SECTION D.

SURVEY INSTRUMENT AND MATERIALS

OMB CLEARANCE NO. 3145-0101
EXPIRATION DATE: 08/31/2002

National Science Foundation
National Institutes of Health

FY 2001 SURVEY OF SCIENTIFIC AND ENGINEERING RESEARCH FACILITIES

Acting out of concerns raised by the academic community, Congress directed the National Science Foundation (NSF) to collect and analyze data about research facilities at colleges and universities to report to Congress every two years. This survey is in response to that requirement under authorization of the National Science Foundation Act of 1950, as amended. The National Institutes of Health (NIH), co-sponsor of the survey, added biomedical research organizations and independent research hospitals to the survey.

Your participation in this survey is voluntary. However, your response is very important to us. Aggregate data from this survey are used by Congress, the Executive Branch, many higher education associations, and college and university administrators to help make policy decisions. The information compiled from these questions will provide a broad, quantitative picture of the amount and adequacy of existing science and engineering (S&E) research facilities.

NSF and NIH do not use or allow others to use detailed responses in any manner that would identify an individual organization's responses.

Preparing the information and completing the paper questionnaire requires an average of 2 hours. If you wish to comment on this burden, contact Suzanne H. Plimpton, Reports Clearance Officer, NSF, via email splimpto@nsf.gov or at (703) 292-7556. Or contact the Office of Management and Budget, Paperwork Reduction Project (OMB Number 3145-0101), Washington, DC 20603.

Please correct if name or address has changed.

Organizations are requested to complete and return this form to:

QRC Division of Macro International Inc.
Attn: NSF Facilities Survey
7315 Wisconsin Avenue, Suite 400W
Bethesda, MD 20814-3202

This form should be returned by July 24, 2001.

REMEMBER: You can submit your data on the Web at http://www.qrc.com/facweb. Please note that your Web user ID and password are printed on the adjacent label, which also contains your name and address.

If you have any questions about the survey in general please contact Leslie Christovich, Ph.D., of NSF at lchristo@nsf.gov, or Mary Sanders of QRC at (301) 657-3077, ext. 306.

If you have any technical questions, please contact technical support at (301) 657-3070 or facilities@qrc.com.

Thank you in advance for your participation in this survey.

How to Fill Out This Survey

A. Decide if you want to complete the paper or Web version of the questionnaire

You have the option of completing this survey using the paper version of the questionnaire, which is included in this packet, or the Web version of the questionnaire. We recommend that you use the Web version because this version reduces the need for followup and provides an online help feature. To access the Web version of the survey, just go to http://www.qrc.com/facweb. To use the Web version you will need to enter the Web user ID and password included in this packet.

B. Attention: previous survey participants

If your organization participated in the last cycle of this survey, you can review your organization's final data for questions about the amount and adequacy of space. To do this go to the survey Web site, at http://www.qrc.com/facweb, and follow the instructions. Where appropriate, you will have the option to use the historical data as your current submission.

C. Questions

If you are completing the questionnaire using the Web version of the survey, you may access the online help feature that is provided at any time. If this does not answer your questions or if you are completing the paper version of the survey, please contact one of the following people:

- For specific problems regarding survey items or definitions, please contact Mary Sanders at (301) 657-3077, ext. 306, or msanders@qrc.com.
- For technical problems please contact technical support at (301) 657-3070, or facilities@qrc.com.

Instructions for Completing Item 1

- First, to answer item 1 you need to consider these two important definitions:

  net assignable square feet (NASF): Is the sum of all areas (in square feet) on all floors of a building assigned to, or available to be assigned to, an occupant for specific use, such as instruction or research. NASF should be measured from the inside faces of walls.

  research: Refers to all research activities of your organization that are budgeted and accounted for. Research can be funded by the organization itself, the Federal Government, State governments, foundations, corporations, or other sources.

  In this survey, research space *includes*:

  - research laboratories
  - instructional laboratories that happen to be used for research
  - computer laboratories or other departmental space used for research
  - controlled-environment space, such as clean or white rooms
  - technical-support space, such as carpentry and machine shops
  - space for laboratory animals, such as animal production colonies, holding rooms, isolation and germ-free rooms
  - faculty staff offices or graduate student offices, to the extent that they are used for research
  - department libraries, to the extent that they are used for research
  - libraries that are not departmentally based, to the extent that they are used for research
  - facilities containing fixed (built-in) equipment such as fume hoods and benches; or single pieces of non-fixed equipment, each costing at least $1 million, such as MRI equipment
  - leased space

  It does *not* include:

  - space that has been designated as federally funded research and development centers (FFRDC)
  - space that is used by faculty, but not administered by the organization, such as research space at Veterans Administration or other non-university hospitals
  - space that is administered by your organization, but leased to others for their use

- Second, you will need to classify your organization's departments and programs into the broad fields listed in item 1. This is done using the groupings provided in the crosswalk at the end of the survey.

- Third, you will need to prorate the NASF in two cases: when space is used for more than one purpose and when space is shared by different S&E fields.

  If space is used for more than one purpose, prorate the NASF to reflect the proportion of use for the activity the item is asking about. For example, if space is used for S&E research only during the summer months (one-fourth of the year), then count 25% of the NASF as S&E research space.

  If space is shared by S&E fields, prorate the NASF to reflect the proportion of use by each field. For example, if space is used equally for research activity in Computer Sciences and Mathematics, count 50 percent of the NASF as research space for Computer Sciences and 50 percent for Mathematics.

- Fourth, if your organization uses a facilities inventory system based on NCES, NACUBO, or WICHE classifications, in Column 1 ("Instructional NASF"), use only the space that is assigned to functional category 1 (Instruction); in Column 2 ("Research NASF"), use only the space that is assigned to functional category 2 (Research). For help with this, please refer to the Postsecondary Education Facilities Inventory and Classification Manual, U.S. Department of Education, Office of Educational Research and Improvement, NCES 92-165, the 1988 NACUBO Taxonomy of Functions, or the 1972 WICHE Program Classification Structure.

Item 1: Amount of Space in Your Institution

1a. What was the amount of NASF used for instruction and research in each of the fields listed below at the end of your FY 2001? *Be sure to include leased space and animal research space. You may estimate if exact figures are not available.*

N/A not applicable; no space reported

Past participants: If there has been no change since 1999, check this box ☐ and go to Item 2.

S&E Field	Instructional NASF	Research NASF	Is any of this research space leased?		
			Yes	No	N/A
Engineering			○	○	○
Physical Sciences			○	○	○
Earth, Atmospheric, and Ocean Sciences			○	○	○
Mathematical Sciences			○	○	○
Computer Sciences			○	○	○
Agricultural Sciences			○	○	○
Biological Sciences not in Medical Schools			○	○	○
Biological Sciences in Medical Schools			○	○	○
Medical Sciences not in Medical Schools			○	○	○
Medical Sciences in Medical Schools			○	○	○
Psychology			○	○	○
Social Sciences			○	○	○
Other Sciences, not elsewhere classified Please List:			○	○	○
Total (all S&E Fields)					

1b. How much of the total research space for all S&E fields (Total under Research NASF in the table above) is leased? *If you do not know the exact amount, please provide your best estimate.*

_____ NASF of leased research space

1c. What is the amount of NASF used for instruction in all non-S&E fields [for example, law, business administration/ management (except economics), humanities, history, the arts or education (except educational psychology)]. *If you do not know the exact amount, please provide your best estimate.*

Instructional NASF for all non-S&E fields ☐

+ Instructional NASF for all S&E fields ☐
(Instructional NASF total from Item 1a)

= Grand Total Instructional NASF ☐

Instructions for Completing Item 2

- To answer Item 2 you need the following definition:

  research program commitments: Refers to all research activities of an organization that are budgeted, approved, and funded.

  Research program commitments *include:*
  - current faculty and staff or those to whom offers have been made
  - grants awarded, whether or not research has actually begun
  - programs that have been approved

  Research program commitments do *not* include:
  - potential staff without offers
  - grants applied for but not awarded
  - programs designed but not yet approved

- You may also want to look at the definitions of research space provided in the instructions for Item 1.

Item 2: Adequacy of Research Space

2a. Please indicate whether the amount of research space available to each of the S&E fields listed below is adequate, inadequate, or not applicable, using these definitions:

Adequate	sufficient amount of space to support all the needs of your current S&E research program commitments in the field
Inadequate	insufficient space to support the needs of your current S&E research program commitments in the field, or non-existent but needed
Not applicable	no space reported

Past participants: If there has been no change since your 1999 survey, check this box ☐ and complete your submission.

2b. If the amount of space is inadequate, then list in the same table below the amount of additional space needed.

S&E Field	**Item 2a**			**Item 2b**
	Adequacy of S&E research space *For each field, choose the one best response.*			**If the amount of space is inadequate:** *Enter additional space needed.*
	Adequate	**Inadequate**	**Not Applicable**	**Additional NASF Needed**
Engineering	○	○	○	
Physical Sciences	○	○	○	
Earth, Atmospheric, and Ocean Sciences	○	○	○	
Mathematical Sciences	○	○	○	
Computer Sciences	○	○	○	
Agricultural Sciences	○	○	○	
Biological Sciences not in Medical Schools	○	○	○	
Biological Sciences in Medical Schools	○	○	○	
Medical Sciences not in Medical Schools	○	○	○	
Medical Sciences in Medical Schools	○	○	○	
Psychology	○	○	○	
Social Sciences	○	○	○	
Other Sciences, not elsewhere classified Please List:	○	○	○	

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

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
ENGINEERING **Aeronautical & Astronautical**	14.02 Aerospace, Aeronautical, and Astronautical Engineering (also aerodynamics, space technology)
Bioengineering/ Biomedical Engineering	14.05 Bioengineering and Biomedical Engineering
Chemical	03.0509 Wood Science (also petroleum refining process) 14.07 Chemical Engineering 14.32 Polymer/Plastics Engineering 14.25 Petroleum Engineering
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)
Electrical	14.09 Computer Engineering (also power engineering) 14.10 Electrical, Electronics, and Communications Engineering
Mechanical	14.11 Engineering Mechanics 14.19 Mechanical Engineering
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
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
PHYSICAL SCIENCES **Astronomy**	40.02 Astronomy (also Gamma-ray, neutrino, optical and radio, X-ray) 40.03 Astrophysics
Chemistry	40.05 Chemistry (also analytical, inorganic, organic, organo-metallic, pharmaceutical, physical, polymer sciences (except biochemistry))
Physics	40.08 Physics (also acoustics, atomic/molecular, chemical, condensed matter, elementary particles, nuclear structure, optics, plasma, theoretical/mathematical)
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)
EARTH, ATMOSPHERIC, & OCEAN SCIENCES **Atmospheric**	40.04 Atmospheric Sciences and Meteorology (also aeronomy, extraterrestrial atmospheres, solar, weather modification)
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)
Oceanography	26.0607 Marine/Aquatic Biology 40.0702 Oceanography (also biological, chemical, geological, physical)
Other	(used for multidisciplinary projects within Earth, Atmospheric, and Ocean Sciences)
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.)
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)
AGRICULTURAL SCIENCES	01.03 Agricultural Production 01.0303 Aquaculture 01.07 International Agriculture 02.01 Agricultural Sciences 02.04 Plant Sciences 02.05 Soil Science 03 Renewable Natural Resources 04.06 Landscape Architecture (also agricultural chemistry, agronomy, animal science, conservation, fish and wildlife, forestry, horticulture)
BIOLOGICAL SCIENCES	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)
MEDICAL SCIENCES	26.0608 Neurosciences 26.0611 Radiation Biology/Radiobiol. 30.11 Gerontology 51.02 Communication Disorders Sciences and Services 51.04 Dentistry 51.07 Health and Medical Administrative Services 51.10 Health and Medical Laboratory Technologies 51.1201 Medicine, General 51.1399 Med. Basic Sciences, Other 51.16 Nursing Technologies 51.1610 Nursing Psychiatry/ Mental Health 51.17 Optometry 51.19 Osteopathic Medicine 51.20 Pharmacy 51.21 Podiatry 51.22 Public Health 51.2306 Occupational Therapy 51.2308 Physical Therapy 51.2399 Rehab./Therapeutic Services 51.24 Veterinary Medicine 51.99 Health Professions and Related Services, Other 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)
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)
SOCIAL SCIENCES **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)
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)
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)
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)
OTHER SCIENCES, n.e.c.	(used when the multidisciplinary and interdisciplinary aspects make the classification under one primary field impossible)

This questionnaire has been printed on recycled paper.

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