

### National Science Foundation

## **FY 2013 Survey of Science and Engineering Research Facilities**

Part 1: Research Space

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.

Expiration date: 10/31/2014

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

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

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

Thank you for your participation.

General information
This questionnaire is available electronically. Go to www.facilitiessurvey.org to access the survey. You will need to click on "Part 1" and then enter the Part 1 Coordinator ID and password.
Please report information for the <b>institution</b> 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 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
Question 19 on survey completion time has been added.

### 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 Please indicate whether or not your institution had each type of S&E research space listed below at the end of your FY 2013. See pages 2–3 for the definition of research space and fields of S&E. Did your institution have this

Did your institution have this type of S&E research space at end of FY 2013?

(Mark one "X" for each row.)

a. Laboratories, wet or dry, including computer laboratories, behavior observation laboratories, etc		(Mark)	one A joi euch	1 10 vv.)
b. Laboratory support space, including autoclave rooms, darkrooms, equipment areas, storage areas for research equipment and supplies, etc	Types of S&E research space	Yes	No	Uncertain
darkrooms, equipment areas, storage areas for research equipment and supplies, etc	a. Laboratories, wet or dry, including computer laboratories, behavior observation laboratories, etc			
c. Instructional laboratories that are <i>also</i> used for research	darkrooms, equipment areas, storage areas for research			
e. Leased space that is used for research				
g. Space used for research containing nonfixed equipment costing \$1 million or more each, such as MRIs	d. Core laboratories that serve other laboratories			
g. Space used for research containing nonfixed equipment costing \$1 million or more each, such as MRIs	e. Leased space that is used for research			Ш
h. Research space in a medical school that awards the M.D. or D.O. degree	f. Offices, to the extent they are used for research			
i. Research animal space	g. Space used for research containing nonfixed equipment costing \$1 million or more each, such as MRIs			
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.	h. Research space in a medical school that awards the M.D. or D.O. degree			
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.				
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.	animals that are subject to local, state, and federal govern policies and regulations concerning humane care and use animals. Examples include procedure rooms, holding rooms.	ment of ms,		
j. Research space that is used for clinical trials	areas that are subject to local, state, and federal governme policies and regulations concerning humane care and use animals. Examples include animal quarters, cage washing	ent of		
	j. Research space that is used for clinical trials			

Qı	uestion 2: Amount of research sp	ace	
2.	of research space on pages 2–3) for each of research animal space in the relevant fields. Research space is equivalent to functional c Department of Education classification (FIC Education (WICHE classification), and the (NACUBO classification).  Research animal space includes all departs support areas, that are subject to local, state, and use of laboratory animals.  If research space was shared among fields of space used for research for each field below	assignable square feet was used for research ( the fields of science and engineering (S&E) b of S&E. You may provide estimates if you do ategory 2 (Research) for facilities inventory s CM classification), the Western Interstate Com National Association of College and Univers mental and central facilities, such as laborators and federal government policies and regulation or used for other purposes in addition to research. For example, if two fields shared the space	elow? Please include any o not have exact figures.  ystems based on the U.S. nmission for Higher ity Business Officers  ies, housing, and associated ons concerning humane care  earch, report the portion e equally, report half of
		Or, if an area was used for research one-fourth	
		•	
	See pages 27–28 for crosswalk of survey fie	elds of S&E and NCES CIP codes.	
	eld of S&E clude research animal space.)		Net assignable square feet of research space at end of FY 2013
a.	Agricultural sciences and natural reso	ources sciences	
	Agricultural economics 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	Check this box if no research space in this field at the end of FY 2013
b.	Biological and biomedical sciences		
	Anatomical sciences 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 Physiology Plant biology Population biology Toxicology Zoology Biological and biomedical sciences, other	Check this box if no research space in this field at the end of FY 2013
c.	Computer and information sciences		
	Computer science Computer software and media applications Computer systems networking and telecommunications Information science		Check this box if no research space in this field at the end of FY 2013

<b>Tield of S&amp;E</b> Include research animal space.)		Net assignable square fee of research space at end o FY 2013
. Engineering		
Aeronautical engineering	Forest engineering	NASF
Aerospace engineering	Geological engineering	
Agricultural engineering	Geophysical engineering	Check this box if no
Architectural engineering	Industrial engineering	research space in this field a
Astronautical engineering	Manufacturing engineering	the end of FY 2013
Automation engineering	Marine engineering	the end of FY 2013
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	Paper science and engineering	
communications engineering	Petroleum engineering	
Electromechanical engineering	Plastics engineering	
Engineering chemistry	Polymer engineering	
Engineering mechanics	Robotics	
Engineering physics	Surveying engineering	
Engineering science	Systems engineering	
Environmental engineering	Textile sciences and engineering	
Environmental health engineering	Engineering, other	
. Health and clinical sciences		
Allied health diagnostic, intervention,	Optometry	NASF
and treatment	Oral sciences	
Clinical laboratory science/research	Osteopathic medicine	Check this box if no
Clinical nursing	Osteopathy	research space in this field a
Communication disorders sciences	Pharmaceutical sciences	the end of FY 2013
Dentistry	Pharmacy	
Informatics	Podiatric medicine	
Kinesiology and exercise science	Podiatry	
Medical clinical sciences	Public health	
Medical illustration	Registered nursing	
Medical laboratory science/research	Rehabilitation and therapeutic subfields	
Medicine	Veterinary biomedical sciences	
Nursing research	Veterinary medicine	
. Mathematics and statistics		
Applied mathematics		NASF
Mathematics		
Statistics		Check this box if no
Mathematics and statistics, other		research space in this field a
		the end of FY 2013

	ld of S&E clude research animal space.)		Net assignable square feet of research space at end of FY 2013
g.	Physical sciences Group 1: Atmospheric, earth, and geological	al sciences; meteorology; and oceanography	NASF
			Check this box if no research space in this field at the end of FY 2013
	Group 2: Astronomy, astrophysics, chemistr	ry, materials sciences, and physics	NASF Check this box if no research space in this field at the end of FY 2013
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 2013
i.	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 2013
j.	of S&E research and research space.	terdisciplinary, or other aspects make mpossible. Please see pages 2–3 for the definition	NASF Check this box if no research space in this field at the end of FY 2013

Q	uestion 3: Research animal space
	Reminder: Please see page 1 for confidentiality of this item.
3.	At the end of your FY 2013, how much of the research NASF reported in Question 2 was used for research animals?
	<b>Research animal space</b> 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.")
Q	uestion 4: Clinical trial research space
4.	At the end of your FY 2013, 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.")
Q	uestion 5: Research space in medical school
5.	<i>If your institution had a medical school,</i> how much of the research NASF reported in Question 2 was located in the medical school at the end of your FY 2013?
	Medical school is a school that awards the M.D. or D.O. degree.
	If your institution did <i>not</i> 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.")

### **Question 6: Condition of research space**

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

6. At the end of your FY 2013, 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 2014 and FY 2015)

**Satisfactory condition** Suitable for continued use over the next 2 years (your FY 2014 and FY 2015)

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 2014 and FY 2015)

**Requires replacement** Should stop using space for current research within the next 2 years (your

FY 2014 and FY 2015)

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

		Percent of net assignable square feet					
	Mark "X" if no research	(The percentages should sum to 100 within each row.)					
Field of S&E (Include research animal space.)	space in this field	Superior condition	Satisfactory condition	Requires renovation	Requires replacement	Total	
a. Agricultural sciences and natural resources sciences		%	%	%	%	100%	
b. Biological and biomedical sciences				%		100%	
c. Computer and information sciences			%	%	%	100%	
d. Engineering			%	%	%	100%	
e. Health and clinical sciences			%	%	%	100%	
f. Mathematics and statistics			%	%	%	100%	
g. Physical sciences							
Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography						100%	
Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics		0/0	%	%	%	100%	
h. Psychology		%	%	%	%	100%	
i. Social sciences			%	%	%	100%	
j. Other field of S&E		%	%	%		100%	

### Question 7: Repairs and renovations started in FY 2012 and FY 2013

7. Please provide the completion costs for repair and renovation of S&E research facilities that started during 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 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  (Include costs for research animal space.)	Completion costs fo projects started in FY 2012 or FY 2013
a. Agricultural sciences and natural resources sciences	\$
b. Biological and biomedical sciences	\$
c. Computer and information sciences	\$
d. Engineering	\$
e. Health and clinical sciences	\$
f. Mathematics and statistics	\$
g. Physical sciences	
Group 1: Atmospheric, earth, and geological sciences; meteorology; and oceanography	\$
Group 2: Astronomy, astrophysics, chemistry, materials sciences, and physics	\$
h. Psychology	\$
i. Social sciences	\$
j. Other field of S&E (Please describe.)	\$

Q	uestion 8: For medical schools only: repairs and renovations in FY 2012 and FY 2013
8.	<i>If your institution had a medical school,</i> 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 <i>not</i> 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.")\$

N	nestion	9.	New	constructio	n starte	d in	FY 20	012 and	FY 2013	3
<b>、</b> ,	4 / 1 / 1 / 1 / 1 / 1 / 1 / 1		1 7 7 7 7 7			,		V I & AIII		,

V	destion 9: New construction started in FY 2012 and FY 2015
9.	Please provide the total number of new construction projects that included S&E research facilities that started during your FY 2012 or FY 2013. 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.
	<b>New construction</b> is the construction of a new building or additions to an existing building.
	<b>Research facilities</b> 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.
	<b>Completion costs</b> 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.
	<i>If facilities are shared for research and nonresearch activities,</i> 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

### **Individual Project Form for Question 9** Page 1 of 4

Please complete this form for each new construction project that started during your FY 2012 or FY 2013. Include only projects that will cost \$250,000 or more for at least one of the S&E fields.

What is the name of this project?
During which of your fined years did the physical work of new construction bosin for this project?
During which of your fiscal years did the physical work of new construction begin for this project?
FY 2012
FY 2013
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 rassignable 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)
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)
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 <b>S&amp;E research facilities</b> portion (defined on pages 2–3 of the survey questionnaire)
Research facilities are defined on pages 2–3 of the survey questionnaire, including examples of what areas to include and exclude.

the rest of the time, report one-fourth of the space as S&E research facilities.

### Individual Project Form for Question 9 Page 2 of 4

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 <b>S&amp;E</b> 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.

### Individual Project Form for Question 9 Page 3 of 4

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.

	Researc	h facilities
Field of S&E (Include research animal space.)	(1) Completion costs	
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

### Individual Project Form for Question 9 Page 4 of 4

	Page 4 of	4	
	Reminder: Please see page 1 for confidentiality of this item.		
9F.	How much of the completion costs and NASF reporte space?	ed in Question 9E a	are for <b>research animal</b>
	Research animal space includes all departmental and associated support areas, that are subject to locaregulations concerning humane care and use of laborations.	al, state, and feder	
	Research animal portion included in Question 9E ( <i>If none, enter "0."</i> )\$	Completion costs	Net assignable square feet  NASF
9G.	If your institution has a medical school, how much Question 9E are for research facilities located in the	n of the completion	
	Medical school is a school that awards the M.D. or D		
	If your institution does <i>not</i> have a school, check this box and go to C		
	Medical school portion included	Completion costs	Net assignable square feet
	in Question 9E (If none, enter "0.")\$		NASF

<b>Question 10:</b> Sources of project funding	0	duestion	10:	Sources	of	projec	t fundi	ng
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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 2012 or FY 2013 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).

### **Completion costs** (1) (2) For repairs and For new construction renovations reported in **Ouestion 9E** reported in **Source of funding** Question 7 (all project forms) a. Federal government ......\$ b. State or local government .....\$ c. Institutional funds and other sources Examples: operating funds, endowments, tax-exempt bonds and other debt financing, indirect costs recovered from federal grants/contracts, private donations, other sources ......\$ Total \$

### **Question 11: Planned repairs and renovations to start in FY 2014 and FY 2015**

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 2014 or FY 2015. 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 <b>not</b> have planned repair or renovation	
projects, check this box and go to Question 13	Ш

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

	eld of S&E nclude costs for research animal space.)	planno pr	mpletion costs ed repair/renov ojects to start 2014 or FY 20	vation in
a.	Agricultural sciences and natural resources sciences	\$		
b.	Biological and biomedical sciences	\$		
c.	Computer and information sciences	\$		
d.	Engineering	\$		
e.	Health and clinical sciences	\$		
f.	Mathematics and statistics	\$		
g.	Physical sciences			
	Group 1: Atmospheric, earth, and geological			
	sciences; meteorology; and oceanography	\$		
	Group 2: Astronomy, astrophysics, chemistry,			
	materials sciences, and physics	\$		
h.	Psychology	\$		
i.	Social sciences	\$		
j.	Other field of S&E (Please describe.)	\$		

### Question 12: For medical schools only: planned repairs and renovations in FY 2014 and FY 2015

12. <i>If your institution has a medical school</i> , 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 <i>not</i> 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 2014 and FY 2015**

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 2014 or FY 2015. 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 <i>not</i> have any planned new	$\neg$
construction projects, check this box and go to Question 15l	

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

### Planned new construction scheduled to start in FY 2014 or FY 2015

	***************************************		
Field of S&E (Include costs for research animal space.)	Completion costs	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	

Question 14: For medical schools only: planned new	v construction in 1	FY 2014 and FY 2015
14. <i>If your institution has a medical school</i> , how much of the complet construction of research facilities as reported in Question 13 will be		
<b>Medical school</b> is a school that awards the M.D. or D.O. degree.		
If your institution does <i>not</i> have a medical school, check this box and go to Question 1	5	
	Completion costs	Net assignable square feet
Medical school portion included in Question 13 (If none, enter "0.")	\$	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 2014 or FY 2015. 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 2014 or FY 2015. 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 <i>not</i> have deferred projects	_
for repair or renovation, check this box and go to Question 17	

Estimated costs of deferred

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

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

Question 16: For medical schools only: deferred repairs and renovations			
16. <i>If your institution has a medical school</i> , 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 <i>not</i> 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 (If none, enter "0.")	\$	\$	

### **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 2014 or FY 2015. 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 2014 or FY 2015. 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 <i>not</i> have deferred projects for		
new construction, check this box and go to Question 19	ш	

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

Question 18: For medical schools only: deferred new construction
18. <i>If your institution has a medical school</i> , how much of the estimated costs for deferred new construction of research facilities as reported in Question 17 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 <i>not</i> have a medical school, check this box and go to Question 19
For projects For projects not included in your included in your institutional plan
Medical school portion of the costs included in Question 17 (If none, enter "0.")\$
Question 19: Survey Part 1 completion time
19. Considering all offices involved, approximately how long did it take your institution to complete Part 1 of this survey? Please round to the nearest hour. If it took less than 1 hour, report 1 hour.
Number of hours (rounded to nearest hour)
Question 20: Comments
20. Please add any comments for Part 1 below.

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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	NCE	S CIP 2010 classification		
Agricultural	01.09	Animal sciences	03.05	Forestry
sciences and	01.10	Food science and technology	03.06	Wildlife and wildlands science and management
natural resources	01.11	Plant sciences		
	01.12	Soil sciences	Also in	clude:
sciences	03.01	Natural resources conservation and research	01.010	8
		(includes environmental science)	03.020	4 Natural resources economics
	03.03	Fishing and fisheries sciences and management		
Biological and	26.01	Biology, general	26.11	Biomathematics and bioinformatics
biomedical	26.02	Biochemistry, biophysics and molecular biology	26.12	Biotechnology
	26.03	Botany/plant biology	26.13	Ecology, evolution and population biology
sciences	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 in	clude:
	26.10	Pharmacology and toxicology	19.050	4 Human nutrition
Computer and	11.01	Computer and information sciences, general	11.08	Computer software and media applications
information	11.04	Information science/studies	11.09	Computer systems networking and
sciences	11.07	Computer science		telecommunications
	14.01	Engineering, general	14.23	Nuclear engineering
Engineering	14.01	Aerospace, aeronautical and astronautical	14.23	Ocean engineering
	14.02	engineering	14.25	Petroleum engineering
	14.03	Agricultural engineering	14.27	Systems engineering
	14.04	Architectural engineering	14.27	Textile sciences and engineering
	14.05	Biomedical/medical engineering	14.32	Polymer/plastics engineering
	14.06	Ceramic sciences and engineering	14.33	Construction engineering
	14.07	Chemical engineering	14.34	Forest engineering
	14.08	Civil engineering	14.35	Industrial engineering
	14.09	Computer engineering, general	14.36	Manufacturing engineering
	14.10	Electrical, electronics and communications	14.37	Operations research
		engineering	14.38	Surveying engineering
	14.11	Engineering mechanics	14.39	Geological/geophysical engineering
	14.12	Engineering physics	14.40	Paper science and engineering
	14.13	Engineering science	14.41	Electromechanical engineering
	14.14	Environmental/environmental health engineering	14.42	Mechatronics, robotics, and automation
	14.18	Materials engineering	2	engineering
	14.19	Mechanical engineering	14.43	Biochemical engineering
	14.20	Metallurgical engineering	14.44	Engineering chemistry
	14.21	Mining and mineral engineering	14.45	Biological/biosystems engineering
	14.22	Naval architecture and marine engineering		Engineering, other

Field of S&E	NCE	S CIP 2010 classification		
Health and	51.02 51.04	Communication disorders sciences and services Dentistry	51.20	Pharmacy, pharmaceutical sciences, and administration
clinical sciences	51.05	Advanced/graduate dentistry and oral sciences	51.21	Podiatric medicine/podiatry
	51.09	Allied health diagnostic, intervention, and	51.22	Public health
	51.07	treatment professions	51.23	Rehabilitation and therapeutic professions
	51.10	Clinical/medical laboratory science/research and	51.24	Veterinary medicine
		allied professions	51.25	Veterinary biomedical and clinical sciences
	51.12	Medicine	51.27	Medical illustration and informatics
	51.14	Medical clinical sciences/graduate medical studies	51.38	Registered nursing, nursing administration, nursing research, and clinical nursing
	51.16	Nursing		
	51.17	Optometry	Also inc	clude:
	51.19	Osteopathic medicine/osteopathy	31.0505	Kinesiology and exercise science
Mathematics and	27.01	Mathematics	27.05	Statistics
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
· Si	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 inc	
	45.09	International relations and national security studies	43.0106 43.0107	Es
	45.10	Political science and government	43.0107	
		s category when multidisciplinary, interdisciplinary		

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

