1ST 40 INSTITUTIONS		1,971,522	43,180	11,780	298,588	153,356	19,153	1,016,500	11,129	76,904	307,966	258	26,706
41	GEORGIA INSTITUTE OF TECH	22,122	0	200	14,795	2,257	33	1,506	226	884	1,928	80	213
42	MICHIGAN STATE UNIVERSITY	21,792	4,372	20	571	1,932	659	7,556	84	120	5,464	0	1,014
43	UNIV ALABAMA BIRMINGHAM	21,466	80	0	128	66	0	20,775	0	96	321	0	0
44	UNIVERSITY OF FLORIDA	21,464	3,096	28	1,710	2,775	936	8,098	216	859	3,073	173	500
45	U TEX-ANDRSON HOSPC&TUHOR I	21,213	0	0	0	0	0	20,888	0	0	325	0	0
46	COLORADO STATE UNIVERSITY	20,371	3,679	25	1,273	2,176	1,822	5,352	760	821	3,358	35	1,070
47	TEXAS A&M UNIVERSITY	20,168	5,911	1,598	1,838	918	0	1,661	344	1,247	4,774	1,847	30
48	VANDERBILT UNIVERSITY	20,139	150	0	180	191	70	18,333	0	138	1,037	0	40
49	UNIV OF ALASKA-FAIRBANKS	20,133	862	0	10,770	486	100	392	1,838	332	5,298	55	0
50	BOSTON UNIVERSITY	19,726	127	0	941	295	0	17,302	0	149	885	0	27
TOTAL 1ST 50 INSTITUTIONS		2,180,116	61,457	13,651	330,794	164,452	22,773	1,118,363	14,597	81,550	334,431	8,448	29,600

SEE FOOTNOTES AT END OF TABLE.

TABLE B-15. FEDERAL OBLIGATIONS FOR RESEARCH & DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DDD	DOE	EPA	HEW	INT	NASA	NSF	DDT	OTHER*
51	WOODS HOLE OCEANOGRAPHIC INST	19,621	0	114	6,793	1,263	34	0	110	0	11,307	0	0
52	UNIV OF MD COLLEGE PARK	19,347	1,673	0	2,407	3,457	955	1,382	178	2,412	6,761	57	65
53	UNIVERSITY OF VIRGINIA	18,883	0	25	1,056	1,645	179	12,005	37	522	3,123	266	25
54	CUNY MT SINAI SCH OF MED	18,868	0	0	8	0	0	17,890	0	0	214	0	756
55	OREGON STATE UNIVERSITY	18,532	3,571	1,475	1,827	664	736	4,079	309	326	5,040	102	403
56	U TENNESSEE KNOXVILLE	18,462	3,277	62	1,300	9,770	119	2,543	103	388	900	0	0
57	UNIVERSITY OF NEW MEXICO	18,392	80	130	5,283	367	25	10,379	519	150	964	0	495
58	ROCKEFELLER UNIVERSITY	17,473	72	0	91	525	60	14,374	0	0	2,137	0	214
59	UNIV OF HAWAII-MANOA	17,233	147	62	2,255	1,304	0	7,776	314	1,315	4,004	56	0
60	PRINCETON UNIVERSITY	16,759	0	248	2,438	3,077	160	3,431	89	1,533	5,039	511	233
TOTAL 1ST 60 INSTITUTIONS		2,363,686	70,277	15,767	354,252	186,524	25,041	1,192,222	16,256	88,196	373,920	9,440	21,791
61	UNIV OF MD BALT PROF SCH	16,592	0	0	410	0	450	15,376	0	38	318	0	0
62	NEW MEXICO STATE UNIV	16,260	2,911	0	9,037	1,093	0	716	127	1,650	726	0	0
63	UNIVERSITY OF KANSAS	16,179	151	0	659	75	75	12,165	20	850	1,241	59	884
64	U TEX HLTH SCI CTR-DALLAS	16,084	0	0	0	0	0	15,722	0	35	327	0	0
65	UNIVERSITY OF CONNECTICUT	14,923	676	74	952	338	51	11,170	85	86	1,476	0	15
66	VA POLYTECH INST & ST U	14,501	4,067	160	1,851	2,780	59	1,097	283	1,500	2,532	75	97
67	UNIVERSITY OF GEORGIA	14,180	4,487	44	334	2,472	260	3,021	99	16	3,447	0	0
68	LOUISIANA STATE UNIV	13,799	2,446	1,165	933	1,409	386	6,132	173	0	1,155	0	0
69	UNIV OF MISSOURI COLUMBIA	13,676	4,256	0	703	314	556	5,974	402	159	1,171	0	141
70	CARNEGIE MELLON UNIV	13,569	0	0	4,302	3,181	40	2,022	148	67	3,677	132	0
TOTAL 1ST 70 INSTITUTIONS		2,513,449	89,271	17,210	373,433	198,186	26,918	1,265,617	17,593	92,597	389,990	9,706	32,928
71	RUTGERS THE ST UNIV OF NJ	13,537	2,227	120	488	299	141	5,401	397	60	3,669	40	695
72	UNIVERSITY OF CINCINNATI	13,362	34	0	1,121	310	1,312	9,324	0	210	1,051	0	0
73	SUNY AT BUFFALO	13,155	0	0	756	145	0	9,496	0	44	2,639	75	0
74	GEORGE WASHINGTON UNIV	13,003	29	50	2,388	410	216	7,644	0	1,533	634	0	99
75	EMORY UNIVERSITY	12,921	0	0	79	157	43	11,952	0	194	496	0	0
76	TEMPLE UNIVERSITY	12,559	0	0	188	150	100	10,820	0	72	904	0	325
77	SUNY AT STONY BROOK	12,372	0	0	110	528	0	6,079	22	816	4,817	0	0
78	UNIVERSITY OF DAYTON	12,222	0	0	11,515	0	67	109	0	272	143	65	51
79	UNIV OF VT & ST AGRIC COL	12,059	1,183	0	105	68	0	10,087	191	200	225	0	0
80	UNIVERSITY OF KENTUCKY	11,921	4,258	100	423	541	317	4,527	165	123	1,181	273	13
TOTAL 1ST 80 INSTITUTIONS		2,640,560	97,002	17,480	390,606	200,794	29,114	1,341,056	18,368	96,121	405,749	10,159	34,111
81	UNIV OF CAL IRVINE	11,861	75	0	740	1,363	151	6,652	0	160	2,582	138	0
82	BROWN UNIVERSITY	11,618	50	0	1,627	939	0	3,500	17	328	5,157	0	0
83	GEORGETOWN UNIVERSITY	11,595	186	0	927	3,092	0	6,949	0	15	426	0	0
84	N C STATE UNIV AT RALEIGH	11,534	109	0	653	459	912	1,762	289	303	1,562	70	7
85	VIRGINIA COMMONWELLTH UNIV	11,488	0	0	463	0	249	10,276	0	30	370	0	0
86	INDIANA UNIV-BLOOMINGTON	10,949	48	0	294	682	0	3,644	0	137	5,899	245	0
87	UNIV OF MASS AT AMHERST	10,602	1,745	131	1,231	448	324	2,161	172	262	3,985	56	87
88	WAYNE STATE UNIVERSITY	10,385	25	0	611	699	0	7,568	0	27	1,455	0	0
89	FLORIDA STATE UNIVERSITY	9,511	85	1,392	1,088	867	289	2,240	162	166	2,804	0	418
90	BRANDEIS UNIVERSITY	9,040	40	0	77	406	0	6,080	0	39	1,804	0	594
TOTAL 1ST 90 INSTITUTIONS		2,748,925	104,665	19,003	398,307	209,749	31,039	1,391,888	19,008	97,588	431,793	10,668	35,217
91	IOWA ST U OF SCI & TECH	8,958	4,401	0	203	298	407	1,519	302	234	1,332	0	262
92	WASHINGTON STATE UNIV	8,821	3,217	175	314	575	646	2,166	312	41	1,320	65	0
93	U TEX HLTH SC CTR HOUSTON	8,727	140	0	0	84	0	8,270	0	29	204	0	0
94	U TEX MED BRNCH GALVESTON	8,530	0	0	287	69	16	7,708	0	332	118	0	0
95	UNIV OF RHODE ISLAND	8,413	829	1,340	1,045	732	1,101	451	78	55	2,782	0	0
96	UNIV OF CAL SANTA BARBARA	8,288	125	0	547	528	568	1,920	66	366	3,651	0	517
97	U OREGON HLTH SCI CTR	8,242	0	0	106	0	104	7,692	0	100	240	0	0
98	OKLAHOMA STATE UNIVERSITY	8,181	2,543	35	1,766	1,337	269	547	179	245	890	203	167
99	UNIVERSITY OF OREGON MAIN	8,129	0	0	274	159	0	5,048	0	286	2,362	0	0
100	INDIANA U-PURDUE U INDPLS	8,063	0	0	124	0	0	7,751	0	15	173	0	0
TOTAL 1ST 100 INSTITUTIONS		2,833,287	115,920	20,553	402,973	213,531	34,150	1,434,960	19,945	99,291	444,865	10,936	36,163

* INCLUDES AID, HUD, LABOR, AND NRC.

1/ Total and DDD data for Johns Hopkins University and Pennsylvania State University include funding for components formerly shown separately as university-administered federally funded research and development centers. The amounts involved are as follows:

Applied Physics Laboratory (Johns Hopkins University): \$136,140
Applied Research Laboratory (Pennsylvania State University): 12,205

SOURCE: National Science Foundation

TABLE B-16. FEDERAL OBLIGATIONS FOR FELLOWSHIPS, TRAINEESHIPS, AND TRAINING GRANTS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DDD	DOE	EPA	HEW	INT	NASA	NSF	DDT	OTHER*
	UNITED STATES TOTAL	205,865	0	0	0	665	3,565	184,147	3,200	1,287	11,739	635	627
1	HARVARD UNIVERSITY	8,196	0	0	0	21	89	6,988	0	0	1,098	0	0
2	YALE UNIVERSITY	5,812	0	0	0	0	12	5,510	0	0	290	0	0
3	STANFORD UNIVERSITY	5,659	0	0	0	0	27	4,092	0	291	1,069	0	180
4	UNIVERSITY OF CHICAGO	5,551	0	0	0	0	0	5,069	0	0	482	0	0
5	UNIV OF WIS-MADISON	5,532	0	0	0	0	0	5,150	0	0	382	0	0
6	UNIVERSITY OF WASHINGTON	5,477	0	0	0	0	105	5,196	0	0	176	0	0
7	UNIV OF PENNSYLVANIA	5,316	0	0	0	0	31	5,160	0	0	125	0	0
8	JOHNS HOPKINS UNIVERSITY	4,826	0	0	0	0	17	4,696	0	0	113	0	0
9	WASHINGTON UNIVERSITY	4,729	0	0	0	0	0	4,632	0	0	97	0	0
10	DUKE UNIVERSITY	4,726	0	0	0	0	6	4,612	0	0	108	0	0
	TOTAL 1ST 10 INSTITUTIONS	55,824	0	0	0	21	287	51,105	0	291	3,940	0	180
11	UNIVERSITY OF MICHIGAN	4,632	0	0	0	0	11	4,057	0	0	377	62	125
12	COLUMBIA UNIV MAIN DIV	4,628	0	0	0	0	3	4,539	0	0	86	0	0
13	UNIV OF CAL LOS ANGELES	4,334	0	0	0	0	0	4,254	0	0	80	0	0
14	UNIV OF CAL SAN FRANCISCO	4,291	0	0	0	0	0	4,240	0	0	51	0	0
15	UNIV OF CAL BERKELEY	4,009	0	0	0	0	17	3,177	160	0	655	0	0
16	MASS INST OF TECHNOLOGY	3,784	0	0	0	0	6	2,632	160	0	986	0	0
17	UNIVERSITY OF MINNESOTA	3,755	0	0	0	0	67	3,411	160	0	117	0	0
18	NEW YORK UNIVERSITY	3,685	0	0	0	0	0	3,665	0	0	20	0	0
19	YESHIVA UNIVERSITY	3,619	0	0	0	0	0	3,619	0	0	0	0	0
20	UNIV OF CAL SAN DIEGO	3,512	0	0	0	0	0	3,253	0	0	259	0	0
	TOTAL 1ST 20 INSTITUTIONS	96,073	0	0	0	21	391	87,952	480	291	6,571	62	305
21	CORNELL UNIVERSITY	3,383	0	0	0	0	97	2,704	0	0	582	0	0
22	UNIV OF NC AT CHAPEL HILL	2,680	0	0	0	0	43	2,637	0	0	0	0	0
23	UNIVERSITY OF COLORADO	2,586	0	0	0	0	0	2,529	0	0	57	0	0
24	UNIVERSITY OF ROCHESTER	2,507	0	0	0	0	0	2,500	0	0	7	0	0
25	CASE WESTERN RESERVE UNIV	2,319	0	0	0	0	0	2,174	0	131	14	0	0
26	UNIVERSITY OF IOWA	2,160	0	0	0	0	6	2,154	0	0	0	0	0
27	BOSTON UNIVERSITY	1,984	0	0	0	0	0	1,710	0	0	28	0	246
28	UNIV ALABAMA BIRMINGHAM	1,957	0	0	0	0	0	1,957	0	0	0	0	0
29	NORTHWESTERN UNIVERSITY	1,861	0	0	0	0	0	1,773	0	15	73	0	0
30	VANDERBILT UNIVERSITY	1,811	0	0	0	0	13	1,768	0	0	30	0	0
	TOTAL 1ST 30 INSTITUTIONS	119,321	0	0	0	21	550	109,858	480	437	7,362	62	551
31	UNIV OF ILL URBANA	1,760	0	0	0	0	28	1,576	0	0	156	0	0
32	UNIV OF SOUTHERN CAL	1,749	0	0	0	0	227	1,281	0	0	15	226	0
33	PRINCETON UNIVERSITY	1,679	0	0	0	0	0	1,030	0	0	649	0	0
34	PENNSYLVANIA STATE UNIV	1,659	0	0	0	0	27	1,372	160	0	100	0	0
35	U TEX HLTH SCI CTR-DALLAS	1,635	0	0	0	0	0	1,620	0	0	15	0	0
36	UNIVERSITY OF VIRGINIA	1,545	0	0	0	0	9	1,492	0	0	44	0	0
37	UNIVERSITY OF UTAH	1,435	0	0	0	0	11	1,249	160	0	15	0	0
38	CALIFORNIA INST OF TECH	1,425	0	0	0	0	0	969	0	0	456	0	0
39	UNIVERSITY OF ARIZONA	1,381	0	0	0	0	19	1,143	160	0	59	0	0
40	VIRGINIA COMMONWLTN UNIV	1,306	0	0	0	0	4	1,295	0	0	7	0	0
	TOTAL 1ST 40 INSTITUTIONS	134,895	0	0	0	21	875	122,885	960	437	8,878	288	551
41	UNIVERSITY OF FLORIDA	1,266	0	0	0	0	108	1,067	0	0	91	0	0
42	OHIO STATE UNIVERSITY	1,255	0	0	0	0	101	932	160	2	50	0	10
43	UNIV OF TEXAS AT AUSTIN	1,227	0	0	0	0	69	918	160	0	80	0	0
44	SUNY AT BUFFALO	1,204	0	0	0	0	6	1,198	0	0	0	0	0
45	ROCKEFELLER UNIVERSITY	1,195	0	0	0	0	0	1,100	0	0	95	0	0
46	UNIV OF MISSOURI COLUMBIA	1,161	0	0	0	0	23	1,131	0	0	7	0	0
47	UNIVERSITY OF CONNECTICUT	1,138	0	0	0	0	4	1,113	0	0	21	0	0
48	CUNY MT SINAI SCH OF MED	1,123	0	0	0	0	0	1,123	0	0	0	0	0
49	UNIV OF CAL DAVIS	1,120	0	0	0	0	98	956	0	0	66	0	0
50	UNIVERSITY OF KANSAS	1,055	0	0	0	0	14	1,012	0	0	29	0	0
	TOTAL 1ST 50 INSTITUTIONS	146,639	0	0	0	21	1,298	133,435	1,280	439	9,317	288	561

SEE FOOTNOTES AT END OF TABLE.

TABLE B-16. FEDERAL OBLIGATIONS FOR FELLOWSHIPS, TRAINEESHIPS, AND TRAINING GRANTS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DOD	DOE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
51	U TENNESSEE KNOXVILLE	1,052	0	0	0	0	0	1,045	0	0	7	0	0
52	UNIV OF OKLAHOMA	1,033	0	0	0	0	6	823	160	7	37	0	0
53	UNIVERSITY OF PITTSBURGH	1,030	0	0	0	0	21	987	0	0	22	0	0
54	BAYLOR COL OF MEDICINE	1,013	0	0	0	0	0	992	0	0	15	0	0
55	SOUTHERN ILL U-CARBONDALE	966	0	0	0	0	0	791	160	0	15	0	0
56	HOWARD UNIVERSITY	946	0	0	0	0	0	548	0	139	259	0	0
57	UNIV OF CAL IRVINE	916	0	0	0	0	0	856	0	0	11	49	0
58	MICHIGAN STATE UNIVERSITY	874	0	0	0	0	6	814	0	0	54	0	0
59	UNIVERSITY OF MIAMI	842	0	0	0	0	0	827	0	0	15	0	0
60	PURDUE UNIVERSITY	832	0	0	0	0	14	764	0	0	54	0	0
TOTAL 1ST 60 INSTITUTIONS		156,143	0	0	0	21	1,345	141,882	1,600	585	9,806	337	567
61	WAYNE STATE UNIVERSITY	823	0	0	0	0	0	808	0	0	15	0	0
62	UNIV OF HAWAII-MANOA	791	0	0	0	0	0	784	0	0	7	0	0
63	WEST VIRGINIA UNIVERSITY	735	0	0	0	0	0	575	160	0	0	0	0
64	SUNY AT STONY BROOK	696	0	0	0	0	1	695	0	0	0	0	0
65	INDIANA UNIV-BLOOMINGTON	683	0	0	0	0	0	683	0	0	0	0	0
66	BRANDEIS UNIVERSITY	678	0	0	0	0	0	678	0	0	0	0	0
67	GEORGIA INSTITUTE OF TECH	648	0	0	0	200	6	141	0	0	3	298	0
68	EMORY UNIVERSITY	644	0	0	0	0	0	623	0	0	21	0	0
69	INDIANA U-PURDUE U INDPLS	642	0	0	0	0	0	635	0	0	7	0	0
70	UNIVERSITY OF KENTUCKY	642	0	0	0	0	1	466	160	0	15	0	0
TOTAL 1ST 70 INSTITUTIONS		163,125	0	0	0	221	1,353	147,970	1,920	585	9,874	635	567
71	FLORIDA STATE UNIVERSITY	638	0	0	0	0	10	606	0	0	22	0	0
72	UNIVERSITY OF OREGON MAIN	617	0	0	0	0	0	617	0	0	0	0	0
73	UNIVERSITY OF CINCINNATI	608	0	0	0	0	102	497	0	2	7	0	0
74	COLORADO STATE UNIVERSITY	607	0	0	0	0	298	309	0	0	0	0	0
75	SYRACUSE UNIVERSITY	571	0	0	0	0	0	549	0	0	22	0	0
76	TEMPLE UNIVERSITY	550	0	0	0	0	0	550	0	0	0	0	0
77	U TEX HLTH SC CTR HOUSTON	548	0	0	0	0	0	548	0	0	0	0	0
78	U TEX-ANDRSH HOSPETHOR I	544	0	0	0	0	0	544	0	0	0	0	0
79	SEATTLE UNIVERSITY	505	0	0	0	0	5	500	0	0	0	0	0
80	UNIVERSITY OF IDAHO	501	0	0	0	0	0	341	160	0	0	0	0
TOTAL 1ST 80 INSTITUTIONS		168,814	0	0	0	221	1,768	153,031	2,080	587	9,925	635	567
81	OREGON STATE UNIVERSITY	500	0	0	0	200	20	258	0	0	22	0	0
82	UNIV OF ILL MED CTR CHGO	498	0	0	0	0	0	498	0	0	0	0	0
83	THOMAS JEFFERSON UNIV	488	0	0	0	0	0	488	0	0	0	0	0
84	GEORGE WASHINGTON UNIV	484	0	0	0	0	3	462	0	0	19	0	0
85	U OREGON HLTH SCI CTR	474	0	0	0	0	0	467	0	0	7	0	0
86	AUBURN UNIVERSITY	454	0	0	0	0	6	448	0	0	0	0	0
87	CALIF ST UNIV LOS ANGELES	446	0	0	0	0	0	446	0	0	0	0	0
88	LOUISIANA STATE UNIV	445	0	0	0	0	0	438	0	0	7	0	0
89	ALBANY MEDICAL COLLEGE	438	0	0	0	0	2	436	0	0	0	0	0
90	NORTH TEXAS STATE UNIV	430	0	0	0	0	24	406	0	0	0	0	0
TOTAL 1ST 90 INSTITUTIONS		173,471	0	0	0	421	1,823	157,378	2,080	587	9,980	635	567
91	UNIV OF SAN FRANCISCO	424	0	0	0	0	0	424	0	0	0	0	0
92	UNIVERSITY OF NEW MEXICO	421	0	0	0	0	0	389	0	10	22	0	0
93	THE UNIVERSITY OF ALABAMA	417	0	0	0	0	0	268	0	149	0	0	0
94	WESTERN MICHIGAN UNIV	413	0	0	0	0	0	413	0	0	0	0	0
95	UNIV OF MD COLLEGE PARK	410	0	0	0	0	18	370	0	0	22	0	0
96	COLORADO SCHOOL OF MINES	410	0	0	0	0	0	250	160	0	0	0	0
97	SUNY DOWNSTATE MED CTR	403	0	0	0	0	0	403	0	0	0	0	0
98	RUTGERS THE ST UNIV OF NJ	403	0	0	0	0	64	332	0	0	7	0	0
99	U TEX HLTH SCI CTR-5 ANT	401	0	0	0	0	0	401	0	0	0	0	0
100	BROWN UNIVERSITY	395	0	0	0	0	0	359	0	0	36	0	0
TOTAL 1ST 100 INSTITUTIONS		177,568	0	0	0	421	1,905	160,987	2,240	746	10,067	635	567

* INCLUDES AIO, HUD, LABOR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-17. FEDERAL OBLIGATIONS FOR FACILITIES AND EQUIPMENT FOR INSTRUCTION IN THE SCIENCES AND ENGINEERING TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DOD	DDE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
	UNITED STATES TOTAL	26,664	0	0	0	1,314	0	0	46	0	25,304	0	0
1	UNIV OF CAL LOS ANGELES	914	0	0	0	615	0	0	0	0	299	0	0
2	JOHNS HOPKINS UNIVERSITY	846	0	0	0	0	0	0	46	0	800	0	0
3	UNIV OF CAL BERKELEY	823	0	0	0	2	0	0	0	0	821	0	0
4	UNIV OF PENNSYLVANIA	820	0	0	0	0	0	0	0	0	820	0	0
5	STANFORD UNIVERSITY	723	0	0	0	6	0	0	0	0	717	0	0
6	MASS INST OF TECHNOLOGY	697	0	0	0	0	0	0	0	0	697	0	0
7	UNIVERSITY OF ARIZONA	636	0	0	0	0	0	0	0	0	636	0	0
8	UNIV OF NEBRASKA LINCOLN	602	0	0	0	0	0	0	0	0	602	0	0
9	COLORADO STATE UNIVERSITY	595	0	0	0	0	0	0	0	0	595	0	0
10	COLUMBIA UNIV MAIN DIV	577	0	0	0	0	0	0	0	0	577	0	0
	TOTAL 1ST 10 INSTITUTIONS	7,233	0	0	0	623	0	0	46	0	6,564	0	0
11	HARVARD UNIVERSITY	569	0	0	0	0	0	0	0	0	569	0	0
12	UNIV OF ILL URBANA	567	0	0	0	0	0	0	0	0	567	0	0
13	UNIV OF SOUTH CAROLINA	549	0	0	0	0	0	0	0	0	549	0	0
14	CORNELL UNIVERSITY	492	0	0	0	0	0	0	0	0	492	0	0
15	UNIV OF SOUTHERN CAL	479	0	0	0	0	0	0	0	0	479	0	0
16	UNIVERSITY OF WASHINGTON	419	0	0	0	0	0	0	0	0	419	0	0
17	CARNEGIE MELLON UNIV	403	0	0	0	0	0	0	0	0	403	0	0
18	UNIVERSITY OF MINNESOTA	397	0	0	0	0	0	0	0	0	397	0	0
19	UNIV OF MASS AT AMHERST	387	0	0	0	0	0	0	0	0	387	0	0
20	UNIV OF CAL SAN DIEGO	383	0	0	0	167	0	0	0	0	216	0	0
	TOTAL 1ST 20 INSTITUTIONS	11,878	0	0	0	790	0	0	46	0	11,042	0	0
21	NORTHWESTERN UNIVERSITY	340	0	0	0	0	0	0	0	0	340	0	0
22	PURDUE UNIVERSITY	332	0	0	0	0	0	0	0	0	332	0	0
23	UNIV OF WIS-MADISON	324	0	0	0	0	0	0	0	0	324	0	0
24	UNIVERSITY OF MICHIGAN	318	0	0	0	0	0	0	0	0	318	0	0
25	RENSSELAER POLYTECH INST	307	0	0	0	0	0	0	0	0	307	0	0
26	WASHINGTON UNIVERSITY	302	0	0	0	0	0	0	0	0	302	0	0
27	CALIFORNIA INST OF TECH	293	0	0	0	164	0	0	0	0	129	0	0
28	UNIV OF CAL DAVIS	286	0	0	0	170	0	0	0	0	116	0	0
29	SUNY AT STONY BROOK	279	0	0	0	0	0	0	0	0	279	0	0
30	UNIVERSITY OF VIRGINIA	268	0	0	0	0	0	0	0	0	268	0	0
	TOTAL 1ST 30 INSTITUTIONS	14,927	0	0	0	1,124	0	0	46	0	13,757	0	0
31	UNIVERSITY OF CHICAGO	255	0	0	0	0	0	0	0	0	255	0	0
32	UNIV OF CAL SAN FRANCISCO	240	0	0	0	100	0	0	0	0	140	0	0
33	YALE UNIVERSITY	232	0	0	0	0	0	0	0	0	232	0	0
34	UNIVERSITY OF FLORIDA	227	0	0	0	0	0	0	0	0	227	0	0
35	UNIVERSITY OF UTAH	224	0	0	0	0	0	0	0	0	224	0	0
36	OHIO STATE UNIVERSITY	223	0	0	0	0	0	0	0	0	223	0	0
37	UNIV OF NC AT CHAPEL HILL	219	0	0	0	0	0	0	0	0	219	0	0
38	UNIVERSITY OF ROCHESTER	217	0	0	0	0	0	0	0	0	217	0	0
39	PRINCETON UNIVERSITY	209	0	0	0	0	0	0	0	0	209	0	0
40	UNIVERSITY OF IOWA	207	0	0	0	0	0	0	0	0	207	0	0
	TOTAL 1ST 40 INSTITUTIONS	17,180	0	0	0	1,224	0	0	46	0	15,910	0	0
41	RICE UNIVERSITY	200	0	0	0	0	0	0	0	0	200	0	0
42	U OF HOUSTON CENTRAL CAM	179	0	0	0	0	0	0	0	0	179	0	0
43	UNIV OF HAWAII-MANOA	173	0	0	0	0	0	0	0	0	173	0	0
44	BROWN UNIVERSITY	171	0	0	0	0	0	0	0	0	171	0	0
45	N C STATE UNIV AT RALEIGH	170	0	0	0	0	0	0	0	0	170	0	0
46	UNIVERSITY OF COLORADO	166	0	0	0	0	0	0	0	0	166	0	0
47	GEORGIA INSTITUTE OF TECH	164	0	0	0	0	0	0	0	0	164	0	0
48	IOWA ST U OF SCI & TECH	161	0	0	0	0	0	0	0	0	161	0	0
49	OREGON STATE UNIVERSITY	159	0	0	0	0	0	0	0	0	159	0	0
50	DUKE UNIVERSITY	158	0	0	0	0	0	0	0	0	158	0	0
	TOTAL 1ST 50 INSTITUTIONS	18,881	0	0	0	1,224	0	0	46	0	17,611	0	0

SEE FOOTNOTES AT END OF TABLE.

TABLE B-17. FEDERAL OBLIGATIONS FOR FACILITIES AND EQUIPMENT FOR INSTRUCTION IN THE SCIENCES AND ENGINEERING TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COM	DDO	DDE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
51	FLORIDA STATE UNIVERSITY	154	0	0	0	0	0	0	0	0	154	0	0
52	UNIVERSITY OF DELAWARE	152	0	0	0	0	0	0	0	0	152	0	0
53	UNIVERSITY OF CONNECTICUT	149	0	0	0	0	0	0	0	0	149	0	0
54	UNIVERSITY OF KENTUCKY	146	0	0	0	0	0	0	0	0	146	0	0
55	LEHIGH UNIVERSITY	143	0	0	0	0	0	0	0	0	143	0	0
56	WASHINGTON STATE UNIV	139	0	0	0	0	0	0	0	0	139	0	0
57	PENNSYLVANIA STATE UNIV	135	0	0	0	0	0	0	0	0	135	0	0
58	MICHIGAN STATE UNIVERSITY	129	0	0	0	0	0	0	0	0	129	0	0
59	WAYNE STATE UNIVERSITY	129	0	0	0	0	0	0	0	0	129	0	0
60	UNIV OF OKLAHOMA	128	0	0	0	0	0	0	0	0	128	0	0
TOTAL 1ST 60 INSTITUTIONS		20,285	0	0	0	1,224	0	0	46	0	19,015	0	0
61	HOWARD UNIVERSITY	125	0	0	0	0	0	0	0	0	125	0	0
62	RUTGERS THE ST UNIV OF NJ	124	0	0	0	0	0	0	0	0	124	0	0
63	CASE WESTERN RESERVE UNIV	123	0	0	0	0	0	0	0	0	123	0	0
64	INDIANA UNIV-BLOOMINGTON	121	0	0	0	0	0	0	0	0	121	0	0
65	UNIV OF TEXAS AT AUSTIN	120	0	0	0	0	0	0	0	0	120	0	0
66	BRANDEIS UNIVERSITY	110	0	0	0	0	0	0	0	0	110	0	0
67	UNIV OF CAL RIVERSIDE	107	0	0	0	89	0	0	0	0	27	0	0
68	BRIGHAM YOUNG UNIVERSITY	105	0	0	0	0	0	0	0	0	105	0	0
69	UNIV OF CAL SANTA BARBARA	105	0	0	0	0	0	0	0	0	105	0	0
70	DARTMOUTH COLLEGE	97	0	0	0	0	0	0	0	0	97	0	0
TOTAL 1ST 70 INSTITUTIONS		21,422	0	0	0	1,304	0	0	46	0	20,072	0	0
71	ILLINOIS INST OF TECH	96	0	0	0	0	0	0	0	0	96	0	0
72	TEXAS A&M UNIVERSITY	94	0	0	0	0	0	0	0	0	94	0	0
73	HARVARD UNIVERSITY	94	0	0	0	0	0	0	0	0	94	0	0
74	THE UNIVERSITY OF ALABAMA	89	0	0	0	0	0	0	0	0	89	0	0
75	ARIZONA STATE UNIVERSITY	88	0	0	0	0	0	0	0	0	88	0	0
76	LOUISIANA STATE UNIV	87	0	0	0	0	0	0	0	0	87	0	0
77	COLORADO SCHDDL OF MINES	85	0	0	0	0	0	0	0	0	85	0	0
78	U TENNESSEE KNOXVILLE	83	0	0	0	0	0	0	0	0	83	0	0
79	UNIVERSITY OF PITTSBURGH	81	0	0	0	0	0	0	0	0	81	0	0
80	OKLAHOMA STATE UNIVERSITY	78	0	0	0	0	0	0	0	0	78	0	0
TOTAL 1ST 80 INSTITUTIONS		22,297	0	0	0	1,304	0	0	46	0	20,947	0	0
81	UNIVERSITY OF GEORGIA	78	0	0	0	0	0	0	0	0	78	0	0
82	UNIVERSITY OF CINCINNATI	77	0	0	0	0	0	0	0	0	77	0	0
83	BOSTON UNIVERSITY	74	0	0	0	0	0	0	0	0	74	0	0
84	UNIV OF CAL IRVINE	71	0	0	0	10	0	0	0	0	61	0	0
85	KENT STATE UNIVERSITY	70	0	0	0	0	0	0	0	0	70	0	0
86	UNIVERSITY OF NOTRE DAME	70	0	0	0	0	0	0	0	0	70	0	0
87	UNIV OF TEXAS AT DALLAS	69	0	0	0	0	0	0	0	0	69	0	0
88	UNIVERSITY OF OREGON HAIN	69	0	0	0	0	0	0	0	0	69	0	0
89	UNIV OF N H DURHAM	67	0	0	0	0	0	0	0	0	67	0	0
90	UNIV ALABAMA BIRMGHAM	63	0	0	0	0	0	0	0	0	63	0	0
TOTAL 1ST 90 INSTITUTIONS		23,005	0	0	0	1,314	0	0	46	0	21,645	0	0
91	OREGON GRADUATE CENTER	61	0	0	0	0	0	0	0	0	61	0	0
92	UNIVERSITY OF KANSAS	60	0	0	0	0	0	0	0	0	60	0	0
93	UNIVERSITY OF NEW ORLEANS	59	0	0	0	0	0	0	0	0	59	0	0
94	HOPE COLLEGE	55	0	0	0	0	0	0	0	0	55	0	0
95	UNIV OF MD COLLEGE PARK	54	0	0	0	0	0	0	0	0	54	0	0
96	CLEVELAND STATE UNIV	53	0	0	0	0	0	0	0	0	53	0	0
97	SUNY AT BUFFALO	53	0	0	0	0	0	0	0	0	53	0	0
98	COL OF MED & DENT OF N J	51	0	0	0	0	0	0	0	0	51	0	0
99	VA POLYTECH INST & ST U	51	0	0	0	0	0	0	0	0	51	0	0
100	CLARKSON COL OF TECH	50	0	0	0	0	0	0	0	0	50	0	0
TOTAL 1ST 100 INSTITUTIONS		23,552	0	0	0	1,314	0	0	46	0	22,192	0	0

* INCLUDES AID, HUD, LABOR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-18. FEDERAL OBLIGATIONS FOR GENERAL SUPPORT FOR SCIENCE TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	CDM	DDD	DDE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
	UNITED STATES TOTAL	74,102	0	0	0	329	0	44,617	5,007	0	23,783	306	0
1	ATLANTA UNIVERSITY	2,767	0	0	0	0	0	0	0	0	2,767	0	0
2	HOWARD UNIVERSITY	997	0	0	0	0	0	997	0	0	0	0	0
3	UNIVERSITY OF MICHIGAN	874	0	0	0	0	0	592	0	0	282	0	0
4	UNIVERSITY OF MIAMI	858	0	0	0	140	0	221	0	0	247	250	0
5	CALIF ST UNIV LOS ANGELES	823	0	0	0	0	0	823	0	0	0	0	0
6	UNIVERSITY OF UTAH	820	0	0	0	0	0	391	217	0	212	0	0
7	UNIVERSITY OF FLORIDA	746	0	0	0	4	0	435	37	0	270	0	0
8	UNIV OF CAL DAVIS	736	0	0	0	0	0	369	5	0	362	0	0
9	UNIV OF CAL LOS ANGELES	718	0	0	0	0	0	708	0	0	10	0	0
10	UNIV OF P R-RIO PIEDRAS	705	0	0	0	0	0	705	0	0	0	0	0
	TOTAL 1ST 10 INSTITUTIONS	10,044	0	0	0	144	0	5,241	259	0	4,150	250	0
11	HARVARD UNIVERSITY	665	0	0	0	0	0	647	0	0	18	0	0
12	UNIV OF NC AT CHAPEL HILL	642	0	0	0	0	0	390	2	0	250	0	0
13	UNIVERSITY OF NEW MEXICO	641	0	0	0	0	0	621	0	0	20	0	0
14	MEHARRY MEDICAL COLLEGE	626	0	0	0	0	0	626	0	0	0	0	0
15	UNIVERSITY OF MINNESOTA	622	0	0	0	0	0	470	152	0	0	0	0
16	UNIV OF CAL SAN DIEGO	600	0	0	0	0	0	600	0	0	0	0	0
17	CORNELL UNIVERSITY	590	0	0	0	0	0	462	32	0	96	0	0
18	UNIVERSITY OF KANSAS	587	0	0	0	0	0	337	0	0	250	0	0
19	MASS INST OF TECHNOLOGY	577	0	0	0	0	0	200	110	0	267	0	0
20	UNIVERSITY OF WASHINGTON	571	0	0	0	0	0	571	0	0	0	0	0
	TOTAL 1ST 20 INSTITUTIONS	16,165	0	0	0	144	0	10,165	555	0	5,051	250	0
21	UNIVERSITY OF ARIZONA	543	0	0	0	0	0	374	169	0	0	0	0
22	JOHNS HOPKINS UNIVERSITY	542	0	0	0	0	0	542	0	0	0	0	0
23	UNIV OF PENNSYLVANIA	515	0	0	0	0	0	515	0	0	0	0	0
24	UNIVERSITY OF CONNECTICUT	512	0	0	0	0	0	469	43	0	0	0	0
25	JACKSON STATE UNIVERSITY	505	0	0	0	0	0	470	0	0	35	0	0
26	UNIV OF WIS-MADISON	482	0	0	0	0	0	439	43	0	0	0	0
27	PENNSYLVANIA STATE UNIV	476	0	0	0	0	0	305	171	0	0	0	0
28	STANFORD UNIVERSITY	473	0	0	0	0	0	388	0	0	85	0	0
29	UNIVERSITY OF COLORADO	469	0	0	0	0	0	436	0	0	33	0	0
30	UNIV OF CAL BERKELEY	467	0	0	0	0	0	273	110	0	84	0	0
	TOTAL 1ST 30 INSTITUTIONS	21,149	0	0	0	144	0	14,376	1,091	0	5,288	250	0
31	COLUMBIA UNIV MAIN DIV	463	0	0	0	0	0	463	0	0	0	0	0
32	UNIV OF CAL IRVINE	453	0	0	0	0	0	204	0	0	249	0	0
33	WASHINGTON UNIVERSITY	449	0	0	0	0	0	301	0	0	148	0	0
34	UNIVERSITY OF PITTSBURGH	438	0	0	0	0	0	399	0	0	39	0	0
35	YALE UNIVERSITY	437	0	0	0	0	0	437	0	0	0	0	0
36	WAYNE STATE UNIVERSITY	427	0	0	0	0	0	405	0	0	22	0	0
37	OHIO STATE UNIVERSITY	418	0	0	0	0	0	275	143	0	0	0	0
38	UNIVERSITY OF D C	416	0	0	0	0	0	150	28	0	238	0	0
39	UNIV OF CAL SANTA CRUZ	404	0	0	0	0	0	330	0	0	74	0	0
40	UNIV OF ILL URBANA	399	0	0	0	0	0	215	38	0	146	0	0
	TOTAL 1ST 40 INSTITUTIONS	25,453	0	0	0	144	0	17,555	1,300	0	6,204	250	0
41	UNIV OF HAWAII-MANOA	399	0	0	0	0	0	333	46	0	20	0	0
42	U TEX HLTH SCI CTR-DALLAS	393	0	0	0	0	0	393	0	0	0	0	0
43	SELMA UNIVERSITY	390	0	0	0	0	0	0	0	0	390	0	0
44	UNIV OF CAL SAN FRANCISCO	386	0	0	0	0	0	386	0	0	0	0	0
45	TUSKEGEE INSTITUTE	384	0	0	0	0	0	384	0	0	0	0	0
46	UNIV OF SOUTHERN CAL	384	0	0	0	0	0	384	0	0	0	0	0
47	TOULGALDO COLLEGE	374	0	0	0	0	0	102	0	0	272	0	0
48	GEDRGETOWN UNIVERSITY	360	0	0	0	0	0	165	0	0	195	0	0
49	PRAIRIE VIEW A & M UNIV	353	0	0	0	0	0	187	0	0	166	0	0
50	UNIVERSITY OF IOWA	353	0	0	0	0	0	349	0	0	4	0	0
	TOTAL 1ST 50 INSTITUTIONS	29,229	0	0	0	144	0	20,238	1,346	0	7,251	250	0

SEE FOOTNOTES AT END OF TABLE.

TABLE B-18. FEDERAL OBLIGATIONS FOR GENERAL SUPPORT FOR SCIENCE TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978
CONTINUED.

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USDA	COH	DDO	DDE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
51	SUNY AT BUFFALO	351	0	0	0	0	0	351	0	0	0	0	0
52	NEW MEXICO HIGHLANDS UNIV	349	0	0	0	0	0	173	0	0	176	0	0
53	CASE WESTERN RESERVE UNIV	349	0	0	0	0	0	349	0	0	0	0	0
54	GRAMBLING STATE UNIV	348	0	0	0	0	0	93	0	0	255	0	0
55	PURDUE UNIVERSITY	341	0	0	0	0	0	233	108	0	0	0	0
56	MICHIGAN STATE UNIVERSITY	339	0	0	0	0	0	289	50	0	0	0	0
57	UNIV OF TEXAS AT AUSTIN	335	0	0	0	0	0	137	110	0	88	0	0
58	NORTHWESTERN UNIVERSITY	332	0	0	0	0	0	332	0	0	0	0	0
59	FLORIDA A & M UNIVERSITY	329	0	0	0	0	0	321	0	0	8	0	0
60	LOUISIANA STATE UNIV	327	0	0	0	0	0	299	28	0	0	0	0
TOTAL 1ST 60 INSTITUTIONS		32,629	0	0	0	144	0	22,815	1,642	0	7,778	250	0
61	UNIVERSITY OF CHICAGO	325	0	0	0	0	0	325	0	0	0	0	0
62	UNIVERSITY OF LOUISVILLE	320	0	0	0	0	0	81	0	0	239	0	0
63	NEW MEXICO STATE UNIV	319	0	0	0	0	0	275	44	0	0	0	0
64	KNOXVILLE COLLEGE	313	0	0	0	0	0	78	0	0	235	0	0
65	ALCORN STATE UNIVERSITY	311	0	0	0	0	0	311	0	0	0	0	0
66	UNIVERSITY OF ROCHESTER	308	0	0	0	0	0	308	0	0	0	0	0
67	U. OF HOUSTON CENTRAL CAMP	305	0	0	0	0	0	45	0	0	260	0	0
68	DUKE UNIVERSITY	299	0	0	0	0	0	299	0	0	0	0	0
69	COL OF MED & DENT OF N J	297	0	0	0	0	0	297	0	0	0	0	0
70	UNIV ALABAMA BIRMINGHAM	296	0	0	0	0	0	296	0	0	0	0	0
TOTAL 1ST 70 INSTITUTIONS		35,722	0	0	0	144	0	25,130	1,686	0	8,512	250	0
71	TEXAS SOUTHERN UNIV	294	0	0	0	0	0	266	0	0	28	0	0
72	MILES COLLEGE	290	0	0	0	0	0	118	0	0	172	0	0
73	MORY UNIVERSITY	287	0	0	0	0	0	264	0	0	23	0	0
74	VANDERBILT UNIVERSITY	279	0	0	0	2	0	277	0	0	0	0	0
75	HAMPTON INSTITUTE	277	0	0	0	0	0	0	0	0	277	0	0
76	BETHUNE COOKMAN COLLEGE	275	0	0	0	0	0	105	0	0	170	0	0
77	UNIVERSITY OF KENTUCKY	271	0	0	0	0	0	143	128	0	0	0	0
78	NEW YORK UNIVERSITY	270	0	0	0	0	0	270	0	0	0	0	0
79	OAKLAND UNIVERSITY	267	0	0	0	0	0	45	0	0	222	0	0
80	TEMPLE UNIVERSITY	267	0	0	0	0	0	267	0	0	0	0	0
TOTAL 1ST 80 INSTITUTIONS		38,499	0	0	0	146	0	26,885	1,814	0	9,404	250	0
81	CUNY BROOKLYN COLLEGE	266	0	0	0	0	0	16	0	0	250	0	0
82	SOUTHERN U & A&M COLLEGE	265	0	0	0	0	0	265	0	0	0	0	0
83	JOHNSON C SMITH UNIV	265	0	0	0	0	0	80	0	0	185	0	0
84	INCARNATE WORD COLLEGE	265	0	0	0	0	0	265	0	0	0	0	0
85	UNIV OF ALBUQUERQUE	265	0	0	0	0	0	265	0	0	0	0	0
86	UNIVERSITY OF VIRGINIA	264	0	0	0	0	0	264	0	0	0	0	0
87	OREGON STATE UNIVERSITY	262	0	0	0	0	0	203	37	0	22	0	0
88	CUNY CITY COLLEGE	261	0	0	0	0	0	0	0	0	261	0	0
89	XAVIER UNIVERSITY OF LA	261	0	0	0	0	0	261	0	0	0	0	0
90	VIRGINIA COMMONWALTH UNIV	260	0	0	0	0	0	260	0	0	0	0	0
TOTAL 1ST 90 INSTITUTIONS		41,133	0	0	0	146	0	28,764	1,851	0	10,122	250	0
91	SUNY AT STONY BROOK	258	0	0	0	0	0	258	0	0	0	0	0
92	GOLDEN WEST COLLEGE	250	0	0	0	0	0	0	0	0	250	0	0
93	UNIVERSITY OF SCRANTON	250	0	0	0	0	0	0	0	0	250	0	0
94	LAKE FOREST COLLEGE	250	0	0	0	0	0	0	0	0	250	0	0
95	STEVENS INSTITUTE OF TECH	250	0	0	0	0	0	0	0	0	250	0	0
96	BAPTIST COL AT CHARLESTON	250	0	0	0	0	0	0	0	0	250	0	0
97	UNIV OF THE SACRED HEART	250	0	0	0	0	0	0	0	0	250	0	0
98	DENISON UNIVERSITY	250	0	0	0	0	0	0	0	0	250	0	0
99	REED COLLEGE	250	0	0	0	0	0	0	0	0	250	0	0
100	BEREA COLLEGE	250	0	0	0	0	0	0	0	0	250	0	0
TOTAL 1ST 100 INSTITUTIONS		43,641	0	0	0	146	0	29,022	1,851	0	12,372	250	0

* INCLUDES AID, HUD, LABOR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-19. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR RESEARCH AND DEVELOPMENT,
BY DETAILED FIELD OF SCIENCE AND AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE	TOTAL	USOA	CDM	ODO	ODE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
TOTAL, ALL FIELDS	3,362,174	175,265	35,042	452,249	250,912	51,145	1,656,410	34,258	124,482	509,732	16,183	56,492
PHYSICAL SCIENCES, TOTAL	438,707	10,263	484	68,191	104,607	5,167	48,998	533	50,721	147,433	1,190	1,120
ASTRONOMY	37,864	0	301	332	20	0	0	0	23,200	14,011	0	0
CHEMISTRY	134,530	10,159	0	13,219	11,001	3,569	47,635	486	3,749	44,615	97	0
PHYSICS	229,617	104	183	44,494	91,135	899	1,363	47	18,491	70,688	1,093	1,120
PHYSICAL SCIENCES, NEC	36,696	0	0	10,146	2,451	699	0	0	5,281	18,119	0	0
MATHEMATICAL & COMPUTER SCIENCES, TOTAL	75,965	248	330	27,642	728	247	6,283	887	1,507	37,652	441	0
MATHEMATICS	41,683	248	0	14,963	70	247	3,877	426	730	21,060	62	0
COMPUTER SCIENCES	33,227	0	330	12,017	293	0	2,406	433	777	16,592	379	0
MATHEMATICAL & COMPUTER SCIENCES, NEC	1,055	0	0	662	365	0	0	28	0	0	0	0
ENVIRONMENTAL SCIENCES, TOTAL	303,189	983	26,284	40,612	52,140	10,384	0	14,313	36,421	118,087	124	3,841
ATMOSPHERIC SCIENCES	85,443	851	383	11,980	21,553	349	0	1,867	19,609	28,525	35	291
GEOLOGICAL SCIENCES	115,385	132	0	18,231	24,577	1,590	0	12,119	8,741	47,460	0	2,535
OCEANOGRAPHY	57,218	0	25,901	9,699	2,282	334	0	297	233	18,347	50	75
ENVIRONMENTAL SCIENCES, NEC	45,143	0	0	702	3,728	8,111	0	30	7,838	23,755	39	940
ENGINEERING, TOTAL	498,495	6,632	3,683	270,720	68,779	4,933	32,424	8,046	23,710	63,669	12,291	3,608
AERONAUTICAL	20,732	0	0	10,030	0	0	0	0	9,609	687	307	99
ASTRONAUTICAL	849	0	0	130	0	0	0	0	631	88	0	0
CHEMICAL	40,934	48	0	3,145	28,329	358	127	32	262	8,520	113	0
CIVIL	36,943	35	921	6,244	747	3,423	0	1,999	40	15,690	7,844	0
ELECTRICAL	75,123	60	634	45,323	10,195	0	0	656	3,615	14,640	0	0
MECHANICAL	24,825	63	65	5,628	9,790	100	134	99	1,729	6,178	814	225
METALLURGY & MATERIALS	38,880	0	0	13,334	5,648	0	0	3,983	4,208	11,651	56	0
ENGINEERING, NEC	260,209	6,426	2,063	186,886	14,070	1,052	32,163	1,277	3,616	6,215	3,157	3,284
LIFE SCIENCES, TOTAL	1,713,436	128,933	421	32,818	23,382	24,050	1,384,695	6,177	8,646	89,507	619	14,567
BIOLOGICAL	972,309	124,215	421	21,438	21,624	17,673	694,020	6,031	4,113	73,007	0	10,146
MEDICAL	710,193	4,718	0	11,259	65	4,679	681,025	146	2,662	599	619	4,421
LIFE SCIENCES, NEC	30,934	0	0	121	1,693	1,698	9,650	0	1,871	15,901	0	0
PSYCHOLOGY, TOTAL	71,785	0	361	3,937	49	408	49,029	10	870	9,386	462	7,598
BIOLOGICAL ASPECTS	22,259	0	0	480	49	408	15,586	0	71	5,566	99	0
SOCIAL ASPECTS	27,908	0	361	3,169	0	0	13,279	10	82	3,616	118	7,598
PSYCHOLOGY, NEC	21,618	0	0	288	0	0	20,164	0	717	204	245	0
SOCIAL SCIENCES, TOTAL	184,423	28,210	4,183	1,227	969	450	88,525	4,172	54	30,068	807	25,758
ANTHROPOLOGY	7,286	0	0	0	0	0	1,231	2,664	0	3,391	0	0
ECONOMICS	52,748	21,505	4,183	48	965	450	1,346	687	0	11,052	447	12,061
HISTORY	1,426	0	0	0	0	0	54	90	0	1,282	0	0
LINGUISTICS	2,176	0	0	0	0	0	784	0	0	1,392	0	0
POLITICAL SCIENCE	4,843	0	0	423	0	0	1,113	35	29	3,223	0	0
SOCIOLOGY	39,894	6,122	0	615	0	0	16,791	179	0	4,665	213	11,309
SOCIAL SCIENCES, NEC	76,050	583	0	141	0	0	67,206	497	25	5,063	147	2,388
OTHER SCIENCES, NEC	76,174	0	0	7,102	258	5,506	46,456	120	2,553	13,930	249	0

* INCLUDES AID, HUD, LABDR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-20. HEW OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR RESEARCH AND DEVELOPMENT, BY DETAILED FIELD OF SCIENCE AND HEW COMPONENT: FY 1978

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE	TOTAL	NIH	HRA	HSA	ADAMHA	CDC	FDA	DE	NIE	DHOS	HCFA	SSA	DHPRS	OTHER HEW
TOTAL, ALL FIELDS	1,656,410	1,451,677		3,673	94,534	15,073	9,467	9,295	22,816	34,314	6,783		14,884	2,686
PHYSICAL SCIENCES, TOTAL	48,998	36,355	0	0	573	715	0	0	0	11,355	0	0	0	0
CHEMISTRY	47,639	35,076	0	0	573	631	0	0	0	11,355	0	0	0	0
PHYSICS	1,363	1,279	0	0	0	84	0	0	0	0	0	0	0	0
MATHEMATICAL & COMPUTER SCIENCES, TOTAL	6,283	3,103	0	0	975	0	0	0	0	1,937	0	0	270	0
MATHEMATICS	3,877	3,103	0	0	774	0	0	0	0	0	0	0	0	0
COMPUTER SCIENCES	2,406	0	0	0	199	0	0	0	0	1,937	0	0	270	0
ENGINEERING, TOTAL	32,424	28,102	0	0	0	799	0	0	0	3,523	0	0	0	0
CHEMICAL	127	0	0	0	0	127	0	0	0	0	0	0	0	0
MECHANICAL	134	0	0	0	0	134	0	0	0	0	0	0	0	0
ENGINEERING, NEC	32,163	28,102	0	0	0	538	0	0	0	3,523	0	0	0	0
LIFE SCIENCES, TOTAL	1,384,695	1,319,829	0	3,622	46,185	9,215	9,467	0	0	1,377	0	0	0	0
BIOLOGICAL	694,020	664,653	0	0	25,330	2,238	1,799	0	0	0	0	0	0	0
MEDICAL	681,025	655,176	0	3,622	12,667	1,977	6,206	0	0	1,377	0	0	0	0
LIFE SCIENCES, NEC	9,650	0	0	0	6,188	0	1,462	0	0	0	0	0	0	0
PSYCHOLOGY, TOTAL	49,029	20,511	0	0	27,357	118	0	0	0	1,043	0	0	0	0
BIOLOGICAL ASPECTS	15,586	538	0	0	14,930	118	0	0	0	0	0	0	0	0
SOCIAL ASPECTS	13,279	0	0	0	12,236	0	0	0	0	1,043	0	0	0	0
PSYCHOLOGY, NEC	20,164	19,973	0	0	191	0	0	0	0	0	0	0	0	0
SOCIAL SCIENCES, TOTAL	88,525	8,722	0	51	17,848	0	0	8,623	22,717	14,974	0	0	14,614	976
ANTHROPOLOGY	1,231	0	0	0	1,231	0	0	0	0	0	0	0	0	0
ECONOMICS	1,346	0	0	0	34	0	0	0	0	173	0	0	989	150
HISTORY	54	0	0	0	54	0	0	0	0	0	0	0	0	0
LINGUISTICS	744	0	0	0	744	0	0	0	0	0	0	0	0	0
POLITICAL SCIENCE	1,113	58	0	0	104	0	0	0	0	934	0	0	17	0
SOCIOLOGY	16,791	371	0	51	14,280	0	0	0	0	137	0	0	1,952	0
SOCIAL SCIENCES, NEC	67,206	8,293	0	0	1,361	0	0	8,623	22,717	13,730	0	0	11,656	626
OTHER SCIENCES, NEC	46,456	35,255	0	0	1,598	231	0	673	101	105	6,783	0	0	1,710

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-21. DOD OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR RESEARCH AND DEVELOPMENT,
BY DETAILED FIELD OF SCIENCE AND DOD COMPONENT: FY 1978

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE	TOTAL	ARMY	NAVY	AIR FORCE	OTHER
TOTAL, ALL FIELDS	452,249	69,413	280,596	91,909	10,331
PHYSICAL SCIENCES, TOTAL	68,191	18,712	25,449	23,667	363
ASTRONOMY	332	72	36	22	0
CHEMISTRY	13,219	3,412	1,613	8,194	0
PHYSICS	44,494	13,969	17,804	12,358	363
PHYSICAL SCIENCES, NEC	10,146	1,259	5,996	2,891	0
MATHEMATICAL & COMPUTER SCIENCES, TOTAL ..	27,642	5,483	12,300	9,543	316
MATHEMATICS	14,963	4,142	2,309	8,196	316
COMPUTER SCIENCES	12,017	1,025	9,645	1,347	0
MATHEMATICAL & COMPUTER SCIENCES, NEC ..	662	316	346	0	0
ENVIRONMENTAL SCIENCES, TOTAL	40,612	2,735	27,606	10,241	30
ATMOSPHERIC SCIENCES	11,980	1,915	1,811	8,224	30
GEOLOGICAL SCIENCES	18,231	627	16,035	1,569	0
OCEANOGRAPHY	9,699	134	9,565	0	0
ENVIRONMENTAL SCIENCES, NEC	702	59	195	448	0
ENGINEERING, TOTAL	270,720	31,614	187,273	43,062	8,771
AERONAUTICAL	10,030	703	398	8,929	0
ASTRONAUTICAL	130	0	0	130	0
CHEMICAL	3,145	1,373	159	1,613	0
CIVIL	6,244	163	1,966	4,115	0
ELECTRICAL	45,323	18,393	9,546	16,155	1,229
MECHANICAL	5,628	1,368	1,843	2,417	0
METALLURGY & MATERIALS	13,334	3,245	2,315	7,774	0
ENGINEERING, NEC	186,886	6,369	171,046	1,929	7,542
LIFE SCIENCES, TOTAL	32,818	9,199	20,355	3,264	0
BIOLOGICAL	21,438	2,674	16,168	2,596	0
MEDICAL	11,259	6,415	4,176	668	0
LIFE SCIENCES, NEC	121	110	11	0	0
PSYCHOLOGY, TOTAL	3,937	716	1,979	1,242	0
BIOLOGICAL ASPECTS	480	0	35	445	0
SOCIAL ASPECTS	3,169	428	1,944	797	0
PSYCHOLOGY, NEC	288	288	0	0	0
SOCIAL SCIENCES, TOTAL	1,227	117	1,058	52	0
ECONOMICS	48	0	48	0	0
POLITICAL SCIENCE	423	0	423	0	0
SOCIOLOGY	615	0	587	28	0
SOCIAL SCIENCES, NEC	141	117	0	24	0
OTHER SCIENCES, NEC	7,102	837	4,576	838	851

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-22. FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY BROAD AREA OF SCIENCE: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	PHYSICAL SCIENCES	MATHEMATICS	ENVIRONMENTAL SCIENCES	ENGINEERING	LIFE SCIENCES	PSYCHOLOGY	SOCIAL SCIENCES	OTHER SCIENCES, NEC
	UNITED STATES TOTAL	3,362,174	438,707	75,965	303,189	498,495	1,713,436	71,785	184,423	76,174
1	JOHNS HOPKINS UNIVERSITY ^{1/}	196,081	4,015	365	1,973	137,802	45,686	961	3,650	1,629
2	MASS INST OF TECHNOLOGY	114,021	42,747	3,265	14,328	30,477	17,999	684	3,331	1,190
3	STANFORD UNIVERSITY	80,110	15,440	3,666	4,893	13,249	35,680	2,078	3,043	2,061
4	UNIV OF CAL SAN DIEGO	77,033	12,738	687	27,911	2,632	31,896	569	443	157
5	UNIVERSITY OF WASHINGTON	76,080	8,183	985	9,985	4,415	47,807	1,325	2,029	1,351
6	UNIV OF CAL LOS ANGELES	69,595	9,464	1,912	3,778	6,256	39,606	2,312	4,445	1,822
7	HARVARD UNIVERSITY	68,520	10,283	554	3,197	2,210	44,593	2,046	3,314	2,323
8	UNIV OF WIS-MADISON	65,225	9,492	1,898	4,258	3,529	38,350	1,116	4,161	2,421
9	COLUMBIA UNIV MAIN DIV	64,687	9,928	726	10,264	2,254	36,417	462	3,910	726
10	UNIVERSITY OF MINNESOTA	59,582	6,832	1,654	2,020	3,407	40,289	1,349	3,141	890
	TOTAL 1ST 10 INSTITUTIONS	870,934	129,122	15,712	82,607	206,231	378,323	12,902	31,467	14,570
11	UNIVERSITY OF MICHIGAN	58,444	7,900	901	5,243	7,422	24,609	3,245	7,822	1,302
12	CORNELL UNIVERSITY	58,258	18,698	1,135	2,162	4,871	27,110	317	2,603	1,402
13	UNIV OF PENNSYLVANIA	56,138	7,631	828	357	2,417	35,617	979	4,507	802
14	YALE UNIVERSITY	53,805	6,043	1,190	975	1,137	38,996	1,912	2,155	1,397
15	UNIV OF CAL BERKELEY	49,663	11,448	3,512	2,476	7,927	16,655	2,851	3,900	894
16	UNIVERSITY OF CHICAGO	48,984	9,038	931	4,140	1,023	29,844	1,018	1,101	1,889
17	UNIV OF CAL SAN FRANCISCO	46,388	279	65	0	512	41,929	1,108	1,613	882
18	UNIV OF ILL URBANA	42,947	12,804	1,444	2,231	8,372	10,758	1,412	4,127	1,799
19	UNIV OF SOUTHERN CAL	42,458	8,981	1,348	1,932	6,258	18,476	407	1,682	3,374
20	WASHINGTON UNIVERSITY	41,974	1,868	207	491	2,054	34,611	737	885	1,121
	TOTAL 1ST 20 INSTITUTIONS	1,369,993	213,812	27,273	102,614	248,184	659,928	26,888	61,862	29,432
21	PENNSYLVANIA STATE UNIV ^{1/}	41,974	2,947	524	2,526	18,473	15,255	202	1,788	259
22	NW YORK UNIVERSITY	38,235	4,189	1,709	2,964	596	24,690	1,347	1,162	1,578
23	UNIV OF TEXAS AT AUSTIN	37,232	9,039	8,760	3,436	7,949	4,732	514	841	1,961
24	DUKE UNIVERSITY	34,632	1,754	137	1,233	716	27,789	626	1,739	638
25	OHIO STATE UNIVERSITY	33,983	3,477	940	860	4,214	13,935	661	9,100	796
26	UNIVERSITY OF ROCHESTER	33,616	4,856	676	2,312	3,470	20,039	782	504	977
27	UNIVERSITY OF COLORADO	32,091	6,320	390	3,085	1,693	18,470	876	705	552
28	PURDUE UNIVERSITY	29,554	6,170	1,826	2,571	5,970	10,342	568	1,855	252
29	UNIVERSITY OF UTAH	29,352	3,117	939	5,332	3,440	16,076	85	0	363
30	YESHIVA UNIVERSITY	28,710	118	82	0	25	27,436	546	255	248
	TOTAL 1ST 30 INSTITUTIONS	1,709,372	255,799	43,256	126,933	294,730	838,692	33,095	79,811	37,056
31	CALIFORNIA INST OF TECH	28,106	11,949	405	3,744	4,660	6,723	137	235	253
32	UNIV OF CAL DAVIS	27,721	1,323	74	661	943	23,781	53	622	264
33	NORTHWESTERN UNIVERSITY	26,635	5,575	805	369	4,003	13,198	510	1,384	791
34	UNIV OF NC AT CHAPEL HILL	26,555	1,853	1,046	1,393	588	19,092	869	1,482	232
35	BAYLOR COL OF MEDICINE	26,476	2,050	0	162	946	22,880	3	0	435
36	UNIVERSITY OF PITTSBURGH	25,984	3,178	879	461	1,924	14,346	1,535	3,119	542
37	UNIVERSITY OF ARIZONA	25,828	5,823	437	3,769	1,929	11,938	131	1,163	638
38	UNIVERSITY OF MIAMI	25,744	414	61	6,403	687	15,568	271	749	1,591
39	CASE WESTERN RESERVE UNIV	24,730	3,528	359	819	3,401	15,724	330	391	178
40	UNIVERSITY OF IOWA	24,371	2,704	535	1,143	1,798	15,260	439	786	1,706
	TOTAL 1ST 40 INSTITUTIONS	1,971,522	294,196	47,857	145,857	315,609	997,202	37,373	89,742	43,686
41	GEORGIA INSTITUTE OF TECH	22,122	3,578	672	1,589	14,251	1,462	37	496	37
42	MICHIGAN STATE UNIVERSITY	21,792	4,487	173	1,790	639	10,295	245	3,968	195
43	UNIV ALABAMA BIRMINGHAM	21,466	816	0	22	0	20,085	42	175	326
44	UNIVERSITY OF FLORIDA	21,454	2,368	405	1,487	4,373	11,419	347	921	144
45	UNIV TEX-ANDRSN HOSP&TUMDR I	21,213	195	767	80	0	18,563	0	0	1,608
46	COLORADO STATE UNIVERSITY	20,371	1,616	569	4,038	2,178	9,334	919	1,296	421
47	TEXAS A&M UNIVERSITY	20,168	2,303	591	4,516	3,709	6,844	10	1,585	610
48	VANDERBILT UNIVERSITY	20,139	1,066	103	66	214	17,647	328	328	387
49	UNIV OF ALASKA-FAIRBANKS	20,133	293	0	14,560	870	2,722	0	1,575	113
50	BOSTON UNIVERSITY	19,726	969	134	255	280	15,751	1,244	593	500
	TOTAL 1ST 50 INSTITUTIONS	2,180,116	311,887	51,271	174,260	342,123	1,111,324	40,545	100,679	48,027

SEE FOOTNOTES AT END OF TABLE.

TABLE B-22. FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY BROAD AREA OF SCIENCE: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	PHYSICAL SCIENCES	MATHEMATICS	ENVIRONMENTAL SCIENCES	ENGINEERING	LIFE SCIENCES	PSYCHOLOGY	SOCIAL SCIENCES	OTHER SCIENCES, NEC
51	WOODS HOLE OCEANOGRAPHIC INST	19,621	422	0	17,363	621	409	0	0	806
52	UNIV OF MD COLLEGE PARK	19,347	8,885	1,641	1,974	1,840	3,408	552	1,047	0
53	UNIVERSITY OF VIRGINIA	18,883	1,669	739	889	2,904	11,820	202	513	147
54	CUNY MT SINAI SCH OF MED	18,868	198	0	0	0	17,614	200	737	119
55	OREGON STATE UNIVERSITY	18,532	833	238	7,101	499	8,816	383	662	0
56	U TENNESSEE KNOXVILLE	18,462	1,080	350	358	9,542	5,636	238	1,086	172
57	UNIVERSITY OF NEW MEXICO	18,392	1,024	91	556	4,860	11,255	42	564	0
58	ROCKEFELLER UNIVERSITY	17,473	1,167	285	10	76	14,939	597	77	322
59	UNIV OF HAWAII-MANOA	17,233	2,010	353	5,789	539	7,573	195	541	233
60	PRINCETON UNIVERSITY	16,759	6,046	945	924	4,102	3,179	704	606	252
TOTAL 1ST 60 INSTITUTIONS		2,363,686	335,221	55,914	209,224	367,106	1,195,973	43,658	106,512	50,078
61	UNIV OF MD BALT PROF SCH	16,592	12	44	0	40	15,483	202	244	567
62	NEW MEXICO STATE UNIV	16,260	350	146	1,576	10,268	3,205	118	575	22
63	UNIVERSITY OF KANSAS	16,179	879	285	883	1,375	10,429	720	1,421	187
64	U TEX HLTH SCI CTR-DALLAS	16,084	29	0	0	0	15,474	203	130	248
65	UNIVERSITY OF CONNECTICUT	14,923	633	81	296	648	11,707	200	1,059	299
66	VA POLYTECH INST & ST U	14,501	1,616	722	2,487	3,346	4,957	347	862	164
67	UNIVERSITY OF GEORGIA	14,180	818	123	554	706	9,608	159	1,478	734
68	LOUISIANA STATE UNIV	13,799	995	134	2,906	908	8,237	0	535	84
69	UNIV OF MISSOURI COLUMBIA	13,676	875	261	435	1,276	7,801	405	2,492	131
70	CARNEGIE MELLON UNIV	13,569	3,979	1,187	850	4,719	1,456	417	798	163
TOTAL 1ST 70 INSTITUTIONS		2,513,449	345,407	58,897	219,211	390,392	1,284,330	46,429	116,106	52,677
71	RUTGERS THE ST UNIV OF NJ	13,537	3,541	650	306	415	5,182	1,343	1,402	698
72	UNIVERSITY OF CINCINNATI	13,362	744	104	290	1,476	10,031	519	41	157
73	SUNY AT BUFFALO	13,155	1,089	387	534	1,462	9,248	220	169	46
74	GEORGE WASHINGTON UNIV	13,003	1,020	436	255	2,751	5,833	273	823	1,612
75	EMORY UNIVERSITY	12,921	789	0	148	152	10,730	866	1	235
76	TEMPLE UNIVERSITY	12,559	1,083	46	114	143	10,323	50	508	292
77	SUNY AT STONY BROOK	12,372	3,575	517	856	666	5,717	588	413	40
78	UNIVERSITY OF DAYTON	12,222	222	72	255	11,389	166	32	86	0
79	UNIV OF VT & ST AGRIC COL	12,059	514	8	308	87	7,733	86	3,034	289
80	UNIVERSITY OF KENTUCKY	11,921	502	237	70	2,231	7,351	0	1,247	283
TOTAL 1ST 80 INSTITUTIONS		2,640,560	358,486	61,354	222,347	411,164	1,356,644	50,406	123,830	56,329
81	UNIV OF CAL IRVINE	11,861	2,808	179	390	1,061	6,293	395	389	346
82	BROWN UNIVERSITY	11,618	3,105	1,607	1,559	1,397	3,200	362	315	73
83	GEORGETOWN UNIVERSITY	11,595	673	20	254	2,992	6,782	38	648	183
84	N C STATE UNIV AT RALEIGH	11,436	1,071	115	676	1,501	6,670	0	787	616
85	VIRGINIA COMMONWLTN UNIV	11,368	110	0	0	87	10,450	0	302	419
86	INDIANA UNIV-BLOOMINGTON	10,949	4,434	425	199	307	3,339	787	923	535
87	UNIV OF MASS AT AMHERST	10,602	3,406	435	312	1,322	3,898	515	576	138
88	WAYNE STATE UNIVERSITY	10,385	1,440	131	134	793	6,954	432	330	171
89	FLORIDA STATE UNIVERSITY	9,511	1,555	306	2,470	324	2,695	361	755	1,045
90	BRANDEIS UNIVERSITY	9,040	1,124	205	23	45	5,606	359	1,030	648
TOTAL 1ST 90 INSTITUTIONS		2,748,925	378,217	64,777	228,364	420,993	1,412,531	53,655	129,885	60,503
91	IOWA ST U OF SCI & TECH	8,958	954	150	246	1,040	5,131	200	1,093	144
92	WASHINGTON STATE UNIV	8,831	1,349	76	704	468	4,974	95	1,010	155
93	U TEX HLTH SC CTR HOUSTON	8,727	57	151	0	27	8,259	8	171	54
94	U TEX MED BRNCH GALVESTON	8,530	92	0	289	107	7,766	66	122	88
95	UNIV OF RHODE ISLAND	8,413	513	69	5,198	454	1,964	0	215	0
96	UNIV OF CAL SANTA BARBARA	8,288	2,125	355	1,436	362	2,564	392	788	166
97	U OREGON HLTH SCI CTR	8,242	0	0	0	198	7,155	63	0	826
98	OKLAHOMA STATE UNIVERSITY	8,181	539	137	731	3,227	2,529	167	621	230
99	UNIVERSITY OF OREGON MAIN	8,129	1,472	617	426	238	3,249	662	1,465	0
100	INDIANA U-PURDUE U INDIANAPOLIS	8,063	70	14	39	147	7,524	0	200	69
TOTAL 1ST 100 INSTITUTIONS		2,833,287	385,388	66,346	237,433	427,261	1,463,746	55,308	135,570	62,235

NOTE: TABLE INCLUDES DATA FROM 14 FEDERAL AGENCIES RESPONSIBLE FOR MORE THAN 95 PERCENT OF ALL FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES.

1/ Total and engineering data for Johns Hopkins University and Pennsylvania State University include funding for components formerly shown separately as university-administered federally funded research and development centers. The amounts involved are as follows:

Applied Physics Laboratory (Johns Hopkins University): \$136,140
Applied Research Laboratory (Pennsylvania State University): 12,205

SOURCE: National Science Foundation

TABLE B-23. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR FELLOWSHIPS, TRAINEESHIPS,
AND TRAINING GRANTS, BY DETAILED FIELD OF SCIENCE AND AGENCY,
FY 1978

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE	TOTAL	USDA	COM	DOD	DOE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
TOTAL, ALL FIELDS	205,865	0	0	0	665	3,565	184,147	3,200	1,287	11,739	635	627
PHYSICAL SCIENCES, TOTAL	1,441	0	0	0	0	3	1,350	0	42	46	0	0
CHEMISTRY	1,117	0	0	0	0	3	1,069	0	0	45	0	0
PHYSICS	281	0	0	0	0	0	281	0	0	0	0	0
PHYSICAL SCIENCES, NEC	43	0	0	0	0	0	0	0	42	1	0	0
MATHEMATICAL & COMPUTER SCIENCES, TOTAL	558	0	0	0	0	11	485	0	0	0	62	0
MATHEMATICS	496	0	0	0	0	11	485	0	0	0	0	0
COMPUTER SCIENCES	62	0	0	0	0	0	0	0	0	0	62	0
ENVIRONMENTAL SCIENCES, TOTAL	663	0	0	0	400	221	281	0	0	14	0	0
ATMOSPHERIC SCIENCES	442	0	0	0	400	1	281	0	0	13	0	0
GEOLOGICAL SCIENCES	41	0	0	0	0	31	0	0	0	1	0	0
ENVIRONMENTAL SCIENCES, NEC	217	0	0	0	0	217	0	0	0	0	0	0
ENGINEERING, TOTAL	12,626	0	0	0	200	1,012	6,759	3,200	1,066	14	347	28
CHEMICAL	53	0	0	0	0	4	0	0	0	0	49	0
CIVIL	443	0	0	0	0	145	0	0	0	0	298	0
ELECTRICAL	6	0	0	0	0	61	0	0	0	0	0	0
MECHANICAL	274	0	0	0	0	274	0	0	0	0	0	0
METALLURGY & MATERIALS	4,425	0	0	0	0	0	4,403	0	0	0	0	22
ENGINEERING, NEC	7,425	0	0	0	200	583	2,356	3,200	1,066	14	0	6
LIFE SCIENCES, TOTAL	130,840	0	0	0	0	29	130,331	0	0	109	0	371
BIOLOGICAL	34,885	0	0	0	0	20	34,756	0	0	109	0	0
MEDICAL	95,955	0	0	0	0	9	95,575	0	0	0	0	371
PSYCHOLOGY, TOTAL	16,937	0	0	0	0	0	16,709	0	0	0	0	228
SOCIAL ASPECTS	10,947	0	0	0	0	0	10,719	0	0	0	0	228
PSYCHOLOGY, NEC	5,990	0	0	0	0	0	5,990	0	0	0	0	0
SOCIAL SCIENCES, TOTAL	20,311	0	0	0	0	3	20,308	0	0	0	0	0
ECONOMICS	3	0	0	0	0	3	0	0	0	0	0	0
SOCIOLOGY	1,608	0	0	0	0	0	1,608	0	0	0	0	0
SOCIAL SCIENCES, NEC	18,700	0	0	0	0	0	18,700	0	0	0	0	0
OTHER SCIENCES, NEC	22,489	0	0	0	65	2,286	8,177	0	179	11,556	226	0

* INCLUDES AID, HUD, LABOR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-24. HEW OBLIGATIONS TO UNIVERSITIES AND COLLEGES FOR FELLOWSHIPS, TRAINEESHIPS,
AND TRAINING GRANTS, BY DETAILED FIELD OF SCIENCE AND HEW COMPONENT:
FY 1978

(DOLLARS IN THOUSANDS)

FIELD OF SCIENCE	TOTAL	NIH	HRA	HSA	ADAMHA	CDC	FDA	JE	NIE	DHDS	HCFA	SSA	OHPRS	OTHER DHEW
TOTAL, ALL FIELDS	184,147	131,238	0	0	15,829	0	0	4,403	0	32,677	0	0	0	0
PHYSICAL SCIENCES, TOTAL	1,350	1,350	0	0	0	0	0	0	0	0	0	0	0	0
CHEMISTRY	1,069	1,069	0	0	0	0	0	0	0	0	0	0	0	0
PHYSICS	281	281	0	0	0	0	0	0	0	0	0	0	0	0
MATHEMATICAL & COMPUTER SCIENCE, TOTAL	485	485	0	0	0	0	0	0	0	0	0	0	0	0
MATHEMATICS	485	485	0	0	0	0	0	0	0	0	0	0	0	0
ENVIRONMENTAL SCIENCES, TOTAL	28	0	0	0	0	0	0	0	0	28	0	0	0	0
ATMOSPHERIC SCIENCES	28	0	0	0	0	0	0	0	0	28	0	0	0	0
ENGINEERING, TOTAL	6,759	2,356	0	0	0	0	0	4,403	0	0	0	0	0	0
METALLURGY & MATERIALS	4,403	0	0	0	0	0	0	4,403	0	0	0	0	0	0
ENGINEERING, NEC	2,356	2,356	0	0	0	0	0	0	0	0	0	0	0	0
LIFE SCIENCES, TOTAL	130,331	119,015	0	0	3,832	0	0	0	0	7,484	0	0	0	0
BIOLOGICAL	34,756	30,924	0	0	3,832	0	0	0	0	0	0	0	0	0
MEDICAL	95,575	88,091	0	0	0	0	0	0	0	7,484	0	0	0	0
PSYCHOLOGY, TOTAL	16,709	2,429	0	0	4,498	0	0	0	0	9,782	0	0	0	0
SOCIAL ASPECTS	10,719	0	0	0	937	0	0	0	0	9,782	0	0	0	0
PSYCHOLOGY, NEC	5,990	2,429	0	0	3,561	0	0	0	0	0	0	0	0	0
SOCIAL SCIENCES, TOTAL	20,308	2,808	0	0	4,985	0	0	0	0	12,515	0	0	0	0
SOCIOLOGY	1,608	0	0	0	1,608	0	0	0	0	0	0	0	0	0
SOCIAL SCIENCES, NEC	18,700	2,808	0	0	3,377	0	0	0	0	12,515	0	0	0	0
OTHER SCIENCES, NEC	8,177	2,795	0	0	2,514	0	0	0	0	2,868	0	0	0	0

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-25. FEDERAL OBLIGATIONS FOR FELLOWSHIPS, TRAINEESHIPS, AND TRAINING GRANTS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY BROAD AREA OF SCIENCE: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	PHYSICAL SCIENCES	MATHEMATICS	ENVIRONMENTAL SCIENCES	ENGINEERING	LIFE SCIENCES	PSYCHOLOGY	SOCIAL SCIENCES	OTHER SCIENCES, NEC
	UNITED STATES TOTAL	205,865	1,441	558	663	12,626	130,840	16,937	20,311	22,489
1	HARVARD UNIVERSITY	8,196	132	0	13	233	5,837	28	653	1,300
2	YALE UNIVERSITY	5,812	28	0	0	0	4,769	133	466	416
3	STANFORD UNIVERSITY	5,659	85	0	0	497	3,252	334	273	1,218
4	UNIVERSITY OF CHICAGO	5,551	0	80	0	0	4,277	116	516	562
5	UNIV OF WIS-MADISON	5,532	129	0	0	78	4,260	25	586	454
6	UNIVERSITY OF WASHINGTON	5,477	0	166	0	237	4,233	150	47	644
7	UNIV OF PENNSYLVANIA	5,316	13	0	0	22	4,843	208	0	230
8	JOHNS HOPKINS UNIVERSITY	4,826	0	0	0	103	4,053	69	195	406
9	WASHINGTON UNIVERSITY	4,729	0	0	0	0	4,220	58	65	386
10	DUKE UNIVERSITY	4,726	3	0	0	296	3,193	257	525	452
	TOTAL 1ST 10 INSTITUTIONS	55,824	390	246	13	1,466	42,937	1,378	3,326	6,068
11	UNIVERSITY OF MICHIGAN	4,632	20	103	0	199	2,707	390	590	623
12	COLUMBIA UNIV MAIN DIV	4,628	69	0	0	117	3,687	73	351	331
13	UNIV OF CAL LOS ANGELES	4,334	13	17	0	161	3,377	150	214	402
14	UNIV OF CAL SAN FRANCISCO	4,291	3	0	0	0	3,689	138	410	51
15	UNIV OF CAL BERKELEY	4,009	183	0	0	465	1,893	309	360	799
16	MASS INST OF TECHNOLOGY	3,784	46	0	0	554	2,037	155	0	992
17	UNIVERSITY OF MINNESOTA	3,755	0	34	0	308	2,603	331	275	204
18	NEW YORK UNIVERSITY	3,685	0	0	0	0	2,345	640	493	207
19	YESHIVA UNIVERSITY	3,619	0	0	0	0	3,485	134	0	0
20	UNIV OF CAL SAN DIEGO	3,512	0	0	0	192	2,916	53	92	259
	TOTAL 1ST 20 INSTITUTIONS	96,073	724	400	13	3,462	71,676	3,751	6,111	9,936
21	CORNELL UNIVERSITY	3,383	37	0	0	39	2,148	94	333	732
22	UNIV OF NC AT CHAPEL HILL	2,680	0	102	0	0	1,994	221	172	191
23	UNIVERSITY OF COLORADO	2,586	0	42	0	47	2,141	249	50	57
24	UNIVERSITY OF ROCHESTER	2,507	13	0	0	175	2,181	95	0	43
25	CASE WESTERN RESERVE UNIV	2,319	0	3	0	257	1,702	55	288	14
26	UNIVERSITY OF IOWA	2,160	0	0	0	0	1,855	171	116	18
27	BOSTON UNIVERSITY	1,984	0	0	0	0	1,554	147	197	86
28	UNIV ALABAMA BIRMINGHAM	1,557	0	0	0	0	1,700	61	196	0
29	NORTHWESTERN UNIVERSITY	1,861	13	0	0	15	1,589	96	62	86
30	VANDERBILT UNIVERSITY	1,811	0	0	0	5	1,617	92	0	97
	TOTAL 1ST 30 INSTITUTIONS	119,321	787	547	13	4,000	90,157	5,032	7,525	11,260
31	UNIV OF ILL URBANA	1,760	14	0	0	90	830	356	185	285
32	UNIV OF SOUTHERN CAL	1,749	16	0	148	81	811	140	230	323
33	PRINCETON UNIVERSITY	1,679	13	0	0	16	872	30	73	675
34	PENNSYLVANIA STATE UNIV	1,659	0	0	0	528	604	160	292	75
35	U TEX HLTH SCI CTR-DALLAS	1,635	0	0	0	0	1,407	80	0	148
36	UNIVERSITY OF VIRGINIA	1,545	0	0	0	69	1,323	65	0	88
37	UNIVERSITY OF UTAH	1,435	14	0	0	376	638	142	246	19
38	CALIFORNIA INST OF TECH	1,425	55	0	1	0	860	54	0	455
39	UNIVERSITY OF ARIZONA	1,381	0	0	0	397	549	213	163	59
40	VIRGINIA COMMONWLTN UNIV	1,306	0	0	0	4	947	94	108	153
	TOTAL 1ST 40 INSTITUTIONS	134,895	899	547	162	5,561	98,998	6,366	8,822	13,540
41	UNIVERSITY OF FLORIDA	1,266	0	0	0	62	826	147	102	129
42	OHIO STATE UNIVERSITY	1,255	15	0	0	238	753	28	81	140
43	UNIV OF TEXAS AT AUSTIN	1,227	0	0	0	346	454	198	136	93
44	SUNY AT BUFFALO	1,204	13	0	0	0	731	247	6	207
45	ROCKEFELLER UNIVERSITY	1,195	13	0	0	0	972	3	0	207
46	UNIV OF MISSOURI COLUMBIA	1,161	0	0	28	0	456	127	343	207
47	UNIVERSITY OF CONNECTICUT	1,138	0	0	0	0	985	63	0	90
48	CUNY MT SINAI SCH OF MED	1,123	0	0	0	0	774	106	209	34
49	UNIV OF CAL DAVIS	1,120	0	0	0	91	851	0	0	178
50	UNIVERSITY OF KANSAS	1,055	187	0	0	23	483	305	0	57
	TOTAL 1ST 50 INSTITUTIONS	146,639	1,127	547	190	6,321	106,283	7,590	9,699	14,882

SEE FOOTNOTES AT END OF TABLE.

TABLE B-25. FEDERAL OBLIGATIONS FOR FELLOWSHIPS, TRAINEESHIPS, AND TRAINING GRANTS TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY BROAD AREA OF SCIENCE: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	PHYSICAL SCIENCES	MATHE- MATICS	ENVIRON- MENTAL SCIENCES	ENGI- NEERING	LIFE SCIENCES	PSYCHOL- OGY	SOCIAL SCIENCES	OTHER SCIENCES, NEC
51	TENNESSEE KNOXVILLE	1,052	0	0	0	0	486	92	97	377
52	UNIV OF OKLAHOMA	1,033	0	0	0	276	261	76	0	420
53	UNIVERSITY OF PITTSBURGH	1,030	39	0	0	15	686	262	0	28
54	BAYLOR COL OF MEDICINE	1,013	0	0	0	6	992	0	0	15
55	SOUTHERN ILL U-CARBONDALE	966	0	0	0	215	18	365	353	15
56	HOWARD UNIVERSITY	946	0	0	0	0	544	0	4	398
57	UNIV OF CAL IRVINE	916	0	0	0	49	780	18	0	69
58	MICHIGAN STATE UNIVERSITY	874	0	0	0	6	399	238	141	90
59	UNIVERSITY OF MIAMI	842	0	0	0	0	768	59	0	15
60	PURDUE UNIVERSITY	832	1	0	0	69	654	39	16	53
TOTAL 1ST 60 INSTITUTIONS		156,143	1,167	547	190	6,957	111,871	8,739	10,310	16,362
61	WAYNE STATE UNIVERSITY	823	0	0	0	0	486	152	170	15
62	UNIV OF HAWAII-MANOA	791	0	0	0	0	197	125	385	84
63	WEST VIRGINIA UNIVERSITY	735	0	0	0	332	196	134	58	15
64	SUNY AT STONY BROOK	696	0	0	0	0	567	128	0	1
65	INDIANA UNIV-BLOOMINGTON	683	0	0	0	39	275	248	107	14
66	BRANDEIS UNIVERSITY	678	0	0	0	0	487	3	99	89
67	GEORGIA INSTITUTE OF TECH	648	0	0	0	560	79	0	0	9
68	EMORY UNIVERSITY	644	0	0	0	0	630	0	0	14
69	INDIANA U-PURDUE U INDPLS	642	0	0	0	0	552	0	0	90
70	UNIVERSITY OF KENTUCKY	642	3	0	0	222	152	0	242	23
TOTAL 1ST 70 INSTITUTIONS		163,125	1,170	547	190	8,110	115,492	9,529	11,371	16,716
71	FLORIDA STATE UNIVERSITY	638	14	0	3	55	225	76	26	237
72	UNIVERSITY OF OREGON MAIN	617	0	0	0	87	298	70	143	19
73	UNIVERSITY OF CINCINNATI	608	0	0	0	86	372	47	0	103
74	COLORADO STATE UNIVERSITY	577	42	5	0	274	254	13	0	19
75	SYRACUSE UNIVERSITY	571	0	0	0	0	78	230	241	22
76	TEMPLE UNIVERSITY	550	0	0	0	0	525	0	6	19
77	U TEX HLTH SC CTR HOUSTON	548	0	0	0	0	534	0	0	14
78	U TEX-ANDRSN HOSP&TUNDR I	544	0	0	0	0	544	0	0	0
79	SEATTLE UNIVERSITY	505	0	0	0	0	0	52	253	200
80	UNIVERSITY OF IDAHO	501	0	0	0	371	0	130	0	0
TOTAL 1ST 80 INSTITUTIONS		168,814	1,226	552	193	8,983	118,322	10,149	12,040	17,349
81	OREGON STATE UNIVERSITY	500	0	0	200	0	70	0	111	119
82	UNIV OF ILL MED CTR CHGO	498	0	0	0	0	423	0	0	75
83	THOMAS JEFFERSON UNIV	488	0	0	0	0	412	0	0	76
84	GEORGE WASHINGTON UNIV	484	0	0	0	0	117	107	238	22
85	U OREGON HLTH SCI CTR	474	0	0	0	0	460	0	0	14
86	AUBURN UNIVERSITY	454	0	6	0	0	76	372	0	0
87	CALIF ST UNIV LOS ANGELES	446	0	0	0	0	34	88	324	0
88	LOUISIANA STATE UNIV	445	21	0	0	0	417	0	0	7
89	ALBANY MEDICAL COLLEGE	438	0	0	0	0	329	0	0	109
90	NORTH TEXAS STATE UNIV	430	0	0	0	0	14	119	273	24
TOTAL 1ST 90 INSTITUTIONS		173,471	1,247	558	393	8,983	120,674	10,835	12,986	17,795
91	UNIV OF SAN FRANCISCO	424	0	0	0	0	0	107	317	0
92	UNIVERSITY OF NEW MEXICO	421	0	0	0	10	247	142	0	22
93	THE UNIVERSITY OF ALABAMA	417	0	0	0	196	0	147	74	0
94	WESTERN MICHIGAN UNIV	413	0	0	0	0	77	0	336	0
95	UNIV OF MD COLLEGE PARK	410	0	0	0	0	16	95	259	40
96	COLORADO SCHOODL OF MINES	410	0	0	0	410	0	0	0	0
97	SUNY ODNHSTATE MED CTR	403	0	0	0	0	403	0	0	0
98	RUTGERS THE ST UNIV OF NJ	403	0	0	0	0	79	99	133	92
99	U TEX HLTH SCI CTR-S ANT	401	0	0	0	0	386	15	0	0
100	BROWN UNIVERSITY	395	0	0	0	0	258	41	60	36
TOTAL 1ST 100 INSTITUTIONS		177,568	1,247	558	393	9,599	122,140	11,481	14,165	17,985

NOTE: TABLE INCLUDES DATA FROM 14 FEDERAL AGENCIES RESPONSIBLE FOR MORE THAN 95 PERCENT OF ALL FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-26. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY HIGHEST DEGREE GRANTED IN THE SCIENCES AND ENGINEERING, TYPE OF CONTROL, AND AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

HIGHEST DEGREE GRANTED AND TYPE OF CONTROL	TOTAL	USDA	CDM	ODD	ODE	EPA	HEW	INT	NASA	NSF	DDT	OTHER*
TOTAL, ALL DEGREE LEVELS												
ALL INSTITUTIONS ...	7,479,177	394,815	135,919	452,249	269,506	55,844	5,411,826	43,983	130,206	607,119	17,586	160,124
PUBLIC	4,565,111	377,098	130,740	193,045	141,834	42,303	3,263,279	37,818	80,394	344,776	12,503	141,321
PRIVATE	2,914,066	17,717	5,179	259,204	127,672	13,541	2,148,547	6,165	49,812	262,343	5,083	18,803
DOCTORATE												
ALL INSTITUTIONS ...	5,512,342	362,694	132,386	445,130	260,111	52,392	3,547,029	41,349	122,934	576,592	16,165	155,560
PUBLIC	3,383,046	346,577	127,387	189,105	136,088	40,040	2,154,712	35,369	74,557	329,751	11,442	138,018
PRIVATE	2,129,296	16,117	4,999	256,025	124,023	12,352	1,392,317	5,980	48,377	246,841	4,723	17,542
MASTER'S												
ALL INSTITUTIONS ...	652,079	19,811	3,154	4,287	3,909	2,249	593,266	2,391	6,075	13,980	773	2,194
PUBLIC	435,225	18,336	3,154	3,854	1,253	1,352	328,022	2,305	5,199	9,280	676	1,794
PRIVATE	216,854	1,475	0	433	2,656	897	205,244	86	876	4,700	97	390
BACHELOR'S												
ALL INSTITUTIONS ...	629,264	12,240	295	2,832	1,333	590	597,233	198	1,171	10,990	176	2,206
PUBLIC	190,683	12,115	199	86	411	386	173,606	99	618	1,678	0	1,485
PRIVATE	438,581	125	96	2,746	922	204	423,627	99	553	9,312	176	721
NO SCIENCE DEGREES												
ALL INSTITUTIONS ...	685,492	70	84	0	4,153	613	674,298	45	26	5,557	472	174
PUBLIC	556,157	70	0	0	4,082	525	546,939	45	20	4,067	385	24
PRIVATE	129,335	0	84	0	71	88	127,359	0	6	1,490	87	150

* INCLUDES AID, HUD, LABDR, AND NRC.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-27. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY HIGHEST DEGREE GRANTED IN THE SCIENCES AND ENGINEERING, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978

(DOLLARS IN THOUSANDS)

HIGHEST DEGREE GRANTED AND TYPE OF CONTROL	TOTAL OBLIGATIONS	ACADEMIC SCIENCE							NONSCIENCE ACTIVITIES
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL INST IN SCI & ENG	FELLOW-SHIP-TRAINING GRANTS	GENERAL SUPPRT FOR SCIENCE	OTHER SCIENCE ACTIVITIES	
TOTAL, ALL DEGREE LEVELS									
ALL INSTITUTIONS ...	7,479,177	3,957,638	3,362,174	34,328	26,664	205,865	74,102	254,505	3,521,539
PUBLIC	4,565,111	2,295,934	1,887,928	10,394	15,863	108,242	43,235	230,272	2,269,177
PRIVATE	2,914,066	1,661,704	1,474,246	23,934	10,801	97,623	30,867	24,233	1,252,362
DOCTORATE									
ALL INSTITUTIONS ...	5,512,342	3,824,451	3,285,894	34,316	25,107	196,876	50,904	231,354	1,687,891
PUBLIC	3,383,046	2,203,389	1,833,552	10,382	15,177	102,600	31,177	210,501	1,179,657
PRIVATE	2,129,296	1,621,062	1,452,342	23,934	9,930	94,276	19,727	20,853	508,234
MASTER'S									
ALL INSTITUTIONS ...	652,079	78,894	47,358	12	665	6,121	8,808	15,930	573,185
PUBLIC	435,225	62,264	37,800	12	411	3,792	6,045	14,204	372,961
PRIVATE	216,854	16,630	9,558	0	254	2,329	2,763	1,726	200,224
BACHELOR'S									
ALL INSTITUTIONS ...	629,264	40,375	21,220	0	661	1,875	9,548	7,071	588,869
PUBLIC	190,683	20,021	11,149	0	80	939	2,431	5,422	170,662
PRIVATE	438,581	20,354	10,071	0	581	936	7,117	1,649	418,227
NO SCIENCE DEGREES									
ALL INSTITUTIONS ...	685,492	13,918	7,702	0	231	993	4,842	150	671,574
PUBLIC	556,157	10,260	5,427	0	195	911	3,582	145	545,897
PRIVATE	129,335	3,658	2,275	0	36	82	1,260	5	125,677

NOTE: TABLE INCLUDES DATA FROM 14 FEDERAL AGENCIES RESPONSIBLE FOR MORE THAN 95 PERCENT OF ALL FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-28. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES AND THE NUMBER OF RECIPIENT INSTITUTIONS, BY GEOGRAPHIC DIVISION, STATE, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION, STATE, AND TYPE OF CONTROL		TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	RED PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPRT FOR SCI	OTHER SCIENCE	NON- SCIENCE
UNITED STATES, TOTAL										
PUBLIC INST'S	AMT	4,565,111	2,295,934	1,887,928	10,394	15,863	103,242	43,235	230,272	2,269,177
	NO.	1,328	540	409	40	194	249	237	291	1,307
PRIVATE INST'S	AMT	2,914,066	1,661,704	1,474,246	23,934	10,801	97,623	30,867	24,233	1,252,362
	NO.	1,407	442	296	25	150	124	151	205	1,398
NEW ENGLAND, TOTAL										
PUBLIC INST'S	AMT	180,404	75,136	60,637	112	750	2,385	1,669	9,583	105,268
	NO.	84	27	22	1	10	11	10	12	79
PRIVATE INST'S	AMT	493,172	368,873	327,114	9,649	2,086	22,244	3,232	4,548	124,299
	NO.	145	56	41	4	20	19	16	27	143
CONNECTICUT										
PUBLIC INST'S	AMT	35,486	18,571	14,931	0	149	1,138	512	1,841	16,915
	NO.	21	2	2	0	1	1	1	1	21
PRIVATE INST'S	AMT	80,353	62,826	55,483	314	237	5,986	523	283	17,527
	NO.	21	11	8	1	2	5	4	5	20
MAINE										
PUBLIC INST'S	AMT	23,004	5,605	3,645	0	29	105	115	1,711	17,399
	NO.	11	3	3	0	1	1	1	2	10
PRIVATE INST'S	AMT	5,435	365	144	0	18	0	199	4	5,070
	NO.	14	4	2	0	2	0	1	1	14
MASSACHUSETTS										
PUBLIC INST'S	AMT	64,929	20,209	15,767	0	406	576	634	2,826	44,720
	NO.	35	13	10	0	3	4	5	5	33
PRIVATE INST'S	AMT	365,963	285,291	252,342	9,335	1,546	15,771	2,114	4,183	80,672
	NO.	78	31	24	3	11	12	9	17	77
NEW HAMPSHIRE										
PUBLIC INST'S	AMT	14,825	7,020	5,625	0	74	143	138	1,040	7,805
	NO.	8	4	3	0	2	2	1	2	7
PRIVATE INST'S	AMT	15,085	7,892	7,497	0	103	92	178	22	7,193
	NO.	12	4	3	0	2	1	1	1	12
RHODE ISLAND										
PUBLIC INST'S	AMT	17,011	9,776	8,553	112	46	68	65	932	7,235
	NO.	3	2	2	1	1	2	1	1	3
PRIVATE INST'S	AMT	20,765	12,449	11,621	0	171	395	218	44	8,316
	NO.	8	3	2	0	1	1	1	2	8
VERMONT										
PUBLIC INST'S	AMT	25,149	13,955	12,116	0	46	355	205	1,233	11,194
	NO.	6	3	2	0	2	1	1	1	5
PRIVATE INST'S	AMT	5,571	50	27	0	11	0	0	12	5,521
	NO.	12	3	2	0	2	0	0	1	12
MIDDLE ATLANTIC, TOTAL										
PUBLIC INST'S	AMT	522,219	181,700	156,313	339	894	9,042	4,023	12,089	340,519
	NO.	144	66	52	2	23	23	25	31	142
PRIVATE INST'S	AMT	697,951	468,479	407,647	8,274	3,565	30,581	5,507	12,905	229,472
	NO.	277	102	76	9	33	36	35	49	275
NEW JERSEY										
PUBLIC INST'S	AMT	84,505	26,378	21,957	0	224	699	568	2,930	57,927
	NO.	30	12	9	0	6	4	4	5	30
PRIVATE INST'S	AMT	39,712	21,920	19,194	45	210	1,927	462	82	17,792
	NO.	25	11	8	2	2	3	3	4	25
NEW YORK										
PUBLIC INST'S	AMT	263,386	61,075	53,489	329	444	4,060	2,091	662	202,311
	NO.	81	38	34	1	13	15	19	16	80
PRIVATE INST'S	AMT	483,382	341,588	294,572	7,974	1,848	22,135	3,285	11,774	141,794
	NO.	151	52	40	5	17	22	21	28	149
PENNSYLVANIA										
PUBLIC INST'S	AMT	174,528	94,247	80,867	10	226	3,283	1,364	8,497	80,281
	NO.	33	16	9	1	4	4	5	10	32
PRIVATE INST'S	AMT	174,657	104,971	93,681	255	1,507	6,519	1,760	1,049	69,886
	NO.	101	39	28	2	14	11	11	17	101
EAST NORTH CENTRAL, TOTAL										
PUBLIC INST'S	AMT	771,957	403,652	334,197	3,529	2,650	21,438	5,639	36,199	368,305
	NO.	175	69	55	6	32	35	28	40	173
PRIVATE INST'S	AMT	312,387	155,640	137,253	1,504	1,161	10,806	3,655	1,261	156,747
	NO.	250	61	40	3	26	13	21	32	249
ILLINOIS										
PUBLIC INST'S	AMT	165,666	72,648	59,191	73	661	3,760	1,322	7,641	93,014
	NO.	58	17	13	1	6	8	8	10	58
PRIVATE INST'S	AMT	156,577	97,566	85,877	1,374	703	7,832	1,389	391	59,011
	NO.	76	13	11	2	5	6	8	6	76
INDIANA										
PUBLIC INST'S	AMT	100,971	59,045	49,317	107	459	2,162	736	6,264	41,926
	NO.	10	7	7	2	4	4	4	6	10
PRIVATE INST'S	AMT	19,316	6,436	5,638	130	111	215	224	118	12,860
	NO.	34	12	7	1	7	1	2	3	33

SEE FOOTNOTES AT END OF TABLE.

TABLE B-28. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES AND THE NUMBER OF RECIPIENT INSTITUTIONS,
 BY GEOGRAPHIC DIVISION, STATE, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978
 CONTINUED

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION, STATE, AND TYPE OF CONTROL		TOTAL, ALL ACTIVITIES	-----ACADEMIC SCIENCE-----						NON- SCIENCE	
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	REC PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNNG GRANTS	GENERAL SUPPORT FOR SCI		OTHER SCIENCE
EAST NORTH CENTRAL, CONT'D										
MICHIGAN										
PUBLIC INST'S	AMT	211,675	113,872	94,986	525	664	5,976	2,240	6,481	98,003
	NO.	42	14	10	2	9	7	8	7	42
PRIVATE INST'S	AMT	27,022	678	300	0	69	50	190	69	26,344
	NO.	46	9	4	0	3	1	1	5	46
OHIO										
PUBLIC INST'S	AMT	147,848	68,013	56,187	0	494	2,368	821	8,143	79,835
	NO.	32	14	13	0	8	11	6	10	32
PRIVATE INST'S	AMT	87,475	42,455	38,117	0	164	2,420	1,128	626	45,020
	NO.	68	21	13	0	9	3	6	14	68
MISCONSIN										
PUBLIC INST'S	AMT	145,597	90,074	74,516	2,824	372	5,172	520	5,670	55,523
	NO.	33	17	12	1	5	5	2	7	31
PRIVATE INST'S	AMT	21,997	8,505	7,321	0	114	289	724	57	13,492
	NO.	26	6	5	0	2	2	4	4	26
WEST NORTH CENTRAL, TOTAL										
PUBLIC INST'S	AMT	373,975	198,349	152,724	43	1,523	10,282	2,523	31,254	175,626
	NO.	137	51	34	2	14	22	18	31	137
PRIVATE INST'S	AMT	141,102	58,155	50,078	0	509	5,335	1,670	563	82,947
	NO.	163	45	28	0	22	6	12	19	163
IOWA										
PUBLIC INST'S	AMT	65,961	42,165	33,334	4	368	2,264	466	5,729	23,796
	NO.	19	4	3	1	2	3	3	3	19
PRIVATE INST'S	AMT	16,602	408	202	0	38	64	10	94	16,394
	NO.	38	8	4	0	5	1	1	6	38
KANSAS										
PUBLIC INST'S	AMT	57,747	28,746	23,574	0	84	1,386	768	3,934	28,001
	NO.	28	10	6	0	3	4	4	5	28
PRIVATE INST'S	AMT	9,780	161	13	0	10	0	116	22	9,619
	NO.	22	4	1	0	2	0	1	1	22
MINNESOTA										
PUBLIC INST'S	AMT	111,500	70,473	59,687	0	403	3,968	629	5,786	41,027
	NO.	26	10	4	0	2	3	2	5	26
PRIVATE INST'S	AMT	17,295	1,074	261	0	83	93	509	128	16,221
	NO.	31	14	9	0	8	2	4	6	31
MISSOURI										
PUBLIC INST'S	AMT	64,325	27,046	17,164	39	45	1,879	401	7,518	37,280
	NO.	29	15	10	1	4	6	3	10	29
PRIVATE INST'S	AMT	81,296	54,879	48,582	0	338	5,178	674	107	26,419
	NO.	46	8	7	0	4	3	3	1	46
NEBRASKA										
PUBLIC INST'S	AMT	33,215	16,092	11,240	0	607	521	128	3,596	17,123
	NO.	17	5	4	0	2	3	2	4	17
PRIVATE INST'S	AMT	7,540	766	590	0	25	0	36	115	6,780
	NO.	13	4	3	0	2	0	1	2	13
NORTH DAKOTA										
PUBLIC INST'S	AMT	22,342	6,736	4,201	0	16	178	55	2,286	15,606
	NO.	10	3	3	0	1	2	2	2	10
PRIVATE INST'S	AMT	3,610	654	329	0	0	0	325	0	2,956
	NO.	4	4	3	0	0	0	2	0	4
SOUTH DAKOTA										
PUBLIC INST'S	AMT	18,684	6,091	3,524	0	0	86	76	2,405	12,793
	NO.	8	4	4	0	0	1	2	2	8
PRIVATE INST'S	AMT	4,771	213	101	0	15	0	0	97	4,558
	NO.	9	3	1	0	1	0	0	3	9
SOUTH ATLANTIC, TOTAL										
PUBLIC INST'S	AMT	637,001	305,439	238,897	553	2,324	12,683	7,546	43,436	331,562
	NO.	240	96	72	7	31	43	42	50	238
PRIVATE INST'S	AMT	659,692	342,534	314,662	1,555	1,350	13,957	8,806	2,204	317,158
	NO.	204	63	36	5	21	20	25	27	203
DELAWARE										
PUBLIC INST'S	AMT	13,680	8,778	7,373	8	160	47	92	1,098	5,102
	NO.	3	3	2	1	2	1	1	2	3
PRIVATE INST'S	AMT	816	0	0	0	0	0	0	0	816
	NO.	4	0	0	0	0	0	0	0	4
DISTRICT OF COLUMBIA										
PUBLIC INST'S	AMT	6,417	2,026	639	0	0	127	416	844	4,391
	NO.	1	1	1	0	0	1	1	1	1
PRIVATE INST'S	AMT	199,602	40,945	35,680	947	174	1,925	1,671	548	158,657
	NO.	13	7	7	1	4	6	5	6	13
FLORIDA										
PUBLIC INST'S	AMT	127,042	47,402	38,523	127	388	2,095	1,482	4,787	79,640
	NO.	38	11	11	1	3	4	5	7	37

SEE FOOTNOTES AT END OF TABLE.

TABLE B-28. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES AND THE NUMBER OF RECIPIENT INSTITUTIONS, BY GEOGRAPHIC DIVISION, STATE, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION, STATE, AND TYPE OF CONTROL		TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FDR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
SOUTH ATLANTIC, CONT'D										
PRIVATE INST'S	AMT	59,475	29,750	26,720	527	38	842	1,228	395	30,125
	NO.	30	7	5	2	3	1	3	4	30
GEORGIA										
PUBLIC INST'S	AMT	85,757	52,960	42,057	203	245	1,323	1,194	7,938	32,797
	NO.	39	16	11	2	3	6	7	10	33
PRIVATE INST'S	AMT	49,772	18,245	13,648	0	22	931	3,253	391	31,527
	NO.	31	8	5	0	2	4	5	5	30
MARYLAND										
PUBLIC INST'S	AMT	88,738	44,410	39,158	38	71	1,180	661	3,302	44,328
	NO.	29	16	13	1	4	10	5	5	29
PRIVATE INST'S	AMT	219,769	203,001	196,246	21	874	4,836	792	232	16,768
	NO.	21	7	3	1	3	2	2	2	21
NORTH CAROLINA										
PUBLIC INST'S	AMT	115,768	56,270	41,167	0	453	3,242	1,153	10,255	59,498
	NO.	61	18	14	0	7	7	7	8	61
PRIVATE INST'S	AMT	83,668	47,769	40,940	60	158	5,241	868	502	35,899
	NO.	44	10	6	1	1	4	4	2	44
SOUTH CAROLINA										
PUBLIC INST'S	AMT	51,166	21,162	13,992	0	600	547	695	5,328	30,004
	NO.	22	10	7	0	5	4	6	4	21
PRIVATE INST'S	AMT	17,602	533	0	0	1	45	448	39	17,069
	NO.	23	7	0	0	1	1	3	3	23
VIRGINIA										
PUBLIC INST'S	AMT	118,696	60,536	48,866	177	375	3,348	1,289	6,481	58,160
	NO.	36	13	11	2	5	6	7	10	36
PRIVATE INST'S	AMT	22,951	2,145	1,336	0	47	137	546	79	20,806
	NO.	28	14	9	0	4	2	3	4	28
WEST VIRGINIA										
PUBLIC INST'S	AMT	29,537	11,895	7,122	0	32	774	564	3,403	17,642
	NO.	17	8	2	0	2	4	3	3	17
PRIVATE INST'S	AMT	5,437	146	92	0	36	0	0	18	5,291
	NO.	10	3	1	0	3	0	0	1	10
EAST SOUTH CENTRAL, TOTAL										
PUBLIC INST'S	AMT	307,589	129,804	87,516	3,014	621	5,925	3,036	29,692	177,785
	NO.	89	40	35	3	19	18	22	25	89
PRIVATE INST'S	AMT	117,043	30,629	23,476	0	76	2,695	3,453	929	86,414
	NO.	107	25	16	0	5	7	14	14	107
ALABAMA										
PUBLIC INST'S	AMT	98,752	46,278	33,367	2,244	254	2,849	477	7,087	52,474
	NO.	32	14	12	1	8	4	5	8	32
PRIVATE INST'S	AMT	26,935	3,552	1,203	0	20	140	1,332	657	23,383
	NO.	21	8	5	0	1	2	5	3	21
KENTUCKY										
PUBLIC INST'S	AMT	59,916	25,749	16,306	4	212	862	831	7,534	34,167
	NO.	8	7	6	1	6	4	4	6	8
PRIVATE INST'S	AMT	13,274	359	55	0	0	0	250	54	12,915
	NO.	26	5	5	0	0	0	1	3	26
MISSISSIPPI										
PUBLIC INST'S	AMT	72,273	20,671	11,590	0	44	725	1,159	7,153	51,602
	NO.	24	7	7	0	1	5	5	5	24
PRIVATE INST'S	AMT	10,729	596	7	0	10	66	433	80	10,133
	NO.	16	3	1	0	1	1	2	3	16
TENNESSEE										
PUBLIC INST'S	AMT	76,648	37,106	26,253	766	111	1,489	569	7,918	39,542
	NO.	25	12	10	1	4	5	8	6	25
PRIVATE INST'S	AMT	66,105	26,122	22,211	0	46	2,289	1,438	138	39,983
	NO.	44	9	5	0	3	4	6	5	44
WEST SOUTH CENTRAL, TOTAL										
PUBLIC INST'S	AMT	470,640	233,067	188,478	811	995	8,683	5,389	28,711	237,573
	NO.	148	69	49	4	19	34	35	35	147
PRIVATE INST'S	AMT	122,487	49,813	46,024	26	258	1,921	1,311	273	72,674
	NO.	87	30	23	1	6	9	10	12	87
ARKANSAS										
PUBLIC INST'S	AMT	43,129	17,600	11,744	0	42	465	167	5,182	25,529
	NO.	16	9	5	0	2	7	3	3	16
PRIVATE INST'S	AMT	6,932	31	30	0	1	0	0	0	6,901
	NO.	12	3	2	0	1	0	0	0	12
LOUISIANA										
PUBLIC INST'S	AMT	70,080	23,860	16,479	0	157	726	1,020	5,478	46,220
	NO.	15	12	7	0	4	5	6	8	15
PRIVATE INST'S	AMT	24,348	9,033	8,037	0	0	353	582	61	15,315
	NO.	11	4	3	0	0	1	3	2	11

SEE FOOTNOTES AT END OF TABLE.

TABLE B-28. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES AND THE NUMBER OF RECIPIENT INSTITUTIONS,
CONTINUED BY GEOGRAPHIC DIVISION, STATE, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION, STATE, AND TYPE OF CONTROL		TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE	
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FUR SCI	OTHER SCIENCE		
WEST SOUTH CENTRAL, CONT'D											
OKLAHOMA											
	PUBLIC INST'S	AMT NO.	63,498 27	23,314 11	16,387 7	0 0	214 3	1,327 4	652 5	4,734 5	40,184 27
	PRIVATE INST'S	AMT NO.	7,762 13	471 4	392 3	0 0	13 1	59 2	0 0	7 1	7,291 13
TEXAS											
	PUBLIC INST'S	AMT NO.	293,933 90	168,293 37	143,868 30	811 4	582 10	5,165 16	3,650 21	11,317 19	125,640 89
	PRIVATE INST'S	AMT NO.	83,445 51	40,278 19	37,565 15	26 1	244 4	1,509 6	729 7	205 9	43,167 51
MOUNTAIN, TOTAL											
	PUBLIC INST'S	AMT NO.	364,184 90	209,647 40	179,979 33	230 6	2,052 20	8,974 22	4,673 21	13,739 22	154,537 85
	PRIVATE INST'S	AMT NO.	24,601 26	10,594 11	9,144 6	0 0	163 5	229 2	570 3	488 4	14,007 26
ARIZONA											
	PUBLIC INST'S	AMT NO.	70,525 19	35,164 7	30,122 4	21 2	753 5	1,388 2	776 4	2,104 3	35,361 17
	PRIVATE INST'S	AMT NO.	1,342 3	202 1	0 0	0 0	0 0	0 0	202 1	0 0	1,140 3
COLORADO											
	PUBLIC INST'S	AMT NO.	104,027 21	63,375 9	54,689 7	46 1	857 4	3,986 5	964 4	2,833 5	40,652 21
	PRIVATE INST'S	AMT NO.	14,276 11	8,576 3	7,603 3	0 0	32 1	225 1	103 1	413 2	5,700 11
IDAHO											
	PUBLIC INST'S	AMT NO.	14,903 6	6,546 3	4,085 3	12 1	40 2	508 2	175 1	1,726 2	6,357 6
	PRIVATE INST'S	AMT NO.	1,025 2	36 2	0 0	0 0	5 1	0 0	0 0	31 1	989 2
MONTANA											
	PUBLIC INST'S	AMT NO.	18,122 10	8,523 5	6,280 4	0 0	16 2	335 5	159 2	1,733 4	9,599 10
	PRIVATE INST'S	AMT NO.	1,515 3	4 1	0 0	0 0	4 1	0 0	0 0	0 0	1,511 3
NEVADA											
	PUBLIC INST'S	AMT NO.	11,525 7	4,759 4	3,646 4	0 0	20 1	158 2	100 1	835 1	6,766 5
	PRIVATE INST'S	AMT NO.	111 1	14 1	14 1	0 0	0 0	0 0	0 0	0 0	97 1
NEW MEXICO											
	PUBLIC INST'S	AMT NO.	71,843 9	43,188 6	38,766 5	50 1	65 2	823 3	1,426 5	2,058 3	28,655 9
	PRIVATE INST'S	AMT NO.	3,983 3	348 2	66 1	0 0	17 1	0 0	265 1	0 0	3,635 3
UTAH											
	PUBLIC INST'S	AMT NO.	62,756 10	41,732 4	37,468 4	101 1	276 3	1,542 2	912 3	1,433 3	21,024 9
	PRIVATE INST'S	AMT NO.	2,349 3	1,414 1	1,261 1	0 0	105 1	4 1	0 0	44 1	935 3
WYOMING											
	PUBLIC INST'S	AMT NO.	10,483 8	6,360 2	4,923 2	0 0	25 1	234 1	161 1	1,017 1	4,123 8
PACIFIC, TOTAL											
	PUBLIC INST'S	AMT NO.	878,408 209	542,413 74	479,815 51	1,511 8	4,054 26	29,356 37	7,708 28	19,969 40	335,995 205
	PRIVATE INST'S	AMT NO.	253,118 136	176,047 43	158,842 29	2,926 3	1,633 12	9,855 12	1,802 10	989 18	77,071 134
ALASKA											
	PUBLIC INST'S	AMT NO.	27,743 4	24,591 2	22,716 2	411 1	11 1	390 1	191 1	872 2	3,152 4
	PRIVATE INST'S	AMT NO.	532 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	532 2
CALIFORNIA											
	PUBLIC INST'S	AMT NO.	570,095 140	350,386 50	310,528 34	776 4	2,989 16	20,095 22	5,633 19	10,365 24	219,709 137
	PRIVATE INST'S	AMT NO.	230,151 98	172,887 30	156,787 19	2,926 3	1,526 7	9,350 11	1,419 8	879 13	57,264 96
HAWAII											
	PUBLIC INST'S	AMT NO.	42,651 10	28,206 4	24,864 4	30 1	173 1	794 2	459 2	1,886 2	14,445 10
	PRIVATE INST'S	AMT NO.	1,419 3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1,419 3

SEE FOOTNOTES AT END OF TABLE.

TABLE B-28. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES AND THE NUMBER OF RECIPIENT INSTITUTIONS, BY GEOGRAPHIC DIVISION, STATE, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978

(DOLLARS IN THOUSANDS)

GEOGRAPHIC DIVISION, STATE, AND TYPE OF CONTROL		TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE
			TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	RCO PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRINEESHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
PACIFIC, CONT'D										
OREGON										
PUBLIC INST'S	AMT	84,114	42,120	35,789	119	286	2,132	566	3,228	41,994
	NO.	22	10	7	1	4	6	3	7	22
PRIVATE INST'S	AMT	9,103	2,165	1,627	0	84	0	383	71	6,933
	NO.	20	6	5	0	2	0	2	2	20
WASHINGTON										
PUBLIC INST'S	AMT	153,805	97,110	85,918	175	595	5,945	859	3,618	56,695
	NO.	33	8	4	1	4	6	3	5	32
PRIVATE INST'S	AMT	11,913	995	428	0	23	505	0	39	10,918
	NO.	13	7	5	0	3	1	0	3	13
OUTLYING AREAS, TOTAL										
PUBLIC INST'S	AMT	58,734	16,727	9,372	252	0	474	1,029	5,600	42,007
	NO.	12	8	6	1	0	4	5	5	12
PRIVATE INST'S	AMT	92,513	940	6	0	0	0	861	73	91,573
	NO.	12	6	1	0	0	0	5	3	11
GUAM										
PUBLIC INST'S	AMT	3,071	1,044	557	0	0	3	15	469	2,027
	NO.	1	1	1	0	0	1	1	1	1
PUERTO RICO										
PUBLIC INST'S	AMT	52,679	14,329	8,112	252	0	471	822	4,672	38,350
	NO.	8	6	4	1	0	3	3	3	8
PRIVATE INST'S	AMT	92,513	940	6	0	0	0	861	73	91,573
	NO.	12	6	1	0	0	0	5	3	11
AMERICAN SAMOA										
PUBLIC INST'S	AMT	411	0	0	0	0	0	0	0	411
	NO.	1	0	0	0	0	0	0	0	1
VIRGIN ISLANDS										
PUBLIC INST'S	AMT	2,056	1,354	703	0	0	0	192	459	702
	NO.	1	1	1	0	0	0	1	1	1
TRUST TERRITORY PAC ISL										
PUBLIC INST'S	AMT	517	0	0	0	0	0	0	0	517
	NO.	1	0	0	0	0	0	0	0	1

NOTE: TABLE INCLUDES DATA FROM 14 FEDERAL AGENCIES RESPONSIBLE FOR MORE THAN 95 PERCENT OF ALL FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-29. PERCENT DISTRIBUTION OF FEDERAL OBLIGATIONS TO PUBLIC AND PRIVATE UNIVERSITIES AND COLLEGES, BY GEOGRAPHIC DIVISION, STATE, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978

GEOGRAPHIC DIVISION, STATE, AND TYPE OF CTRL	TOTAL, ALL ACTIVITIES	-----ACADEMIC SCIENCE-----								NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	RED PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPRT FOR SCI	OTHER SCIENCE		
UNITED STATES, TOTAL	61.0	58.0	56.2	30.3	59.5	52.6	58.3	90.5	64.4	
PUBLIC INST'S	39.0	42.0	43.8	69.7	40.5	47.4	41.7	9.5	35.6	
NEW ENGLAND, TOTAL	26.8	16.9	15.6	1.1	26.4	9.7	34.0	67.8	45.8	
PUBLIC INST'S	73.2	83.1	84.4	98.9	73.6	90.3	66.0	32.2	54.2	
CONNECTICUT	30.6	22.8	21.2	0.0	38.6	16.0	49.5	86.7	49.1	
PUBLIC INST'S	69.4	77.2	78.8	100.0	61.4	84.0	50.5	13.3	50.9	
MAINE	80.9	93.9	96.2	0.0	61.7	100.0	36.6	99.8	77.4	
PUBLIC INST'S	19.1	6.1	3.8	0.0	38.3	0.0	63.4	0.2	22.6	
MASSACHUSETTS	15.1	6.6	5.9	0.0	20.8	3.5	23.1	40.3	35.7	
PUBLIC INST'S	84.9	93.4	94.1	100.0	79.2	96.5	76.9	59.7	64.3	
NEW HAMPSHIRE	49.6	47.1	42.9	0.0	41.8	60.8	43.7	97.9	52.0	
PUBLIC INST'S	50.4	52.9	57.1	0.0	58.2	39.2	56.3	2.1	48.0	
RHODE ISLAND	45.0	44.0	42.4	100.0	21.2	14.7	23.0	95.5	46.5	
PUBLIC INST'S	55.0	56.0	57.6	0.0	78.8	85.3	77.0	4.5	53.5	
VERMONT	81.9	99.6	99.8	0.0	80.7	100.0	100.0	99.0	67.0	
PUBLIC INST'S	18.1	0.4	0.2	0.0	19.3	0.0	0.0	1.0	33.0	
MIDDLE ATLANTIC, TOTAL	42.8	27.9	27.7	3.9	20.0	20.8	42.2	48.4	59.7	
PUBLIC INST'S	57.2	72.1	72.3	96.1	80.0	79.2	57.8	51.6	40.3	
NEW JERSEY	68.0	54.6	53.4	0.0	51.6	26.6	55.1	97.3	76.5	
PUBLIC INST'S	32.0	45.4	46.6	100.0	48.4	73.4	44.9	2.7	23.5	
NEW YORK	35.3	15.2	15.4	4.0	19.4	15.5	38.9	5.3	58.8	
PUBLIC INST'S	64.7	84.8	84.6	96.0	80.6	84.5	61.1	94.7	41.2	
PENNSYLVANIA	50.0	47.3	46.3	3.8	13.0	33.5	43.7	89.0	53.5	
PUBLIC INST'S	50.0	52.7	53.7	96.2	87.0	66.5	56.3	11.0	46.5	
EAST NORTH CENTRAL, TOTAL	71.2	72.2	70.9	70.1	69.5	66.5	60.7	96.6	70.1	
PUBLIC INST'S	28.8	27.8	29.1	29.9	30.5	33.5	39.3	3.4	29.9	
ILLINOIS	51.4	42.7	40.8	5.0	48.5	32.4	48.8	95.1	61.2	
PUBLIC INST'S	48.6	57.3	59.2	95.0	51.5	67.6	51.2	4.9	38.8	
INDIANA	83.9	90.2	89.7	45.1	80.5	91.0	76.7	98.2	76.5	
PUBLIC INST'S	16.1	9.8	10.3	54.9	19.5	9.0	23.3	1.8	23.5	
MICHIGAN	88.7	99.4	99.7	100.0	90.6	99.3	92.2	99.2	78.8	
PUBLIC INST'S	11.3	0.6	0.3	0.0	9.4	0.7	7.8	0.8	21.2	
OHIO	62.8	61.6	59.6	0.0	75.1	49.4	42.1	92.9	63.9	
PUBLIC INST'S	37.2	38.4	40.4	0.0	24.9	50.6	57.0	7.1	36.1	
WISCONSIN	86.9	91.4	91.0	100.0	76.5	95.5	41.8	99.0	80.4	
PUBLIC INST'S	13.1	8.6	9.0	0.0	23.5	4.5	58.2	1.0	19.6	
WEST NORTH CENTRAL, TOTAL	72.6	77.3	75.3	100.0	75.0	65.8	60.2	98.2	67.9	
PUBLIC INST'S	27.4	22.7	24.7	0.0	25.0	34.2	39.8	1.8	32.1	
IOWA	79.7	99.0	99.4	100.0	90.6	97.2	97.9	98.4	59.2	
PUBLIC INST'S	20.3	1.0	0.6	0.0	9.4	2.8	2.1	1.6	40.8	
KANSAS	85.5	99.5	99.9	0.0	89.4	100.0	86.9	99.4	74.4	
PUBLIC INST'S	14.5	0.5	0.1	0.0	10.6	0.0	13.1	0.6	25.6	
MINNESOTA	86.6	98.5	99.6	0.0	82.9	97.7	55.3	97.8	71.7	
PUBLIC INST'S	13.4	1.5	0.4	0.0	17.1	2.3	44.7	2.2	28.3	
MISSOURI	44.2	33.0	26.1	100.0	11.7	26.6	37.3	98.6	58.5	
PUBLIC INST'S	55.8	67.0	73.9	0.0	88.3	73.4	62.7	1.4	41.5	
NEBRASKA	81.5	95.4	95.0	0.0	96.0	100.0	78.0	96.9	71.6	
PUBLIC INST'S	18.5	4.6	5.0	0.0	4.0	0.0	22.0	3.1	28.4	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-29. PERCENT DISTRIBUTION OF FEDERAL OBLIGATIONS TO PUBLIC AND PRIVATE UNIVERSITIES AND COLLEGES, BY GEOGRAPHIC DIVISION, STATE, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978

GEOGRAPHIC DIVISION, STATE, AND TYPE OF CONTROL	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	RED PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRINEESHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON- SCIENCE
WEST NORTH CENTRAL, CONT'D									
NORTH DAKOTA									
PUBLIC INST'S	86.1	91.2	92.7	0.0	100.0	100.0	14.5	100.0	84.1
PRIVATE INST'S	13.9	8.8	7.3	0.0	0.0	0.0	85.5	0.0	15.9
SOUTH DAKOTA									
PUBLIC INST'S	79.8	96.6	97.2	0.0	0.0	100.0	100.0	96.1	73.7
PRIVATE INST'S	20.2	3.4	2.8	0.0	100.0	0.0	0.0	3.9	26.3
SOUTH ATLANTIC, TOTAL									
PUBLIC INST'S	49.1	47.1	43.2	26.2	63.2	47.6	46.1	95.2	51.1
PRIVATE INST'S	50.9	52.9	56.8	73.8	36.8	52.4	53.9	4.8	48.9
DELAWARE									
PUBLIC INST'S	94.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.2
PRIVATE INST'S	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8
DISTRICT OF COLUMBIA									
PUBLIC INST'S	3.1	4.7	1.8	0.0	0.0	6.2	19.9	60.6	2.7
PRIVATE INST'S	96.9	95.3	98.2	100.0	100.0	93.8	80.1	39.4	97.3
FLORIDA									
PUBLIC INST'S	68.0	61.4	59.0	19.4	91.1	71.3	54.7	92.4	72.6
PRIVATE INST'S	32.0	38.6	41.0	80.6	8.9	28.7	45.3	7.6	27.4
GEORGIA									
PUBLIC INST'S	63.3	74.4	75.5	100.0	91.8	58.7	26.8	95.3	51.0
PRIVATE INST'S	36.7	25.6	24.5	0.0	8.2	41.3	73.2	4.7	49.0
MARYLAND									
PUBLIC INST'S	28.8	17.9	16.6	64.4	7.5	19.6	45.5	93.4	72.6
PRIVATE INST'S	71.2	82.1	83.4	35.6	92.5	80.4	54.5	6.6	27.4
NORTH CAROLINA									
PUBLIC INST'S	58.0	54.1	50.1	0.0	74.1	38.2	57.0	95.3	62.4
PRIVATE INST'S	42.0	45.9	49.9	100.0	25.9	61.8	43.0	4.7	37.6
SOUTH CAROLINA									
PUBLIC INST'S	74.4	97.5	100.0	0.0	99.8	92.4	60.8	99.3	63.7
PRIVATE INST'S	25.6	2.5	0.0	0.0	0.2	7.6	39.2	0.7	36.3
VIRGINIA									
PUBLIC INST'S	83.8	96.6	97.3	100.0	88.9	96.1	70.2	98.8	73.6
PRIVATE INST'S	16.2	3.4	2.7	0.0	11.1	3.9	29.8	1.2	26.4
WEST VIRGINIA									
PUBLIC INST'S	84.4	98.8	98.7	0.0	47.0	100.0	100.0	99.5	76.9
PRIVATE INST'S	15.6	1.2	1.3	0.0	53.0	0.0	0.0	0.5	23.1
EAST SOUTH CENTRAL, TOTAL									
PUBLIC INST'S	72.4	80.9	78.8	100.0	89.1	68.7	46.8	97.0	67.3
PRIVATE INST'S	27.6	19.1	21.2	0.0	10.9	31.3	53.2	3.0	32.7
ALABAMA									
PUBLIC INST'S	78.6	92.9	96.5	100.0	92.7	89.3	26.4	91.5	69.2
PRIVATE INST'S	21.4	7.1	3.5	0.0	7.3	10.7	73.6	8.5	30.8
KENTUCKY									
PUBLIC INST'S	81.9	98.6	99.7	100.0	100.0	100.0	76.9	99.3	72.6
PRIVATE INST'S	18.1	1.4	0.3	0.0	0.0	0.0	23.1	0.7	27.4
MISSISSIPPI									
PUBLIC INST'S	87.1	97.2	99.9	0.0	81.5	91.6	72.8	98.9	83.6
PRIVATE INST'S	12.9	2.8	0.1	0.0	18.5	8.4	27.2	1.1	16.4
TENNESSEE									
PUBLIC INST'S	53.7	58.7	54.2	100.0	70.7	39.4	28.4	98.3	49.7
PRIVATE INST'S	46.3	41.3	45.8	0.0	29.3	60.6	71.6	1.7	50.3
WEST SOUTH CENTRAL, TOTAL									
PUBLIC INST'S	79.3	82.4	80.4	96.9	79.4	81.9	80.4	99.0	76.6
PRIVATE INST'S	20.7	17.6	19.6	3.1	20.6	18.1	19.6	1.0	23.4
ARKANSAS									
PUBLIC INST'S	86.2	99.8	99.7	0.0	97.7	100.0	100.0	100.0	78.7
PRIVATE INST'S	13.8	0.2	0.3	0.0	2.3	0.0	0.0	0.0	21.3
LOUISIANA									
PUBLIC INST'S	74.2	72.5	67.2	0.0	100.0	67.3	63.7	98.9	75.1
PRIVATE INST'S	25.8	27.5	32.8	0.0	0.0	32.7	36.3	1.1	24.9
OKLAHOMA									
PUBLIC INST'S	89.1	98.0	97.7	0.0	94.3	95.7	100.0	99.8	84.6
PRIVATE INST'S	10.9	2.0	2.3	0.0	5.7	4.3	0.0	0.2	15.4
TEXAS									
PUBLIC INST'S	77.9	80.7	79.3	96.9	70.5	80.3	83.0	98.5	74.4
PRIVATE INST'S	22.1	19.3	20.7	3.1	29.5	19.7	17.0	1.5	25.6
MOUNTAIN, TOTAL									
PUBLIC INST'S	93.7	95.2	95.2	100.0	92.6	97.5	89.1	96.6	91.7
PRIVATE INST'S	6.3	4.8	4.8	0.0	7.4	2.5	10.9	3.4	8.3

SEE FOOTNOTES AT END OF TABLE.

TABLE B-29. PERCENT DISTRIBUTION OF FEDERAL OBLIGATIONS TO PUBLIC AND PRIVATE UNIVERSITIES AND COLLEGES,
CONTINUED BY GEOGRAPHIC DIVISION, STATE, TYPE OF CONTROL, AND TYPE OF ACTIVITY: FY 1978

GEOGRAPHIC DIVISION, STATE, AND TYPE OF CONTROL	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE						GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRINEESHIPS TRNG GRANTS				
MOUNTAIN, CONT'D										
ARIZONA PUBLIC INST'S PRIVATE INST'S	98.1 1.9	99.4 0.6	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	79.3 20.7	100.0 0.0	96.9 3.1	
COLORADO PUBLIC INST'S PRIVATE INST'S	87.9 12.1	88.1 11.9	87.5 12.5	100.0 0.0	96.4 3.6	94.6 5.4	90.3 9.7	87.3 12.7	87.7 12.3	
IDAHO PUBLIC INST'S PRIVATE INST'S	93.6 6.4	99.4 0.6	100.0 0.0	100.0 0.0	88.9 11.1	100.0 0.0	100.0 0.0	98.2 1.8	89.4 10.6	
MONTANA PUBLIC INST'S PRIVATE INST'S	92.3 7.7	100.0 0.0	100.0 0.0	0.0 0.0	80.0 20.0	100.0 0.0	100.0 0.0	100.0 0.0	86.4 13.6	
NEVADA PUBLIC INST'S PRIVATE INST'S	99.0 1.0	99.7 0.3	99.6 0.4	0.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	98.6 1.4	
NEW MEXICO PUBLIC INST'S PRIVATE INST'S	94.7 5.3	99.2 0.8	99.8 0.2	100.0 0.0	79.3 20.7	100.0 0.0	84.3 15.7	100.0 0.0	88.7 11.3	
UTAH PUBLIC INST'S PRIVATE INST'S	96.4 3.6	96.7 3.3	96.7 3.3	100.0 0.0	72.4 27.6	99.7 0.3	100.0 0.0	97.0 3.0	95.7 4.3	
WYOHING PUBLIC INST'S	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0	
PACIFIC, TOTAL PUBLIC INST'S PRIVATE INST'S	77.6 22.4	75.5 24.5	75.1 24.9	34.0 66.0	71.3 28.7	74.9 25.1	61.0 19.0	95.3 4.7	81.3 18.7	
ALASKA PUBLIC INST'S PRIVATE INST'S	98.1 1.9	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	85.6 14.4	
CALIFORNIA PUBLIC INST'S PRIVATE INST'S	71.2 28.8	67.0 33.0	66.4 33.6	21.0 79.0	66.2 33.8	68.2 31.8	79.9 20.1	92.2 7.8	79.3 20.7	
HAWAII PUBLIC INST'S PRIVATE INST'S	96.8 3.2	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	100.0 0.0	91.0 9.0	
OREGON PUBLIC INST'S PRIVATE INST'S	90.2 9.8	95.1 4.9	95.6 4.4	100.0 0.0	77.3 22.7	100.0 0.0	59.6 40.4	97.8 2.2	85.8 14.2	
WASHINGTON PUBLIC INST'S PRIVATE INST'S	92.8 7.2	99.0 1.0	99.5 0.5	100.0 0.0	96.3 3.7	92.2 7.8	100.0 0.0	98.9 1.1	83.8 16.2	
OUTLYING AREAS, TOTAL PUBLIC INST'S PRIVATE INST'S	38.8 61.2	94.7 5.3	99.9 0.1	100.0 0.0	0.0 0.0	100.0 0.0	54.4 45.6	98.7 1.3	31.4 68.6	
GUAM PUBLIC INST'S	100.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	
PUERTO-RICO PUBLIC INST'S PRIVATE INST'S	36.3 63.7	93.8 6.2	99.9 0.1	100.0 0.0	0.0 0.0	100.0 0.0	48.8 51.2	98.5 1.5	29.5 70.5	
AMERICAN SAMOA PUBLIC INST'S	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	
VIRGIN ISLANDS PUBLIC INST'S	100.0	100.0	100.0	0.0	0.0	0.0	100.0	100.0	100.0	
TRUST TERRITORY PAC ISL PUBLIC INST'S	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	

NOTE: TABLE INCLUDES DATA FROM 14 FEDERAL AGENCIES RESPONSIBLE FOR MORE THAN
95 PERCENT OF ALL FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-30. FEDERAL OBLIGATIONS TO THE 100 PUBLIC UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL	USDA	CDM	ODD	DOE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
	UNITED STATES TOTAL	4,565,111	377,098	30,740	193,045	141,834	42,303	3,263,279	37,818	80,394	344,776	12,503	41,321
1	UNIVERSITY OF WASHINGTON	105,671	910	2,466	7,797	4,157	1,028	73,915	412	1,209	12,925	255	597
2	UNIV OF WIS-MADISON	99,330	10,656	0	3,395	6,521	7	61,799	529	2,563	13,658	15	187
3	UNIV OF CAL LOS ANGELES	97,779	329	15	4,289	9,899	61	69,738	138	2,073	10,431	65	741
4	UNIVERSITY OF MINNESOTA	93,558	10,458	4	1,198	2,887	1,830	67,181	793	1,558	7,394	60	195
5	UNIV OF CAL SAN DIEGO	88,508	115	3,612	11,226	2,348	142	36,010	241	4,827	29,987	0	0
6	UNIVERSITY OF MICHIGAN	86,527	341	1,063	3,260	3,051	1,651	56,706	41	5,636	11,016	2,670	1,092
7	PENNSYLVANIA STATE UNIV	66,767	13,086	173	15,415	2,598	506	27,442	1,524	842	4,656	445	80
8	UNIV OF CAL BERKELEY	65,720	1,633	0	9,277	2,987	315	28,352	911	4,439	15,736	134	1,936
9	OHIO STATE UNIVERSITY	64,107	12,076	32	4,185	1,041	1,650	34,332	435	700	3,564	278	5,814
10	UNIV OF CAL SAN FRANCISCO	59,488	0	0	254	1,699	43	56,246	0	187	1,059	0	0
	TOTAL 1ST 10 INSTITUTIONS	827,455	49,604	7,365	60,296	37,188	7,233	511,721	5,024	24,034	110,426	3,922	10,642
11	UNIV OF ILL URBANA	58,840	11,779	0	4,962	6,495	2,065	17,870	768	992	13,847	55	7
12	UNIVERSITY OF COLORADO	53,375	337	850	1,881	2,048	202	39,369	623	2,733	5,307	0	25
13	UNIV OF TEXAS AT AUSTIN	47,701	28	71	15,875	7,206	378	13,945	445	2,787	6,510	183	273
14	PURDUE UNIVERSITY	44,383	9,602	241	2,645	4,233	654	15,754	205	2,220	8,160	20	649
15	UNIV OF NC AT CHAPEL HILL	43,691	109	39	702	381	2,162	36,294	118	30	3,675	81	100
16	MICHIGAN STATE UNIVERSITY	43,666	10,908	20	571	2,332	665	21,001	134	120	6,901	0	1,014
17	UNIVERSITY OF UTAH	42,863	51	227	823	5,535	116	30,447	758	496	4,355	55	0
18	UNIVERSITY OF PITTSBURGH	41,319	58	126	1,499	599	216	33,984	54	927	3,491	185	180
19	UNIVERSITY OF ARIZONA	39,534	3,358	23	3,382	860	864	20,611	1,019	2,189	6,347	0	881
20	UNIVERSITY OF FLORIDA	38,751	7,267	28	1,710	2,779	1,044	20,444	253	859	3,694	173	500
	TOTAL 1ST 20 INSTITUTIONS	1,281,578	93,101	8,990	94,346	69,656	15,599	761,440	9,401	37,387	172,713	4,674	14,271
21	UNIV OF CAL DAVIS	38,476	2,859	0	462	3,490	323	22,197	380	160	3,927	0	4,678
22	UNIV ALABAMA BIRMINGHAM	37,552	80	0	128	66	0	36,573	0	96	609	0	0
23	UNIVERSITY OF IOWA	37,326	1	0	764	246	390	30,638	0	3,282	1,908	62	35
24	UNIVERSITY OF NEW MEXICO	34,786	81	130	5,283	367	25	26,313	519	410	1,163	0	495
25	TEXAS A&M UNIVERSITY	34,204	16,982	1,598	1,838	925	104	4,103	375	1,301	5,101	1,847	30
26	U TENNESSEE KNOXVILLE	33,329	10,083	62	1,300	10,536	119	9,409	163	538	1,119	0	0
27	RUTGERS THE ST UNIV OF NJ	32,552	4,748	120	488	299	205	21,608	449	60	3,840	40	695
28	UNIVERSITY OF KENTUCKY	31,988	10,814	100	423	541	322	17,380	453	298	1,371	273	13
29	UNIV OF MISSOURI COLUMBIA	30,113	10,531	0	703	314	579	15,587	435	159	1,664	0	141
30	COLORADO STATE UNIVERSITY	29,017	6,223	25	1,273	2,176	2,120	10,441	810	821	3,998	60	1,070
	TOTAL 1ST 30 INSTITUTIONS	1,620,921	155,503	11,025	107,008	88,616	19,786	955,689	12,985	44,512	197,413	6,956	21,428
31	UNIVERSITY OF VIRGINIA	28,913	0	25	1,056	1,702	188	21,570	37	522	3,482	266	65
32	UNIV OF MD COLLEGE PARK	28,562	4,361	0	2,407	3,495	973	7,614	214	2,420	6,956	57	65
33	LOUISIANA STATE UNIV	27,901	7,378	1,165	933	1,409	386	15,147	201	0	1,273	0	9
34	UNIV OF MASS AT AMHERST	27,876	4,272	131	1,231	448	324	16,149	213	262	4,703	56	87
35	UNIVERSITY OF KANSAS	27,541	152	0	659	75	89	22,972	20	850	1,781	59	884
36	OREGON STATE UNIVERSITY	27,462	5,983	1,475	1,827	971	873	9,602	361	351	5,514	102	403
37	INDIANA UNIV-BLOOMINGTON	26,383	48	0	294	727	0	18,615	43	137	6,274	245	0
38	UNIV OF HAWAII-MANOA	25,884	147	62	2,255	1,667	0	14,878	360	2,135	4,324	56	0
39	TEMPLE UNIVERSITY	25,845	0	0	188	150	100	24,070	0	72	940	0	325
40	UNIVERSITY OF CONNECTICUT	25,526	2,186	74	952	338	55	19,706	128	426	1,646	0	15
	TOTAL 1ST 40 INSTITUTIONS	1,892,814	180,030	13,957	118,810	99,598	22,774	1,126,012	14,562	51,687	234,306	7,797	23,281
41	GEORGIA INSTITUTE OF TECH	24,877	0	200	14,795	2,476	39	3,205	286	938	2,329	378	231
42	NEW MEXICO STATE UNIV	24,695	4,696	0	9,037	1,143	32	7,129	171	1,650	837	0	0
43	UNIV OF MD BALT PROF SCH	23,467	0	0	410	0	450	22,251	0	38	318	0	0
44	UNIV OF ALASKA-FAIRBANKS	23,424	1,617	0	10,770	686	100	1,736	2,301	332	5,827	55	0
45	N C STATE UNIV AT RALEIGH	23,315	14,517	0	663	459	918	4,236	322	303	1,820	70	7
46	U TEX-ANORSN HOSPITALUMOR I	23,301	0	0	0	0	0	22,976	0	0	325	0	0
47	VA POLYTECH INST & ST U	23,090	9,636	160	1,851	2,900	88	3,835	331	1,500	2,617	75	97
48	UNIVERSITY OF GEORGIA	22,876	11,393	44	334	2,681	260	4,139	195	84	3,746	0	0
49	WAYNE STATE UNIVERSITY	22,732	25	0	611	698	0	19,630	0	27	1,740	0	0
50	UNIVERSITY OF CINCINNATI	22,631	34	0	1,121	310	1,594	18,184	0	212	1,176	0	0
	TOTAL 1ST 50 INSTITUTIONS	2,127,222	221,948	14,361	158,402	110,952	26,255	1,233,333	18,168	56,771	255,041	8,375	23,616

SEE FOOTNOTES AT END OF TABLE.



TABLE B-30. FEDERAL OBLIGATIONS TO THE 100 PUBLIC UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL	USDA	COM	ODD	ODE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
51	U TEX HLTH SCI CTR-DALLAS	22,211	0	0	0	0	0	21,834	0	35	342	0	0
52	WASHINGTON STATE UNIV	22,178	6,054	175	314	575	656	12,380	364	41	1,554	65	0
53	UNIV OF VT & ST AGRIC COL	21,090	2,345	0	105	68	0	17,848	229	200	295	0	0
54	VIRGINIA COMMONWLTN UNIV	20,456	0	0	443	0	253	19,324	0	30	406	0	0
55	FLORIDA STATE UNIVERSITY	20,303	85	1,392	1,088	870	299	12,641	215	166	3,129	0	418
56	SUNY AT BUFFALO	20,187	0	0	756	148	6	16,384	0	44	2,774	75	0
57	UNIV OF ILL MED CTR CHGO	19,835	0	0	0	0	0	19,633	0	0	202	0	0
58	UNIV OF OKLAHOMA	19,459	71	137	316	331	346	15,335	869	135	1,220	175	524
59	CITY COLLEGES OF CHICAGO	19,370	0	0	0	0	0	19,212	0	0	158	0	0
60	IOWA ST U OF SCI & TECH	19,248	10,318	0	203	298	407	5,553	333	234	1,571	0	331
TOTAL 1ST 60 INSTITUTIONS		2,331,559	240,821	16,065	161,627	113,242	28,222	1,393,477	20,178	57,656	266,692	8,690	24,889
61	OKLAHOMA STATE UNIVERSITY	18,926	6,610	35	1,766	1,337	286	6,877	199	277	1,169	203	167
62	MISSISSIPPI STATE UNIV	18,283	10,075	0	196	976	325	5,545	190	456	95	198	227
63	ABBURN UNIVERSITY	18,126	9,726	77	805	184	216	6,176	156	133	162	0	491
64	UNIV OF CAL IRVINE	17,624	75	0	740	1,373	151	11,925	0	160	2,963	237	0
65	WEST VIRGINIA UNIVERSITY	17,357	5,174	0	58	1,682	135	8,287	1,405	0	418	198	0
66	SUNY AT STONY BROOK	17,173	0	0	110	528	1	10,208	22	816	5,488	0	0
67	INDIANA U-PURDUE U INOPLS	17,133	0	0	124	0	0	16,785	0	15	209	0	0
68	UNIVERSITY OF OREGON MAIN	17,105	0	0	274	159	0	13,917	0	286	2,469	0	0
69	KANS ST U - AG & APP SCI	16,034	6,043	13	558	702	0	6,246	166	123	940	0	1,243
70	UNIV OF NEBRASKA LINCOLN	15,803	5,650	0	181	456	36	6,757	456	120	2,077	0	70
TOTAL 1ST 70 INSTITUTIONS		2,505,123	284,174	16,190	166,439	120,639	29,372	1,486,200	22,772	60,042	282,682	9,526	27,087
71	ARIZONA STATE UNIVERSITY	14,831	128	185	266	170	15	11,312	233	578	1,608	0	336
72	COL OF MED & DENT OF N J	14,251	0	0	0	0	0	14,124	0	0	127	0	0
73	MIAMI-DADE CMTY COLLEGE	14,113	0	0	0	0	0	14,113	0	0	0	0	0
74	UNIV OF MISSISSIPPI	13,596	0	0	1,8	189	0	12,757	270	0	222	0	10
75	SOUTHERN U & A&M COLLEGE	13,494	1,116	0	16	0	13	11,583	0	119	0	0	627
76	U TEX MED BRNCH GALVESTON	13,488	0	0	237	69	16	12,666	0	332	118	0	0
77	UNIV OF CAL SANTA BARBARA	13,267	125	0	517	528	568	6,696	66	426	3,794	0	517
78	U OF HOUSTON CENTRAL CAM	13,179	0	42	635	529	233	8,576	67	830	1,667	600	0
79	UTAH STATE UNIVERSITY	12,995	2,798	0	2,992	186	66	4,184	606	1,049	908	53	153
80	UNIV OF RHODE ISLAND	12,957	1,650	1,340	1,045	732	1,126	3,808	128	55	3,073	0	0
TOTAL 1ST 80 INSTITUTIONS		2,641,294	289,991	17,757	172,395	123,042	31,409	1,586,019	24,142	63,431	294,199	10,179	28,730
81	U OREGON HLTH SCI CTR	12,808	0	0	106	0	104	12,245	0	100	253	0	0
82	U TEX HLTH SC CTR HOUSTON	12,804	140	0	0	84	0	12,306	0	29	245	0	0
83	UNIV OF SOUTH CAROLINA	12,608	2	110	264	57	248	9,923	94	60	1,850	0	0
84	U TENN CTR FOR HLTH SCI	12,146	51	0	36	54	0	12,005	0	0	0	0	0
85	MED UNIV OF SD CAROLINA	11,687	0	0	0	0	501	11,131	0	0	55	0	0
86	UNIV OF MAINE ORONO	11,621	3,036	0	105	119	22	6,873	379	0	1,087	0	0
87	UNIV OF N H DURHAM	11,585	2,129	100	187	9	0	6,304	196	1,885	775	0	0
88	JACKSON STATE UNIVERSITY	11,370	4	0	0	50	0	10,980	0	31	305	0	0
89	UNIVERSITY OF DELAWARE	10,794	1,742	967	724	521	94	3,678	381	262	2,425	0	0
90	GERMANNA CMTY COLLEGE	10,722	0	0	0	0	0	10,722	0	0	0	0	0
TOTAL 1ST 90 INSTITUTIONS		2,759,439	297,095	18,934	173,817	123,936	32,378	1,682,186	25,192	65,798	301,194	10,179	28,730
91	UNIV OF ILL CHICAGO CIR	10,482	57	167	382	375	268	7,558	0	76	1,554	45	0
92	U TEX HLTH SCI CTR-S ANT	10,471	0	0	0	0	0	10,066	0	62	343	0	0
93	SAN DIEGO STATE UNIV	10,293	0	0	1,767	0	0	7,360	46	34	858	0	228
94	NORTH DAKOTA STATE UNIV	10,159	3,907	76	60	38	0	5,663	218	0	177	0	20
95	CLEMSON UNIVERSITY	10,156	7,487	0	304	141	236	1,257	182	83	296	170	0
96	SOUTHERN ILL U-CARBONDALE	9,758	138	0	87	0	73	8,160	432	282	586	0	0
97	FLORIDA A & M UNIVERSITY	9,602	967	0	41	0	0	8,189	0	127	128	0	150
98	UNIVERSITY OF WYOMING	9,470	2,084	0	367	224	276	3,602	1,360	509	1,018	30	0
99	TEXAS SOUTHERN UNIV	9,182	0	0	0	86	79	8,569	0	0	130	63	255
100	UNIV OF WIS-MILWAUKEE	9,160	40	0	110	97	0	7,845	35	0	958	75	0
TOTAL 1ST 100 INSTITUTIONS		2,858,172	311,775	19,177	176,935	124,897	33,310	1,750,455	27,465	66,971	307,242	10,562	29,383

* INCLUDES AID, HUD, LABOR, AND NRC.

1/ Data for Pennsylvania State University include \$12,205,000 obligated to the Applied Research Laboratory. In previous years, obligations to ARL were reported separately under "University-administered federally funded research and development centers."

SOURCE: National Science Foundation

TABLE B-31. FEDERAL OBLIGATIONS TO THE 100 PRIVATE UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL	USDA	COH	DOO	DOE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
	UNITED STATES TOTAL	2,914,066	17,717	5,179	259,204	127,672	13,541	2,148,547	6,165	49,812	262,343	5,083	18,803
1	JOHNS HOPKINS UNIVERSITY ^{1/}	212,866	346	89	137,344	1,386	1,098	65,481	51	1,275	5,020	366	410
2	MASS INST OF TECHNOLOGY	130,586	385	1,926	15,273	49,044	608	26,280	1,124	9,154	25,100	820	872
3	HOWARD UNIVERSITY	116,195	17	0	35	178	188	114,130	0	626	863	158	0
4	STANFORD UNIVERSITY	94,009	112	433	9,735	4,504	539	49,161	264	5,955	22,949	154	203
5	HARVARD UNIVERSITY	89,949	524	323	3,046	2,059	430	66,994	49	4,246	10,763	0	1,515
6	COLUMBIA UNIV MAIN DIV	84,941	0	153	4,875	2,439	118	54,587	458	2,572	16,252	0	3,487
7	CORNELL UNIVERSITY	79,729	12,623	0	2,337	2,950	720	33,671	548	1,289	24,092	50	1,449
8	UNIV OF PENNSYLVANIA	78,350	15	5	3,785	2,531	31	61,373	17	248	9,186	252	907
9	YALE UNIVERSITY	67,892	74	60	2,052	4,701	72	53,635	0	236	6,638	0	424
10	UNIVERSITY OF CHICAGO	61,262	100	0	520	4,240	0	42,706	0	4,780	8,823	0	93
	TOTAL 1ST 10 INSTITUTIONS	1,015,779	14,196	2,989	179,002	74,032	3,804	568,018	2,511	30,381	129,686	1,800	9,360
11	UNIV OF SOUTHERN CAL	61,039	48	215	11,597	1,603	227	40,249	612	615	5,356	226	291
12	NEW YORK UNIVERSITY	54,905	25	0	1,314	3,379	364	44,058	252	516	4,444	0	553
13	WASHINGTON UNIVERSITY	52,162	0	65	472	526	511	45,238	5	1,209	3,541	0	595
14	DUKE UNIVERSITY	46,870	94	0	1,288	1,209	311	40,099	0	131	3,708	5	25
15	UNIVERSITY OF ROCHESTER	46,653	0	0	3,186	10,718	0	27,998	0	65	4,686	0	0
16	UNIVERSITY OF MIAMI	41,713	0	60	2,497	1,151	828	29,947	67	308	6,605	250	0
17	NORTHWESTERN UNIVERSITY	38,401	120	0	1,646	1,200	11	27,083	250	154	6,489	106	1,342
18	INTER AM U P R-SAN GEORGE	37,894	0	0	0	0	0	37,770	0	0	124	0	0
19	BOSTON UNIVERSITY	36,948	127	0	941	295	0	34,045	0	149	1,118	0	273
20	YESHIVA UNIVERSITY	36,340	0	0	251	0	0	35,469	0	25	595	0	0
	TOTAL 1ST 20 INSTITUTIONS	1,468,704	14,610	3,329	202,194	94,113	6,056	929,974	3,697	33,553	166,352	2,387	12,439
21	CASE WESTERN RESERVE UNIV	34,659	12	53	1,139	1,056	184	26,379	0	953	4,663	175	45
22	GALLAUDET COLLEGE	33,103	0	0	0	0	0	33,018	0	0	85	0	0
23	CALIFORNIA INST OF TECH	30,907	20	80	2,743	4,130	141	7,956	835	3,820	11,182	0	0
24	BAYLOR COL OF MEDICINE	30,042	0	0	197	0	162	29,255	0	266	156	0	6
25	VANDERBILT UNIVERSITY	25,050	150	0	180	193	83	23,102	0	138	1,111	0	40
26	CUNY MT SINAI SCH OF MED	22,317	0	0	8	0	0	21,339	0	0	0	0	756
27	WOODS HOLE OCEANOGRPHIC INST	21,465	0	114	6,793	1,263	34	0	110	0	13,551	0	0
28	PRINCETON UNIVERSITY	20,721	0	248	2,438	3,120	160	6,472	89	1,533	5,717	511	233
29	PUERTO RICO UNIV COL	19,942	0	0	0	0	0	19,942	0	0	0	0	0
30	GEORGETOWN UNIVERSITY	19,896	186	0	927	3,092	0	15,020	0	15	856	0	0
	TOTAL 1ST 30 INSTITUTIONS	1,726,806	14,978	3,824	216,619	106,967	6,820	1,112,457	4,731	40,278	203,540	3,073	13,519
31	ROCKEFELLER UNIVERSITY	18,868	72	0	91	525	60	15,674	0	0	2,232	0	214
32	GEORGE WASHINGTON UNIV	18,842	31	50	2,388	410	219	13,212	0	1,533	900	0	99
33	EMORY UNIVERSITY	18,540	0	0	79	157	43	17,441	0	194	626	0	0
34	CARNEGIE MELLON UNIV	17,699	0	0	4,302	3,256	40	5,325	148	67	4,417	144	0
35	SYRACUSE UNIVERSITY	16,581	307	0	1,521	405	56	12,451	0	33	1,808	0	0
36	UNIVERSITY OF DAYTON	15,661	0	0	11,515	0	67	3,325	0	278	360	65	51
37	BROWN UNIVERSITY	15,115	50	0	1,627	1,004	0	6,614	93	328	5,399	0	0
38	TUFTS UNIVERSITY	13,923	0	20	166	699	228	12,100	0	131	579	0	0
39	CATHOLIC UNIV OF P R	13,863	0	0	0	0	0	13,830	0	0	33	0	0
40	TULANE UNIVERSITY	13,628	44	0	93	0	224	12,570	0	63	509	0	125
	TOTAL 1ST 40 INSTITUTIONS	1,889,526	15,482	3,894	238,401	113,423	7,757	1,224,999	4,972	42,905	220,403	3,282	14,008
41	NORTHEASTERN UNIVERSITY	13,137	0	0	1,215	132	174	10,125	0	0	1,306	0	185
42	MEHARRY MEDICAL COLLEGE	12,123	0	0	0	0	0	11,948	0	0	175	0	0
43	THOMAS JEFFERSON UNIV	11,920	0	0	118	60	131	11,611	0	0	0	0	0
44	ST LOUIS UNIVERSITY	11,845	0	0	377	0	0	10,514	201	20	495	0	238
45	BRANDEIS UNIVERSITY	11,669	40	0	77	406	0	8,586	0	39	1,927	0	594
46	UNIVERSITY OF DENVER	10,476	40	0	1,719	344	2,616	3,556	338	756	1,046	5	56
47	BOSTON COLLEGE	10,260	0	0	1,721	0	139	7,260	240	96	339	0	465
48	TUSKEGEE INSTITUTE	10,183	1,463	0	40	0	5	8,489	0	75	111	0	0
49	DARTMOUTH COLLEGE	9,944	34	0	85	273	0	8,272	0	205	923	46	106
50	RENSSELAER POLYTECH INST	9,510	100	45	1,437	866	231	3,193	0	1,193	2,028	60	357
	TOTAL 1ST 50 INSTITUTIONS	2,000,593	17,159	3,939	245,190	115,504	11,053	1,308,553	5,751	45,289	228,753	3,393	16,009

SEE FOOTNOTES AT END OF TABLE.

TABLE B-31. FEDERAL OBLIGATIONS TO THE 100 PRIVATE UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY TOTAL FEDERAL OBLIGATIONS)	TOTAL	USDA	COM	DOD	DOE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
51	NEW YORK MEDICAL COLLEGE	8,489	0	0	30	442	0	8,017	0	0	0	0	0
52	MEDICAL COLLEGE OF WISC	8,385	0	0	36	0	0	8,314	0	0	35	0	0
53	WAKE FOREST UNIVERSITY	8,064	0	0	0	56	0	7,825	0	0	183	0	0
54	HAHNEHANN MED COL & HDSP	7,978	0	0	129	0	0	7,824	0	25	0	0	0
55	ALBANY MEDICAL COLLEGE	7,657	0	0	0	0	2	7,655	0	0	0	0	0
56	LONG ISLAND UNIVERSITY	7,252	0	0	0	0	0	7,123	0	0	129	0	0
57	UNIVERSITY OF NOTRE DAME	7,236	70	84	178	2,047	25	2,847	0	226	1,651	84	24
58	LOYOLA UNIV - CHICAGO	6,961	0	11	72	46	0	6,799	0	0	33	0	0
59	WORLD UNIVERSITY	6,695	0	0	0	0	0	6,695	0	0	0	0	0
60	ATLANTA UNIVERSITY	6,646	0	0	0	0	50	3,621	0	25	2,950	0	0
TOTAL 1ST 60 INSTITUTIONS		2,075,956	17,229	4,034	245,635	118,095	11,130	1,375,273	5,751	45,565	233,734	3,477	16,033
61	RICE UNIVERSITY	6,606	1	0	559	1,092	212	1,671	10	628	2,273	160	0
62	UNIV OF THE SACRED HEART	6,376	0	0	0	0	0	6,099	0	0	277	0	0
63	RUSH UNIVERSITY	5,863	0	0	0	0	0	5,863	0	0	0	0	0
64	XAVIER UNIVERSITY OF LA	5,851	35	0	0	0	0	5,766	0	39	11	0	0
65	POLYTECHNIC INST OF N Y	5,807	0	0	2,230	438	5	1,410	0	304	1,016	404	0
66	CENTRAL YMCA CMTY COLLEGE	5,755	0	0	0	0	0	5,575	0	0	180	0	0
67	ILLINOIS INST OF TECH	5,608	0	400	977	511	115	2,658	0	123	779	0	45
68	DREXEL UNIVERSITY	5,531	0	0	518	1,661	145	2,207	32	335	552	0	81
69	FORDHAM UNIVERSITY	5,472	0	0	0	0	0	5,435	0	0	37	0	0
70	AMERICAN UNIVERSITY	5,444	1	0	989	102	142	2,994	12	0	393	0	811
TOTAL 1ST 70 INSTITUTIONS		2,134,269	17,266	4,434	250,908	121,899	11,749	1,414,951	5,805	46,994	239,252	4,041	16,970
71	HAMPTON INSTITUTE	5,409	0	0	0	0	316	4,577	0	239	277	0	0
72	BISHOP COLLEGE	5,372	0	0	0	0	0	5,317	0	0	0	55	0
73	LOHA LINDA UNIVERSITY	5,315	0	0	0	0	235	5,073	0	0	7	0	0
74	CLARK COLLEGE	5,152	0	0	0	0	0	4,782	0	41	65	64	200
75	LEHIGH UNIVERSITY	5,107	0	0	759	440	0	992	0	486	1,570	682	178
76	BAYAMON CENTRAL UNIV	5,058	0	0	0	0	0	5,058	0	0	0	0	0
77	BENEDICT COLLEGE	5,005	0	0	0	0	0	5,005	0	0	0	0	0
78	MARQUETTE UNIVERSITY	4,747	0	0	89	90	22	4,189	0	40	317	0	0
79	ANTIOCH UNIVERSITY	4,730	0	0	0	0	0	4,402	0	0	268	0	0
80	UNIVERSITY OF DETROIT	4,579	0	0	0	0	0	4,554	0	0	25	0	0
TOTAL 1ST 80 INSTITUTIONS		2,184,743	17,266	4,434	251,756	122,429	12,322	1,458,960	5,805	47,800	241,781	4,842	17,348
81	THE MED COL OF PENNA	4,543	0	0	0	0	0	4,429	0	0	114	0	0
82	JOHNSON C SMITH UNIV	4,503	0	0	0	0	0	4,318	0	0	185	0	0
83	VIRGINIA UNION UNIVERSITY	4,180	0	0	0	0	0	4,180	0	0	0	0	0
84	SHAW UNIVERSITY	4,177	30	0	0	0	0	3,950	0	0	0	57	140
85	CATHOLIC UNIV OF AMERICA	4,032	0	0	954	48	0	2,390	0	128	426	0	86
86	FAIRLEIGH DICKINSON UNIV	3,933	0	0	50	10	0	3,873	0	0	0	0	0
87	UNIV OF SAN FRANCISCO	3,916	0	0	0	0	0	3,484	36	351	45	0	0
88	MORRIS BROWN COLLEGE	3,836	0	0	0	0	0	3,826	0	0	10	0	0
89	ST AUGUSTINES COL	3,821	0	0	0	0	29	3,792	0	0	0	0	0
90	CREIGHTON UNIVERSITY	3,793	0	0	0	0	24	3,730	0	0	39	0	0
TOTAL 1ST 90 INSTITUTIONS		2,225,477	17,296	4,434	252,760	122,487	12,375	1,496,932	5,841	48,279	242,600	4,899	17,574
91	COLUMBIA U TEACHERS COL	3,757	0	0	0	0	0	3,497	0	0	260	0	0
92	WILBERFORCE UNIVERSITY	3,677	0	0	0	0	0	3,677	0	0	0	0	0
93	UNIVERSITY OF THE PACIFIC	3,632	0	0	0	0	0	3,632	0	0	0	0	0
94	ADELPHI UNIVERSITY	3,537	0	0	0	0	0	3,419	0	18	100	0	0
95	BETHUNE COOKMAN COLLEGE	3,512	0	0	0	0	0	3,213	0	0	299	0	0
96	GEORGE PEABODY COL TCHRS	3,457	0	0	0	0	0	3,342	0	0	115	0	0
97	FISK UNIVERSITY	3,419	0	0	0	0	0	3,319	0	79	21	0	0
98	TEXAS CHRISTIAN UNIV	3,401	0	0	176	0	0	3,087	0	0	138	0	0
99	STEVENS INSTITUTE OF TECH	3,378	0	372	923	137	0	1,016	0	0	631	0	299
100	MERCY COLLEGE	3,217	0	0	0	0	0	3,217	0	0	0	0	0
TOTAL 1ST 100 INSTITUTIONS		2,260,464	17,296	4,806	253,859	122,624	12,375	1,528,351	5,841	48,376	244,164	4,899	17,873

* INCLUDES AID, HUD, LABOR, AND NRC.

1/ Data for Johns Hopkins University include \$136,140,000 obligated to the Applied Physics Laboratory. In previous years, obligations to APL were reported separately under "university-administered federally funded research and development centers."

SOURCE: National Science Foundation

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRAINEESHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON-SCIENCE
UNITED STATES, TOTAL	7,479,177	3,957,638	3,362,174	34,328	26,664	205,865	74,102	254,505	3,521,539
ALABAMA, TOTAL	125,687	49,830	34,570	2,244	274	3,189	1,809	7,744	75,857
ALA LUTHERAN ACAD AND C	287	0	0	0	0	0	0	0	287
ALABAMA A & M UNIVERSITY	4,828	2,421	1,721	0	0	0	115	585	2,407
ALABAMA CHRISTIAN COLLEGE	713	0	0	0	0	0	0	0	713
ALABAMA STATE UNIVERSITY	4,402	187	163	0	0	0	7	17	4,215
ALEXANDER CITY ST JR COL	403	0	0	0	0	0	0	0	403
ATHENS STATE COLLEGE	537	88	88	0	0	0	0	0	449
AUBURN UNIVERSITY	18,126	12,605	5,957	0	48	454	14	6,132	5,521
BIRMINGHAM SOUTHERN COL	638	42	8	0	0	0	0	34	596
BREMER STATE JR COLLEGE	643	0	0	0	0	0	0	0	643
CALHOUN ST CMTY COLLEGE	1,486	12	5	0	7	0	0	0	1,474
CHATTANOOCHEE VALLEY C C	694	0	0	0	0	0	0	0	694
DANIEL PAYNE COLLEGE	145	0	0	0	0	0	0	0	145
ENTERPRISE JR COLLEGE	453	0	0	0	0	0	0	0	453
FAULKNER STATE JUNIOR COL	473	5	5	0	0	0	0	0	468
G C WALLACE ST C C DOTHAN	433	0	0	0	0	0	0	0	433
G C WALLACE ST CC SELMA	396	0	0	0	0	0	0	0	396
G C WLLCE ST CMTY COL HAN	347	0	0	0	0	0	0	0	347
GAOSEN STATE JR COLLEGE	1,564	0	0	0	0	0	0	0	1,564
HUNTINGDON COLLEGE	588	0	0	0	0	0	0	0	588
JACKSONVILLE STATE UNIV	1,472	0	0	0	0	0	0	0	1,472
JEFFERSON DAVIS ST JR COL	163	0	0	0	0	0	0	0	163
JEFFERSON STATE JR COL	958	14	0	0	14	0	0	0	944
JUDSON COLLEGE	93	0	0	0	0	0	0	0	93
LAHSON STATE CMTY COLLEGE	2,685	0	0	0	0	0	0	0	2,685
LIVINGSTON UNIVERSITY	1,047	0	0	0	0	0	0	0	1,047
LDMAX-HANNON JR COLLEGE	209	0	0	0	0	0	0	0	209
LURLEEN B WALLACE ST JR C	599	0	0	0	0	0	0	0	599
MARION MILITARY INSTITUTE	63	0	0	0	0	0	0	0	63
MILES COLLEGE	2,757	319	29	0	0	0	290	0	2,438
MOBILE COLLEGE	295	0	0	0	0	0	0	0	295
NORTHEAST ALA ST JR COL	463	0	0	0	0	0	0	0	468
NORTHWEST ALA ST JR COL	224	0	0	0	0	0	0	0	224
DAKWOOD COLLEGE	2,734	0	0	0	0	0	0	0	2,734
PATRICK HENRY ST JR COL	232	0	0	0	0	0	0	0	232
S D BISHOP ST JR COLLEGE	1,519	17	5	0	12	0	0	0	1,502
SAMPORD UNIVERSITY	714	0	0	0	0	0	0	0	714
SELMA UNIVERSITY	1,202	390	0	0	0	0	390	0	812
SNEAD STATE JUNIOR COL	165	0	0	0	0	0	0	0	165
SOUTHEASTERN BIBLE COL	72	0	0	0	0	0	0	0	72
SOUTHERN UNION ST JR COL	195	0	0	0	0	0	0	0	195
SPRING HILL COLLEGE	806	6	0	0	0	0	0	6	800
STHRN BENEDICTINE COL	257	0	0	0	0	0	0	0	257
STILLMAN COLLEGE	2,429	61	0	0	0	0	61	0	2,368
TALLADEGA COLLEGE	2,043	408	70	0	0	131	207	0	1,635
THE UNIVERSITY OF ALABAMA	7,377	1,877	1,321	0	89	417	0	50	5,500
TROY STATE UNIVERSITY	1,673	12	12	0	0	0	0	0	1,661
TUSKEGEE INSTITUTE	10,183	2,238	1,008	0	20	209	384	617	7,945
UNIV ALABAMA BIRMINGHAM	37,552	26,270	21,466	2,244	63	1,957	296	244	11,282
UNIV ALABAMA HUNTSVILLE	1,802	1,186	1,152	0	14	0	0	20	616
UNIV OF NORTH ALABAMA	1,326	7	0	0	7	0	0	0	1,319
UNIV OF SOUTH ALABAMA	4,177	1,553	1,480	0	0	21	45	7	2,744
UNIVERSITY OF MONTEVALLO	750	112	80	0	0	0	0	32	638
WALKER COLLEGE	170	0	0	0	0	0	0	0	170
ALASKA, TOTAL	28,275	24,591	22,716	411	11	390	191	872	3,684
ALASKA PACIFIC UNIV	102	0	0	0	0	0	0	0	102
SHELDON JACKSON COLLEGE	430	0	0	0	0	0	0	0	430
UNIV OF ALASKA-ANCHORAGE	4,132	2,600	2,583	0	0	0	0	17	1,532
UNIV OF ALASKA-FAIRBANKS	23,424	21,991	20,133	411	11	390	191	855	1,433
UNIV OF ALASKA-SHEASTRN	144	0	0	0	0	0	0	0	144
UNIV OF ALASKA-SYST-OFF	43	0	0	0	0	0	0	0	43
ARIZONA, TOTAL	71,867	35,366	30,122	21	753	1,388	978	2,104	36,501
ANER GR SCH INTL MANAGHT	23	0	0	0	0	0	0	0	23
ARIZONA COLLEGE OF TECH	4	0	0	0	0	0	0	0	4
ARIZONA STATE UNIVERSITY	14,831	4,344	4,107	12	88	7	51	79	10,487
ARIZONA WESTERN COLLEGE	1,191	0	0	0	0	0	0	0	1,191
CENTRAL ARIZONA COL	827	2	0	0	2	0	0	0	825
COCHISE COLLEGE	497	0	0	0	0	0	0	0	497
COLLEGE OF GANADO	638	202	0	0	0	0	202	0	436
EASTERN ARIZONA COLLEGE	629	0	0	0	0	0	0	0	629
GLENDALE COMMUNITY COL	1,263	0	0	0	0	0	0	0	1,263
GRAND CANYON COLLEGE	681	0	0	0	0	0	0	0	681
HARICOPA TECH CMTY COLL	488	0	0	0	0	0	0	0	488
MESA COMMUNITY COLLEGE	1,475	0	0	0	0	0	0	0	1,475
MOHAVE CMTY COLLEGE	81	0	0	0	0	0	0	0	81
NAVAJO COMMUNITY COLLEGE	962	164	0	0	0	0	164	0	798
NORTHERN ARIZONA UNIV	3,694	263	168	0	9	0	18	68	3,431
NORTHLAND PIONEER COLLEGE	18	18	0	0	18	0	0	0	0
PHOENIX COLLEGE	1,585	0	0	0	0	0	0	0	1,585
PIMA COMMUNITY COLLEGE	2,625	0	0	0	0	0	0	0	2,625
SCOTTSDALE CMTY COLLEGE	275	0	0	0	0	0	0	0	275
UNIV & ST COL OF ARIZ S D	19	19	19	0	0	0	0	0	0
UNIVERSITY OF ARIZONA	39,534	30,354	25,828	9	636	1,381	543	1,957	9,180
YAVAPAI COLLEGE	527	0	0	0	0	0	0	0	527
ARKANSAS, TOTAL	50,061	17,631	11,774	0	43	465	167	5,182	32,430
ARKANSAS BAPTIST COLLEGE	357	0	0	0	0	0	0	0	357
ARKANSAS COLLEGE	696	0	0	0	0	0	0	0	696

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED
(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE								
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL INSTR IN SCI & ENG	FELLOWSHIPS TRINEESHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON-SCIENCE	
ARKANSAS, CONT'D										
ARKANSAS STATE UNIVERSITY	3,187	71	0	0	0	71	0	0	0	3,116
ARKANSAS TECH UNIVERSITY	1,038	34	0	0	0	34	0	0	0	1,004
CENTRAL BAPTIST COLLEGE	87	0	0	0	0	0	0	0	0	87
COLLEGE OF THE OZARKS	545	0	0	0	0	0	0	0	0	545
CRGLEY'S RIDGE COLLEGE	33	0	0	0	0	0	0	0	0	33
EAST ARK CNTY COL	426	0	0	0	0	0	0	0	0	426
GARLAND CNTY COLLEGE	597	0	0	0	0	0	0	0	0	597
HARDING COLLEGE	1,194	15	15	0	0	0	0	0	0	1,179
HENDERSON STATE UNIV	1,316	0	0	0	0	0	0	0	0	1,316
HENDRIX COLLEGE	334	0	0	0	0	0	0	0	0	334
JOHN BROWN UNIVERSITY	417	15	15	0	0	0	0	0	0	402
HISS COUNTY CNTY COLLEGE	4,145	3,936	3,936	0	0	0	0	0	0	209
NORTHERN ARKANSAS C COLL	319	0	0	0	0	0	0	0	0	319
OUACHITA BAPTIST UNIV	1,100	0	0	0	0	0	0	0	0	1,100
PHILANDER SMITH COLLEGE	1,339	0	0	0	0	0	0	0	0	1,339
PHILLIPS CO CNTY COLLEGE	793	0	0	0	0	0	0	0	0	793
SHORTER COLLEGE	349	0	0	0	0	0	0	0	0	349
SOUTHERN ARKANSAS UNIV	1,486	0	0	0	0	0	0	0	0	1,486
SOUTHERN BAPTIST COLLEGE	481	1	0	0	1	0	0	0	0	480
U OF ARK AT MONTICELLO	1,088	0	0	0	0	0	0	0	0	1,088
U OF ARK AT PINE BLUFF	6,385	1,309	807	0	0	65	0	437	0	5,076
U OF ARKANSAS MED SCI CAH	4,424	1,824	1,738	0	0	17	69	0	0	2,600
UNIV OF ARK FAYETTEVILLE	8,825	5,267	4,845	0	30	249	63	80	0	3,558
UNIV OF ARK LITTLE ROCK	6,956	5,119	418	0	12	24	0	4,665	0	1,837
UNIV OF CENTRAL ARKANSAS	1,711	5	0	0	0	5	0	0	0	1,706
WESTARK COMMUNITY COLLEGE	433	35	0	0	0	0	35	0	0	398
CALIFORNIA, TOTAL	800,246	523,273	467,315	3,702	4,515	29,445	7,052	11,244	276,973	
ACADEMY OF ART	194	0	0	0	0	0	0	0	0	194
ALLAN HANCOCK COLLEGE	501	0	0	0	0	0	0	0	0	501
AMBASSADOR COLLEGE	821	0	0	0	0	0	0	0	0	821
AMERICAN RIVER COLLEGE	1,395	0	0	0	0	0	0	0	0	1,395
ANTELOPE VALLEY COLLEGE	267	0	0	0	0	0	0	0	0	267
ARMSTRONG SCH OF BUSINESS	64	0	0	0	0	0	0	0	0	64
ART CTR COL OF DESIGN	138	0	0	0	0	0	0	0	0	138
AZUSA PACIFIC COLLEGE	769	0	0	0	0	0	0	0	0	769
BAKERSFIELD COLLEGE	780	0	0	0	0	0	0	0	0	780
BARSTOW COLLEGE	247	0	0	0	0	0	0	0	0	247
BETHANY BIBLE COLLEGE	292	0	0	0	0	0	0	0	0	292
BIDLA COLLEGE	500	0	0	0	0	0	0	0	0	500
BUTTE COLLEGE	791	2	0	0	2	0	0	0	0	787
CABRILLO COLLEGE	809	0	0	0	0	0	0	0	0	809
CAL COL OF ARTS & CRAFTS	352	0	0	0	0	0	0	0	0	352
CAL COL OF PODIATRIC MED	394	0	0	0	0	0	0	0	0	394
CAL INST OF ASIAN STUD	9	0	0	0	0	0	0	0	0	9
CAL POLY ST U SAN LUIS OB	2,752	188	169	0	5	0	0	14	0	2,564
CAL SCH PROF PSYCH-BERKLY	141	0	0	0	0	0	0	0	0	141
CAL SCH PROF PSYCH-FRESNO	4	0	0	0	0	0	0	0	0	4
CAL SCH PROF PSYCH-L A	4	0	0	0	0	0	0	0	0	4
CAL SCH PROF PSYCH-S D	4	0	0	0	0	0	0	0	0	4
CAL ST COL AT BAKERSFIELD	641	22	0	0	0	0	0	22	0	619
CAL ST COL SAN BERNARDINO	1,081	94	94	0	0	0	0	0	0	987
CAL ST U DOMINGUEZ HILLS	1,742	139	0	0	0	48	89	2	0	1,603
CALIF INST OF THE ARTS	441	0	0	0	0	0	0	0	0	441
CALIF ST COL STANISLAUS	1,007	0	0	0	0	0	0	0	0	1,007
CALIF ST POLY UNIV POMONA	2,621	69	59	0	5	5	0	0	0	2,552
CALIF ST UNIV & COL SYS O	333	333	333	0	0	0	0	0	0	0
CALIF ST UNIV FULLERTON	4,692	488	406	0	0	0	0	82	0	4,204
CALIF ST UNIV HAYWARD	2,271	196	196	0	0	0	0	0	0	2,075
CALIF ST UNIV LONG BEACH	7,277	463	417	0	4	0	24	18	0	6,814
CALIF ST UNIV LOS ANGELES	8,516	1,578	256	0	0	446	823	53	0	6,938
CALIF ST UNIV NORTHRIDGE	5,696	432	296	0	9	55	20	52	0	5,264
CALIF ST UNIV SACRAMENTO	4,342	733	534	0	0	199	0	0	0	3,609
CALIF STATE UNIV CHICO	5,020	1,400	223	0	0	0	0	1,177	0	3,620
CALIF STATE UNIV FRESNO	2,762	129	129	0	0	0	0	0	0	2,633
CALIFORNIA BAPTIST COL	316	0	0	0	0	0	0	0	0	316
CALIFORNIA CHRISTIAN COL	32	0	0	0	0	0	0	0	0	32
CALIFORNIA INST OF TECH	30,907	30,509	28,106	341	293	1,425	196	148	0	398
CALIFORNIA LUTHERAN COL	263	0	0	0	0	0	0	0	0	263
CALIFORNIA MARITIME ACAD	275	0	0	0	0	0	0	0	0	275
CANADA COLLEGE	456	0	0	0	0	0	0	0	0	456
CASA LOHA COLLEGE	231	0	0	0	0	0	0	0	0	231
CEPRITOS COLLEGE	861	56	0	0	0	56	0	0	0	805
CERRO COSO COMM COLLEGE	87	0	0	0	0	0	0	0	0	87
CHABOT COLLEGE	349	0	0	0	0	0	0	0	0	349
CHAFFEY COLLEGE	1,279	0	0	0	0	0	0	0	0	1,279
CHAPHAN COLLEGE	541	8	8	0	0	0	0	0	0	533
CHRIST COLLEGE IRVINE	26	0	0	0	0	0	0	0	0	26
CHRISTIAN HERITAGE COLL	174	0	0	0	0	0	0	0	0	174
CHURCH DIV SCHOOL PACIFIC	10	0	0	0	0	0	0	0	0	10
CITRUS COLLEGE	379	0	0	0	0	0	0	0	0	379
CLAREHONT GRADUATE SCHOOL	371	189	189	0	0	0	0	0	0	182
CLAREHONT MEN'S COLLEGE	363	73	73	0	0	0	0	0	0	290
COASTLINE CNTY COLLEGE	9	5	5	0	0	0	0	0	0	4
COGSWELL COLLEGE	217	0	0	0	0	0	0	0	0	217
COLLEGE OF ALAMEDA	1,021	0	0	0	0	0	0	0	0	1,021
COLLEGE OF-MARIN	617	0	0	0	0	0	0	0	0	617
COLLEGE OF NOTRE DAHE	202	0	0	0	0	0	0	0	0	202
COLLEGE OF SAN HATED	403	0	0	0	0	0	0	0	0	403
COLLEGE OF THE CANYONS	203	0	0	0	0	0	0	0	0	203
COLLEGE OF THE DESERT	108	0	0	0	0	0	0	0	0	108
COLLEGE OF THE REDWOODS	603	0	0	0	0	0	0	0	0	603
COLLEGE OF THE SEDUIAS	636	0	0	0	0	0	0	0	0	636

SEE FOOTNOTES AT END OF TABLE.

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	ROD PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPRT FOR SCI	OTHER SCIENCE	
CALIFORNIA, CONT'D									
COLLEGE OF THE SISKIYOU	160	0	0	0	0	0	0	0	160
COLUMBIA COLLEGE	178	0	0	0	0	0	0	0	178
COMPTON COMMUNITY COLLEGE	2,637	0	0	0	0	0	0	0	2,637
CONTRA COSTA COLLEGE	1,016	0	0	0	0	0	0	0	1,016
CONTRA COSTA JR COL DST SD	50	0	0	0	0	0	0	0	50
COSUMNES RIVER COLLEGE	565	0	0	0	0	0	0	0	565
CRAFTON HILLS COLLEGE	106	0	0	0	0	0	0	0	106
CTR FOR EARLY EDUCATION	4	0	0	0	0	0	0	0	4
CUESTA COLLEGE	222	0	0	0	0	0	0	0	222
CYPRESS COLLEGE	523	0	0	0	0	0	0	0	523
D-C UNIVERSITY	403	19	0	0	0	0	19	0	384
DE ANZA COLLEGE	1,058	0	0	0	0	0	0	0	1,058
DIABLO VALLEY COLLEGE	351	0	0	0	0	0	0	0	351
DOMINICAN COL SAN RAFAEL	136	37	0	0	0	0	0	37	99
DDN BOSCO TECHNICAL INST	69	0	0	0	0	0	0	0	69
DREW POST-GRAD MED SCHDDL	8	8	0	0	0	0	8	0	0
EAST LOS ANGELES COLLEGE	1,408	0	0	0	0	0	0	0	1,408
EL CAMINO COLLEGE	1,211	0	0	0	0	0	0	0	1,211
EVERGREEN VALLEY COLLEGE	600	0	0	0	0	0	0	0	600
FEATHER RIVER COLLEGE	174	0	0	0	0	0	0	0	174
FOOTHILL COLLEGE	866	0	0	0	0	0	0	0	866
FOOTHILL-DEANZA CCSYS OFF	44	44	44	0	0	0	0	0	0
FRESNO CITY COLLEGE	1,586	56	0	0	0	56	0	0	1,530
FRESNO PACIFIC COLLEGE	404	0	0	0	0	0	0	0	404
FULLER THEOLOGICAL SEM	121	0	0	0	0	0	0	0	121
FULLERTON COLLEGE	768	0	0	0	0	0	0	0	768
GAVILAN COLLEGE	359	0	0	0	0	0	0	0	359
GLENDALE CMTY COLLEGE	527	0	0	0	0	0	0	0	527
GOLDEN GATE UNIVERSITY	506	2	0	0	0	2	0	0	504
GOLDEN WEST COLLEGE	689	250	0	0	0	0	250	0	439
GRADUATE THEOL UNION	115	0	0	0	0	0	0	0	115
GROSSMONT COLLEGE	1,132	0	0	0	0	0	0	0	1,132
HARTNELL COLLEGE	356	0	0	0	0	0	0	0	356
HARVEY HUDD COLLEGE	723	239	158	0	6	0	0	75	484
HOLY NAMES COLLEGE	162	6	0	0	6	0	0	0	156
HUMBOLDT STATE UNIVERSITY	2,444	567	471	0	0	0	0	96	1,877
HUMPHREYS COLLEGE	77	0	0	0	0	0	0	0	77
IMMACULATE HEART COLLEGE	539	14	0	0	0	0	0	14	525
IMPERIAL VALLEY COLLEGE	1,556	0	0	0	0	0	0	0	1,556
INDIAN VALLEY COLLEGES	185	0	0	0	0	0	0	0	185
INTERNATIONAL COLLEGE	77	0	0	0	0	0	0	0	77
JOHN F KENNEDY UNIVERSITY	85	0	0	0	0	0	0	0	85
KERN CH COL DIST SYS OFF	5	5	5	0	0	0	0	0	0
L A CITY JR COL DST S D	30	0	0	0	0	0	0	0	30
LAKE TAHOE CMTY COLLEGE	81	0	0	0	0	0	0	0	81
LANEY COLLEGE	1,419	20	0	0	0	0	20	0	1,399
LASSEN COLLEGE	600	0	0	0	0	0	0	0	600
LINCOLN UNIV (CAL)	33	0	0	0	0	0	0	0	33
LOMA LINDA UNIVERSITY	5,315	2,195	2,067	0	0	49	79	0	3,120
LONE MOUNTAIN COLLEGE	104	0	0	0	0	0	0	0	104
LONG BEACH CITY COLLEGE	1,616	8	0	0	0	0	0	8	1,608
LOS ANGELES BAPT COL SEM	197	0	0	0	0	0	0	0	197
LOS ANGELES CITY COLLEGE	3,723	0	0	0	0	0	0	0	3,723
LOS ANGELES HARBOR COL	738	53	0	0	0	53	0	0	685
LOS ANGELES MISSION COLL	327	0	0	0	0	0	0	0	327
LOS ANGELES PIERCE COLL	710	0	0	0	0	0	0	0	710
LOS ANGELES SOUTHWEST COL	1,779	0	0	0	0	0	0	0	1,779
LOS ANGELES TR TECH COL	3,565	12	12	0	0	0	0	0	3,553
LOS ANGELES VALLEY COL	801	0	0	0	0	0	0	0	801
LOS MEDANOS COLLEGE	366	0	0	0	0	0	0	0	366
LOS RIDS C C SYS OFFICE	183	5	5	0	0	0	0	0	178
LOYOLA MARYMOUNT U	2,312	31	29	0	0	2	0	0	2,281
MENLO COLLEGE	25	0	0	0	0	0	0	0	25
MERCED COLLEGE	1,336	0	0	0	0	0	0	0	1,336
MERRITT COLLEGE	1,407	0	0	0	0	0	0	0	1,407
MILLS COLLEGE	520	0	0	0	0	0	0	0	520
MIRA COSTA COLLEGE	288	0	0	0	0	0	0	0	288
MODESTO JUNIOR COLLEGE	1,007	0	0	0	0	0	0	0	1,007
MONTREY INST OF FOR STUD	200	0	0	0	0	0	0	0	200
MONTREY PENINSULA COL	393	5	5	0	0	0	0	0	388
MORRIS PARK COLLEGE	4	0	0	0	0	0	0	0	4
MOUNT SAN ANTONIO COLLEGE	1,810	0	0	0	0	0	0	0	1,810
MOUNT SAN JACINTO COLLEGE	202	0	0	0	0	0	0	0	202
MOUNT ST MARY'S COLLEGE	340	7	0	0	0	0	0	7	333
MRYMNT PALOS VERDES COLL	161	0	0	0	0	0	0	0	161
NAIROBI COLLEGE	188	0	0	0	0	0	0	0	188
NAPA COLLEGE	710	0	0	0	0	0	0	0	710
NATIONAL UNIVERSITY	293	0	0	0	0	0	0	0	293
NEW COLLEGE OF CALIFORNIA	469	0	0	0	0	0	0	0	469
NORTHRUP UNIVERSITY	180	0	0	0	0	0	0	0	180
OCCIDENTAL COLLEGE	642	86	72	0	0	0	0	14	556
OHLONE COLLEGE	154	0	0	0	0	0	0	0	154
ORANGE COAST COLLEGE	1,238	0	0	0	0	0	0	0	1,238
OTIS ART INST LA COUNTY	47	0	0	0	0	0	0	0	47
OXNARD COLLEGE	19	0	0	0	0	0	0	0	19
PACIFIC CHRISTIAN COLLEGE	180	0	0	0	0	0	0	0	180
PACIFIC LUTHERAN THEO SEM	14	0	0	0	0	0	0	0	14
PACIFIC OAKS COLLEGE	141	0	0	0	0	0	0	0	141
PACIFIC SCH OF RELIGION	126	35	35	0	0	0	0	0	91
PACIFIC UNION COLLEGE	926	0	0	0	0	0	0	0	926
PALO VERDE COLLEGE	66	0	0	0	0	0	0	0	66
PALDMAR COLLEGE	976	0	0	0	0	0	0	0	976
PASADENA CITY COLLEGE	1,061	0	0	0	0	0	0	0	1,061
PATTEN BIBLE COLLEGE	48	0	0	0	0	0	0	0	48

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED
(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	ACADEMIC FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON-SCIENCE
CALIFORNIA, CONT'D									
PEPPERDINE UNIVERSITY	1,242	0	0	0	0	0	0	0	1,242
PERALTA CMTY COL SYS OFF	95	0	0	0	0	0	0	0	95
PITZER COLLEGE	632	136	123	0	0	13	0	0	496
POINT LOMA COLLEGE	487	7	0	0	7	0	0	0	480
POMONA COLLEGE	1,240	664	418	0	0	0	235	11	576
FORTERVILLE COLLEGE	392	0	0	0	0	0	0	0	392
REEDLEY COLLEGE	427	0	0	0	0	0	0	0	427
RIO HONDO COLLEGE	993	0	0	0	0	0	0	0	993
RIVERSIDE CITY COLLEGE	873	0	0	0	0	0	0	0	873
SACRAMENTO CITY COLLEGE	2,064	6	0	0	0	6	0	0	2,058
SADDEBACK COLLEGE	314	5	5	0	0	0	0	0	309
SAN BERNARDINO VALLEY COL	1,028	2	0	0	0	2	0	0	1,026
SAN DIEGO CITY COLLEGE	250	166	0	0	0	166	0	0	84
SAN DIEGO EVENING COLLEGE	200	0	0	0	0	0	0	0	200
SAN DIEGO JR COL SYS OFF	475	0	0	0	0	0	0	0	475
SAN DIEGO MESA COLLEGE	2,245	0	0	0	0	0	0	0	2,245
SAN DIEGO MIRAMAR COLLEGE	40	0	0	0	0	0	0	0	40
SAN DIEGO STATE UNIV	10,293	3,792	3,042	0	12	384	69	285	6,501
SAN FRANCISCO ART INST	300	0	0	0	0	0	0	0	300
SAN FRANCISCO CC DISTRICT	4,269	239	10	0	0	0	229	0	4,030
SAN FRANCISCO DMSV MUSIC	34	0	0	0	0	0	0	0	34
SAN FRANCISCO STATE UNIV	5,859	967	887	0	0	3	0	77	4,892
SAN JOAQUIN DELTA COLLEGE	2,348	0	0	0	0	0	0	0	2,348
SAN JOSE BIBLE COLLEGE	74	0	0	0	0	0	0	0	74
SAN JOSE CITY COLLEGE	1,515	10	0	0	10	0	0	0	1,505
SAN JOSE STATE UNIVERSITY	6,908	1,398	1,377	7	0	0	0	14	5,510
SAN MATEO CC DIS SYS OFF	59	0	0	0	0	0	0	0	59
SANTA ANA COLLEGE	840	33	0	0	0	0	0	33	807
SANTA BARBARA CITY COL	923	0	0	0	0	0	0	0	923
SANTA MONICA COLLEGE	1,544	0	0	0	0	0	0	0	1,544
SANTA ROSA JR COLLEGE	1,573	0	0	0	0	0	0	0	1,573
SCH OF THEOLOGY CLAREMONT	69	0	0	0	0	0	0	0	69
SCRIPPS COLLEGE	425	24	24	0	0	0	0	0	401
SHASTA COLLEGE	428	0	0	0	0	0	0	0	428
SIERRA COLLEGE	497	56	0	0	0	0	56	0	441
SIMPSON COLLEGE (CAL)	105	0	0	0	0	0	0	0	105
SKYLINE COLLEGE	435	0	0	0	0	0	0	0	435
SOLANO COMMUNITY COLLEGE	666	0	0	0	0	0	0	0	666
SONOMA STATE UNIVERSITY	1,683	13	0	0	13	0	0	57	1,670
SOUTHERN CAL COL OPTMTRY	438	57	0	0	0	0	0	0	381
SOUTHERN CALIFORNIA COL	462	0	0	0	0	0	0	0	462
SOUTHWESTERN COLLEGE	1,630	0	0	0	0	0	0	0	1,630
SOUTHWESTERN U SCH OF LAW	95	0	0	0	0	0	0	0	95
ST MARY'S COL CALIFORNIA	321	0	0	0	0	0	0	0	321
ST PATRICK'S COLLEGE	9	0	0	0	0	0	0	0	9
STANFORD UNIVERSITY	94,009	89,738	80,110	2,557	723	5,659	473	216	4,271
TAFT COLLEGE	96	0	0	0	0	0	0	0	96
THE WRIGHT INSTITUTE	935	838	822	0	0	16	0	0	97
UNIV OF CAL BERKELEY	65,720	55,399	49,663	0	823	4,009	467	437	10,321
UNIV OF CAL DAVIS	38,476	29,997	27,721	25	286	1,120	736	109	8,479
UNIV OF CAL IRVINE	17,624	13,361	11,861	0	71	916	453	60	4,263
UNIV OF CAL LOS ANGELES	97,779	76,428	69,595	597	914	4,334	718	270	21,351
UNIV OF CAL RIVERSIDE	8,372	7,038	6,527	0	107	176	177	51	1,334
UNIV OF CAL SAN DIEGO	88,508	82,031	77,033	147	383	3,512	500	356	6,477
UNIV OF CAL SAN FRANCISCO	59,488	51,369	46,388	0	240	4,291	386	64	8,119
UNIV OF CAL SANTA BARBARA	13,267	8,782	8,288	0	105	217	89	83	4,485
UNIV OF CAL SANTA CRUZ	6,726	4,192	3,716	0	0	41	404	31	2,534
UNIV OF CAL SYS-WIDE PROG	9,015	7,750	756	0	0	0	23	6,971	1,265
UNIV OF SAN FRANCISCO	3,916	1,305	836	0	0	424	0	45	2,611
UNIV OF SOUTHERN CAL	61,039	45,281	42,458	28	479	1,749	384	183	15,758
UNIVERSITY OF LA VERNE	494	0	0	0	0	0	0	0	494
UNIVERSITY OF REDLANDS	495	27	27	0	0	0	0	0	468
UNIVERSITY OF SAN DIEGO	1,042	23	0	0	12	0	0	11	1,019
UNIVERSITY OF SANTA CLARA	2,167	921	854	0	0	6	0	61	1,246
UNIVERSITY OF THE PACIFIC	3,632	403	378	0	0	0	25	0	3,229
US INTERNATIONAL UNIV	470	0	0	0	0	0	0	0	470
VENTURA COLLEGE	2,128	0	0	0	0	0	0	0	2,128
VICTOR VALLEY COLLEGE	426	0	0	0	0	0	0	0	426
WEST COAST BIBLE COLLEGE	158	0	0	0	0	0	0	0	158
WEST COAST UNIVERSITY	59	0	0	0	0	0	0	0	59
WEST HILLS COLLEGE	330	0	0	0	0	0	0	0	330
WEST LOS ANGELES COLLEGE	952	0	0	0	0	0	0	0	952
WEST VALLEY COLLEGE	914	0	0	0	0	0	0	0	914
WESTERN ST U COL OF LAW	5	0	0	0	0	5	0	0	0
WESTMONT COLLEGE	212	0	0	0	0	0	0	0	212
WHITTIER COLLEGE	571	0	0	0	0	0	0	0	571
WOODBURY UNIVERSITY	109	0	0	0	0	0	0	0	109
WORLD COLLEGE WEST	70	0	0	0	0	0	0	0	70
YUBA COLLEGE	549	0	0	0	0	0	0	0	549
COLORADO, TOTAL	118,303	71,951	62,492	46	889	4,211	1,067	3,246	46,352
ADAMS STATE COLLEGE	1,202	32	0	0	11	21	0	0	1,170
AIMS CMTY COLLEGE	457	13	13	0	0	0	0	0	444
ARAPAHOE CMTY COLLEGE	403	0	0	0	0	0	0	0	403
COLO NORTHWSTRN CMTY COL	85	0	0	0	0	0	0	18	85
COLORADO COLLEGE	349	56	38	0	0	0	0	0	293
COLORADO MOUNTAIN COL	226	0	0	0	0	0	0	0	226
COLORADO SCHOOL OF MINES	3,319	2,770	2,047	0	85	410	188	40	549
COLORADO STATE UNIVERSITY	29,017	23,952	20,371	0	595	607	205	2,174	5,065
COLORADO WOMEN'S COLLEGE	327	122	122	0	0	0	0	0	205
COMMUNITY COLLEGE DENVER	2,091	0	0	0	0	0	0	0	2,091
FORT LEWIS COLLEGE	942	171	29	0	0	0	102	40	771
LIFF SCHOOL OF THEOLOGY	24	0	0	0	0	0	0	0	24

SEE FOOTNOTES AT END OF TABLE.



TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE								NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE		
COLORADO, CONT'D										
INTERMOUNTAIN BIBLE COL	15	0	0	0	0	0	0	0	0	15
LAMAR COMMUNITY COLLEGE	147	0	0	0	0	0	0	0	0	147
LORETO HEIGHTS COLLEGE	1,023	0	0	0	0	0	0	0	0	1,023
MESA COLLEGE	623	0	0	0	0	0	0	0	0	623
METROPOLITAN STATE COL	3,450	0	0	0	0	0	0	0	0	3,450
MORGAN COUNTY CC	41	0	0	0	0	0	0	0	0	41
NAZARENE BIBLE COLLEGE	282	0	0	0	0	0	0	0	0	282
NORTHEASTERN JR COLLEGE	385	0	0	0	0	0	0	0	0	385
OTERO JR COLLEGE	208	0	0	0	0	0	0	0	0	208
PIKES PEAK CMTY COLLEGE	707	0	0	0	0	0	0	0	0	707
REGIS COLLEGE	1,562	0	0	0	0	0	0	0	0	1,562
ROCKMONT COLLEGE	131	0	0	0	0	0	0	0	0	131
ST THOMAS SEM COL (COL)	67	0	0	0	0	0	0	0	0	67
TRINIDAD STATE JR COLLEGE	698	11	11	0	0	0	0	0	0	687
UNIV OF NORTHERN COLORADO	3,229	387	0	0	0	362	0	25	0	2,842
UNIV OF SOUTHERN COLORADO	2,922	127	127	0	0	0	0	0	0	2,795
UNIVERSITY OF COLORADO	53,375	35,912	32,091	46	166	2,586	469	554	0	17,463
UNIVERSITY OF DENVER	10,476	8,398	7,643	0	32	225	103	395	0	2,078
WESTERN ST COL COLORADO	500	0	0	0	0	0	0	0	0	500
YESHIVA T CHAIM TAL SEM	20	0	0	0	0	0	0	0	0	20
CONNECTICUT, TOTAL	115,839	81,397	70,414	314	386	7,124	1,035	2,124	0	34,442
ALBERTUS MAGNUS COLLEGE	153	0	0	0	0	0	0	0	0	153
ANNMURST COLLEGE	112	5	0	0	5	0	0	0	0	107
ASNUNTUCK CC	120	0	0	0	0	0	0	0	0	128
CENTRAL CONN STATE COL	1,446	0	0	0	0	0	0	0	0	1,446
CONNECTICUT COLLEGE	685	0	0	0	0	0	0	0	0	685
EASTERN CONN STATE COL	627	0	0	0	0	0	0	0	0	627
FAIRFIELD UNIVERSITY	667	37	37	0	0	0	0	0	0	630
GREATER HARTFORD COMM COL	557	0	0	0	0	0	0	0	0	557
HARTFORD COL FOR WOMEN	123	0	0	0	0	0	0	0	0	123
HARTFORD GRADUATE CENTER	6	6	0	0	0	6	0	0	0	0
HARTFORD STATE TECH COL	95	0	0	0	0	0	0	0	0	95
HOLY APOSTLES COLLEGE	37	0	0	0	0	0	0	0	0	37
HOUSATONIC REG COMM COL	741	0	0	0	0	0	0	0	0	741
MANCHESTER COMMUNITY COL	384	0	0	0	0	0	0	0	0	384
MATTATUCK COMMUNITY COL	625	0	0	0	0	0	0	0	0	625
MIDDLESEX COMM COL (CONN)	306	0	0	0	0	0	0	0	0	306
MITCHELL COLLEGE	84	0	0	0	0	0	0	0	0	84
MOHEGAN COMMUNITY COLLEGE	186	0	0	0	0	0	0	0	0	186
MORSE OF HARTFORD	313	0	0	0	0	0	0	0	0	313
NORTHSTRN CONN CMTY COL	236	0	0	0	0	0	0	0	0	236
NORWALK COMMUNITY COLLEGE	320	0	0	0	0	0	0	0	0	320
NORWALK STATE TECH COL	131	0	0	0	0	0	0	0	0	131
POST COLLEGE	389	0	0	0	0	0	0	0	0	389
QUINEBAUG VALLEY CC	63	0	0	0	0	0	0	0	0	63
QUINNIPIAC COLLEGE	887	105	105	0	0	0	0	0	0	782
SACRED HEART UNIVERSITY	424	0	0	0	0	0	0	0	0	424
SOUTH CENTRAL COMM COL	913	0	0	0	0	0	0	0	0	913
SOUTHERN CONN STATE COL	2,064	8	8	0	0	0	0	0	0	2,056
ST ALPHONSUS COLLEGE	35	0	0	0	0	0	0	0	0	35
ST JOSEPH COLLEGE	265	64	19	0	0	0	38	7	0	201
ST THOMAS SEMINARY	8	0	0	0	0	0	0	0	0	8
THAMES VALLEY ST TECH COL	121	0	0	0	0	0	0	0	0	121
TRINITY COLLEGE	644	29	29	0	0	0	0	0	0	615
TUNXIS COMMUNITY COLLEGE	242	0	0	0	0	0	0	0	0	242
UNIVERSITY OF BRIDGEPORT	1,359	137	104	0	0	33	0	0	0	1,222
UNIVERSITY OF CONNECTICUT	25,526	18,563	14,923	0	149	1,138	512	1,841	0	6,963
UNIVERSITY OF HARTFORD	2,266	224	9	0	0	122	10	83	0	2,042
UNIVERSITY OF NEW HAVEN	864	25	0	0	0	0	0	25	0	839
WATERBURY STATE TECH COL	67	0	0	0	0	0	0	0	0	67
WESLEYAN UNIVERSITY	3,140	1,461	1,375	0	0	13	38	35	0	1,679
WESTERN CONN STATE COL	708	0	0	0	0	0	0	0	0	708
YALE UNIVERSITY	67,892	60,733	53,805	314	232	5,812	437	133	0	7,159
DELAWARE, TOTAL	14,696	8,778	7,373	8	160	47	92	1,098	0	5,918
BRANDYWINE COLLEGE	266	0	0	0	0	0	0	0	0	266
DELAWARE STATE COLLEGE	1,975	514	336	0	0	0	0	178	0	1,461
DELAWARE TECH C COMM COL	1,111	8	0	0	8	0	0	0	0	1,103
GOLDEY BEACON COLLEGE	172	0	0	0	0	0	0	0	0	172
UNIVERSITY OF DELAWARE	10,794	8,256	7,037	8	152	47	92	920	0	2,538
WESLEY COLLEGE	256	0	0	0	0	0	0	0	0	256
WILMINGTON COLLEGE	122	0	0	0	0	0	0	0	0	122
DISTRICT OF COLUMBIA, TOTAL	206,219	42,971	36,319	947	174	2,052	2,087	1,392	0	162,248
AMERICAN UNIVERSITY	5,444	2,869	2,744	0	0	14	98	13	0	2,575
CAMPUS-FREE COLLEGE	106	0	0	0	0	0	0	0	0	106
CATHOLIC UNIV OF AMERICA	4,032	2,350	2,220	0	4	34	28	64	0	1,682
GALLAUDET COLLEGE	33,103	516	371	0	0	79	0	66	0	32,587
GEORGE WASHINGTON UNIV	18,842	13,939	13,003	0	31	484	188	233	0	4,903
GEORGETOWN UNIVERSITY	19,896	13,336	11,595	947	14	368	360	52	0	6,560
HOWARD UNIVERSITY	116,195	7,903	5,715	0	125	946	997	120	0	108,292
IMMACULATA COL OF WASH	16	0	0	0	0	0	0	0	0	16
MOUNT VERNON COLLEGE	72	0	0	0	0	0	0	0	0	72
SOUTHEASTERN UNIVERSITY	355	0	0	0	0	0	0	0	0	355
STRAYER COLLEGE	1,029	0	0	0	0	0	0	0	0	1,029
TRINITY COLLEGE	311	32	32	0	0	0	0	0	0	279
UNIVERSITY OF D C	6,417	2,026	639	0	0	127	416	844	0	4,391
WASHINGTON INTERN'L COLL	401	0	0	0	0	0	0	0	0	401

SEE FOOTNOTES AT END OF TABLE.



TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED
(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL INSTR SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON-SCIENCE
FLORIDA, TOTAL	186,917	77,152	65,243	654	426	2,937	2,710	5,182	109,765
BARRY COLLEGE	502	28	28	0	0	0	0	0	474
BETHUNE COOKMAN COLLEGE	3,512	404	0	0	0	0	275	129	3,108
BISCAYNE COLLEGE	1,079	0	0	0	0	0	0	0	1,079
BREVARD COMMUNITY COLLEGE	1,630	0	0	0	0	0	0	0	1,630
BROTHARD COMMUNITY COLLEGE	1,572	0	0	0	0	0	0	0	1,572
CENTRAL FLORIDA CMTY COL	646	0	0	0	0	0	0	0	646
CHIPOLA JR COLLEGE	371	0	0	0	0	0	0	0	371
COLLEGE OF BOCA RATON	92	0	0	0	0	0	0	0	92
DAYTONA BEACH CMTY COL	1,635	0	0	0	0	0	0	0	1,635
ECKERD COLLEGE	440	74	74	0	0	0	0	0	366
EDISON COMMUNITY COLLEGE	377	0	0	0	0	0	0	0	377
EDWARD WATERS COLLEGE	1,963	0	0	0	0	0	0	0	1,963
EMBRY-RIDDLE AERD UNIV	1,030	0	0	0	0	0	0	0	1,030
FLA INTERNATIONAL UNIV	3,708	21	21	0	0	0	0	0	3,687
FLA JR COL - JACKSONVILLE	2,766	0	0	0	0	0	0	0	2,766
FLAGLER COLLEGE	268	0	0	0	0	0	0	0	268
FLORIDA A & M UNIVERSITY	9,602	1,764	1,006	0	0	42	329	387	7,838
FLORIDA ATLANTIC UNIV	1,746	354	354	0	0	0	0	0	1,392
FLORIDA COLLEGE	118	0	0	0	0	0	0	0	118
FLORIDA INST OF TECH	1,814	524	377	0	18	0	95	34	1,290
FLORIDA KEYS CMTY COLLEGE	236	0	0	0	0	0	0	0	236
FLORIDA MEMORIAL COLLEGE	1,503	0	0	0	0	0	0	0	1,503
FLORIDA SOUTHERN COLLEGE	327	0	0	0	0	0	0	0	327
FLORIDA STATE UNIVERSITY	20,303	10,532	9,511	127	154	638	77	25	9,771
FLORIDA TECHNOLOGICAL UNIV	4,150	2,369	2,177	0	0	0	171	21	1,781
FORT LAUDERDALE UNIV	105	0	0	0	0	0	0	0	105
GULF COAST CMTY COLLEGE	510	0	0	0	0	0	0	0	510
HILLSBOROUGH CMTY COLLEGE	1,550	0	0	0	0	0	0	0	1,550
INDIAN RIVER CMTY COLLEGE	713	0	0	0	0	0	0	0	713
JACKSONVILLE UNIVERSITY	638	0	0	0	0	0	0	0	638
JONES COLLEGE	517	0	0	0	0	0	0	0	517
LAKE CITY CMTY COLLEGE	401	0	0	0	0	0	0	0	401
LAKE-SUMTER CMTY COLLEGE	266	0	0	0	0	0	0	0	266
MANATEE JR COLLEGE	569	0	0	0	0	0	0	0	569
MIAMI CHRISTIAN COLLEGE	145	0	0	0	0	0	0	0	145
MIAMI-DADE CMTY COLLEGE	14,113	0	0	0	0	0	0	0	14,113
NORTH FLORIDA JR COLLEGE	164	0	0	0	0	0	0	0	164
NOVA UNIVERSITY	1,230	643	497	86	0	0	0	60	587
OKALDOSSA-WALTON JR COL	162	0	0	0	0	0	0	0	162
PALM BEACH ATLANTIC COLL	283	0	0	0	0	0	0	0	283
PALM BEACH JR COLLEGE	718	0	0	0	0	0	0	0	718
PASCO HERNANDO CC	299	0	0	0	0	0	0	0	299
PENSACOLA JR COLLEGE	1,363	0	0	0	0	0	0	0	1,363
POLK CMTY COLLEGE	417	0	0	0	0	0	0	0	417
ROLLINS COLLEGE	190	0	0	0	0	0	0	0	190
SANTA FE CMTY COLLEGE	2,488	0	0	0	0	0	0	0	2,488
SEMINOLE CMTY COLLEGE	728	0	0	0	0	0	0	0	728
SESTRN COL-ASSEMB-DF-GDD	677	0	0	0	0	0	0	0	677
SDOUTH FLORIDA JR COLLEGE	54	0	0	0	0	0	0	0	54
ST JOHN VIANNEY COL SEM	42	0	0	0	0	0	0	0	42
ST JOHN'S R CMTY COL	195	0	0	0	0	0	0	0	195
ST JOSEPH COL OF FLORIDA	1	0	0	0	0	0	0	0	1
ST LEO COLLEGE	230	3	0	0	3	0	0	0	227
ST PETERSBURG JR COLLEGE	1,630	13	13	0	0	0	0	0	1,617
STATE UNIV SYS OF FLA DFF	1,482	1,482	1,351	0	0	0	0	131	0
STETSON UNIVERSITY	790	0	0	0	0	0	0	0	790
TALLAHASSEE CMTY COLLEGE	596	0	0	0	0	0	0	0	596
TALHUOC COL OF FLORIDA	70	0	0	0	0	0	0	0	70
TAMPA COLLEGE	148	0	0	0	0	0	0	0	148
UNIV OF SCOUTH FLORIDA	6,842	2,490	2,128	0	7	149	159	47	4,352
UNIV OF WEST FLORIDA	1,925	482	454	0	0	0	0	28	1,443
UNIVERSITY OF FLORIDA	38,751	27,851	21,464	0	227	1,266	746	4,148	10,900
UNIVERSITY OF MIAMI	41,713	28,074	25,744	441	17	842	858	172	13,639
UNIVERSITY OF NORTH FLA	840	44	44	0	0	0	0	0	796
UNIVERSITY OF TAMPA	306	0	0	0	0	0	0	0	306
VALENCIA COMMUNITY COLL	1,524	0	0	0	0	0	0	0	1,524
WARNER SOUTHERN COLLEGE	108	0	0	0	0	0	0	0	108
WEBBER COLLEGE	34	0	0	0	0	0	0	0	34
GEORGIA, TOTAL	135,529	71,205	55,705	203	267	2,254	4,447	8,329	64,324
ABRAHAM BALDWIN AGRIC COL	1,064	0	0	0	0	0	0	0	1,064
AGNES SCOTT COL	49	0	0	0	0	0	0	0	49
ALBANY JR COLLEGE	652	0	0	0	0	0	0	0	652
ALBANY STATE COLLEGE	3,436	121	0	0	0	0	100	21	3,315
ANDREW COLLEGE	251	0	0	0	0	0	0	0	251
ARMSTRONG STATE COLLEGE	661	0	0	0	0	0	0	0	661
ATLANTA CHRISTIAN COL	58	0	0	0	0	0	0	0	58
ATLANTA COLLEGE OF ART	88	0	0	0	0	0	0	0	88
ATLANTA JR COLLEGE	1,172	236	0	0	0	0	236	0	936
ATLANTA UNIVERSITY	6,646	3,271	189	0	0	279	2,767	36	3,375
ATLANTA UNIVERSITY CENTER	186	186	145	0	0	0	39	2	0
AUGUSTA COLLEGE	768	0	0	0	0	0	0	0	768
BAINBRIDGE JR COLLEGE	106	0	0	0	0	0	0	0	106
BERRY COLLEGE	451	0	0	0	0	0	0	0	451
BRENAU COLLEGE	172	0	0	0	0	0	0	0	172
BREWTON-PARKER COLLEGE	283	0	0	0	0	0	0	0	283
BRUNSWICK JR COLLEGE	238	0	0	0	0	0	0	0	238
CLARK COLLEGE	5,152	370	305	0	0	0	0	65	4,782
CLAYTON JUNIOR COLLEGE	233	0	0	0	0	0	0	0	233
COLUMBUS COLLEGE	1,087	17	0	0	0	0	0	17	1,070
COVENANT COLLEGE	483	0	0	0	0	0	0	0	483
DALTON JUNIOR COLLEGE	155	0	0	0	0	0	0	0	155

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	ACADEMIC FACIL FOR INSTR IN SCI & ENG	SCIENCE FELLOWSHIPS TRAINEE SHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON-SCIENCE
GEORGIA, CONT'D									
DEKALB COMMUNITY COLLEGE	1,480	5	5	0	0	0	0	0	1,475
EMANUEL CO JUNIOR COLLEGE	84	0	0	0	0	0	0	0	84
EMMANUEL COLLEGE	168	0	0	0	0	0	0	0	168
EMORY UNIVERSITY	18,540	14,140	12,921	0	9	644	287	279	4,400
FLOYD JUNIOR COLLEGE	293	0	0	0	0	0	0	0	298
FORT VALLEY STATE COLLEGE	3,981	1,596	939	0	0	36	53	568	2,385
GAINESVILLE JR COLLEGE	221	15	4	0	0	0	0	0	217
GEORGIA COLLEGE	782	4	4	0	0	0	0	11	767
GEORGIA INSTITUTE OF TECH	24,877	23,355	22,122	19	164	648	243	159	1,522
GEORGIA MILITARY COLLEGE	102	0	0	0	0	0	0	0	102
GEORGIA SOUTHERN COLLEGE	1,308	74	56	0	0	0	0	18	1,234
GEORGIA SOUTHWESTERN COL	765	17	0	0	3	0	0	14	748
GEORGIA STATE UNIVERSITY	3,454	669	472	0	0	183	0	14	2,785
GORDON JUNIOR COLLEGE	338	0	0	0	0	0	0	0	338
INTERDENOMINA THEOL CTR	67	0	0	0	0	0	0	0	67
KENNESAW COLLEGE	128	0	0	0	0	0	0	0	128
LA GRANGE COLLEGE	163	0	0	0	0	0	0	0	163
MACON JUNIOR COLLEGE	287	0	0	0	0	0	0	0	287
MEDICAL COL OF GEORGIA	7,300	4,476	4,221	0	0	77	178	0	2,824
MERCER UNIVERSITY	1,954	9	0	0	0	0	0	9	1,945
MIDDLE GEORGIA COLLEGE	325	0	0	0	0	0	0	0	325
MOREHOUSE COLLEGE	3,183	242	88	0	0	4	150	0	2,941
MORRIS BROWN COLLEGE	3,836	10	0	0	0	0	10	0	3,826
NORTH GEORGIA COLLEGE	750	55	19	0	0	36	0	0	695
OGLETHORPE COLLEGE	216	0	0	0	0	0	0	0	216
PAINE COLLEGE	2,783	0	0	0	0	0	0	0	2,783
PIEDMONT COLLEGE	308	0	0	0	0	0	0	0	308
REINHARDT COLLEGE	84	0	0	0	0	0	0	0	84
SAVANNAH STATE COLLEGE	3,164	180	35	0	0	0	145	0	2,984
SHORTER COLLEGE	175	0	0	0	0	0	0	0	175
SOUTH GEORGIA COLLEGE	864	0	0	0	0	0	0	0	864
SPELMAN COLLEGE	3,026	17	0	0	13	4	0	0	3,009
THOMAS COUNTY CMTY COLL	111	0	0	0	0	0	0	0	111
TIFT COLLEGE	367	0	0	0	0	0	0	0	367
TOCOSA FALLS COLLEGE	376	0	0	0	0	0	0	0	376
TRUETT MCCONNELL COLLEGE	223	0	0	0	0	0	0	0	223
UNIVERSITY OF GEORGIA	22,876	22,103	14,180	184	78	343	239	7,079	773
VALDOSTA STATE COLLEGE	1,357	0	0	0	0	0	0	0	1,357
WAYCROSS JUNIOR COLLEGE	151	0	0	0	0	0	0	0	151
WESLEYAN COLLEGE	185	0	0	0	0	0	0	0	185
WEST GEORGIA COLLEGE	1,395	37	0	0	0	0	0	37	1,358
YOUNG HARRIS COLLEGE	86	0	0	0	0	0	0	0	86
HAWAII, TOTAL	44,070	28,206	24,864	30	173	794	459	1,886	15,864
CHAMINADE U OF HONOLULU	846	0	0	0	0	0	0	0	846
HAWAII CMTY COL	312	0	0	0	0	0	0	0	312
HAWAII LOA COLLEGE	121	0	0	0	0	0	0	0	121
HAWAII PACIFIC COLLEGE	452	0	0	0	0	0	0	0	452
U OF HAWA-HONOLULU COM C	666	0	0	0	0	0	0	0	666
U OF HAWA-KAPIDLANI C COL	516	0	0	0	0	0	0	0	516
U OF HAWA-KAUAI COMM COL	152	0	0	0	0	0	0	0	152
U OF HAWA-LEEWARD COL	386	0	0	0	0	0	0	0	386
U OF HAWA-MAUI COMM COL	256	0	0	0	0	0	0	0	256
U OF HAWA-HIOWARD CMTY C	78	30	30	0	0	0	0	0	48
UNIV HAWAII AT HILO	1,589	1,256	1,256	0	0	0	0	0	333
UNIV OF HAWAII SYS OFF	12,812	7,384	6,345	0	0	3	60	976	5,428
UNIV OF HAWAII-MANDA	25,884	19,536	17,233	30	173	791	399	910	6,348
IDAHO, TOTAL	15,928	6,582	4,085	12	45	508	175	1,757	9,346
BOISE STATE UNIVERSITY	1,736	48	20	0	0	0	0	28	1,688
COLLEGE OF IDAHO	430	31	0	0	0	0	0	31	399
COLLEGE OF SOUTHERN IDAHO	662	0	0	0	0	0	0	0	662
IDAHO STATE UNIVERSITY	2,867	442	417	12	6	7	0	0	2,425
LEWIS-CLARK STATE COLLEGE	377	0	0	0	0	0	0	0	377
NORTH IDAHO COLLEGE	561	0	0	0	0	0	0	0	561
NORTHWEST NAZARENE COL	595	5	0	0	5	0	0	0	590
UNIVERSITY OF IDAHO	8,700	6,056	3,648	0	34	501	175	1,698	2,644
ILLINOIS, TOTAL	322,243	170,214	145,068	1,447	1,364	11,592	2,711	8,032	152,029
AMER CONSERV OF MUSIC	58	0	0	0	0	0	0	0	58
AUGUSTANA COLLEGE	618	0	0	0	0	0	0	0	618
AURORA COLLEGE	453	0	0	0	0	0	0	0	453
BARAT COLLEGE	409	0	0	0	0	0	0	0	409
BELLEVILLE AREA COLLEGE	551	0	0	0	0	0	0	0	551
BETHANY THEOL SEM	34	0	0	0	0	0	0	0	34
BLACK HAWK COLLEGE	441	0	0	0	0	0	0	0	441
BLACKBURN COLLEGE	155	0	0	0	0	0	0	0	155
BRADLEY UNIVERSITY	1,641	0	0	0	0	0	0	0	1,641
BRISK RABBINICAL COLLEGE	30	0	0	0	0	0	0	0	30
CARL SANDBURG COLLEGE	139	0	0	0	0	0	0	0	139
CENTRAL YMCA CMTY COLLEGE	5,755	180	5	0	0	0	175	0	5,575
CHICAGO COL OF DISTED MEO	764	0	0	0	0	0	0	0	764
CHICAGO CONSERVATORY COL	109	0	0	0	0	0	0	0	109
CHICAGO STATE UNIVERSITY	4,703	221	65	0	0	0	118	38	4,482
CHICAGO THEOL SEMINARY	27	0	0	0	0	0	0	0	27
CITY COLLEGES OF CHICAGO	19,370	158	0	0	13	0	145	0	19,212
COLLEGE OF DU PAGE	442	0	0	0	0	0	0	0	442
COLLEGE OF LAKE COUNTY	403	0	0	0	0	0	0	0	403
COLLEGE OF ST FRANCIS	175	0	0	0	0	0	0	0	175
COLUMBIA COLLEGE	1,190	0	0	0	0	0	0	0	1,190
CONCORDIA TEACHERS' COL	193	0	0	0	0	0	0	0	193

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL INSTR SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
ILLINOIS, CONT'D									
COYNE-AMERICAN INSTITUTE	120	0	0	0	0	0	0	0	128
DANIEL HALE WILLIAMS UNIV	1,064	0	0	0	0	0	0	0	1,064
DANVILLE JR COLLEGE	427	0	0	0	0	0	0	0	427
DE PAUL UNIVERSITY	2,411	375	264	0	0	108	0	3	2,036
DEVRY INSTITUTE OF TECH	945	0	0	0	0	0	0	0	945
EASTERN ILLINOIS UNIV	1,787	17	17	0	0	0	0	0	1,770
ELGIN COMMUNITY COLLEGE	78	0	0	0	0	0	0	0	78
ELMHURST COLLEGE	525	0	0	0	0	0	0	0	525
EUROKA COLLEGE	349	0	0	0	0	0	0	0	349
FELICIAN COLLEGE	41	0	0	0	0	0	0	0	41
GARRETT-EVANGLCL THED SEM	50	0	0	0	0	0	0	0	50
GEM CITY COLLEGE	39	0	0	0	0	0	0	0	39
GEORGE WILLIAMS COLLEGE	523	0	0	0	0	0	0	16	2,232
GOVERNORS STATE UNIV	2,248	16	0	0	0	0	0	0	586
GREENVILLE COLLEGE	586	0	0	0	0	0	0	0	38
HEBREW THEOLOGICAL COL	39	0	0	0	0	0	0	0	215
HIGHLAND COMMUNITY COL	215	0	0	0	0	0	0	0	347
ILL COL OF PODIATRIC MED	347	0	0	0	0	0	0	0	299
ILL E CC LINCOLN TRL COLL	299	0	0	0	0	0	0	0	26
ILL E CMTY COL FRONTIER	26	0	0	0	0	0	0	0	335
ILL E CMTY COL OLNEY CNTR	335	0	0	0	0	0	0	0	292
ILL E CMTY COL WABASH VLY	292	0	0	0	0	0	0	0	128
ILL ESTRN CC SYS OFFICE	128	0	0	0	0	0	0	0	1,483
ILLINOIS BENEDICTINE COL	1,553	70	61	0	9	0	0	0	479
ILLINOIS CENTRAL COLLEGE	484	5	5	0	0	0	0	0	377
ILLINOIS COL OF OPTOMETRY	383	6	6	0	0	0	0	0	144
ILLINOIS COLLEGE	144	0	0	0	0	0	0	77	2,087
ILLINOIS INST OF TECH	5,608	3,521	3,042	0	96	199	107	24	5,355
ILLINOIS STATE UNIVERSITY	5,507	152	128	0	0	0	0	0	205
ILLINOIS VALLEY CMTY COL	205	0	0	0	0	0	0	0	742
ILLINOIS WESLEYAN UNIV	742	0	0	0	0	0	0	0	324
JOHN A LOGAN COLLEGE	324	0	0	0	0	0	0	0	33
JOHN MARSHALL LAW SCH	33	0	0	0	0	0	0	0	267
JOHN WOOD COMMUNITY COLL	267	0	0	0	0	0	0	0	342
JOLIET JR COLLEGE	342	0	0	0	0	0	0	0	191
JUOSON COLLEGE	191	0	0	0	0	0	0	0	210
KANKAKEE COMMUNITY COL	210	0	0	0	0	0	0	0	235
KASKASKIA COLLEGE	235	0	0	0	0	0	0	0	155
KENDALL COLLEGE	155	0	0	0	0	0	0	0	177
KISHWAUKEE COLLEGE	177	0	0	0	0	0	0	19	165
KNOX COLLEGE	206	41	0	0	3	19	0	0	706
LAKE FOREST COLLEGE	974	268	0	0	0	0	250	0	349
LAKE LAND COLLEGE	349	0	0	0	0	0	0	0	691
LEWIS AND CLARK CMTY COL	691	0	0	0	0	0	0	0	925
LEWIS UNIVERSITY	925	0	0	0	0	0	0	0	170
LINCOLN CHRISTIAN COL	170	0	0	0	0	0	0	0	278
LINCOLN COLLEGE	278	0	0	0	0	0	0	0	428
LINCOLN LAND JR COLLEGE	428	0	0	0	0	0	0	0	4,902
LLOYD UNIV - CHICAGO	6,961	2,057	1,896	0	0	94	69	0	23
LUTHERAN SCH OF THEOLOGY	23	0	0	0	0	0	0	0	131
MCCORMAC COLLEGE	131	0	0	0	0	0	0	0	317
MCMURRAY COLLEGE	312	0	0	0	0	0	0	0	14
MALLINCKROOT COLLEGE	14	0	0	0	0	0	0	0	77
MCCORMICK THEOL SEM	27	0	0	0	0	0	0	0	78
MCHENRY COUNTY COLLEGE	78	0	0	0	0	0	0	0	1,446
MCKENDREE COLLEGE	1,446	0	0	0	0	0	0	0	367
MILLIKIN UNIVERSITY	367	0	0	0	0	0	0	0	447
MONMOUTH COLLEGE	447	0	0	0	0	0	0	0	348
MORAIN VALLEY COMM COLL	348	0	0	0	0	0	0	0	86
MORTON COLLEGE	86	0	0	0	0	0	0	0	595
MUNDELEIN COLLEGE	595	0	0	0	0	0	0	0	47
NAT COL OF CHIROPRACTICS	47	0	0	0	0	0	0	0	476
NATIONAL COLLEGE OF EDUC	476	0	0	0	0	0	0	0	43
NILES COLLEGE	43	0	0	0	0	0	0	0	184
NORTH CENTRAL COLLEGE	184	0	0	0	0	0	0	0	702
NORTH PARK COL THEOL SEM	702	6	6	0	0	0	0	0	3,355
NORTHEASTERN ILL UNIV	3,355	0	0	0	0	0	0	0	20
NORTHERN BART THEOL SEM	20	0	0	0	0	0	0	77	5,024
NORTHERN ILLINOIS UNIV	6,560	1,536	1,209	0	23	227	0	0	7,900
NORTHWESTERN UNIVERSITY	38,401	30,501	26,633	1,174	340	1,861	332	159	72
OAKTON COMMUNITY COLLEGE	72	0	0	0	0	0	0	0	1,065
OLIVET NAZARENE COLLEGE	1,065	0	0	0	0	0	0	0	676
PARKLAND COLLEGE	676	0	0	0	0	0	0	0	592
PRAIRIE STATE COLLEGE	592	0	0	0	0	0	0	0	4
PRINCIPIA COLLEGE	4	0	0	0	0	0	0	0	518
QUINCY COLLEGE	518	0	0	0	0	0	0	0	222
REMO LAKE COL	222	0	0	0	0	0	0	0	150
RICHLAND CMTY COL	150	0	0	0	0	0	0	0	539
ROBERT MORRIS COL (ILL)	539	0	0	0	0	0	0	0	316
ROCK VALLEY COLLEGE	316	0	0	0	0	0	0	0	2,003
ROOSEVELT UNIVERSITY	2,003	0	0	0	0	0	0	0	408
ROSARY COLLEGE	408	0	0	0	0	0	0	0	1,296
RUSH UNIVERSITY	5,863	4,567	4,464	0	0	0	103	0	4,446
S ILLINOIS U EDWARDSVILLE	4,736	290	174	0	0	91	25	45	268
SANGAMON STATE UNIVERSITY	337	69	0	0	0	14	10	0	396
SAUK VALLEY COLLEGE	396	0	0	0	0	0	0	0	989
SCHOOLS OF THE ART INST	989	0	0	0	0	0	0	0	196
SHARNEF COLLEGE	196	0	0	0	0	0	0	0	83
SHIMER COLLEGE	83	0	0	0	0	0	0	0	207
SOUTHEASTERN ILLINOIS COL	207	0	0	0	0	0	0	88	6,985
SOUTHERN ILL U-CARBONDALE	9,758	2,773	1,557	0	30	966	132	0	1
SOUTHRN ILL UNIV SYS OFF	30	29	29	0	0	0	0	0	104
SPERTUS COLL OF JUDAICA	104	0	0	0	0	0	0	0	60
SPOON RIVER COLLEGE	60	0	0	0	0	0	0	0	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
ILLINOIS, CONT'D									
SPRINGFIELD COL IN ILL	22	0	0	0	0	0	0	0	22
ST XAVIER COLLEGE	490	0	0	0	0	0	0	0	490
STATE COMMUNITY COLLEGE	1,444	0	0	0	0	0	0	0	1,444
THORNTON COMMUNITY COL	617	0	0	0	0	0	0	0	617
TRINITY CHRISTIAN COL	94	0	0	0	0	0	0	0	94
TRINITY COLLEGE	393	0	0	0	0	0	0	0	393
TRINITY EVANGEL DIV SCHL	33	0	0	0	0	0	0	0	33
TRITON COLLEGE	1,134	193	5	0	0	0	108	0	941
U HLTH SCI/CHCGD MED SCH	1,680	542	514	0	0	0	28	0	1,138
UNIV OF ILL CHICAGO CIR	10,482	4,719	4,376	0	18	197	93	35	5,763
UNIV OF ILL MED CTR CHGO	19,835	8,659	7,924	0	0	498	237	0	11,776
UNIV OF ILL URBANA	58,840	53,010	42,947	73	567	1,760	399	7,264	5,830
UNIV OF ILLINOIS SYS OFF	1,601	784	755	0	0	0	0	29	817
UNIVERSITY OF CHICAGO	61,262	55,430	48,984	200	255	5,551	325	115	5,832
WAUBONSEE COMMUNITY COL	336	0	0	0	0	0	0	0	336
WESTERN ILLINOIS UNIV	2,056	17	0	0	10	7	0	0	2,039
WHEATON COLLEGE	605	0	0	0	0	0	0	0	605
WILLIAM RAINEY HARPER COL	244	0	0	0	0	0	0	0	244
INDIANA, TOTAL	120,287	65,481	54,955	237	570	2,377	960	6,382	54,806
ANCILLA DOMINI COLLEGE	10	0	0	0	0	0	0	0	10
ANDERSON COLLEGE	1,244	0	0	0	0	0	0	0	1,244
BALL STATE UNIVERSITY	3,933	297	194	0	2	0	31	70	3,636
BETHEL COLLEGE	162	0	0	0	0	0	0	0	162
BUTLER UNIVERSITY	274	0	0	0	0	0	0	0	274
CHRISTIAN THEOL SEM	123	0	0	0	0	0	0	0	123
DE PAUM UNIVERSITY	534	78	60	0	0	0	0	18	456
EARLHAM COLLEGE	597	7	0	0	7	0	0	0	590
FORT WAYNE BIBLE COL	235	0	0	0	0	0	0	0	235
FRANKLIN COL OF INDIANA	190	0	0	0	0	0	0	0	190
GOSHEN COLLEGE	533	39	39	0	0	0	0	0	494
GRACE COLLEGE	319	0	0	0	0	0	0	0	319
HANDOVER COLLEGE	75	0	0	0	0	0	0	0	75
HOLY CROSS JR COLLEGE	24	0	0	0	0	0	0	0	24
HUNTINGTON COLLEGE	497	5	0	0	5	0	0	0	192
IND N GRAD SCH PROF MGMT	13	13	13	0	0	0	0	0	0
IND U REG CAMP SYS	2,384	434	415	0	0	5	0	14	1,950
INO U-PURDUE U FORT WAYNE	784	0	0	0	0	0	0	0	784
IND VDC TECH COLLEGE	11	0	0	0	0	0	0	0	11
INDIANA CENTRAL UNIV	263	0	0	0	0	0	0	0	263
INDIANA INSTITUTE OF TECH	239	0	0	0	0	0	0	0	239
INDIANA STATE UNIVERSITY	4,615	139	112	0	4	0	0	23	4,476
INDIANA U CENTRAL SYS OFF	93	30	30	0	0	0	0	0	63
INDIANA U-PURDUE U INOPLS	17,133	8,950	8,063	0	0	642	190	55	8,183
INDIANA UNIV-BLOOMINGTON	26,383	12,181	10,949	45	121	683	174	209	14,262
MANCHESTER COLLEGE	484	7	0	0	0	0	0	0	477
MARIAN COLLEGE	163	0	0	0	0	0	0	0	163
MARION COLLEGE	616	0	0	0	0	0	0	0	616
OKLAND CITY COLLEGE	513	11	11	0	0	0	0	0	502
PURDUE UNIVERSITY	44,383	37,014	29,554	62	332	832	341	5,893	7,369
ROSE-HULMAN INST OF TECH	185	28	25	0	3	0	0	0	157
ST FRANCIS COLLEGE	290	0	0	0	0	0	0	0	290
ST JOSEPH'S COLLEGE	1,024	172	16	0	0	0	156	0	852
ST MARY-OF-THE-WOODS COL	126	0	0	0	0	0	0	0	126
ST MARY'S COLLEGE	313	16	0	0	7	0	0	9	297
ST MEINRAD COLLEGE	103	0	0	0	0	0	0	0	103
ST MEINRAD SCH - THEOLOGY	21	0	0	0	0	0	0	0	21
TAYLOR UNIVERSITY	622	0	0	0	0	0	0	0	622
TRI-STATE UNIVERSITY	261	0	0	0	0	0	0	0	261
UNIV OF EVANSVILLE	1,012	0	0	0	0	0	0	0	1,012
UNIVERSITY OF NOTRE DAME	7,236	6,048	5,474	130	70	215	68	91	1,188
VALPARAISO UNIVERSITY	1,257	12	0	0	12	0	0	0	1,245
VINCENNES UNIVERSITY	1,252	0	0	0	0	0	0	0	1,252
WABASH COLLEGE	58	0	0	0	0	0	0	0	58
IOWA, TOTAL	82,763	42,573	33,536	4	406	2,328	476	5,823	40,190
AHER INST OF BUSINESS	211	0	0	0	0	0	0	0	211
AQUINAS INST OF THEOLOGY	19	0	0	0	0	0	0	0	19
AREA SIX CC-ELI SHURTH	317	0	0	0	0	0	0	0	317
AREA SIX CC-MARSHALLTOWN	250	0	0	0	0	0	0	0	250
BRIAR CLIFF COLLEGE	905	0	0	0	0	0	0	0	905
BUENA VISTA COLLEGE	509	0	0	0	0	0	0	0	509
CENTRAL UNIV OF IOWA	782	0	0	0	0	0	0	0	782
CLARKE COLLEGE	338	12	0	0	2	0	10	0	326
CDE/ COLLEGE	564	14	0	0	0	0	0	14	550
COL OF DSTD MED & SURG	809	0	0	0	0	0	0	0	809
CORNELL COLLEGE	419	29	22	0	0	0	0	7	390
DES MOINES AREA CC-ANKENY	799	0	0	0	0	0	0	0	799
DIVINE WORD COLLEGE	146	0	0	0	0	0	0	0	146
DOROT COLLEGE	522	0	0	0	0	0	0	0	522
DRAKE UNIVERSITY	2,260	187	100	0	7	64	0	16	2,073
EASTERN IOWA COMM COL	335	0	0	0	0	0	0	0	335
GRACELAND COLLEGE	874	0	0	0	0	0	0	0	874
GRAND VIEW COLLEGE	343	0	0	0	0	0	0	0	343
GRINNELL COLLEGE	275	31	7	0	9	0	0	15	244
HAWKEYE INST OF TECH	434	0	0	0	0	0	0	0	434
INOIAN HILLS COMMUNITY CO	445	0	0	0	0	0	0	0	445
IOWA CENTRAL CNTY COLLEGE	499	0	0	0	0	0	0	0	499
IOWA LAKES CNTY COLLEGE	560	0	0	0	0	0	0	0	560
IOWA ST U OF SCI & TECH	19,248	14,894	8,958	0	161	92	96	5,587	4,354
IOWA WESLEYAN COLLEGE	260	0	0	0	0	0	0	0	260
IOWA WESTERN COMM COL	379	0	0	0	0	0	0	0	379

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL INSTR SCI & ENG	FELLOWSHIPS FOR TRAINEESHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON-SCIENCE
IOWA, CONT'D									
KIRKWOOD COMMUNITY COLL	1,751	17	5	0	0	12	0	0	1,734
LORAS COLLEGE	525	0	0	0	0	0	0	0	525
LUTHER COLLEGE	1,103	93	73	0	0	0	0	20	1,010
MAHARISHI INTL UNIVERSITY	352	0	0	0	0	0	0	0	352
MARYCREST COLLEGE	286	0	0	0	0	0	0	0	286
MORNINGSIDE COLLEGE	595	0	0	0	0	0	0	0	595
MOUNT MERCY COLLEGE	517	0	0	0	0	0	0	0	517
MOUNT ST CLARE COLLEGE	41	0	0	0	0	0	0	0	41
N IOWA AREA CMTY COLLEGE	357	0	0	0	0	0	0	0	357
NE IOWA VO TECH SCHOOL	251	0	0	0	0	0	0	0	251
NORTHWESTERN COLLEGE	341	0	0	0	0	0	0	0	341
NW IOWA VOCATIONAL SCHOOL	95	0	0	0	0	0	0	0	95
OPEN BIBLE COLLEGE	58	0	0	0	0	0	0	0	58
OTTUMWA HEIGHTS COLLEGE	101	0	0	0	0	0	0	0	101
PALMER JUNIOR COLLEGE	191	0	0	0	0	0	0	0	191
SIMPSON COLLEGE	338	0	0	0	0	0	0	0	338
SIOUX EMPIRE COLLEGE	195	0	0	0	0	0	0	0	195
SOUTHEASTRN CMTY COL (IA)	234	0	0	0	0	0	0	0	234
SOUTHWESTERN CMTY COLLEGE	140	0	0	0	0	0	0	0	140
ST AMBROSE COLLEGE	238	8	0	0	8	0	0	0	230
UNIV OF NORTHERN IOWA	2,224	46	0	0	0	0	17	29	2,178
UNIVERSITY OF DUBUQUE	367	0	0	0	0	0	0	0	367
UNIVERSITY OF IOWA	37,326	27,208	24,371	4	207	2,160	353	113	10,118
UPPER IOWA UNIVERSITY	379	0	0	0	0	0	0	0	379
VENNARD COLLEGE	130	0	0	0	0	0	0	0	130
WALDORF COLLEGE	284	0	0	0	0	0	0	22	284
WARTBURG COLLEGE	477	34	0	0	12	0	0	0	443
WARTBURG THEOL SEM	18	0	0	0	0	0	0	0	18
WESTERN IOWA TECH	317	0	0	0	0	0	0	0	317
WESTMAR COLLEGE	579	0	0	0	0	0	0	0	579
WILLIAM PENN COLLEGE	451	0	0	0	0	0	0	0	451
KANSAS, TOTAL	67,527	29,907	23,587	0	94	1,386	884	3,956	37,620
ALLEN CO CMTY JUNIOR COL	125	0	0	0	0	0	0	0	125
BAKER UNIVERSITY	725	0	0	0	0	0	0	0	725
BARTON CNTY COMM JR COL	159	0	0	0	0	0	0	0	159
BENEDICTINE COLLEGE	574	22	0	0	0	0	0	22	552
BETHANY COLLEGE	634	0	0	0	0	0	0	0	634
BETHEL COLLEGE	647	0	0	0	0	0	0	0	647
BUTLER COUNTY CMTY JR COL	351	0	0	0	0	0	0	0	351
CENTRAL COLLEGE	228	0	0	0	0	0	0	0	228
CLOUD COUNTY CMTY JR COL	233	0	0	0	0	0	0	0	233
COFFEYVILLE CMTY JR COL	270	0	0	0	0	0	0	0	270
COLBY CMTY COLLEGE	215	0	0	0	0	0	0	0	215
COHLEY CO CMTY JUNIOR COL	199	5	5	0	0	0	0	0	194
DODGE CITY CMTY JR COL	232	0	0	0	0	0	0	0	232
DONNELLY COLLEGE	670	0	0	0	0	0	0	0	670
EMPDRIA STATE UNIVERSITY	2,079	128	0	0	0	91	0	37	1,951
FORT HAYS KANS STATE COL	1,307	20	20	0	0	0	0	0	1,287
FORT SCOTT CMTY JR COL	277	0	0	0	0	0	0	0	277
FRIENDS BIBLE COLLEGE	26	0	0	0	0	0	0	0	26
FRIENDS UNIVERSITY	318	0	0	0	0	0	0	0	318
GARDEN CITY CMTY JR COL	355	0	0	0	0	0	0	0	355
HASKELL INDIAN JR COLLEGE	131	22	0	0	0	0	22	0	109
HESSTON COLLEGE	693	9	0	0	9	0	0	0	684
HIGHLAND CMTY JR COLLEGE	239	0	0	0	0	0	0	0	239
HUTCHINSON CMTY JR COL	541	0	0	0	0	0	0	0	541
INDEPENDENCE CMTY JR COL	203	0	0	0	0	0	0	0	203
JOHNSON CO COMMUNITY COLL	371	0	0	0	0	0	0	0	371
KANS CITY KANS CMTY JR COL	497	0	0	0	0	0	0	0	497
KANS ST U - AG & APP SCI	16,034	11,072	7,227	0	20	105	83	3,637	4,962
KANSAS-WESMAN COLLEGE	450	0	0	0	0	0	0	0	450
KANSAS TECHNICAL INST	100	0	0	0	0	0	0	0	100
KANSAS WESLEYAN	328	0	0	0	0	0	0	0	328
LABETTE CMTY JR COLLEGE	111	0	0	0	0	0	0	0	111
MANHATTAN CHRISTIAN COL	137	0	0	0	1	0	116	0	137
MARYMOUNT COL OF KANSAS	771	117	0	0	1	0	0	0	654
MCPHERSON COLLEGE	392	0	0	0	0	0	0	0	392
MID-AMERICA WESLEYAN COL	592	0	0	0	0	0	0	0	592
NEOSHO COUNTY CMTY JR COL	75	0	0	0	0	0	0	0	75
OTTAWA UNIVERSITY	640	0	0	0	0	0	0	12	640
PITTSBURG STATE UNIV	1,446	12	0	0	0	0	76	0	1,434
PRATT CMTY JR COLLEGE	213	76	0	0	0	0	0	0	137
SEWARD CO COMMUNITY JR COL	100	0	0	0	0	0	0	0	100
SOUTHWESTERN COLLEGE	380	0	0	0	0	0	0	0	380
ST JOHN'S COLLEGE	57	0	0	0	0	0	0	0	57
ST MARY COLLEGE	386	0	0	0	0	0	0	0	386
ST MARY OF THE PLAINS COL	335	0	0	0	0	0	0	0	335
STERLING COLLEGE	348	0	0	0	0	0	0	0	348
TABOR COLLEGE	449	13	13	0	0	0	0	0	436
UNIVERSITY OF KANSAS	27,541	18,082	16,179	0	60	1,055	587	201	9,459
WASHBURN UNIV OF TOPEKA	1,187	10	10	0	0	0	0	0	1,177
WICHITA STATE UNIVERSITY	3,157	319	133	0	4	135	0	47	2,838
KENTUCKY, TOTAL	73,190	26,108	16,361	4	212	862	1,081	7,588	47,082
ALICE LLOYD COLLEGE	498	0	0	0	0	0	0	0	498
ASBURY COLLEGE	398	0	0	0	0	0	0	0	398
ASBURY THEOL SEMINARY	92	0	0	0	0	0	0	0	92
BELLARMI COLLEGE	454	0	0	0	0	0	0	0	454
BEREA COLLEGE	1,988	264	14	0	0	0	250	0	1,724
BRESCIA COLLEGE	485	0	0	0	0	0	0	0	485
CAMPBELLSVILLE COLLEGE	620	0	0	0	0	0	0	0	620

SEE FOOTNOTES AT END OF TABLE.

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TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE						OTHER SCIENCE	NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL INSTR SCI & ENG	FOR IN	FELLOWSHIPS TRAINEESHIPS TRNG GRANTS		
KENTUCKY, CONT'D									
CENTRE COL OF KENTUCKY	287	20	12	0	0	0	0	8	267
CUMBERLAND COLLEGE	1,772	0	0	0	0	0	0	0	1,772
EASTERN KENTUCKY UNIVERSITY	4,238	36	0	0	5	31	0	0	4,202
GEORGETOWN COLLEGE	402	0	0	0	0	0	0	0	402
KENTUCKY CHRISTIAN COL	323	0	0	0	0	0	0	0	323
KENTUCKY STATE UNIVERSITY	4,542	2,101	1,210	0	0	0	219	672	2,441
KENTUCKY WESLEYAN COLLEGE	400	18	8	0	0	0	0	10	382
LEES JR COLLEGE	1,086	0	0	0	0	0	0	0	1,086
LINDSEY WILSON COLLEGE	149	0	0	0	0	0	0	0	149
LOUISVILLE PRES THEOL SEM	57	0	0	0	0	0	0	0	57
MIDWAY COLLEGE	341	0	0	0	0	0	0	0	341
MOREHEAD STATE UNIVERSITY	3,398	117	93	0	3	0	0	21	3,281
MURRAY STATE UNIVERSITY	2,955	90	24	0	34	10	0	22	2,865
NORTHERN KENTUCKY UNIV	1,377	0	0	0	0	0	0	0	1,377
PIKEVILLE COLLEGE	900	0	0	0	0	0	0	0	900
SEMINARY OF ST PIUS X	82	0	0	0	0	0	0	0	82
SOUTHEASTN CHRISTIAN COL	42	0	0	0	0	0	0	0	42
SPALDING COLLEGE	497	0	0	0	0	0	0	0	497
ST CATHERINE COLLEGE	115	17	17	0	0	0	0	0	98
SUE BENNETT COLLEGE	145	0	0	0	0	0	0	0	145
THOMAS MORE COLLEGE	643	40	4	0	0	0	0	36	603
TRANSYLVANIA UNIVERSITY	296	0	0	0	0	0	0	0	296
UNION COLLEGE	416	0	0	0	0	0	0	0	416
UNIVERSITY OF KENTUCKY	31,988	19,721	11,921	4	146	642	271	6,737	12,267
UNIVERSITY OF LOUISVILLE	8,162	3,513	2,936	0	16	179	320	62	4,649
WATTERSON COLLEGE	786	0	0	0	0	0	0	0	786
WESTERN KENTUCKY UNIV	3,256	171	122	0	8	0	21	20	3,085
LOUISIANA, TOTAL	94,428	32,893	24,516	0	157	1,079	1,602	5,539	61,535
BOSSIER PARISH CNTY COLL									
CENTENARY COL OF LA	179	0	0	0	0	0	0	0	179
DELGADO COLLEGE	3,203	45	0	0	0	45	0	0	3,158
DILLARD UNIVERSITY	2,168	108	0	0	0	0	108	0	2,060
GRAMBLING STATE UNIV	4,503	367	0	0	0	0	348	19	4,136
LA ST UNIV SYSTEM OFFICE	25	21	0	0	0	0	0	21	4
LOUISIANA COLLEGE	506	0	0	0	0	0	0	0	506
LOUISIANA STATE UNIV	27,901	19,614	13,799	0	87	445	327	4,956	8,287
LOUISIANA TECH UNIVERSITY	2,642	224	0	0	0	0	0	0	2,418
LOYOLA UNIV - NEW ORLEANS	1,214	260	210	0	0	0	0	50	954
MCNEESE STATE UNIVERSITY	1,215	52	45	0	0	0	0	7	1,163
NICHOLLS STATE UNIVERSITY	1,140	0	0	0	0	0	0	0	1,140
NORTHEAST LOUISIANA UNIV	3,615	227	36	0	7	116	58	10	3,388
NORTHWESTERN ST UNIV LA	1,570	13	0	0	0	0	0	18	1,552
NOTRE DAME SEM SCH THEOL	34	0	0	0	0	0	0	0	34
OUR LADY HOLY CROSS COL	289	0	0	0	0	0	0	0	289
SAINT BERNARD PARISH CC	87	0	0	0	0	0	0	0	87
SOUTHEASTERN LA UNIV	1,750	4	0	0	4	0	0	0	1,746
SOUTHERN U C A&M COLLEGE	13,494	2,281	1,519	0	0	74	265	423	11,213
SOHOLA TECH INST	1	0	0	0	0	0	0	0	1
ST JOSEPH SEMINARY	79	0	0	0	0	0	0	0	79
ST MARY'S DOMINICAN COL	313	0	0	0	0	0	0	0	313
TULANE UNIVERSITY	13,628	8,319	7,753	0	0	353	213	0	5,309
UNIV OF SOUTHWESTERN LA	4,152	176	100	0	0	46	6	24	3,976
UNIVERSITY OF NEW ORLEANS	4,792	831	756	0	59	0	16	0	3,961
XAVIER UNIVERSITY OF LA	5,851	346	74	0	0	0	261	11	5,505
MAINE, TOTAL	28,439	5,970	3,789	0	47	105	314	1,715	22,469
BANGOR THEOL SEMINARY									
BATES COLLEGE	536	219	0	0	0	0	0	0	95
BOWDOIN COLLEGE	654	60	60	0	16	0	199	4	317
COLBY COLLEGE	396	2	0	0	2	0	0	0	394
COLLEGE OF THE ATLANTIC	169	84	84	0	0	0	0	0	85
HUSSON COLLEGE	1,071	0	0	0	0	0	0	0	1,071
MAINE MARITIME ACADEMY	241	0	0	0	0	0	0	0	241
MASSON COLLEGE	145	0	0	0	0	0	0	0	145
NORTHRN ME VDC TECH INST	278	0	0	0	0	0	0	0	278
PORTLAND SCHOOL OF ART	233	0	0	0	0	0	0	0	233
RICKER COLLEGE	51	0	0	0	0	0	0	0	51
SOUTHERN ME VDC TECH INST	291	0	0	0	0	0	0	0	291
ST JOSEPH'S COLLEGE	315	0	0	0	0	0	0	0	315
THOMAS COLLEGE	517	0	0	0	0	0	0	0	517
UNITY COLLEGE	640	0	0	0	0	0	0	0	640
UNIV MAINE, PRESQUE ISLE	1,167	0	0	0	0	0	0	0	1,167
UNIV OF MAINE BRND	11,621	5,121	3,284	0	29	0	115	1,693	6,500
UNIV OF MAINE SYSTEM OFF	100	100	100	0	0	0	0	0	0
UNIV OF MAINE-AUGUSTA	993	0	0	0	0	0	0	0	993
UNIV OF MAINE, FARMINGTON	1,636	0	0	0	0	0	0	0	1,636
UNIV OF MAINE, FORT KENT	338	0	0	0	0	0	0	0	338
UNIV OF MAINE, MACHIAS	755	0	0	0	0	0	0	0	755
UNIVERSITY OF NEW ENGLAND	290	0	0	0	0	0	0	0	290
UNIVERSITY OF STRN MAINE	5,584	384	261	0	0	105	0	18	5,200
WESTBROOK COLLEGE	323	0	0	0	0	0	0	0	323
MARYLAND, TOTAL	308,507	247,411	235,404	59	945	6,016	1,457	3,534	61,096
ALLEGANY COMMUNITY COL									
ANNE ARUNDEL CNTY COLLEGE	342	0	0	0	0	0	0	0	671
BAY COLLEGE OF MARYLAND	1,503	0	0	0	0	0	0	0	342
BOWIE STATE COLLEGE	1,355	95	63	0	0	32	0	0	1,503
CAPITOL INST OF TECH	71	0	0	0	0	0	0	0	1,260
CATONSVILLE CNTY COL	1,197	6	5	0	0	1	0	0	71
CECIL COMMUNITY COLLEGE	124	0	0	0	0	0	0	0	1,191

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	-----ACADEMIC SCIENCE-----						NON- SCIENCE	
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	REG PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRINEESHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI		OTHER SCIENCE
MASSACHUSETTS, CONT'D									
GRAHAM JR COLLEGE	282	0	0	0	0	0	0	282	
GREENFIELD CTY COLLEGE	482	0	0	0	0	0	0	482	
HAMPSHIRE COLLEGE	390	137	51	0	0	0	83	253	
MARVARD UNIVERSITY	89,949	81,609	68,520	2,062	569	8,196	665	8,340	
HEBREW CHRYS COL	7	0	0	0	0	0	0	7	
HELLENIC C-HOLY CROSS	43	0	0	0	0	0	0	43	
HOLYOKE COMMUNITY COLLEGE	880	0	0	0	0	0	0	880	
LABOURE JUNIOR COLLEGE	144	0	0	0	0	0	0	144	
LASELL JR COLLEGE	227	0	0	0	0	0	0	227	
LESLEY COLLEGE	1,163	0	0	0	0	0	0	1,163	
MASS BAY COMMUNITY COL	446	0	0	0	0	0	0	446	
MASS COL OF PHARMACY	690	0	0	0	0	0	0	690	
MASS COLLEGE OF ART	408	0	0	0	0	0	0	408	
MASS INST OF TECHNOLOGY	130,586	126,604	114,021	7,082	697	3,784	577	3,982	
MASS MARITIME ACADEMY	317	0	0	0	0	0	0	317	
MASS STATE COL SYS OFF	107	107	107	0	0	0	0	0	
MASSASDIT CNTY COLLEGE	840	0	0	0	0	0	0	840	
MERRIMACK COLLEGE	819	229	0	0	0	0	209	590	
MIDDLESEX COMM COL (MASS)	524	0	0	0	0	0	0	524	
MOUNT HOLYOKE COLLEGE	567	173	153	0	20	0	0	374	
MOUNT IDA JR COLLEGE	320	0	0	0	0	0	0	320	
MOUNT WACHUSETT CNTY COL	647	171	0	0	0	0	171	476	
N E COL OF OPTOMETRY	543	0	0	0	0	0	0	543	
NEW ENGL CONSERV OF MUSIC	401	0	0	0	0	0	0	401	
NEW ENGLAND SCHOOL OF LAW	159	5	0	0	0	5	0	154	
NEWBURY JUNIOR COLLEGE	978	0	0	0	0	0	0	978	
NICHOLS COLLEGE	205	0	0	0	0	0	0	205	
NORTH ADAMS STATE COLLEGE	835	0	0	0	0	0	0	835	
NORTH SHORE CNTY COLLEGE	967	5	5	0	0	0	0	962	
NORTHEASTERN UNIVERSITY	13,137	3,895	3,690	0	0	143	33	2,442	
NORTHERN ESSEX CNTY COL	715	0	0	0	0	0	0	715	
PINE MANOR COLLEGE	98	0	0	0	0	0	0	98	
QUINCY JUNIOR COLLEGE	366	0	0	0	0	0	0	366	
QUINSIGAMOND CNTY COLLEGE	782	5	5	0	0	0	0	777	
REGIS COLLEGE	1,120	606	606	0	0	0	0	514	
ROXBURY COMMUNITY COLLEGE	1,096	0	0	0	0	0	0	1,096	
SALEM STATE COLLEGE	1,869	50	0	0	0	0	50	1,819	
SCH OF WORCESTER ART MUS	31	0	0	0	0	0	0	31	
SCH-MUSEUM FINE ARTS-BOST	192	0	0	0	0	0	0	192	
SIMMONS COLLEGE	2,310	254	205	0	0	21	0	2,056	
SIMON'S ROCK	123	0	0	0	0	0	0	123	
SMITH COLLEGE	875	191	191	0	0	0	0	684	
SPRINGFIELD COLLEGE	577	79	0	0	0	79	0	498	
SPRINGFIELD TECH COMM COL	1,158	0	0	0	0	0	0	1,158	
ST JOHN'S SEMINARY	39	0	0	0	0	0	0	39	
STHEASTRN MASS UNIVERSITY	2,663	393	219	0	4	0	170	2,270	
STONEHILL COLLEGE	433	0	0	0	0	0	0	433	
SUFFOLK UNIVERSITY	976	50	0	0	0	0	50	926	
SHAIN SCH OF DESIGN	173	0	0	0	0	0	0	173	
TUFTS UNIVERSITY	13,923	8,281	7,742	0	27	297	186	5,642	
U MASS MED SCH-WORCESTER	5,573	3,931	3,584	0	15	237	95	1,642	
UNIV OF MASS AT AMHERST	27,876	14,146	10,602	0	387	284	146	2,727	
UNIV OF MASS BOSTON	772	307	297	0	0	0	10	465	
UNIV OF MASS SYSTEM OFF	67	67	19	0	0	48	0	0	
UNIVERSITY OF LOWELL	2,672	1,010	924	0	0	7	52	1,662	
WELLESLEY COLLEGE	1,055	337	337	0	0	0	0	718	
WENTWORTH INST OF TECH	1,771	1,306	1,306	0	0	0	0	465	
WESTERN NEW ENGLAND COL	817	0	0	0	0	0	0	817	
WESTFIELD STATE COLLEGE	1,431	0	0	0	0	0	0	1,431	
WHEATON COLLEGE	474	56	50	0	6	0	0	418	
WHEELOCK COLLEGE	745	0	0	0	0	0	0	745	
WILLIAMS COLLEGE	545	297	275	0	0	0	0	248	
WOODS HOLE OCEANOGRPHIC INST	21,465	21,465	19,621	191	4	0	0	1,649	
WORCESTER POLY INSTITUTE	1,936	845	813	0	0	0	0	32	
WORCESTER STATE COLLEGE	1,234	0	0	0	0	0	0	1,234	
MICHIGAN, TOTAL	238,897	114,550	95,286	525	733	7,026	2,430	8,550	124,347
ADRIAN COLLEGE	116	0	0	0	0	0	0	116	
ALBION COLLEGE	379	14	0	0	5	0	9	365	
ALMA COLLEGE	287	14	0	0	0	0	14	273	
ALPENA COMMUNITY COLLEGE	568	0	0	0	0	0	0	568	
ANDREWS UNIVERSITY	679	0	0	0	0	0	0	679	
AQUINAS COLLEGE	448	0	0	0	0	0	0	448	
BAY DE NDC COMMUNITY COL	326	0	0	0	0	0	0	326	
CALVIN COLLEGE	1,451	9	0	0	0	0	9	1,442	
CALVIN THEOL SEMINARY	15	0	0	0	0	0	0	15	
CENTRAL MICHIGAN UNIV	3,623	71	39	0	7	6	19	3,552	
CHARLES STEWART MOTT C C	1,382	0	0	0	0	0	0	1,382	
CLEARY COLLEGE	66	0	0	0	0	0	0	66	
CONCORDIA COLLEGE	247	0	0	0	0	0	0	247	
CRANBROOK ACAD OF ART	28	0	0	0	0	0	0	28	
DAVENPORT COL OF BUSINESS	480	0	0	0	0	0	0	480	
DELTA COLLEGE	1,337	118	0	0	0	0	118	1,219	
DETROIT BIBLE COLLEGE	12	0	0	0	0	0	0	12	
DETROIT COL OF BUS ADMIN	718	0	0	0	0	0	0	718	
DETROIT INSTITUTE OF TECH	1,736	0	0	0	0	0	0	1,736	
DUNS SCOTUS COLLEGE	16	0	0	0	0	0	0	16	
EASTERN MICHIGAN UNIV	4,697	79	26	0	8	0	0	4,618	
FERRIS STATE COLLEGE	3,446	0	0	0	0	0	0	3,446	
GENERAL MOTORS INST	112	0	0	0	0	0	0	112	
GLEN DAKS CNTY COLLEGE	64	0	0	0	0	0	0	64	
GOGEBIC COMMUNITY COLLEGE	242	0	0	0	0	0	0	242	
GRACE BIBLE COLLEGE	76	0	0	0	0	0	0	76	

SEE FOOTNOTES AT END OF TABLE.

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	RED PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRINEESHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
MINNESOTA, CONT'D									
METRO STATE UNIV	207	0	0	0	0	0	0	0	203
METROPOLITAN CNTY COL	903	6	0	0	6	0	0	0	902
MINNEAPOLIS C-ART DESIGN	220	0	0	0	0	0	0	0	220
MINNESOTA BIBLE COLLEGE	75	0	0	0	0	0	0	0	25
MOORHEAD STATE UNIVERSITY	2,052	41	0	0	10	0	0	41	2,011
NORMANDALE COMMUNITY COL	432	0	0	0	0	0	0	0	432
NORTH CENTRAL BIBLE COL	268	0	0	0	0	0	0	0	268
NORTH MENNEPIN CNTY COL	532	0	0	0	0	0	0	0	532
NORTHLAND CNTY COLLEGE	173	0	0	0	0	0	0	0	173
NORTHWESTERN COL (MINN)	287	0	0	0	0	0	0	0	287
NORTHWESTN LUTH THEOL SEM	26	0	0	0	0	0	0	0	26
NORTHWESTN COL OF CHIRO	24	0	0	0	0	0	0	0	24
RAINY RIVER CNTY COL	122	1	1	0	0	0	0	0	121
ROCHESTER CNTY COL	858	0	0	0	0	0	0	0	858
SOUTHWEST STATE UNIV	755	99	99	0	0	0	0	0	656
ST CLOUD STATE UNIVERSITY	2,024	112	0	0	0	95	0	17	1,912
ST JOHN'S UNIVERSITY	852	19	0	0	15	0	0	4	833
ST MARY'S COLLEGE	723	47	0	0	19	0	0	28	676
ST MARY'S JUNIOR COLLEGE	1,408	141	0	0	20	72	49	0	1,267
ST OLAF COLLEGE	951	79	60	0	8	0	0	11	872
ST PAUL BIBLE COL	441	0	0	0	0	0	0	0	441
ST PAUL SEMINARY	84	74	74	0	0	0	0	0	10
UNIVERSITY OF MINNESOTA	93,558	70,028	59,582	0	397	3,755	622	5,672	23,530
VERMILION CNTY COLLEGE	335	0	0	0	0	0	0	0	335
WILLMAR COMMUNITY COLLEGE	384	0	0	0	0	0	0	0	384
WINDNA STATE UNIVERSITY	1,006	44	0	0	0	0	0	44	962
WM MITCHELL COL OF LAW	91	0	0	0	0	0	0	0	71
WORTHINGTON CNTY COLLEGE	83	0	0	0	0	0	0	0	83
MISSISSIPPI, TOTAL	83,002	21,267	11,597	0	54	791	1,592	7,233	61,735
ALCORN STATE UNIVERSITY	6,067	1,868	986	0	0	0	311	571	4,199
BELHAVEN COLLEGE	168	0	0	0	0	0	0	0	168
BLUE MOUNTAIN COLLEGE	166	0	0	0	0	0	0	0	166
CLARKE COLLEGE (MISS)	63	0	0	0	0	0	0	0	63
COAHOMA JR COLLEGE	1,722	0	0	0	0	0	0	0	1,722
COPIAH-LINCOLN JR COL	407	0	0	0	0	0	0	0	407
DELTA STATE UNIVERSITY	1,104	0	0	0	0	0	0	0	1,104
EAST CENTRAL JR COLLEGE	202	0	0	0	0	0	0	0	202
EAST MISSISSIPPI JR COL	292	0	0	0	0	0	0	0	292
HINDS JR COLLEGE	1,121	0	0	0	0	0	0	0	1,121
HOLMES JR COLLEGE	290	0	0	0	0	0	0	0	290
ITAHAMBA JR COLLEGE	798	0	0	0	0	0	0	0	798
JACKSON STATE UNIVERSITY	11,370	1,085	381	0	0	142	505	57	10,285
MARY HOLMES COLLEGE	1,146	0	0	0	0	0	0	0	1,146
MERIDIAN JUNIOR COLLEGE	815	0	0	0	0	0	0	0	815
HILLSAPS COLLEGE	432	0	0	0	0	0	0	0	432
MINIST INST AND COLLEGE	667	0	0	0	0	0	0	0	667
MISS GLF CST JC DIST SYS	1,512	0	0	0	0	0	0	0	1,512
MISS GLF CST JC PERKINSTN	111	0	0	0	0	0	0	0	111
MISS UNIV FOR WOMEN	1,224	7	0	0	0	0	0	0	1,217
MISS VALLEY ST COL	4,656	32	0	0	0	88	0	0	4,536
MISSISSIPPI COLLEGE	680	7	0	0	0	0	16	0	657
MISSISSIPPI DELTA JR COL	667	0	0	0	0	0	0	0	667
MISSISSIPPI INDUS COL	579	0	0	0	0	59	20	0	500
MISSISSIPPI STATE UNIV	18,283	13,031	6,445	0	0	133	20	6,437	5,248
NATCHEZ JR COLLEGE	49	0	0	0	0	0	0	0	49
NORTHEAST MISS JR COLLEGE	616	0	0	0	0	0	0	0	616
NORTHWEST MISS JR COLLEGE	1,210	0	0	0	0	0	0	0	1,210
PEARL RIVER JR COLLEGE	440	0	0	0	0	0	0	0	440
PRENTISS NORM & IND INST	400	0	0	0	0	0	0	0	400
RUST COLLEGE	2,401	0	0	0	0	0	0	0	2,401
SOUTHWEST MISS JR COLLEGE	296	0	0	0	0	0	0	0	296
TOUGALOO COLLEGE	2,722	494	0	0	10	66	374	44	2,228
UNIV OF MISSISSIPPI	13,596	4,142	0	0	0	339	209	56	9,454
UNIV OF STRN MISSISSIPPI	3,527	414	0	44	23	114	32	0	3,513
UTICA JR COLLEGE	1,547	0	0	0	0	0	0	0	1,547
WESLEY COLLEGE	71	0	0	0	0	0	0	0	71
WORTH BIBLE COLLEGE	24	0	0	0	0	0	0	0	24
WILLIAM CAREY COLLEGE	1,068	0	0	0	0	0	0	0	1,068
WOOD JR COLLEGE	93	0	0	0	0	0	0	0	93
MISSOURI, TOTAL	145,624	81,925	65,748	39	383	7,057	1,075	7,625	63,699
AVILA COLLEGE	665	17	17	0	0	0	0	0	648
BAPTIST BIBLE COLLEGE	656	0	0	0	0	0	0	0	656
CALVARY BIBLE COL	109	0	0	0	0	0	0	0	109
CARDINAL GLENNON COL	9	0	0	0	0	0	0	0	9
CENTRAL BIBLE COLLEGE	524	0	0	0	0	0	0	0	524
CENTRAL METHODIST COLLEGE	377	0	0	0	0	0	0	0	377
CENTRAL MISSOURI ST UNIV	2,072	24	0	0	0	24	0	0	2,048
COLUMBIA COLLEGE (MO)	474	0	0	0	0	0	0	0	474
CONCEPTION SEM COLLEGE	66	0	0	0	0	0	0	0	66
COTTEY COLLEGE	69	0	0	0	0	0	0	0	89
COVENANT THEOLOGICAL SEM	3	0	0	0	0	0	0	0	3
CROWDER COLLEGE	290	0	0	0	0	0	0	0	290
CULVER-STOCKTON COLLEGE	164	0	0	0	0	0	0	0	164
DRURY COLLEGE	417	0	0	0	0	0	0	0	417
EAST CTRL MO DIST JR COL	152	0	0	0	0	0	0	0	152
EDEM THEOLOGICAL SEMINARY	8	0	0	0	0	0	0	0	8
EVANGEL COLLEGE	767	0	0	0	0	0	0	0	767
FONTBONNE COLLEGE	293	4	4	0	0	0	0	0	289
HANNIBAL-LA GRANGE COL	164	0	0	0	0	0	0	0	164
HARRIS STOWE COLLEGE	1,113	21	0	0	0	0	21	0	1,092

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							NON- SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL INSTR SCI & ENG	FELLOWSHIPS TRNG GRANTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	
MISSOURI, CONT'D									
JEFFERSON COLLEGE	233	0	0	0	0	0	0	0	233
KANSAS CITY ART INST	432	0	0	0	0	0	0	0	432
KANSAS CITY COL OSTED MED	593	76	76	0	0	0	0	0	877
KEMPER MILITARY SCM & COL	43	0	0	0	0	0	0	0	43
KIRKSVILLE COL OSTED MED	1,265	362	192	0	12	56	102	0	903
LINCOLN UNIVERSITY (MO)	2,616	1,522	882	0	0	0	0	640	1,094
LOGAN C OF CHIROPRACTIC	67	0	0	0	0	0	0	0	67
LONGVIEW COMMUNITY COL	173	0	0	0	0	0	0	0	173
MAPLE WOODS CMTY COLLEGE	120	0	0	0	0	0	0	0	120
MARYVILLE COL - ST LOUIS	406	0	0	0	0	0	0	0	406
METRO CC ADMIN CTR SYS OF	148	0	0	0	0	0	0	0	148
MINERAL AREA COLLEGE	227	0	0	0	0	0	0	0	227
MISSOURI BAPTIST COLLEGE	59	0	0	0	0	0	0	0	59
MISSOURI INST OF TECH	287	0	0	0	0	0	0	0	287
MISSOURI SOUTHERN ST COLL	829	22	22	0	0	0	0	0	807
MISSOURI VALLEY COLLEGE	212	12	12	0	0	0	0	11	200
MISSOURI WESTERN ST COL	889	12	0	0	1	0	0	0	877
MOBERLY AREA JR COLLEGE	92	0	0	0	0	0	0	0	92
NAZARENE THEOLOGICAL SEM	12	0	0	0	0	0	0	0	12
NORTHEAST MISSOURI ST U	1,422	40	11	0	11	3	0	15	1,382
NORTHWEST MISSOURI ST U	915	10	0	0	0	0	0	0	905
PARK COLLEGE	908	0	0	0	0	0	0	0	908
PENN VALLEY COMMUNITY C	1,426	0	0	0	0	0	0	0	1,426
PIONEER CMTY COLLEGE	73	0	0	0	0	0	0	0	73
ROCKHURST COLLEGE	2,141	0	0	0	0	0	0	0	2,141
SAINT LOUIS RABBINICAL C	165	0	0	0	0	0	0	0	165
SCHOOL OF THE OZARKS	656	0	0	0	0	0	0	0	656
SEDALIA JUNIOR COLLEGE	170	0	0	0	0	0	0	0	170
SOUTHEAST MISSOURI ST U	1,898	184	173	0	0	0	0	11	1,714
SOUTHWEST BAPTIST COLLEGE	1,025	0	0	0	0	0	0	0	1,025
SOUTHWEST MISSOURI ST U	2,171	9	0	0	0	0	0	0	2,162
ST LOUIS CHRISTIAN COLL	50	0	0	0	0	0	0	0	50
ST LOUIS COL OF PHARMACY	360	0	0	0	0	0	0	48	360
ST LOUIS COMMUNITY COL	6,069	76	28	0	0	0	0	0	5,993
ST LOUIS CONS OF MUSIC	28	0	0	0	0	0	0	0	28
ST LOUIS UNIVERSITY	11,865	6,838	6,307	0	15	393	123	0	5,007
ST MARY'S COL OF D'FALLON	94	0	0	0	0	0	0	0	94
ST PAUL'S COL (MO)	42	0	0	0	0	0	0	0	42
STATE FAIR COMM COLLEGE	167	0	0	0	0	0	0	0	167
STEPHENS COLLEGE	238	0	0	0	0	0	0	0	238
TARKIO COLLEGE	503	0	0	0	0	0	0	0	503
THE LINDENWOOD COLLEGES	348	9	0	0	9	0	0	0	339
THREE RIVERS CMTY COLLEGE	461	0	0	0	0	0	0	0	461
TRENTON JR COLLEGE	97	0	0	0	0	0	0	0	97
UNIV OF MISSOURI COLUMBIA	30,113	21,795	13,676	39	20	1,161	204	6,695	8,318
UNIV OF MISSOURI KAN CITY	5,121	512	284	0	0	133	0	45	4,609
UNIV OF MISSOURI ROLLA	2,860	2,072	1,454	0	13	395	176	34	788
UNIV OF MISSOURI ST LOUIS	1,989	340	227	0	0	113	0	0	1,649
UNIV OF MISSOURI SYS OFF	420	407	407	0	0	0	0	0	420
WASHINGTON UNIVERSITY	52,162	47,561	41,974	0	302	4,729	449	107	4,601
WEBSTER COLLEGE	1,029	0	0	0	0	0	0	0	1,029
WENTWORTH MILIT ACAD	42	0	0	0	0	0	0	0	42
WESTMINSTER COLLEGE	160	0	0	0	0	0	0	0	160
WILLIAM JEWELL COLLEGE	691	0	0	0	0	0	0	0	691
WILLIAM WOODS COLLEGE	290	0	0	0	0	0	0	0	290
MONTANA, TOTAL	19,637	8,527	6,280	0	20	335	159	1,733	11,110
CARROLL COLLEGE	718	0	0	0	0	0	0	0	718
COLLEGE OF GREAT FALLS	328	0	0	0	4	0	0	0	324
DAWSON COMMUNITY COLLEGE	170	0	0	0	0	0	0	0	170
EASTERN MONTANA COLLEGE	1,820	175	60	0	0	84	0	31	1,645
FLATHEAD VALLEY COMM COL	396	0	0	0	0	0	0	0	396
MILES COMMUNITY COLLEGE	142	0	0	0	0	0	0	0	142
MISSOULA TECH CTR	3	0	0	0	0	0	0	0	3
MONT COL MINRL SCI & TECH	1,923	1,507	1,448	0	4	.55	0	0	416
MONTANA STATE UNIVERSITY	8,798	5,300	3,617	0	12	3	49	1,619	3,498
NORTHERN MONTANA COLLEGE	445	31	0	0	0	3	0	28	414
ROCKY MOUNTAIN COLLEGE	469	0	0	0	0	0	0	0	469
UNIVERSITY OF MONTANA	4,026	1,510	1,155	0	0	190	110	55	2,516
WESTERN MONTANA COLLEGE	399	0	0	0	0	0	0	0	399
NEBRASKA, TOTAL	40,761	16,858	11,830	0	632	521	164	3,711	23,903
BELLEVUE COLLEGE	317	0	0	0	0	0	0	0	317
CENTRAL TECHNICAL CC	167	0	0	0	0	0	0	0	167
CHADRON STATE COLLEGE	836	0	0	0	0	0	0	0	836
COLLEGE OF ST MARY	506	0	0	0	0	0	0	0	506
CONCORDIA TEACHERS COL	414	0	0	0	0	0	0	0	414
CREIGHTON UNIVERSITY	3,793	725	587	0	0	0	36	102	3,068
DANA COLLEGE	224	2	2	0	0	0	0	0	222
DDANE COLLEGE	333	0	0	0	0	0	0	0	333
GRACE COL OF THE BIBLE	97	0	0	0	0	0	0	0	97
HASTINGS COLLEGE	155	6	1	0	5	0	0	0	149
KEARNEY STATE COLLEGE	1,286	43	0	0	0	0	0	43	1,243
MCCOOK CMTY COLLEGE	88	0	0	0	0	0	0	0	88
MID PLAINS CMTY COLLEGE	74	0	0	0	0	0	0	0	74
MIDLAND LUTHERAN COLLEGE	516	0	0	0	0	0	0	0	516
NEBRASKA CHRISTIAN CCL	54	0	0	0	0	0	0	13	54
NEBRASKA WESLEYAN UNIV	302	33	0	0	0	0	0	0	269
NEBRASKA WESTERN COLLEGE	170	0	0	0	0	0	0	0	170
NORTHEAST TECH CMTY COL	289	0	0	0	0	0	0	0	289
PERU STATE COLLEGE	385	0	0	0	0	0	0	0	385
PLATTE TECH CMTY COLLEGE	21	0	0	0	0	0	0	0	21

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRAINEE SHIPS TRNG GRNTS	GENERAL SUPPORT FOR SCI	OTHER SCIENCE	NON-SCIENCE
NEBRASKA, CONT'D									
S E CMTY COL - LINCOLN	264	15	15	0	0	0	0	0	249
SOUTHEAST CMTY COL MILFORD	139	0	0	0	0	0	0	0	139
STHEAST CMTY COL-FAIRBURY	124	0	0	0	0	0	0	0	124
U NEB CTRL ADMIN SYS OFF	39	0	0	0	0	0	0	0	39
U OF NEB MED CTR AT OHAMA	8,488	5,983	5,567	0	5	193	78	140	2,505
UNION COLLEGE (NEB)	676	0	0	0	0	0	0	0	676
UNIV OF NEBRASKA AT OHAMA	4,261	136	63	0	0	117	0	16	4,065
UNIV OF NEBRASKA LINCOLN	15,803	9,855	5,595	0	602	211	50	3,397	5,948
WAYNE STATE COLLEGE	781	0	0	0	0	0	0	0	781
YORK COLLEGE	159	0	0	0	0	0	0	0	159
NEVADA, TOTAL	11,636	4,773	3,660	0	20	158	100	835	6,863
CLARK COUNTY CMTY COLLEGE	655	0	0	0	0	0	0	0	655
DESERT RESEARCH INSTITUTE	886	886	886	0	0	0	0	0	0
NORTHERN NEVADA CC	37	0	0	0	0	0	0	0	37
SIERRA NEVADA COLLEGE	111	14	14	0	0	0	0	0	97
U OF NEV SYS ADM SYS OFF	90	90	90	0	0	0	0	0	0
UNIV OF NEVADA - RENO	7,542	3,365	2,333	0	20	77	100	835	4,177
UNIV OF NEVADA LAS VEGAS	2,025	418	337	0	0	81	0	0	1,607
WESTERN NEVADA CMTY COL	290	0	0	0	0	0	0	0	290
NEW HAMPSHIRE, TOTAL	29,910	14,912	13,122	0	177	235	316	1,062	14,998
COLBY-SAWYER COLLEGE	104	0	0	0	0	0	0	0	104
DANIEL WEBSTER COLLEGE CO	188	0	0	0	0	0	0	0	188
DARTMOUTH COLLEGE	9,944	7,540	7,151	0	97	92	178	22	2,404
FRANCONIA COLLEGE	1	0	0	0	0	0	0	0	1
FRANKLIN PIERCE COLLEGE	713	304	304	0	0	0	0	0	409
KEENE STATE COLLEGE	542	0	0	0	0	0	0	0	542
MOUNT ST MARY COLLEGE	42	0	0	0	0	0	0	0	42
N H VDC TECH C MANCHESTER	49	0	0	0	0	0	0	0	49
N H VDC TECH C PORTSMOUTH	54	0	0	0	0	0	0	0	54
NATHANIEL HAWTHORNE COL	250	0	0	0	0	0	0	0	250
NEW ENGLAND COLLEGE	693	0	0	0	0	0	0	0	693
NEW HAMPSHIRE COLLEGE	1,319	42	42	0	0	0	0	0	1,277
NEW HAMPSHIRE TECH INST	273	73	73	0	0	0	0	0	200
NOYRE DAME COLLEGE	671	6	0	0	6	0	0	0	665
PLYMOUTH ST COL-UNIV N H	1,123	21	0	0	7	0	0	14	1,112
RIVIER COLLEGE	189	0	0	0	0	0	0	0	189
ST ANSELM'S COLLEGE	921	0	0	0	0	0	0	0	921
UNIV OF N H DURHAM	11,585	5,728	4,358	0	67	139	138	1,026	5,857
UNIV SYS OF N HAMPSH SYS OF	1,198	1,198	1,194	0	0	4	0	0	0
WHITE PINE COLLEGE	51	0	0	0	0	0	0	0	51
NEW JERSEY, TOTAL	124,017	48,298	41,151	45	434	2,626	1,030	3,012	75,719
ATLANTIC CMTY COLLEGE	2,874	0	0	0	0	0	0	0	2,874
BERGEN COMMUNITY COLLEGE	643	10	0	0	0	0	10	0	633
BETH MEDRASH GOVONDA	91	0	0	0	0	0	0	0	91
BLOOMFIELD COLLEGE	1,241	22	22	0	0	0	0	0	1,219
BROOKDALE COMMUNITY COLL	1,205	0	0	0	0	0	0	0	1,205
BURLINGTON COUNTY COLLEGE	622	5	5	0	0	0	0	0	617
CALDWELL COLLEGE	203	0	0	0	0	0	0	0	203
CAMDEN COUNTY COL	1,911	0	0	0	0	0	0	0	1,911
CENTENARY COLLEGE	208	0	0	0	0	0	0	0	208
COL OF MED & DENT OF N J	10,251	8,264	7,607	0	51	289	297	0	6,007
COLLEGE OF ST ELIZABETH	220	37	0	0	0	37	0	0	183
COUNTY COL OF MORRIS	633	0	0	0	0	0	0	0	633
CUMBERLAND COUNTY COL	551	0	0	0	0	0	0	0	551
ODD BOSCO COLLEGE	23	0	0	0	0	0	0	0	23
OREG UNIVERSITY	408	0	0	0	0	0	0	0	408
ESSEX COUNTY COLLEGE	4,975	0	0	0	0	0	0	0	4,975
FAIRLEIGH DICKINSON UNIV	3,923	358	262	0	0	0	95	0	3,575
FELICIAN COLLEGE (NJ)	109	0	0	0	0	0	0	0	109
GEORGIAN COURT COLLEGE	278	17	0	0	0	0	0	17	261
GLASSBORO STATE COLLEGE	4,057	0	0	0	0	0	0	0	4,057
GLoucester COUNTY COL	435	0	0	0	0	0	0	0	435
HUDSON CNTY CC CDMH	355	0	0	0	0	0	0	0	355
IMMAC CONCEPTION SEM (NJ)	55	0	0	0	0	0	0	0	55
JERSEY CITY STATE COLLEGE	3,047	0	0	0	0	0	0	0	3,047
KEAN COL OF NEW JERSEY	2,116	10	10	0	0	0	0	0	2,106
LUTHER COL BIBLE LIB ARTS	25	0	0	0	0	0	0	0	25
MERCER CO CMTY COLLEGE	975	99	99	0	0	0	0	0	876
MIDDLESEX COUNTY COLLEGE	711	4	0	0	0	4	0	0	707
MONMOUTH COLLEGE (NJ)	687	11	11	0	0	0	0	0	676
MONTCLAIR STATE COLLEGE	2,650	53	42	0	0	0	0	11	2,597
N J INST OF TECHNOLOGY	1,010	920	523	0	20	3	50	324	90
NJ SCHL OF DISTED MED	164	0	0	0	0	0	0	0	164
NORTHEASTERN BIBLE COL	137	0	0	0	0	0	0	0	137
OCEAN COUNTY COLLEGE	778	0	0	0	0	0	0	0	778
PASSAIC COUNTY CMTY COL	1,040	0	0	0	0	0	0	0	1,040
PRINCETON THEOL SEM	82	0	0	0	0	0	0	0	82
PRINCETON UNIVERSITY	20,721	18,827	16,759	43	209	1,679	117	20	1,894
PABBINICAL C OF AMERICA	465	0	0	0	0	0	0	0	465
RAMAPO COLLEGE OF N J	1,001	0	0	0	0	0	0	0	1,001
RIDER COLLEGE	1,118	49	36	0	0	0	0	13	1,069
RUTGERS THE ST UNIV OF NJ	32,552	16,820	13,537	0	124	403	211	2,545	15,732
SALEM COMMUNITY COLLEGE	300	0	0	0	0	0	0	0	300
SETON HALL UNIVERSITY	6	211	0	0	0	211	0	0	2,705
SHELTON COLLEGE	1	0	0	0	0	0	0	0	1
SOMERSET COUNTY COLLEGE	229	0	0	0	0	0	0	0	229
ST PETER'S COLLEGE	2,039	6	5	0	1	0	0	0	2,033
STEVENS INSTITUTE OF TECH	3,378	2,362	2,078	2	0	0	250	32	1,016

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES, BY STATE, INSTITUTION, AND TYPE OF ACTIVITY: FY 1978
CONTINUED

(DOLLARS IN THOUSANDS)

STATE & INSTITUTION	TOTAL, ALL ACTIVITIES	ACADEMIC SCIENCE							OTHER SCIENCE	NON-SCIENCE
		TOTAL ACADEMIC SCIENCE	RESEARCH AND DEVELOPMENT	R&D PLANT	FACIL FOR INSTR IN SCI & ENG	FELLOWSHIPS TRNGNG GRANTS	GENERAL SUPPORT FOR SCI			
NEW JERSEY, CONT'D										
STOCKTON STATE COLLEGE	1,261	21	0	0	6	0	0	0	15	1,240
TALMUDICAL INST CTRL JERS	47	0	0	0	0	0	0	0	0	47
THOMAS A EDISON COLLEGE	8	0	0	0	0	0	0	0	0	8
TRENTON STATE COLLEGE	2,102	143	101	0	7	0	0	35	1,959	
UNION COLLEGE (NJ)	299	20	20	0	0	0	0	0	0	279
UNIVERSITY OF SALA COLLEGE	872	0	0	0	0	0	0	0	0	872
WESTMINSTER CHDIR COL	157	0	0	0	0	0	0	0	0	157
WILLIAM PATERSON COLLEGE	1,848	49	23	0	16	0	0	0	0	1,799
NEW MEXICO, TOTAL	75,826	43,536	38,832	50	82	823	1,691	2,058	32,290	
COL OF THE SOUTHWEST	8	0	0	0	0	0	0	0	0	8
COLLEGE OF SANTA FE	1,728	17	0	0	17	0	0	0	0	1,711
EASTERN NEW MEXICO UNIV	3,655	67	60	0	0	0	7	0	0	3,588
N MEX INST MINING & TECH	4,776	4,361	4,036	0	0	215	110	0	0	415
NEW MEXICO HIGHLANDS UNIV	2,620	367	18	0	0	0	349	0	0	2,253
NEW MEXICO JUNIOR COLLEGE	123	0	0	0	0	0	0	0	0	123
NEW MEXICO MILITARY INST	218	0	0	0	0	0	0	0	0	218
NEW MEXICO STATE UNIV	24,695	18,513	16,260	50	17	187	319	1,680	0	6,182
NRTHRN N MEX CMTY COL	4	0	0	0	0	0	0	0	0	4
UNIV OF ALBUQUERQUE	2,247	331	66	0	0	0	265	0	0	1,916
UNIVERSITY OF NEW MEXICO	34,786	19,861	18,392	0	48	421	641	359	0	14,925
WESTERN NEW MEXICO UNIV	966	19	0	0	0	0	0	19	0	947
NEW YORK, TOTAL	746,768	402,663	348,061	8,303	2,292	26,195	5,376	12,436	344,105	
ACADEMY OF AERONAUTICS	873	0	0	0	0	0	0	0	0	873
ADELPHI UNIVERSITY	3,537	416	348	0	0	50	0	18	0	3,121
ALBANY COL OF PHARMACY	243	0	0	0	0	0	0	0	0	243
ALBANY LAW SCHOOL	19	0	0	0	0	0	0	0	0	19
ALBANY MEDICAL COLLEGE	7,657	6,006	5,403	0	0	438	140	25	0	1,651
ALFRED UNIVERSITY	610	63	52	0	0	0	0	11	0	547
AYELETH HASH TCHRS SEM	55	0	0	0	0	0	0	0	0	55
BAIS YAAKOV SEMINARY	183	0	0	0	0	0	0	0	0	183
BANK STREET COL OF ED	2,705	1,398	1,398	0	0	0	0	0	0	1,307
BARD COLLEGE	331	54	0	0	0	0	44	10	0	277
BARHARD COLLEGE	884	134	121	0	0	13	0	0	0	750
BE'ER SHMUEL TALMUDICAL A	311	0	0	0	0	0	0	0	0	311
BELZER YESH-MACHZIKEI SEM	197	0	0	0	0	0	0	0	0	197
BETH H S YOSHER INSTITUTE	41	0	0	0	0	0	0	0	0	41
BETH HATALMUD COL	156	0	0	0	0	0	0	0	0	156
BETH JACOB HEBR TCHRS COL	161	0	0	0	0	0	0	0	0	161
BETH JOSEPH RABBI SEM	112	0	0	0	0	0	0	0	0	112
BORICUA COLLEGE	1,002	0	0	0	0	0	0	0	0	1,002
BRIARCLIFF COLLEGE	1	0	0	0	0	0	0	0	0	1
BROOKLYN LAW SCHOOL	147	0	0	0	0	0	0	0	0	147
CANISIUS COLLEGE	1,481	10	10	0	0	0	0	0	0	1,471
CATHEDRAL COL IMMAC CONCP	81	0	0	0	0	0	0	0	0	81
CAYUGA COUNTY CMTY COL	471	4	4	0	0	0	0	0	0	467
CAZENOVIA COLLEGE	254	0	0	0	0	0	0	0	0	254
CEN YESH TOM TMIMH LUBUZ	89	0	0	0	0	0	0	0	0	89
CLARKSON COL OF TECH	2,841	2,155	2,073	0	50	0	0	32	0	686
COL OF MOUNT ST VINCENT	519	22	22	0	0	0	0	0	0	497
COLG ROCH-BEXLEY-CROZER	5	0	0	0	0	0	0	0	0	5
COLGATE UNIVERSITY	765	31	31	0	0	0	0	0	0	734
COLLEGE FOR HUMAN SERVICE	371	0	0	0	0	0	0	0	0	371
COLLEGE OF NEW ROCHELLE	2,518	6	0	0	6	0	0	0	0	2,512
COLLEGE OF ST ROSE	437	0	0	0	0	0	0	0	0	437
COLUMBIA U TEACHERS COL	3,757	1,278	1,196	140	0	49	0	33	0	2,479
COLUMBIA UNIV MAIN DIV	84,941	73,257	64,687	0	577	4,628	463	2,762	0	11,684
COLUMBIA UNIV SYS OFF	26	25	25	0	0	0	0	0	0	1
CONCORDIA COLLEGE (NY)	103	0	0	0	0	0	0	0	0	103
COOPER UNION	151	0	0	0	0	0	0	0	0	151
CORNELL UNIVERSITY	79,729	72,313	58,258	1,627	492	3,383	590	7,963	0	7,416
CUNY BERNARD BARUCH COL	198	0	0	0	0	0	0	0	0	198
CUNY BORO OF MAN CMTY COL	265	0	0	0	0	0	0	0	0	265
CUNY BRONX CMTY COLLEGE	394	23	23	0	0	0	0	0	0	371
CUNY BROOKLYN COLLEGE	1,133	1,084	788	0	0	0	266	30	0	49
CUNY CENTRAL SYS OFF	95,593	686	444	0	0	242	0	0	0	94,907
CUNY CITY COLLEGE	3,855	2,900	2,293	0	12	295	261	39	0	955
CUNY COL S ISL ST GEORGE	123	123	84	0	8	0	0	31	0	0
CUNY GRAD SCH & UNIV CTR	2,380	1,703	1,477	0	0	202	24	0	0	677
CUNY HOSTOS CMTY COLLEGE	1,104	0	0	0	0	0	0	0	0	1,104
CUNY HUNTER COLLEGE	2,148	1,302	1,023	0	7	212	48	12	0	846
CUNY JHN JAY COL CRIM JUS	25	0	0	0	0	0	0	0	0	25
CUNY KINGSBORO CMTY COL	30	0	0	0	0	0	0	0	0	30
CUNY LEHMAN COLLEGE	682	78	78	0	0	0	0	0	0	604
CUNY MEGAR EVEYS COLLEGE	907	322	0	0	0	130	192	0	0	585
CUNY HT SINAI SCH OF MED	22,317	20,261	18,868	0	0	1,123	200	70	0	2,056
CUNY N Y CITY CMTY COL	1,214	0	0	0	0	0	0	0	0	1,214
CUNY QUEENS COLLEGE	1,293	992	800	0	3	17	58	34	0	301
CUNY QUEENSBORO CMTY COL	240	105	0	0	0	0	105	0	0	135
CUNY STATEN ISL COMM COL	62	0	0	0	0	0	0	0	0	62
CUNY YORCK COLLEGE	105	101	31	0	0	0	70	0	0	4
D'YOUVILLE COLLEGE	636	0	0	0	0	0	0	0	0	636
DAEMEN COLLEGE	597	12	0	0	0	0	0	12	0	585
DERECH AYSON RABBIN SEM	164	0	0	0	0	0	0	0	0	164
DOMINICAN COL OF BLAUVELT	121	0	0	0	0	0	0	0	0	121
DOWLING COLLEGE	894	0	0	0	0	0	0	0	0	894
EDUC INST OHOLEI TORAH	148	0	0	0	0	0	0	0	0	148
EISENHOWER COLLEGE	374	0	0	0	0	0	0	0	0	374
ELIZABETH SETON COLLEGE	453	0	0	0	0	0	0	0	0	453
ELMIRA COLLEGE	963	0	0	0	0	0	0	0	0	963
FIVE TONNS COLLEGE	84	0	0	0	0	0	0	0	0	84

SEE FOOTNOTES AT END OF TABLE.

CHAPTER V

CONCLUSION

The role of visuals as a learning aid is undeniable; studies over the past few years have conclusively established that. What is still interesting researchers is the way visual material is absorbed, the ways in which visuals should be used, and how they should be designed, developed and presented, and research already shows that their usefulness notwithstanding, they should be used intelligently with a realistic appraisal of their uses. Clearly they are not endlessly applicable, nor is one type of visual useful in all circumstances.

The variables are many. The subject matter influences the kinds of visuals used: geography, for example, is likely to use a large number of maps and graphs. Similarly the behavioural objective will have an effect: whether it is factual or visual information which needs to be understood, explained or rehearsed, and what needs to be recalled from the experience - concepts or facts.

The students themselves influence not only what is likely to be recalled but what form the visuals should take. Children, for example, learn differently from adults

who, because of their greater experience and knowledge, learn concepts with the pictures. Mental ability has been examined in its bearings on learning from visuals, and it appears that high IQs learn readily from either the visual or verbal approach. Lower IQs achieve better from visual aids than they do from verbally emphasized work as long as those aids are keyed to the level of the students. Indeed, visuals, in these circumstances, can act as excellent motivational devices.

Motivation is another variable in the effectiveness of visual education, as it is in most educational circles. Students learn any content matter much better when they are interested in what is before them. For this, visuals can be both a cause and an effect. Visual materials play an important role in raising motivation and interest, and the information they contain is better transmitted when motivation and interest are high. This situation is achieved, too, when the visuals are part of a programme which is seen by the students to be valid and attuned to their needs, a factor especially true of adults, and when the visuals are well incorporated with the material being taught.

Cultural factors may affect what students interpret as important and what they see as worthwhile learning techniques. In addition, such factors will influence what they absorb from a visual. Objects and concepts which are not in their own culture or which that culture underemphasizes may be

misinterpreted, or, indeed, not noticed at all in visual materials. Visuals can be very effective in this context in realigning cultural acceptance patterns.

The way in which the illustrations are presented is yet another variable. Are they to be in a programme paced by the teacher or one where the students work at a more leisurely or self-controlled pace? Whichever is chosen, the matter of exposure time becomes increasingly important, as numerous studies have shown. A system such as charts allows the students to refer to the visual at any time they need. So, too, do textbook and workbook illustrations. Slides and transparencies may have much the same advantage if the students are given enough viewing time. Films, television and the like are excellent for the presentation of concepts involving movement, but frame time is externally dictated, and the speed at which visualized information passes before students may become a cause of interference.

Interference must be kept in mind when considering what form the visuals will take, and here one should give attention to the ideas of design and realism. All visuals should be clear to all students which means that their size, clarity, spacing and color are all important. It sounds unnecessary to say that a picture in education should not be too small and should not be too large. If it is too small, many details will be indecipherable and hence confusing; if it is too big, a sense of unity will be sacrificed as students,

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In the context of realism should be considered the matter of color. Again it is hard to be definite in any conclusions for sometimes it is true that black and white illustrations can be extremely effective - the contrast is strong. On the other hand, color can be important for clarification, for attention-getting, for visibility considerations, for the interpretation of relationships and for the subtle transmission of attitudes. Children tend to react to color, especially strong color, more definitely than adults who are accustomed to the symbolism of black

and white and the ideas it transmits, but all people can absorb a great deal from color. Wise use of color can add to the learning experience; undisciplined use adds nothing and can become an overload, resulting in a decrease of understanding.

Using the visuals requires cueing methodology. Adults in particular need to feel in touch with the work being presented and prefer to be told of the learning objectives in front of them. This has the advantage of focusing their attention and receptive concentration. Questions have a similar effect, written or oral, and are also vital for follow-up recall. Printed material, such as arrows, may continue this role. This rehearsal is important to the retention of learned material. All of these gambits, including patches of color in an otherwise black and white illustration, are further variables.

What this points to is that there is no single approach to visuals, and that there are no hard and fast rules for their use. The variables are vitally concerned in what is right for one situation and what is right for another; in order to adapt a visual for another use it may be necessary to change only one or two of these aspects. Educational effectiveness is dependent upon small things and cannot be made constant.

The variables do not change the fact that visuals are useful but they do mean that commercially made products can

seldom fit this fluctuating mould. They cannot take into account the varying needs of students in different learning environments. The whole idea of visuals is that they should respond to just those environments and the needs assessed on an individual basis, that they should deal with learning problems and learning situations which may be unique to an age group, a subject, a cultural attitude or a teaching form. Here lies the great strength of the teacher-made visual aid. No matter what the artistic skills of the teacher, it is he or she alone who recognizes and understands the variables. Only the teacher can produce visual materials which are that immediate response to the situation, and only those are effective teaching aids.

The teacher, then, should not be daunted by the artistic requirements. Experience teaches a lot of ways to deal with these needs, and furthermore brings more ideas. There is no need to turn to another person to translate ideas, for this introduces the potential interference of a third party and his/her interpretations. Necessity is the mother of invention, and it is that which makes teacher-made visual aids a continually vital part of the ESL classroom.

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Sample Passage for Listening
Comprehension with Visual

I SIMPLE

(a) This woman is tired. She has been shopping most of the day. She is wearing a brown coat and on her head she has an orange hat. She is carrying two bags.

(b) This girl has been at school but now she is going home with her mother. She is wearing blue jeans, a blue hat and a red sweater.

II SLIGHTLY HARDER

(a) Mark Booth's waiting for the bus and he's been waiting quite a while. He's cold so he's put his hands in his pockets to keep them warm. He's wearing dark jeans and a yellow jacket, as well as a blue hat.

(b) Jane Stevens is talking to a friend of hers. She's going home from school. She's got on a blue coat and red boots and she's a blonde.

III CONVERSATION

/A/ Goodness, aren't these buses slow. If it doesn't come soon, I think I'll drop. I'm so tired.

/B/ I thought you looked rather weary. What've you been doing? Shopping?

/A/ Yes, I thought I'd get a few things I needed. But a few things always turns into a lot more. What have you been doing?

/B/ Oh, I had to take my daughter to the dentist so I picked her up from school. When I left the house this morning it was really quite cold so I put on this quilted coat and my fur hat. Now I'm so hot! I'll be glad to get home and shed everything.

/A/ Ah, I'm just looking forward to getting rid of parcels, hat, coat and shoes and putting my feet up.

APPENDIX II

POSSIBLE SCRIPT FOR ORDER! ORDER!

It was spring. The tree was in bud and flowers were beginning to appear. Within a few weeks, the tree was a mass of blossom in pink and red. As the weeks passed, spring faded into summer. The blooms on the tree gave way to leaves. The days grew warmer and the tree provided shade for people walking in the park and for the children who played under it with their toys in the long days.

Gradually these long days began to shorten. The green leaves began their change to red and gold. Before many more weeks had passed the snow had arrived once more. Winter had returned.

BIBLIOGRAPHY

BOOKS

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- Cornsweet, T. N. Visual Perception. Academic Press, New York, 1970.
- Dale, Edgar. Audio Visual Methods in Teaching (3rd Edition) Dryden Press, New York, 1969.
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- Borg, Walter R. and Schulter, Charles F. "The Use of Detail and Background in Visuals and Its Effect on Learner Achievement and Attitude". Paper presented at Annual Meeting of the American Educational Research Association. Toronto, Canada. March, 1978.

- Brody, Philip J. and Legenza, Alice. "The Effects of Picture Type and Picture Location on Comprehension." Paper presented at the Annual Conference of Association for Educational Communication. New Orleans, La. March, 1979.
- Froese, V. "The 'Arts' in Language Arts." Paper presented at the Annual Meeting of the National Council of Teachers of English. New York City. Nov. 24-26, 1978.
- Gummerman, Kent and Others. "Age and Visual Information Processing." Paper presented at Annual Meeting of the Psychonomic Society. Denver, Colo. November 1975.
- Joseph, John H. "Instructional Effectiveness of Integrating Abstract and Realistic Visualization." Paper presented at the Annual Conference of Association for Educational Communications. New Orleans, La. March, 1979.
- Lamberski, Richard J. and Roberts, Dennis M. "Efficiency of Students' Achievement Using Black/White and Color-coded Learning and Test Materials." Paper presented at Annual Conference of Association for Educational Communications. New Orleans, La. March, 1979.
- Lockard, James. "Educational Media in the Foreign Language Classroom." Paper presented at Conference on New Methodologies in Modern Language Teaching. October 1977.
- Smith, Roger A. "Educational Games in Today's Learning." Paper presented at Annual Convention of American Industrial Arts Association. April, 1976.
- Tong, John S. "Visual Aids and Language Learning - An Experimental Study." Speech presented at Rocky Mt. Modern Language Association, Las Vegas. October, 1971.
- Winn, William and Everett, Richard J. "Differences in the Affective Meaning of Color versus Black/White Pictures." Paper presented at Annual Conference of Association for Educational Communications. Kansas City, Mo. April, 1978.

ARTICLES

- Allen, William H. "Intellectual Abilities and Instructional Media Design." Audio Visual Communication Review, Vol. 23, Summer 1975, pp. 139-170.
- Allport, D.A. "The Rate of Assimilation of Visual Information." Psychonomic Science, Vol. 12, 1968, pp.231-2.
- Arnheim, Rudolf. "What do the Eyes Contribute?" Audio Visual Communication Review, Vol. 10. September-October, 1962, pp.10-21.
- Beck, Harry S. and Dunbar, Ann M. "The Consistency of Color Associations to Synonymous Words." Journal of Educational Research, Vol. 58, September, 1964, pp. 41-3.
- Bireaud, Anne. "The Role of the Teacher in a Resource-Based System." Educational Media International, Vol. 4, 1975. pp.8-9.
- Briggs, G. E. and Blaha, J. "Memory Retrieval and Central Comparison Times in Information Processing." Journal of Experimental Psychology, Vol. 79, 1969, pp. 395-402.
- Broadbent, D. E. "Information Processing in the Nervous System." Science, Vol. 150, 1965, pp. 457-62.
- Broadbent, D. E. "Word Frequency Effect and Response Bias." Psychology Review, Vol. 74, 1967, pp. 1-15.
- Brown, Thomas H. "Using Visual Cues as an Aid for Memorizing a Dialog." Modern Language Journal, Vol. 47, December, 1963, pp. 363-66.
- Clark, John. "The Involvement of the Teacher in the Developer of Learning Materials." Educational Media International, Vol. 4, 1975, pp. 10-12.
- Corballis, M. C. "Rehearsal and Decay in Immediate Recall of Visually and Aurally Presented Items," in Haber, R. N. (ed). Information-Processing Approaches to Visual Perception, Holt, Rinehart and Winston, New York, 1973.
- Dallett, K. and Wilcox, S. "Remembering Pictures versus Remembering Descriptions." Psychonomic Science, Vol. 11, 1968, pp. 139-40.

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- Borg, Walter R. and Schulter, Charles F. "The Use of Detail and Background in Visuals and Its Effect on Learner Achievement and Attitude". Paper presented at Annual Meeting of the American Educational Research Association. Toronto, Canada. March, 1978.

- Brody, Philip J. and Legenza, Alice. "The Effects of Picture Type and Picture Location on Comprehension." Paper presented at the Annual Conference of Association for Educational Communication. New Orleans, La. March, 1979.
- Froese, V. "The 'Arts' in Language Arts." Paper presented at the Annual Meeting of the National Council of Teachers of English. New York City. Nov. 24-26, 1978.
- Gummerman, Kent and Others. "Age and Visual Information Processing." Paper presented at Annual Meeting of the Psychonomic Society. Denver, Colo. November 1975.
- Joseph, John H. "Instructional Effectiveness of Integrating Abstract and Realistic Visualization." Paper presented at the Annual Conference of Association for Educational Communications. New Orleans, La. March, 1979.
- Lamberski, Richard J. and Roberts, Dennis M. "Efficiency of Students' Achievement Using Black/White and Color-coded Learning and Test Materials." Paper presented at Annual Conference of Association for Educational Communications. New Orleans, La. March, 1979.
- Lockard, James. "Educational Media in the Foreign Language Classroom." Paper presented at Conference on New Methodologies in Modern Language Teaching. October 1977.
- Smith, Roger A. "Educational Games in Today's Learning." Paper presented at Annual Convention of American Industrial Arts Association. April, 1976.
- Tong, John S. "Visual Aids and Language Learning - An Experimental Study." Speech presented at Rocky Mt. Modern Language Association, Las Vegas. October, 1971.
- Winn, William and Everett, Richard J. "Differences in the Affective Meaning of Color versus Black/White Pictures." Paper presented at Annual Conference of Association for Educational Communications. Kansas City, Mo. April, 1978.

ARTICLES

- Allen, William H. "Intellectual Abilities and Instructional Media Design." Audio Visual Communication Review, Vol. 23, Summer 1975, pp. 139-170.
- Allport, D.A. "The Rate of Assimilation of Visual Information." Psychonomic Science, Vol. 12, 1968, pp.231-2.
- Arnheim, Rudolf. "What do the Eyes Contribute?" Audio Visual Communication Review, Vol. 10. September-October, 1962, pp.10-21.
- Beck, Harry S. and Dunbar, Ann M. "The Consistency of Color Associations to Synonymous Words." Journal of Educational Research, Vol. 58, September, 1964, pp. 41-3.
- Bireaud, Anne. "The Role of the Teacher in a Resource-Based System." Educational Media International, Vol. 4, 1975. pp.8-9.
- Briggs, G. E. and Blaha, J. "Memory Retrieval and Central Comparison Times in Information Processing." Journal of Experimental Psychology, Vol. 79, 1969, pp. 395-402.
- Broadbent, D. E. "Information Processing in the Nervous System." Science, Vol. 150, 1965, pp. 457-62.
- Broadbent, D. E. "Word Frequency Effect and Response Bias." Psychology Review, Vol. 74, 1967, pp. 1-15.
- Brown, Thomas H. "Using Visual Cues as an Aid for Memorizing a Dialog." Modern Language Journal, Vol. 47, December, 1963, pp. 363-66.
- Clark, John. "The Involvement of the Teacher in the Developer of Learning Materials." Educational Media International, Vol. 4, 1975, pp. 10-12.
- Corballis, M. C. "Rehearsal and Decay in Immediate Recall of Visually and Aurally Presented Items," in Haber, R. N. (ed). Information-Processing Approaches to Visual Perception, Holt, Rinehart and Winston, New York, 1973.
- Dallett, K. and Wilcox, S. "Remembering Pictures versus Remembering Descriptions." Psychonomic Science, Vol. 11, 1968, pp. 139-40.

CHAPTER V

CONCLUSION

The role of visuals as a learning aid is undeniable; studies over the past few years have conclusively established that. What is still interesting researchers is the way visual material is absorbed, the ways in which visuals should be used, and how they should be designed, developed and presented, and research already shows that their usefulness notwithstanding, they should be used intelligently with a realistic appraisal of their uses. Clearly they are not endlessly applicable, nor is one type of visual useful in all circumstances.

The variables are many. The subject matter influences the kinds of visuals used: geography, for example, is likely to use a large number of maps and graphs. Similarly the behavioural objective will have an effect: whether it is factual or visual information which needs to be understood, explained or rehearsed, and what needs to be recalled from the experience - concepts or facts.

The students themselves influence not only what is likely to be recalled but what form the visuals should take. Children, for example, learn differently from adults

who, because of their greater experience and knowledge, learn concepts with the pictures. Mental ability has been examined in its bearings on learning from visuals, and it appears that high IQs learn readily from either the visual or verbal approach. Lower IQs achieve better from visual aids than they do from verbally emphasized work as long as those aids are keyed to the level of the students. Indeed, visuals, in these circumstances, can act as excellent motivational devices.

Motivation is another variable in the effectiveness of visual education, as it is in most educational circles. Students learn any content matter much better when they are interested in what is before them. For this, visuals can be both a cause and an effect. Visual materials play an important role in raising motivation and interest, and the information they contain is better transmitted when motivation and interest are high. This situation is achieved, too, when the visuals are part of a programme which is seen by the students to be valid and attuned to their needs, a factor especially true of adults, and when the visuals are well incorporated with the material being taught.

Cultural factors may affect what students interpret as important and what they see as worthwhile learning techniques. In addition, such factors will influence what they absorb from a visual. Objects and concepts which are not in their own culture or which that culture underemphasizes may be

misinterpreted, or, indeed, not noticed at all in visual materials. Visuals can be very effective in this context in realigning cultural acceptance patterns.

The way in which the illustrations are presented is yet another variable. Are they to be in a programme paced by the teacher or one where the students work at a more leisurely or self-controlled pace? Whichever is chosen, the matter of exposure time becomes increasingly important, as numerous studies have shown. A system such as charts allows the students to refer to the visual at any time they need. So, too, do textbook and workbook illustrations. Slides and transparencies may have much the same advantage if the students are given enough viewing time. Films, television and the like are excellent for the presentation of concepts involving movement, but frame time is externally dictated, and the speed at which visualized information passes before students may become a cause of interference.

Interference must be kept in mind when considering what form the visuals will take, and here one should give attention to the ideas of design and realism. All visuals should be clear to all students which means that their size, clarity, spacing and color are all important. It sounds unnecessary to say that a picture in education should not be too small and should not be too large. If it is too small, many details will be indecipherable and hence confusing; if it is too big, a sense of unity will be sacrificed as students,

in trying to scan the whole picture, will tend to have their attention taken by a small section. Spacing is part of this concern as well. When parts of the visual are spaced well, the scanning eye moves smoothly and logically from one to another.

The matter of complexity or simplicity is a feature which is in the context of interference. As was noted in Chapter II the realism continuum does not reflect the "learning continuum" and increasing detail tends, instead, to decrease the teaching potential of the visual. However, this remains an inconstant feature. Dwyer found in his study that realistic, colored photographs were useful in certain proscribed areas of a lesson on the part of the heart. All the same, on the whole, studies suggest that less complex illustrations are more readily understood and better for the transfer of information.

In the context of realism should be considered the matter of color. Again it is hard to be definite in any conclusions for sometimes it is true that black and white illustrations can be extremely effective - the contrast is strong. On the other hand, color can be important for clarification, for attention-getting, for visibility considerations, for the interpretation of relationships and for the subtle transmission of attitudes. Children tend to react to color, especially strong color, more definitely than adults who are accustomed to the symbolism of black

and white and the ideas it transmits, but all people can absorb a great deal from color. Wise use of color can add to the learning experience; undisciplined use adds nothing and can become an overload, resulting in a decrease of understanding.

Using the visuals requires cueing methodology. Adults in particular need to feel in touch with the work being presented and prefer to be told of the learning objectives in front of them. This has the advantage of focusing their attention and receptive concentration. Questions have a similar effect, written or oral, and are also vital for follow-up recall. Printed material, such as arrows, may continue this role. This rehearsal is important to the retention of learned material. All of these gambits, including patches of color in an otherwise black and white illustration, are further variables.

What this points to is that there is no single approach to visuals, and that there are no hard and fast rules for their use. The variables are vitally concerned in what is right for one situation and what is right for another; in order to adapt a visual for another use it may be necessary to change only one or two of these aspects. Educational effectiveness is dependent upon small things and cannot be made constant.

The variables do not change the fact that visuals are useful but they do mean that commercially made products can

seldom fit this fluctuating mould. They cannot take into account the varying needs of students in different learning environments. The whole idea of visuals is that they should respond to just those environments and the needs assessed on an individual basis, that they should deal with learning problems and learning situations which may be unique to an age group, a subject, a cultural attitude or a teaching form. Here lies the great strength of the teacher-made visual aid. No matter what the artistic skills of the teacher, it is he or she alone who recognizes and understands the variables. Only the teacher can produce visual materials which are that immediate response to the situation, and only those are effective teaching aids.

The teacher, then, should not be daunted by the artistic requirements. Experience teaches a lot of ways to deal with these needs, and furthermore brings more ideas. There is no need to turn to another person to translate ideas, for this introduces the potential interference of a third party and his/her interpretations. Necessity is the mother of invention, and it is that which makes teacher-made visual aids a continually vital part of the ESL classroom.

APPENDIX I

Sample Passage for Listening
Comprehension with Visual

I SIMPLE

(a) This woman is tired. She has been shopping most of the day. She is wearing a brown coat and on her head she has an orange hat. She is carrying two bags.

(b) This girl has been at school but now she is going home with her mother. She is wearing blue jeans, a blue hat and a red sweater.

II SLIGHTLY HARDER

(a) Mark Booth's waiting for the bus and he's been waiting quite a while. He's cold so he's put his hands in his pockets to keep them warm. He's wearing dark jeans and a yellow jacket, as well as a blue hat.

(b) Jane Stevens is talking to a friend of hers. She's going home from school. She's got on a blue coat and red boots and she's a blonde.

III CONVERSATION

/A/ Goodness, aren't these buses slow. If it doesn't come soon, I think I'll drop. I'm so tired.

/B/ I thought you looked rather weary. What've you been doing? Shopping?

/A/ Yes, I thought I'd get a few things I needed. But a few things always turns into a lot more. What have you been doing?

/B/ Oh, I had to take my daughter to the dentist so I picked her up from school. When I left the house this morning it was really quite cold so I put on this quilted coat and my fur hat. Now I'm so hot! I'll be glad to get home and shed everything.

/A/ Ah, I'm just looking forward to getting rid of parcels, hat, coat and shoes and putting my feet up.

APPENDIX II

POSSIBLE SCRIPT FOR ORDER! ORDER!

It was spring. The tree was in bud and flowers were beginning to appear. Within a few weeks, the tree was a mass of blossom in pink and red. As the weeks passed, spring faded into summer. The blooms on the tree gave way to leaves. The days grew warmer and the tree provided shade for people walking in the park and for the children who played under it with their toys in the long days.

Gradually these long days began to shorten. The green leaves began their change to red and gold. Before many more weeks had passed the snow had arrived once more. Winter had returned.

BIBLIOGRAPHY

BOOKS

- Bartley, Diane E. (ed). The Adult Basic Education TESOL Handbook. Collier McMillan, New York, 1979.
- Bischoff, L. J. Adult Psychology. Harper and Row, New York, 1969.
- Broadbent, D. E. Perception and Communication. Pergmon Press, New York, 1958.
- Cornsweet, T. N. Visual Perception. Academic Press, New York, 1970.
- Dale, Edgar. Audio Visual Methods in Teaching (3rd Edition) Dryden Press, New York, 1969.
- Brunner, E. de S; Wilder, David S.; Kirchner, Corinne; Newberry jr., John S. An Overview of Adult Education Research. Adult Education Association, Chicago, 1959.
- Dwyer, Francis M. A Guide for Improving Visualized Instruction. Learning Services, Pa. 1972.
- Garvey, Mona. Teaching Displays: Their Purpose, Construction and Use. Linnet Books, Hamden, Conn. 1972.
- Gerlach, Vernon S., and Ely, Donald P. Teaching and Media: A Systematic Approach. Prentice-Hall, Inc., Englewood Cliffs, N.J. 1971.
- Haber, R. N. Information-Processing Approaches to Visual Perception. Holt, Rinehart and Winston. New York, 1969.
- Haber, R. N. and Hershenson, M. The Psychology of Visual Perception. Holt, Rinehart and Winston. New York, 1973.
- Ilyin, Donna, and Tragardh, Thomas (eds). Classroom Practices in Adult ESL. TESOL, Washington, D.C. 1978.

- Knox, Alan B. Adult Development and Learning - A Handbook on Individual Growth and Competence in the Adult Years for Education and the Helping Professions. Jossey-Bass, Inc., San Francisco, 1977.
- Lister, Susan. A Potpourri of Foreign Language Aids. Californian Foreign Language Teachers' Association, San Jose. 1977.
- Miller, James Dale. The Visual Adjunct in Foreign Language Teaching. Chilton Books, for Center for Curriculum Development. Philadelphia, 1965.
- Tanzman, J. and Dunn, K. J. Using Instructional Media Effectively. Parker Publishing Company, West Nyack, New York. 1971.
- Williams, Catharine M. Learning from Pictures. National Education Association, Washington, D.C. 1968.

PAMPHLETS

- Allen, William H. and Daehling, W.A. Exploratory Study of Form Perception as applied to the Production of Educational Media. U.S.C., Los Angeles, June 1968.
- Arnheim, Rudolf. A Study of Visual Factors in Concept Formation. Department of Health, Education and Welfare, 1968.
- Boguslavsky, George W. A Study of Characteristics Contributing to the Effectiveness of Visual Demonstrations. Rensselaer Polytechnic Institute. Troy, N.Y. 1967.
- Craig, Eugene A. Acquisition of Visual Information. Department of Health, Education and Welfare, Washington, D.C. 1972.
- Dwyer, Francis M. Effect of Varying the Amount of Realistic Detail in Visual Illustrations Designed to Complement Programmed Instruction. Penn State University, June 1968.
- Dwyer, Francis M. Study of the Relative Effectiveness of Varied Visual Illustrations. Department of Health, Education and Welfare. Washington, D.C. 1967.

- Gagne, Robert M. and Gropper, George L. Individual Differences in Learning from Visual and Verbal Presentations. American Institutes for Research, Washington, D.C. 1965.
- Galfo, Armand J. A Study of the Effects on Pupil Achievement of Certain Audio and Visual Presentation Sequences. College of William and Mary, Williamsburg, Va., (no date). /E.R.I.C. ED.029.505/
- Gropper, George L. The Role of Visuals in Verbal Learning. Department of Health, Education and Welfare Washington, D.C. 1958.
- Holliday, William G. Using Pictures in the Classroom. University of Calgary. 1979.
- Linker, Jerry M. Designing Instructional Visuals: Theory, Composition, Implementation. Instructional Media Center, University of Texas. 1968.
- Norris, Robert G. Characteristics of Adults that Facilitate and/or Interfere with Learning. Department of Postsecondary Education, Florida State University, 1977.
- Thomas, James L. The Use of Pictorial Illustrations in Instruction: Current Findings and Implications for Further Research. 1976. /E.R.I.C. ED. 160.108/

PRESENTED PAPERS

- Berry, Louis H. "Effects of Color Realism on Pictorial Recognition". Paper presented at Annual Conference of the Association for Educational Communications, New Orleans, La. March, 1979.
- Bikkar, S. Randhara et al. "Visual Learning Revised". Paper presented at Annual Conference of the Association for Educational Communications, Miami Beach, Fla. April, 1977.
- Borg, Walter R. and Schulter, Charles F. "The Use of Detail and Background in Visuals and Its Effect on Learner Achievement and Attitude". Paper presented at Annual Meeting of the American Educational Research Association. Toronto, Canada. March, 1978.

- Brody, Philip J. and Legenza, Alice. "The Effects of Picture Type and Picture Location on Comprehension." Paper presented at the Annual Conference of Association for Educational Communication. New Orleans, La. March, 1979.
- Froese, V. "The 'Arts' in Language Arts." Paper presented at the Annual Meeting of the National Council of Teachers of English. New York City. Nov. 24-26, 1978.
- Gummerman, Kent and Others. "Age and Visual Information Processing." Paper presented at Annual Meeting of the Psychonomic Society. Denver, Colo. November 1975.
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- Lamberski, Richard J. and Roberts, Dennis M. "Efficiency of Students' Achievement Using Black/White and Color-coded Learning and Test Materials." Paper presented at Annual Conference of Association for Educational Communications. New Orleans, La. March, 1979.
- Lockard, James. "Educational Media in the Foreign Language Classroom." Paper presented at Conference on New Methodologies in Modern Language Teaching. October 1977.
- Smith, Roger A. "Educational Games in Today's Learning." Paper presented at Annual Convention of American Industrial Arts Association. April, 1976.
- Tong, John S. "Visual Aids and Language Learning - An Experimental Study." Speech presented at Rocky Mt. Modern Language Association, Las Vegas. October, 1971.
- Winn, William and Everett, Richard J. "Differences in the Affective Meaning of Color versus Black/White Pictures." Paper presented at Annual Conference of Association for Educational Communications. Kansas City, Mo. April, 1978.

ARTICLES

- Allen, William H. "Intellectual Abilities and Instructional Media Design." Audio Visual Communication Review, Vol. 23, Summer 1975, pp. 139-170.
- Allport, D.A. "The Rate of Assimilation of Visual Information." Psychonomic Science, Vol. 12, 1968, pp.231-2.
- Arnheim, Rudolf. "What do the Eyes Contribute?" Audio Visual Communication Review, Vol. 10. September-October, 1962, pp.10-21.
- Beck, Harry S. and Dunbar, Ann M. "The Consistency of Color Associations to Synonymous Words." Journal of Educational Research, Vol. 58, September, 1964, pp. 41-3.
- Bireaud, Anne. "The Role of the Teacher in a Resource-Based System." Educational Media International, Vol. 4, 1975. pp.8-9.
- Briggs, G. E. and Blaha, J. "Memory Retrieval and Central Comparison Times in Information Processing." Journal of Experimental Psychology, Vol. 79, 1969, pp. 395-402.
- Broadbent, D. E. "Information Processing in the Nervous System." Science, Vol. 150, 1965, pp. 457-62.
- Broadbent, D. E. "Word Frequency Effect and Response Bias." Psychology Review, Vol. 74, 1967, pp. 1-15.
- Brown, Thomas H. "Using Visual Cues as an Aid for Memorizing a Dialog." Modern Language Journal, Vol. 47, December, 1963, pp. 363-66.
- Clark, John. "The Involvement of the Teacher in the Developer of Learning Materials." Educational Media International, Vol. 4, 1975, pp. 10-12.
- Corballis, M. C. "Rehearsal and Decay in Immediate Recall of Visually and Aurally Presented Items," in Haber, R. N. (ed). Information-Processing Approaches to Visual Perception, Holt, Rinehart and Winston, New York, 1973.
- Dallett, K. and Wilcox, S. "Remembering Pictures versus Remembering Descriptions." Psychonomic Science, Vol. 11, 1968, pp. 139-40.