National Science Foundation

FY 2021 Survey of Science and Engineering Research Facilities

Your participation in this survey is voluntary. However, your institution's response is important. The information from this survey on individual institutions can be used by your institution and other institutions for decision- and policy-making. The data also describe science and engineering research facilities at the national, regional, and state levels.

Responding to this survey typically requires 19 hours depending on how data are maintained at your institution. If you wish to comment on the burden of completing this survey, contact Suzanne H. Plimpton, Reports Clearance Officer, NSF, via e-mail at splimpto@nsf.gov or call 1-703-292-7556. Or, you may write to the Office of Management and Budget, Paperwork Reduction Project (OMB Number 3145-0101), Washington, DC 20503.

Expiration date: 8/31/2022

If you have a question, please contact Kumar DeSilva via e-mail at facilitiessurvey@westat.com or call 1-888-811-1838. The survey director at the National Science Foundation's National Center for Science and Engineering Statistics is Mr. Michael Gibbons.

Please complete and send this survey to NSF on the web (according to the instructions on page 1) or return it by mail to:

ATTN: NSF Facilities Survey
Westat
1600 Research Boulevard
Rockville, MD 20850

Thank you for your participation.

General information

This questionnaire is available electronically. Go to www.facilitiessurvey.org to access the survey. You will need to enter your institution's ID and password.

Please report information for the **institution** named on the web survey questionnaire.

If you do not have exact figures for any part of this questionnaire, please provide estimates.

Confidentiality

Information provided on research animal space (Questions 1 row i, 3, and 10F) and on the condition of S&E space (Question 7) will not be publicly available for individual institutions. In accordance with the National Science Foundation Act of 1950, as amended, and other applicable federal laws, your responses will not be disclosed in identifiable form to anyone other than agency employees or authorized persons. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

Changes from previous survey cycle

Fields of science and engineering (S&E): Changes have been made to the lists of disciplines included in the fields of S&E in order to better coordinate field totals in national academic surveys. For a description of the updated fields of S&E, see Question 2 on pages 5–8 (for broad disciplines) or the S&E Field List tab on the web survey (for detailed disciplines). For your convenience, the fields of S&E that changed names and the disciplines that were moved from one broad S&E field to another are listed below:

- The S&E field name of **Agricultural sciences** has been changed to **Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields.**
- The disciplines of "Veterinary biomedical and clinical sciences" and "Veterinary medicine" have been moved from **Health sciences** to **Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields.**
- The discipline of "Agricultural economics" has been moved from **Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields** to **Social sciences.**
- The discipline of "Nutrition sciences" has been moved from multidisciplinary studies to **Biological and biomedical sciences**.
- The discipline of "Foods, nutrition and wellness studies" has been moved from non-S&E to **Biological and biomedical sciences.**
- The discipline of "Natural resources economics" has been moved from **Natural resources and conservation** to **Social sciences**.

Please apply these new designations to your FY 2021 Facilities Survey data where applicable.

Definition of science and engineering (S&E) research and research space

Please use these definitions when answering all questions in this survey.

Research is all research and experimental development (R&D) activities of your institution that are separately accounted for. These R&D activities comprise creative and systematic work undertaken in order to increase the stock of knowledge—including knowledge of humankind, culture and society—and to devise new applications of available knowledge. This research can be funded by your own institution, the federal government, a state government, foundations, corporations, or other sources.

Research space is the net assignable square feet of space in buildings within which research activities take place. Research facilities are located within buildings. A **building** is a roofed structure for permanent or temporary shelter of persons, animals, plants, materials, or equipment. Structures should be included if they are (1) attached to a foundation, (2) roofed, (3) serviced by a utility, exclusive of lighting, and (4) a source of significant maintenance and repair activities.

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

Science and engineering (S&E) includes the following fields: agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields; biological and biomedical sciences; computer and information sciences; engineering; geosciences, atmospheric sciences, and ocean sciences; health sciences; mathematics and statistics; natural resources and conservation; physical sciences; psychology; social sciences; and other science and engineering fields. See Question 2 on pages 5–8 for a list of the major disciplines included in each of these fields.

Definition of science and engineering (S&E) research and research space (continued)

Research space includes:

- controlled-environment space, such as clean, cold, or white rooms
- technical and laboratory support space, such as equipment areas, preparation areas, darkrooms, carpentry and machine shops, storage areas, etc.
- laboratories, including computer labs, behavior observation rooms, etc.
- core laboratories that serve other laboratories
- laboratories and associated support areas used for research animals, including procedure rooms, bench space, animal production colonies, holding rooms, germ-free rooms, surgical facilities, recovery rooms, etc.
- housing facilities for research animals and associated maintenance areas, including cage rooms, stalls, wards, isolation rooms, exercise rooms, feed storage rooms, cage-washing rooms, holding and storage areas, etc.
- space for clinical trial research
- offices, to the extent that they are used for research activities, including administrative activities for a specific research project
- space with fixed (built-in) equipment such as fume hoods
- space with nonfixed equipment costing $1 million or more each, such as MRIs
- space that is leased by your institution

Research space does not include:

- space for the fields of law, business administration/management, humanities, history, the arts, or education
- libraries, unless they are dedicated to a specific research project
- animal field buildings sheltering animals that do not directly support research or that are not subject to government regulations concerning humane care and use of laboratory animals
- Federally Funded Research and Development Centers (FFRDCs)
- in-kind space used by your faculty, staff, or other persons but administered by other organizations, such as research facilities at non-university hospitals or Veterans Administration hospitals
- space administered by your institution but leased to another organization
- outdoor areas such as fish ponds or planting fields

Question 1: Types of science and engineering (S&E) research space

1. Please indicate whether or not your institution had each type of S&E research space listed below at the end of your FY 2021. See pages 2–3 for the definition of research space and fields of S&E.

Types of S&E research space	Did your institution have this type of S&E research space at end of FY 2021? (Mark one "X" for each row.) Yes	No	Uncertain
a. Laboratories, wet or dry, including computer laboratories, behavior observation laboratories, etc.	☐	☐	☐
b. Laboratory support space, including autoclave rooms, darkrooms, equipment areas, storage areas for research equipment and supplies, etc.	☐	☐	☐
c. Instructional laboratories that are ***also*** used for research	☐	☐	☐
d. Core laboratories that serve other laboratories	☐	☐	☐
e. Leased space that is used for research	☐	☐	☐
f. Offices, to the extent they are used for research	☐	☐	☐
g. Space used for research containing nonfixed equipment costing $1 million or more each, such as MRIs	☐	☐	☐
h. Research space in a medical school that awards the M.D. or D.O. degree	☐	☐	☐
i. Research animal space Reminder: Please see page 1 for confidentiality of this item. Laboratories and associated support areas used for research animals that are subject to local, state, and federal government policies and regulations concerning humane care and use of animals. Examples include procedure rooms, holding rooms, recovery rooms, animal production colonies, and storage areas. Space for housing research animals and associated maintenance areas that are subject to local, state, and federal government policies and regulations concerning humane care and use of animals. Examples include animal quarters, cage-washing rooms, feed storage areas, isolation rooms, and exercise rooms.	☐	☐	☐
j. Research space that is used for clinical trials	☐	☐	☐

Question 2: Amount of research space

2. At the end of your FY 2021, how much net assignable square feet was used for research (based on the definition of research space on pages 2–3) for each of the fields of science and engineering (S&E) below? Please include any research animal space in the relevant fields of S&E. You may provide estimates if you do not have exact figures.

   Research space is equivalent to functional category 2 (Research) for facilities inventory systems based on the U.S. Department of Education Facilities Inventory and Classification Manual (FICM classification), the Western Interstate Commission for Higher Education (WICHE classification), and the National Association of College and University Business Officers (NACUBO classification).

   Research animal space includes all departmental and central facilities, such as laboratories, housing, and associated support areas, that are subject to local, state, and federal government policies and regulations concerning humane care and use of laboratory animals.

   If research space was shared among fields or used for other purposes in addition to research, report the portion of space used for research for each field below. For example, if two fields shared the space equally, report half of the space in one field and half in the other. Or, if an area was used for research one-fourth of the time and for other purposes the rest of the time, report one-fourth of the space as research space.

Field of S&E *(Broad-level disciplines for each field of S&E are listed below. Click on the S&E Field List tab on the web survey to see more detailed examples.)* *(Include research animal space.)*		**Net assignable square feet of research space at end of FY 2021**
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields		
Agricultural and domestic animal services Agricultural and food products processing Agricultural business and management Agricultural mechanization Agricultural production operations Agriculture, veterinary preparatory programs Animal sciences Applied horticulture and horticultural business services Food science and technology	International agriculture Plant pathology and phytopathology, agricultural Plant sciences Soil sciences Veterinary biomedical and clinical sciences Veterinary medicine Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields, other	_____ NASF ☐ Check this box if no research space in this field at the end of FY 2021
b. Biological and biomedical sciences		
Anatomical sciences Animal biology Biochemistry Bioinformatics Biomathematics Biophysics Biotechnology Botany Cell biology Cellular biology Computational biology Ecology Epidemiology Evolution Foods, nutrition, and wellness studies Genetics Immunology	Microbiological sciences Molecular biology Molecular medicine Neurobiology Neurosciences Nutrition sciences Pathology Pharmacology Physiology Plant biology Plant pathology and phytopathology, biological sciences Population biology Systematics Toxicology Zoology Biological and biomedical sciences, other	_____ NASF ☐ Check this box if no research space in this field at the end of FY 2021

Field of S&E *(Broad-level disciplines for each field of S&E are listed below. Click on the S&E Field List tab on the web survey to see more detailed examples.)*
(Include research animal space.)

Net assignable square feet of research space at end of FY 2021

c. Computer and information sciences

Computer and information technology administration and management
Computer science
Computer software and media applications
Computer systems analysis
Computer systems networking and telecommunications
Data processing
Information science, studies
Computer and information sciences, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

d. Engineering

Aeronautical engineering
Aerospace engineering
Agricultural engineering
Astronautical engineering
Automation engineering
Bioengineering
Biomedical engineering
Chemical engineering
Civil engineering
Communications engineering
Computer engineering
Electrical engineering
Electronic engineering
Energy systems engineering
Engineering chemistry
Engineering design
Engineering mechanics
Engineering physics
Engineering science
Environmental engineering
Environmental health engineering
Forest engineering
Industrial engineering
Manufacturing engineering
Marine engineering
Materials engineering
Mechanical engineering
Mechatronics
Medical engineering
Metallurgical engineering
Nanotechnology
Naval architecture
Nuclear engineering
Ocean engineering
Operations research
Paper science
Petroleum engineering
Robotics
Space engineering
Engineering, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

e. Geosciences, atmospheric sciences, and ocean sciences

Atmospheric sciences
Biological oceanography
Earth sciences
Geological sciences
Marine sciences
Meteorology
Ocean sciences
Oceanography, chemical and physical
Physical geography
Geosciences, atmospheric sciences, and ocean sciences, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

Field of S&E *(Broad-level disciplines for each field of S&E are listed below. Click on the S&E Field List tab on the web survey to see more detailed examples.)*
(Include research animal space.)

Net assignable square feet of research space at end of FY 2021

f. Health sciences

Advanced, graduate dentistry and oral sciences
Allied health and medical assisting services
Allied health diagnostic, intervention, and treatment
Alternative and complementary medicine and medical systems
Bioethics, medical ethics
Clinical laboratory science/research
Clinical medicine research
Clinical nursing
Communication disorders sciences and services
Dentistry
Dietetics and clinical nutrition services
Gerontology, health sciences
Health and medical administrative services
Health, medical preparatory programs
Kinesiology and exercise science
Medical clinical sciences
Medical illustration
Medical informatics
Medical laboratory science/research
Medicine
Mental and social health services
Nursing administration
Nursing research
Optometry
Oral sciences
Osteopathic medicine
Osteopathy
Pharmaceutical administration
Pharmaceutical sciences
Pharmacy
Podiatric medicine
Podiatry
Practical nursing
Public health
Radiological science
Registered nursing
Rehabilitation and therapeutic professions
Vocational nursing
Health sciences, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

g. Mathematics and statistics

Applied mathematics
Applied statistics
Mathematics
Statistics
Mathematics and statistics, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

h. Natural resources and conservation

Environmental, natural resources management and policy
Environmental science or studies
Fishing and fisheries sciences and management
Forestry
Natural resources conservation and research
Wildlife and wildlands science and management
Natural resources and conservation, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

i. Physical sciences

Astronomy
Astrophysics
Chemical biology
Chemistry
Materials science
Physics
Physical sciences, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

Field of S&E *(Broad-level disciplines for each field of S&E are listed below. Click on the S&E Field List tab on the web survey to see more detailed examples.)*
(Include research animal space.)

Net assignable square feet of research space at end of FY 2021

j. Psychology

Applied psychology
Clinical psychology
Counseling psychology
Research and experimental psychology
Psychology, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

k. Social sciences

Anthropology
Agricultural economics
Archeology
Area, ethnic, cultural, gender, and group studies
Corrections
Criminal justice
Criminology
Demography
Economics
Geography and cartography
Gerontology, social sciences
International relations
Linguistics
National security studies
Natural resource economics
Political science and government
Population studies
Public policy
Rural sociology
Sociology
Urban studies, affairs
Social sciences, other

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

l. Other field of S&E

Use this category when multidisciplinary, interdisciplinary, or other aspects make classification under one primary S&E field impossible. If you are unsure where to report a discipline, click on the S&E Field List tab in the web survey to see more detailed examples for each discipline. Please see pages 2–3 for the definition of S&E research and research space.

(Please describe.) _____

_____ NASF

☐ Check this box if no research space in this field at the end of FY 2021

Question 3: Research animal space

Reminder: Please see page 1 for confidentiality of this item.

3. At the end of your FY 2021, how much of the research NASF reported in Question 2 was used for research animals?

Research animal space includes all departmental and central facilities, such as laboratories, housing, and associated support areas, that are subject to local, state, and federal government policies and regulations concerning humane care and use of laboratory animals.

Research animal portion of the space
included in Question 2 *(If none, enter "0.")*..... _____ NASF

Question 4: Clinical trial research space

4. At the end of your FY 2021, how much of the research NASF reported in Question 2 was used for clinical trials?

Clinical trial portion of the space
included in Question 2 *(If none, enter "0.")*..... _____ NASF

Question 5: Research space in medical school

5. ***If your institution had a medical school,*** how much of the research NASF reported in Question 2 was located in the medical school at the end of your FY 2021?

Medical school is a school that awards the M.D. or D.O. degree.

If your institution did ***not*** have a medical school,
check this box and go to Question 6..... ☐

Medical school portion of the space
included in Question 2 *(If none, enter "0.")*..... _____ NASF

Question 6: Shared research space

6. For each field of S&E below, please indicate whether any of the space in Question 2 was (1) shared with any other field(s); and (2) used for purposes other than research (e.g., instruction) at the end of your FY 2021.

In Question 2, the instructions indicate, "If research space was shared among fields or used for other purposes in addition to research, report the portion of space used for research for each field." If you prorated the NASF in Question 2 according to these instructions, you should answer "yes" in column 1 and/or column 2 in the field(s) below that were prorated due to shared space.

For Field of S&E definitions, see Question 2 on pages 5–8.

Field of S&E *(Include research animal space.)*	***Mark "X" if no research space in this field***	***(1) Was the space in Question 2 shared with any other field(s)?***		***(2) Was the space in Question 2 used for purposes other than research?***	
		Yes	**No**	**Yes**	**No**
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields	☐	☐	☐	☐	☐
b. Biological and biomedical sciences	☐	☐	☐	☐	☐
c. Computer and information sciences	☐	☐	☐	☐	☐
d. Engineering	☐	☐	☐	☐	☐
e. Geosciences, atmospheric sciences, and ocean sciences	☐	☐	☐	☐	☐
f. Health sciences	☐	☐	☐	☐	☐
g. Mathematics and statistics	☐	☐	☐	☐	☐
h. Natural resources and conservation	☐	☐	☐	☐	☐
i. Physical sciences	☐	☐	☐	☐	☐
j. Psychology	☐	☐	☐	☐	☐
k. Social sciences	☐	☐	☐	☐	☐
l. Other field of S&E	☐	☐	☐	☐	☐

Question 7: Condition of research space

Reminder: Please see page 1 for confidentiality of this item.

7. At the end of your FY 2021, what percentage of the research NASF reported in Question 2 fell into each of the four condition categories below? Include research animal space.

Superior condition	Suitable for the most scientifically competitive research in this field over the next 2 years (your FY 2022 and FY 2023)
Satisfactory condition	Suitable for continued use over the next 2 years (your FY 2022 and FY 2023) for most levels of research in this field, but may require minor repairs or renovation
Requires renovation	Will no longer be suitable for current research without undergoing major renovation within the next 2 years (your FY 2022 and FY 2023)
Requires replacement	Should stop using space for current research within the next 2 years (your FY 2022 and FY 2023)

For Field of S&E definitions, see Question 2 on pages 5–8.

Field of S&E *(Include research animal space.)*	***Mark "X" if no research space in this field***	**Percent of net assignable square feet** *(The percentages should sum to 100 within each row.)* Superior condition	Satisfactory condition	Requires renovation	Requires replacement	Total
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields	☐	_____ %	_____ %	_____ %	_____ %	100%
b. Biological and biomedical sciences	☐	_____ %	_____ %	_____ %	_____ %	100%
c. Computer and information sciences	☐	_____ %	_____ %	_____ %	_____ %	100%
d. Engineering	☐	_____ %	_____ %	_____ %	_____ %	100%
e. Geosciences, atmospheric sciences, and ocean sciences	☐	_____ %	_____ %	_____ %	_____ %	100%
f. Health sciences	☐	_____ %	_____ %	_____ %	_____ %	100%
g. Mathematics and statistics	☐	_____ %	_____ %	_____ %	_____ %	100%
h. Natural resources and conservation	☐	_____ %	_____ %	_____ %	_____ %	100%
i. Physical sciences	☐	_____ %	_____ %	_____ %	_____ %	100%
j. Psychology	☐	_____ %	_____ %	_____ %	_____ %	100%
k. Social sciences	☐	_____ %	_____ %	_____ %	_____ %	100%
l. Other field of S&E	☐	_____ %	_____ %	_____ %	_____ %	100%

Question 8: Repairs and renovations started in FY 2020 and FY 2021

8. Please provide the completion costs for repair and renovation of S&E research facilities that started during your FY 2020 or FY 2021. Include research animal space in the relevant fields of S&E. Include only projects whose prorated cost was estimated to be $250,000 or more for at least one field of S&E listed below. For **multi-year projects**, report the entire completion cost even if some work will occur in future years.

Start date is the date on which the physical work of the repairs or renovations actually began.

Repairs and renovations are activities such as fixing up facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, and the building out of shell space. Include any repairs or renovations to existing space that are performed in combination with new construction projects. ***Do not*** report building additions since they are reported in this survey under new construction.

Completion costs include planning, site preparation, construction, fixed equipment, nonfixed equipment that costs $1 million or more, and building infrastructure such as plumbing, lighting, air exchange, and safety systems either in the building or within 5 feet of the building foundation.

If research facilities are shared by two or more fields, allocate the appropriate share of the costs to each field in order to determine which fields to report. For example, if a field will have one-fourth of the costs for a $300,000 project, do **not** report that field's share, which is $75,000. If a $400,000 project will have two fields with the same costs, do **not** report either field's portion, which is $200,000 each.

If research facilities are also used for nonresearch activities, report the S&E research portion of the costs for the fields listed below if the research portion is $250,000 or more. For example, if a facility is used for S&E research one-fourth of the time and for instruction the rest of the time, report one-fourth of the completion costs for S&E research facilities.

If your institution had no repair or renovation projects, check this box and go to Question 10 ☐

For Field of S&E definitions, see Question 2 on pages 5–8.

Field of S&E *(Include costs for research animal space.)*	**Completion costs for projects started in FY 2020 or FY 2021**
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields	$
b. Biological and biomedical sciences	$
c. Computer and information sciences	$
d. Engineering	$
e. Geosciences, atmospheric sciences, and ocean sciences	$
f. Health sciences	$
g. Mathematics and statistics	$
h. Natural resources and conservation	$
i. Physical sciences	$
j. Psychology	$
k. Social sciences	$
l. Other field of S&E *(Please describe.)* _____	$

Question 9: For medical schools only: repairs and renovations in FY 2020 and FY 2021

9. ***If your institution had a medical school,*** how much of the completion costs for repair and renovation of research facilities as reported in Question 8 was located in the medical school?

Medical school is a school that awards the M.D. or D.O. degree.

If your institution did ***not*** have a medical school, check this box and go to Question 10..... ☐

Medical school portion of the costs included in Question 8 *(If none, enter "0.")*.....$ _____

Question 10: New construction started in FY 2020 and FY 2021

10. Please provide the total number of new construction projects that included S&E research facilities that started during your FY 2020 or FY 2021. Include only projects whose prorated cost was estimated to be $250,000 or more for at least one field of S&E. Include research animal space in the relevant fields of S&E.

New construction is the construction of a new building or additions to an existing building.

Research facilities are defined on pages 2–3 of the survey questionnaire.

Project start date is defined as the first placement of permanent construction of a building or addition on site, such as the pouring of a slab or footing, the installation of piles, the construction of columns, or any work beyond the stage of excavation. When determining project start date, please exclude planning, demolition, or other site preparation work.

Completion costs include planning, site preparation, construction, fixed equipment, nonfixed equipment that costs $1 million or more, and building infrastructure such as plumbing, lighting, air exchange, and safety systems either in the building or within 5 feet of the building foundation. Include such costs whether they occur before or after the project start date.

If facilities are shared for research and nonresearch activities, report only projects with completion costs of $250,000 or more for at least one field of S&E research. For example, if a $300,000 project involves space used for research only one-fourth of the time, this project of $75,000 for the research facilities should not be reported.

If facilities are shared by two or more fields of S&E, report the new construction project only if at least one field of S&E research has completion costs of $250,000 or more. For example, if two fields share the costs equally for a research project costing $400,000, neither field's share of $200,000 meets the cost minimum.

If your institution had no new construction projects, check this box and go to Question 11 ..... ☐

If your institution had one or more new construction projects, enter the number of projects here and fill out a separate Individual Project Form for each one..... _____ projects

Please make additional copies of this form as needed.

Individual Project Form for Question 10

Page 1 of 4

Please complete this form for ***each*** new construction project that started during your FY 2020 or FY 2021. Include only projects that will cost $250,000 or more for at least one of the S&E fields.

10A. What is the name of this project? _____

10B. During which of your fiscal years did the physical work of new construction begin for this project?

Project start date is defined as the first placement of permanent construction of a building or addition on site, such as the pouring of a slab or footing, the installation of piles, the construction of columns, or any work beyond the stage of excavation. When determining project start date, please exclude planning, demolition, or other site preparation work.

FY 2020 ..... ☐

FY 2021 ..... ☐

10C. When this project is completed, what are (a) the entire project's (research and nonresearch) gross square feet; (b) the entire project's net assignable square feet; and (c) the S&E research facilities portion in net assignable square feet?

For multi-year projects, report the space expected when the project is completed.

a. Gross square feet (GSF) for entire project (research and nonresearch)..... _____ GSF

Gross square feet (GSF) is the floor area of a structure within the outside faces of the exterior walls.

b. Net assignable square feet (NASF) for entire project (research and nonresearch)..... _____ NASF

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

NOTE: If the entire project is S&E research, the answers for row b and row c will be the same.

c. Net assignable square feet for ***S&E research facilities*** portion (defined on pages 2–3 of the survey questionnaire) ..... _____ NASF

Research facilities are defined on pages 2–3 of the survey questionnaire, including examples of what areas to include and exclude.

If the research facilities are also used for nonresearch activities, adjust the amount of space based on the amount of time the area is used for S&E research. For example, if an area is used for S&E research one-fourth of the time and for instruction the rest of the time, report one-fourth of the space as S&E research facilities.

If you have any questions about which projects to report or how to fill out the Individual Project Form, please contact the Facilities Survey Help Desk.

Please make additional copies of this form as needed.

Individual Project Form for Question 10

10D. When this project is completed, what are the completion costs for (a) the entire project (research and nonresearch), and (b) the S&E research facilities portion of the project? ***For multi-year projects,*** report the costs expected when the project is completed.

Completion costs include planning, site preparation, construction, fixed equipment, nonfixed equipment that costs $1 million or more, and building infrastructure such as plumbing, lighting, air exchange, and safety systems either in the building or within 5 feet of the building foundation. Include such costs whether they occur before or after the project start date in Question 10B.

a. Completion costs for the GSF of the entire project (research and nonresearch) ..... $ _____

b. Completion costs for the ***S&E research facilities*** portion (defined on pages 2–3 of the survey questionnaire)..... $ _____

If the research facilities are also used for nonresearch activities, adjust the completion costs based on the amount of time the facilities are used for S&E research. For example, if a facility is used for S&E research one-fourth of the time and for instruction the rest of the time, report one-fourth of the completion costs for S&E research facilities.

If you have any questions about which projects to report or how to fill out the Individual Project Form, please contact the Facilities Survey Help Desk.

Please make additional copies of this form as needed.

Individual Project Form for Question 10

10E. For the portion of this project used for ***S&E research facilities,*** what are (1) the completion costs, and (2) the net assignable square feet, for each field listed below? ***For multi-year projects,*** report costs and NASF expected when the project is completed.

Report only fields with costs of $250,000 or more for research facilities.

If research facilities are shared by two or more fields, allocate the appropriate share of the costs to each field in order to determine which fields to report. For example, if a field will have one-fourth of the costs for a $300,000 project, do not report that field's share, which is $75,000. If a $400,000 project will have two fields with the same costs, do not report either field's portion, which is $200,000 each.

If research facilities are also used for nonresearch activities, report the S&E research portion of the cost and net assignable square feet for the fields listed below if the research portion is $250,000 or more. For example, if a facility will be used for S&E research one-fourth of the time and for instruction the rest of the time, report one-fourth of the completion costs for S&E research facilities.

For Field of S&E definitions, see Question 2 on pages 5–8.

Field of S&E *(Include research animal space.)*	Research facilities (1) Completion costs	Research facilities (2) Net assignable square feet
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields	$ _____	_____ NASF
b. Biological and biomedical sciences	$ _____	_____ NASF
c. Computer and information sciences	$ _____	_____ NASF
d. Engineering	$ _____	_____ NASF
e. Geosciences, atmospheric sciences, and ocean sciences	$ _____	_____ NASF
f. Health sciences	$ _____	_____ NASF
g. Mathematics and statistics	$ _____	_____ NASF
h. Natural resources and conservation	$ _____	_____ NASF
i. Physical sciences	$ _____	_____ NASF
j. Psychology	$ _____	_____ NASF
k. Social sciences	$ _____	_____ NASF
l. Other field of S&E *(Please describe.)* _____	$ _____	_____ NASF

If you have any questions about which projects to report or how to fill out the Individual Project Form, please contact the Facilities Survey Help Desk.

Please make additional copies of this form as needed.

Individual Project Form for Question 10

Reminder: Please see page 1 for confidentiality of this item.

10F. How much of the completion costs and NASF reported in Question 10E are for ***research animal space***?

Research animal space includes all departmental and central facilities, such as laboratories, housing, and associated support areas, that are subject to local, state, and federal government policies and regulations concerning humane care and use of laboratory animals.

	Completion costs	Net assignable square feet
Research animal portion included in Question 10E *(If none, enter "0.")*	$ _____	_____ NASF

10G. ***If your institution has a medical school,*** how much of the completion costs and NASF reported in Question 10E are for research facilities located in the medical school?

Medical school is a school that awards the M.D. or D.O. degree.

If your institution does ***not*** have a medical school, check this box and go to Question 11 ..... ☐

	Completion costs	Net assignable square feet
Medical school portion included in Question 10E *(If none, enter "0.")*	$ _____	_____ NASF

If you have any questions about which projects to report or how to fill out the Individual Project Form, please contact the Facilities Survey Help Desk.

Question 11: Sources of project funding

11. Please provide the completion costs by source of funding for repair and renovation and new construction of S&E research facilities that started during your FY 2020 or FY 2021 as reported in Question 8 and Question 10E.

Total costs reported in column 1 should match the sum of the costs for repair and renovation of research facilities reported in Question 8 on page 12.

Total costs reported in column 2 should match the sum of the costs for new construction as reported in Question 10E on all Individual Project Form(s).

Source of funding	Completion costs (1) For repairs and renovations reported in Question 8	Completion costs (2) For new construction reported in Question 10E (all project forms)
a. Federal government	$ _____	$ _____
b. State or local government	$ _____	$ _____
c. Institutional funds and other sources Examples: operating funds, endowments, tax-exempt bonds and other debt financing, indirect costs recovered from federal grants/contracts, private donations, other sources	$ _____	$ _____
Total	$ _____	$ _____

Question 12: Planned repairs and renovations to start in FY 2022 and FY 2023

12. Please provide the estimated completion costs planned for repair and renovation of S&E research facilities that are funded **and** scheduled to start in your FY 2022 or FY 2023. Include research animal space in the relevant fields of S&E. Include only projects whose prorated cost was estimated to be $250,000 or more for at least one field of S&E listed below. For **multi-year projects**, report the entire completion cost even if some work will occur in future years.

Start date is the date on which the physical work of the repairs or renovations is scheduled to begin.

Repairs and renovations are activities such as fixing up facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, and the building out of shell space. Include any repairs or renovations to existing space that are performed in combination with new construction projects. ***Do not*** report building additions since they are reported in this survey under new construction.

Completion costs include planning, site preparation, construction, fixed equipment, nonfixed equipment that costs $1 million or more, and building infrastructure such as plumbing, lighting, air exchange, and safety systems either in the building or within 5 feet of the building foundation.

If research facilities are shared by two or more fields, allocate the appropriate share of the costs to each field in order to determine which fields to report. For example, if a field will have one-fourth of the costs for a $300,000 project, do **not** report that field's share, which is $75,000. If a $400,000 project will have two fields with the same costs, do **not** report either field's portion, which is $200,000 each.

If research facilities will also be used for nonresearch activities, report the S&E research portion of the costs for the fields listed below if the research portion is $250,000 or more. For example, if a facility will be used for S&E research one-fourth of the time and for instruction the rest of the time, report one-fourth of the completion costs for S&E research facilities.

If your institution does **not** have planned repair or renovation projects, check this box and go to Question 14..... ☐

For Field of S&E definitions, see Question 2 on pages 5–8.

Field of S&E *(Include costs for research animal space.)*	**Completion costs for planned repair/renovation projects to start in FY 2022 or FY 2023**
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields	$ _____
b. Biological and biomedical sciences	$ _____
c. Computer and information sciences	$ _____
d. Engineering	$ _____
e. Geosciences, atmospheric sciences, and ocean sciences	$ _____
f. Health sciences	$ _____
g. Mathematics and statistics	$ _____
h. Natural resources and conservation	$ _____
i. Physical sciences	$ _____
j. Psychology	$ _____
k. Social sciences	$ _____
l. Other field of S&E *(Please describe.)* _____	$ _____

Question 13: For medical schools only: planned repairs and renovations in FY2022 and FY2023

13. ***If your institution has a medical school***, how much of the completion costs for planned repair and renovation of research facilities as reported in Question 12 will be located in the medical school?

Medical school is a school that awards the M.D. or D.O. degree.

If your institution does ***not*** have a medical school, check this box and go to Question 14 ..... ☐

Medical school portion of the costs included in Question 12 *(If none, enter "0.")* ..... $ _____

Question 14: Planned new construction to start in FY 2022 and FY 2023

14. Please provide the estimated completion costs and NASF for planned new construction of S&E research facilities that are funded and scheduled to start in your FY 2022 or FY 2023. Include research animal space in the relevant fields of S&E. Include only projects whose prorated cost was estimated to be $250,000 or more for at least one field of S&E listed below. For **multi-year projects**, report the entire completion cost even if some work will occur in future years.

Project start date is defined as the first placement of permanent construction of a building or addition on site, such as the pouring of a slab or footing, the installation of piles, the construction of columns, or any work beyond the stage of excavation. When determining project start date, please exclude planning, demolition, or other site preparation work.

New construction is the construction of a new building or additions to an existing building.

Completion costs include planning, site preparation, construction, fixed equipment, nonfixed equipment that costs $1 million or more, and building infrastructure such as plumbing, lighting, air exchange, and safety systems either in the building or within 5 feet of the building foundation. Include such costs whether they occur before or after the project start date.

If research facilities are shared by two or more fields, allocate the appropriate share of the costs to each field in order to determine which fields to report. For example, if a field will have one-fourth of the costs for a $300,000 project, do **not** report that field's share, which is $75,000. If a $400,000 project will have two fields with the same costs, do **not** report either field's portion, which is $200,000 each.

If research facilities are also used for nonresearch activities, report the S&E research portion of the costs and net assignable square feet for the fields listed below if the research portion is $250,000 or more. For example, if a facility will be used for S&E research one-fourth of the time and for instruction the rest of the time, report one-fourth of the completion costs for S&E research facilities.

If your institution does ***not*** have any planned new construction projects, check this box and go to Question 16 ☐

For Field of S&E definitions, see Question 2 on pages 5–8.

Field of S&E *(Include costs for research animal space.)*	**Planned new construction scheduled to start in FY 2022 or FY 2023**	
	Completion costs	Net assignable square feet
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields	$ _____	_____ NASF
b. Biological and biomedical sciences	$ _____	_____ NASF
c. Computer and information sciences	$ _____	_____ NASF
d. Engineering	$ _____	_____ NASF
e. Geosciences, atmospheric sciences, and ocean sciences	$ _____	_____ NASF
f. Health sciences	$ _____	_____ NASF
g. Mathematics and statistics	$ _____	_____ NASF
h. Natural resources and conservation	$ _____	_____ NASF
i. Physical sciences	$ _____	_____ NASF
j. Psychology	$ _____	_____ NASF
k. Social sciences	$ _____	_____ NASF
l. Other field of S&E (Please describe.) _____	$ _____	_____ NASF

Question 15: For medical schools only: planned new construction in FY 2022 and FY 2023

15. ***If your institution has a medical school***, how much of the completion costs and NASF for the planned new construction of research facilities as reported in Question 14 will be located in the medical school?

Medical school is a school that awards the M.D. or D.O. degree.

If your institution does ***not*** have a medical school, check this box and go to Question 16..... ☐

	Completion costs	**Net assignable square feet**
Medical school portion included in Question 14 *(If none, enter "0.")*.....	$ _____	_____ NASF

Question 16: Deferred repairs and renovations

16. Please provide the estimated costs for any **deferred repair and renovation** projects of S&E research facilities that are needed for current research program commitments, but are not yet funded **and** not yet scheduled to start in your FY 2022 or FY 2023. Include research animal space in the relevant fields of S&E. Include only projects whose prorated cost was estimated to be $250,000 or more for at least one field of S&E listed below. Please estimate costs separately for projects included in your approved institutional plan and projects not included in this plan. Institutional plans usually will include goals, strategies, and budgets for fulfilling your institution's mission during a specific time period.

Deferred projects are those that: (1) are not funded, and (2) are not scheduled for FY 2022 or FY 2023. Do not include projects planned for developing new programs or expanding your current programs.

Repairs and renovations are activities such as fixing up facilities in deteriorated condition, capital improvements on facilities, conversion of facilities, and the building out of shell space. Include any repairs or renovations to existing space that are performed in combination with new construction projects. ***Do not*** report building additions since they are reported in this survey under new construction.

Current research program commitments include current faculty and staff or those to whom offers have been made or grants awarded (whether or not research has actually begun) and programs which have been approved.

If research facilities will be shared by two or more fields, allocate the appropriate share of the costs to each field in order to determine which fields to report. For example, if a field will have one-fourth of the costs for a $300,000 project, do **not** report that field's share, which is $75,000. If a $400,000 project will have two fields with the same costs, do **not** report either field's portion, which is $200,000 each.

If research facilities will also be used for nonresearch activities, report the S&E research portion of the costs for the fields listed below if the research portion is $250,000 or more. For example, if a facility will be used for S&E research one-fourth of the time and for instruction the rest of the time, report one-fourth of the completion costs for S&E research facilities.

If your institution does ***not*** have deferred projects for repair or renovation, check this box and go to Question 18 ..... ☐

For Field of S&E definitions, see Question 2 on pages 5–8.

Field of S&E *(Include costs for research animal space.)*	**Estimated costs of deferred repairs and renovations** For projects included in your institutional plan	For projects ***not*** included in your institutional plan
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields	$ _____	$ _____
b. Biological and biomedical sciences	$ _____	$ _____
c. Computer and information sciences	$ _____	$ _____
d. Engineering	$ _____	$ _____
e. Geosciences, atmospheric sciences, and ocean sciences	$ _____	$ _____
f. Health sciences	$ _____	$ _____
g. Mathematics and statistics	$ _____	$ _____
h. Natural resources and conservation	$ _____	$ _____
i. Physical sciences	$ _____	$ _____
j. Psychology	$ _____	$ _____
k. Social sciences	$ _____	$ _____
l. Other field of S&E (Please describe.) _____	$ _____	$ _____

Question 17: For medical schools only: deferred repairs and renovations

17. ***If your institution has a medical school***, how much of the estimated costs for deferred repair and renovation of research facilities as reported in Question 16 would be located in the medical school?

Medical school is a school that awards the M.D. or D.O. degree.

If your institution does ***not*** have a medical school, check this box and go to Question 18 ..... ☐

	For projects included in your institutional plan	**For projects *not* included in your institutional plan**
Medical school portion of the costs included in Question 16 *(If none, enter "0.")*	$ _____	$ _____

Question 18: Deferred new construction

18. Please provide the estimated costs for any **deferred new construction** projects of S&E research facilities that are needed for current program commitments, but are not yet funded **and** not yet scheduled to start in your FY 2022 or FY 2023. Include research animal space in the relevant fields of S&E. Include only projects whose prorated cost was estimated to be $250,000 or more for at least one field of S&E listed below. Please estimate costs separately for projects included in your approved institutional plan and projects not included in this plan. Institutional plans usually will include goals, strategies, and budgets for fulfilling your institution's mission during a specific time period.

Deferred projects are those that: (1) are not funded, and (2) are not scheduled for FY 2022 or FY 2023. Do not include projects planned for developing new programs or expanding your current programs.

New construction is the construction of a new building or additions to an existing building.

Current research program commitments include current faculty and staff or those to whom offers have been made or grants awarded (whether or not research has actually begun) and programs which have been approved.

If research facilities will be shared by two or more fields, allocate the appropriate share of the costs to each field in order to determine which fields to report. For example, if a field will have one-fourth of the costs for a $300,000 project, do **not** report that field's share, which is $75,000. If a $400,000 project will have two fields with the same costs, do **not** report either field's portion, which is $200,000 each.

If research facilities will also be used for nonresearch activities, report the S&E research portion of the costs for the fields listed below if the research portion is $250,000 or more. For example, if a facility will be used for S&E research one-fourth of the time and for instruction the rest of the time, report one-fourth of the completion costs for S&E research facilities.

If your institution does ***not*** have deferred projects for new construction, check this box and go to Question 20 ..... ☐

For Field of S&E definitions, see Question 2 on pages 5–8.

Field of S&E *(Include costs for research animal space.)*	**Estimated costs of deferred new construction** For projects included in your institutional plan	For projects ***not*** included in your institutional plan
a. Agricultural sciences, animal sciences, plant sciences, veterinary sciences, and related fields	$ _____	$ _____
b. Biological and biomedical sciences	$ _____	$ _____
c. Computer and information sciences	$ _____	$ _____
d. Engineering	$ _____	$ _____
e. Geosciences, atmospheric sciences, and ocean sciences	$ _____	$ _____
f. Health sciences	$ _____	$ _____
g. Mathematics and statistics	$ _____	$ _____
h. Natural resources and conservation	$ _____	$ _____
i. Physical sciences	$ _____	$ _____
j. Psychology	$ _____	$ _____
k. Social sciences	$ _____	$ _____
l. Other field of S&E (Please describe.) _____	$ _____	$ _____

Question 19: For medical schools only: deferred new construction

19. ***If your institution has a medical school***, how much of the estimated costs for deferred new construction of research facilities as reported in Question 18 would be located in the medical school?

Medical school is a school that awards the M.D. or D.O. degree.

If your institution does ***not*** have a medical school, check this box and go to Question 20 ..... ☐

	For projects included in your institutional plan	**For projects *not* included in your institutional plan**
Medical school portion of the costs included in Question 18 *(If none, enter "0.")*	$ _____	$ _____

Question 20: Comments

20. Please add any comments below. This should include any comments you may have about significant changes from previous cycles or apparent discrepancies in the data. Providing this type of additional information may preclude follow-up inquiries on those items.

Thank you. This is the end of the survey.