



National Science Foundation

FY 2019 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.

Based on information collected in the FY 2013 cycle, 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 Diana Crudup via e-mail at facilitiesurvey@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.

INFORMATION ONLY – DO NOT USE TO REPORT

General information

This questionnaire is available electronically. Go to www.facilitysurvey.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

- **Crosswalk of Field of S&E to Detailed S&E Disciplines:** A detailed list of disciplines by each S&E field has been added. The list is available as a searchable PDF document and can be accessed through the newly added S&E field tab on the web survey. The list is intended to help find the most appropriate S&E field in which to report research for specific disciplines.
- **Question 20 (Comments):** An example has been added to provide guidance concerning the types of information that should be entered in question 20 as comments.

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, biological and biomedical sciences, computer and information sciences, engineering, geoscience, atmospheric science 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 5–7 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 2019. See pages 2–3 for the definition of research space and fields of S&E.

**Did your institution have this
type of S&E research space
at end of FY 2019?**

(Mark one “X” for each row.)

Types of S&E research space	Yes	No	Uncertain
a. Laboratories, wet or dry, including computer laboratories, behavior observation laboratories, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Laboratory support space, including autoclave rooms, darkrooms, equipment areas, storage areas for research equipment and supplies, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Instructional laboratories that are <i>also</i> used for research.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Core laboratories that serve other laboratories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Leased space that is used for research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Offices, to the extent they are used for research.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Space used for research containing nonfixed equipment costing \$1 million or more each, such as MRIs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Research space in a medical school that awards the M.D. or D.O. degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Research animal space.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 2: Amount of research space

2. At the end of your FY 2019, 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 for each discipline.*)
(*Include research animal space.*)

**Net assignable square feet
of research space at end of
FY 2019**

a. Agricultural sciences

Agricultural business and management
Agricultural economics
Agricultural production operations
Animal sciences
Applied horticulture and horticultural
business services
Food science and technology

International agriculture
Plant pathology and phytopathology,
agricultural
Plant sciences
Soil sciences
Agricultural sciences, other

[] NASF

Check this box if no
research space in this field at
the end of FY 2019

b. Biological and biomedical sciences

Anatomical sciences
Animal biology
Biochemistry
Bioinformatics
Biomathematics
Biophysics
Biotechnology
Botany
Cell biology
Cellular biology
Computational biology
Ecology
Epidemiology
Genetics
Immunology

Microbiological sciences
Molecular biology
Molecular medicine
Neurobiology
Neuroscience
Pathology
Pharmacology
Physiology
Plant biology
Plant pathology and phytopathology,
biological sciences
Population biology
Toxicology
Zoology
Biological and biomedical sciences, other

[] NASF

Check this box if no
research space in this field at
the end of FY 2019

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 2019

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 for each discipline.)

(Include research animal space.)

**Net assignable square feet
of research space at end of
FY 2019**

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
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
Engineering, other |
|--|---|

NASF

 Check this box if no research space in this field at the end of FY 2019

e. Geosciences, atmospheric sciences, and ocean sciences

- | | |
|--|---|
| Atmospheric science
Biological oceanography
Earth sciences
Geological sciences
Marine sciences | Meteorology
Ocean sciences
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 2019

f. Health sciences

- | | |
|--|---|
| Advanced, graduate dentistry and oral sciences
Allied health and medical assisting services
Bioethics, medical ethics
Clinical laboratory science/research and allied professions
Clinical medicine research
Clinical nursing
Communication disorders sciences and services
Dentistry
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 and allied professions
Medicine | Nursing administration
Nursing research
Optometry
Oral sciences
Osteopathic medicine
Osteopathy
Pharmaceutical administration
Pharmaceutical sciences
Pharmacy
Podiatric medicine
Podiatry
Public health
Radiological science
Registered nursing
Rehabilitation and therapeutic professions
Veterinary biomedical and clinical sciences
Veterinary medicine
Health sciences, other |
|--|---|

NASF

 Check this box if no research space in this field at the end of FY 2019

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 for each discipline.*)
 (Include research animal space.)

**Net assignable square feet
of research space at end of
FY 2019**

g. Mathematics and statistics

Applied mathematics
Mathematics

Statistics
Mathematics and statistics, other

NASF

Check this box if no research space in this field at the end of FY 2019

h. Natural resources and conservation

Environmental science or studies
Fishing and fisheries sciences and management
Forestry
Natural resource economics
Natural resources conservation and research

Natural resources management and policy
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 2019

i. Physical sciences

Astronomy
Astrophysics
Chemistry

Materials science
Physics
Physical sciences, other

NASF

Check this box if no research space in this field at the end of FY 2019

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 2019

k. Social sciences

Anthropology
Archeology
Criminology
Demography
Economics
Geography and cartography
Gerontology, social sciences
International relations

National security studies
Political science and government
Population studies
Public policy
Sociology
Urban studies, affairs
Social sciences, other

NASF

Check this box if no research space in this field at the end of FY 2019

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 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.

NASF

Check this box if no research space in this field at the end of FY 2019

(Please describe.)

Question 3: Research animal space

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

3. At the end of your FY 2019, 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 2019, 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 2019?

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 2019.

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 pro-rated 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 pro-rated due to shared space.

For Field of S&E definitions, see Question 2 on pages 5–7.

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.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Biological and biomedical sciences.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Computer and information sciences.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Engineering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Geosciences, atmospheric sciences, and ocean sciences.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Health sciences.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Mathematics and statistics.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Natural resources and conservation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Physical sciences.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Psychology.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Social sciences.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Other field of S&E.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 7: Condition of research space

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

7. At the end of your FY 2019, 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 2020 and FY 2021)
- Satisfactory condition** Suitable for continued use over the next 2 years (your FY 2020 and FY 2021) 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 2020 and FY 2021)
- Requires replacement** Should stop using space for current research within the next 2 years (your FY 2020 and FY 2021)

For Field of S&E definitions, see Question 2 on pages 5–7.

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

Question 8: Repairs and renovations started in FY 2018 and FY 2019

8. Please provide the completion costs for repair and renovation of S&E research facilities that started during your FY 2018 or FY 2019. 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 5–7.

Field of S&E <i>(Include costs for research animal space.)</i>	Completion costs for projects started in FY 2018 or FY 2019
a. Agricultural sciences.....	\$ <input style="width: 150px;" type="text"/>
b. Biological and biomedical sciences.....	\$ <input style="width: 150px;" type="text"/>
c. Computer and information sciences.....	\$ <input style="width: 150px;" type="text"/>
d. Engineering.....	\$ <input style="width: 150px;" type="text"/>
e. Geosciences, atmospheric sciences, and ocean sciences.....	\$ <input style="width: 150px;" type="text"/>
f. Health sciences.....	\$ <input style="width: 150px;" type="text"/>
g. Mathematics and statistics.....	\$ <input style="width: 150px;" type="text"/>
h. Natural resources and conservation.....	\$ <input style="width: 150px;" type="text"/>
i. Physical sciences.....	\$ <input style="width: 150px;" type="text"/>
j. Psychology.....	\$ <input style="width: 150px;" type="text"/>
k. Social sciences.....	\$ <input style="width: 150px;" type="text"/>
l. Other field of S&E <i>(Please describe.)</i>	\$ <input style="width: 150px;" type="text"/>
<input style="width: 450px; height: 20px;" type="text"/>	

Question 9: For medical schools only: repairs and renovations in FY 2018 and FY 2019

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 2018 and FY 2019

10. Please provide the total number of new construction projects that included S&E research facilities that started during your FY 2018 or FY 2019. 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 2018 or FY 2019. 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 2018

FY 2019

10C. When this project is completed, what is (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

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- 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

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- 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 5–7.

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

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

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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.")	\$ <input type="text"/>	<input type="text"/> 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.")	\$ <input type="text"/>	<input type="text"/> 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 2018 or FY 2019 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 11.

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	(2) For new construction reported in Question 10E (all project forms)
a. Federal government.....	\$ <input style="width: 150px; height: 20px;" type="text"/>	\$ <input style="width: 150px; height: 20px;" type="text"/>
b. State or local government.....	\$ <input style="width: 150px; height: 20px;" type="text"/>	\$ <input style="width: 150px; height: 20px;" type="text"/>
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.....	\$ <input style="width: 150px; height: 20px;" type="text"/>	\$ <input style="width: 150px; height: 20px;" type="text"/>
Total	\$ <input style="width: 150px; height: 20px;" type="text"/>	\$ <input style="width: 150px; height: 20px;" type="text"/>

Question 12: Planned repairs and renovations to start in FY 2020 and FY 2021

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 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 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 5–7.

Field of S&E <i>(Include costs for research animal space.)</i>	Completion costs for planned repair/renovation projects to start in FY 2020 or FY 2021
a. Agricultural sciences.....	\$ <input type="text"/>
b. Biological and biomedical sciences	\$ <input type="text"/>
c. Computer and information sciences.....	\$ <input type="text"/>
d. Engineering.....	\$ <input type="text"/>
e. Geosciences, atmospheric sciences, and ocean sciences.....	\$ <input type="text"/>
f. Health sciences.....	\$ <input type="text"/>
g. Mathematics and statistics	\$ <input type="text"/>
h. Natural resources and conservation	\$ <input type="text"/>
i. Physical sciences.....	\$ <input type="text"/>
j. Psychology.....	\$ <input type="text"/>
k. Social sciences	\$ <input type="text"/>
l. Other field of S&E <i>(Please describe.)</i>	\$ <input type="text"/>
<input style="width: 100%;" type="text"/>	

Question 13: For medical schools only: planned repairs and renovations in FY2020 and FY2021

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 2020 and FY 2021

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 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.

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 5–7.

Planned new construction scheduled to start in FY 2020 or FY 2021

Field of S&E (Include costs for research animal space.)	Completion costs	Net assignable square feet	
a. Agricultural sciences.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
b. Biological and biomedical sciences.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
c. Computer and information sciences.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
d. Engineering.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
e. Geosciences, atmospheric sciences, and ocean sciences.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
f. Health sciences.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
g. Mathematics and statistics.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
h. Natural resources and conservation.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
i. Physical sciences.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
j. Psychology.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
k. Social sciences.....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF
l. Other field of S&E (Please describe.).....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/>	NASF

Question 15: For medical schools only: planned new construction in FY 2020 and FY 2021

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 (<i>If none, enter "0."</i>).....	\$ <input style="width: 100px;" type="text"/>	<input style="width: 100px;" type="text"/> 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 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. 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 2020 or FY 2021. 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 5–7.

Field of S&E <i>(Include costs for research animal space.)</i>	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.....	\$	\$
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 <i>(Please describe.)</i>	\$	\$

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 <i>not</i> included in your institutional plan
Medical school portion of the costs included in Question 16 (<i>If none, enter "0."</i>)	\$ <input type="text"/>	\$ <input type="text"/>

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 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. 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 2020 or FY 2021. 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 5–7.

Estimated costs of deferred new construction

Field of S&E <i>(Include costs for research animal space.)</i>	For projects included in your institutional plan	For projects not included in your institutional plan
a. Agricultural sciences.....	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
b. Biological and biomedical sciences.....	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
c. Computer and information sciences.....	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
d. Engineering.....	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
e. Geosciences, atmospheric sciences, and ocean sciences	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
f. Health sciences	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
g. Mathematics and statistics	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
h. Natural resources and conservation	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
i. Physical sciences.....	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
j. Psychology.....	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
k. Social sciences	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>
l. Other field of S&E <i>(Please describe.)</i>	\$ <input style="width: 100px;" type="text"/>	\$ <input style="width: 100px;" type="text"/>

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.