

Survey of Current and Former Graduate Students and Postdocs

OMB# 3145-0215

Pilot only:

Thank you for agreeing to help pilot test this survey. Your feedback will help us improve the survey before we send it to other CCI participants.

Please review the instructions on this page and the next before beginning. On each page of the survey we have included a text box for you to add comments about any questions that are not clear or relevant to you. You only need to fill in these text boxes for any survey items for which you have specific comments. At the end of the survey, we have included a brief set of questions on your overall impressions of the survey's content, clarity, and length.

All respondents:

The survey solicits responses from graduate students and postdocs who have participated or are currently participating in the National Science Foundation's (NSF) Centers for Chemical Innovation (CCI) Program. The survey is part of the external program evaluation, which aims to understand the role of the CCIs in graduate and postdoctoral training and career development. All survey responses will be aggregated to not reveal individual identities. The survey should take no more than 15 minutes to complete.

INSTRUCTIONS

- Please use the survey's navigation buttons ("Back" and "Next") to move through the questionnaire.
- You may exit the survey at any time by pressing the "save and continue later" button. When you re-open the survey, you will be able to continue where you left off.
- Once you reach the last question in the survey, you will see a "submit" button. After clicking this button, your survey will be complete and you may close your browser. Once submitted, you will not be able to return to the survey without contacting our team.
- If you have any questions regarding the survey, you can contact us at CCISurvey@abtassoc.com.

[Verification]

Past and current:

1. Is your name: [First Name, Middle Name/Initial, Last Name]?

- Yes, this is correct
- No, my name has changed or is misspelled. My name is: _____
- No, I am not the person named above → Exit the survey

Past and current:

2. All of the questions in the survey refer to your participation in the following NSF Center for Chemical Innovation (CCI): [CCI name]

Please note that your center may have been funded under a predecessor to the NSF CCI program such as Chemical Bonding Centers (CBC).

- I have participated/still participating in this CCI → 3
- I have participated/still participating in a different CCI → A
- I have not participated in the CCI program → Exit the survey

A. Please select from the list of options

If you participated in more than one CCI, please select the CCI with which you have been most extensively involved.

[pull-down menu of CCIs]

Past and current:

3. Are you still part of this CCI? Select one.

- Yes → current
- No → past

Past only:

4. Why are you no longer participating in CCI? Select all that apply.

- Graduated/completed postdoctoral training
- Left for another reason → A

A. Please indicate all reasons that apply.

- Insufficient funding
- Advisor left the CCI
- Completed CCI-related project and moved on to a project not related to CCI
- Was assigned to a different project
- Was not interested in research being conducted
- Did not get along with advisor/inadequate mentoring
- Did not get along with people in the center
- Did not get resources I needed
- Decided to pursue another career path
- Did not like being part of a center
- Left graduate/postdoctoral program before completion

- Personal/family reason or change in life circumstances
- Other, please explain: _____

[Career status and plans]

Past only:

5. During your final year at CCI, were you:⁵

- A terminal masters student
- A doctoral student
- A postdoctoral scholar

Past only:

6. How many people served as mentors to you (either formally or informally), providing guidance, feedback, and support for your development and research? Select one.

- I had a single mentor who participated in CCI
- I had a single mentor who did not participate in CCI
- I had multiple mentors who all participated in CCI
- I had multiple mentors, but not all of them participated in CCI
- I did not have any mentors

Past only:

7. Listed below are decisions you may have made related to your next career steps. Did your CCI experiences influence any of these? Select all that apply.⁶

- What type of institution to join – e.g., university, industry, government
- What type of career to pursue – e.g., research, teaching, entrepreneurship
- Whether to pursue a doctoral or professional degree – *display row only if respondent was a terminal masters student according to Q5*
- Whether to pursue postdoctoral training
- Choice of specific employer
- Choice of discipline/field of study
- Choice of research problem
- Choice of advisor/mentor
- None of the above

Past only:

8. Are you currently enrolled in a degree program?

- Yes → A
- No

A. Is your degree program in a chemistry discipline?

⁵ AAAS STC Current Student Survey, Item 1b adapted

⁶ Q4-6 STC graduate student survey item A12 adapted

- Yes
- No

9. Which of the following best describes your current principal employer? Select one.

- Not employed
- College or university (excluding work as a Research or Teaching Assistant)
- Industry/business
- Government (including government research labs)
- Non-government lab
- Research institution/think tank
- Other nonprofit organization or private foundation
- K-12 school or district
- Entrepreneur/self-employed
- Other, please specify: _____

Current only:

10. Are you:⁷

- A terminal masters student → A
- A doctoral student
- A postdoctoral scholar

A. After you graduate, are you planning to pursue a PhD?

- Yes → B
- No → C
- Unsure

B. Has your CCI experience positively influenced your interest in pursuing a PhD?

- Yes, it increased my interest in pursuing a PhD
- No, I was already planning to pursue a PhD

C. Has your CCI experience negatively influenced your interest in pursuing a PhD?

- Yes, it decreased my interest in pursuing a PhD
- No, I was not planning to pursue a PhD

⁷ AAAS STC Current Student Survey, Item 1b adapted

Current only:

11. Which of the following positions are you most interested in pursuing after you complete your degree and/or postdoctoral training? Have your career goals changed since you began participating in the CCI? Select one answer per row.⁸

	Never been my goal	Considered before involvement in CCI	Became a goal since involvement in CCI
Faculty member in a research college or university			
Faculty member in a 2-year or 4-year teaching college			
Program officer/academic administrator			
Non tenure-track researcher in a university or a research institute			
Researcher in a government laboratory			
Research and Development position in industry			
Business position in industry or an entrepreneur			
Other, please specify:			

[Experience with CCI]

Past and current:

12. Have you spent time working in a laboratory/research group of a CCI partner organization (as an intern, graduate student, visiting scholar, or similar)? Select one.

- Yes → A
- No

A. Which of the following best describes the organization(s) in which you worked? Select all that apply if you worked with more than one type of organization.

- Academic institution
- Government laboratory
- Industry
- Foundation/non-profit
- Other, please specify: _____

B. How much time did you work at CCI partner organization(s) in total?

Days: _____
 Weeks: _____
 Months: _____
 Years: _____

⁸ The Integrative Graduate Education and Research Traineeship (IGERT) Student Survey 2004, adapted, Item 1

C. How valuable was this experience to your career development? Select one.

- Not at all valuable
- Somewhat valuable
- Very valuable

Past and current:

13. On a scale of 1-5, where 1 = very dissatisfied and 5 = very satisfied, how satisfied are you with the following opportunities offered through CCI? Select one response per row.

	Did not experience	Experienced, rate 1-5
Mentorship you received		
Research opportunities		
Internships/visits to other research labs		
Attending conferences		
Giving presentations		
Publishing papers		
Applying for grants/fellowships/awards		
Collaborating with researchers at your institution		
Collaborating with researchers outside of your institution		
Entrepreneurship		
Teaching and/or course development		
Supervising students		
Outreach to the general public		

Past and current:

14. On a scale of 1-5, where 1=not at all satisfied and 5=very satisfied, how would you rate your CCI experience overall? Select one.

- Pull-down menu 1-5. If <3 → A

A. What was the primary reason for your dissatisfaction?⁹

⁹ The Office of Naval Research Science and Engineering Apprenticeship Program (SEAP)/ Naval Research Enterprise Internship Program (NREIP) student survey, adapted, Item 22

[Role of CCI]

Past and current:

15. Please indicate, for each item below, whether participation in CCI has proved to be an advantage, disadvantage, or made no difference to the following:¹⁰

	An advantage	No difference	A disadvantage	NA/too early to tell
Breadth of research experience				
Access to equipment, facilities, materials				
Ability to advance your research project				
Ability to take initiative or work on your own ideas				
Opportunities to take on leadership responsibilities				
Access to faculty				
Learning about scientific or engineering areas outside of your field				
Learning about commercialization and entrepreneurship				
Learning how to communicate about your research				
Quality of education				
Quality of training				
Quality of mentoring				
Access to community of peers				
Opportunities to network at conferences				
Determining your career direction and options				
Job opportunities available to you				

Past and current:

16. How well do you think participation in the CCI has prepared/is preparing you for the following activities?¹¹ Choose one answer per row.

	Not prepared	Somewhat prepared	Well prepared	N/A
Formulating research problems				
Critically evaluating published literature				
Conducting high-quality research				
Solving problems which arise in implementing a research program				
Presenting and publishing your work				
Working in a multidisciplinary team				
Working outside of academia				
Writing fellowships/grant proposals				
Communicating with researchers in your field				
Communicating with researchers outside of your field				

¹⁰ AAAS STC Current Student Survey, Item 2a-c adapted

¹¹ IGERT Student Survey 2004, adapted, Item 14 and SEAP/NREIP intern survey, adapted, Item 23, STC graduate student survey item C15

	Not prepared	Somewhat prepared	Well prepared	N/A
Communicating research findings to the general public				
Serving as a mentor				

[Demographics]

Past and current:

17. What is your gender?¹²

- Male
- Female
- Prefer not to report

Past and current:

18. Do you identify as an underrepresented ethnic/racial minority?¹³

- Yes → A
- No
- Prefer not to report

A. If so, indicate:

- Black or African American
- Hispanic/Latino
- Native American
- Alaska Native
- Native Pacific Islander
- Prefer not to report
- Other. Please specify _____

¹² AAAS STC Faculty survey, item 15 adapted

¹³ AAAS STC Faculty survey, item 16 adapted

Pilot only:

In addition to any feedback that you provided in the comment boxes on each page, please answer the following questions. You may use the survey's navigation buttons ("Back" and "Next") to remind yourself of specific questions. Please be honest and critical in your feedback. The study team will use your feedback to revise and improve the survey before administering it to other CCI participants.

Are the survey items easy to answer?

- Yes
- No → Please explain. _____

Are the survey instructions easy to follow?

- Yes
- No → Please explain. _____

Are the questions in an order that makes logical sense?

- Yes
- No → Please explain. _____

Are the questions clearly worded?

- Yes
- No → Please explain. _____

Does the survey:

- Have too few questions about each topic? → Please explain. _____
- Have the right amount of questions about each topic?
- Have too many questions about each topic? → Please explain. _____

Do you have any other comments about the survey?

- Yes
- No → Please explain. _____

