

National Science Foundation

FY 2011 Survey of Science and Engineering Research Facilities

Part 1: Research Space

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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 pretests, responding to this survey (Part 1 and Part 2 combined) typically requires 41 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.

If you have a question, please contact Lorraine Lewis via e-mail at facilitiesurvey@westat.com or call 1-888-811-1838. The survey director at the National Science Foundation is Mr. John Jankowski.

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.facilitiesurvey.org to access the survey. You will need to click on “Part 1” and then enter the Part 1 Coordinator ID and password. These are provided on the label on the front cover of this paper questionnaire.

Please report information for the **institution** named on the label on the front cover.

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 9f) and on the condition of S&E space (Question 6) 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.

Changes from previous survey cycle

- **Fields of science and engineering (S&E)**

Changes have been made to the lists of disciplines included in some fields of S&E to be consistent with the 2010 Classification of Instructional Programs (CIP 2010). For a description of the fields of S&E, see Question 2 on pages 5–7 or the crosswalk of survey fields of S&E to the National Center for Education Statistics (NCES) 2010 Classification of Instructional Programs (CIP) on pages 27–28.

- **Research Animal Space**

Seven questions on research animal space from the last survey cycle have been deleted (question numbers shown below refer to those appearing in the FY 2009 survey):

- Condition of research animal space (Question 7)
- Biosafety level of research animal facilities (Question 8)
- Research animal facilities: repairs and renovations (Question 10)
- Research animal facilities: planned repairs and renovations (Question 15)
- Research animal facilities: planned new construction (Question 18)
- Research animal facilities: deferred repairs and renovations (Question 21)
- Research animal facilities: deferred new construction (Question 24)

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 sponsored research and development activities of your institution that are separately budgeted and accounted for. Research can be funded by your own institution, the federal government, a state government, foundations, corporations, or other sources. It does not include departmental research that is not separately budgeted.

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 and natural resources sciences, biological and biomedical sciences, computer and information sciences, engineering, health and clinical sciences, mathematics and statistics, physical sciences, psychology, social sciences, and other science and engineering fields. See Question 2 on pages 5–7 for a detailed list of the 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 2011. 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 2011?

(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 2011, 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 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.

See pages 27–28 for crosswalk of survey fields of S&E and NCES CIP codes.

| Field of S&E (Include research animal space.) | Net assignable square feet of research space at end of FY 2011 |
|---|---|
| a. Agricultural sciences and natural resources sciences | |
| Agricultural economics | <input type="text"/> NASF <input type="checkbox"/> Check this box if no research space in this field at the end of FY 2011 |
| Animal sciences | |
| Fishing and fisheries sciences | |
| Food science and technology | |
| Forestry | |
| Natural resources conservation and research (includes environmental science) | |
| Natural resources economics | |
| Plant sciences | |
| Soil sciences | |
| Wildlife and wildlands science | |
| b. Biological and biomedical sciences | |
| Anatomical sciences | <input type="text"/> NASF <input type="checkbox"/> Check this box if no research space in this field at the end of FY 2011 |
| Animal biology | |
| Biochemistry | |
| Bioinformatics | |
| Biology | |
| Biomathematics | |
| Biophysics | |
| Biotechnology | |
| Botany | |
| Cell biology | |
| Cellular biology | |
| Ecology | |
| Evolution | |
| Genetics | |
| Human nutrition | |
| Immunology | |
| Microbiological sciences | |
| Molecular biology | |
| Molecular medicine | |
| Neurobiology | |
| Neurosciences | |
| Pathology | |
| Pharmacology | |
| Physiology | |
| Plant biology | |
| Population biology | |
| Toxicology | |
| Zoology | |
| Biological and biomedical sciences, other | |
| c. Computer and information sciences | |
| Computer science | <input type="text"/> NASF <input type="checkbox"/> Check this box if no research space in this field at the end of FY 2011 |
| Computer software and media applications | |
| Computer systems networking and telecommunications | |
| Information science | |

Field of S&E*(Include research animal space.)***Net assignable square feet
of research space at end of
FY 2011****d. Engineering**

| | |
|---|----------------------------------|
| Aeronautical engineering | Forest engineering |
| Aerospace engineering | Geological engineering |
| Agricultural engineering | Geophysical engineering |
| Architectural engineering | Industrial engineering |
| Astronautical engineering | Manufacturing engineering |
| Automation engineering | Marine engineering |
| Biochemical engineering | Materials engineering |
| Bioengineering | Mechanical engineering |
| Biological engineering | Mechatronics |
| Biomedical engineering | Medical engineering |
| Biosystems engineering | Metallurgical engineering |
| Ceramic sciences and engineering | Mining and mineral engineering |
| Chemical engineering | Naval architecture |
| Civil engineering | Nuclear engineering |
| Computer engineering, general | Ocean engineering |
| Construction engineering | Operations research |
| Electrical, electronics and communications engineering | Paper science and engineering |
| Electromechanical engineering | Petroleum engineering |
| Engineering chemistry | Plastics engineering |
| Engineering mechanics | Polymer engineering |
| Engineering physics | Robotics |
| Engineering science | Surveying engineering |
| Environmental engineering | Systems engineering |
| Environmental health engineering | Textile sciences and engineering |
| | Engineering, other |

 NASF

 Check this box if no
research space in this field at
the end of FY 2011
e. Health and clinical sciences

| | |
|--|--|
| Allied health diagnostic, intervention, and treatment | Optometry |
| Clinical laboratory science/research | Oral sciences |
| Clinical nursing | Osteopathic medicine |
| Communication disorders sciences | Osteopathy |
| Dentistry | Pharmaceutical sciences |
| Informatics | Pharmacy |
| Kinesiology and exercise science | Podiatric medicine |
| Medical clinical sciences | Podiatry |
| Medical illustration | Public health |
| Medical laboratory science/research | Registered nursing |
| Medicine | Rehabilitation and therapeutic subfields |
| Nursing research | Veterinary biomedical sciences |
| | Veterinary medicine |

 NASF

 Check this box if no
research space in this field at
the end of FY 2011
f. 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 2011

Field of S&E
(Include research animal space.)

**Net assignable square feet
of research space at end of
FY 2011**

g. Physical sciences

Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography

_____ NASF

Check this box if no
research space in this field at
the end of FY 2011

Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics

_____ NASF

Check this box if no
research space in this field at
the end of FY 2011

h. 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 2011

i. Social sciences

Anthropology
Archeology
Criminalistics
Criminal justice
Criminal science
Criminology
Demography
Economics
Forensic science and technology

Geography and cartography
International relations
National security studies
Police science
Political science and government
Population studies
Sociology
Urban affairs
Social sciences, other

_____ NASF

Check this box if no
research space in this field at
the end of FY 2011

j. Other field of S&E

Use this category when multidisciplinary, interdisciplinary, or other aspects make
classification under one primary S&E field impossible. Please see pages 2–3 for the definition
of S&E research and research space.

_____ NASF

(Please describe.) _____

Check this box if no
research space in this field at
the end of FY 2011

Question 3: Research animal space

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

3. At the end of your FY 2011, 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 2011, 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 2011?

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: Condition of research space

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

6. At the end of your FY 2011, 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 2012 and FY 2013) |
| Satisfactory condition | Suitable for continued use over the next 2 years (your FY 2012 and FY 2013) 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 2012 and FY 2013) |
| Requires replacement | Should stop using space for current research within the next 2 years (your FY 2012 and FY 2013) |

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 | Percent of net assignable square feet | | | | Total |
|--|--|---------------------------------------|---------------------------|------------------------|-------------------------|-------|
| | | Superior condition | Satisfactory condition | Requires renovation | Requires replacement | |
| <i>(The percentages should sum to 100 within each row.)</i> | | | | | | |
| a. Agricultural sciences and natural resources 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. Health and clinical sciences..... | <input type="checkbox"/> | _____ % | _____ % | _____ % | _____ % | 100% |
| f. Mathematics and statistics | <input type="checkbox"/> | _____ % | _____ % | _____ % | _____ % | 100% |
| g. Physical sciences | | | | | | |
| Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography..... | <input type="checkbox"/> | _____ % | _____ % | _____ % | _____ % | 100% |
| Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics..... | <input type="checkbox"/> | _____ % | _____ % | _____ % | _____ % | 100% |
| h. Psychology..... | <input type="checkbox"/> | _____ % | _____ % | _____ % | _____ % | 100% |
| i. Social sciences | <input type="checkbox"/> | _____ % | _____ % | _____ % | _____ % | 100% |
| j. Other field of S&E..... | <input type="checkbox"/> | _____ % | _____ % | _____ % | _____ % | 100% |

Question 7: Repairs and renovations started in FY 2010 and FY 2011

7. Please provide the completion costs for repair and renovation of S&E research facilities that started during your FY 2010 or FY 2011. 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 9

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 2010 or FY 2011 |
|---|--|
| a. Agricultural sciences and natural resources 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. Health and clinical sciences..... | \$ <input style="width: 150px;" type="text"/> |
| f. Mathematics and statistics | \$ <input style="width: 150px;" type="text"/> |
| g. Physical sciences | |
| Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography | \$ <input style="width: 150px;" type="text"/> |
| Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics | \$ <input style="width: 150px;" type="text"/> |
| h. Psychology..... | \$ <input style="width: 150px;" type="text"/> |
| i. Social sciences | \$ <input style="width: 150px;" type="text"/> |
| j. Other field of S&E <i>(Please describe.)</i> | \$ <input style="width: 150px;" type="text"/> |
| <input style="width: 300px; height: 20px;" type="text"/> | |

Question 8: For medical schools only: repairs and renovations in FY 2010 and FY 2011

8. *If your institution had a medical school*, how much of the completion costs for repair and renovation of research facilities as reported in Question 7 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 9.....

Medical school portion of the costs
included in Question 7 (*If none, enter "0."*)\$

Question 9: New construction started in FY 2010 and FY 2011

9. Please provide the total number of new construction projects that included S&E research facilities that started during your FY 2010 or FY 2011. 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.

Start date is the date on which the physical work of the construction actually began.

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 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 10.....

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 9

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Please complete this form for **each** new construction project that started during your FY 2010 or FY 2011. Include only projects that will cost \$250,000 or more for at least one of the S&E fields. Consider the start date to be the date on which the physical work of the new construction began.

9A. What is the name of this project? _____

9B. During which of your fiscal years did the physical work of new construction begin for this project?

FY 2010

FY 2011

9C. 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.

Please make additional copies of this form as needed.

Individual Project Form for Question 9

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- 9D. 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.

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.

Please make additional copies of this form as needed.

Individual Project Form for Question 9

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- 9E. 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.

| | Research facilities | | | |
|---|----------------------------|--------------------------------------|--|------|
| Field of S&E (Include research animal space.) | (1) Completion costs | (2) Net assignable square feet | | |
| a. Agricultural sciences and natural resources sciences | \$ | | | NASF |
| b. Biological and biomedical sciences | \$ | | | NASF |
| c. Computer and information sciences | \$ | | | NASF |
| d. Engineering | \$ | | | NASF |
| e. Health and clinical sciences | \$ | | | NASF |
| f. Mathematics and statistics | \$ | | | NASF |
| g. Physical sciences | | | | |
| Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography | \$ | | | NASF |
| Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics | \$ | | | NASF |
| h. Psychology | \$ | | | NASF |
| i. Social sciences | \$ | | | NASF |
| j. Other field of S&E (Please describe.) | \$ | | | NASF |
| | | | | |

Please make additional copies of this form as needed.

Individual Project Form for Question 9

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

- 9F. How much of the completion costs and NASF reported in Question 9E 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 9E (If none, enter "0.")..... | \$ <input type="text"/> | <input type="text"/> NASF |

- 9G. **If your institution has a medical school**, how much of the completion costs and NASF reported in Question 9E 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 10

| | Completion costs | Net assignable square feet |
|---|-------------------------|----------------------------|
| Medical school portion included in Question 9E (If none, enter "0.")..... | \$ <input type="text"/> | <input type="text"/> NASF |

Question 10: Sources of project funding

10. 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 2010 or FY 2011 as reported in Question 7 and Question 9E.

Total costs reported in column 1 should match the sum of the costs for repair and renovation of research facilities reported in Question 7 on page 10.

Total costs reported in column 2 should match the sum of the costs for new construction as reported in Question 9E on all Individual Project Form(s).

| Source of funding | Completion costs | |
|---|--|--|
| | (1) For repairs and renovations reported in Question 7 | (2) For new construction reported in Question 9E (all project forms) |
| a. Federal government | \$ <input type="text"/> | \$ <input type="text"/> |
| b. State or local government | \$ <input type="text"/> | \$ <input 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 type="text"/> | \$ <input type="text"/> |
| Total | \$ <input type="text"/> | \$ <input type="text"/> |

Question 11: Planned repairs and renovations to start in FY 2012 and FY 2013

11. 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 2012 or FY 2013. 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 13.....

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 2012 or FY 2013 |
|--|---|
| a. Agricultural sciences and natural resources sciences | \$ <input style="width: 100px;" type="text"/> |
| b. Biological and biomedical sciences..... | \$ <input style="width: 100px;" type="text"/> |
| c. Computer and information sciences | \$ <input style="width: 100px;" type="text"/> |
| d. Engineering..... | \$ <input style="width: 100px;" type="text"/> |
| e. Health and clinical sciences..... | \$ <input style="width: 100px;" type="text"/> |
| f. Mathematics and statistics | \$ <input style="width: 100px;" type="text"/> |
| g. Physical sciences | |
| Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography | \$ <input style="width: 100px;" type="text"/> |
| Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics | \$ <input style="width: 100px;" type="text"/> |
| h. Psychology | \$ <input style="width: 100px;" type="text"/> |
| i. Social sciences..... | \$ <input style="width: 100px;" type="text"/> |
| j. Other field of S&E <i>(Please describe.)</i> | \$ <input style="width: 100px;" type="text"/> |
| <input style="width: 150px; height: 15px;" type="text"/> | |

Question 12: For medical schools only: planned repairs and renovations in FY 2012 and FY 2013

12. *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 11 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 13

Medical school portion of the costs included in Question 11 (*If none, enter "0."*) \$

Question 13: Planned new construction to start in FY 2012 and FY 2013

13. 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 2012 or FY 2013. 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 construction is scheduled to begin.

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.

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 15

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

Planned new construction scheduled to start in FY 2012 or FY 2013

| Field of S&E (Include costs for research animal space.) | Completion costs | Net assignable square feet | |
|---|-------------------------|----------------------------|------|
| a. Agricultural sciences and natural resources 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. Health and clinical sciences | \$ <input type="text"/> | <input type="text"/> | NASF |
| f. Mathematics and statistics..... | \$ <input type="text"/> | <input type="text"/> | NASF |
| g. Physical sciences | | | |
| Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography | \$ <input type="text"/> | <input type="text"/> | NASF |
| Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics | \$ <input type="text"/> | <input type="text"/> | NASF |
| h. Psychology | \$ <input type="text"/> | <input type="text"/> | NASF |
| i. Social sciences..... | \$ <input type="text"/> | <input type="text"/> | NASF |
| j. Other field of S&E (Please describe.)..... | \$ <input type="text"/> | <input type="text"/> | NASF |

Question 14: For medical schools only: planned new construction in FY 2012 and FY 2013

14. *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 13 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 15.....

| | Completion costs | Net assignable square feet |
|---|-------------------------|-----------------------------------|
| Medical school portion included in Question 13 (<i>If none, enter "0."</i>) | \$ <input type="text"/> | <input type="text"/> NASF |

Question 15: Deferred repairs and renovations

15. 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 2012 or FY 2013. 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 2012 or FY 2013. 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 17.....

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

| 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 <i>not</i> included in your institutional plan |
| a. Agricultural sciences and natural resources sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| b. Biological and biomedical sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| c. Computer and information sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| d. Engineering..... | \$ <input type="text"/> | \$ <input type="text"/> |
| e. Health and clinical sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| f. Mathematics and statistics..... | \$ <input type="text"/> | \$ <input type="text"/> |
| g. Physical sciences | | |
| Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography..... | \$ <input type="text"/> | \$ <input type="text"/> |
| Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics..... | \$ <input type="text"/> | \$ <input type="text"/> |
| h. Psychology..... | \$ <input type="text"/> | \$ <input type="text"/> |
| i. Social sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| j. Other field of S&E (Please describe.)..... | \$ <input type="text"/> | \$ <input type="text"/> |

Question 16: For medical schools only: deferred repairs and renovations

16. *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 15 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 17

| | 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 15 (<i>If none, enter "0."</i>)..... | \$ <input type="text"/> | \$ <input type="text"/> |

Question 17: Deferred new construction

17. 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 2012 or FY 2013. 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 2012 or FY 2013. 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.

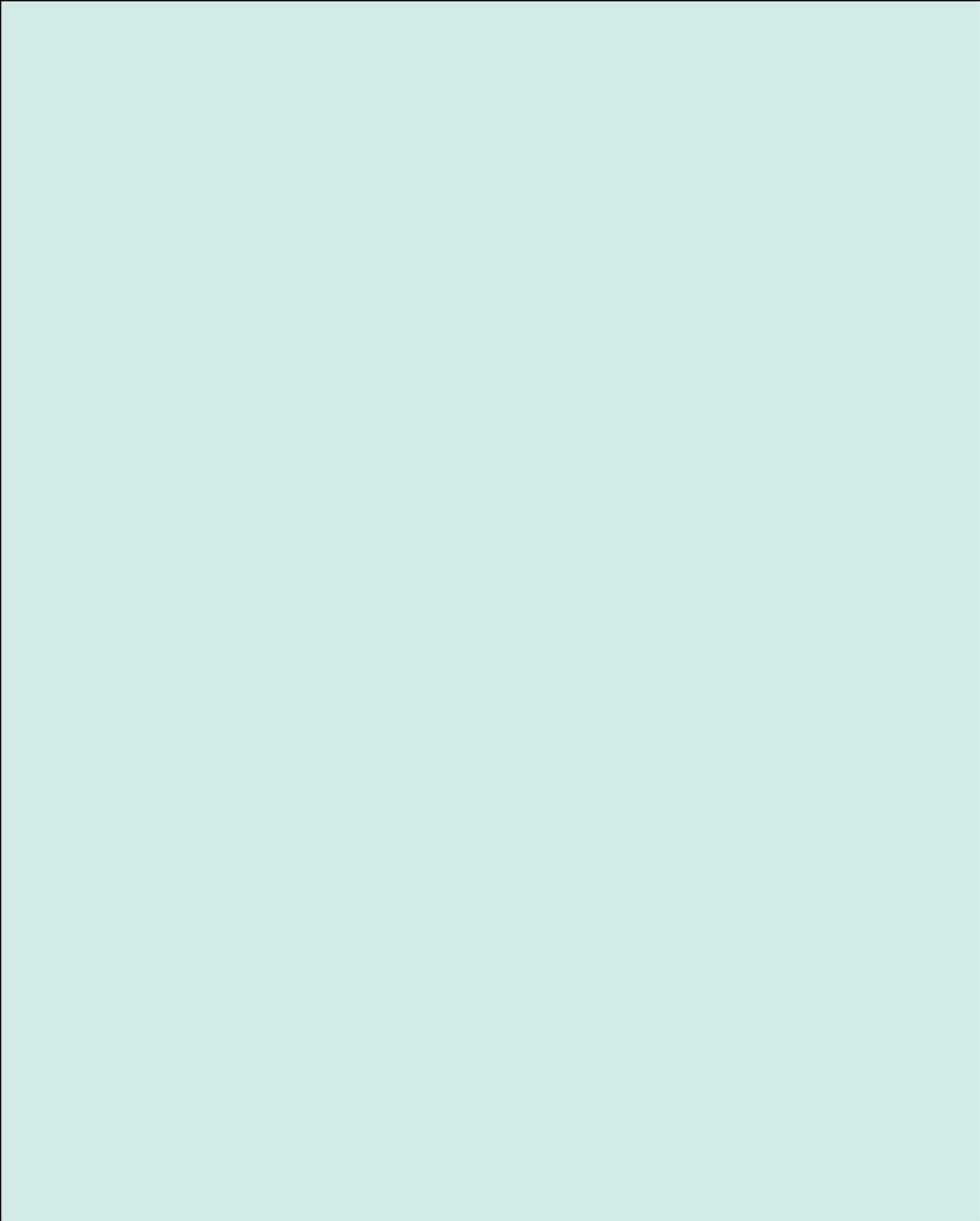
If your institution does **not** have deferred projects for new construction, check this box and go to Question 19.....

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

Estimated costs of deferred new construction

| Field of S&E (Include costs for research animal space.) | For projects included in your institutional plan | For projects not included in your institutional plan |
|---|--|---|
| a. Agricultural sciences and natural resources sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| b. Biological and biomedical sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| c. Computer and information sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| d. Engineering..... | \$ <input type="text"/> | \$ <input type="text"/> |
| e. Health and clinical sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| f. Mathematics and statistics..... | \$ <input type="text"/> | \$ <input type="text"/> |
| g. Physical sciences | | |
| Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography..... | \$ <input type="text"/> | \$ <input type="text"/> |
| Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics..... | \$ <input type="text"/> | \$ <input type="text"/> |
| h. Psychology..... | \$ <input type="text"/> | \$ <input type="text"/> |
| i. Social sciences..... | \$ <input type="text"/> | \$ <input type="text"/> |
| j. Other field of S&E (Please describe.)..... | \$ <input type="text"/> | \$ <input type="text"/> |

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Crosswalk of Survey Fields of S&E to the National Center for Education Statistics (NCES) 2010 Classification of Instructional Programs (CIP)

| Field of S&E | NCES CIP 2010 classification | | | |
|---|--|--|--|--|
| Agricultural sciences and natural resources sciences | 01.09 | Animal sciences | 03.05 | Forestry |
| | 01.10 | Food science and technology | 03.06 | Wildlife and wildlands science and management |
| | 01.11 | Plant sciences | | |
| | 01.12 | Soil sciences | | Also include: |
| | 03.01 | Natural resources conservation and research (includes environmental science) | 01.0103 | Agricultural economics |
| | 03.03 | Fishing and fisheries sciences and management | 03.0204 | Natural resources economics |
| Biological and biomedical sciences | 26.01 | Biology, general | 26.11 | Biomathematics and bioinformatics |
| | 26.02 | Biochemistry, biophysics and molecular biology | 26.12 | Biotechnology |
| | 26.03 | Botany/plant biology | 26.13 | Ecology, evolution and population biology |
| | 26.04 | Cell/cellular biology and anatomical sciences | 26.14 | Molecular medicine |
| | 26.05 | Microbiological sciences and immunology | 26.15 | Neurobiology and neurosciences |
| | 26.07 | Zoology/animal biology | 26.99 | Biological and biomedical sciences, other |
| | 26.08 | Genetics | | |
| | 26.09 | Physiology, pathology, and related sciences | | Also include: |
| | 26.10 | Pharmacology and toxicology | 19.0504 | Human nutrition |
| | Computer and information sciences | 11.01 | Computer and information sciences, general | 11.08 |
| 11.04 | | Information science/studies | 11.09 | Computer systems networking and telecommunications |
| 11.07 | | Computer science | | |
| Engineering | 14.01 | Engineering, general | 14.23 | Nuclear engineering |
| | 14.02 | Aerospace, aeronautical and astronautical engineering | 14.24 | Ocean engineering |
| | 14.03 | Agricultural engineering | 14.25 | Petroleum engineering |
| | 14.04 | Architectural engineering | 14.27 | Systems engineering |
| | 14.05 | Biomedical/medical engineering | 14.28 | Textile sciences and engineering |
| | 14.06 | Ceramic sciences and engineering | 14.32 | Polymer/plastics engineering |
| | 14.07 | Chemical engineering | 14.33 | Construction engineering |
| | 14.08 | Civil engineering | 14.34 | Forest engineering |
| | 14.09 | Computer engineering, general | 14.35 | Industrial engineering |
| | 14.10 | Electrical, electronics and communications engineering | 14.36 | Manufacturing engineering |
| | 14.11 | Engineering mechanics | 14.37 | Operations research |
| | 14.12 | Engineering physics | 14.38 | Surveying engineering |
| | 14.13 | Engineering science | 14.39 | Geological/geophysical engineering |
| | 14.14 | Environmental/environmental health engineering | 14.40 | Paper science and engineering |
| | 14.18 | Materials engineering | 14.41 | Electromechanical engineering |
| | 14.19 | Mechanical engineering | 14.42 | Mechatronics, robotics, and automation engineering |
| | 14.20 | Metallurgical engineering | 14.43 | Biochemical engineering |
| | 14.21 | Mining and mineral engineering | 14.44 | Engineering chemistry |
| | 14.22 | Naval architecture and marine engineering | 14.45 | Biological/biosystems engineering |
| | | | 14.99 | Engineering, other |

| Field of S&E | NCES CIP 2010 classification | | | |
|-------------------------------------|---|---|--------------------------|--|
| Health and clinical sciences | 51.02 | Communication disorders sciences and services | 51.20 | Pharmacy, pharmaceutical sciences, and administration |
| | 51.04 | Dentistry | 51.21 | Podiatric medicine/podiatry |
| | 51.05 | Advanced/graduate dentistry and oral sciences | 51.22 | Public health |
| | 51.09 | Allied health diagnostic, intervention, and treatment professions | 51.23 | Rehabilitation and therapeutic professions |
| | 51.10 | Clinical/medical laboratory science/research and allied professions | 51.24 | Veterinary medicine |
| | 51.12 | Medicine | 51.25 | Veterinary biomedical and clinical sciences |
| | 51.14 | Medical clinical sciences/graduate medical studies | 51.27 | Medical illustration and informatics |
| | 51.16 | Nursing | 51.38 | Registered nursing, nursing administration, nursing research, and clinical nursing |
| | 51.17 | Optometry | | |
| | 51.19 | Osteopathic medicine/osteopathy | Also include: 31.0505 | Kinesiology and exercise science |
| Mathematics and statistics | 27.01 | Mathematics | 27.05 | Statistics |
| | 27.03 | Applied mathematics | 27.99 | Mathematics and statistics, other |
| | | | | |
| Physical sciences | Group 1 | | | |
| | 40.04 | Atmospheric sciences and meteorology | | |
| | 40.06 | Geological and earth sciences/geosciences (includes oceanography) | | |
| | ----- | | | |
| | Group 2 | | | |
| | 40.01 | Physical sciences, general | | |
| | 40.02 | Astronomy and astrophysics | | |
| | 40.05 | Chemistry | | |
| | 40.08 | Physics | | |
| | 40.10 | Materials sciences | | |
| 40.99 | Physical sciences, other | | | |
| Psychology | 42.01 | Psychology, general | 42.28 | Clinical, counseling and applied psychology |
| | 42.27 | Research and experimental psychology | 42.99 | Psychology, other |
| | | | | |
| Social sciences | 45.01 | Social sciences, general | 45.11 | Sociology |
| | 45.02 | Anthropology | 45.12 | Urban studies/affairs |
| | 45.03 | Archeology | 45.13 | Sociology and anthropology |
| | 45.04 | Criminology | 45.14 | Rural sociology |
| | 45.05 | Demography and population studies | 45.99 | Social sciences, other |
| | 45.06 | Economics | | |
| | 45.07 | Geography and cartography | Also include: | |
| | 45.09 | International relations and national security studies | 43.0106 | Forensic science and technology |
| | 45.10 | Political science and government | 43.0107 | Criminal justice/police science |
| | | | 43.0111 | Criminalistics and criminal science |
| Other field of S&E | Use this category when multidisciplinary, interdisciplinary, or other aspects make classification under one primary S&E field impossible. | | | |

Thank you. This is the end of Part 1. Part 2, which is bound separately, covers your institution's computing and networking capacity.

