



NATIONAL SCIENCE FOUNDATION
ARLINGTON, VA 22230

**FFRDC RESEARCH AND DEVELOPMENT SURVEY
FY 2016**

Please submit your survey data by January 31, 2017.

This survey collects data on research and development (R&D) expenditures at Federally Funded R&D Centers (FFRDCs). Please report R&D activities and expenditures for your organization's **2016** 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 organization's response is entirely voluntary.

Response to this survey is estimated to require 11 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.ffrdcsurvey.org>

Or mail this form to:

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

Questions?

Technical support:

Support@FFRDCsurvey.org
(866) 936-9376

General survey questions:

Ronda Britt
National Center for Science and Engineering Statistics
National Science Foundation
rbritt@nsf.gov
(703) 292-7765

Thank you for your participation.

What's New for FY 2016

Changes to Survey Definitions

- The definition of research and development (R&D) and the definitions of basic research, applied research, and development have been updated, but are still consistent with the definitions used in the previous surveys. The updates were made to achieve standardized definitions across all NSF R&D surveys. These definitions mirror the definitions provided in the Frascati Manual 2015, an international document published by the Organisation for Economic Co-operation and Development that provides guidelines for collecting and reporting data on R&D.

New Question

- **Question 2:** This question asks for R&D expenditures funded by specific federal agencies.

Changes to Questions

- Questions 2–5 in the FY 2015 survey were renumbered to be Questions 3–6.
- **Question 3:** In addition to the updated definitions of basic research, applied research, and experimental development (also see Survey Definitions and Instructions on the following page), the third example provided in this question has been revised to facilitate better understanding of the differences between each type of R&D.

Survey Definitions and Instructions

Fiscal Year (FY)

Please report data for your organization's 2016 fiscal year.

Research and Development (R&D)

R&D is creative and systematic work undertaken in order to increase the stock of knowledge — including knowledge of humankind, culture, and society — and to devise new applications of available knowledge. R&D covers three activities defined below — basic research, applied research, and experimental development.

- **Basic research** is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.
- **Applied research** is original investigation undertaken in order to acquire new knowledge. It is directed primarily towards a specific, practical aim or objective.
- **Experimental development** is systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.

R&D Expenditures

Please include all current operating expenditures for activities specifically organized to produce R&D outcomes. This includes basic research, applied research, and experimental development funded by external sponsors or separately budgeted and accounted for by your organization using internal funds.

R&D *includes*:

- Sponsored research (including federal and nonfederal sponsors)
- Indirect costs associated with R&D projects
- R&D equipment and software
- R&D subcontract expenditures
- Clinical trials
- Research training grants

R&D does *not* include:

- Outreach or training programs
- R&D conducted by staff at outside institutions that is not accounted for in your financial records
- Capital projects (i.e., construction or renovation of research facilities)
- Routine testing
- Non-R&D program implementation or management
- Policy development

Question 1. How much of your total expenditures for separately budgeted research and development (R&D) came from the following sources in FY 2016? (See definition of R&D on the previous page.)

Report the **original source** of funds, when possible. For example, if you received **federal** funds from another organization, report that amount under "U.S. federal government."

Please do not report capital construction costs.

Source of funds	R&D expenditures (Dollars in thousands) (for example, report \$25,342 as \$25)
a. U.S. federal government Any agency of the United States government. Include federal funds passed through from another organization.	\$
b. State and local government Any state, county, municipality, or other local government entity in the United States, including state health agencies.	\$
c. Business Domestic or foreign for-profit organizations. (Report funds from a company's nonprofit foundation in row d.)	\$
d. Nonprofit organizations Domestic or foreign nonprofit foundations and organizations, except universities and colleges. Funds from other universities and colleges should be reported in row e.	\$
e. All other sources Other sources not reported above, such as funds from foreign governments, and foreign or U.S. universities.	\$
f. Total¹	\$ <u>TOTAL</u>

¹ Column totals are automatically generated on the Web survey.

Question 2. Of the federally funded R&D expenditures reported in Question 1, row a, how much came from the following agencies?

Report the agency that was the **original source** of funds, when possible.

A list of the subagencies belonging to each department/agency shown below is included as a link on Question 2 of the web survey.

Funding agency	R&D expenditures (Dollars in thousands)
a. Department of Defense	\$
b. Department of Energy	\$
c. Department of Health and Human Services (including the National Institutes of Health)	\$
d. Department of Homeland Security	\$
e. Department of Transportation	\$
f. National Aeronautics and Space Administration	\$
g. National Science Foundation	\$
h. Other federal agencies	\$
i. Total¹ (should match total from Question 1, row a)	\$ <u>TOTAL</u>

¹ Column totals are automatically generated on the Web survey.

Question 3. What amounts of your FY 2016 R&D expenditures were for basic research, applied research, and experimental development?

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

See the table below this question for examples.

		R&D expenditures (Dollars in thousands)		
		(1) Federal	(2) Nonfederal	(3) Total ¹
a. Basic research	Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.	\$ _____	\$ _____	\$ <u>TOTAL</u>
b. Applied research	Original investigation undertaken in order to acquire new knowledge. It is directed primarily towards a specific, practical aim or objective.	\$ _____	\$ _____	\$ <u>TOTAL</u>
c. Experimental development	Systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.	\$ _____	\$ _____	\$ <u>TOTAL</u>
d. Total¹	Column 1 total should match Question 1, row a. Column 3 total should match Question 1, row f.	\$ <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	Experimental 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 investigating the effect of different types of manipulatives on the way first graders learn mathematical strategy by changing manipulatives and then measuring what students have learned through standardised instruments.	A researcher is studying the implementation of a specific math curriculum to determine what teachers needed to know to implement the curriculum successfully.	A researcher is developing and testing software and support tools, based on fieldwork, to improve mathematics cognition for student special education.

Question 4. Of the total R&D expenditures reported in Question 1, what were the amounts for the following types of costs?

Please report only **direct costs** in rows a–e. **Indirect costs** should be reported in row f.

	R&D expenditures (Dollars in thousands)
Direct costs from all sources	
a. Salaries, wages, and fringe benefits Include compensation for all R&D personnel whether full-time or part-time, temporary or permanent. Include salaries, wages, and fringe benefits paid from internal funds and from external support.	\$
b. Software purchases All payments for software. Include both purchases of software packages and license fees for systems.	\$
c. Equipment Payments for movable equipment. Include ancillary costs such as delivery and setup.	\$
d. Subcontracts Payments to subcontractors or subrecipients for services on R&D projects.	\$
e. Other direct costs Other costs that do not fit into one of the above categories, including (but not limited to) travel, computer usage fees, and supplies.	\$
Indirect costs	
f. Indirect costs Include all indirect costs (overhead) associated with R&D projects.	\$
g. Total¹ (should match total from Question 1, row f)	\$ <u>TOTAL</u>

¹ Column totals are automatically generated on the Web survey.

Question 5. What was the total executed operating budget of your FFRDC in FY 2016, excluding capital construction costs?

	(Dollars in thousands)
Total operating budget	\$

Question 6.

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

Primary contact

Alternate contact

Name		
Title		
Organization name		
Mailing address (line 1)		
Mailing address (line 2)		
City, state, and ZIP code		
Phone number		
E-mail address		

b. Fiscal year: In what month did your organization’s 2016 fiscal year end?

c. Additional comments: