Supporting Statement for Paperwork Reduction Submission

Grantee Reporting Requirements for Industry/University Cooperative Research Center (IUCRC)

A. Justification

A.1. Circumstances Requiring the Collection of Data

The Industry - University Cooperative Research Centers (IUCRC) Program was initiated in 1973 to develop long-term partnerships among industry, academe and government. The National Science Foundation 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 engineering or science workforce through the integration of research and education. As appropriate, NSF encourages international collaborations that advance these goals within the global context.

This request for reinstatement stems from the following: desire to obtain the best data available from the centers and increased transparency and accountability of the program. The program's reporting requirements are outlined to prospective awardees in the solicitation. The extent and complexity of the questions go beyond the standard request for reporting, and a separate clearance would allow flexibility within the program to consider changes as needed.

The centers are catalyzed by a small investment from NSF and they are primarily supported by other private and public sector center members, with NSF taking a supporting role in the development and evolution of the IUCRC. The IUCRC program initially offers five-year Phase I) continuing awards. This five-year period of support allows for the development of a strong partnership between the academic researchers and their industrial and government members. After five years, centers that continue to meet the IUCRC program requirements may request support for a second five-year (Phase II) period. These awards allow centers to continue to grow and diversify their non-NSF memberships during their Phase II period. After ten years, a Phase III award provides a third five-year award for centers that demonstrate their viability, sustainability, and which have had a significant impact on industry

research as measured through annual reports, site visits, and adherence to IUCRC requirements. Centers are expected to be fully supported by industry, other Federal agencies, and state and local government partners after fifteen-years as an IUCRC.

To enable effective oversight of its investment, NSF requires that each currently funded center provide data annually to NSF and its authorized representatives (contractors or grantees).

Centers are responsible for submitting the following information for their most recently completed fiscal year of activity, updated annually. The indicators are both quantitative and descriptive.

- Quantitative information include:

    o Number and diversity (race, gender, US, non-US) and contact info of personnel involved in the center

    o Students/personnel contact information

    o Degrees granted to students involved in center activities

    o Amounts and sources of income to the center

    o Lists of patents, licenses, and publications created

    o List of affiliated institutions/faculty (not official sites in or faculty of the center)

- Operating budget and total funding:

    o Total funding

    o NSF IUCRC funding received

    o Other NSF funding received

- o   Additional support broken down by Industry, State, University, Other Federal, Non-Federal and other support

- o   Any contract income from IAB members that is done outside the IUCRC, but that is within the scope of the Center's topic

- Capital and in-kind support:

  - o   Equipment

  - o   Facilities

  - o   Personnel

  - o   Software

  - o   Other support

- Human resources:

  - o   Researchers (number of faculty scientists and engineers, number of non-faculty scientists and engineers)

  - o   Students (number of graduate students, number of undergraduate students)

  - o   Number of postdoctoral fellows

  - o   Administration, number of full and part time professional and clerical staff

  - o   Information about broadening participation on the above with plans to increase broadening participation, if necessary

- o Industry Advisory Board members information (total number, number of new and leaving members by year, company size by number of employees and sector/sub-sector)

- Center director descriptors:

    - o Position and rank of director

    - o Status of tenure

    - o Name and position of the person to whom the center director reports

    - o Estimate of the percent of time the director devotes to center administration, other administration, research, teaching, other

- Center outcomes:

    - o Students receiving degrees and type degree earned

    - o Students hired by industry by type of degree

    - o Publications

        - ▪ Number with center research

        - ▪ Number with Industrial Advisory Board Members

        - ▪ Number of presentations/booths at trade shows

        - ▪ Number of presentations under different categories (symposia, etc) related to center activities

- Intellectual property events:

- o Invention disclosures

- o Patent applications

- o Software copyrights

- o Patents granted and derived or both

- o Licensing agreements

- o Royalties realized

IUCRCs also include evaluations conducted by independent assessment coordinators who cannot be from the department(s) with the institution(s) receiving funding for the IUCRC award.

The center assessment coordinators are responsible for preparing bi-annual reports of center activities:

- o With respect to industrial collaboration

- o Conducting a survey of all center participants to probe the participant satisfaction with center activities

- o Compiling a set of quantitative indicators determined by NSF to analyze the management and operation of the center

- o Participating in IUCRC center and informational meetings

- o Reporting to NSF on the center's status using a checklist provided by NSF to help determine if the center is adhering to the IUCRC policy and guidelines

- o Reporting to NSF on the top research highlights, technology transfer, patents, and major discoveries that demonstrate successful investments

The center assessment coordinators are also responsible for:

- o Performing exit interviews to determine why members chose to withdraw from the center

- o Participating in continuous quality process improvement by providing information to the NSF IUCRC program

A.2. Purpose and Use of Data

Centers are required to provide data to NSF and its authorized representatives (contractors or grantees). These data are used for NSF internal reports, historical data, assessing program impact and recommending changes to strengthen the program, as well as for strengthening the program and to ensure the program remains responsive to a changing environment in order to secure future funding for continued IUCRC program maintenance and growth. The data entered by a Center are also available for that Center's access and use.

A.3. Use of Automation

All reports are submitted electronically.

A.4. Efforts to Identify Duplication

No other federal agencies or organization within NSF collects data pertaining to the IUCRC program.

A.5. Small Business Consideration

N/A

A. 6. Consequences of Less Frequent Collection

Less frequent data collection would preclude NSF's annual monitoring and documentation of the progress of each IUCRC and, thus, would not allow for informed decisions about funding and timely correction of any weaknesses identified in a Center's activities. The consequence of less frequent collection would manifest itself in lack of an effective way to continuously monitor the investment of resources and time that NSF has committed to the IUCRC Program.

A.7. Special Circumstances for Collection

N/A

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 November 7, 2016, at 81 FR 78210, and no comments were received.

A. 9. Gifts or Remuneration

N/A

A.10. Assurance of Confidentiality

Data from the centers are collected as aggregate, and no names of individuals are associated with such data collection.

A 11. Questions of a Sensitive Nature

No questions of any sensitive nature are asked.

A. 12. Estimate of Burden

This request pertains to the 71 centers (201 sites). The total number of annual reports (one per site per Center) will be 201. The estimated burden for completing the annual reports was originally estimated to decrease after the first year, and it has, as reflected below.   We estimate the burden of preparing annual reports, in terms of man-hours per Center 8 hours annually.

Average total number of hours for 201 sites: **approximately 1608 hours.**

A. 13. ANNUALIZED COST TO RESPONDENTS

Estimated cost per Site per Center, based on the most recent projections submitted in Center budgets, is as follows:

Expense category	Unit cost	Units	Total cost
1. Site Director/Associated Faculty	$102/hour	8 hours	$816
2. Fringe benefits (30%) on items 1-2 (based on averages)			$245
3. Overhead costs (55%) on items 1-4			$586
Total annual cost per Site			**$1647**
Total annual cost for 201 sites			*$331,047*

It must be noted that NSF intends to make significant changes to the collection process of these data in the upcoming couple of years, and the burden to the sites will be further reduced.

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 (Payment to the Assessment Coordinators)

As stated above, Center assessment coordinators are responsible for collection of certain data, report preparation, and review. There are currently 20 Center assessment Coordinators for the 71 Centers. On average, each center has 3 sites and the assessment coordinator's compensation for a 3-site center is $18,000. This results in a total cost of $1,278,000 per year.

A. 15. Changes in Burden

The burden has decreased, as expected from the 2013 clearance request. The maximum burden was expected in the first year of reporting, with the anticipation that in the years that follow, the burden would be reduced given that a Center's internal practices and procedures would be established.

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: Please see the attached power point slides.

Attachment 2: Program solicitation (NSF Number 17-516)