National Center for Science and Engineering Statistics

Survey Description

Federal Facilities Research and Development Survey

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Survey Overview (FY 2024 Survey Cycle)

Purpose

The Federal Facilities Research and Development (FFRD) Survey collects information on research and experimental development (R&D) expenditures and personnel for all federally owned and operated facilities in the United States. This survey is the unique source of federal performer-reported data on R&D expenditures and R&D personnel. In conjunction with performer-reported data for the remaining sectors of the economy, FFRD Survey data can be used to estimate total national R&D performance and other critical statistics that are increasingly important in the analysis of global R&D competitiveness.

Data collection authority

The information is solicited under the authority of the National Science Foundation Act of 1950, as amended, and the America COMPETES Reauthorization Act of 2010. The survey is sponsored by the National Center for Science and Engineering Statistics (NCSES). The disclosure review number is NCSES-DRN25-004.

Major changes to recent survey cycle

Changes to the FY 2024 cycle are listed below.

- One question was added to obtain total expenditures for R&D activities both within a facility by federal personnel or contractors and funding provided to others to conduct R&D outside of a facility. For Department of Defense (DOD) facilities, a breakout of total research, development, testing, and evaluation (RDT&E) expenditures by Budget Activities 1–6 and Budget Activities 7–8 is requested.
- A separate question was also added to gather the breakdown of R&D expenditures within and outside of the facility.
- R&D funding to other organizations (FY 2022 questions 6–8) was removed from the survey. Total funding provided to other organizations is now requested as part of the new question.

Key Survey Information

Frequency	Annual.
Initial survey year	FY 2022.
Reference period	The federal fiscal year ending in 2024. FY 2023 data were not collected in order to improve the timing of the data collection. Moving forward, there are no plans to skip future fiscal years.
Response unit	Establishment.
Sample or census	Census.
Population size	The population consists of 454 research-performing federal facilities within 36 federal agencies.
Sample size	Not applicable; the survey is a census of all known eligible federal facilities that conduct R&D.
Key variables	Key variables of interest are listed below. • Total R&D expenditures (for DOD facilities: Budget Activities 1–6, Budget Activities 7–8, and total RDT&E) • R&D expenditures by type of costs (onsite contractors, all other internal expenditures, total internal expenditures, external expenditures, and total expenditures) • R&D expenditures by type of R&D (basic research, applied research, and experimental development) • R&D expenditures by source of funds (federal government, state and local government, business, nonprofits, and other) • Federally funded R&D expenditures by funding agency • Funding provided through public-private partnerships (yes or no) • R&D expenditures by field of R&D • Total headcounts of facility R&D personnel by job category (federal employees and military personnel, contract employees, and all other personnel) and function (researchers, technicians, and support staff) • Full-time equivalent counts of federal R&D personnel by function

Survey Design

Target population

The population for the FY 2024 FFRD Survey consisted of federally owned and operated facilities in the United States that performed R&D in FY 2024, excluding facilities of the Central Intelligence Agency (due to the classified nature of their work). Federally funded research and development centers (FFRDCs) are surveyed separately in the FFRDC R&D Survey, and University Affiliated Research Centers (federally funded but not federally owned or operated) are surveyed as part of the Higher Education Research and Development Survey.

Sampling frame

The facilities for the FFRD Survey were originally identified from the list of federal agencies with R&D obligations based on the Survey of Federal Funds for R&D and the Federal Laboratory Consortium list of laboratories. A facility is defined as a unit within the agency that is responsible for performing R&D, generally with its own distinct budget and leadership. For FY 2024, the frame was updated by (1) removing records ineligible during the FY 2022 survey, (2) adding records having federal R&D obligations as reported in the Survey of Federal Funds for R&D, and (3) adding, removing, and adjusting reporting levels based on communications with agency contacts. The total number of reporting units for the FY 2024 FFRD Survey is 322, which represents the 454 research-performing federal facilities.

Sample design

Not applicable.

Data Collection and Processing

Data collection

The FY 2024 survey was conducted by ICF under contract to NCSES. Surveys were distributed to designated reporting units. Since each agency has a different organizational structure, this reporting unit may be a division, branch, center, laboratory, or other entity and may span multiple locations. The data collection period was from January 2025 through May 2025. Respondents submitted their data using a questionnaire downloaded from the Web or sent via e-mail (i.e., PDF or Excel format) or via a Web-based data collection system. Telephone and e-mail were used for follow-up contacts with respondents.

Data processing

Completed questionnaires were carefully examined by survey staff upon receipt. Reviews focused on unexplained missing data, expenditures that significantly differed from the FY 2022 FFRD Survey, expenditures that significantly differed from the Survey of Federal Funds for R&D intramural obligations, and other data anomalies. If additional explanations or data revisions were needed, respondents were sent personalized e-mail messages asking them to provide any necessary revisions before the final processing and tabulation of data.

Estimation techniques

The FY 2024 FFRD Survey imputation process used a combination of multiple imputation models and deterministic proportional allocation for item totals and item details, respectively. Auxiliary information from the FY 2022 FFRD Survey was used in modeling and calculation of proportions where appropriate.

Survey Quality Measures

Sampling error

Because the FY 2024 survey was distributed to all eligible agencies performing R&D, there was no sampling error.

Coverage error

Under the total survey error framework, coverage error describes the difference between reporting units and units in the target population that the frame was developed to reach. The subset of agencies is based on those reporting non-zero intramural R&D obligations on the Survey of Federal Funds for R&D. Risk of coverage bias is small if an agency had federal R&D expenditures but did not have reported obligations.

Nonresponse error

Of the 300 eligible reporting units, 287 responded for a response rate of 95.7%. For unit nonresponse, multiple follow-ups were conducted with nonresponding facilities, and multiple contact and data collection modes were used (i.e., phone and e-mail) to mitigate nonresponse error. The imputations include predictions of unit nonresponse to reduce the risk of nonresponse bias in the final estimates.

Measurement error

The largest risk of measurement error is likely respondents' interpretation of the definition of R&D activities and variations in record-keeping procedures used by respondents to answer the survey questions. In order to reduce measurement error, the FFRD Survey contained various ways for respondents to explain their survey responses.

Data Availability and Comparability

Data availability

Data are available at https://ncses.nsf.gov/surveys/federal-facilities-research-development/.

Data comparability

Annual data are available for FY 2022. FY 2023 data were not collected in an effort to improve the timing of the data collection. Moving forward, there are no plans to skip fiscal years.

In some cases, the review for consistency between the FY 2024 submission and the submission for FY 2022 revealed significant differences due to facilities' reappraisal of their classification of various aspects of R&D programs. In those instances, NCSES requested that facilities revise prior year data to maintain consistency and comparability.

For trend comparisons, use the historical data from only the most recent publication, which incorporates changes facilities have made in prior year data to reflect corrections. Do not use data published earlier.

Data Products

Publications

Data from the FFRD Survey is published in analytic reports and data tables available at https://ncses.nsf.gov/surveys/federal-facilities-research-development/. Information from this survey will also be included in future versions of the congressionally mandated *Science and Engineering Indicators* report series.

Electronic access

Not available.