

FORM APPROVED OMB No. 3145-0100 Expiration Date: 09/30/16

NATIONAL SCIENCE FOUNDATION

ARLINGTON, VA 22230

HIGHER EDUCATION RESEARCH AND DEVELOPMENT SURVEY FY 2015

Please submit your survey data by January 29, 2016.

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 **2015** fiscal year.

Your participation in this survey provides important information on the national level of R&D activity. The National Science Foundation (NSF) is authorized to collect this information under the National Science Foundation Act of 1950, as amended. Your institution's response is entirely voluntary.

Response to this survey is estimated to require 54 hours. If you wish to comment on the time required to complete this survey, please contact Suzanne H. Plimpton of NSF at (703) 292-7556, or e-mail splimpto@nsf.gov.

The Web address for submitting your data:

http://www.herdsurvey.org

Or mail this form to:

ICF International 530 Gaither Road, Suite 500 Rockville, MD 20850

Questions?

Technical support:

Support@HERDsurvey.org (866) 936-9376

General survey questions:

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Thank you for your participation.

What's New for FY 2015

Changes to questions

• American Recovery and Reinvestment Act (ARRA). The question regarding federal R&D expenditures funded by ARRA (formerly Question 11) has been removed from the survey. Questions 12–18 in the FY 2014 survey were renumbered to be Questions 11–17.

Survey Definitions and Instructions

Fiscal year (FY)

Please report data for your institution's 2015 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

Include all R&D expenditures from your institution's current operating funds that are separately accounted for. For purposes of this survey, R&D includes expenditures for organized research as defined by 2 CFR 200 Appendix III and expenditures from funds designated for research.

R&D <i>includes:</i>	R&D does <i>not</i> include:
 Sponsored research (federal and nonfederal) University research (institutional funds that are separately budgeted for individual R&D projects) Startup, bridge, or seed funding provided to researchers within your institution Other departmental funds designated for research 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 funding work on organized research projects Tuition remission provided to students working on research 	 Public service grants or outreach programs Curriculum development (unless included as part of an overall research project) R&D conducted by university faculty or staff at outside institutions that is not accounted for in your financial records Estimates of the proportion of time budgeted for instruction that is spent on research Capital projects (i.e., construction or renovation of research facilities) Non-research training grants Unrecovered indirect costs that exceed your institution's federally negotiated Facilities and Administrative (F&A) rate

Please <i>include</i> these components of your institution:	Please do <i>not</i> include:
 All units of your institution included in or with your financial statements, such as: Agricultural experiment stations Branch campuses Medical schools Hospitals or clinics Research centers and facilities A university 501(c)3 foundation 	 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 <i>not</i> components of your institution. Other campuses headed by their own president, chancellor, or equivalent within your university system. Each campus is asked to respond separately.

Question 1. How much of your total expenditures for research and development (R&D) came from the following sources in FY 2015? (See definition of R&D on the previous page.)

- In rows a, b, c, d, and f: Include both direct and recovered indirect costs (reimbursement of F&A costs from external sponsors).
- Report the original source of funds, when possible.
- Include all fields of R&D (e.g., sciences, engineering, humanities, education, law, arts).
 See full listing in Question 9.

(Dollars in thousands) (for example, report \$25,342 as \$25) Source of funds a. U.S. federal government 321 Any agency of the United States government. Include federal funds passed through from another institution. b. State and local government 147 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 row e, Institutional funds. c. Business 236 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, except universities and colleges. Report funds from your institution's 501(c)3 foundation in row e1. Funds from other universities and colleges should be reported in row f. e. Institutional funds 1. Institutionally financed research 394 All R&D funded by your institution from accounts that are only used for research. (Confidential¹) Cost sharing 274 Include committed cost sharing other than unrecovered indirect costs. (Confidential¹) Unrecovered indirect costs Calculate this amount as follows for your externally funded R&D only 253 (preferably on a project-specific basis) using the appropriate cost rate— (Confidential¹) on-campus, off-campus, etc. • First, multiply the negotiated rate by the corresponding base. • Second, subtract recovered indirect costs. 4. Total institutional funds² 921 f. All other sources Other sources not reported above, such as funds from foreign governments, foreign or U.S. universities, and gifts designated by the donors for research. g. Total² 1625

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

R&D expenditures

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.

Question 1.1. Did you include the following types of funding in your responses to	Question 1, row e1?
	Included
a. Competitively awarded internal grants for research	
Expenditures for organized research projects, involving a proposal or statement of work with expected research outcomes.	
b. Startup packages/bridge funding/seed funding	
Expenditures from funds provided to faculty members to begin or continue their research while seeking external sponsors.	
c. Other departmental funds designated for research	
Expenditures for research from other departmental or central accounts which do not match the descriptions provided in rows a or b.	
d. Tuition assistance for student research personnel	
University tuition assistance, waivers, or remission provided to students working on organized research. Please check "Included" even if these funds are reported as part of the expenditures included under Question 1 rows a, b, or c.	~

Question 2. How much of the total R&D expenditures reported in Question 1, row g, 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.
- Projects sponsored by a U.S. location of a foreign company are **not** considered foreign.
- Include international governmental organizations **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

0

Question 3.	Of the total R&D expenditures that were externally funded (all sources of the institutional funds reported in Question 1, row e4), how much was rounder 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 deliverables and gains the rights to results.	\$250						
	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.	\$ <u>454</u>						
	c. Total ¹	\$ 704						
	(Total should match Question 1, row g minus Question 1, row e4)	\$						

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 MD or DO degree), check here and go to Question 5.
	R&D expenditures (Dollars in thousands)
	Total R&D expenditures in the university's medical school \$1625

Question 5.	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 with human patients?												
	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 human clinical trials into the following four phases.												
	Please include:												
	 Phase I uses a small group of human patients (20–80) to evaluate safety and identify side effects. 												
	 Phase II uses a larger group (100–3 safety. 	300) to test effectiveness	and further evaluate)									
	Phase III uses a large group (1,000 effects, compare to commonly used)			9									
	Please exclude:												
	 Phase IV is a post-market study that and optimal use. 	at collects more informati	on on risks, benefits,										
	If your institution did not conduct any cl	inical trials in FY 2015, c	heck here:										
		R&D expendi (Dollars in thou											
		(1)	(2)	(3)									
		Federal	Nonfederal	Total ¹									
	Human clinical trials Trials with human patients	\$ <u>12</u>	\$220	\$232									
¹ The row total	is automatically generated on the Web surve	eV.											

Question 6. What amounts of your FY 2015 R&D expenditures were for basic research, applied research, and development?

If possible, these categories defining the type of R&D should be coded at the individual project level by the principal investigator. Estimates are acceptable if necessary.

See the table below this question for examples.

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

	R&D exp Dollars in					
	(1) deral	Non	(2) ifederal	(3) Total ¹		
Basic research Research undertaken primarily to acquire new knowledge without any particular application or use in mind.	\$ 161	\$	652	\$	813	
 Applied research Research conducted to gain the knowledge or understanding to meet a specific, recognized need. 	\$ 96	\$	391	\$	487	
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.	\$ 64	\$	261	\$	325	
 d. Total¹ Column 1 total should match Question 1, row a. Column 3 total should match Question 1, row g. 	\$ 321	\$	1304	\$	1625	

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?

Please report the original source of funds in columns (1) and (2) and the pass-through source in rows a-d.

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. Subrecipients tend to be the co-authors of publications, writers of technical reports discussing findings, inventors, etc. Do **not** include contractor or vendor relationships. A contractor or vendor receives payment for goods and services provided. See 2 CFR Part 200 Subpart D Section 330.

Examples:

- A university receives federal funds from another university as a subaward. (Row a, column 1).
- A university receives federal funds from a company as a subaward (Row b, column 1).

Originating source of R&D expenditures (Dollars in thousands)

	(Donard III tiroudurius)									
Entity passing funds to your institution	(1) Federal	(2) Nonfederal	(3) Total ¹							
 U.S. higher education institutions Colleges and universities and units owned, operated, and controlled by such institutions. 	\$0	\$0	\$0							
b. Businesses For-profit organizations	\$11	\$0	\$11							
c. Nonprofit organizations Nonprofit foundations and organizations	\$0	<u>\$0</u>	\$0							
d. Other										
State and local governments, foreign institutions, and others	\$111	\$0	\$111							
e. Total¹	\$ <u>122</u>	\$ <u> </u>	\$ <u>122</u>							
w and column totals are automatically generated on the We	eb survey.									

Question 8. How much of the R&D expenditures reported in Question 1 did your institution pass through to subrecipients?

Please report the original source of funds in columns (1) and (2) and the entity receiving the funds in rows a–d.

Do **not** include contractor or vendor relationships. A contractor or vendor receives payment for goods and services provided. See 2 CFR Part 200 Subpart D Section 330.

Examples:

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

- Your institution passed through federal funds to another university (Row a, column 1).
- Your institution passed through funds from a company to another university (Row a, column 2).

Originating source of R&D expenditures (Dollars in thousands) (1) (2) (3) Total¹ **Federal** Nonfederal Entity receiving funds from your institution a. U.S. higher education institutions Colleges and universities and units owned, 0 0 0 operated, and controlled by such institutions. b. Businesses 0 0 0 For-profit organizations c. Nonprofit organizations 0 0 0 Nonprofit foundations and organizations d. Other State and local governments, foreign 0 0 0 institutions, and others e. Total¹ 0 0 0

Question 9A. What were your FY 2015 R&D expenditures in engineering funded by the federal agency sources below? (R&D expenditures from nonfederal sources will be reported in Question 11.)

- Question 9 total (page 16, row K, column h) should match Question 1, row a.
- Please see "Related Information" on survey website for a list of the subagencies belonging to each agency shown 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.
- For subrecipient funding, report the agency that sponsored the original award.

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

DOD Fields	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
R&D Fields (Examples listed below) A. Engineering	USDA	DoD	Energy	HHS, includes NIH	NASA	NSF	Other	Total ²		
Aeronautical/ Astronautical	\$ <u> </u>	<u>\$1</u>	\$ <u> </u>	\$0	\$0	\$0	\$ <u> </u>	\$ <u>1</u>		
2. Bioengineering/ Biomedical eng.	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>		
3. Chemical	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>		
4. Civil	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>		
5. Electrical	\$ <u> </u>	\$0	\$ <u> </u>	\$0	\$0	\$0	\$ <u> </u>	\$ <u> </u>		
6. Mechanical	\$ <u> </u>	<u>\$0</u>	\$0	\$0	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>		
7. Metallurgical/ Materials	<u>\$0</u>	\$0	<u>\$0</u>	\$0	<u>\$0</u>	\$0	<u>\$0</u>	<u>\$0</u>		
8. Other engineering	\$ <u> </u>	\$0	<u>\$0</u>	\$0	\$ <u> </u>	\$0	<u>\$0</u>	<u>\$0</u>		
9. Total ²	s 0	_{\$} 1	s 0	s 0	s 0	s 0	s 0	_{\$} 1		

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; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

Examples of Disciplines: Engineering Fields of R&D

A. Engineering

1. Aeronautical/Astronautical

Aerodynamics Aerospace engineering Space technology

2. Bioengineering/Biomedical engineering

Biomaterials Medical engineering

3. Chemical

Petroleum
Petroleum refining process
Plastics

Plastics Polymer Wood science

4. Civil

Architectural
Architecture
Environmental
Environmental health
Geotechnical
Hydraulic
Hydrologic
Sanitary
Structural
Transportation

5. Electrical

Communications Computer Electronics Power

6. Mechanical

Engineering mechanics

7. Metallurgical/Materials

Ceramic
Materials science
Metallurgy
Mining and mineral
Textile
Welding

8. Other engineering

Agricultural
Engineering design
Engineering physics
Engineering science
Marine
Naval architecture
Nuclear
Ocean
Systems
Other engineering fields that
cannot be classified using
the fields listed above

Question 9 continues on next page.

Row and column totals are automatically generated on the Web survey.

Question 9B. What were your FY 2015 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 11.)

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

	R&D Fields	(a)		(i	o)	(c)		d)	(6	∌)	(f)	(!	g)	(ł	1)
(Examples listed below)		USDA		Do	DoD Energy		ergy	HHS, includes NIH		NASA		NSF		Other		To	al²
	B. Physical Sciences																
	1. Astronomy	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	2. Chemistry	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	3. Physics	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	Other physical sciences	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	5. Total ²	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0

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; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

Examples of Disciplines: Physical Sciences Fields of R&D

B. Physical Sciences

1. Astronomy

Astrophysics Gamma-ray astronomy Neutrino astronomy Optical astronomy Radio astronomy X-ray astronomy

2. Chemistry

(except biochemistry—report in Biological sciences)

Analytical chemistry
Inorganic chemistry
Organic chemistry
Organo-metallic chemistry
Pharmaceutical chemistry
Physical chemistry
Polymer sciences

3. Physics

Acoustics
Atomic physics
Chemical physics
Condensed matter physics
Elementary particle physics
Mathematical physics
Molecular physics
Nuclear structure
Optics
Plasma physics
Theoretical physics

4. Other physical sciences

Other physical sciences that cannot be classified using the fields listed above

Question 9 continues on next page.

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

Question 9C–E. What were your FY 2015 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 11.)

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

R&D Fields (Examples listed below)		(a	1)	(l	b)	(0	c)		d)	(6))	(f)	(g)		(h)	
		USI	DA	D	DoD Energy		ergy	HHS, includes NIH		NA	NASA		SF	Other		Total ²	
	C. Environmental Science	mental Sciences															
	Atmospheric sciences	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	2. Earth sciences	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	3. Oceanography	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	Other environmental sciences	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	5. Total ²	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	D. Mathematical Sciences	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	E. Computer Sciences	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0

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; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

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

C. Environmental Sciences

1. Atmospheric sciences

Aeronomy
Extraterrestrial atmospheres
Meteorology
Solar
Weather modification

C. Environmental Sciences (continued)

2. Earth sciences

Cartography
Earth and planetary sciences
Geochemistry
Geodesy and gravity
Geology
Geomagnetism
Geophysics
Hydrology
Paleomagnetism
Paleontology
Physical geography
Seismology
Surveying

C. Environmental Sciences (continued)

3. Oceanography

Biological oceanography Chemical oceanography Geological oceanography Marine biology Marine oceanography Physical oceanography

4. Other environmental sciences

Other environmental sciences that cannot be classified using the fields listed above

D. Mathematical Sciences

Algebra Analysis Applied mathematics Foundations and logic Geometry Numerical analysis Operations research Statistics Topology

E. Computer Sciences

Computer systems analysis Data processing Information sciences Information technology Management information systems

Question 9 continues on next page.

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

Question 9F. What were your FY 2015 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 11.)

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

R&D Fields (Examples listed below) F. Life Sciences	a) SDA	o) oD	(c Ene		Н	(d) IHS, des NIH	NA	e) .SA	(f) SF	g) her	(h) otal ²
Agricultural sciences	\$ 0	\$ 0	\$	0	\$_	0	\$	0	\$ 0	\$ 0	\$ 0
2. Biological sciences	\$ 0	\$ 0	\$	0	\$_	138	\$	0	\$ 26	\$ 49	\$ 213
3. Medical sciences	\$ 0	\$ 0	\$	0	\$	107	\$	0	\$ 0	\$ 0	\$ 107
Other life sciences	\$ 0	\$ 0	\$	0	\$	0	\$	0	\$ 0	\$ 0	\$ 0
5. Total ²	\$ 0	\$ 0	\$	0	\$	245	\$	0	\$ 26	\$ 49	\$ 320

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; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

Examples of Disciplines: Life Sciences Fields of R&D

F. Life Sciences

1. Agricultural sciences

Agricultural chemistry Agricultural economics—report in Social sciences. Economics Agricultural engineering—report in 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

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 Toxicology Virology Zoology

3. Medical sciences

Anesthesiology Cardiology Colon and rectal surgery Dental surgery Dentistry

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

Neurosciences
Nuclear medicine
Nuclear radiology
Obstetrics
Oncology
Ophthalmology
Optometry
Oral surgery
Orthopedic surgery
Orthopedics

Orthopedics
Osteopathic medicine
Otorhinolaryngology
Pediatrics

Pharmacology

Podiatry

Pharmacy
Physical and rehabilitative
medicine
Plastic surgery

3. Medical sciences (continued)

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

4. Other life sciences

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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 that cannot be classified using the fields listed above

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

Row and column totals are automatically generated on the Web survey.

Question 9G–I. What were your FY 2015 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 11.)

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

	(a)		(b)		(6	c)	d)	(€))	(f)	(g)	(h)
R&D Fields (Examples listed below)	USD	4	DoD)	Ene	ergy	IS, les NIH	NA	SA	NS	SF .	Ot	her	То	tal ²
G. Psychology	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0
H. Social Sciences															
1. Economics	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0
2. Political science	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0
3. Sociology	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0
Other social sciences	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0
5. Total ²	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0
I. Other Sciences	\$	0	\$	0	\$	0	\$ 0	\$	0	\$	0	\$	0	\$	0

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; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

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

G. Psychology

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

H. Social Sciences

(continued)

2. Political science

Comparative government Government International relations and affairs Legal systems Political theory Public administration Public policy analysis Regional studies

3. Sociology

Anthropology, cultural and social
Anthropology, physical—report in Life Sciences, Biological Sciences
Comparative and historical sociology
Complex organizations
Cultural and social structure
Demography
Group interactions
Population studies
Social problems and welfare theory

H. Social Sciences

(continued)

4. Other social sciences

Archaeology
Area and ethnic studies
City and community planning
Community services
Corrections
Criminal justice
Geography
History of science
Linguistics
Urban affairs
Urban and regional planning
Urban studies

I. Other Sciences

Use this category for R&D that involves at least one S&E field (rows A–H) if it is impossible to report multidisciplinary or interdisciplinary R&D expenditures in specific fields.

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

Question 9J–K. What were your FY 2015 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 11.)

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

R&D Fields	(a)	(b)	(c)	(d) HHS,	(e)	(f)	(g)	(h)
(Examples listed below) J. Non-S&E Fields	USDA	DoD	Energy	includes NIH	NASA	NSF	Other	Total ²
1. Education	\$0	\$ <u> </u>	\$0	\$0	\$0	\$0	\$0	\$0
2. Law	\$ <u>0</u>	\$ <u> </u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	\$ <u> </u>	\$ <u> </u>
3. Humanities	\$0	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	\$0	<u>\$0</u>	\$0	\$0
Visual and performing arts	\$ <u>0</u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u>0</u>	\$ <u> </u>	\$0
Business and management	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	\$0	<u>\$0</u>	\$0	\$0
6. Communication, journalism, and library science	\$ <u> </u>	<u>\$0</u>	\$ <u> </u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	\$ <u> </u>
7. Social work	<u>\$0</u>	\$ <u> </u>	<u>\$0</u>	<u>\$0</u>	\$ <u> </u>	\$ <u> </u>	\$0	\$0
8. Other non-S&E fields	\$ <u>0</u>	\$ <u> </u>	<u>\$0</u>	<u>\$0</u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>
9. Total ²	<u>\$0</u>	\$ <u> </u>	\$ <u> </u>	<u>\$0</u>	\$ <u> </u>	\$0	<u>\$0</u>	<u>\$0</u>
K. Total for All Fields of R&D ²	<u>\$0</u>	\$ <u> </u>	<u>\$0</u>	\$ <u>245</u>	\$0	<u>\$26</u>	\$49	\$ <u>321</u>

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

J. Non-S&E Fields

1. Education

(no specific examples)

2. Law

Legal studies

3. Humanities

English language and literature Foreign languages and literature General studies and humanities History (except history of science—report in Other social sciences) Letters

Examples of Disciplines: Non-S&E Fields of R&D 3. Humanities 6. Communication,

(continued)

Liberal arts and sciences 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 that cannot be classified using the fields listed 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.

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; NIH, National Institutes of Health; NSF, National Science Foundation. "Other" includes all other federal agencies.

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

Question 10. Of the amount reported for Other federal sources 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, cl and go to Question 11.	neck here					
	 Use rows a–j to list up to 10 agencies that funded the larges Use row k to report any remaining amount. For subrecipient funding in this question, list the sponsor of Please see "Related Information" on the survey website for and their subagencies. 	the original award.					
Federal	agencies (list up to 10)	R&D expenditures (Dollars in thousands)					
a.	Department of Justice (DOJ)	\$ <u>49</u>					
b.		\$					
C.		\$					
d.		\$					
e.		\$					
f.		\$					
g.		\$					
h.		\$					
i.		\$					
j.		\$					
k.	Other agencies included in Question 9, column g, but not listed ab	ove \$					
l.	Total (should match Question 9, row K, column g.) ¹	\$ <u>49</u>					
¹ The column	total is automatically generated on the Web survey.						

Question 11A-B. What were your FY 2015 R&D expenditures in the engineering and physical sciences fields funded by the nonfederal sources below?

- The totals in row K, page 20, should match the 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. 11–12)	(a) State and local government	(b) Business	(c) Nonprofit organizations	(d) Institutional funds	(e) Other nonfederal sources	(f) Total ¹
A. Engineering	_					
Aeronautical/ Astronautical	\$ <u> </u>	\$ <u> </u>	<u>\$0</u>	\$ <u> </u>	\$0	<u>\$0</u>
2. Bioengineering/ Biomedical eng.	\$0	\$0	\$0	\$0	\$0	\$0
3. Chemical	\$0	\$ <u> </u>	<u>\$0</u>	\$ <u> </u>	\$0	\$0
4. Civil	\$0	\$0	<u>\$0</u>	\$0	\$0	\$0
5. Electrical	\$0	\$0	<u>\$0</u>	\$0	\$0	\$0
6. Mechanical	\$0	\$ <u> </u>	<u>\$0</u>	\$0	\$0	\$0
7. Metallurgical/Materials	\$0	\$0	\$0	\$0	\$0	\$0
8. Other engineering	\$ <u> </u>	\$0	\$0	\$0	\$0	\$0
9. Total ¹	\$ <u> </u>	<u>\$0</u>	\$0	\$ <u> </u>	\$0	\$0
B. Physical Sciences						
1. Astronomy	\$0	\$0	<u>\$0</u>	\$0	\$0	\$0
2. Chemistry	\$0	\$0	\$0	\$0	\$0	\$ <u> </u>
3. Physics	\$0	\$0	\$ <u>0</u>	\$0	\$0	\$ <u> </u>
Other physical sciences	\$ <u> </u>	\$0	\$ <u> </u>	\$ <u> </u>	\$0	\$ <u> </u>
5. Total ¹	\$0	\$ <u> </u>	<u>\$0</u>	\$0	\$0	<u>\$0</u>
¹ Row and column totals are autor	matically generated	d on the Web su	ırvey.			

Examples of disciplines for engineering and physical sciences fields of R&D are listed on pages 11–12.

Question 11C-I. What were your FY 2015 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	(a) State and	(b)	(c)	(d)	(e) Other	(f)
(See Question 9, pp. 13–15)	local government	Business	Nonprofit organizations	Institutional funds	nonfederal sources	Total ¹
C. Environmental Sciences	ŭ		ŭ			
1. Atmospheric sciences	\$0	\$ <u> </u>	\$0	\$0	\$0	\$ <u> </u>
2. Earth sciences	\$0	\$ <u> </u>	\$ <u> </u>	\$0	\$ <u> </u>	\$ <u> </u>
3. Oceanography	<u>\$0</u>	<u>\$0</u>	\$0	\$ <u> </u>	<u>\$0</u>	\$0
Other environmental sciences	\$0	\$ <u> </u>	\$ <u> </u>	\$0	\$0	\$ <u> </u>
5. Total ¹	\$0	\$0	\$0	\$0	\$0	\$ <u> </u>
D. Mathematical Sciences	\$0	\$0	\$0	\$ <u> </u>	\$0	\$ <u> </u>
E. Computer Sciences	\$0	\$ <u> </u>	\$0	\$0	\$0	\$ <u> </u>
F. Life Sciences						
1. Agricultural sciences	\$0	\$0	\$0	\$0	\$0	\$0
2. Biological sciences	<u>\$134_</u>	<u>\$0</u>	\$0	\$ <u> </u>	\$ <u> </u>	\$ <u>134</u>
3. Medical sciences	\$ <u>13</u>	\$236_	\$0	<u>\$700</u>	\$0	\$949
4. Other life sciences	\$0	\$ <u> </u>	\$ <u> </u>	\$ <u>221</u>	\$0	\$ <u>221</u>
5. Total ¹	<u>\$147</u>	<u>\$236</u>	<u>\$0</u>	<u>\$921</u>	\$0	<u>\$ 1304</u>
G. Psychology	s 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
H. Social Sciences						
1. Economics	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$0
2. Political science	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	\$0
3. Sociology	<u>\$0</u>	<u>\$0</u>	\$ <u> </u>	<u>\$0</u>	\$0	<u>\$0</u>
4. Other social sciences	<u>\$0</u>	<u>\$0</u>	\$ <u> </u>	<u>\$0</u>	\$0	<u>\$0</u>
5. Total ¹	\$0	\$ <u> </u>	\$ <u> </u>	\$ <u> </u>	s0	\$0
I. Other Sciences	\$0	<u>\$0</u>	\$ <u> </u>	\$ <u> </u>	\$0	\$0
1 Row and column totals are auton	natically generated	d on the Web su	ırvey.			

Examples of disciplines for the above fields of R&D are listed on pages 13–15.

Question 11J-K. What were your FY 2015 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) (a) (b) (c) (d) (e) (f) State and Other R&D Fields local **Nonprofit** Institutional nonfederal (See Question 9, p. 16) Total¹ government **Business** organizations funds sources J. Non-S&E Fields 0 0 0 0 1. Education 0 0 0 0 0 0 2. Law 0 0 0 0 0 0 3. Humanities 4. Visual and 0 0 0 0 0 performing arts 5. Business and 0 0 0 0 0 0 management 6. Communication, journalism, and 0 0 0 0 0 library science 0 0 0 0 0 0 7. Social work 8. Other non-S&E 0 0 0 0 0 0 fields 9. Total¹ 0 0 0 0 0 0 _{\$} 1304 236 0 0 K. Total for All Fields of 147 921

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.

R&D1

Examples of disciplines for non-S&E fields of R&D are listed on page 16.

Question 12. 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-e. Recovered and unrecovered indirect costs should be reported in rows f1 and f2. R&D expenditures (Dollars in thousands) a. Salaries, wages, and fringe benefits Include compensation for all R&D personnel whether full-time or 980 part-time, temporary or permanent. Include salaries, wages, and fringe benefits paid from your institution's funds and from external support. b. Software purchases All payments for software. Include both purchases of software packages and license fees for systems. 2 1. Noncapitalized software 2. Capitalized software (If you are unable to distinguish capitalized software from capitalized equipment, report 0 both in row c.) c. Capitalized equipment Payments for movable equipment exceeding your institution's capitalization threshold. Include ancillary costs such as delivery 0 and setup. d. Pass-throughs to other universities or organizations 0 (should match the total in Question 8, row e, column 3) e. Other direct costs Other costs that do not fit into one of the above categories, including (but not limited to) travel, tuition waivers, services such as 308 consulting, computer usage fees, and supplies. f. Indirect costs 1. Recovered indirect costs 82 Reimbursement of Facilities and Administrative (F&A) costs from external sponsors. (Confidential¹) 2. Unrecovered indirect costs 253 (should equal Question 1, row e3) (Confidential¹)

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 are automatically generated on the Web survey.

q. Total²

Capitalization thresholds

3. Total indirect costs²

(should match total from Question 1, row g)

Question 13. At the end of FY 2015, what were your institution's dollar capitalization thresholds (in thousands) for software and equipment?

Dollars in thousands

(1) ftware	(2) Equipi	
\$ 5.0	\$	5.0

335

1625

Question 14A–C. For the R&D fields below, what portion of your FY 2015 R&D expenditures went for the purchase of capitalized R&D equipment?

Question 14 total (row K, column c) should match Question 12, row c (Capitalized equipment).

R&D equipment expenditures (Dollars in thousands)

R&D Fields (See Question 9, pp. 11–13)	(a) Federal	(b) Nonfederal	(c) Total ¹
A. Engineering			
Aeronautical/Astronautical	\$0	\$0	\$0
2. Bioengineering/Biomedical engineering	\$0	\$ <u> </u>	\$0
3. Chemical	\$ <u> </u>	\$ <u> </u>	\$0
4. Civil	\$ <u> </u>	\$ <u> </u>	\$ <u>0</u>
5. Electrical	\$ <u>0</u>	\$0	\$0
6. Mechanical	\$ <u>0</u>	\$0	\$ <u>0</u>
7. Metallurgical/Materials	\$ <u>0</u>	\$0	\$ <u>0</u>
8. Other engineering	\$ <u> </u>	\$ <u>0</u>	\$ <u>0</u>
9. Total ¹	\$0	\$0	\$0
B. Physical Sciences			
1. Astronomy	\$0	\$0	\$0
2. Chemistry	\$0	\$0	\$0
3. Physics	\$0	\$0	\$0
4. Other physical sciences	\$0	\$0	\$0
5. Total ¹	\$ 0	\$0	\$ 0
C. Environmental Sciences			
Atmospheric sciences	\$ <u>0</u>	\$0	\$0
2. Earth sciences	\$ <u> </u>	\$0	\$ <u> </u>
3. Oceanography	\$0	\$0	\$ <u> </u>
Other environmental sciences	\$0	\$0	\$0
5. Total ¹	\$0	\$ <u> </u>	\$ <u> </u>
¹ Row and column totals are automatically generated on the We	b survey.		

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

Question 14D–I. For the R&D fields below, what portion of your FY 2015 R&D expenditures went for the purchase of capitalized R&D equipment?

R&D equipment expenditures (Dollars in thousands)

R&D Fields (See Question 9, pp. 13–15)	(a) Federal	(b) Nonfederal	(c) Total ¹
D. Mathematical Sciences	\$0	\$ <u> </u>	\$ <u> </u>
E. Computer Sciences	<u>\$0</u>	<u>\$0</u>	\$0
F. Life Sciences			
Agricultural sciences	\$0	\$0	\$0
2. Biological sciences	\$0	\$ <u>0</u>	\$0
3. Medical sciences	\$ <u>0</u>	\$0	\$ <u>0</u>
4. Other life sciences	\$0	\$ <u> </u>	\$ <u>0</u>
5. Total ¹	\$0	\$0	\$ <u> </u>
G. Psychology	\$0	\$ <u> </u>	s0
H. Social Sciences			
1. Economics	\$0	\$0	\$ <u> </u>
2. Political science	\$0	\$ <u> </u>	\$0
3. Sociology	\$0	\$0	\$ <u>0</u>
4. Other social sciences	\$0	\$0	\$ <u>0</u>
5. Total ¹	\$0	\$ <u>0</u>	<u>\$0</u>
I. Other Sciences	\$0	\$ <u> </u>	\$0
¹ Row and column totals are automatically generated on t	the Web survey.		

Examples of disciplines for the above fields of R&D are listed on pages 13-15.

Question 14J–K. For the non-science and engineering (non-S&E) R&D fields below, what portion of your FY 2015 R&D expenditures went for the purchase of capitalized R&D equipment?

R&D equipment expenditures (Dollars in thousands)

R&D Fields (See Question 9, p. 16)	(a) Federal	(b) Nonfederal	(c) Total ¹
J. Non-S&E Fields			
1. Education	\$0	\$0	\$ <u>0</u>
2. Law	\$0	\$0	\$0
3. Humanities	\$0	\$0	\$0
4. Visual and performing arts	\$0	\$0	\$0
5. Business and management	\$0	\$0	\$0
Communication, journalism, and library science	\$0	\$0	\$0
7. Social work	\$0	\$0	\$0
8. Other non-S&E fields	\$0	\$0	\$0
9. Total ¹	\$0	\$ <u> </u>	\$0
K. Total for All Fields of R&D ¹	\$0	\$0	\$0

Total for row K, column c, should match Question 12, row c (Capitalized equipment).

Examples of disciplines for non-S&E fields of R&D are listed on page 16.

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

Question 15. How many principal investigators and other personnel (headcount) were paid from the R&D salaries, wages, and fringe benefits you reported in Question 12, row a?

- A principal investigator (PI) is designated by your institution to direct the R&D project or program and be responsible for the scientific and technical direction of the project. Co-investigators (co-PIs) may be designated for this role and should also be included in column 1.
- 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 personnel 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)	Unavailable	Unavailable	Unavailable

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

Question 16. Of the headcount reported in Question 15, 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) Unavailable

Question 17.

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

	Primary contact	Alternate contact			
Name	Bob Dixon	Carmen Tetik			
Title	Director of Grants and Contracts	Grants and Contracts Accountant			
Institution name	Oklahoma State University	Oklahoma State University			
Department/office	Grants and Contracts Financial Administration	Grants and Contracts Financial Administration			
Mailing address (line 1)	401 Whitehurst	401 Whitehurst			
Mailing address (line 2)					
City, state, and ZIP code	Stillwater OK 74078	Stillwater OK 74078			
Phone number	405-744-6512	405-744-8241			
E-mail address	robert.dixon@okstate.edu	carmen.tetik@okstate.edu			

B. Fiscal year: In what month did your institution's 2015 fiscal year end?	June	

C. Additional comments:				