

Request for Approval under the “Generic Clearance for the Collection of Routine Customer Feedback” (OMB Control Number: 3145-0215)

TITLE OF INFORMATION COLLECTION: NSF Centers for Chemical Innovation
Interview Protocols Pretest

PURPOSE:

The core mission of the Division of Chemistry in the Directorate of Mathematical and Physical Sciences (MPS) at the National Science Foundation (NSF) is to support innovative research, integrated with education, in the chemical sciences. In fiscal year 2004, the Division of Chemistry introduced the Centers for Chemical Innovation (CCI) Program (initially called Chemical Bonding Centers) to support research centers focused on major, long-term, fundamental chemical research challenges. The goals that NSF set forth for the CCI Program include that Centers will (a) produce transformative research, leading to innovation, and attract broad scientific and public interest; (b) be agile structures that can respond rapidly to emerging opportunities through enhanced collaborations; and (c) integrate research, innovation, education, broaden participation, and informal science communication. The Division of Chemistry has initiated a comprehensive assessment with Abt Associates to evaluate the extent to which and in what ways the CCI program is achieving its goals.

To evaluate the activities and outcomes of the CCI program, Abt Associates plans to gather participant feedback from telephone interviews with 1) Principal Investigators/Co-investigators, and 2) Industry Partners. These interviews will provide NSF with information about their experiences participating in research grant activities funded through Centers for Chemical Innovation. This will help NSF to understand, from the perspective of its grantees and their partners, the role of the Center in research, collaboration, and broader impacts activities and outcomes; grantee and partner satisfaction with the Center structure and with two-phase funding models; and challenges encountered. The information will inform future adjustments to CCI program design and implementation. The interview protocols are written to be flexibly applied across a number of NSF Center programs. So, the pre-testing will yield interview protocols that could be used in the data collection for other NSF Center program evaluations or assessments, not just the CCI program.

The interview protocol pre-tests requested under this Fast Track Clearance will allow the evaluators to refine these instruments and more accurately determine burden estimates based on participant feedback (the interview protocols appear in Appendix B). Ultimately, we will submit the final refined instruments for OMB PRA clearance for full-scale data collection.

DESCRIPTION OF RESPONDENTS:

Interview respondents fall into two groups, both of which participated in NSF-funded Center grant projects: 1) Principal Investigators/ Co-Investigators and 2) Industry Partners.

To minimize possible recall bias and to ensure that respondents have had sufficient experience with CCI, the sample was limited to the individuals included in annual reports between the years of 2012–13 and 2016–17. In total, approximately 300 Principal Investigators (PIs)/Co-Investigators affiliated with 14 CCIs (5 Phase I-only and 9 Phase I/II) and 150 Industry Partners affiliated with 9 Phase II CCIs met this selection criterion. From the list of 150 Industry Partners, each Phase II PI will recommend several partners that were involved with the center to such a degree that they would be able to provide useful

feedback in response to the interview questions. *For the interview pilot tests requested under this Fast Track Clearance*, the evaluators will randomly select 10 PIs/Co-Investigators and 10 Industry Partners from the list of PI recommendations.

TYPE OF COLLECTION: (Check one)

- Customer Comment Card/Complaint Form
- Usability Testing (e.g., Website or Software)
- Focus Group
- Customer Satisfaction Survey
- Small Discussion Group
- Other: Telephone Interview

CERTIFICATION:

I certify the following to be true:

1. The collection is voluntary.
2. The collection is low-burden for respondents and low-cost for the Federal Government.
3. The collection is non-controversial and does not raise issues of concern to other federal agencies
4. The results are not intended to be disseminated to the public.
5. Information gathered will not be used for the purpose of substantially informing influential policy decisions.
6. The collection is targeted to the solicitation of opinions from respondents who have experience with the program or may have experience with the program in the future.

Name: Suzanne H. Plimpton, NSF Reports Clearance Officer

To assist review, please provide answers to the following question:

Personally Identifiable Information:

1. Is personally identifiable information (PII) collected? Yes No
2. If Yes, is the information that will be collected included in records that are subject to the Privacy Act of 1974? Yes No
3. If Applicable, has a System or Records Notice been published? Yes No

Gifts or Payments:

Is an incentive (e.g., money or reimbursement of expenses, token of appreciation) provided to participants? Yes No

BURDEN HOURS

Category of Respondent	No. of Respondents	Participation Time (hours)	Burden (hours)
NSF Center Grant PIs/Co-Investigators	10	1.0	10
NSF Center Grant Industry Partners	10	.50	5
Totals Burden Hours			15

FEDERAL COST:

This will be incorporated into the plans of running the program.

If you are conducting a focus group, survey, or plan to employ statistical methods, please provide answers to the following questions:

The selection of your targeted respondents

1. Do you have a customer list or something similar that defines the universe of potential respondents and do you have a sampling plan for selecting from this universe?

Yes No

Respondents for the interview pre-test will represent a stratified random selection of CCI program PIs and Co-Investigators from the 2012–13 through 2016–17 cohorts. For the total number of participants from the CCI grant project participants (300 PIs/Co-Investigators and 150 Industry Partners), 10 PIs/Co-Investigators and 10 Industry Partners from across 9 Phase II centers will participate in the pre-test of the interview protocols.

Administration of the Instrument

1. How will you collect the information? (Check all that apply)

Web-based or other forms of Social Media

Telephone

In-person

Mail

Other, explain

- 2) Will interviewers or facilitators be used? Yes No

Please make sure that all instruments, instructions, and scripts are submitted with the request.

Appendix A: Interview Request Email

Dear NSF Grant [Principal Investigator, Co-investigator, or Industry Partner]:

I'm writing on behalf of the National Science Foundation Centers for Chemical Innovation (CCI) Program Evaluation to schedule a phone call with you. During that phone call, I would like to interview you about your participation in research grant activities funded through an NSF Centers for Chemical Innovation award.

This will help NSF to understand, from the perspective of its grantees, the role of the Center in research, collaboration, and broader impacts activities and outcomes; grantee satisfaction with the Center structure and with two-phase funding models; and challenges encountered.

The call should take 30-60 minutes.

To schedule the phone call, please respond to this email with your availability on any of the following date and times:

[To be updated by NSF Representative or Contractor sending: available dates and times]

I look forward to connecting with you soon and learning more about your work.

Sincerely,

[Name of NSF Representative or Contractor]

Appendix B: Interview Protocols

Consent Language

Thank you so much for making time today to talk with me about NSF-funded Center-based research programs. We are interviewing a sample of participants (PIs, co-investigators, and industry partners) from the Centers for Chemical Innovation research community. All of these interviews will help NSF understand the strengths and weaknesses of this funding strategy.

Your answers will be aggregated with these of other respondents and the information you provide will not be attributed to you personally. Your participation is voluntary. Please feel free to skip any question you do not want to answer.

We would like to audio-record this interview to make sure we accurately capture everything you say. These recordings will not be shared outside of our team and will be destroyed in the end of the study.

Do you agree to be audio-recorded? Do you have any questions before we start?

The OMB control number for this project is 3145-0215. Public reporting burden for this collection of information is estimated to average [60 minutes per PI/Co-investigator; 30 minutes per industry partner] respondent, including the time for consenting. Send comments regarding this burden estimate or any other aspects of this collection of information, including suggestions for reducing this burden, to Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation, 4201 Wilson Boulevard, Suite 1265, Arlington, Virginia 22230 or send e-mail to splimpto@nsf.gov.

Interviews of CCI PIs and Co-investigators (60 minutes)

Center PIs only

1. What motivated you to lead this research Center?

Center co-investigators only

2. What is the history of your partnership? Whose initiative was it? How well did you know the other participants?
3. How involved is your group in the center activities? Has the nature and level of involvement changed over time?

All

4. In what way, if at all, has being part of the Center changed your scientific or engineering interests, visibility, productivity? Are there any disadvantages to you from leading/participating in the center?
5. In your opinion, are there certain types of problems that are better suited to Center funding or that require Center funding? If so, what are the characteristics that define such problems?
6. What do you see as the most important scientific or engineering accomplishments of the Center? Would they have been possible without it? If not, how were these accomplishments enabled by the Center?
7. What do you see as the most important non-scientific accomplishments of the Center (e.g. in workforce development, knowledge transfer, economic benefits, educating the general public)? Would they have been possible without the center? If not, how were these accomplishments enabled by the Center?
8. In what ways has your Center demonstrated leadership in your field and responsiveness to developments in the field?

9. Did you have a history of collaborating with the various partners prior to the Center? In retrospect, is it helpful to your Center to have had pre-existing collaborations with these partners? If yes, in what way? How have the partnerships evolved?
10. What aspects of the Center evolved in unexpected ways and/or deviated from the original goals? Did these changes lead to positive outcomes for your Center?
11. Do you expect the programs, partnerships, and processes created by the Center to remain in place after the funding ends? Can you give some examples of the lasting impacts you anticipate?
12. Is the Center well known to your community? In what way, if at all, has your community benefited from the Center?
13. In retrospect, what processes, policies, partnerships, and other organizational components of your Center do you see as the most and least effective?
14. What have been the main challenges for you/your group? For the Center as a whole? What would you do differently if you could start again?
15. What do you see as the main advantages of the Center model? What has the Center enabled you to do that could not be done under a single investigator award?
16. What are the disadvantages of the Center model?
17. Some Center-based research programs have a two-phase funding model. Phase 1 provides resources to develop the science, management, and broader impacts of a major center before requesting Phase 2 funding. What are the strengths and weaknesses of a 2-phase funding model? In hindsight, do you think a 1-phase or 2-phase mechanism would be more effective for this program? Why or why not?

Interviews of Industry Partners (30 minutes)

1. Can you describe your role and how it is related to the Center partnership?
2. What is the history of your partnership? How well did you know the other participants?
3. What is the nature and extent of your partnership? Has it changed over time?
4. What benefits of the partnership have you anticipated for yourself and your organization? To what extent have these benefits occurred? Can you give some examples of the benefits?

[I have a few questions about the Center contributions more generally. Let me know if you are familiar enough with the Center to be able to comment.]

5. What do you see as the most important scientific and engineering accomplishments of the Center? Do you think they would they have been possible without it? If not, how were these accomplishments enabled by the Center?
6. What do you see as the most important non-scientific accomplishments of the Center (e.g. in workforce development, knowledge transfer, educating the general public)? Would they have been possible without the Center? If not, how were these accomplishments enabled by the Center?
7. Do you expect your partnership to persist after the funding ends? If yes, how do you envision the partnership developing?

8. Have you experienced any challenges partnering with the Center? What were they and how have they been resolved, if at all?
9. Do you have a view about the Center organization and processes? Do you think these are effective? Are there components you would change?