



## **NATIONAL SCIENCE FOUNDATION**

### **Proposed Data Collection Submitted for Public Comment and Recommendations**

**AGENCY:** National Science Foundation.

**ACTION:** Notice.

**SUMMARY:** The National Science Foundation (NSF) is announcing plans for a new data collection. In accordance with the requirements of the Paperwork Reduction Act of 1995, we are providing an opportunity for public comment on this action. After obtaining and considering public comment, NSF will prepare the submission requesting Office of Management and Budget (OMB) clearance of this collection for no longer than three years.

**DATES:** Written comments on this notice must be received within **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]** to be assured consideration. Comments received after that date will be considered to the extent practicable. Please send comments to the address below.

**FOR FURTHER INFORMATION CONTACT:** Requests for additional information or copies of these information collection instruments and instructions should be directed to Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation, 2415 Eisenhower Avenue, Suite E6300, Alexandria, Virginia 22314; telephone (703) 292-7556; or send email to [splimpto@nsf.gov](mailto:splimpto@nsf.gov). Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339, which is accessible 24 hours a day, 7 days a week, 365 days a year (including Federal holidays).

**SUPPLEMENTARY INFORMATION:**

**Title of Collection:** U.S. National Science Foundation (NSF) Regional Innovation Engines (Engines) Program Baseline and Performance Monitoring

**OMB Number:** 3145-XXXX.

**Expiration Date of Approval:** Not applicable.

**Type of Request:** New information collection

**Description:**

The instruments will collect data on (1) individuals in leadership or governance roles in an NSF Engine, and individuals engaged or participating in an NSF Engine activities; and (2) organizations that are partnering with an NSF Engine or participating in an NSF Engine's activities.

**Background:**

The CHIPS and Science Act of 2022 codified the National Science Foundation's cross-cutting Directorate for Technology, Innovation and Partnerships (TIP), NSF's first new directorate in more than 30 years, and charged it with the critical mission of advancing U.S. competitiveness through investments that accelerate the development of key technologies and address pressing national, geostrategic, societal and economic challenges. NSF's TIP directorate deepens the agency's commitment to support use-inspired research and the translation of research results to the market and society. In doing so, TIP strengthens the intense interplay between foundational and use-inspired work, enhancing the full cycle of discovery and innovation.

TIP integrates with NSF's existing directorates and fosters partnerships — with government, industry, nonprofits, civil society, and communities of practice — to leverage, energize and rapidly bring to society use-inspired research and innovation. TIP spurs science and innovations to meet the nation's

priorities by accelerating the development of breakthrough technologies and advancing solutions.

The NSF Regional Innovation Engines (NSF Engines) program serves as a flagship funding program of the TIP directorate, with the goal of expanding and accelerating scientific and technological innovation within the U.S. by catalyzing regional innovation ecosystems throughout every region of our nation. The NSF Engines program was authorized in the CHIPS and Science Act of 2022 (Section 10388) to:

- (1) advance multidisciplinary, collaborative, use-inspired and translational research, technology development, in key technology focus areas;
- (2) address regional, national, societal, or geostrategic challenges;
- (3) leverage the expertise of multi-disciplinary and multi-sector partners, including partners from private industry, nonprofit organizations, and civil society organizations; and
- (4) support the development of scientific, innovation, entrepreneurial, and STEM educational capacity within the region of the Regional Innovation Engine to grow and sustain regional innovation.

The NSF Engines program aims to fund regional coalitions of partnering organizations to establish NSF Engines that will catalyze technology and science-based regional innovation ecosystems. Each NSF Engine is focused on addressing specific aspects of a major national, geostrategic, societal and/or economic challenge that are of significant interest in the NSF Engine's defined "region of service." The NSF Engines program envisions a future in which all sectors of the American population can participate in and benefit from advancements in scientific research and development equitably to advance U.S. global competitiveness and leadership. The program's mission is to establish

sustainable regional innovation ecosystems that address pressing national, geostrategic, societal, and/or economic challenges by advancing use-inspired and translational research and development in key technology focus areas. The programmatic level goals of NSF Engines are to:

- Goal 1: Establish self-sustaining innovation ecosystems;
- Goal 2: Establish nationally-recognized regional ecosystems for key industries;
- Goal 3: Broaden participation in inclusive innovation ecosystems;
- Goal 4: Advance technologies relevant to national competitiveness;
- Goal 5: Catalyze regions with nascent innovation ecosystems;
- Goal 6: Increase economic growth; and
- Goal 7: Increase job creation.

The key drivers of change on how the NSF Engines program intends to achieve these goals are the following:

- Use-inspired R&D;
- Cross-sector partnerships;
- Strategic regional investment;
- Inclusive engagement;
- Workforce development;
- Translation to practice; and
- Governance and management.

Each NSF Engine will carry out an integrated and comprehensive set of activities. In addition, each NSF Engine is expected to embody a culture of innovation and have a demonstrated, intense, and meaningful focus on enabling all individuals throughout its region of service, regardless of background, location, or organizational affiliation, to participate in the region's nascent and growing science and technology ecosystem. NSF intends to use this information collection to pilot a longitudinal research study to understand how the identified drivers will lead to intended programmatic outcomes.

NSF Engines are awarded as cooperative agreements and are expected to undergo an annual comprehensive evaluation assessment of the NSF

Engine's performance, which will inform subsequent-year funding. The total funding for each NSF Engine is up to \$160 million over 10 years. The first-ever group of NSF Engines was announced in January 2024.

Information collected by the Division of Innovation and Technology Ecosystems (ITE) within TIP will allow NSF to assess the program in terms of intellectual, societal, and commercial impacts that are core to the program's goals. Finally, in compliance with the Evidence Act of 2019, information collected will be used for both internal and external program evaluation and assessment, satisfying congressional requests, and supporting the agency's policymaking and reporting needs.

**Methodology:**

This information collection, which entails collecting information from NSF Engines grantees and participants through a series of surveys, is in accordance with the Agency's commitment to improving service delivery as well as the Agency's strategic goal to "advance the capability of the Nation to meet current and future challenges."

For this pilot, the NSF Engines program intends to collect information using validated survey instruments from literature to better understand partnership dynamics, and collaboration and trust among individuals within an NSF Engine's leadership team, governance board, programmatic leads, and advisory committees. For ease of use for our respondent pool, survey questionnaires will be programmed into interactive web surveys and distributed to eligible respondents by email. All data collected through web surveys will be made available to the external evaluator(s) for each NSF Engine to be used for

their own analyses, assessments, and evaluation. The two categories of data that will be collected for each NSF Engine through web-based surveys are:

- **Individual level data**

- Individuals who are a part of the leadership team, governance board, advisory committee(s), or are programmatic leads in an NSF Engine will be asked survey instrument questions that assess their interactions with others in the NSF Engine team; their work in supporting the NSF Engine; and the working environment in the NSF Engine. Individuals will be asked to review and update their survey responses once a year.

- **Partner organization level data**

- Partner organizations that are involved in any NSF Engine activities or provide any monetary or in-kind contributions will be asked about their motivations for partnering with the NSF Engine; the factors that came into play when selecting other partner organizations for the activity; sense of reciprocity among partner organizations; partner commitments; trust among partner organizations; and partnership performance. Partner organizations will be asked to review and update their survey responses once a year.

NSF/TIP will only submit a collection for approval under this clearance if it meets the following conditions:

- The collection has a reasonably low burden for respondents (based on considerations of total burden hours, total number of respondents, or burden-hours per respondent) and is low-cost for the Federal government;

- The collection is non-controversial and does not raise issues of concern for other Federal agencies;
- Information gathered will be used for the dual and interrelated purposes of disseminating information about the NSF Engines program and using this information to make programmatic improvements, identify efficiencies, and conduct enhanced program monitoring for NSF Engines.

Information collected under this clearance will enable the NSF Engines program to validate these survey instruments for the NSF Engines population; adjust the survey instruments as necessary for a full longitudinal research study; and enable better understanding of the interplay among factors that contribute to the development of innovation ecosystems. In addition, this information collection will help TIP monitor the changes that accompany the maturation of innovation ecosystems over time.

**Affected Public:** Please refer to the detailed descriptions of each data category for the targeted groups.

**Average Expected Annual Number of Respondents:**

For each NSF Engine award, we anticipate the following lower and upper bounds for number of responses and response burden:

Respondent	Estimated lower bound (number of responses)	Estimated upper bound (number of responses)	Estimated average response time (min)	Frequency of data collection	Approximate annual response burden (hours) [lower-bound]	Approximate annual response burden – (hours) [upper-bound]

Individuals or survey coordinator from partner organizations	30	200	15	Once a year	7.5	50
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**Respondents:** Lower-bound estimate of 30 individuals or survey coordinator (from partner organizations) and upper bound estimate of 200 individuals or survey coordinators per NSF Engine award.

**Annual Responses:** Lower- and upper-bound estimates of 30 and 200 responses per NSF Engine award per year, respectively. Total number of annual responses will be based on the total number of Engine participants and partner organizations.

**Frequency of Response:** Once a year.

**Average Minutes per Response:** 15.

**Burden Hours:** Lower- and upper-bound estimates of approximately 7.5 and 50 hours per NSF Engine award, respectively.

**COMMENTS:** Comments are invited on (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information shall have practical utility; (b) the accuracy of the Agency's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information on respondents, including through the use of automated collection techniques or other forms of information technology; and (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of

appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

**Dated:** June 20, 2024.

**Suzanne H. Plimpton,**

*Reports Clearance Officer,*

*National Science Foundation.*

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