



NATIONAL SCIENCE FOUNDATION
ARLINGTON, VA 22230
HIGHER EDUCATION RESEARCH AND DEVELOPMENT SURVEY
FY 2009

Please submit your survey data by February 26, 2010.

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 **2009** 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 2008 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 80 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:

<https://www.nsfherdsurvey.org>

Or mail this form to:

ATTN: NSF HERD Survey
Westat
1600 Research Blvd. Room TA2062
Rockville, MD 20850

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 items

Please note that this revised questionnaire includes R&D in science and engineering (S&E) fields and in non-science and engineering (non-S&E) fields such as humanities, education, law, and the arts. R&D in both S&E and non-S&E fields is included in all survey items, beginning with Question 1 and continuing throughout the questionnaire. See question 9 for a complete listing of all fields of R&D. **Please note:** There are no changes to the fields of R&D nor to the listings of examples for each field.

Other general changes

- Two alternative listings show the discipline examples for each R&D field—1) sorted alphabetically, and 2) sorted by the CIP codes used by the U.S. Department of Education's National Center for Education Statistics (NCES). Find both lists under Survey Resources on the survey website.
- Clinical trials and research training grants are now explicitly included in the definition of R&D.

Changes to questions

- Sources of Funds (Question 1). Separate categories have been created for nonprofit organizations and for institutional cost sharing. The "Industry" category has been renamed "Business."
- Basic and Applied Research and Development (Question 6). This question now asks for expenditures associated with basic research, applied research, and development.
- Expenditures by Field and Source (Questions 9 and 12). Information on expenditures is collected by field of R&D for all sources of funds.
 - Question 9 collects R&D expenditures funded by specific federal agencies and total federal funding by field.
 - Question 12 collects information for each nonfederal source and total nonfederal funding by field.

New questions

- Question 2. R&D expenditures of funds from foreign sources
- Question 3. R&D at medical schools
- Question 4. Clinical trial R&D expenditures
- Question 5. Contracts and grants
- Question 10. Other federal agency sources for R&D expenditures
- Question 11. Federally funded R&D expenditures at interdisciplinary research centers
- Question 13. Nonfederally funded R&D expenditures at interdisciplinary research centers
- Question 14. Specific cost elements of R&D expenditures
- Questions 17 and 18. Counts of R&D personnel
- Questions 19 through 22. R&D proposal and award counts

Survey Definitions and Instructions

Fiscal year (FY)

Please report data for your institution's 2009 fiscal year.

Research and development (R&D)

R&D includes "organized research" as defined by **2 CFR 220 (OMB Circular A-21)**. Please include all R&D activities of an institution that are **separately budgeted and accounted for** (see definition below). R&D includes both "sponsored research" activities (sponsored by federal and nonfederal agencies and organizations) and "university research" (separately budgeted under an internal application of institutional funds).

Separately budgeted R&D

This includes all funds expended for activities specifically organized to produce R&D outcomes and commissioned by an organization either external to the institution or separately budgeted by an organizational unit within the institution. Such expenditures include, among others, all those funded from unrestricted gifts and restricted current funds to the extent that such funds were expended for current operating purposes.

R&D <i>includes</i> :	R&D does <i>not</i> include:
<ul style="list-style-type: none"> • Direct and indirect costs • Equipment purchased from R&D project accounts • R&D funds passed through to a subrecipient organization, educational or other • Clinical trial research (Phases I, II, and III) • Research training grants (such as NIH K awards and T32 grants) 	<ul style="list-style-type: none"> • Public service grants • Program evaluation • Departmental research expenditures that are not separately budgeted • R&D conducted by university faculty or staff at outside institutions that is not accounted for in your financial records • Non-research training grants • Capital projects

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.

Question 1. How much of your total current fund expenditures for separately budgeted research and development (R&D) came from the following sources in FY 2009? (See definition of R&D on the previous page.)

- Include both **direct** and **recovered indirect costs** in rows a, b, c, d, and f.
- Report the **original source** of funds, when possible. For example, if you received **federal** funds from another university, report that amount under “U.S. federal government.”
- Include S&E and non-S&E fields of R&D: sciences, engineering, humanities, education, law, arts, etc. See full listing in Question 9.

SOURCE OF FUNDS	R&D expenditures (Dollars in thousands) (for example, report \$25,342 as \$25)
<p>a. U.S. federal government Any agency of the United States government.</p>	\$ _____
<p>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.</p>	\$ _____
<p>c. Business Domestic or foreign for-profit organizations. (Report funds from a company’s nonprofit foundation in row d.)</p>	\$ _____
<p>d. Nonprofit organizations Domestic or foreign nonprofit foundations and organizations.</p>	\$ _____
<p>e. Institutional funds</p> <p>1. Institutionally financed organized research. Include expenditures of university funds from unrestricted sources that are separately budgeted for organized research.</p> <p>2. Cost sharing Include committed cost sharing other than unrecovered indirect costs. Report unrecovered indirect costs in row e3.</p> <p>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.</p> <ul style="list-style-type: none"> • First, multiply the <u>negotiated</u> rate by the corresponding base. • Second, subtract recovered indirect costs. <p>4. Total institutional funds²</p>	<p>\$ _____ (Confidential ¹)</p> <p>\$ _____ (Confidential ¹)</p> <p>\$ _____ (Confidential ¹)</p> <p>\$ <u>TOTAL</u></p>
<p>f. All other sources Other sources not reported above, such as funds from foreign governments.</p>	\$ _____
<p>g. Total ²</p>	\$ <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 Column totals 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?

- Foreign sources include foreign governments, businesses, and nonprofit organizations located outside the U.S.
- Foreign sources do not include Puerto Rico or other territories of the United States.

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

Total R&D expenditures from foreign sources

\$ _____

Question 3. 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 4.

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

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

\$ _____

Question 4. 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?

	R&D expenditures (Dollars in thousands)		
	(1)	(2)	(3)
	Human clinical trials	Veterinary clinical trials	Total ¹
Total R&D expenditures for clinical trials	\$ _____	\$ _____	\$ <u>TOTAL</u>

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

Question 4.1. Did you include R&D expenditures for (a) human clinical trials, or (b) veterinary clinical trials in your FY 2008 (previous year's) survey response?

Check one for each row.

	Included	Not included	No FY 2008 clinical trials
a. Human clinical trials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Veterinary clinical trials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 5. 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)	\$ _____
b. Grants, reimbursements, and all other agreements	\$ _____
c. Total ¹ (should match Question 1, row g minus Question 1, row e4)	\$ <u>TOTAL</u>

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

Question 6. What amounts of your FY 2009 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)	(2)	(3)
		Federal	Nonfederal	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 supplies goods and services. See OMB Circular A-133, Section 210.

	R&D expenditures (Dollars in thousands)		
	(1) Federal	(2) Nonfederal	(3) Total ¹
Source of pass-through funding			
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 supplies goods and services. See OMB Circular A-133, Section 210.

	R&D expenditures (Dollars in thousands)		
	(1) Federal	(2) Nonfederal	(3) Total ¹
Type of subrecipient			
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 2009 R&D expenditures in engineering funded by the federal agency sources below? (R&D expenditures from nonfederal sources will be reported in Question 12.)

- The total for the last row (row K, page 14) should match total federal sources reported in 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 sources ¹
(Dollars in thousands)

R&D Fields	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	USDA	DoD	Energy	HHS, includes NIH	NASA	NSF	Other	TOTAL ²
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 ²	\$ <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 **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; NSF, National Science Foundation.

"Other" includes all other federal agencies.

² Row and column totals are automatically generated on the web survey.

Examples of Disciplines: Engineering Fields of R&D

<p>A. ENGINEERING</p> <p>1. Aeronautical/ astronautical Aerodynamics Aerospace engineering Space technology</p> <p>2. Bioengineering/biomedical engineering Biomaterials Medical engineering</p> <p>3. Chemical Petroleum Petroleum refining process Plastics Polymer Wood science</p>	<p>4. Civil Architectural Architecture Environmental Environmental health Geotechnical Hydraulic Hydrologic Sanitary Structural Transportation</p> <p>5. Electrical Communications Computer Electronics Power</p>	<p>6. Mechanical Engineering mechanics</p> <p>7. Metallurgical/Materials Ceramic Materials science Metallurgy Mining and mineral Textile Welding</p>	<p>8. Other engineering Agricultural Engineering design Engineering physics Engineering science Marine Naval architecture Nuclear Ocean Systems Other engineering fields not listed separately above</p>
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Question 9B. What were your FY 2009 R&D expenditures in the physical sciences funded by the federal agency sources below? (R&D expenditures from nonfederal sources will be reported in Question 12.)
(continued)

R&D expenditures from federal sources¹
(Dollars in thousands)

R&D Fields	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	USDA	DoD	Energy	HHS, includes NIH	NASA	NSF	Other	TOTAL ²
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 ²	\$ <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 **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; NSF, National Science Foundation. "Other" includes all other federal agencies.

² 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 9 continues on next page.

Question 9C-E. What were your FY 2009 R&D expenditures in the environmental, mathematical, and computer sciences funded by the federal agency sources below? (R&D expenditures from nonfederal sources will be reported in Question 12.)
(continued)

R&D expenditures from federal sources¹
(Dollars in thousands)

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

¹ 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; NSF, National Science Foundation. "Other" includes all other federal agencies.

² 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

<p>C. ENVIRONMENTAL SCIENCES</p> <p>1. Atmospheric sciences</p> <ul style="list-style-type: none"> Aeronomy Extraterrestrial atmospheres Meteorology Solar Weather modification 	<p>C. ENVIRONMENTAL SCIENCES (CONTINUED)</p> <p>2. Earth sciences</p> <ul style="list-style-type: none"> Cartography Earth and planetary sciences Geochemistry Geodesy and gravity Geology Geomagnetism Geophysics Hydrology Paleomagnetism Paleontology Physical geography Seismology Surveying 	<p>C. ENVIRONMENTAL SCIENCES (CONTINUED)</p> <p>3. Oceanography</p> <ul style="list-style-type: none"> Biological oceanography Chemical oceanography Geological oceanography Marine biology Marine oceanography Physical oceanography <p>4. Other environmental sciences</p> <ul style="list-style-type: none"> Other environmental sciences not listed separately above 	<p>D. MATHEMATICAL SCIENCES</p> <ul style="list-style-type: none"> Algebra Analysis Applied mathematics Foundations and logic Geometry Numerical analysis Operations research Statistics Topology <p>E. COMPUTER SCIENCES</p> <ul style="list-style-type: none"> Computer systems analysis Data processing Information sciences Information technology Management information systems
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Question 9 continues on next page.

Question 9F. What were your FY 2009 R&D expenditures in the life sciences funded by the federal agency sources below? (R&D expenditures from nonfederal sources will be reported in Question 12.)
(continued)

R&D expenditures from federal sources¹
(Dollars in thousands)

R&D Fields	(a) USDA	(b) DoD	(c) Energy	(d) HHS, includes NIH	(e) NASA	(f) NSF	(g) Other	(h) TOTAL ²
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. TOTAL²	\$ <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 **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; NSF, National Science Foundation. "Other" includes all other federal agencies.

² Row and column totals are automatically generated on the web survey.

Examples of Disciplines: Life Sciences Fields of R&D

F. LIFE SCIENCES	Biological sciences (CONTINUED)	Medical sciences (CONTINUED)	Medical sciences (CONTINUED)
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 Allergies and immunology Anatomy Bacteriology Biochemistry Biogeography Biology, general Biometrics Biophysics Biostatistics Biotechnology	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 Toxicology Virology Zoology 3. Medical sciences Anesthesiology Cardiology Colon and rectal surgery Dental surgery Dentistry 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 Oral surgery Orthopedic surgery Orthopedics Osteopathic medicine Otorhinolaryngology Pediatrics Pharmacology Pharmacy Physical and rehabilitative medicine Plastic surgery Podiatry 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 administrative services Health professions and related services, other Nursing Occupational therapy Physical therapy Rehabilitation services Therapeutic services Other life sciences not listed separately above

Note: Please report veterinary R&D expenditures using agricultural sciences, medical sciences, and biological sciences, as appropriate.

Question 9G-I. What were your FY 2009 R&D expenditures in psychology, social sciences, and other sciences funded by the federal agency sources below? (R&D expenditures from nonfederal sources will be reported in Question 12.)
(continued)

R&D expenditures from federal sources¹
(Dollars in thousands)

R&D Fields	(a) USDA	(b) DoD	(c) Energy	(d) HHS, includes NIH	(e) NASA	(f) NSF	(g) Other	(h) TOTAL ²
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. Total²	\$ <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 **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; NSF, National Science Foundation. "Other" includes all other federal agencies.

² Row and column totals are automatically generated on the web survey.

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

G. PSYCHOLOGY	H. SOCIAL SCIENCES (CONTINUED)	H. SOCIAL SCIENCES (CONTINUED)	I. OTHER SCIENCES
Animal behavior Art therapy Clinical psychology Educational psychology Experimental psychology Human development and personality School psychology Social psychology H. SOCIAL SCIENCES 1. Economics Agricultural economics Applied economics Business development Econometrics Industrial economics International economics Labor economics Managerial economics Public finance and fiscal policy Quantitative economics Resource economics	2. Political science Comparative government Government International relations and affairs Legal systems Political theory Public administration Public policy analysis Regional studies 3. Sociology 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	4. Other social sciences 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	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.

Question 9J-K. What were your FY 2009 R&D expenditures in the non-science and engineering (non-S&E) fields funded by the federal agency sources below? (R&D expenditures from nonfederal sources will be reported in Question 12.)

R&D expenditures from federal sources¹
(Dollars in thousands)

R&D Fields	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	USDA	DoD	Energy	HHS, includes NIH	NASA	NSF	Other	TOTAL ²
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 ²	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <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&D²	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>

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

¹ **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; NSF, National Science Foundation. "Other" includes all other federal agencies.

² Row and column totals are automatically generated on the web survey.

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

<p>J. NON-S&E</p> <p>1. Education (no specific examples)</p> <p>2. Law Legal studies</p> <p>3. Humanities English language and literature Foreign languages and literature History (except history of science—see Other social sciences) Letters Liberal arts and sciences</p>	<p>Humanities (continued) General studies and humanities Philosophy and religion Theological studies and religious vocations</p> <p>4. Visual and performing arts (no specific examples)</p> <p>5. Business and management Business management and administrative services Marketing distribution Marketing operations</p>	<p>6. Communication, journalism, and library science Communication Communications technologies Library science</p> <p>7. Social work (no specific examples)</p>	<p>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</p>
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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?

- Please list up to 10 agencies that fund the highest R&D expenditures.
- Use row k to provide the amount for any remaining agencies.

Federal agency

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

a.

\$

b.

\$

c.

\$

d.

\$

e.

\$

f.

\$

g.

\$

h.

\$

i.

\$

j.

\$

k. Other agencies not listed above or in Question 9

\$

l. Total (should match Question 9, row K, column g.)¹

\$ TOTAL

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

Question 11. How much of the federal R&D expenditures amount reported in Question 9, row K, column h, took place in interdisciplinary research centers at your institution?

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

Total R&D expenditures from federal sources for
projects in interdisciplinary research centers

\$

Question 12A-B. What were your FY 2009 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) Business	(c) Nonprofit organizations	(d) Institutional 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 2009 R&D expenditures in the R&D fields listed below funded by the nonfederal sources below?
(continued)

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

R&D Fields (See Question 9, pp. 11-13)	(a) State and local government	(b) Business	(c) Nonprofit organizations	(d) Institutional 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	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <u>TOTAL</u>	\$ <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>	\$ <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 12J-K. What were your FY 2009 R&D expenditures in the non-science and engineering (non-S&E) fields funded by the nonfederal sources below?
(continued)

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

R&D Fields (See Question 9, p. 14)	(a) State and local government	(b) Business	(c) Nonprofit organizations	(d) Institutional 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 for row K 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. How much of the nonfederal R&D expenditures amount reported in Question 12, row K, column f, took place in interdisciplinary research centers at your institution?

R&D expenditures
(Dollars in thousands)

Total R&D expenditures from nonfederal sources for projects in interdisciplinary research centers \$ _____

Question 14. Of the total amount of R&D expenditures reported in Question 1 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 All compensation to full-time and part-time employees included in your R&D expenditures.	\$ _____
b. Software purchases All payments for software. Include both purchases of software packages and license fees for systems.	
1. Noncapitalized software	\$ _____
2. Capitalized software	\$ _____
c. Capitalized equipment other than software reported in row b Payments for movable equipment exceeding your institution's capitalization threshold. Include ancillary costs such as delivery and set-up.	\$ _____
d. Pass-throughs to other universities or organizations (should match the total in Question 8, row c, column 3)	\$ _____
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.	\$ _____
 INDIRECT COSTS	
f. Recovered indirect costs	\$ _____ (Confidential ¹)
g. Unrecovered indirect costs (should equal Question 1, row e3)	\$ _____ (Confidential ¹)
h. Total (should match total from Question 1, row g) ²	\$ <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 2009, 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 2009 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>

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 16D-I. For the R&D fields below, what portion of your FY 2009 R&D expenditures went (continued) 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 16 continues on next page.

Question 16J-K. For the non-science and engineering (non-S&E) fields of R&D below, what portion of your FY 2009 R&D expenditures went for the purchase of capitalized R&D equipment?
(continued)

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?

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

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

Question 18. Of the headcount reported in Question 17, column 3, how many are postdocs, that is, Ph.D. researchers working in temporary positions primarily for training in research?

Postdoc positions are designated as temporary positions for a defined period of time. Titles for postdocs can include postdoctoral researchers, postdoctoral fellows, research associates, etc.

Number of people (headcount)

Question 19. How many R&D proposals (S&E and non-S&E) were submitted by your institution to government agencies, foundations, or other funding sources outside of your institution in FY 2009? Include proposals for grants and contracts and any other documents or actions that were used to apply for R&D funding.

Number of proposals submitted

Question 20. How many R&D projects in both science and engineering (S&E) and non-S&E fields were AWARDED to your institution in FY 2009 from the sources below and what were their dollar amounts?

- Include only awards for research. Do not include awards for instruction, outreach, public service, or other sponsored activities.
- Include the total amount awarded in FY 2009, even if the funds will be spent over multiple years. For example, if your institution receives an award of \$5,000,000 that will be spent over five years, report \$5,000,000.
- The total amount of the award should be reported by the prime award recipient. Exclude subawards your institution received as a subrecipient.

Source of R&D Funds	(1) Number of R&D awards	(2) Total R&D dollars awarded (in thousands)
a. Federal stimulus funds (American Recovery and Reinvestment Act, or ARRA)	<input type="text"/>	<input type="text"/>
b. Other federal funds	<input type="text"/>	<input type="text"/>
c. Nonfederal funds	<input type="text"/>	<input type="text"/>
d. Total ¹	<u>TOTAL</u>	<u>TOTAL</u>

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

Question 21. How many of the R&D project awards reported in Question 20 involved interdisciplinary R&D and what was their dollar amount?

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

	(1) Number	(2) Dollars in thousands
Interdisciplinary R&D projects awarded	<input type="text"/>	\$ <input type="text"/>

Question 22. Of the total R&D awards reported in Question 20, how many were collaborative awards with other academic institutions and what was their dollar amount?

- **Collaborative awards with other academic institutions** involve two or more higher education institutions, where each institution receives funding directly from the prime source.
- **Exclude** subrecipient awards—for example, awards for which your institution was a subrecipient of funds or passed funds through to another institution.

	(1) Number	(2) Dollars in thousands
Collaborative R&D projects awarded	<input type="text"/>	\$ <input type="text"/>

Question 23.

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 systems or programs required to respond, and
(2) preparing your response once those new systems or programs were in place.

Offices involved in responding	Completion time in hours	
	(1) For new systems/programs	(2) For 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 2009 fiscal year end?

D. Additional comments: