



FORM APPROVED
OMB No. 3145-0100
Expiration Date: TBD

NATIONAL SCIENCE FOUNDATION
ARLINGTON, VA 22230
HIGHER EDUCATION RESEARCH AND DEVELOPMENT SURVEY
FY 2010

Please submit your survey data by February 25, 2011.

This survey collects data on research and development (R&D) activities at higher education institutions. Please report R&D activities and expenditures for your institution's **2010** fiscal year.

The survey was previously known as the Survey of Research and Development Expenditures at Universities and Colleges. The next two pages summarize the changes from the FY 2009 survey and present updated instructions and definitions.

Your participation in this survey provides important information on the national level of R&D activity. NSF is authorized to collect this information under the National Science Foundation Act of 1950, as amended. Your institution's response is entirely voluntary. Your institution will be treated equally in future governmental decisions whether you provide all, some, or none of the requested survey information.

QUESTIONS?

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Response to this survey is estimated to require 48 hours. Please report your actual completion time at the end of the questionnaire. If you wish to comment on this burden, please contact Suzanne H. Plimpton of NSF at (703) 292-7556, or e-mail splimpto@nsf.gov.

The web address for submitting your data:

TBD

Or mail this form to:

TBD

Thank you for your participation.



What's New

The Higher Education Research & Development Survey, formerly the Survey of Research and Development Expenditures at Universities and Colleges, has undergone a redesign in consultation with experts, data users, and university representatives. This page briefly describes the changes and additions.

Include all fields of R&D in all survey questions

All fields of R&D should now be included in your institution's total R&D expenditures, both science and engineering (S&E) fields and non-science and engineering (non-S&E) fields such as humanities, education, law, and the arts.

All survey questions should include R&D in all fields, beginning with Question 1 and continuing throughout the questionnaire. Question 9 has a listing of examples for all R&D fields. **Please note:** There are no changes to the fields of R&D or to the listings of examples for each field.

Other general changes

- Two alternative listings show the discipline examples for each R&D field:
 - 1) Alphabetical listing of disciplines by field (see Question 9)
 - 2) U.S. Department of Education's CIP code listing by field (see the Main Menu on the survey website).
- Clinical trials and research training grants are now explicitly included in the definition of R&D.
- Each institution campus headed by a campus level president or chancellor is asked to complete a separate survey rather than combine their response with other campuses in their university system.

Changes to questions

- Sources of funds: Separate categories have been created for nonprofit organizations and for institutional cost sharing. The "Industry" category has been renamed "Business." (Question 1)
- Expenditures by field and source: Information is requested by field of R&D for all sources of funds.
 - o Question 9 asks for federally funded expenditures by agency and field.
 - o Question 12 asks for nonfederally funded expenditures by field for each nonfederal source.

New questions

- Question 2. Foreign funding for R&D
- Question 3. Contracts and grants
- Question 4. R&D at medical schools
- Question 5. Clinical trial R&D
- Question 6. Basic research, applied research, and development
- Question 10. Other federal agency sources
- Question 11. R&D funded by the American Recovery and Reinvestment Act (ARRA)
- Question 13. Interdisciplinary R&D
- Question 14. Cost elements of R&D
- Question 15. Capitalization thresholds
- Question 17. Headcount of R&D personnel
- Question 18. Headcount of R&D postdocs

Survey Definitions and Instructions

Fiscal year (FY)

Please report data for your institution's 2010 fiscal year.

Research and development (R&D) is creative work conducted systematically to increase the stock of knowledge (research) and to use this stock of knowledge to devise new applications (development). R&D covers three activities defined below – basic research, applied research, and development.

Basic research is undertaken primarily to acquire new knowledge without any particular application or use in mind.

Applied research is conducted to gain the knowledge or understanding to meet a specific, recognized need.

Development is the systematic use of the knowledge or understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes.

R&D expenditures

R&D for purposes of this survey is the same as “organized research” as defined by **2 CFR 220 (OMB Circular A-21)**. It includes all R&D expenditures from your institution's current operating funds that are separately budgeted and accounted for.

R&D <i>includes</i> :	R&D does <i>not</i> include:
<ul style="list-style-type: none"> • Sponsored research (including federal and nonfederal sponsors) • University research (institutional funds that are separately budgeted for individual R&D projects) • Recovered and unrecovered indirect costs (see definitions in Question 1) • Equipment purchased from R&D project accounts • R&D funds passed through to a subrecipient organization, educational or other • Clinical trials, phases I, II, or III (see definition in Question 5) • Research training grants (such as NIH K awards and T32 grants) 	<ul style="list-style-type: none"> • Public service grants or outreach programs • Program evaluation • Curriculum development • Departmental research that is not separately budgeted • R&D conducted by university faculty or staff at outside institutions that is not accounted for in your financial records • Capital projects (i.e. construction or renovation of research facilities) • Non-research training grants

Please <i>include</i> these components of your institution:	Please do <i>not</i> include:
<ul style="list-style-type: none"> • All units of your institution included in or with your financial statements, such as: <ul style="list-style-type: none"> ◦ Agricultural experiment stations ◦ Branch campuses ◦ Medical schools ◦ Hospitals or clinics ◦ Research centers and facilities ◦ A university 501(c)3 foundation established to handle R&D awards. 	<ul style="list-style-type: none"> • Federally Funded R&D Centers (FFRDCs). This information is collected separately. See the list of FFRDCs: http://www.nsf.gov/statistics/ffrdc/ • Other organizations or institutions, such as teaching hospitals or research institutes, with which your institution has an affiliation or relationship, but which are <u>not</u> components of your institution. • Other campuses headed by their own presidents or chancellors within your university system. Each campus is asked to respond separately.

Question 1. How much of your total expenditures for separately budgeted research and development (R&D) came from the following sources in FY 2010? (See definition of R&D on the previous page.)

- Include both **direct** and **recovered indirect costs** (reimbursement from external sponsors based on your institution's negotiated Facilities and Administrative (F&A) rate) in rows a, b, c, d, and f.
- Report the **original source** of funds, when possible.
- Include **all** fields of R&D: sciences, engineering, humanities, education, law, arts, etc. See full listing in Question 9.

R&D expenditures
(Dollars in thousands)
(for example, report \$25,342 as \$25)

SOURCE OF FUNDS

a. U.S. federal government

Any agency of the United States government.
Include federal funds passed through from another institution.

\$ _____

b. State and local government

Any state, county, municipality, or other local government entity in the United States, including state health agencies. Include state funds that support R&D at agricultural and other experiment stations. *Public institutions* should report state appropriations restricted for R&D activities here rather than in Institutional funds.

\$ _____

c. Business

Domestic or foreign for-profit organizations. (Report funds from a company's nonprofit foundation in row d.)

\$ _____

d. Nonprofit organizations

Domestic or foreign nonprofit foundations and organizations.

\$ _____

e. Institutional funds

1. Institutionally financed organized research.

Include expenditures of university funds from unrestricted sources that are separately budgeted for organized research.

\$ _____
(Confidential ¹)

2. Cost sharing

Include committed cost sharing other than unrecovered indirect costs. Report unrecovered indirect costs in row e3.

\$ _____
(Confidential ¹)

3. Unrecovered indirect costs

You may calculate this amount as follows for your externally funded R&D (preferably on a project-specific basis) using the appropriate cost rate—on-campus, off-campus, etc.

- First, multiply the negotiated rate by the corresponding base.
- Second, subtract recovered indirect costs.

\$ _____
(Confidential ¹)

4. Total institutional funds²

\$ TOTAL

f. All other sources

Other sources not reported above, such as funds from foreign governments.

\$ _____

g. Total ²

\$ TOTAL

¹ Information from confidential items is NOT published or released for individual institutions; only aggregate totals will appear in publications. 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.

² Totals for rows e4 and g are automatically generated on the web survey.

Question 2. How much of the total R&D expenditures reported in Question 1 came from foreign sources?

- Include foreign governments, businesses, universities, nonprofit organizations, and any other entity sending funds to the U.S. from a location outside the U.S. and its territories.
- Funds that are funneled through a U.S. location should still be considered foreign if the project sponsor is located outside the U.S. and its territories.
- Projects sponsored by a U.S. location of a foreign company are NOT considered foreign.
- Include international organizations even if they are located in the U.S. such as the United Nations, the World Bank, and the International Monetary Fund.

**R&D expenditures
(Dollars in thousands)**

Total R&D expenditures from foreign sources

\$ _____

Question 3. Of the total R&D expenditures that were externally funded (all sources other than the institutional funds reported in Question 1, row e4), how much was received under each of the following types of agreements?

**R&D expenditures
(Dollars in thousands)**

a. Contracts (including direct or prime contracts and subcontracts)

Contracts are legal commitments in which a good or service is provided by your institution that benefits the sponsor. The sponsor specifies the expected outcomes and gains the rights to results.

\$ _____

b. Grants, reimbursements, and all other agreements

Include all other agreements in which payments are received but no good or service other than periodic reporting is required in exchange.

\$ _____

c. Total¹

(should match Question 1, row g minus Question 1, row e4)

\$ **TOTAL**

¹ The column total is automatically generated on the web survey.

Question 4. Of the total R&D expenditures reported in Question 1, row g, how much was expended for R&D projects in your medical school?

Include projects that are assigned to the medical school or to research centers that are organizationally part of the medical school.

If your institution does **not** have a medical school (that is, a school that awards the M.D. or D.O. degree), check here and go to Question 5.

**R&D expenditures
(Dollars in thousands)**

Total R&D expenditures in the university's medical school

\$ _____

Question 5. Of the total R&D expenditures reported in Question 1, row g, how much was expended for Phase I, Phase II, and Phase III clinical trials?

Clinical trials are research studies designed to answer specific questions about the effects of drugs, vaccines, medical devices, tests, treatments, and other therapies for patients. Clinical trials are used to determine safety and effectiveness.

For reference, the National Institutes of Health (NIH) categorizes clinical trials into four phases:

- Phase I uses a small group of patients (20-80) to evaluate safety and identify side effects.
- Phase II uses larger group (100-300) to test effectiveness and further evaluate safety.
- Phase III uses a large group (1,000 to 3,000) to confirm effectiveness, monitor side effects, compare to commonly used treatments, and collect safety information.
- Phase IV is a post-market study that collects more information on risks, benefits, and optimal use.

If your institution did **not** conduct any clinical trials in FY 2010, check here and go to Question 5.1.

	R&D expenditures (Dollars in thousands)		
	(1) Federal	(2) Nonfederal	(3) Total ¹
a. Human clinical trials Trials with human patients	\$ _____	\$ _____	\$ <u>TOTAL</u>
b. Veterinary clinical trials Trials with animals to test veterinary drugs and treatments	\$ _____	\$ _____	\$ <u>TOTAL</u>
c. Total ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ Row and column totals are automatically generated on the web survey.

Question 5.1. Did you include R&D expenditures for clinical trials in your FY 2009 (previous year's) survey response?

(Check one for each row.)

If your institution does **not** conduct any clinical trials, check here and go to Question 6.

	(1) Included	(2) Not included	(3) No FY2009 trials
a. Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Nonfederal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 6. What amounts of your FY 2010 R&D expenditures were for basic research, applied research, and development? Estimates are acceptable.

See the box below this question for examples.

	R&D expenditures (Dollars in thousands)		
	(1) Federal	(2) Nonfederal	(3) Total ¹
a. Basic research Research undertaken primarily to acquire new knowledge without any particular application or use in mind.	\$ _____	\$ _____	\$ <u>TOTAL</u>
b. Applied research Research conducted to gain the knowledge or understanding to meet a specific, recognized need.	\$ _____	\$ _____	\$ <u>TOTAL</u>
c. Development The systematic use of the knowledge or understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes.	\$ _____	\$ _____	\$ <u>TOTAL</u>
d. Total ¹ Column 1 total should match Question 1, row a Column 3 total should match Question 1, row g	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ Row and column totals are automatically generated on the web survey.

Examples		
Basic research	Applied research	Development
A researcher is studying the properties of human blood to determine what affects coagulation.	A researcher is conducting research on how a new chicken pox vaccine affects blood coagulation.	A researcher is conducting clinical trials to test a newly developed chicken pox vaccine for young children.
A researcher is studying the properties of molecules under various heat and cold conditions.	A researcher is investigating the properties of particular substances under various heat and cold conditions with the objective of finding longer lasting components for highway pavement.	A researcher is working with state transportation officials to conduct tests of a newly developed highway pavement under various types of heat and cold conditions.
A researcher is studying the heart chambers of various fish species.	A researcher is examining various levels of a toxic substance to determine the maximum safe level for fish in a stream.	A researcher has a contract with the U.S. government to design a new stream monitoring system that will incorporate the latest research findings on toxicity levels for fish.

Question 7. How much of your R&D expenditures reported in Question 1 did your institution receive as a subrecipient?

The **subrecipient** for an award carries out the work but receives the funds from a pass-through entity rather than directly from the original funding source. See OMB Circular A-133, Section 105 for the federal definition. Subrecipients tend to be the co-authors of publications, writers of technical reports discussing findings, inventors, etc. Do **not** include vendor relationships. A vendor receives payment for goods and services provided. See OMB Circular A-133, Section 210.

Source of funds	R&D expenditures (Dollars in thousands)		
	(1) Federal	(2) Nonfederal	(3) Total ¹
a. From higher education institutions			
Colleges and universities and units owned, operated, and controlled by such institutions.	\$ _____	\$ _____	\$ <u>TOTAL</u>
b. From other sources	\$ _____	\$ _____	\$ <u>TOTAL</u>
c. Total ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ Row and column totals are automatically generated on the web survey.

Question 8. How much of your R&D expenditures reported in Question 1 were passed through by your institution to subrecipients?

Do **not** include vendor relationships. A vendor receives payment for goods and services provided. See OMB Circular A-133, Section 210.

Type of recipient	R&D expenditures (Dollars in thousands)		
	(1) Federal	(2) Nonfederal	(3) Total ¹
a. To higher education institutions			
Colleges and universities and units owned, operated, and controlled by such institutions.	\$ _____	\$ _____	\$ <u>TOTAL</u>
b. To other organizations	\$ _____	\$ _____	\$ <u>TOTAL</u>
c. Total ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ Row and column totals are automatically generated on the web survey.

Question 9A. What were your FY 2010 R&D expenditures in engineering funded by the federal agency sources¹ below? (R&D expenditures from nonfederal sources will be reported in Question 12.)

- Question 9 total (page 14, row K, column h) should match Question 1, row a.
- Examples of the disciplines included in each field are listed below.
- If an individual project involves more than one of the 36 fields of R&D, please prorate expenditures when possible and report the amount for each field involved.

R&D expenditures from federal sources²
(Dollars in thousands)

R&D Fields	(a) USDA	(b) DoD	(c) Energy	(d) HHS, includes NIH	(e) NASA	(f) NSF	(g) Other	(h) TOTAL ³
A. ENGINEERING								
1. Aeronautical/ Astronautical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
2. Bioengineering/ Biomedical eng.	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
3. Chemical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
4. Civil	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
5. Electrical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
6. Mechanical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
7. Metallurgical/ Materials	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
8. Other engineering	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
9. TOTAL³	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ A crosswalk of federal agencies and their sub-agencies is available on the Main Menu page of the web survey.

² **KEY:** USDA, Department of Agriculture; DoD, Department of Defense; Energy, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NIH, National Institutes of Health; NSF,

National Science Foundation. "Other" includes all other federal agencies.

³ Row and column totals are automatically generated on the web survey.

Examples of Disciplines: Engineering Fields of R&D

A. ENGINEERING	4. Civil	5. Electrical	8. Other engineering
<p>1. Aeronautical/astronautical</p> <p>Aerodynamics Aerospace engineering Space technology</p> <p>2. Bioengineering/biomedical engineering</p> <p>Biomaterials Medical engineering</p> <p>3. Chemical</p> <p>Petroleum Petroleum refining process Plastics Polymer Wood science</p>	<p>Architectural Architecture Environmental Environmental health Geotechnical Hydraulic Hydrologic Sanitary Structural Transportation</p>	<p>Communications Computer Electronics Power</p> <p>6. Mechanical</p> <p>Engineering mechanics</p> <p>7. Metallurgical/Materials</p> <p>Ceramic Materials science Metallurgy Mining and mineral Textile Welding</p>	<p>Agricultural Engineering design Engineering physics Engineering science Marine Naval architecture Nuclear Ocean Systems Other engineering fields not listed separately above</p>

Question 9 continues on next page.

Question 9B. What were your FY 2010 R&D expenditures in the physical sciences funded by the federal agency sources¹ below? (R&D expenditures from nonfederal sources will be reported in Question 12.)

R&D expenditures from federal sources²
(Dollars in thousands)

R&D Fields	(a) USDA	(b) DoD	(c) Energy	(d) HHS, includes NIH	(e) NASA	(f) NSF	(g) Other	(h) TOTAL ³
B. PHYSICAL SCIENCES								
1. Astronomy	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Chemistry	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Physics	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Other physical sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. TOTAL ³	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ A crosswalk of federal agencies and their subagencies is available on the Main Menu page of the web survey.

² **KEY:** USDA, Department of Agriculture; DoD, Department of Defense; Energy, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

³ Row and column totals are automatically generated on the web survey.

Examples of Disciplines: Physical Sciences Fields of R&D

B. PHYSICAL SCIENCES			
<p>1. Astronomy</p> <ul style="list-style-type: none"> Astrophysics Gamma-ray astronomy Neutrino astronomy Optical astronomy Radio astronomy X-ray astronomy 	<p>2. Chemistry</p> <p>(except biochemistry—see Biological sciences)</p> <ul style="list-style-type: none"> Analytical chemistry Inorganic chemistry Organic chemistry Organo-metallic chemistry Pharmaceutical chemistry Physical chemistry Polymer sciences 	<p>3. Physics</p> <ul style="list-style-type: none"> Acoustics Atomic physics Chemical physics Condensed matter physics Elementary particle physics Mathematical physics Molecular physics Nuclear structure Optics Plasma physics Theoretical physics 	<p>4. Other physical sciences</p> <p>Other physical sciences not listed separately above</p>

Question 9C-E. What were your FY 2010 R&D expenditures in the environmental, mathematical, and computer sciences funded by the federal agency sources¹ below? (R&D expenditures from nonfederal sources will be reported in Question 12.)

R&D expenditures from federal sources²
(Dollars in thousands)

R&D Fields	(a) USDA	(b) DoD	(c) Energy	(d) HHS, includes NIH	(e) NASA	(f) NSF	(g) Other	(h) TOTAL ³
C. ENVIRONMENTAL SCIENCES								
1. Atmospheric	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
2. Earth sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
3. Oceanography	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
4. Other environmental sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
5. TOTAL ³	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
D. MATHEMATICAL SCIENCES	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
E. COMPUTER SCIENCES	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>

¹ A crosswalk of federal agencies and their subagencies is available on the Main Menu page of the web survey.

² **KEY:** USDA, Department of Agriculture; DoD, Department of Defense; Energy, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

³ Row and column totals are automatically generated on the web survey.

Examples of Disciplines: Environmental Sciences, Mathematical Sciences, and Computer Sciences Fields of R&D

C. ENVIRONMENTAL SCIENCES	C. ENVIRONMENTAL SCIENCES (CONTINUED)	C. ENVIRONMENTAL SCIENCES (CONTINUED)	D. MATHEMATICAL SCIENCES
1. Atmospheric sciences	2. Earth sciences	3. Oceanography	Algebra
Aeronomy	Cartography	Biological oceanography	Analysis
Extraterrestrial atmospheres	Earth and planetary sciences	Chemical oceanography	Applied mathematics
Meteorology	Geochemistry	Geological oceanography	Foundations and logic
			Geometry

<p>Solar Weather modification</p>	<p>Geodesy and gravity Geology Geomagnetism Geophysics Hydrology Paleomagnetism Paleontology Physical geography Seismology Surveying</p>	<p>Marine biology Marine oceanography Physical oceanography</p> <p>4. Other environmental sciences</p> <p>Other environmental sciences not listed separately above</p>	<p>Numerical analysis Operations research Statistics Topology</p> <p>E. COMPUTER SCIENCES</p> <p>Computer systems analysis Data processing Information sciences Information technology Management information systems</p>
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Question 9 continues on next page.

Question 9F. What were your FY 2010 R&D expenditures in the life sciences funded by the federal agency sources¹ below? (R&D expenditures from nonfederal sources will be reported in Question 12.)

R&D expenditures from federal sources ²
(Dollars in thousands)

R&D Fields	(a) USDA	(b) DoD	(c) Energy	(d) HHS, includes NIH	(e) NASA	(f) NSF	(g) Other	(h) TOTAL ³
F. LIFE SCIENCES								
1. Agricultural	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
2. Biological	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
3. Medical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
4. Other life sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
5. TOTAL ³	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ A crosswalk of federal agencies and their subagencies is available on the Main Menu page of the web survey.

² **KEY:** USDA, Department of Agriculture; DoD, Department of Defense; Energy, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

³ Row and column totals are automatically generated on the web survey.

Examples of Disciplines: Life Sciences Fields of R&D

F. LIFE SCIENCES

1. Agricultural sciences

Agricultural chemistry
Agricultural economics — see
Social sciences, Economics
Agricultural engineering — see
Engineering
Agricultural production
Agronomy
Animal science
Aquaculture
Conservation
Fish and wildlife
Forestry
Horticulture
International agriculture
Landscape architecture
Plant sciences
Renewable natural resources
Soil sciences

2. Biological sciences

(continued)
Botany
Cellular biology
Ecology
Entomology
Epidemiology
Foods and nutrition studies
Genetics, plant and animal
Immunology
Medical microbiology
Microbiology
Molecular biology
Nutritional sciences
Parasitology
Pathology, human and animal
Pharmacology, human and
animal
Physical anthropology
Physiology, human and
animal

3. Medical sciences

(continued)
Dermatology
Family medicine
Gastroenterology
General surgery
Geriatric medicine
Gynecology
Hematology
Internal medicine
Mental Health
Neonatal-perinatal medicine
Neurological surgery
Neurology
Neurosciences
Nuclear medicine
Nuclear radiology
Obstetrics
Oncology
Ophthalmology
Optometry

3. Medical sciences

(continued)
Preventive medicine
Psychiatric nursing
Psychiatry
Public health
Radiation biology/
Radiobiology
Thoracic surgery
Urology
Veterinary medicine — see
note below

4. Other life sciences

Clinical/medical laboratory
technologies
Communication disorders
sciences and services
Gerontology
Health and medical

<p>2. Biological sciences</p> <p>Allergies and immunology Anatomy Bacteriology Biochemistry Biogeography Biology, general Biometrics Biophysics Biostatistics Biotechnology (continued)</p>	<p>Toxicology Virology Zoology</p> <p>3. Medical sciences</p> <p>Anesthesiology Cardiology Colon and rectal surgery Dental surgery Dentistry (continued)</p>	<p>Oral surgery Orthopedic surgery Orthopedics Osteopathic medicine Otorhinolaryngology Pediatrics Pharmacology Pharmacy Physical and rehabilitative medicine Plastic surgery Podiatry (continued)</p>	<p>administrative services Health professions and related services, other Nursing Occupational therapy Physical therapy Rehabilitation services Therapeutic services Other life sciences not listed separately above</p>
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Note: Please report veterinary R&D expenditures using agricultural sciences, medical sciences, and biological sciences, as appropriate.

Question 9 continues on next page.

Question 9G-I. What were your FY 2010 R&D expenditures in psychology, social sciences, and other sciences funded by the federal agency sources¹ below? (R&D expenditures from nonfederal sources will be reported in Question 12.)

R&D expenditures from federal sources²
(Dollars in thousands)

R&D Fields	(a) USDA	(b) DoD	(c) Energy	(d) HHS, includes NIH	(e) NASA	(f) NSF	(g) Other	(h) TOTAL ³
G. PSYCHOLOGY	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
		—	—	—	—	—	—	\$ <u>TOTAL</u>
H. SOCIAL SCIENCES								
1. Economics	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
		—	—	—	—	—	—	\$ <u>TOTAL</u>
2. Political science	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
		—	—	—	—	—	—	\$ <u>TOTAL</u>
3. Sociology	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
		—	—	—	—	—	—	\$ <u>TOTAL</u>
4. Other social sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
		—	—	—	—	—	—	\$ <u>TOTAL</u>
5. Total³	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
I. OTHER SCIENCES	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
		—	—	—	—	—	—	\$ <u>TOTAL</u>

¹ A crosswalk of federal agencies and their subagencies is available on the Main Menu page of the web survey.

² **KEY:** USDA, Department of Agriculture; DoD, Department of Defense; Energy, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

³ Row and column totals are automatically generated on the web survey.

Examples of Disciplines: Psychology and Social Sciences Fields of R&D

<p>G. PSYCHOLOGY</p> <ul style="list-style-type: none"> Animal behavior Art therapy Clinical psychology Educational psychology Experimental psychology Human development and personality School psychology Social psychology <p>H. SOCIAL SCIENCES</p> <p>1. Economics</p> <ul style="list-style-type: none"> Agricultural economics Applied economics Business development Econometrics Industrial economics International economics Labor economics Managerial economics Public finance and fiscal policy Quantitative economics Resource economics 	<p>H. SOCIAL SCIENCES (CONTINUED)</p> <p>2. Political science</p> <ul style="list-style-type: none"> Comparative government Government International relations and affairs Legal systems Political theory Public administration Public policy analysis Regional studies <p>3. Sociology</p> <ul style="list-style-type: none"> Anthropology (social and cultural only) Comparative and historical sociology Complex organizations Cultural and social structure Demography Group interactions Population studies Social problems and welfare theory 	<p>H. SOCIAL SCIENCES (CONTINUED)</p> <p>4. Other social sciences</p> <ul style="list-style-type: none"> Archaeology Area and ethnic studies City and community planning Community services Corrections Criminal justice Geography History of science Linguistics Urban and regional planning Urban affairs Urban studies 	<p>I. OTHER SCIENCES</p> <p>Use this category for R&D that involves at least one S&E field (rows A to H) if it is impossible to report multidisciplinary or interdisciplinary R&D expenditures in specific fields.</p>
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Question 9 continues on next page.

Question 9J-K. What were your FY 2010 R&D expenditures in the non-science and engineering (non-S&E) fields funded by the federal agency sources¹ below? (R&D expenditures from nonfederal sources will be reported in Question 12.)

R&D expenditures from federal sources²
(Dollars in thousands)

R&D Fields	(a) USDA	(b) DoD	(c) Energy	(d) HHS, includes NIH	(e) NASA	(f) NSF	(g) Other	(h) TOTAL ³
J. NON-S&E FIELDS								
1. Education	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
2. Law	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
3. Humanities	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
4. Visual and performing arts	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
5. Business and management	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
6. Communication, journalism, and library science	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
7. Social work	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
8. Other non-S&E fields	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
9. TOTAL ³	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL
K. TOTAL FOR ALL FIELDS OF R&D³	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL

Total for row K, column h should equal Total for Question 1, row a.

¹ A crosswalk of federal agencies and their subagencies is available on the Main Menu page of the web survey.

² **KEY:** USDA, Department of Agriculture; DoD, Department of Defense; Energy, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

³ Row and column totals are automatically generated on the web survey.

Examples of Disciplines: Non-Science & Engineering (Non-S&E) Fields of R&D

J. NON-S&E

1. Education

(no specific examples)

2. Law

Legal studies

3. Humanities

English language and literature
Foreign languages and literature

History (except history of science—see Other social sciences)

Letters

Liberal arts and sciences

3. Humanities (continued)

General studies and humanities

Philosophy and religion

Theological studies and religious vocations

4. Visual and performing arts

(no specific examples)

5. Business and management

Business management and administrative services
Marketing distribution
Marketing operations

6. Communication, journalism, and library science

Communication

Communications technologies

Library science

7. Social work

(no specific examples)

8. Other non-S&E fields

Military technologies

Parks, recreation, leisure and fitness studies

Other non-S&E fields not listed separately above

Also, use this category for R&D that involves multiple non-S&E fields if it is impossible to report multidisciplinary or interdisciplinary R&D expenditures in specific fields

Question 10. Of the amount reported for “other” federal sources reported in Question 9 (row K, column g), which agencies funded this R&D and how much of the reported amount was from each agency?

If your institution reported \$0 in Question 9, row K, column g, check here and go to Question 11.

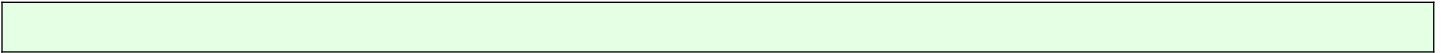
- Use rows a-j to list up to 10 agencies that funded the highest R&D expenditures.
- Use row k to report any remaining amount.
- For subrecipient funding, report the federal agency that sponsored the original grant or contract.
- A crosswalk of federal agencies and their subagencies is available on the Main Menu page of the web survey.

Federal agency	R&D expenditures (Dollars in thousands)
a. <input type="text"/>	\$ <input type="text"/>
b. <input type="text"/>	\$ <input type="text"/>
c. <input type="text"/>	\$ <input type="text"/>
d. <input type="text"/>	\$ <input type="text"/>
e. <input type="text"/>	\$ <input type="text"/>
f. <input type="text"/>	\$ <input type="text"/>
g. <input type="text"/>	\$ <input type="text"/>
h. <input type="text"/>	\$ <input type="text"/>
i. <input type="text"/>	\$ <input type="text"/>
j. <input type="text"/>	\$ <input type="text"/>
k. Other agencies included in Question 9, column g, but not listed above	\$ <input type="text"/>
l. Total (should match Question 9, row K, column g.) ¹	\$ <u>TOTAL</u>

¹ The column total is automatically generated on the web survey.

Question 11. How much of the federal R&D expenditures reported in Question 9, row K, column h, was funded by the American Recovery and Reinvestment Act (ARRA)?

	R&D expenditures (Dollars in thousands)
Total R&D expenditures from ARRA funds	\$ <input type="text"/>



Question 12A-B. What were your FY 2010 R&D expenditures in the engineering and physical sciences fields funded by the nonfederal sources below?

- The totals in row K, page 18, should match corresponding sources in Question 1, rows b-f.
- If an individual project involves more than one of the 36 fields of R&D, please prorate expenditures when possible and report the amount for each field involved.

R&D expenditures from nonfederal sources
(Dollars in thousands)

R&D Fields (See Question 9, pp. 9-10)	(a) State and local government	(b) Busines s	(c) Nonprofit organization s	(d) Institution al funds	(e) Other nonfederal sources	(f) TOTAL ¹
A. ENGINEERING						
1. Aeronautical/ Astronautical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Bioengineering/ Biomedical eng.	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Chemical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Civil	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. Electrical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
6. Mechanical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
7. Metallurgical/Materials	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
8. Other engineering	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
9. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
B. PHYSICAL SCIENCES						
1. Astronomy	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Chemistry	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Physics	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Other physical sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ Row and column totals are automatically generated on the web survey.

Examples of disciplines for engineering and physical sciences fields of R&D are listed on page 9-10.

Question 12C-I. What were your FY 2010 R&D expenditures in the R&D fields listed below funded by the nonfederal sources below?

**R&D expenditures from nonfederal sources
(Dollars in thousands)**

R&D Fields (See Question 9, pp. 11-13)	(a) State and local government	(b) Busines s	(c) Nonprofit organization s	(d) Institution al funds	(e) Other nonfederal sources	(f) TOTAL ¹
C. ENVIRONMENTAL SCIENCES						
1. Atmospheric	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
2. Earth sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
3. Oceanography	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
4. Other environmental sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
5. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
D. MATHEMATICAL SCIENCES						
	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
E. COMPUTER SCIENCES						
	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
F. LIFE SCIENCES						
1. Agricultural	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
2. Biological	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
3. Medical	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>
4. Other life sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____ <u>TOTAL</u>

5. TOTAL ¹	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL
G. PSYCHOLOGY	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
H. SOCIAL SCIENCES						
1. Economics	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
2. Political science	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
3. Sociology	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
4. Other social sciences	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL
5. TOTAL ¹	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL	\$ TOTAL
I. OTHER SCIENCES	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ TOTAL

¹ Row and column totals are automatically generated on the web survey.

Examples of disciplines for the above fields of R&D are listed on pages 11-13.

Question 12 continues on next page.

Question 12J-K. What were your FY 2010 R&D expenditures in the non-science and engineering (non-S&E) fields funded by the nonfederal sources below?

**R&D expenditures from nonfederal sources
(Dollars in thousands)**

R&D Fields (See Question 9, p. 14)	(a) State and local government	(b) Busines s	(c) Nonprofit organization s	(d) Institution al funds	(e) Other nonfederal sources	(f) TOTAL ¹
J. NON-S&E FIELDS						
1. Education	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Law	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Humanities	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Visual and performing arts	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. Business and management	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
6. Communication, journalism, and library science	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
7. Social work	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
8. Other non-S&E fields	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ <u>TOTAL</u>
9. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
K. TOTAL FOR ALL FIELDS OF R&D ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

Totals in row K, columns a-e should match corresponding sources in Question 1, rows b-f.

¹ Row and column totals are automatically generated on the web survey.

Examples of disciplines for non-S&E fields of R&D are listed on page 14.

Question 13. What amounts of your FY 2010 R&D expenditures were for interdisciplinary R&D?

Interdisciplinary R&D integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge. The purpose of interdisciplinary R&D is to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of R&D.

Interdisciplinary research includes R&D expenditures within a center that primarily conducts interdisciplinary R&D at your institution. It may also include R&D jointly conducted by two or more departments at your institution.

	R&D expenditures (Dollars in thousands)		
	(1) Federal	(2) Nonfederal	(3) Total ¹
a. R&D expenditures within interdisciplinary research centers	\$ _____	\$ _____	\$ <u>TOTAL</u>
b. All other interdisciplinary R&D expenditures (e.g., projects shared across two or more departments)	\$ _____	\$ _____	\$ <u>TOTAL</u>
c. Total ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹ Row and column totals are automatically generated on the web survey.

Question 14. Of the total amount of R&D expenditures reported in Question 1, row g, what were the amounts for the following types of costs?

Please report only **direct costs** (including cost sharing) in rows a to e. Recovered and unrecovered **indirect costs** should be reported in rows f and g.

DIRECT COSTS FROM ALL SOURCES	R&D expenditures (Dollars in thousands)
a. Salaries, wages, and fringe benefits Include compensation for all R&D employees whether full-time or part-time, temporary or permanent. Also include tuition waivers or other student support. Include salaries paid from your institution's funds and from external support.	\$ <input type="text"/>
b. Software purchases All payments for software. Include both purchases of software packages and license fees for systems.	
1. Noncapitalized software	\$ <input type="text"/>
2. Capitalized software (If you are unable to distinguish software from equipment, report both in row c)	\$ <input type="text"/>
c. Capitalized equipment Payments for movable equipment exceeding your institution's capitalization threshold. Include ancillary costs such as delivery and set-up.	\$ <input type="text"/>
d. Pass-throughs to other universities or organizations (should match the total in Question 8, row c, column 3)	\$ <input type="text"/>
e. Other direct costs Other costs that do not fit into one of the above categories, including (but not limited to) travel, services such as consulting, computer usage fees, and supplies.	\$ <input type="text"/>
INDIRECT COSTS	
f. Recovered indirect costs Reimbursement from external sponsors based on your institution's negotiated Facilities and Administrative (F&A) rate.	\$ <input type="text"/> (Confidential ¹)
g. Unrecovered indirect costs (should equal Question 1, row e3)	\$ <input type="text"/> (Confidential ¹)
h. Total ² (should match total from Question 1, row g)	\$ <u>TOTAL</u>

¹ Information from confidential items is NOT published or released for individual institutions; only aggregate totals will appear in publications. 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.

² The column total is automatically generated on the web survey.

Question 15. At the end of FY 2010, what were your institution's dollar capitalization thresholds (in thousands) for software and equipment?

Dollars in thousands	
(1)	(2)
Software	Equipment

Capitalization thresholds

\$ _____

\$ _____

Question 16A-C. For the fields of R&D below, what portion of your FY 2010 R&D expenditures went for the purchase of capitalized R&D equipment?

The total for Question 16 entered on row K, column c, should match Question 14, row c (capitalized equipment other than software).

R&D Fields (See Question 9, pp. 9-11)	R&D equipment expenditures (Dollars in thousands)		
	(a) Federal	(b) Nonfederal	(c) Total ¹
A. ENGINEERING			
1. Aeronautical/Astronautical	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Bioengineering/Biomedical engineering	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Chemical	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Civil	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. Electrical	\$ _____	\$ _____	\$ <u>TOTAL</u>
6. Mechanical	\$ _____	\$ _____	\$ <u>TOTAL</u>
7. Metallurgical/Materials	\$ _____	\$ _____	\$ <u>TOTAL</u>
8. Other engineering	\$ _____	\$ _____	\$ <u>TOTAL</u>
9. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
B. PHYSICAL SCIENCES			
1. Astronomy	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Chemistry	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Physics	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Other physical sciences	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
C. ENVIRONMENTAL SCIENCES			
1. Atmospheric	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Earth sciences	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Oceanography	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Other environmental sciences	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

¹Row and column totals are automatically generated on the web survey.

Examples of disciplines for the above fields of R&D are listed on pages 11-13.

Question 16 continues on next page.

Question 16D-I. For the R&D fields below, what portion of your FY 2010 R&D expenditures went for the purchase of capitalized R&D equipment?

R&D Fields (See Question 9, pp. 11-13)	R&D equipment expenditures (Dollars in thousands)		
	(a) Federal	(b) Nonfederal	(c) Total ¹
D. MATHEMATICAL SCIENCES	\$ _____	\$ _____	\$ <u>TOTAL</u>
E. COMPUTER SCIENCES	\$ _____	\$ _____	\$ <u>TOTAL</u>
F. LIFE SCIENCES			
1. Agricultural	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Biological	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Medical	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Other life sciences	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
G. PSYCHOLOGY	\$ _____	\$ _____	\$ <u>TOTAL</u>
H. SOCIAL SCIENCES			
1. Economics	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Political science	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Sociology	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Other social sciences	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. TOTAL ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>
I. OTHER SCIENCES	\$ _____	\$ _____	\$ <u>TOTAL</u>

¹ Row and column totals are automatically generated on the web survey.

Examples of disciplines for the above fields of R&D are listed on pages 11-13.

Question 16J-K. For the non-science and engineering (non-S&E) fields of R&D below, what portion of your FY 2010 R&D expenditures went for the purchase of capitalized R&D equipment?

R&D Fields (See Question 9, p. 14)	R&D equipment expenditures (Dollars in thousands)		
	(a) Federal	(b) Nonfederal	(c) Total ¹
J. NON-S&E FIELDS			
1. Education	\$ _____	\$ _____	\$ <u>TOTAL</u>
2. Law	\$ _____	\$ _____	\$ <u>TOTAL</u>
3. Humanities	\$ _____	\$ _____	\$ <u>TOTAL</u>
4. Visual and performing arts	\$ _____	\$ _____	\$ <u>TOTAL</u>
5. Business and management	\$ _____	\$ _____	\$ <u>TOTAL</u>
6. Communication, journalism, and library science	\$ _____	\$ _____	\$ <u>TOTAL</u>
7. Social work	\$ _____	\$ _____	\$ <u>TOTAL</u>
8. Other non-S&E fields	\$ _____	\$ _____	\$ <u>TOTAL</u>
9. TOTAL ¹	\$ _____	\$ _____	\$ <u>TOTAL</u>
K. TOTAL FOR ALL FIELDS OF R&D ¹	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

Total for row K, column c, should match Question 14, row c (capitalized equipment other than software).

¹ Row and column totals are automatically generated on the web survey.

Examples of disciplines for non-S&E fields of R&D are listed on page 14.

Question 17. How many principal investigators and other personnel (headcount) were paid from the R&D salaries and wages you reported in Question 14, row a?

- A principal investigator (PI) is the person designated by your institution to direct the R&D project or program and be responsible for the scientific and technical direction of the project.
- Count each person only once. If a person serves as a PI or co-PI on one project and “other personnel” on another project, count that person as a PI.
- Include all employees and students paid from R&D accounts regardless of how much they received.

	(1) Principal investigators	(2) All other personnel	(3) Total ¹
Number of people (headcount)	<input type="text"/>	<input type="text"/>	<u>TOTAL</u>

¹The row total is automatically generated on the web survey.

Question 18. Of the headcount reported in Question 17, column 3, how many are categorized as postdocs?

NSF defines postdocs as meeting both of the following qualifications:

- (1) Holds a recent doctoral degree, generally awarded within the last 5 years
 - PhD or equivalent such as an ScD or DEng **or**
 - First professional degree in a medical or related field (MD, DDS, DO, DVM) **or**
 - Foreign equivalent to a U.S. doctoral degree
- (2) Has a limited-term appointment, generally no more than 5–7 years
 - Primarily for training in research or scholarship and
 - Working under the supervision of a senior scholar in a unit affiliated with **your** institution

Number of postdocs (headcount)

Question 19.

A. Contact information: Please complete the contact information for the person responsible for the survey and an alternate contact.

	Primary contact	Alternate contact
Name	<input type="text"/>	<input type="text"/>
Title	<input type="text"/>	<input type="text"/>
Building/Department	<input type="text"/>	<input type="text"/>
Street address	<input type="text"/>	<input type="text"/>
City, state, and zip code	<input type="text"/>	<input type="text"/>
Phone number	<input type="text"/>	<input type="text"/>
Fax number	<input type="text"/>	<input type="text"/>
Email address	<input type="text"/>	<input type="text"/>

B. Survey completion time by office: Please list the offices at your institution that were involved in completing your response to the survey. For each office, please indicate the survey completion time in hours for:

- (1) setting up new queries or data elements to collect the information requested, and
- (2) preparing your survey response.

Offices involved in responding	Completion time in hours	
	(1) Setting up new queries or data elements	(2) Response preparation
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

C. Fiscal year: In what month did your institution's 2010 fiscal year end?

D. Additional comments:

Web Survey Features

Key Points

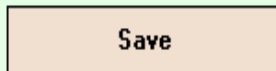
- Be sure to use one of the “Save” buttons at the bottom of each question before leaving the page, to avoid losing data.
- Using your browser’s Back button or the Logout button on the banner without saving will cause you to lose data.
- You can find links to instructions and resources on the Survey Resources page.

Navigating the Web Survey

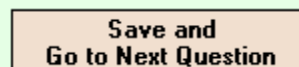
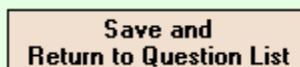
Question List Page: You can complete the questions in any order. Navigate by selecting a question from the Question List page. This page will show one of the following statuses for each question:

- ➔ **Not Started** indicates that you have not entered and saved any data on the question.
- ? **View Data Checks** means that you have entered data and have one or more edit checks to review. You may return to these questions to add or modify data.
- ✓ **Ready to Submit** means that the question has no data checks that need to be resolved before submitting.

Automatic Totals: Many questions have gray total boxes; totals are calculated automatically as you move from cell to cell. To recalculate totals and stay on the same question, click the middle Save button at the bottom of the page.



Navigation to Another Question: When you finish entering your data on each question page, you have the following options:



Reminder: If you use your browser’s Back button or click “Logout” under the banner without saving, you will lose any unsaved data on that question.

Data checks: When you save a question, a yellow box will appear at the top of the page if you have data checks to resolve. You can choose the option of when to view the data checks:

- Review now: Review a list of data checks and any blanks in a box at the top of the page
- Review later: Review data checks later (when you return to that question or click the “Review Your Data” button)

There are 3 types of data checks:

- Data checks that must be corrected before you can successfully submit the survey
- Warnings that indicate potential data checks (but you will be able to submit the survey)
- Blank cells that require you to enter a “0” if applicable, or provide a comment to explain the blank(s)

Comment Box: All questions have a comment box you may use to provide additional information about your responses.

Logging Out and Returning Later

If you need to log out before completing the entire survey, save the data on your current question and then click the Logout link at the top of the page. All data entered to that point will be saved. When you log in again, you will start at the Main Menu page.

Reviewing Your Response

When you are ready to review your response, click the "Review Your Data" button at the top of the Question List page. If there are items to be resolved, a new window will open and show you:

- A printable list of data checks that you must correct before you can successfully submit the survey
- A form asking you to indicate which of the following applies for each question with remaining blank cells:
 - o Data are not available for the blank cell(s)
 - o The value is zero for the blank cell(s)

You can use the Question List page to navigate to questions and complete them, correct them, or enter comments.

If you have corrected all data checks, you will see the message "Your survey answers are ready to submit." Click the Submit Survey button.

Submitting Your Response

After you have resolved all data checks, click the "Submit Your Data" button. Click "Cancel" to return to the survey. Click "OK" to submit your survey. Once you submit your survey, you will no longer be able to edit the data, but you may still print copies of your responses.

Printing Your Response

Click the "Print Your FY 2010 survey answers" link to download a copy of your completed survey in html format.