

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](mailto: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](mailto: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](mailto: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 study 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](mailto:msanders@qrc.com).
- For technical problems please contact technical support at (301) 657-3070, or [facilities@qrc.com](mailto: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 on pages 7–8.
  - 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.**

**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			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical Sciences			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Earth, Atmosphere, and Ocean Sciences			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematical Sciences			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer Sciences			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural Sciences			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biological Sciences Other than Medical School			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biological Sciences in Medical School			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical Sciences Other than Medical School			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical Sciences in Medical School			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Psychology			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Sciences			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other S&E Fields, not elsewhere classified Please list:			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Total</b>					

**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			If the amount of space is inadequate:
	<i>For each field, choose the one best response.</i>			<i>Enter additional space needed.</i>
	Adequate	Inadequate	Not Applicable	Additional NASF Needed
Engineering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Physical Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Earth, Atmosphere, and Ocean Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Mathematical Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Computer Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Agricultural Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Biological Sciences Other than Medical School	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Biological Sciences in Medical School	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Medical Sciences Other than Medical School	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Medical Sciences in Medical School	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Psychology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Social Sciences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other Sciences, not Elsewhere Classified Please List:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

**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.

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

Questionnaire Field	NCES Classification and Additional Illustrative Disciplines (cont.)			
<b>COMPUTER SCIENCES</b>	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)			
<b>AGRICULTURAL SCIENCES</b>	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)			
<b>BIOLOGICAL SCIENCES</b>	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 26.0706 Physiology, Human and 26.0799 Zoology, Other Animal 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)			
<b>MEDICAL SCIENCES</b>	26.0608 Neurosciences 26.0611 Radiation Biology/Radiobiol. 30.11 Gerontology 51.02 Communication Disorders 51.04 Dentistry 51.07 Health and Medical Sciences and Services Administrative Services 51.10 Health and Medical Laboratory 51.1201 Medicine, General 51.1399 Med. Basic Sciences, Other Technologies 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)			
<b>PSYCHOLOGY</b>	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)			
<b>SOCIAL SCIENCES</b> <b>Economics</b>	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)			
<b>Political Science</b>	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)			
<b>Sociology</b>	45.02 Anthropology (Social and 45.05 Demography and 45.11 Sociology Cultural only) Population Studies (also comparative and historical, complex organizations, cultural and social structure, group interactions, social problems and welfare theory)			
<b>Other</b>	04.03 City/Urban, Community, and 05 Area and Ethnic Studies 16.0102 Linguistics Regional Planning 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)			
<b>OTHER SCIENCES, n.e.c.</b>	(used when the multidisciplinary and interdisciplinary aspects make the classification under one primary field impossible)			



This questionnaire has been printed on recycled paper.