



National Science Foundation  
WHERE DISCOVERIES BEGIN

# NSF Survey of Federal Funds for Research and Development

FYs 2023–24  
(Volume 73)

Standard Form

Due date: June 21, 2024

Questions?

- For questions about your agency's participation, contact NSF Project Manager Christopher Pece by e-mail at [cpece@nsf.gov](mailto:cpece@nsf.gov) or at 703-292-7788.
- For technical questions, contact the Support Team by e-mail at [NCSSES-FedFundsSurvey@nsf.gov](mailto:NCSSES-FedFundsSurvey@nsf.gov) or at 703-312-5379.

The survey is authorized by the National Science Foundation Act of 1950 (42 U.S. Code 1862, P.L. 87-835), as amended, and the America COMPETES Reauthorization Act of 2010 §505.

Thank you for your participation.

## What's New?

There are no major changes to the survey for this cycle, but the survey website has more functionality.

### Specific Changes from Volume 72 to Volume 73

- Separate rows for American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands were added to the “state” questions (Questions 12 and 13). Those are no longer included under Other U.S. territories as had been done in previous years. Other U.S. territories now include only Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Islands, Marshall Islands, Navassa Island, Palmyra Atoll, and Wake Island.
- There is a new university-affiliated research center, Howard University Research Institute for Tactical Autonomy (Question 17).
- A standalone supplemental question has been added at the end of the survey. This asks agencies to report R&D and R&D plant obligations from the CHIPS and Science Act, the Inflation Reduction Act, and the Infrastructure Investment and Jobs Act in FYs 2023 and 2024. This is the only place where these crosscuts are specifically collected. Any R&D from these three acts should be included in the total R&D and R&D plant obligations data reported throughout this survey.

### Website Changes

- Some introductory material was removed from the questionnaire:
  - How is the Survey Organized?
  - About the Survey of Federal Funds for Research and Development (R&D), and
  - List of R&D Fields and Example Disciplines.

These can be found in the Reference Materials section on the Home page of the website, although About the Survey has been replaced by Frequently Asked Questions. (Copies of the latter two were already in the Reference Materials section.)

- A Glossary has been added to the Reference Materials section.

## General Survey Definitions and Instructions

The following section provides general guidance on what should be reported on the survey. These definitions come from OMB Circular A-11, Section 84.2(c). Additional definitions and other instructions are provided throughout the questionnaire as needed.

### R&D Conduct

Research and experimental development (R&D) conduct is defined as creative and systematic work undertaken in order to increase the stock of knowledge—including knowledge of people, culture, and society—and to devise new applications using available knowledge.

**Basic research:** Basic research is defined as experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts. Basic research may include activities with broad or general applications in mind, such as the study of how plant genomes change, but should exclude research directed towards a specific application or requirement, such as the optimization of the genome of a specific crop species.

**Applied research:** Applied research is defined as original investigation undertaken in order to acquire new knowledge. Applied research is, however, directed primarily towards a specific practical aim or objective.

**Experimental development:** Experimental development is defined as creative and systematic work, drawing on knowledge gained from research and practical experience, which is directed at producing new products or processes or improving existing products or processes. Like research, experimental development will result in gaining additional knowledge. (More details about what is included and excluded can be found in question 5.)

Experimental development includes:

- The production of materials, devices, and systems or methods, including the design, construction, and testing of experimental prototypes.
- Technology demonstrations, in cases where a system or component is being demonstrated at scale for the first time, and it is realistic to expect additional refinements to the design (feedback R&D) following the demonstration. However, not all activities that are identified as “technology demonstrations” are R&D.

Experimental development does not include:

- User demonstrations where the cost and benefits of a system are being validated for a specific use case. This includes low-rate initial production activities.
- Pre-production development, which is defined as non-experimental work on a product or system before it goes into full production, including activities such as tooling and development of production facilities. For example, exclude activities and programs that are categorized as “Operational Systems Development” in DOD’s budget activity structure. Activities and programs of this type should generally be reported as investments in other major equipment.

## General Survey Definitions and Instructions (continued)

### R&D Plant

R&D plant includes spending on both R&D facilities and major equipment as defined in Office of Management and Budget (OMB) Circular A-11, Section 84 (Schedule C) and includes physical assets, such as land, structures, equipment, and intellectual property (e.g., software or applications) that have an estimated useful life of two years or more; or commodity inventories.

Reporting for R&D plant includes the purchase, construction, manufacture, rehabilitation, or major improvement of physical assets regardless of whether the assets are owned or operated by the Federal Government, States, municipalities, or private individuals. The cost of the asset includes both its purchase price and all other costs incurred to bring it to a form and location for its intended use.

Obligations for foreign R&D plant are limited to federal funds for facilities that are located abroad and used in support of foreign R&D.

### R&D Activities Must Be...

(Source: Frascati Manual 2015)

- **Novel:** projects that advance current knowledge or create new knowledge
- **Creative:** projects focused on original concepts and hypotheses
- **Uncertain:** project outcomes are unable to be completely determined at the outset
- **Systematic:** projects are planned and budgeted
- **Transferable/Reproducible:** project methodology and results are transferable/reproducible to other situations and locations

### Types of Activities That Are Not Likely To Be R&D

- Program planning and evaluation (unless part of an existing R&D program)
- Commercialization (includes promoting/producing the products/services from R&D projects)
- Economic/policy/feasibility studies
- General patient services
- Information systems
- Management studies
- Marketing of products/services
- Market research or analysis
- Routine data collection/dissemination
- Routine monitoring/testing
- Strategic planning
- Technology transfer

## General Survey Definitions and Instructions (continued)

### Types of Funding to Include

#### ***R&D Conduct***

##### Include:

- All of your agency's R&D costs, regardless of whether the funding was from direct appropriations, trust funds, special account receipts, or fees and charges.
- Agency R&D costs for non-U.S. performers.
- Costs of performing, planning, and administering R&D conducted by your agency, including laboratory overhead and pay of military personnel.
- For R&D contracts, include all of your agency's administrative costs.
- Minor equipment purchases, such as personal computers, standard microscopes, and simple spectrometers.
- Funds transferred to another agency for R&D. These should be reported as part of the Federal sector for R&D performance.

##### Do not include:

- **Reimbursable funds provided to your agency by another federal agency. The originating agency will report these.**
- For R&D grants, do not include your agency's administrative costs.

#### ***R&D Plant***

##### Include:

- Funding for the construction of facilities that are necessary for the execution of an R&D program. This may include land, major fixed equipment, and supporting infrastructure such as a sewer line, or housing at a remote location. Many laboratory buildings will include a mixture of R&D facilities and office space. The fraction of the building directly related to the conduct of R&D may be calculated based on the percentage of the building's total square footage.
- Acquisition, design, or production of major moveable equipment, such as mass spectrometers, research vessels, DNA sequencers, and other major moveable instruments for use in R&D activities.
- Programs of \$1 million or more that are devoted to the purchase or construction of R&D major equipment.
- Agency R&D plant costs for non-U.S. performers.

##### Do not include:

- Construction of other facilities, such as office space.
- Minor equipment purchases, such as personal computers, standard microscopes, and simple spectrometers (if part of an R&D activity, report these costs under R&D conduct, not R&D plant).

## General Survey Definitions and Instructions (continued)

### How Should I Report My Data?

- Report total (gross) obligations; do not report net of deobligations.
- Report actual dollars for all amounts.
- Where possible, use enacted appropriation rather than annualized continuing resolution amounts.
- R&D outlays and obligations reported in this survey should be consistent with amounts in the Budget of the United States Government. See OMB Circular A-11, Section 84.3(g). The same definitions are used for both.
- Report all outlays or obligations that occurred in FY 2023, and those estimated for FY 2024. The FY 2024 estimates will be collected again on next year's survey as final outlays and obligations with the FY 2025 estimates.
- Report the fiscal year in which the outlay or obligation was made regardless of when the funds were originally authorized, received, or appropriated.

### *Notes on Deobligations*

- Respondents should not adjust for deobligations. For this survey, agencies should report the total amounts obligated without any adjustment for deobligations. The only place to account for deobligations is Question 4.
- While agencies may prefer to report R&D and R&D plant net of deobligations, the data collected for this survey are for statistical purposes and should not be treated as equivalent to a financial statement or audit, as such survey results will differ from financial accounting statements.

**1** FYs 2023 and 2024 outlays for R&D and R&D plant

**What were your agency’s outlays for R&D conduct and R&D plant in fiscal year (FY) 2023 and what are your agency's estimated outlays for FY 2024?**

Definition from OMB Circular A-11, Section 20.3: Outlay means a payment to liquidate an obligation (other than the repayment of debt principal or other disbursements that are "means of financing" transactions). Outlays generally are equal to cash disbursements but also are recorded for cash-equivalent transactions, such as the issuance of debentures to pay insurance claims, and in a few cases are recorded on an accrual basis such as interest on public issues of the public debt.

- Report prior year actuals and current year estimates for outlays.
- Amounts should be reported regardless of whether or not they were originally appropriated, received, or identified in your agency’s budget specifically for R&D conduct or R&D plant.

**R&D Outlays**  
(Round to the nearest dollar)

	(1) FY 2023 Actual	(2) FY 2024 Estimated
a. R&D conduct	\$ <input style="width: 80%;" type="text"/>	\$ <input style="width: 80%;" type="text"/>
b. R&D plant	\$ <input style="width: 80%;" type="text"/>	\$ <input style="width: 80%;" type="text"/>
c. Total	<b>TOTAL</b>	<b>TOTAL</b>

If needed, use the space below to provide clarification for the data reported in this question.

**2** FY 2023 comparison of R&D outlays with OMB Circular A-11 Schedule C

**What outlays for R&D conduct and R&D plant did your agency report to the Office of Management and Budget (OMB) in response to Circular A-11, section 84 (MAX A-11) in FY 2023?**

**This question is addressed only to the respondents who have access to their agency’s report to OMB.**

As noted in OMB Circular A-11, Section 84.3(g):

- You should be able to reconcile information reported in schedule C for the conduct of R&D with information reported in the National Science Foundation’s *Survey of Federal Funds for Research and Development*, and with information provided in the supplemental R&D data requests described in [84.3](h).
- You should also be able to reconcile the total reported in schedule C for the construction of R&D facilities and major movable equipment with information reported as R&D plant in the National Science Foundation’s *Survey of Federal Funds for Research and Development*.

**R&D Outlays  
(Round to the nearest dollar)**

	FY 2023 Actual
a. R&D conduct	
1. Outlays for R&D conduct reported in question 1 row a for FY 2023	Autofill on website
2. Outlays for R&D conduct reported to OMB in response to Circular A-11, section 84 (MAX A-11)	\$ <input style="width: 100px;" type="text"/>
3. Difference in outlays for R&D conduct (row a.1 minus row a.2)	Autofill on website

Use the space below to explain any difference between rows a.1 and a.2.

**R&D Plant Outlays  
(Round to the nearest dollar)**

	FY 2023 Actual
b. R&D plant	
1. Outlays for R&D plant reported in question 1 row b for FY 2023	Autofill on website
2. Outlays for R&D Facilities plus Major R&D Equipment Reported to OMB in response to Circular A-11, section 84 (MAX A-11)	\$ <input style="width: 100px;" type="text"/>
3. Difference in outlays for R&D plant (row b.1 minus row b.2)	Autofill on website

Use the space below to explain any difference between rows b.1 and b.2.



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**3** FYs 2023 and 2024 total obligations for R&D and R&D plant

**What were your agency’s obligations for R&D conduct and R&D plant in all fields in FY 2023 and what are your agency's estimated obligations for FY 2024?**

Definition from OMB Circular A-11, Section 20.3: Obligation means a binding agreement that will result in outlays, immediately or in the future. Budgetary resources must be available before obligations can be incurred legally.

**Include:**

- All R&D obligated by your agency, regardless of whether the funding was from direct appropriations, trust funds, special account receipts, fees and charges, or special appropriations (.e.g., the CHIPS and Science Act, the Inflation Reduction Act, and the Infrastructure Investment and Jobs Act).

**Exclude:**

- Reimbursable funds provided to your agency by another federal agency.

Note: Report gross obligations in all questions except question 4, which is the only place where the total level of deobligations should be reported. Do not enter negative numbers in any questions.

**R&D Obligations  
(Round to the nearest dollar)**

	(1) FY 2023 Actual	(2) FY 2024 Estimated
a. R&D conduct	\$ _____	\$ _____
b. R&D plant	\$ _____	\$ _____
c. Total R&D conduct and plant	<b>TOTAL</b>	<b>TOTAL</b>

If needed, use the space below to provide clarification for the data reported in this question.

**4** FY 2023 R&D deobligations

**How much of the R&D funding your agency obligated in prior years was deobligated in FY 2023?**

- As examples, deobligations might occur when a contract is cancelled or when not all of the obligated funds are spent, allowing the funds to be reobligated somewhere else or returned to the Department of the Treasury.
- This is the **only** question where the total level of deobligations should be reported. Do not enter negative numbers in the other questions; that is, report gross obligations in all other questions.
- Choose one response per row.

**R&D Deobligations (FY 2023 Actual)**  
(Round to the nearest dollar)

	None or not applicable	Less than \$1 million	\$1,000,000 to \$9,999,999	\$10,000,000 to \$49,999,999	\$50,000,000 or more	Not available
a. R&D conduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. R&D plant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If needed, use the space below to provide clarification for the data reported in this question.

**5** FYs 2023 and 2024 obligations for R&D conduct by type of work

**What were your agency’s obligations for R&D conduct by type of work in FY 2023 and what are your agency's estimated obligations by type of work in FY 2024?**

- If you cannot assign a project’s obligations precisely across basic research, applied research, and experimental development, use your best judgment to allocate the obligations.
- The definitions below are from OMB Circular A-11, Section 84.2(c).
- Examples are provided on the next page.

**Basic research:** Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts. Basic research may include activities with broad or general applications in mind, such as the study of how plant genomes change, but should exclude research directed towards a specific application or requirement, such as the optimization of the genome of a specific crop species.

**Applied research:** Original investigation undertaken in order to acquire new knowledge. Applied research is, however, directed primarily towards a specific practical aim or objective.

**Experimental development:** Creative and systematic work, drawing on knowledge gained from research and practical experience, which is directed at producing new products or processes or improving existing products or processes. Like research, experimental development will result in gaining additional knowledge.

Experimental development includes:

- The production of materials, devices, and systems or methods, including the design, construction, and testing of experimental prototypes. Technology demonstrations, in cases where a system or component is being demonstrated at scale for the first time, and it is realistic to expect additional refinements to the design (feedback R&D) following the demonstration. However, not all activities that are identified as “technology demonstrations” are R&D.

Experimental development does not include:

- User demonstrations where the cost and benefits of a system are being validated for a specific use case. This includes low-rate initial production activities.
- Pre-production development, which is defined as non-experimental work on a product or system before it goes into full production, including activities such as tooling and development of production facilities. For example, exclude activities and programs that are categorized as “Operational System Development” in DOD’s budget activity structure. Activities and programs of this type should generally be reported as investments in other major equipment.

**R&D Obligations (Round to the nearest dollar)**

	(1) FY 2023 Actual	(2) FY 2024 Estimated
a. Basic research	\$ _____	\$ _____
b. Applied research	\$ _____	\$ _____
c. Experimental development	\$ _____	\$ _____
d. Total R&D conduct	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row d above should match the amounts from question 3.a displayed here.</i>	<i>Q3.a(1) value</i>	<i>Q3.a(2) value</i>

If needed, use the space below to provide clarification for the data reported in this question.

→ Question 5 continues on the next page.

**5** FYs 2023 and 2024 obligations for R&D conduct by type of work (continued)

**Examples of R&D types**

**Basic research examples**

- A researcher is studying the properties of human blood to determine what affects coagulation.
- A researcher is studying the properties of molecules under various 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 standardized instruments.

**Applied research examples:**

- A researcher is conducting research on how a new chicken pox vaccine affects blood coagulation.
- 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 studying the implementation of a specific math curriculum to determine what teachers needed to know to implement the curriculum successfully.

**Experimental development examples:**

- A researcher is conducting clinical trials to test a newly developed chicken pox vaccine for young children.
- 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 developing and testing software and support tools, based on fieldwork, to improve mathematics cognition for student special education.

**6** FY 2023 obligations for R&D conduct by type of work and detailed field of R&D

**What were your agency’s obligations for basic research, applied research, and experimental development in the fields below in FY 2023?**

- If an obligation was intended to support R&D in multiple fields (i.e., interdisciplinary research), please prorate the obligation for each field involved when possible. Do not double-count funds across multiple fields.
- Examples of the fields and disciplines are provided in the Reference Materials section on the Home page of the survey website. “Business management and business administration” for example is for R&D in those topics, not administration of R&D in other fields.
- **New for Volume 73:** The fields “veterinary biomedical and clinical sciences” and “veterinary medicine” have been moved from c.3, Life sciences/Health sciences to c.1, Life sciences/Agricultural sciences.

**R&D Obligations (FY 2023 Actual)  
(Round to the nearest dollar)**

Field of R&D	(a) Basic research	(b) Applied research	(c) Experimental development	(d) Total R&D conduct
a. <b>Computer and information sciences</b>	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
b. <b>Geosciences, atmospheric sciences, and ocean sciences</b>				
1. Atmospheric science and meteorology	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Geological and earth sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Ocean sciences and marine sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Other geosciences, atmospheric sciences, and ocean sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Total geosciences, atmospheric sciences, and ocean sciences	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
c. <b>Life sciences</b>				
1. Agricultural sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Biological and biomedical sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Health sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Natural resources and conservation	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Other life sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Total life sciences	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
d. <b>Mathematics and statistics</b>	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>

→ Question 6 continues on the next page.

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**6** FY 2023 obligations for R&D conduct by type of work and detailed field of R&D  
(continued)

**R&D Obligations (FY 2023 Actual)**  
(Round to the nearest dollar)

Field of R&D	(a) Basic research	(b) Applied research	(c) Experimental development	(d) Total R&D conduct
<b>e. Physical sciences</b>				
1. Astronomy and astrophysics	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Chemistry	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Materials science	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Physics	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Other physical sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Total physical sciences	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<b>f. Psychology</b>				
1. Biological aspects	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Social aspects	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Other psychological sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Total psychology	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<b>g. Social sciences</b>				
1. Anthropology	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Economics	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Political science and government	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Sociology, demography, and population studies	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Other social sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Total social sciences	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>

→ Question 6 continues on the next page.

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**6** FY 2023 obligations for R&D conduct by type of work and detailed field of R&D  
(continued)

**R&D Obligations (FY 2023 Actual)**  
(Round to the nearest dollar)

Field of R&D	(a) Basic research	(b) Applied research	(c) Experimental development	(d) Total R&D conduct
<b>h. Engineering</b>				
1. Aerospace, aeronautical, and astronautical engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Bioengineering and biomedical engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Chemical engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Civil engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Electrical, electronics, and communications engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Industrial and manufacturing engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
7. Mechanical engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
8. Metallurgical and materials engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
9. Other engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
10. Total engineering	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<b>i. Other fields</b>				
1. Business management and business administration	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Communication and communications technologies	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Education research	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Humanities	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Law	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Social work	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
7. Visual and performing arts	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
8. All other fields	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
9. Total other fields	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<b>j. Total, all fields of R&amp;D conduct</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row j above should match the FY 2023 amounts from question 5, rows a, b, and c, and question 3, row a, displayed here.</i>	Q5.a(1) value	Q5.b(1) value	Q5.c(1) value	Q3.a(1) value

If needed, use the space below to provide clarification for the data reported in this question.

**7** FY 2024 obligations for R&D conduct by type of work and broad field of R&D

**What are your agency’s estimated obligations for basic research, applied research, and experimental development in the fields below in FY 2024?**

- If an obligation is intended to support R&D in multiple fields (i. e., interdisciplinary research), please prorate the obligation for each field involved when possible. Do not double-count funds across multiple fields.
- Examples of fields and disciplines are provided in the Reference Materials section on the Home page of the survey website.

**R&D Obligations (FY 2024 Estimated)**  
(Round to the nearest dollar)

	(1)	(2)	(3)	(4)
Field of R&D	Basic research	Applied research	Experi-mental develop-ment	Total R&D conduct
a. Computer and information sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
b. Geosciences, atmospheric sciences, and ocean sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
c. Life sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
d. Mathematics and statistics	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
e. Physical sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
f. Psychology	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
g. Social sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
h. Engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
i. Other fields	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
j. Total, all fields of R&D conduct	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row j above should match the FY 2024 amounts from question 5, rows a, b, and c, and question 3, row a displayed here.</i>	<i>Q5.a(2) value</i>	<i>Q5.b(2) value</i>	<i>Q5.c(2) value</i>	<i>Q3.a(2) value</i>

If needed, use the space below to provide clarification for the data reported in this question.



## 8 FY 2023 R&D and R&D plant obligations by performer and type of work

### For each of the following types of R&D performers, what were your agency's obligations for R&D conduct by type of work and for R&D plant in FY 2023?

- Report obligations in terms of the immediate recipient, even if funds were later passed on to subgrantees or subcontractors.

**Federal:** Obligations for R&D conducted by your federal agency or sent to other federal agencies (intragovernmental transfers), and your agency's costs for administering both R&D within the federal government and R&D contracts and cooperative agreements.

- Include, for example, a federal employee's travel.
- Exclude costs for administering R&D grants.
- Exclude military service academies; report these under higher education.

**Federally Funded R&D Centers (FFRDCs):** FFRDCs are designated by the federal government, must be separately organized units receiving at least 70% of their funds from the federal government, and have an annual budget of at least \$500,000. The FFRDCs are listed in question 16.

Intragovernmental transfers for use of another agency's sponsored FFRDC should be reported as obligations to FFRDCs, also report specific amounts to individual FFRDCs on question 16.

**Businesses:** Domestic for-profit businesses or industrial firms.

- Exclude FFRDCs administered by these organizations; report those under FFRDCs.

**Higher education:** Domestic higher education institutions, military service academies, and academic consortia.

- Higher education institutions are institutions that engage primarily in providing resident and/or accredited instruction for a not less than a 2-year program above the secondary school level that is acceptable for full credit toward a bachelor's degree or that provide not less than a 1-year program of training above the secondary school level that prepares students for gainful employment in a recognized occupation. Included are colleges of liberal arts; schools of arts and sciences; professional schools, as in engineering and medicine, including hospitals, clinics, and research centers that are financial constituents of universities; and agricultural experiment stations. (Refer to *Organization Codes for Higher Education and Nonprofit Institutions* under Reference Materials on the Home page of the survey website for classification of individual institutions.)
- Consortia are organizations formed by the membership of several institutions from one or more types of performers (i.e., higher education or nonprofit) in order to promote and support efforts to enhance knowledge in one or more disciplines. Consortia that include both higher education institutions and nonprofits have been assigned to one of the two categories by NSF. If your agency funds such consortia, it may be helpful to answer questions 18 and 19 first so you know how they are classified.
- Include fellowships, traineeships, and training grants supporting research; exclude all other awards to individuals and report these under obligations for S&E on question 18.
- Include awards to University Affiliated Research Centers (UARCs). The list of individual UARCs can be found in question 17.
- Exclude FFRDCs administered by higher education organizations; report those under FFRDCs.
- Exclude foreign higher education institutions; report those under non-U.S. performers.

**Other nonprofits:** Domestic nonprofit organizations other than universities and colleges.

- Nonprofit organizations are businesses granted tax-exempt status by the IRS. Nonprofits pay no income tax on the donations they receive or on any money that they earn through fundraising activities. Nonprofit organizations are sometimes called NPOs or 501(c) organizations, based on the section of the tax code that permits them to operate. (For the purposes of this survey, some nonprofits are classified as academic institutions: refer to *Organization Codes for Higher Education and Nonprofit Institutions* under Reference Materials on the Home page of the survey or the organization search tool for classification of individual institutions.)
- Include nonprofit hospitals and consortia (see definition of consortia under higher education above).
- Exclude hospitals, clinics, and research centers that are financial constituents of universities.
- Exclude FFRDCs administered by nonprofit organizations; report those under FFRDCs.

→ Question 8 continues on the next page.

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**8** FY 2023 R&D and R&D plant obligations by performer and type of work  
(continued)

**State and local government:** State, county, municipality, public authority, or other local government entity in the United States.

- Exclude state and local universities and colleges or agricultural experiment stations; report these under higher education.

**Non-U.S. performers:** R&D performers outside of the United States.

- Include foreign higher education institutions.
- Exclude R&D performed by U.S. organizations or U.S. citizens in other nations.

**R&D Obligations (FY 2023 Actual)  
(Round to the nearest dollar)**

R&D performer	(1) Basic research	(2) Applied research	(3) Experi- mental develop- ment	(4) R&D plant	(5) Total R&D conduct and plant
a. Federal	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
b. Federally Funded R&D Centers (FFRDCs)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
c. Businesses	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
d. Higher education (U.S. institutions only)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
e. Other nonprofits (i.e., other than higher education institutions; U.S. nonprofits only)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
f. State and local government	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
g. Non-U.S. performers	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
h. Total, nonfederal performers (rows c–g)	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
i. Total, all performers	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row i above should match the FY 2023 amounts from question 5, rows a, b, and c, and question 3, rows b and c displayed here.</i>	Q5.a(1) value	Q5.b(1) value	Q5.c(1) value	Q3.b(1) value	Q3.c(1) value

If needed, use the space below to provide clarification for the data reported in this question.

**9** FY 2024 R&D and R&D plant obligations by performer and type of work

**For each of the following types of R&D performers, what are your agency’s estimated obligations for R&D conduct by type of work and for R&D plant in FY 2024?**

- Report obligations in terms of the immediate recipient, even if funds were later passed on to subgrantees or subcontractors.
- See question 8 for definitions of R&D performers.

**R&D Obligations (FY 2024 Estimated)**  
(Round to the nearest dollar)

	(1)	(2)	(3)	(4)	(5)
R&D performer	Basic research	Applied research	Experi- mental develop- ment	R&D plant	Total R&D conduct and plant
a. Federal	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
b. Federally Funded R&D Centers (FFRDCs)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
c. Businesses	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
d. Higher education (U.S. institutions only)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
e. Other nonprofits (i.e., other than higher education institutions; U.S. nonprofits only)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
f. State and local government	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
g. Non-U.S. performers	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
h. Total, nonfederal performers (rows c–g)	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
i. Total, all performers	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row i above should match the FY 2024 amounts from question 5, rows a, b, and c, and question 3, rows b and c displayed here.</i>	Q5.a(2) value	Q5.b(2) value	Q5.c(2) value	Q3.b(2) value	Q3.c(2) value

If needed, use the space below to provide clarification for the data reported in this question.

**10** FY 2023 R&D obligations to nonfederal performers by type of agreement

**What were your agency’s R&D obligations to nonfederal performers in FY 2023 by the following types of agreement?**

**Include only nonfederal performers:**

- Businesses (question 8 row c)
- Higher education (question 8 row d)
- Other nonprofits (question 8 row e)
- State and local governments (question 8 row f)
- Non-U.S. performers (question 8 row g)

**Exclude R&D obligations to intramural performers:**

- Federal performers (question 8 row a)
- FFRDCs (question 8 row b)

**Contracts and other transactions:** Contracts are legal commitments in which a good or service is provided by the external performer that benefits your agency. Your agency specifies the deliverables and gains the rights to results. These should be consistent with OMB Object Class 25.5, research and development contracts. See OMB Circular A-11, Section 83.6, Schedule O. For the purpose of this survey, also include Other Transaction (OT) agreements for R&D.

**Grants and cooperative agreements:** Grants are legal agreements to provide funding by your agency to support a specific purpose, but not to acquire property and services for your agency. Substantial involvement from your agency is not expected. For the purpose of this survey, also include cooperative agreements (e.g., CRADAs).

**R&D Obligations to Nonfederal Performers  
(FY 2023 Actual)  
(Round to the nearest dollar)**

	(1) R&D conduct	(2) R&D plant	(3) Total R&D conduct and plant
a. Contracts and other transactions	\$ _____	\$ _____	TOTAL
b. Grants and cooperative agreements	\$ _____	\$ _____	TOTAL
c. Total for nonfederal performers	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row c above should match the totals for nonfederal performers from question 8, row h, columns 1–3, 4, and 5, displayed here.</i>	Q8.h(1) + Q8.h(2) + Q8.h(3) value	Q8.h(4) value	Q8.h(5) value

If needed, use the space below to provide clarification for the data reported in this question.

**11** FY 2023 R&D agreements with other federal agencies

**How much of your agency's R&D obligations were provided to other federal agencies outside your department in FY 2023?**

**Include:**

- All obligations which your agency provided to other federal agencies through interagency agreements or other similar transactions to conduct R&D on behalf of your agency.

**Exclude:**

- Transfers to another agency for use of another agency's sponsored FFRDC. Report those directly as FFRDC amounts in questions 8 and 16.

**R&D Obligations to Other Federal Performers  
(FY 2023 Actual)  
(Round to the nearest dollar)**

Federal agency to whom funds were provided	(a) R&D conduct	(b) R&D plant	(c) Total R&D conduct and plant
1. Department of Agriculture	\$ _____	\$ _____	TOTAL
2. Department of Commerce	\$ _____	\$ _____	TOTAL
3. Department of Defense			
a. Defense Advanced Research Projects Agency	\$ _____	\$ _____	TOTAL
b. Defense Health Agency	\$ _____	\$ _____	TOTAL
c. Department of the Air Force	\$ _____	\$ _____	TOTAL
d. Department of the Army	\$ _____	\$ _____	TOTAL
e. Department of the Navy	\$ _____	\$ _____	TOTAL
f. Space Force	\$ _____	\$ _____	TOTAL
g. Other DOD	\$ _____	\$ _____	TOTAL
4. Department of Education	\$ _____	\$ _____	TOTAL
5. Department of Energy	\$ _____	\$ _____	TOTAL
6. Department of Health and Human Services	\$ _____	\$ _____	TOTAL
7. Department of Homeland Security	\$ _____	\$ _____	TOTAL
8. Department of the Interior	\$ _____	\$ _____	TOTAL
9. Department of Justice	\$ _____	\$ _____	TOTAL
10. Department of Labor	\$ _____	\$ _____	TOTAL
11. Department of State	\$ _____	\$ _____	TOTAL
12. Department of Transportation	\$ _____	\$ _____	TOTAL

→ Question 11 continues on the next page.

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**11** FY 2023 R&D agreements with other federal agencies (continued)

**R&D Obligations to Other Federal Performers  
(FY 2023 Actual)  
(Round to the nearest dollar)**

	(a) R&D conduct	(b) R&D plant	(c) Total R&D conduct and plant
13. Department of the Treasury	\$ _____	\$ _____	<b>TOTAL</b>
14. Department of Veterans Affairs	\$ _____	\$ _____	<b>TOTAL</b>
15. Agency for Global Media	\$ _____	\$ _____	<b>TOTAL</b>
16. Agency for International Development	\$ _____	\$ _____	<b>TOTAL</b>
17. Appalachian Regional Commission	\$ _____	\$ _____	<b>TOTAL</b>
18. Consumer Product Safety Commission	\$ _____	\$ _____	<b>TOTAL</b>
19. Environmental Protection Agency	\$ _____	\$ _____	<b>TOTAL</b>
20. Federal Trade Commission	\$ _____	\$ _____	<b>TOTAL</b>
21. Library of Congress	\$ _____	\$ _____	<b>TOTAL</b>
22. National Aeronautics and Space Administration	\$ _____	\$ _____	<b>TOTAL</b>
23. National Archives and Records Administration	\$ _____	\$ _____	<b>TOTAL</b>
24. National Science Foundation	\$ _____	\$ _____	<b>TOTAL</b>
25. Nuclear Regulatory Commission	\$ _____	\$ _____	<b>TOTAL</b>
26. Postal Service	\$ _____	\$ _____	<b>TOTAL</b>
27. RESTORE Act Centers of Excellence Research Grants Program	\$ _____	\$ _____	<b>TOTAL</b>
28. Smithsonian Institution	\$ _____	\$ _____	<b>TOTAL</b>
29. Social Security Administration	\$ _____	\$ _____	<b>TOTAL</b>
30. Tennessee Valley Authority	\$ _____	\$ _____	<b>TOTAL</b>
31. Other department/agency (describe in text box below)	\$ _____	\$ _____	<b>TOTAL</b>
32. Total obligations to other federal performers	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: the total in row 32(a) above should be <b>equal to or less than</b> the sum of question 8, row a, columns 1, 2, and 3; the total in row 32(b) should be <b>equal to or less than</b> the amount in question 8, row a, column 4; and the total in row 32(c) should be <b>equal to or less than</b> the amount in question 8, row a, column 5 displayed here.</i>	Q8.a(1) + Q8.a(2) + Q8.a(3) value	Q8.a(4) value	Q8.a(5) value

If needed, use the space below to provide clarification for the data reported in this question.

**12** FY 2023 obligations for R&D conduct by performer and state

**What were your agency’s obligations for R&D conduct to the following types of performers by state in FY 2023?**

- If the location of performance is not available, use the state in which the performing organization’s headquarters is located.
- **Change for Volume 73:** Rows have been added to collect obligations by type of performer for American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands (see rows 52–57) instead of grouping these under Other U.S. territories as had been done in previous years. Other U.S. territories now include only Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Islands, Marshall Islands, Navassa Island, Palmyra Atoll, and Wake Island.

**R&D Obligations for R&D Conduct (FY 2023 Actual) (Round to the nearest dollar)**

State	(a) Federal	(b) FFRDCs	(c) Businesses	(d) Higher education	(e) Other nonprofits	(f) State and local government	(g) Total R&D conduct in state
1. Alabama	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
2. Alaska	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
3. Arizona	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
4. Arkansas	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
5. California	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
6. Colorado	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
7. Connecticut	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
8. Delaware	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
9. District of Columbia	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
10. Florida	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
11. Georgia	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
12. Hawaii	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
13. Idaho	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
14. Illinois	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
15. Indiana	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
16. Iowa	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
17. Kansas	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
18. Kentucky	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL

→ Question 12 continues on the next page.

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**12** FY 2023 obligations for R&D conduct by performer and state (continued)

**R&D Obligations for R&D Conduct (FY 2023 Actual) (Round to the nearest dollar)**

<b>State</b>	<b>(a) Federal</b>	<b>(b) FFRDCs</b>	<b>(c) Businesses</b>	<b>(d) Higher education</b>	<b>(e) Other nonprofits</b>	<b>(f) State and local government</b>	<b>(g) Total R&amp;D conduct in state</b>
19. Louisiana	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
20. Maine	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
21. Maryland	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
22. Massachusetts	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
23. Michigan	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
24. Minnesota	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
25. Mississippi	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
26. Missouri	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
27. Montana	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
28. Nebraska	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
29. Nevada	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
30. New Hampshire	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
31. New Jersey	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
32. New Mexico	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
33. New York	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
34. North Carolina	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
35. North Dakota	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
36. Ohio	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
37. Oklahoma	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
38. Oregon	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
39. Pennsylvania	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
40. Rhode Island	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
41. South Carolina	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
42. South Dakota	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>

➔ Question 12 continues on the next page.



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**12** FY 2023 obligations for R&D conduct by performer and state (continued)

**R&D Obligations for R&D Conduct (FY 2023 Actual) (Round to the nearest dollar)**

State	(a) Federal	(b) FFRDCs	(c) Businesses	(d) Higher education	(e) Other nonprofits	(f) State and local government	(g) Total R&D conduct in state
43. Tennessee	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
44. Texas	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
45. Utah	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
46. Vermont	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
47. Virginia	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
48. Washington	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
49. West Virginia	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
50. Wisconsin	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
51. Wyoming	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
52. American Samoa	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
53. Guam	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
54. Northern Mariana Islands	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
55. Puerto Rico	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
56. U.S. Virgin Islands	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
57. Other U.S. territories	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
58. Offices abroad • R&D performed or administered in foreign countries by the U.S. government	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
59. Total for R&D conduct	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>R&amp;D conduct cross check: totals in row 59 above should match the amounts from question 8, rows a, b, c, d, e, and f, sum of columns 1–3 displayed here.</i>	<i>Q8.a(1) + Q8.a(2) + Q8.a(3) value</i>	<i>Q8.b(1) + Q8.b(2) + Q8.b(3) value</i>	<i>Q8.c(1) + Q8.c(2) + Q8.c(3) value</i>	<i>Q8.d(1) + Q8.d(2) + Q8.d(3) value</i>	<i>Q8.e(1) + Q8.e(2) + Q8.e(3) value</i>	<i>Q8.f(1) + Q8.f(2) + Q8.f(3) value</i>	<i>Total of question 8, rows a–f, sum of columns 1–3 values</i>

If needed, use the space below to provide clarification for the data reported in this question.

**13** FY 2023 R&D plant obligations by performer and state

**What were your agency’s obligations for R&D plant to the following types of performers by state in FY 2023?**

- If the location of performance is not available, use the state in which the performing organization’s headquarters is located.
- **Change for Volume 73:** Rows have been added to collect obligations by type of performer for American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands (see rows 52–57) instead of grouping these under Other U.S. territories as had been done in previous years. Other U.S. territories now include only Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Islands, Marshall Islands, Navassa Island, Palmyra Atoll, and Wake Island.

**R&D Plant Obligations (FY 2023 Actual)**  
(Round to the nearest dollar)

State	(a) Federal	(b) FFRDCs	(c) Businesses	(d) Higher education	(e) Other nonprofits	(f) State and local government	(g) Total R&D plant in state
1. Alabama	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
2. Alaska	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
3. Arizona	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
4. Arkansas	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
5. California	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
6. Colorado	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
7. Connecticut	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
8. Delaware	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
9. District of Columbia	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
10. Florida	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
11. Georgia	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
12. Hawaii	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
13. Idaho	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
14. Illinois	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
15. Indiana	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
16. Iowa	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
17. Kansas	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL
18. Kentucky	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	TOTAL

→ Question 13 continues on the next page.

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**13** FY 2023 R&D plant obligations by performer and state (continued)

**R&D Plant Obligations (FY 2023 Actual)  
(Round to the nearest dollar)**

State	(a) Federal	(b) FFRDCs	(c) Businesses	(d) Higher education	(e) Other nonprofits	(f) State and local governments	(g) Total R&D plant in state
19. Louisiana	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
20. Maine	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
21. Maryland	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
22. Massachusetts	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
23. Michigan	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
24. Minnesota	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
25. Mississippi	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
26. Missouri	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
27. Montana	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
28. Nebraska	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
29. Nevada	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
30. New Hampshire	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
31. New Jersey	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
32. New Mexico	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
33. New York	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
34. North Carolina	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
35. North Dakota	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
36. Ohio	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
37. Oklahoma	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
38. Oregon	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
39. Pennsylvania	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
40. Rhode Island	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
41. South Carolina	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
42. South Dakota	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
43. Tennessee	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>

➔ Question 13 continues on the next page.

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**13** FY 2023 R&D plant obligations by performer and state (continued)

**R&D Plant Obligations (FY 2023 Actual)**  
(Round to the nearest dollar)

State	(a) Federal	(b) FFRDCs	(c) Businesses	(d) Higher education	(e) Other nonprofits	(f) State and local government	(g) Total R&D plant in state
44. Texas	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
45. Utah	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
46. Vermont	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
47. Virginia	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
48. Washington	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
49. West Virginia	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
50. Wisconsin	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
51. Wyoming	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
52. American Samoa	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
53. Guam	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
54. Northern Mariana Islands	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
55. Puerto Rico	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
56. U.S. Virgin Islands	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
57. Other U.S. territories	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
58. Offices abroad • R&D performed or administered in foreign countries by the U.S. government	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
59. Total for R&D plant	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>R&amp;D plant cross check: totals in row 59 above should match the totals from question 8, rows a–f, column 4 displayed here.</i>	Q8.a(4) value	Q8.b(4) value	Q8.c(4) value	Q8.d(4) value	Q8.e(4) value	Q8.f(4) value	<i>Total of question 8, rows a–f, column 4 values</i>

If needed, use the space below to provide clarification for the data reported in this question.

**14** FY 2023 R&D and R&D plant obligations to non-U.S. performers by country

**What were your agency’s obligations for R&D conduct and R&D plant to non-U.S. performers of R&D by country in FY 2023?**

- Report based on the country of the R&D performing organization. If an R&D obligation was performed in multiple countries, then prorate the funding based on the countries involved.

**Include:**

- Obligations to foreign businesses and governments.
- Obligations to foreign higher education organizations.
- Obligations to foreign nonprofits.

**Exclude:**

- Obligations to U.S. higher education institutions.

**R&D Obligations to Non-U.S. Performers  
(FY 2023 Actual)  
(Round to the nearest dollar)**

International organization or country	(1) R&D conduct	(2) R&D plant	(3) Total R&D conduct and plant
a. International organizations (such as North Atlantic Treaty Organization (NATO), United Nations Educational, Scientific, and Cultural Organization (UNESCO), and the World Health Organization (WHO)).	\$ _____	\$ _____	<b>TOTAL</b>
b. Report individually for each country, using the drop-down menu on the web questionnaire.	\$ _____	\$ _____	<b>TOTAL</b>
c. Total to non-U.S. performers	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row c above should match the amounts from question 8, row g, columns 1–3, column 4, and column 5 displayed here.</i>	<i>Q8.g(1) + Q8.g(2) + Q8.g(3) value</i>	<i>Q8.g(4) value</i>	<i>Q8.g(5) value</i>

If needed, use the space below to provide clarification for the data reported in this question.

**15** FY 2023 obligations for R&D conduct to U.S. higher education institutions by type of work and detailed field of R&D

**What were your agency’s obligations to U.S. higher education institutions for basic research, applied research, and experimental development in the following fields of R&D in FY 2023?**

- If an obligation was intended to support R&D in multiple fields (i.e., interdisciplinary research), please prorate the obligation for each field involved when possible. Do not double-count funds across multiple fields.
- Examples of fields and disciplines are provided in the Reference Materials section on the Home page of the survey website .

**R&D Obligations to U.S. Higher Education Institutions  
(FY 2023 Actual)  
(Round to the nearest dollar)**

Field of R&D	(a) Basic research	(b) Applied research	(c) Experimental develop- ment	(d) Total R&D conduct
a. <b>Computer and information sciences</b>	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
b. <b>Geosciences, atmospheric sciences, and ocean sciences</b>				
1. Atmospheric science and meteorology	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Geological and earth sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Ocean sciences and marine sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Other geosciences, atmospheric sciences, and ocean sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Total geosciences, atmospheric sciences, and ocean sciences	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
c. <b>Life sciences</b>				
1. Agricultural sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Biological and biomedical sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Health sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Natural resources and conservation	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Other life sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Total life sciences	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
d. <b>Mathematics and statistics</b>	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
e. <b>Physical sciences</b>				
1. Astronomy and astrophysics	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Chemistry	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Materials science	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Physics	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Other physical sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Total physical sciences	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>

→ Question 15 continues on the next page.

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**15** FY 2023 obligations for R&D conduct to U.S. higher education institutions by type of work and detailed field of R&D (continued)

**R&D Obligations to U.S. Higher Education Institutions  
(FY 2023 Actual)  
(Round to the nearest dollar)**

Field of R&D	(a) Basic research	(b) Applied research	(c) Experimental development	(d) Total R&D conduct
<b>f. Psychology</b>				
1. Biological aspects	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Social aspects	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Other psychological sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Total psychology	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<b>g. Social sciences</b>				
1. Anthropology	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Economics	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Political science and government	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Sociology, demography, and population studies	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Other social sciences	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Total social sciences	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<b>h. Engineering</b>				
1. Aerospace, aeronautical, and astronautical engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Bioengineering and biomedical engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Chemical engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Civil engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Electrical, electronics, and communications engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Industrial and manufacturing engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
7. Mechanical engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
8. Metallurgical and materials engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
9. Other engineering	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
10. Total engineering	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>

→ Question 15 continues on the next page.

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NSF Survey of Federal Funds for Research and Development (Standard Form) – Volume 73 (FYs 2023–24)

**15** FY 2023 obligations for R&D conduct to U.S. higher education institutions by type of work and detailed field of R&D (continued)

**R&D Obligations to U.S. Higher Education Institutions  
(FY 2023 Actual)  
(Round to the nearest dollar)**

Field of R&D	(a) Basic research	(b) Applied research	(c) Experimental development	(d) Total R&D conduct
<b>i. Other fields</b>				
1. Business management and business administration	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Communication and communications technologies	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Education research	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Humanities	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Law	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Social work	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
7. Visual and performing arts	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
8. All other fields	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
9. Total other fields	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<b>j. Total for U.S. higher education institutions, all fields of R&amp;D conduct</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row j above should match the amounts from question 8, row d, columns 1, 2, and 3 displayed here.</i>	<i>Q8.d(1) value</i>	<i>Q8.d(2) value</i>	<i>Q8.d(3) value</i>	<i>Sum of Q8.d(1) + Q8.d(2) + Q8.d(3) values</i>

If needed, use the space below to provide clarification for the data reported in this question.



**16** FY 2023 R&D conduct and R&D plant obligations to individual FFRDCs by type of work

**What were your agency’s obligations to all FFRDCs by type of R&D conduct and for R&D plant in FY 2023?**

- Include your agency's obligations to all FFRDCs, regardless of whether your agency sponsors the FFRDC.
- Information on each FFRDC is available at <https://www.nsf.gov/statistics/ffrdclist/>; besides an alphabetical list of FFRDCs, there are tabs for Sponsoring agency and Administrator type.

**R&D Obligations to FFRDCs (FY 2023 Actual)  
(Round to the nearest dollar)**

FFRDC	(a) Basic research	(b) Applied research	(c) Experi- mental develop- ment	(d) R&D plant	(e) Total R&D conduct and plant
1. Aerospace Federally Funded Research and Development Center (El Segundo, CA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Ames Laboratory (Ames, IA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Argonne National Laboratory (Argonne, IL)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Arroyo Center (Santa Monica, CA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Brookhaven National Laboratory (Upton, NY)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Center for Advanced Aviation System Development (McLean, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
7. Center for Communications and Computing (Alexandria, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
8. Center for Enterprise Modernization (McLean, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
9. Center for Naval Analyses (Arlington, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
10. Center for Nuclear Waste Regulatory Analyses (San Antonio, TX)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
11. CMS Alliance to Modernize Healthcare (Baltimore, MD)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
12. Fermi National Accelerator Laboratory (Batavia, IL)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
13. Frederick National Laboratory for Cancer Research (Frederick, MD)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>

➔ Question 16 continues on the next page.

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NSF Survey of Federal Funds for Research and Development (Standard Form) – Volume 73 (FYs 2023–24)

**16** FY 2023 R&D conduct and R&D plant obligations to individual FFRDCs by type of work (continued)

**R&D Obligations to FFRDCs (FY 2023 Actual)  
(Round to the nearest dollar)**

<b>FFRDC</b>	<b>(a) Basic research</b>	<b>(b) Applied research</b>	<b>(c) Experi- mental develop- ment</b>	<b>(d) R&amp;D plant</b>	<b>(e) Total R&amp;D conduct and plant</b>
14. Green Bank Observatory (Green Bank, WV)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
15. Homeland Security Operational Analysis Center (Arlington, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
16. Homeland Security Systems Engineering and Development Institute (McLean, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
17. Idaho National Laboratory (Idaho Falls, ID)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
18. Jet Propulsion Laboratory (Pasadena, CA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
19. Lawrence Berkeley National Laboratory (Berkeley, CA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
20. Lawrence Livermore National Laboratory (Livermore, CA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
21. Lincoln Laboratory (Lexington, MA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
22. Los Alamos National Laboratory (Los Alamos, NM)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
23. National Biodefense Analysis and Countermeasures Center (Frederick, MD)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
24. National Center for Atmospheric Research (Boulder, CO)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
25. National Cybersecurity Center of Excellence (Rockville, MD)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
26. National Defense Research Institute (Santa Monica, CA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
27. National Radio Astronomy Observatory (Charlottesville, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
28. National Renewable Energy Laboratory (Golden, CO)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>

→ Question 16 continues on the next page.

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**16** FY 2023 R&D conduct and R&D plant obligations to individual FFRDCs by type of work (continued)

**R&D Obligations to FFRDCs (FY 2023 Actual)**  
(Round to the nearest dollar)

FFRDC	(a) Basic research	(b) Applied research	(c) Experi- mental develop- ment	(d) R&D plant	(e) Total R&D conduct and plant
29. National Security Engineering Center -- Bedford, MA Laboratory	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
30. National Security Engineering Center -- McLean, VA Laboratory	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
31. National Solar Observatory (Boulder, CO)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
32. NSF's National Optical-Infrared Astronomy Research Laboratory (Tucson, AZ)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
33. Oak Ridge National Laboratory (Oak Ridge, TN)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
34. Pacific Northwest National Laboratory (Richland, WA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
35. Princeton Plasma Physics Laboratory (Princeton, NJ)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
36. Project Air Force (Santa Monica, CA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
37. Sandia National Laboratories (Albuquerque, NM)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
38. Savannah River National Laboratory (Aiken, SC)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
39. Science and Technology Policy Institute (Washington, DC)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
40. SLAC National Accelerator Laboratory (Menlo Park, CA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
41. Software Engineering Institute (Pittsburgh, PA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
42. Systems and Analyses Center (Alexandria, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
43. Thomas Jefferson National Accelerator Facility (Newport News, VA)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
44. Total to FFRDCs	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row 44 above should match the amounts from question 8, row b, columns 1, 2, 3, 4, and 5 displayed here.</i>	<i>Q8.b(1) value</i>	<i>Q8.b(2) value</i>	<i>Q8.b(3) value</i>	<i>Q8.b(4) value</i>	<i>Q8.b(5) value</i>

If needed, use the space below to provide clarification for the data reported in this question.

**17** FY 2023 R&D conduct and R&D plant obligations to individual University Affiliated Research Centers (UARCs) by type of work

**What were your agency’s obligations to all UARCs by type of R&D conduct and for R&D plant in FY 2023?**

- Include your agency's obligations to all University Affiliated Research Centers (UARCs). These obligations should also be entered in Question 18, either under these organization codes or combined with any other obligations to these universities.

**R&D Obligations to UARCs (FY 2023 Actual)  
(Round to the nearest dollar)**

UARC	(a) Basic research	(b) Applied research	(c) Experi- mental develop- ment	(d) R&D plant	(e) Total R&D conduct and plant
1. Georgia Institute of Technology Georgia Tech Research Institute (Organization code 502546)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
2. Howard University Research Institute for Tactical Autonomy (Organization code 910235)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
3. Johns Hopkins University Applied Physics Laboratory (Organization code 500594)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
4. Massachusetts Institute of Technology Institute for Soldier Nanotechnologies (Organization code 502547)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
5. Pennsylvania State University Applied Research Laboratory (Organization code 502550)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
6. Stevens Institute of Technology Systems Engineering Research Center (Organization code 502555)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
7. University of Alaska Geophysical Detection of Nuclear Proliferation (Organization code 700110)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
8. University of California Santa Barbara Institute for Collaborative Biotechnologies (Organization code 502548)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
9. University of Hawaii at Manoa Applied Research Laboratory (Organization code 502551)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
10. University of Maryland College Park Applied Research Laboratory for Intelligence and Security (Organization code 502556)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>

➔ Question 17 continues on the next page.

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**17** FY 2023 R&D obligations to individual UARCs by type of work (continued)

**R&D Obligations to UARCs (FY 2023 Actual)  
(Round to the nearest dollar)**

UARC	(a) Basic research	(b) Applied research	(c) Experi- mental develop- ment	(d) R&D plant	(e) Total R&D conduct and plant
11. University of Nebraska National Strategic Research Institute (Organization code 502365)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
12. University of Southern California Institute for Creative Technologies (Organization code 502549)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
13. University of Texas at Austin Applied Research Laboratories (Organization code 502552)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
14. University of Washington Applied Physics Laboratory (Organization code 502553)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
15. Utah State University Space Dynamics Laboratory (Organization code 502554)	\$ _____	\$ _____	\$ _____	\$ _____	<b>TOTAL</b>
16. Total to UARCs	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
<i>Cross check: totals in row 16 above <b>should be less than or equal</b> to the amounts from question 8, row d, columns 1, 2, 3, 4, and 5 displayed here.</i>	Q8.d(1) value	Q8.d(2) value	Q8.d(3) value	Q8.d(4) value	Q8.d(5) value

If needed, use the space below to provide clarification for the data reported in this question.

**18** FY 2023 R&D obligations and science and engineering (S&E) support to individual U.S. higher education institutions and consortia

**What were your agency’s obligations for R&D and science and engineering (S&E) support to U.S. higher education institutions in FY 2023?**

Report all obligations in terms of the immediate recipient, even if these funds were later passed on to subgrantees or subcontractors.

Enter each organization code only once. Combine all obligations for that organization as a single entry.

**Include:**

- Awards to individuals. Report these in column 4, R&D conduct; column 7, S&E fellowships, traineeships, and training grants; or column 9, Other general support for S&E. If there is no institution name associated with the awards to individuals, please select "Institution unknown" for column 1.
- Awards to University Affiliated Research Centers (UARCs) can be listed individually (they have their own organization codes—see question 17) or included in the totals to the respective institutions of higher education.

**Exclude:**

- Obligations to FFRDCs, even those administered by universities, colleges, or university consortia. Report those on question 8, row b, and question 16.
- Obligations to non-U.S. higher education institutions. Report those on question 8, row g. non-U.S. performers, and list the obligations by country on question 14.

**Higher education institutions:** Institutions that engage primarily in providing resident and/or accredited instruction for a not less than a 2-year program above the secondary school level that is acceptable for full credit toward a bachelor’s degree or that provide not less than a 1-year program of training above the secondary school level that prepares students for gainful employment in a recognized occupation. Included are colleges of liberal arts; schools of arts and sciences; professional schools, as in engineering and medicine, including affiliated hospitals and associated research institutes; and agricultural experiment stations.

NSF has also labeled some institutions that are technically nonprofits as higher education performers because they support a university or college. For example, Georgia Southern University Research and Service Foundation, Inc., Humboldt State University Sponsored Programs Foundation, or Research Foundation of the City University of New York. Check the type of organization in the *Organization Codes for Higher Education and Nonprofit Institutions* (downloadable from the Reference Materials section on the Home page of the survey website) or the organization search tool.

**Consortia:** Organizations formed by the membership of several institutions from one or more types of performers (i.e., higher education or nonprofit) in order to promote and support efforts to enhance knowledge in one or more disciplines. If a consortium’s members are not primarily academic or nonprofit, but the consortium is legally organized as a nonprofit, NSF classifies that consortium as a nonprofit institution. To find out the status of an institution for the purposes of this survey, use either *Organization Codes for Higher Education and Nonprofit Institutions* or the organization search tool.

**Organization code:** This code can be found in the website’s organization search tool. (If you cannot find an organization, please contact survey support at [NCSES\\_FedFundsSurvey@nsf.gov](mailto:NCSES_FedFundsSurvey@nsf.gov).)

**S&E fellowships, traineeships, and training grants:** These types of support are primarily for the development of the scientific or technical workforce. Exclude awards supporting research; these should be reported as R&D conduct.

**Facilities and equipment for instruction in S&E:** Programs whose principal purpose is to provide support for construction, acquisition, renovation, modification, repair, or rental of facilities, land, works, or equipment, for use in S&E instruction. If the facilities or equipment are used for mixed purposes, report only the amount used for S&E instruction here.

➔ Question 18 continues on the next page.

**INFORMATION ONLY – DO NOT USE TO REPORT**

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**18** FY 2023 R&D obligations and science and engineering (S&E) support to individual U.S. higher education institutions and consortia (continued)

**Other general support for S&E:** Activities that provide general or nonspecific support related to scientific research and education. These include projects awarded through the NIH Minority Biomedical Research Support for Undergraduate Colleges and NIH Biomedical Support Grants. Also includes S&E activities that cannot be assigned to one of the above categories, including support for scientific conferences, teacher institutes, and S&E activities for precollege and undergraduate students.

**R&D Obligations to Individual U.S. Higher Education Institutions and Consortia (FY 2023 Actual)**  
(Round to the nearest dollar)

**Institution information (1–3), R&D obligations (4–6), Obligations for S&E (not counting R&D) (7–9)**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Institution or consortium name	6-digit organization code	State	R&D conduct	R&D plant	Total R&D conduct and plant	S&E fellowships, traineeships, and training grants	Facilities and equipment for instruction in S&E	Other general support for S&E
a. _____	\$ _____	Autofill on website	\$ _____	\$ _____	<b>TOTAL</b>	\$ _____	\$ _____	\$ _____
b. _____	\$ _____	Autofill on website	\$ _____	\$ _____	<b>TOTAL</b>	\$ _____	\$ _____	\$ _____
<b>Total</b>			<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>

<i>Cross check: totals above across organizations should be less than or equal to the amounts from question 8, row d, columns 1–3, 4, and 5, displayed here.</i>	Q8.d(1) + Q8.d(2) + Q8.d(3)	Q8.d(4)	Q8.d(5)
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If needed, use the space below to provide clarification for the data reported in this question, including why it may not match your higher education totals from question 8.

**19** FY 2023 R&D and R&D plant obligations to individual U.S. nonprofit organizations other than higher education institutions

**What were your agency’s obligations for R&D conduct and R&D plant to U.S. nonprofit organizations in FY 2023?**

This question applies only if you are reporting R&D conduct or R&D plant obligations to U.S. nonprofit organizations in question 8e.

Report all obligations in terms of the immediate recipient, even if these funds were later passed on to subgrantees or subcontractors.

Enter each organization code only once. Combine all obligations for that organization as a single entry.

**Include:**

- Obligations to nonprofit consortia. A list of consortia and their classification as either academic or nonprofit can be found in the website’s organization search tool.

**Exclude:**

- Support for science and engineering (S&E) other than R&D conduct and R&D plant.
- Funds your agency transferred to other federal agencies, who then obligated the funds to nonprofit organizations.
- Obligations to FFRDCs, even those administered by nonprofit institutions. Report those on question 8, row b, FFRDCs, and by individual FFRDC on question 16.
- Obligations to non-U.S. nonprofit institutions. Report those on question 8, row g. non-U.S. performers, and list the obligations by country on question 14.

**Nonprofit organization:** A business granted tax-exempt status by the IRS. Nonprofits pay no income tax on the donations they receive or on any money that they earn through fundraising activities. Nonprofit organizations are sometimes called NPOs or 501(c) organizations, based on the section of the tax code that permits them to operate.

**Organization code:** This code can be found in the website’s organization search tool. *(If you cannot find the organization code, please contact survey support to have one assigned.)*

**R&D Obligations to Other U.S. Nonprofit Institutions and Consortia (FY 2023 Actual)**  
(Round to the nearest dollar)

(1) Organization or consortium name	(2) 6-digit organization code	(3) State	(4) R&D conduct	(5) R&D plant	(6) Total R&D conduct and plant
a. <input style="width: 90%;" type="text"/>	\$ <input style="width: 50%;" type="text"/>	Autofill on website	\$ <input style="width: 50%;" type="text"/>	\$ <input style="width: 50%;" type="text"/>	<b>TOTAL</b>
b. <input style="width: 90%;" type="text"/>	\$ <input style="width: 50%;" type="text"/>	Autofill on website	\$ <input style="width: 50%;" type="text"/>	\$ <input style="width: 50%;" type="text"/>	<b>TOTAL</b>
<b>Total</b>			<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>

<i>Cross check: totals across organizations should match amounts from question 8, row e, columns 1, 2, 3, 4, and 5, displayed here.</i>	Q8.e(1) + Q8.e(2) + Q8.e (3)	Q8.e(4)	Q8.e(5)
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If needed, use the space below to provide clarification for the data reported in this question, including why it may not match your other nonprofits totals from question 8.



**20** Supplemental Question: FYs 2023 and 2024 R&D conduct and R&D plant obligations from supplemental appropriations

**What were your agency’s obligations for R&D conduct, by type of work, and R&D plant from the CHIPS and Science Act, the Inflation Reduction Act, and the Infrastructure Investment and Jobs Act for FY 2023 and FY 2024?**

- The total obligations for R&D conduct should match what you entered in Question 5.
- The total obligations for R&D plant should match what you entered in Question 3.

**R&D Obligations  
(Round to the nearest dollar)**

	<b>Total obligations from all sources</b>	<b>CHIPS and Science Act (P.L. 117-167)</b>	<b>Inflation Reduction Act (P.L. 117-169)</b>	<b>Infrastructure Investment/Jobs Act (P.L. 117-58)</b>
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Type of work	FY 2023 Actual	FY 2024 Estimated	FY 2023 Actual	FY 2024 Estimated	FY 2023 Actual	FY 2024 Estimated	FY 2023 Actual	FY 2024 Estimated
a. Basic research	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
b. Applied research	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
c. Experimental development	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
d. Total R&D conduct	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>
e. R&D plant	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
f. Total R&D conduct and R&D plant	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>	<b>TOTAL</b>

If needed, use the space below to provide clarification for the data reported in this question.