SECTION D.

SURVEY INSTRUMENTS

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NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

Dear Colleague:

The National Science Foundation (NSF) and I would like to thank you in advance for your continued participation in its annual Survey of Research and Development Expenditures at Universities and Colleges (academic R&D expenditures survey). By contributing timely and accurate information to this fiscal year (FY) 1997 survey, you can ensure that your institution is represented in data used by members of Congress, Federal and State government planners, and officials in the academic sector to assess the adequacy of the Nation's research base.

Coverage for the academic R&D expenditures survey includes U.S. institutions that currently have doctoral programs in science and engineering (S&E) fields or annually perform at least $50,000 in separately budgeted research and development S&E activities. The reliability of the data and therefore the soundness of institutional, State, and national decisions based upon them are in large measure contingent upon receipt of complete and accurate data from all surveyed institutions. **The survey questionnaire is due January 9, 1998.**

This packet contains the following items:

1. Postcard to acknowledge that you have received this package
2. FY 1997 academic R&D expenditures survey questionnaire (NSF Form 411), with instructions and NSF/NCES Crosswalk
3. FY 1997 Optional Non-S&E Item 2A survey form
4. Proposed Optional Item for FY 1998, with letter and survey form
5. Facsimile showing data reported for your institution on the FY 1994–96 surveys
6. Automated Survey Questionnaire (ASQ) diskette, with instructions
7. Question-and-Answer booklet
8. "FYI" flyer describing the NSF academic survey system
9. "Accessing NSF Data over the Internet"
10. Envelope for returning the completed survey questionnaire

Please let us know if your package is not complete!

POSTCARD

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

FY 1997 SURVEY QUESTIONNAIRE (NSF FORM 411)

There have been some **minor changes** on the enclosed FY 1997 questionnaire from the survey form used for FY 1996. The FY 1997 questionnaire includes a check-off item on whether your institution has a **medical school** and, if so, whether its R&D expenditures are included in your survey totals. (We are ***not*** requesting separate totals for medical school expenditures.) At the suggestion of survey respondents, a new field has been added for reporting **bioengineering and biomedical engineering research**. We also ask that you continue to provide totals on the amount of R&D passed through your institution to **subrecipients (Item 1A),** which was first requested on the FY 1996 questionnaire.

OPTIONAL ITEM 2A SURVEY FORM: FY 1997
To help NSF better understand how much **non-science and engineering R&D** is conducted at universities and colleges, please complete the Optional Item 2A and return it with the survey questionnaire. This format may become part of the survey questionnaire in FY 1998 but remains optional this year. All data reported by individual institutions on the optional item are STRICTLY CONFIDENTIAL. These data will not be published nor made available at any level to the public; they will be used only for internal analyses.

OPTIONAL ITEM 3A SURVEY FORM: FY 1997
The wording of Optional Item 3A has been revised so that NSF can better evaluate the corresponding data provided in Item 3 of the survey. This item remains optional for FY 1997.

PROPOSED OPTIONAL ITEM 2 SURVEY FORM: FY 1998
Please also take a moment to review and comment on the proposed change in the survey questionnaire to collect Federal R&D support statistics for major **individual Federal agencies**. (We are ***not*** requesting separate totals for individual agencies at this time.)

WORLD WIDE WEB
An academic R&D expenditures survey home page is now available through the World Wide Web on the Internet. The page contains information about the survey and provides direct access to publications and data. To reach it, direct your browser to the following URL address: *http://www.nsf.gov/sbe/srs/rdexp/start.htm*. For more extensive S&E statistics, please try the Science Resources Studies home page: *http://www.nsf.gov/sbe/srs/stats.htm*.

FOR MORE INFORMATION
Please review the enclosed Question-and-Answer booklet, which contains useful information for completing the survey. If you have questions about the survey or would like information about our publications or data, please call Marge Machen of NSF at (703) 306-1772 or Atessa Shahmirzadi of Quantum Research Corporation at (301) 657-3077, ext. 140.

If you prefer to submit your data electronically (either in a layout similar to the questionnaire or in ASQ format), please send e-mail to kgreenbe@qrc.com.

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

Sincerely,

John E. Jankowski, Jr.

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

Enclosures

NSF Form 411 (12-97)

FORM APPROVED
OMB No. 3145-0100
Expiration Date: 12/31/98

NATIONAL SCIENCE FOUNDATION
ARLINGTON, VA 22230

SURVEY OF RESEARCH AND DEVELOPMENT EXPENDITURES AT UNIVERSITIES AND COLLEGES, FY 1997

Organizations are requested to complete and return this form to:

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

If you prefer, your response to the survey may be sent by e-mail to:
kgreenbe@qrc.com

This form should be returned by January 9, 1998.

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

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

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

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

Include data for branches and all organizational units of your institution, such as medical schools and agricultural experiment stations. Data on research centers and facilities administered by your institution should be included. In addition, include hospitals or clinics owned, operated, or controlled by universities, and integrated operationally with the clinical programs of your medical schools. **Exclude** data for federally funded research and development centers (FFRDCs). Data for these facilities are collected separately.

Please correct if name or address has changed

If you have any questions please contact Marge Machen of NSF at (703) 306-1772, or Kevin Greenberg of QRC at (301) 657-3077, ext. 180.

Financial data are requested for your institution's 1997 fiscal year.
Please circle the month in which your institution's fiscal year begins

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

	Yes	No
Does your institution have a medical school?	☐	☐
If so, do you include the data for the medical school on this survey?	☐	☐

It is estimated that response to this survey will require 18 hours. If you wish to comment on this burden, please contact Gail A. McHenry of NSF at (703) 306-1125, ext. 2010, or e-mail gmchenry@nsf.gov.

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

Date submitted _____

Scope:

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

Definitions:

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

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

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

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

PERSON WHO SUBMITTED THIS FORM (PLEASE TYPE OR PRINT)

NAME:	TELEPHONE NUMBER:
TITLE:	E-MAIL:

PERSON WHO PREPARED THIS FORM (IF DIFFERENT FROM ABOVE)

NAME:	TELEPHONE NUMBER:
TITLE:	E-MAIL:

Instructions for Items 1 and 2

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

Total

a. ***Federal Government.*** Report awards for R&D (including direct and reimbursed indirect costs) by all agencies of the Federal Government.

b. ***State and local governments.*** Include funds for R&D (including direct and reimbursed indirect costs) from State, county, municipal, or other local governments and their agencies. Include here State funds that support R&D at agricultural and other experiment stations.

c. ***Industry.*** Include all awards for R&D (including direct and reimbursed indirect costs) from profit-making organizations, whether engaged in production, distribution, research, service, or other activities. Do not include awards from nonprofit foundations financed by industry; these should be reported under "All other sources" (line 1175).

d. ***Institution funds.*** Report funds, *including* related indirect costs, that your institution spent for R&D activities from the following unrestricted sources: general-purpose State or local government appropriations; general-purpose awards from industry, foundations, or other outside sources; tuition and fees; endowment income; gifts; and other institutional funds. In addition, estimate your institution's on-campus and off-campus unreimbursed indirect costs associated with externally funded R&D projects, including mandatory and voluntary cost sharing. To estimate unreimbursed indirect costs, preferably on a project-by-project basis, use your appropriate on-campus or off-campus ***negotiated research indirect cost rate(s)*** multiplied by the corresponding base(s) minus actual indirect cost recovery.

e. ***All other sources.*** Include awards for R&D (including direct and reimbursed indirect costs) from nonprofit foundations and voluntary health agencies as well as from all other sources not elsewhere classified. Funds from foundations that are affiliated with, or granted solely to your institution, should be included under line 1160, "Institution funds." Funds for R&D received from a health agency that is a unit of a State or local government should be reported under "State and local governments" (line 1125). Also include gifts from individuals that are restricted by the donor to research.

ITEM 1. CURRENT FUND EXPENDITURES FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT IN THE SCIENCES AND ENGINEERING, BY SOURCE OF FUNDS: FY 1997 (Include indirect costs)

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

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

CONFIDENTIALITY
Information received from individual institutions in lines 1161 and 1162, estimates for basic research expenditures, or data provided in item 1A will NOT be published or released; only aggregate totals will appear in tabulations.

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

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

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

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

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

ITEM 2. CURRENT FUND EXPENDITURES (TOTAL AND FEDERALLY FINANCED) FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT, BY FIELD OF SCIENCE AND ENGINEERING: FY 1997 (Include indirect costs)

Please note that total R&D expenditures in line 1400, column (1) should be the same as reported in item 1, line 1100, column 1.

Federally financed R&D expenditures in line 1400, column (2) should be the same as reported in item 1, line 1110, column 1.

Field of science & engineering	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. ENGINEERING (TOTAL)	1410	$	$
(1) Aeronautical & astronautical	1411		
(2) Bioengineering/biomedical engineering	1418		
(3) Chemical	1412		
(4) Civil	1413		
(5) Electrical	1414		
(6) Mechanical	1415		
(7) Metallurgical & materials	1417		
(8) Other	1416		
b. PHYSICAL SCIENCES (TOTAL)	1420		
(1) Astronomy	1421		
(2) Chemistry	1422		
(3) Physics	1423		
(4) Other	1424		
c. ENVIRONMENTAL SCIENCES (TOTAL)	1430		
(1) Atmospheric	1431		
(2) Earth sciences	1432		
(3) Oceanography	1433		
(4) Other	1434		
d. MATHEMATICAL SCIENCES (TOTAL)	1441		
e. COMPUTER SCIENCES (TOTAL)	1442		
f. LIFE SCIENCES (TOTAL)	1450		
(1) Agricultural	1451		
(2) Biological	1452		
(3) Medical	1453		
(4) Other	1454		
g. PSYCHOLOGY (TOTAL)	1460		
h. SOCIAL SCIENCES (TOTAL)	1470		
(1) Economics	1471		
(2) Political science	1472		
(3) Sociology	1473		
(4) Other	1474		
i. OTHER SCIENCES, not elsewhere classified (TOTAL)	1480		
j. TOTAL (sum of a through i)	1400	$	$

Please EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields.

ITEM 3. CURRENT FUND EXPENDITURES FOR RESEARCH EQUIPMENT (TOTAL AND FEDERALLY FINANCED) FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT, BY FIELD OF SCIENCE AND ENGINEERING: FY 1997

Please report that portion of current fund expenditures reported in items 1 and 2 that went for the purchase of research equipment. This includes all research equipment purchased under sponsored research project awards from current fund accounts.

For column (1), report current fund expenditures for R&D from all sources: Federal Government, State, county, municipal or other governments and their agencies (including State funds supporting R&D at agricultural experiment stations); industry; institution funds; and private foundations and voluntary health agencies, individuals, and associations.

For column (2), include funds from awards for R&D sponsored by agencies of the Federal Government.

Field of science & engineering	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. ENGINEERING (TOTAL)	1810	$	$
(1) Aeronautical & astronautical	1811		
(2) Bioengineering/biomedical engineering	1818		
(3) Chemical	1812		
(4) Civil	1813		
(5) Electrical	1814		
(6) Mechanical	1815		
(7) Metallurgical & materials	1817		
(8) Other	1816		
b. PHYSICAL SCIENCES (TOTAL)	1820		
(1) Astronomy	1821		
(2) Chemistry	1822		
(3) Physics	1823		
(4) Other	1824		
c. ENVIRONMENTAL SCIENCES (TOTAL)	1830		
(1) Atmospheric	1831		
(2) Earth sciences	1832		
(3) Oceanography	1833		
(4) Other	1834		
d. MATHEMATICAL SCIENCES (TOTAL)	1841		
e. COMPUTER SCIENCES (TOTAL)	1842		
f. LIFE SCIENCES (TOTAL)	1850		
(1) Agricultural	1851		
(2) Biological	1852		
(3) Medical	1853		
(4) Other	1854		
g. PSYCHOLOGY (TOTAL)	1860		
h. SOCIAL SCIENCES (TOTAL)	1870		
(1) Economics	1871		
(2) Political science	1872		
(3) Sociology	1873		
(4) Other	1874		
i. OTHER SCIENCES, not elsewhere classified (TOTAL)	1880		
j. TOTAL (sum of a through i)	1800	$	$

Current fund expenditures in each field for scientific research equipment is that PORTION or SUBTOTAL of the amounts reported in the corresponding cells of the "Total" and "Federal" columns in item 2.

CROSSWALK BETWEEN NSF FIELDS OF SCIENCE & ENGINEERING AND THE NATIONAL CENTER FOR EDUCATION STATISTICS (NCES) CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

The left-hand column shows each of the detailed fields as displayed on the questionnaire form. The right-hand column shows the NCES fields that are included within the NSF category as well as some additional illustrative disciplines. These additional disciplines are intended to be guidelines—not sharp definitions—as to what should be reported under a particular field.

Questionnaire Field	NCES Classification and Additional Illustrative Disciplines
a. ENGINEERING **(1) Aeronautical & Astronautical**	14.02 Aerospace, Aeronautical, and Astronautical Engineering (also aerodynamics, space technology)
(2) Bioengineering/ Biomedical Engineering	14.05 Bioengineering and Biomedical Engineering
(3) Chemical	03.0509 Wood Science (also petroleum refining process) 14.07 Chemical Engineering 14.32 Polymer/Plastics Engineering 14.25 Petroleum Engineering
(4) Civil	04.02 Architecture 14.04 Architectural Engineering 14.08 Civil Engineering 14.14 Environmental/Environmental Health Engineering (also geotechnical, hydraulic, hydrologic, sanitary and environmental, structural, transportation)
(5) Electrical	14.09 Computer Engineering (also power engineering) 14.10 Electrical, Electronics, and Communications Engineering
(6) Mechanical	14.11 Engineering Mechanics 14.19 Mechanical Engineering
(7) Metallurgical & Materials	14.06 Ceramic Sciences and Eng. 14.18 Materials Engineering 14.28 Textile Sciences and Eng. (also welding) 14.15 Geological Engineering 14.20 Metallurgical Engineering 14.31 Materials Science 14.16 Geophysical Engineering 14.21 Mining and Mineral Eng. 40.0701 Metallurgy
(8) Other	14.01 Engineering, General 14.13 Engineering Science 14.23 Nuclear Engineering 14.27 Systems Engineering 14.99 Engineering, Other (also marine and ocean engineering systems) 14.03 Agricultural Engineering 14.17 Industrial/Manufacturing Eng. 14.24 Ocean Engineering 14.29 Engineering Design 30.06 Systems Science and Theory 14.12 Engineering Physics 14.22 Naval Architecture and Marine Engineering 14.30 Eng./Industrial Management
b. PHYSICAL SCIENCES **(1) Astronomy**	40.02 Astronomy (also Gamma-ray, neutrino, optical and radio, X-ray) 40.03 Astrophysics
(2) Chemistry	40.05 Chemistry (also analytical, inorganic, organic, organo-metallic, pharmaceutical, physical, polymer sciences (except biochemistry))
(3) Physics	40.08 Physics (also acoustics, atomic/molecular, chemical, condensed matter, elementary particles, nuclear structure, optics, plasma, theoretical/mathematical)
(4) Other	40.01 Physical Sciences, General 40.0799 Miscellaneous Physical Sciences, Other 40.99 Physical Sciences, Other (used for multidisciplinary projects within physical sciences and for disciplines not requested separately)
c. ENVIRONMENTAL SCIENCES (Earth, Atmospheric, & Ocean) **(1) Atmospheric**	40.04 Atmospheric Sciences and Meteorology (also aeronomy, extraterrestrial atmospheres, solar, weather modification)
(2) Earth Sciences	15.1102 Surveying 40.0703 Earth & Planetary Sciences 40.06 Geological and Related Sciences 45.0702 Cartography (also engineering geophysics, general geology, geodesy and gravity, geomagnetism, hydrology, inorganic, isotopic, lab geophysics, organic geochemistry, paleomagnetism, paleontology, physical geography, seismology)
(3) Oceanography	26.0607 Marine/Aquatic Biology 40.0702 Oceanography (also biological, chemical, geological, physical)
(4) Other	(used for multidisciplinary projects within Earth, Atmospheric, and Ocean Sciences)
d. MATHEMATICAL SCIENCES	27.01 Mathematics, General 27.05 Mathematical Statistics 27.03 Applied Mathematics 27.99 Mathematics, Other 27.0302 Operations Research 30.08 Math./Computer Sciences (also algebra, analysis, foundations and logic, geometry, numerical analysis, topology)

Questionnaire Field	NCES Classification and Additional Illustrative Disciplines (cont.)
e. COMPUTER SCIENCES	11 Computer and Information Science, General 52.1201 Management Information Systems (also design, development, and application of computer capabilities to data storage and manipulation, information science)
f. LIFE SCIENCES **(1) Agricultural**	01.03 Agricultural Production 01.0303 Aquaculture 01.07 International Agriculture 02.01 Agricultural Sciences 02.04 Plant Sciences 02.05 Soil Science 03 Renewable Natural Resources 04.06 Landscape Architecture (also agricultural chemistry, agronomy, animal science, conservation, fish and wildlife. forestry, horticulture)
(2) Biological	19.05 Foods and Nutrition Studies 26.01 Biology, General 26.0202 Biochemistry 26.0203 Biophysics 26.03 Botany 26.04 Cell and Molecular Biology 26.05 Microbiology/Bacteriology 26.0601 Anatomy 26.0603 Ecology 26.0609 Nutritional Sciences 26.0610 Parasitology 26.0612 Toxicology 26.0613 Genetics, Plant and Animal 26.0614 Biometrics 26.0615 Biostatistics 26.0699 Misc. Bio. Specializations, Other 26.0701 Zoology 26.0702 Entomology 26.0704 Pathology, Human and Animal 26.0705 Pharmacology, Human and Animal 26.0706 Physiology, Human and Animal 26.0799 Zoology, Other 26.99 Biolog./Life Sciences, Other 51.1301 Medical Anatomy 51.1302 Medical Biochemistry 51.1307 Medical Immunology 51.1308 Medical Microbiology 51.1312 Medical Pathology 51.1313 Medical Physiology 51.1314 Medical Toxicology 51.2203 Epidemiology (also allergies and immunology, biogeography, biotechnology, pathology, physical anthropology, virology)
(3) Medical	26.0608 Neurosciences 26.0611 Radiation Biology/Radiobiol. 51.04 Dentistry 51.1201 Medicine, General 51.1399 Med. Basic Sciences, Other 51.1610 Nursing Psychiatry/ Mental Health 51.17 Optometry 51.19 Osteopathic Medicine 51.20 Pharmacy 51.21 Podiatry 51.22 Public Health 51.24 Veterinary Medicine[1] Anesthesiology Cardiology Colon and Rectal Surgery Dental/Oral Surgery Dermatology Family Medicine Gastroenterology General Surgery Geriatric Medicine Hematology Internal Medicine Medical Programs, Other Neonatal-Perinatal Medicine Neurological Surgery Neurology Nuclear Medicine Nuclear Radiology Obstetrics and Gynecology Oncology Ophthalmology Orthopedics/Orthopedic Surgery Otorhinolaryngology Pediatrics Pharmacology Physical and Rehabilitative Medicine Plastic Surgery Preventive Medicine Psychiatry Thoracic Surgery Urology (exclude all residency programs)
(4) Other	30.11 Gerontology 51.02 Communication Disorders Sciences and Services 51.07 Health and Medical Administrative Services 51.10 Health and Medical Laboratory Technologies 51.16 Nursing Technologies 51.2306 Occupational Therapy 51.2308 Physical Therapy 51.2399 Rehab./Therapeutic Services 51.99 Health Professions and Related Services, Other (used for multidisciplinary projects within life sciences)
g. PSYCHOLOGY	42.01 Psychology, General 42.02 Clinical Psychology 42.17 School Psychology 51.2301 Art Therapy (also animal behavior, educational, experimental, human development and personality, social)
h. SOCIAL SCIENCES **(1) Economics**	01.0103 Agricultural Economics 45.06 Economics 52.06 Business/Managerial Econ. (also applied, development, econometrics, industrial, international, labor, public finance and fiscal policy, quantitative, resource)
(2) Political Science	44.04 Public Administration 44.05 Public Policy Analysis 44.99 Public Admin. and Services, Other 45.09 International Relations and Affairs 45.10 Political Science and Government (also comparative government, legal systems, political theory, regional studies)
(3) Sociology	45.02 Anthropology (Social and Cultural only) 45.05 Demography and Population Studies 45.11 Sociology (also comparative and historical, complex organizations, cultural and social structure, group interactions, social problems and welfare theory)
(4) Other	04.03 City/Urban, Community, and Regional Planning 05 Area and Ethnic Studies 16.0102 Linguistics 43.01 Crim'l. Justice & Corrections 44.02 Community Services 45.01 Social Sciences, General 45.03 Archaeology 45.07 Geography 45.12 Urban Studies/Affairs 45.99 Social Sciences, Other (also history of science, socioeconomic geography)
i. OTHER SCIENCES, n.e.c.	(used when the multidisciplinary and interdisciplinary aspects make the classification under one primary field impossible)

[1] Institutions with schools of veterinary medicine should distribute R&D expenditures among the appropriate disciplines (agricultural, biological, and medical) rather than only in medical sciences.

This questionnaire has been printed on recycled paper.

OPTIONAL ITEM 2A. CURRENT FUND EXPENDITURES (TOTAL AND FEDERALLY FINANCED) FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT BY NON-SCIENCE AND ENGINEERING FIELD: FY 1997 (Include indirect costs)

NOTE: For rows 2A(a) through 2A(i), report only data that have not been reported in Items 1 and 2 on this survey. Non-S&E R&D should **include** any separately budgeted scholarly and creative activity, but should **exclude** training.

Non-science & engineering fields	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. EDUCATION	1510		
b. LAW	1520		
c. HUMANITIES	1530		
d. VISUAL & PERFORMING ARTS	1540		
e. BUSINESS AND MANAGEMENT	1550		
f. COMMUNICATIONS, JOURNALISM, AND LIBRARY SCIENCE	1560		
g. SOCIAL WORK	1570		
h. OTHER NON-S&E FIELDS, please specify:	1580		
i. TOTAL, NON-S&E FIELDS	1500		
j. TOTAL, S&E (from Item 2, line j)	1400		
k. GRAND TOTAL	1600		

CROSSWALK BETWEEN NSF NON-SCIENCE & ENGINEERING FIELDS AND THE NATIONAL CENTER FOR EDUCATION STATISTICS (NCES) CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

Questionnaire Field	CIP Code	CIP Program Category Title
Education	13.xx	Education
Law	22.xx	Law and Legal Studies
Humanities	16.xx	Foreign Languages & Literature
	23.xx	English Language and Literature/Letters
	24.xx	Liberal Arts & Sciences, General Studies & Humanities
	38.xx	Philosophy and Religion
	39.xx	Theological Studies and Religious Vocations
	45.08	History (except History of Science)
Visual & Performing Arts	50.xx	Visual and Performing Arts
Business and Management	52.xx	Business Management and Administrative Services
	08.xx	Marketing Operations/Marketing Distribution
Communications, Journalism, and Library Science	09.xx	Communications
	25.xx	Library Science
	10.xx	Communications Technologies
Social Work	44.07	Social Work
Other Non-S&E Fields	31.xx	Parks, Recreation, Leisure and Fitness Studies
	29.xx	Military Technologies

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

Survey of Research and Development Expenditures at Universities and Colleges, FY 1997

OPTIONAL ITEM 3A
Current Fund Expenditures for Research Equipment

The National Science Foundation is continuing its evaluation of data provided in item 3 of its Survey of Research and Development Expenditures at Universities and Colleges (academic R&D expenditures survey). To help NSF better understand what is being reported as current fund expenditures for research equipment, please complete the optional item printed below.

OPTIONAL ITEM 3A

For reporting on item 3 of this survey, please indicate the dollar threshold value that your institution uses to classify expenditures for research equipment as current fund expenditures.

FY 1997:	**FY 1998 Plans:**
☐ $500	☐ $500
☐ $1,000	☐ $1,000
☐ $1,500	☐ $1,500
☐ $2,000	☐ $2,000
☐ $3,000	☐ $3,000
☐ $5,000	☐ $5,000
☐ Other (specify) $_____	☐ Other (specify) $_____

Comments:

_____

_____

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

Dear Colleague:

One of NSF's primary concerns is to find out how much money is being spent on research, and who is supplying those funds. Currently, the "source of funds" component of Item 1 on the NSF Survey of Research and Development Expenditures at Universities and Colleges (academic R&D expenditures survey) collects data by Federal Government, state and local governments, industry, institution funds, and "all other sources." On Item 2 of the survey—current funds expenditures data—total and Federal dollars are also collected by field of science.

In order to obtain a more detailed picture of Federal support for research, NSF proposes to start collecting the expenditures data by major Federal agency by field. Separate data for federally financed R&D expenditures will be requested for six major agencies such as Department of Defense and NSF. These six major agencies represent 96 percent of total Federal R&D obligations.

NSF discussed the feasibility of collecting the source of academic R&D expenditures survey data by major Federal agency by field with academic representatives at a workshop held in April 1997. The workshop participants agreed that with some advance notice, they would be able to respond to this item.

On the back of this letter, you will find the proposed form that NSF would like to include as an optional item in the **FY 1998 survey.** Please review this proposed item and provide your comments and suggestions in the space below. We are particularly interested in your assessment of your institution's ability to provide these data.

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

Sincerely,

John E. Jankowski, Jr.

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

COMMENTS/SUGGESTIONS:

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PROPOSED OPTIONAL ITEM FOR FY 1998

ITEM 2. CURRENT FUND EXPENDITURES (TOTAL AND FEDERALLY FINANCED) FOR SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT, BY FIELD OF SCIENCE & ENGINEERING: FY 1998 (Include indirect costs)

Please note that total R&D expenditures in line 1400, column (1) should be the same as reported in item 1, line 1100, column 1. Federally financed R&D expenditures in line 1400, column (2) should be the same as reported in item 1, line 1110, column 1.

Allocate funding to the original sources whenever possible. If that information is unknown, report the proximate funding source.

KEY: USDA, Department of Agriculture; DoD, Department of Defense; DOE, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NSF, National Science Foundation. "Other" Federal sources include all other Federal agencies.

		(Dollars in thousands)								
Field of science and engineering	Line No.	TOTAL ALL	TOTAL FEDERAL	SPECIFIC FEDERAL AGENCIES						
				USDA	DoD	DOE	HHS*	NASA	NSF	Other
a. Engineering (Total)	1410									
(1) Aeronautical & astronautical	1411									
(2) Bioengineering/Biomedical engineering	1418									
(3) Chemical	1412									
(4) Civil	1413									
(5) Electrical	1414									
(6) Mechanical	1415									
(7) Metallurgical & materials	1417									
(8) Other	1416									
b. Physical Sciences (Total)	1420									
(1) Astronomy	1421									
(2) Chemistry	1422									
(3) Physics	1423									
(4) Other	1424									
c. Environmental Sciences (Total)	1430									
(1) Atmospheric	1431									
(2) Earth sciences	1432									
(3) Oceanography	1433									
(4) Other	1434									
d. Mathematical Sciences (Total)	1441									
e. Computer Sciences (Total)	1442									
f. Life Sciences (Total)	1450									
(1) Agricultural	1451									
(2) Biological	1452									
(3) Medical	1453									
(4) Other	1454									
g. Psychology (Total)	1460									
h. Social Sciences (Total)	1470									
(1) Economics	1471									
(2) Political science	1472									
(3) Sociology	1473									
(4) Other	1474									
i. Other Sciences (Total)	1480									
j. Total (sum of a through i)	1400									

Please EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields. * Includes NIH.

SAMPLE