Supporting Statement for Paperwork Reduction Submission

Grantee Reporting Requirements for Experimental Program to Stimulate Competitive Research Infrastructure Improvement Programs: 3145 - 0243

A. Justification

A.1. Circumstances Requiring the Collection of Data

The Research Infrastructure Improvement (RII) (e.g., RII Track-1, RII Track-2, RII Track-4 E-CORE RII, and E-RISE RII) integrative programs provide multiyear support to the Established Program to Stimulate Competitive Research (EPSCoR) awardees as continuing awards that are among the largest awarded by the National Science Foundation (NSF). RII Track-1 awards provide up to $4 million a year each year up to five years, and RII Track-2 awards provide up to $1.5 million per year up to four years. Since the duration and size of these awards are extensive, it is necessary for NSF to ensure that its substantial investment is spent appropriately, that each of the projects meets the goals stated in its multi-year strategic plan, and that activities satisfy the goals and objectives of the EPSCoR program. The RII Track-1 and Track-2 programs currently fund 103 projects. To enable effective oversight of its investment, NSF requires that each currently funded project submit an annual progress report that describes all activities of the project (research, integration of research and education, diversity, workforce development, external engagement, evaluation and assessment, management and sustainability). RII Track-4 awards, though smaller in both scope and duration (up to $300k for up to two years), are also required to submit an annual progress report that describes all activities of the project. There are currently 73 active RII Track-4 awards. Both E-CORE RII and E-RISE RII are new programs and will replace RII Track-1. The final RII Track-1 awards and first awards for E-RISE RII and E-CORE RII will be made in FY24. E-CORE RII awards provide up to $8 million for up to four years. E-RISE RII awards provide up to $7 million for up to four years.

The annual reports contain information that contributes to NSF's efforts to answer broad evaluative research questions: 1) What is the overall value-added of the program? 2) What is the quality and impact of the research conducted? 3) What is the quality and impact of education? 4) What is the quality and impact of knowledge transfer and economic development? 5) Do the projects effectively encourage the participation of US citizens, underrepresented minorities, women, and persons with disabilities in their activities? 6) Do the projects create and sustain organizational connections and linkages within and among academia, government, and industry? Do the projects increase academic research competitiveness of eligible jurisdictions? Do the projects improve the physical, human, and cyber infrastructure of eligible jurisdictions? Do the project stimulate effective collaboration within and among eligible jurisdictions? Do the projects align with the strategic needs of the jurisdictions' science and engineering enterprises?

In addition, the American Innovation and Competitiveness Act of 2017 and CHIPS and Science Act of 2022 require that EPSCoR report on specific items and, as a result, EPSCoR must seek data from awardees to be able to comply with the legislative directives. The Acts' language specific to EPSCoR is provided in Appendices 1 and 2.

The annual progress reports are used to:

- **Evaluate annual progress**. The primary purpose of the annual reports is to provide the information necessary for the NSF to monitor and evaluate the progress and accomplishments, as well as to identify problems of individual projects. The annual reports provide background information for the reverse site visit/site visit reviews,

evaluations that are conducted by teams of external reviewers, and the NSF staff. The reviews and evaluations provide feedback to EPSCoR and NSF about strengths, weaknesses, and recommendations to address any weaknesses.

- **Develop internal performance indicators and controls for a project**. The annual reports provide information that is used by the leadership of each project to create and monitor metrics or performance indicators in the management of their projects.

- **Make funding decisions**. The RIIs are funded under cooperative agreements, and funds are allocated to each project on an annual basis. NSF staff uses each annual report together with input from the project's external evaluator to make decisions on the continuation and level of funding for the Project.

- **Evaluate overall effectiveness of the program**. The aggregate reports from all projects are used by NSF in evaluating the effectiveness of the program on an ongoing basis.

- **Respond to Legislative Directives**. The aggregate data is used in the reports required by legislation, in responses to numerous Congressional inquiries, and in responses to NSF Senior Leadership.

A.2. Purpose and Use of Data

The reports are used in the:

- **External Reviewer Reverse Site/Site Visits.** External site visit teams (one for each project) are convened by the NSF to evaluate the individual projects. The external teams are selected by NSF program staff. Typically, a team will have 5-8 members that have scientific, educational and management expertise that corresponds to the specific project's activities. The teams use the information in the annual reports to assist in the evaluation of each project's progress relative to its stated goals and objectives and to its

performance during the previous year. The team summarizes, in writing, strengths and weaknesses of the project's progress and submits its report to NSF EPSCoR. EPSCoR follows up with the team to develop action plans in response to the recommendations for improvement.

- **NSF Staff Evaluation of Progress and Funding Decision for the Following Year.** The cognizant Program Officer overseeing each project monitors activities and progress, in part through data recorded in the annual reports, and makes decisions about continued funding.

- **Development of Aggregate Reports for Overall Program Management.** The effectiveness of the project is reviewed periodically by NSF Senior Management and Round Table (SmaRT) or their representatives. Also, data compiled *via* the annual reports is used as input to external evaluation of the NSF EPSCoR Program, some of which are required by legislative directives or OMB. For the purpose of generating the aggregated information, NSF staff may utilize data mining tools to review the reports and extracts relevant information from them, producing aggregate reports that provide for easy program monitoring.

A.3. Use of Automation

All reports are submitted electronically via research.gov, and NSF's EPSCoR Data Outcomes Collection System (EDOCS) and are analyzed using established data mining tools.

A.4. Efforts to Identify Duplication

No other federal agencies or organization within NSF collects the data pertaining to the RII Programs required to assess progress and respond to legislative directives.

A.5. Small Business Consideration

N/A

A. 6. Consequences of Less Frequent Collection

The reports generated by the annual data collection comprise one of the primary mechanisms used by NSF for approving funding for the projects on an annual basis. Less frequent data collection would preclude NSF's annual monitoring and documentation of the progress of each project and, thus, would not allow for informed decisions about funding and timely correction of any weaknesses identified in a project's activities. The consequence of less frequent collection would manifest itself in lack of an effective way to continuously monitor the large investments of resources and time that NSF has committed to the RII programs. Furthermore, the annual data collection is congruent with the annual cycle of academic institutions in which these projects reside increasing the likelihood that the improvements to project's activities will be made. NSF EPSCoR has supported the development of automated data collection tools/portals to minimize burden of data collection by the awardees.

A.7. Special Circumstances for Collection

Not applicable.

A. 8. Federal Register Notice and Outside Consultation

The agency's notice, as required by 5 CFR 1320.8(d), was published in the *Federal Register* on September 28, 2023, at 88 FR 66908 and no comments were received.

A. 9. Gifts or Remuneration

Not applicable.

A.10. Assurance of Confidentiality

Because data are collected at the project level, individual respondents are not identified. Projects

make their annual reports publicly available.

A. 11. Questions of a Sensitive Nature

No questions of a sensitive nature are used.

A. 12. Estimate of Burden

This request pertains to the 206 active and proposed projects. Projects are replaced by new

projects upon completion based on quality of project (determined by merit review) and

availability of funds.

Each project (old and new) will be required to submit an annual report. Based on the input from

the management of the projects, we estimate the burden of preparing annual reports, in terms of

man-hours per project, as follows:

RII Track-1

1. Project Director–10 hours
2. Associate Director/ Administrator 40 – 50 hours
3. Education/Outreach/Diversity Director – 20 – 30 hours
4. Co-PIs and other researchers – 10 hours
5. Post Docs – 5 hours
6. Undergraduate/Graduate Students – 3 hours

RII Track-2
1. Project Director–10 hours
2. Associate Director/ Administrator 30 – 40 hours
3. Co-PIs and other researchers– 10 hours

4. Post Docs – 5 hours
5. Students graduate/undergraduate (material collection) – 3 hours

RII Track-4
1. Principal Investigator – 10 hours
2. Post Docs – 5 hours

E-CORE RII
1. Project Director–10 hours
2. Associate Director/ Administrator 40 – 50 hours
3. Administrative Staff – 20 – 30 hours
4. Co-PIs and other researchers – 10 hours
5. Post Docs – 5 hours
6. Undergraduate/Graduate Students – 3 hours

E-RISE RII
1. Project Director–10 hours
2. Associate Director/ Administrator 40 – 50 hours
3. Administrative Staff – 20 – 30 hours
4. Co-PIs and other researchers – 10 hours
5. Post Docs – 5 hours
6. Undergraduate/Graduate Students – 3 hours

Total hours per project vary as given above.

ANNUALIZED COST TO RESPONDENTS

Estimated cost per project, based on the most recent projections is as follows:

RII Track-1

Expense category	Unit cost	Units	Total cost
1. Project Director (PD)	$102/hour	10 hours	$1,020
2. Associate PD/Project Administrator	$65/hour	40 –50 hours	$2,600 - $3,250 (average $2,925)
3. Education/Outreach/Diversity Director	$32/hour	20 – 30 hours	$640 - $960 (average $800)
4. Co-PIs and other researchers	$102/hour	10 hours	$1,020
5. Post Docs	$65/hour	5 hours	$325
6. Students graduate/undergraduate	$16/hour	3 hours	$48
Total cost per Project			**$6,138**
Total for 35 existing projects*		*98 hours*	***$214,830***

*The number of active projects will gradually decrease from FY24-FY29 as RII Track-1 is phased out and replaced with E-RISE RII and E-CORE RII awards.

RII Track-2

Expense category	Unit cost	Units	Total cost
1. Project Director (PD)	$102/hour	10 hours	$1020
2. Associate PD/Project Administrator	$65/hour	30 –40 hours	$2,600 - $3,250 (average $2,925)
3. Co-PIs and other researchers	$102/hour	10 hours	$1,020
4. Post-docs	$65/hour	5 hours	$325
5. Students – graduate/undergraduate (material collection)	$16/hour	3 hours	$48
Total per Project			**$5,338**
Totals for 68 existing Projects		*63 hours*	***$362,984***

RII Track-4

Expense category	Unit cost	Units	Total cost
1. Principal Investigator	$90/hour	10 hours	$900
2. Post Docs	$65/hour	5 hours	$325
Total cost per Project			**$1,225**
Totals for 73 existing Projects		*15 hours*	*$89,425*

E-CORE RII

Expense category	Unit cost	Units	Total cost
1. Project Director (PD)	$102/hour	10 hours	$1,020
2. Associate PD/Project Administrator	$65/hour	30 –40 hours	$1,950 - $2,600 (average $2,275)
3.Administrative Staff	$32/hour	10 – 20 hours	$320 - $640 (average $480)
4. Co-PIs and other researchers	$102/hour	10 hours	$1,020
5. Post Docs	$65/hour	5 hours	$325
6. Students graduate/undergraduate	$16/hour	3 hours	$48
Total cost per Project			**$5,168**
Total for 15 possible awards		*88 hours*	*$77,520*

E-RISE RII

Expense category	Unit cost	Units	Total cost
1. Project Director (PD)	$102/hour	10 hours	$1,020
2. Associate PD/Project Administrator	$65/hour	30 –40 hours	$1,950 - $2,600 (average $2,275)
3.Education/Outreach/Diversity Director	$32/hour	10 – 20 hours	$320 - $640 (average $480)
4. Co-PIs and other researchers	$102/hour	10 hours	$1,020
5. Post Docs	$65/hour	5 hours	$325
6. Students graduate/undergraduate	$16/hour	3 hours	$48
Total cost per Project			**$5,168**
Total for 18 possible awards		*88 hours*	*$93,024*

The total estimated cost (using average when applicable) for all RII projects is $667,239

The range of cost is calculated assuming the lowest and the highest number of hours.

A. 13. Annual cost burden [not included in hour cost]

There are no additional costs beyond the estimated hours of burden shown above.

A. 14. Annualized Cost to the Federal Government

The reports submitted by the PROJECTs will be analyzed by the NSF staff using the latest data mining tools for the purpose of providing project profile documents, various types of data analysis, and tables for the purpose of overall program management. The following estimates of the anticipated effort are based on pilot trials of analyzing report data.

The estimate of their activities and role are as follows:

Expense category	Unit cost	Units	Total cost
Program Analyst	$48/hour	3 hours/project	$144
Program Officer	$82/hour	15 hours/project	$1,230
Total cost per Project			**$1,374**
Total cost for 209 projects			*$287,166*

A. 15. Changes in Burden

There are no estimated changes in burden to the awardees over time. Burden may fluctuate for NSF staff depending on the number of active awards in any given year.

A. 16 Publication of Collection

N/A

A. 17 Approval to Not Display OMB Expiration Date

N/A

A. 18 Exception to Item 19 of OMB Form 83-I Certification Statement

N/A

B. STATISTICAL METHODS

Not applicable

Attachments

Attachment I. Detailed description of information required in annual reports

Appendix 1. EPSCoR Specific language in the American Innovation and Competitiveness Act of 2017

Appendix 2. EPSCoR Specific language in the CHIPS and Science Act of 2022