

SUPPORTING STATEMENT FOR PAPERWORK REDUCTION SUBMISSION

Grantee Reporting Requirements for NSF Industry-University Cooperative Research Centers (IUCRC) Program

Section A. Justification

This request is for approval of an annual reporting requirement for IUCRC grantees intended to monitor progresses, outputs, short-term, intermediate, and long-term outcomes of the National Science Foundation (NSF) investments in the [Industry-University Cooperative Research Centers \(IUCRC\) Program](#).

The IUCRC Program was initiated in 1973 to develop long-term partnerships among industry, academe, and government. The NSF invests in these partnerships to promote research programs of mutual interest, contribute to the Nation's research infrastructure base and enhance the intellectual capacity of the U.S. science, technology, engineering, and mathematics (STEM) workforce through the integration of research and education. As appropriate, NSF encourages international collaborations that advance these goals within the global context.

An IUCRC (or "Center") operates as a consortium integrating industry, government, and academia. The industrial community includes major corporations, middle market companies, small businesses and startups; public participants may range from local governments to divisions of federal agencies. These stakeholders partner to advance critical technologies from early stage research to the marketplace. The membership fees support research projects conducted by university faculty and students. NSF provides small investments to cover operations and administration, as well as to provide a governance framework for membership, operations, and evaluation.

Structurally, a Center is comprised of one or more University "Sites" and a number of Member organizations who pay membership fees that support the Center's research costs and activities. It consists of the following main elements:

- **University Sites:** Universities/Institutions of Higher Education participating in an IUCRC, either as a Lead Site or a Partner Site.
- **Members:** Companies (large and small businesses, startups, for-profit and non-profit entities) and government agencies (federal, state and local) who pay membership fees
- **Industry Advisory Board (IAB):** Representatives from the Member organizations who participate actively in guiding and supporting the IUCRC's mission and vision, research roadmap, and related programs.
- **NSF:** NSF provides funding for administrative costs, program oversight, and a governance framework to manage membership, operations, and evaluation.

An IUCRC Center progresses from inception through different stages (Phase I, Phase II, and Phase III), with the number of phases being defined in the solicitation under which a Center is funded. The goal of these Centers is to, ultimately, become self-sustaining by the end of its last phase, as defined in the solicitation under which it was funded, without further NSF support.

For IUCRCs funded under the [new solicitation](#), NSF provides support to Centers/Sites for a five-year Phase I award. In the final year of Phase I, all Sites in the same Center apply as a group, for a Phase II term (years 6-10 of the Center). To successfully compete to become a Phase II Center, The Center must demonstrate that it has met NSF grant requirements during Phase I and that it can meet (or exceed) the minimum Phase II membership and funding commitment requirements. Phase II has two different mutually-exclusive options– Phase II and Phase II-Plus (Phase II+), each with different membership and program income requirements.

A.1 Circumstances Requiring the Collection of Data

The *IUCRC Center Director Annual Survey* was designed and specifically tailored to collect information on Membership levels, Center Income, Research Progress/Success, and Workforce Development. This request for reinstatement stems from the following: (1) the desire to obtain the best data possible from the Centers, and (2) increased transparency and accountability for the Program. Since the extent and complexity of the questions in the survey go beyond the standard [NSF annual report requirement](#), a separate clearance would provide the flexibility within the Program to consider changes as needed.

The *IUCRC Center Director Annual Survey* will be required once a year for the life of the Phase I, II, and/or III award(s). The information collected will be used as a tool to monitor the performance of a Center and ensure that the award is in good standing. Summaries of the data could be used in responding to queries from Congress, the public, NSF's external merit reviewers who serve as advisors, including Committees of Visitors, and NSF's Office of the Inspector General. These data are needed for effective administration, center monitoring, program evaluation, and for measuring attainment of NSF's program and strategic goals, as identified by the President's Accountable Government Initiative, the Government Performance and Results Act Modernization of 2010, Evidence-Based Policymaking Act of 2018, and NSF's Strategic Plan.

To enable effective oversight of its investment and fulfill its monitoring and management responsibilities, NSF needs current and standardized information about the short- and long-term outcomes of the IUCRC Program. Significant project oversight is especially important given the complexity of the funding model involved in establishing and maintaining a successful Center. Therefore, Center grantees (i.e. Site Directors of the Centers) need more oversight than awardees from other conventional and more straightforward research projects funded by NSF core programs.

NSF requires that each active NSF-funded Center provide data annually to NSF and/or its authorized representatives (contractors, partners, and/or grantees). Centers are responsible for submitting data from the most recently completed fiscal year of activities. NSF asks all Site Directors, both Lead and Partner Sites, to submit survey information. The Lead Site Director is responsible to address all sections of the survey, while Partner Site Directors are responsible to address only a subset of the questions pertaining specifically to their own Site.

There are 14 sections in the Survey:

1. Contact Information [All Sites]
2. Center Lead/Partner Site Identification [All Sites]
3. Center Structural Information [Lead Site only]

4. Center Members [Lead Site only]
5. Recruitment, Retention, and Turnover of Members [Lead Site only]
6. Membership Fee Structure [Lead Site only]
7. Membership Type, Membership Fees paid, and Voting Status of Current Members [Lead Site only]
8. Center Income [Lead Site only]
9. Operating Expenses [Lead Site only]
10. Workforce Development [All Sites]
11. Academic & Commercial Outcomes [All Sites]
12. Personnel [All Sites]
13. Center Projects [Lead Site only]
14. Survey Reporting (Optional) [All Sites]

In addition to the ***IUCRC Center Director Annual Survey***, each Center needs to submit, annually, an **SRO Certification of Membership**. The certification is certified by the respective university's Sponsored Research Office (SRO), and submitted by the Lead Site Director.

The certification consists of a list of IAB center members and the amount of membership fees paid by each member. The certification also contains information on:

- Total Program Income collected during the performance period
- In-kind contributions received during the performance period
- Allocation and expenditures of each Site's research funds by projects

A.2 Purposes and Use of the Data

The *Grantee Reporting Requirements for NSF IUCRC Program* have been created to manage and track the success of the NSF IUCRC Program. The data collected are focused on program-specific qualitative and quantitative indicators. In particular, the items on the IUCRC Center Director Annual survey elicit outputs (i.e., R&D activities, research progress), research outcomes and impacts (i.e., member collaboration, students trained, academic and commercial successes).

Collection of these data serves several purposes, including:

- Providing information on NSF IUCRC research investments in terms of advancements in science, technology, and society impact
- Monitoring scientific and technical resources to determine the effectiveness of NSF-sponsored projects
- Identifying outputs of projects funded by the NSF IUCRC Program awards for management and for reporting to the Administration

The information collected allow managing IUCRC Program Directors to ensure that the Centers awarded are in good standing, and complying with IUCRC Program requirements. Data collected is also used for recommending changes to improve and strengthen the Program. The IUCRC Program uses these information to remain responsive to the nation's changing science, technology, and economic environment and to secure future Program funding and for continued

Program growth. Information is also used for NSF internal reports, impact assessments, trend analyses, and historical comparisons.

A.3 Use of Information Technology to Reduce Burden

All components in the collection will utilize electronic forms to minimize data errors and respondent burden. In some cases, Program Directors, NSF staff, and/or NSF authorized representatives may contact the respondents for clarifications or follow-up questions to ensure quality assurance and use these conversations to increase the robustness on the data.

A.4 Efforts to Identify Duplication

The *Grantee Reporting Requirements for NSF IUCRC Program* does not duplicate other efforts undertaken by NSF, other federal agencies, or other data collection agents.

A.5 Small Business

N/A

A.6 Consequences of Not Collecting the Information

If the information were not collected, NSF would be unable to (1) meet its accountability requirements, (2) assess the degree to which Centers are meeting their goals over time, and (3) document progress and outcomes of the IUCRC Centers.

Less frequent data collection would also preclude NSF from adequately monitoring and documenting of the progress of each IUCRC. This inhibits NSF from making informed decisions about funding and the timely correction of weaknesses identified in a Center's activities. The consequence of less frequent collection would manifest itself in lack of an effective way to monitor the investment of resources and time that NSF has committed to the IUCRC Program.

A.7 Special Circumstances Justifying Inconsistencies with Guidelines in 5 CFR 1320.6

Data collected for the *Grantee Reporting Requirements for NSF IUCRC Program* will comply with 5 CFR 1320.6. First, a valid OMB control number will be displayed at the beginning of the electronic form. Second, as the reporting requirement is mandatory, the NSF IUCRC Program will communicate clearly—through proposal solicitations, the NSF IUCRC website, and program announcements—that such collection of these information will be treated as a means for satisfying a condition for the receipt of the IUCRC grant.

NSF IUCRC grantees will be asked to submit this survey annually during the life of the award.

A.8 Federal Register Notice and Consultation Outside the Agency

The agency's notice, as required by 5 CFR 1320.8(d), was published in the *Federal Register* on February 21, 2020, at 85 FR 10195, and no comments were received.

A.9. Payments or Gifts to Respondents

Not applicable

A.10. Assurance of Confidentiality

Respondents will be informed that any information on specific individuals is maintained in accordance with the Privacy Act of 1974. Every data collection instrument will display both OMB and Privacy Act notices.

Respondents will be told that data collected are available to NSF officials and staff, and authorized contractors and/or grantees, who manage the data and data collection software. Data will be processed according to federal and state privacy statutes. The system will limit access to personally identifiable information to authorized users. Data submitted will be used in accordance with criteria established by NSF for monitoring research and education grants and in response to Public Law 99-383 and 42 USC 1885c.

A.11 Questions of a Sensitive Nature

In the *Grantee Reporting Requirements for NSF IUCRC Program*, information from survey correspondents, including name, affiliated organization, and email address are requested. These data are simply collected in case further clarifications are needed.

Individual-level data that are collected will be provided only to managing Program Directors, NSF senior management, and supporting staff conducting analyses using the data as authorized by NSF. Any public reporting of data will be in aggregate form, and all personal identifiers will be removed.

A.12 Estimates of Response Burden

A.12.1. Number of Respondents, Frequency of Response, and Annual Hour Burden

Table 1. Respondents, Responses, and Annual Hour Burden

Collection Component	Number of Respondents	Number of Hours per Respondent	Total Burden (Hours)
<i>Center Director Annual Survey</i>	250 (sites)	1.5 hours per year	375 hours
<i>SRO Membership Certification</i>	80 (Centers)	1 hour per year	80 hours
Total	330		455 hours/year

As shown in Table 1 above, the annual response burden for the collections under this request is 455 hours, which include curate all the necessary information, and submit the certification and survey.

The respondents are Principal Investigators (PIs) of the awards, managing directors, or other administrative personnel of the Center.

A.12.2. Estimates of Annualized Cost to Respondents for the Hour Burdens

The following table shows the annualized estimate of costs to the respondents, who are generally university professors. This estimated hourly rate is based on a report from the American Association of University Professors, "[The Annual Report on the Economic Status of the Profession, 2018-19](#)", Survey Report Table 1.

According to this report, the average salary of a full professor across all types of doctoral-granting institutions was \$154,983. When divided by the number of standard annual work hours (2,080), this calculates to approximately \$75 per hour.

Table 2. Annuitized Cost to Respondents

Respondent Type	Number of Respondents	Total Burden (Hours)	Average Hourly Rate	Estimated Annual Cost
PIs, Managing directors, or administrative personnel	250	375	\$75	\$28,125
PIs, Managing directors, or administrative personnel	80	80	\$75	\$6,000
	330	455	\$75	\$34,125

A.13 Estimate of Total Capital and Startup Costs/Operation and Maintenance Costs to Respondents or Record Keepers

Not applicable.

A.14 Estimates of Costs to the Federal Government

On average, the managing IUCRC Program Director (usually a GS 15) will take about 60 minutes to review the technical narratives on a report. Each Center Director is asked to submit the report once a year. The review of the report is part of the due diligence process that each Program Director needs to perform to monitor the project(s), ensure the grantee's compliance with the requirements, and ascertain that the award is in good standing. The cost to the Federal government for reviewing the reports totals \$27,621 per year.

Task	Number of Reports	Time/Review	Frequency	Total Time	Cost
Program Directors reviewing technical narrative in the reports	330	60 minutes	Annually	330 hours/year	\$61.38 x 330 hours = \$20,256

A.15. Changes in Burden

The burden has decreased significantly from the 2017 clearance request as NSF has made significant changes to the collection process of Center-related data to reduce the burden on respondents.

A.16. Plans for Publication, Analysis, and Schedule

Not applicable.

A.17. Approval to Not Display Expiration Date

Not applicable.

A.18 Exceptions to Item 19 of OMB Form 83-I

No exceptions apply.

Part B.

Not applicable.