

Follow Up Survey for Past NSF CISE REU Participants

1. Introductory Text

Thank you for your interest in this survey. This survey should take no more than 20 minutes of your time. For accessibility purposes, we recommend using either Chrome or Firefox web browsers for this survey.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is **3145-XXXX**. Public reporting burden for this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation Alexandria, VA 22314.

Throughout this survey, we will use the terms "**computing**" and "**computing-related**".

"Computing" or "computing-related" includes the fields below and other similar fields:

- Computer Science
- Computer Engineering
- Software Engineering
- Electrical and Computer Engineering
- Systems Engineering
- Computer Hardware Engineering
- Computing Information Systems
- Information Systems, Information Science
- Informatics, Bioinformatics
- Cybersecurity
- Data Science/Data Analytics
- Machine Learning
- Robotics
- High Performance Computing
- Human-Computer Interaction
- Computational Science/Social Science
- Computational Biology
- Computational Economics
- Computational Mathematics
- Any other computing & technology field

2. Academic History

PROMPT: First, we would like to ask about your academic history.

1. What is your highest level of completed education?
 - ◆ Some college (no degree earned) [\[Go to Question 2\]](#)
 - ◆ Associate's degree [\[Go to Question 5.\]](#)
 - ◆ Bachelor's degree [\[Go to Question 9.\]](#)
 - ◆ Master's degree [\[Go to Question 9.\]](#)
 - ◆ Doctoral degree [\[Go to Question 9.\]](#)

2. You selected your highest level of completed education as “some college.” Were you pursuing a degree?
 - ◆ Yes, I was enrolled in a computing-related degree program [\[Go to Questions 3-4\]](#)
 - ◆ Yes, I was enrolled in a non-computing-related degree program [\[Go to Questions 3-4\]](#)
 - ◆ No, I was not enrolled in any degree program (e.g., taking courses only, certificate program, etc.) [\[Go to Question 28.\]](#)

3. In which year did you leave your degree program?
[Drop down list of years]

4. Why did you leave your degree program before finishing it? Choose up to 3 responses.

- I got a job or started my own company
- The courses were too difficult
- The math requirements were too hard
- I did not like the course material
- I was having trouble passing my courses
- I did not have any friends in the program
- The professors were not supportive
- I felt isolated in my program
- The department did not make me feel welcome
- Scheduling was too difficult (courses are full, not offered frequently enough, etc.)
- There was no sense of community in the department
- I did not feel safe in the computing department
- I experienced health issues that inhibited my ability to feel/be successful
- I experienced financial issues that inhibited my ability to complete my program
- I had family responsibilities
- Other; please specify:

Academic History: Associate's degree details

[Displayed if selected Question 1: Associate's Degree]

5. What was your field of study for your most recent Associate's degree?

[List of fields]

6. In which year did you earn your most recent Associate's degree?

[Drop down list of years]

7. At which institution did you earn your most recent Associate's degree? If you do not see your institution on the list, scroll to the bottom of the list and select 'Other'.

[List of institutions]

[Displayed if selected Question 7.: Other]

8. At which institution did you earn your most recent Associate's degree?

Academic History: Bachelor's degree details

[Displayed if selected Question 1: Bachelor's degree, Master's degree, Doctoral degree]

9. What was your undergraduate major in college for your most recent undergraduate degree?

Note: If you were a double major, use the next drop-down menu to indicate your second major. If you have more than one undergraduate degree, answer these questions for the most recent one.

[List of majors 1]

10. Use this drop-down menu to indicate your second undergraduate major. If you did not have a second major, simply leave this question blank.
[List of majors 2]
11. In which year did you earn your most recent undergraduate degree?
[Drop down list of years]
12. At which institution did you earn your most recent undergraduate degree? If you do not see your institution on the list, scroll to the bottom of the list and select 'Other'.
[List of institutions]

[Displayed if selected Question 12.: Other]

13. At which institution did you earn your most recent undergraduate degree?

Academic History: Job history between undergrad and grad

[Displayed if selected Question 1: Master's degree, Doctoral degree]

14. How many jobs did you have after you graduated from your undergraduate studies, but before you began your graduate studies?
- 0 [Go to Question 17.]
 - 1
 - 2
 - More than 2

[Displayed if selected Question 14. is "1", "2" or "More than 2"]

15. Which of the following apply to the jobs you had after you graduated from your undergraduate studies, but before you began your graduate studies? Please select all that apply.
- Computing related
 - Research focused
 - Industry position
 - Academic position
 - Government labs position
 - Government position (non-laboratory)
 - None of the above
16. Which of the following best explain why you decided to work before going back to graduate school? Please select all that apply.
- I needed to save money to help pay for graduate school
 - I needed to take a break from school
 - I wanted to get some work experience first
 - I believed I could get a job that paid well with an undergraduate degree
 - I wasn't sure whether graduate school was right for me
 - The job offer was too good to let go
 - I needed time to figure out what I wanted to do
 - I wasn't interested in graduate school when I finished my undergraduate degree

Other, please specify: _____

Academic History: Master's degree information

[Displayed if selected Question 1: Master's degree, Doctoral degree]

17. At which institution did you earn your most recent master's degree? If you do not see your institution on the list, scroll to the bottom of the list and select 'Other'.
[List of institutions]

[Displayed if selected Question 17.: Other]

18. At which institution did you earn your most recent master's degree?

19. In which year did you earn your most recent master's degree?
[Drop down list of years]

20. In which field did you earn your master's degree?
[List of fields]

Academic Background: Doctoral degree details

[Displayed if selected Question 1: Doctoral degree]

21. Prior to entering your doctoral program, did you complete a terminal Master's program?

Note: A terminal master's degree program is one from which you would have graduated and finished the program with a master's degree.

Yes

No [Go to Question 23.]

22. What made you decide to pursue a doctoral program after completing a terminal master's program?

- Wanted to change fields
- Wanted to grow expertise in my field
- Wanted to pursue a research career
- It was required for a position I was interested in
- Other; please briefly specify: _____

23. At which institution did you earn your most recent doctoral degree? If you do not see your institution on the list, scroll to the bottom of the list and select 'Other'.

[List of institutions]

[Displayed if selected Question 23.: Other]

24. At which institution did you earn your most recent doctoral degree?

25. In which year did you earn your most recent doctoral degree?

[Drop down list of years]

26. In which field did you earn your doctoral degree?

[List of fields]

27. In total, how many postdocs have you completed since earning your doctoral degree?

- 0
- 1
- 2
- 3
- 4 or more

3. Current Status

28. Are you currently a student?

- Yes, I am currently an undergraduate student [\[Go to Questions 29.-34.\]](#)
- Yes, I am currently a graduate student [\[Go to Questions 29.-34.\]](#)
- Yes, I am currently a non-degree earning student (e.g., taking courses only, certificate program, bootcamps, etc.) [\[Go to Questions 29.-34.\]](#)
- No, I am NOT currently a student (e.g., postdoc, not enrolled in any educational program, working, etc.) [\[Go to Question 51.\]](#)

Current Status: Currently a student

29. At which institution are you currently enrolled?

[List of Institutions]

30. In what year did you enter your current institution for your current program?

[List of years]

31. In what year do you expect to complete your current program? If you aren't sure, pick the year that seems most likely.

[List of years; last option = "I am not completing a degree or certificate"]

32. In which academic term do you expect to complete your current degree? If you aren't sure, pick the option that seems most likely.

- Fall
- Winter
- Spring
- Summer
- I am not completing a degree or certificate

33. Are you receiving a stipend from your institution?

- Yes, I am receiving a stipend [\[Skip Question 34.\]](#)
- No, I am not

34. How difficult or easy is it to cover your basic expenses with your current stipend?

- Very difficult
- Somewhat difficult
- Neither difficult nor easy
- Somewhat easy
- Very easy

Current Status: Undergraduate students

35. Which type of undergraduate degree will you be earning?

- Associate's degree
- Bachelor of Science (BS/SB degree)

- Bachelor of Arts (BA/AB degree)
- Bachelor of Fine Arts (BFA degree)
- Other

36. Are you enrolled in an accelerated or joint bachelor's/master's program?

- Yes
- No

37. Which of the following applies to you:

- I have one declared major
- I have more than one declared major
- I have not declared a major

38. Which of the following applies to you:

- I have one minor
- I have more than one minor
- I do not have a minor

[Repeat Q39.-42. for each major/minor, if answers to Q37. and Q38. are NOT "I do not have a major" or "I do not have a minor"]

39. What is your major, or one of your majors?

[List of majors]

[If Q39. is Other]

40. Please specify this major in the space below: _____

[If Q39. is NOT computing-related]

41. Does this major have a strong computing component? (Does not include basic use of computers for your major.)

- Yes
- No

42. How committed are you to this major: [Insert response from Q40]?

- Not at all committed
- Slightly committed
- Moderately committed
- Quite committed
- Extremely committed

Current Status: Graduate students

43. Why did you apply to graduate school? Choose up to 3 responses.

- I value learning
- I wanted to challenge myself to something new
- I wanted to make an impact on society with an advanced degree
- My friends are enrolled in advanced degrees
- I wanted to work with a specific professor
- The job market for advanced degrees is promising
- My dream job requires an advanced degree
- I want a research career
- I wanted to work on advanced research projects
- An advanced degree will enable me to make a lot of money
- My family encouraged me to apply
- I was ready to advance my career
- I wanted to change careers
- Other; please specify:
- I don't remember

44. In what type of degree program are you currently enrolled?

- Doctoral program (includes those earning a master's degree as part of their doctoral program)
- Terminal master's (will graduate and finish with a master's degree)
- Joint bachelor's/master's (e.g., accelerated programs)

45. What is your enrollment status for your current degree program?

- Full-time student
- Part-time student
- Currently on temporary leave of absence

46. In which field is your current degree program? Choose up to 2 responses. Note: If you do not see your exact program name, please select the option(s) most closely related.

[List of fields]

47. What is your specialty area(s) or expected specialty area(s)? Please select all that apply.

- No specialty
- Artificial Intelligence
- Computer-Supported Cooperative Work
- Computing Education
- Data Mining
- Databases/Information Retrieval
- Distributed Systems
- Embedded Systems
- Formal Methods/Verification
- Graphics/Visualization
- Hardware/Architecture

- Human-Computer Interaction
- High-Performance Computing
- Informatics: Biomedical or Other Science
- Information Science
- Information Systems
- Machine Learning
- Natural Language Processing
- Networks
- Operating Systems
- Operations Research
- Programming Languages/Compilers
- Robotics/Vision
- Scientific/Numerical Computing
- Security/Information Assurance
- Social Computing/Social Informatics
- Software Engineering
- Theory and Algorithms
- Other; please specify:

48. How committed are you to completing your current degree program?

- Not at all committed
- Slightly committed
- Moderately committed
- Quite committed
- Extremely committed

Current Status: Non-degree students

49. You indicated you are a non-degree earning student. Which of the following best describes your educational enrollment?

- Post-baccalaureate certificate program
- Graduate certificate program
- Code School, Data Bootcamp, etc.
- MOOC or series of MOOCs
- Taking courses for a specific skill or interest
- Something else; please specify:

50. In which field is your current program? Choose up to 2 responses. Note: If you do not see your exact field, select the option(s) most closely related.

[List of fields]

Current Status: Employment Status

51. What is your current employment status? Select all that apply.

- Employed full-time
- Employed part-time
- Participating in a full-time internship or co-op program
- Participating in a part-time internship or co-op program
- Volunteering in a field I plan to join in the future
- None of the above [\[Go to Question 74.\]](#)

Current Status: Participating in an internship or volunteering

PROMPT: Now we would like to ask about your internship or volunteer work.

52. In which field is your internship or volunteer work? Choose up to 2 responses. Note: If you do not see your exact field, select the option(s) most closely related.

[list of computing-related fields]

[\[If a non-computing field is selected, go to Question 53.; otherwise skip\]](#)

53. Which of the following reasons below best explain why your internship or volunteer work is not in computing? Choose up to 3 responses.

- I do not have the required education/training for computing positions
- There is nothing available in my geographic location
- I applied for a computing position but did not get it
- There is nothing available in the field I am interested in
- I am not interested in working in computing
- Jobs in computing are too stressful
- I do not see a place for myself in computing
- I have had negative experiences in computing
- I have a strong interest in a different field that is not related to computing
- I did not earn a degree in computing
- I am currently on the job market for a computing job
- I am experiencing a two-body problem
- I had not considered it
- Other, please specify: _____

54. In which setting is your internship or volunteer work?

- Academia, PhD granting institution
- Academia, non-PhD granting institution
- Industry
- Government lab
- Other

55. What is the primary focus of your internship or volunteer work? Choose up to 3 responses that best describe the focus of your position.

- Research
- Teaching
- Administration
- Administrative

- Advising
- Technical
- Analytical
- Management
- Skilled labor
- Developer
- Operations
- Other

56. Do you receive a stipend or some form of salary for your internship or volunteer work?

- Yes, I receive a stipend [\[Go to Q57.\]](#)
- Yes, I am paid at an hourly rate [\[Go to Q58.\]](#)
- Yes, I am paid a salary [\[Go to Q57.\]](#)
- No, I do not earn income from this internship or volunteer work

57. How much is your stipend or salary?

[Range of dollar amounts]

58. What is your hourly rate?

[Range of dollar amounts]

Current Status: Currently employed full or part time

PROMPT: Now we would like to ask about your current employment status.

59. Which career level best describes your current professional status?

- Entry level
- Mid level
- Senior level
- Executive level

60. In which field are you currently working? Choose up to 2 responses. Note: If you do not see your exact field, select the option(s) most closely related.

[list of computing-related fields]

[\[If a non-computing field is selected, go to Question 61.; otherwise skip\]](#)

61. Which of the following reasons below best explain why you are not currently working in a computing-related position? Choose up to 3 responses.

- I do not have the required education/training for computing positions
- There is nothing available in my geographic location
- There is nothing available in the field I am interested in
- I am not interested in working in computing
- Jobs in computing are too stressful
- I am experiencing a two-body problem
- I do not see a place for myself in computing
- I have had negative experiences in computing

- I have a strong interest in a different field that is not related to computing
- I did not earn a degree in computing
- I applied for a computing position but did not get it
- I am currently on the job market for a computing job
- I had not considered it
- Other, please specify: _____

62. How long have you been working in [insert response from Q60.]?

- Less than 1 year
- 1 – 5 years
- More than 5 years but less than 10 years
- More than 10 years but less than 20 years
- 20 or more years

63. What is your specialty area?

- No specialty
- Artificial Intelligence
- Computer-Supported Cooperative Work
- Computing Education
- Data Mining
- Databases/Information Retrieval
- Distributed Systems
- Embedded Systems
- Formal Methods/Verification
- Graphics/Visualization
- Hardware/Architecture
- Human-Computer Interaction
- High-Performance Computing
- Informatics: Biomedical or Other Science
- Information Science
- Information Systems
- Machine Learning
- Natural Language Processing
- Networks
- Operating Systems
- Operations Research
- Programming Languages/Compilers
- Robotics/Vision
- Scientific/Numerical Computing
- Security/Information Assurance
- Social Computing/Social Informatics
- Software Engineering
- Theory and Algorithms
- Other; please specify: _____

64. How long have you been at your current place of employment? If you have been with your current workplace for less than one year, please enter 0 for the year and enter the number of months. Please use numerical values only.

- ◆ Years: _____
- ◆ Months: _____

65. How many times have you moved up in your position and/or been promoted?

- ◆ Never
- ◆ Once
- ◆ Twice
- ◆ Three times
- ◆ Four or more times

66. In which setting do you currently work?

- ◆ Academia, PhD granting institution [\[Answer questions 67.-68.\]](#)
- ◆ Academia, non-PhD granting institution [\[Answer questions 67.-68.\]](#)
- ◆ Academia, K-12 [\[Go to Question 69.\]](#)
- ◆ Industry [\[Go to Question 69.\]](#)
- ◆ Government lab [\[Go to Question 69.\]](#)
- ◆ Other [\[Go to Question 69.\]](#)

67. Are you tenured or tenure track?

- ◆ Yes, I am tenured
- ◆ Yes, I am tenure-track
- ◆ No, I am neither tenured nor tenure-track

68. What is your current position? If you do not see your exact title, please select the one that best fits your position.

- ◆ Technical staff
- ◆ Administrative staff
- ◆ Postdoc
- ◆ Lecturer/Instructor/Adjunct faculty
- ◆ Assistant Professor
- ◆ Associate Professor
- ◆ Full Professor
- ◆ Professor of the Practice
- ◆ Emeritus
- ◆ Administration/Leadership level position
- ◆ Other

69. What is your job title? _____

70. What is the primary focus of your current position? Choose up to 3 responses that best describe the focus of your position.

- Research
- Teaching

- Administration
- Administrative
- Advising
- Technical
- Analytical
- Management
- Skilled labor
- Developer
- Operations
- Other

71. Which of the following apply to your current position? Please select all that apply.

- I have received at least one raise
- My position is a postdoctoral position [Display if Government/Industry/Other]
- I manage or supervise other staff
- None of the above

72. What is your current annual salary, before taxes (in US dollars), for your current position? Note: If you are working in an hourly-rate position, please indicate approximately how much you make in a year.
[list of salary options]

73. How committed are you to your current position?

- Not at all committed
- Slightly committed
- Moderately committed
- Quite committed
- Extremely committed

Current status: Not employed

[Ask this section if not currently employed AND not in school]

PROMPT: In this survey, you indicated you are not currently a student and you are not employed full-time or part-time.

74. Which of the following below best explains why you are not employed at the moment? Choose up to 3 responses.

- There is nothing available in my geographic location
- There is nothing available in my field of interest
- I am preparing to apply to or attend graduate school
- I am underqualified for the positions I am interested in
- I am overqualified for the positions I am interested in
- I am experiencing a two-body problem

This survey was developed by Computing Research Association's (CRA) Center for Evaluating the Research Pipeline (CERP). Please acknowledge CRA and CERP in all publications using this survey and direct other parties interested in obtaining the survey to CERP (cerp@cra.org).

- I am taking a break
- I have personal and/or family obligations
- I have a health-related issue
- I am not interested in working
- I am retired
- I have been laid off/furloughed
- Other; please specify: _____

[if respondent does not have a graduate degree]

75. Which of the following best explain why you did not go to graduate school? Choose up to 3 responses.

- I had personal and/or family obligations
- I did not feel academically prepared
- I was worried about financial support
- I was experiencing a two-body problem
- I was not interested in going to school
- I am taking a break
- I decided to take a job
- I could not afford to go back to school
- I could not afford the application fees
- I did not have time to complete a graduate degree
- I did not see the value in completing a graduate degree
- I think graduate school would be too difficult and/or stressful
- I was not interested in getting another degree
- I had already earned the highest degree I planned to attain
- I applied, but I did not get into any graduate programs
- I had not considered it
- Other; please specify: _____

76. How likely are you to apply for graduate programs in the future?

- Not at all likely
- A little likely
- Moderately likely
- Quite a bit likely
- Extremely likely

77. Do you plan to attain another degree?

- Yes [Answer remaining section questions]
- No [Skip to "REU History"]

78. What is the highest degree you plan to attain?

- Associate's degree
- Bachelor's degree
- Graduate certificate
- Master's degree
- Doctoral degree

79. In which field do you intend to earn your highest degree? Note: If you do not see your exact field, please select the option most closely related.

[List of fields]

4. REU History

PROMPT: Now, we would like to ask about your previous research experiences.

Unless specified, the next set of questions will focus on your previous **formal research experience as an undergraduate student** (i.e., REU). Formal REU includes any experience you applied for and through which you worked closely with a mentor or research advisor.

Before we move into questions about formal REUs, please answer the following question.

80. What other experiences were you involved in during your **undergraduate program** that were NOT part of a formal REU?

- Independent research projects
- Internships or co-ops
- Research Assistant
- Teaching Assistant
- Entrepreneurial or consulting projects
- K-12 outreach
- Computing-related student groups
- None of the above

81. How many **formal research experiences** did you participate in during your undergraduate program?
Reminder: Formal REU includes any experience you applied for and through which you worked closely with a mentor or research advisor.

- 82.
- 1
 - 2
 - 3
 - 4 or more

83. Which of the following reasons best explain your motivations to participate in a formal REU? Please choose up to 3 responses.

- To increase my competitiveness for graduate school
- To learn more about what graduate school might be like
- To have something to do outside of my coursework
- To build work experience and my resume/CV
- To participate in something prestigious
- To expand on what I had been learning about in my classes
- To develop or improve my technical skills
- The research project(s) seemed interesting
- To learn more about a specific research area of interest to me
- To learn more about what being a researcher is like
- To build my confidence as a researcher
- To better understand the connection between research and real world applications
- To build connections and/or collaborate with other student researchers
- To build connections and/or collaborate with particular faculty

- To have a paid opportunity
- To help pay for my living expenses while in college
- Other; please specify: _____

[Repeat Q84. – Q88. for each REU]

PROMPT: For these next questions, please think about your [first/second/third/fourth] formal REU.

84. In which year did your formal REU start?
[List of years]

85. When did your formal REU take place?
- Academic year – fall semester only
 - Academic year – spring semester only
 - Academic year – across both fall and spring semesters
 - Academic year and summer
 - Summer only

86. Where did your formal REU take place?
- At my home college or university
 - At another college or university
 - At a company or organization or government institution outside of my college or university
 - Somewhere else

87. What was the name of the institution where you completed this REU?
[List of institutions]

88. What was the name of the company or organization where you completed this REU?

[If respondent is NSF CISE REU **AND** (Q86. = “At my home college or university” or “At another college or university”)]

89. Was this an NSF REU?

- Yes
- No

- a. [If “Yes”] Was this an REU Site or REU Supplement?
- Site
 - Supplement
 - Don’t know

PROMPT: For the next set of questions, we would like you think about your [XX REU from XX date] or [earliest formal REU].

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90. What was your academic standing when you started this REU?

- Freshman
- Sophomore
- Junior
- Senior

91. How did you learn about this REU? Select all that apply.

- My advisor or other mentor told me about it
- A peer told me about it who was also looking into REU opportunities
- A former REU participant told me about it
- I saw an announcement in a mailing list
- I learned about it as a participant of a mentoring program
- I was familiar with the faculty member's work, so I looked for REU openings with that faculty member
- I was familiar with the institution, so I looked for REU openings there
- I have worked with the faculty member before, and the faculty member wanted me to continue our research
- I knew the faculty member, so I reached out about opportunities
- I searched the list of REU opportunities on the NSF website
- I used another search engine to find REU opportunities relevant to me
- I don't remember
- Other, please specify: _____

92. Which of the following apply to this REU experience? Please select all that apply.

- It was your first experience with research
- It was your first formal REU experience
- There was an orientation to introduce you to the program
- You were part of a team of students
- There were other undergraduate students from your department in your lab
- There were undergraduate students from a different department at your school in your lab
- There were undergraduate students from other schools in your lab
- There were graduate students available for support
- There were research staff available for support
- There were administrative staff available for support
- There were regular technical/research talks or brown bags
- There were regular mentoring talks about graduate school or careers
- You had an opportunity to continue research with the REU faculty as an intern or in a paid position when the REU ended
- I don't remember
- Other, please specify: _____

93. Which of the following apply to this REU experience? Please select all that apply.

- a. You received a stipend (not including other paid benefits)
 - You were provided housing
 - You were provided with a local public transportation pass
 - You were provided with a meal stipend

- You were provided with a computer
- You were provided the opportunity to participate in local cultural events and activities
- You had a dedicated space to do your work
- You had sufficient access to resources you needed to do your work
- I don't remember
- Other, please specify: _____

94. How much was your total stipend amount for this REU (in USD), not including other paid benefits?

- Less than \$1,000
- \$1,000 - \$2,999
- \$3,000 - \$4,999
- \$5,000 - \$6,999
- \$7,000 - \$8,999
- \$9,000 - \$10,999
- \$11,000 - \$12,999
- \$13,000 - \$14,999
- \$15,000 or more
- I don't remember

95. How difficult or easy was it to cover your basic expenses with your REU stipend?

- Very difficult
- Somewhat difficult
- Neither difficult nor easy
- Somewhat easy
- Very easy
- I don't remember
- I did not receive a stipend

96. You may have worked with more than one research advisor during your REU.

Think about the research advisor with whom you spent **the most time** and select that person's position from the list below.

- Your faculty advisor/the PI
- Postdoc
- Graduate student
- Staff member of your lab
- Other; please specify: _____
- I don't remember

97. What was your research area for this REU?

- Artificial Intelligence
- Computer-Supported Cooperative Work
- Computing Education
- Data Mining
- Databases/Information Retrieval
- Distributed Systems
- Embedded Systems
- Formal Methods/Verification

- Graphics/Visualization
- Hardware/Architecture
- Human-Computer Interaction
- High-Performance Computing
- Informatics: Biomedical or Other Science
- Information Science
- Information Systems
- Machine Learning
- Natural Language Processing
- Networks
- Operating Systems
- Operations Research
- Programming Languages/Compilers
- Robotics/Vision
- Scientific/Numerical Computing
- Security/Information Assurance
- Social Computing/Social Informatics
- Software Engineering
- Theory and Algorithms
- Other; please specify: _____
- I don't remember

5. Perceptions of REU Experience

98. To what extent did your REU give you the opportunity to do the following:
(None at all; A little; A moderate amount; Quite a bit; A great deal; Don't remember)

- Define a research problem
- Generate hypotheses
- Use scientific methods to test a hypothesis
- Collaborate with colleagues
- Collect data or conducting experiments
- Analyze data with statistics or other tools
- Work on open-ended theoretical/mathematical problems
- Decide what to do next (e.g., follow-up studies)

99. To what degree did you build the following skills during your REU?
(Not at all; Somewhat; Moderately; Quite a bit; A great deal; Don't remember)

- Programming
- Other technical skills
- Research design
- Data collection and analysis
- Scientific writing
- Career development
- Professional communication

- Working effectively with a team

100. To what degree did you learn the following during your REU?
(*Not at all; Somewhat; Moderately; Quite a bit; A great deal; Don't remember*)

- How to apply to graduate school
- What it's like to be a graduate student
- How to prepare a job application
- What it's like to have a research career

101. Which of the following were you able to accomplish during, or because of, your REU? Please select all that apply.

- Built a software or hardware artifact, or other computational product
- Showcased your work at the end of your REU
- Wrote a research paper
- Submitted a research paper or poster to a conference
- Presented a research paper or poster at a conference
- Contributed to a research article with your peers and PI
- Published your research
- I don't remember
- None of the above

102. Which of the following topics were included in the mentoring you received in your REU?

- Applying to grad school (e.g., application process, preparing materials, etc.)
- Life as a graduate student
- Life in a research career
- Work/life balance
- The REU student's future career interests
- Overcoming personal and professional obstacles
- Issues of underrepresentation in computing
- My REU did not include a mentoring component
- None of the above

103. To what extent did your REU help you develop relationships with each of the following?
(*Not at all; A little; A moderate amount; Quite a bit; Very much*)

- People with whom you can discuss professional development questions.
- A strong network of peers to interact with at conferences.
- A strong network of mentors to interact with at conferences.
- People who would be excited to learn about your professional successes.
- People with whom you can discuss issues you are having.
- Mentors with whom you can seek advice and assistance in advancing your career.

104. Overall, to what degree was your REU experience collaborative?

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- Not at all
- A little
- Somewhat
- Very
- Extremely
- Not applicable – did not work with other students

105. Overall, to what degree did you feel like you were competing with other undergraduates working on the same project or lab during the research process?

- Not at all
- A little
- Somewhat
- Very
- Extremely
- Not applicable – did not work with other students

106. How dissatisfied or satisfied were you with your REU experience overall?

(Very dissatisfied; Somewhat dissatisfied; Neither dissatisfied nor satisfied; Somewhat satisfied; Very satisfied; Don't remember)

6. REU Connections

107. How often are you in touch with the following people from your REU?

(Never; Rarely, Occasionally, Frequently, Very frequently/// Not Applicable)

- Your faculty advisor/the PI
- A postdoc
- Graduate student(s)
- A staff member of the lab
- Other students from your cohort

7. Perceived Impact of REU Experience on Choices

108. In what way did your REU experience impact your subsequent CS elective coursework?

- I decided to take fewer CS elective courses
- I decided to take more CS elective courses
- I decided to take different CS elective courses
- My REU did not impact my subsequent CS elective coursework

109. To what degree did your REU impact your interest in the following?

(Less interested, More interested, No impact – I was never interested, No impact – I was already very interested)

- Pursuing more research opportunities
- Pursuing a research career

- Pursuing a non-research career
- Getting a master's degree
- Getting a doctoral degree

Serving as REU Mentor

110. Since completing your undergraduate REU(s), have you ever worked on an REU in a supervisory or mentoring role?
- Yes
 - No [If no, skip to next section]
111. Approximately how many REUs have you worked on in a supervisory/mentoring role? ____
112. In what setting have you served (or are you serving) as an REU mentor?
- As a graduate student
 - In my current employed position
 - In a former employed position
 - Other; please specify: _____
113. Which of the following apply to the REU projects that you have worked on as a supervisor or mentor?
- CISE REU Site
 - CISE REU Supplement (summer)
 - CISE REU Supplement (academic year)
 - Other summer REU
 - Other academic year REU
 - An industry-based REU

Now, we would like to ask about what motivated your decision to be a mentor/supervisor in an REU and its impact on your career development.

114. To what extent did the following contribute to your decision to be a mentor/supervisor in an REU project?

[Not at all; a little; a moderate amount; Quite a bit, a great deal; I don't remember]

- I wanted to help develop a new generation of researchers in my field
- I wanted to give students impactful research experience
- I needed to make progress with my research projects
- I wanted the additional funding
- I wanted to encourage students to pursue graduate school
- I wanted to find potential graduate students for my department
- I wanted to experiment with different research techniques
- I believed it would be helpful for my own career
- I wanted to develop my mentorship skills
- I was inspired to be a mentor because of the strong mentorship I received as an REU participant
- I wanted to provide better mentorship than I received when I was an REU participant

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115. In what ways has running REU projects impacted your career? Select all that apply.
- I was able to use this as part of my tenure application
 - I was able to add this to my CV
 - It opened new collaborations with faculty at my institution
 - It opened new collaborations with faculty at other institutions
 - It gave me the resources to expand my lab
 - It taught me how to be a better mentor for students' research
 - It taught me how to be a better mentor for students' career development
 - It led to future research with some REU students
 - It led to more publications
 - I was able to patent some of my work
 - None of the above
116. How would you rate your proficiency to mentor students **on their research**?
- Highly deficient
 - Deficient
 - Average
 - Proficient
 - Highly proficient
117. How would you rate your proficiency to mentor students **on their academic development**?
- Highly deficient
 - Deficient
 - Average
 - Proficient
 - Highly proficient
118. How would you rate your proficiency to mentor students **on their career development**?
- Highly deficient
 - Deficient
 - Average
 - Proficient
 - Highly proficient

Pathway 1: Already earned a graduate degree

PROMPT: Earlier in this survey, you indicated that you earned a graduate degree. The next questions will ask about how your REU influenced your decisions.

Note: If you had more than one formal REU, you may think about the impact of all of your experiences in impacting your decisions.

119. Why did you apply to graduate school? Choose up to 3 responses.
- Love of learning

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- I wanted to challenge myself to something new
- My friends were enrolled in advanced degrees
- I wanted to work with a specific professor
- The job market for advanced degrees was promising
- My dream job required an advanced degree
- I wanted a research career
- I wanted to work on advanced research projects
- An advanced degree would enable me to make a lot of money
- My family encouraged me to apply
- I aspired to make a difference in society with an advanced degree
- I was ready to advance my career
- I wanted to change careers
- Other; please specify:
- I don't remember

120. To what degree did your REU influence your decision to go to graduate school?

- Not at all
- Somewhat
- A moderate amount
- Quite a bit
- A great deal
- I don't remember

121. Which of the following are true for your graduate school application process? Select all that apply.

- Your REU mentor wrote a letter of recommendation
- You applied to graduate school at the same institution of your REU
- You attended graduate school at the same institution of your REU
- Your REU connections helped you find a graduate advisor to work with
- Your REU experience inspired you to apply to graduate schools that you would not otherwise consider applying to
- None of the above

122. Which of the following are true for your graduate school experience? Select all that apply.

- Your graduate advisor was your former REU mentor
- Your graduate institution was the same as your REU institution
- Your graduate work was in the same area as your REU
- None of the above

123. To what degree did your REU help set you up for success in your graduate program?

- Not at all
- Somewhat
- A moderate amount
- Quite a bit
- A great deal
- I don't remember

[For those who already have a graduate degree and are also employed, go to next section “Pathway 2: Currently employed”]

Pathway 2: Currently employed

PROMPT: You indicated you are currently employed. The next questions will ask about how your REU influenced your decisions.

Note: If you had more than one formal REU, you may think about the impact of all of your experiences in impacting your decisions.

124. Which of the following are true for your career pathway? Select all that apply.

- Your REU mentor served as a reference for one or more of your jobs
- You decided to work in the same research area as your REU
- You learned of job opportunities through your connections from your REU
- You got a job through your connections from your REU
- The skills you gained from your REU helped you get a job
- None of the above

125. To what degree did your REU influence your career pathway?

- Not at all
- Somewhat
- A moderate amount
- Quite a bit
- A great deal
- I don't remember

126. To what degree has your REU help set you up for success in your career?

- Not at all
- Somewhat
- A moderate amount
- Quite a bit
- A great deal
- I don't remember

[Display Q127. – Q131. For those who did not earn a graduate degree]

127. Which of the following best explain why you did not go to graduate school? Choose up to 3 responses.

- I had personal and/or family obligations
- I did not feel academically prepared
- I was worried about financial support
- I was experiencing a two-body problem
- I was not interested in going to school
- I am taking a break
- I decided to take a job
- I could not afford to go back to school
- I could not afford the application fees
- I did not have time to complete a graduate degree
- I did not see the value in completing a graduate degree
- I think graduate school would be too difficult and/or stressful
- I was not interested in getting another degree

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- I had already earned the highest degree I planned to attain
- I applied, but I did not get into any graduate programs
- I had not considered it
- Other; please specify: _____

128. How likely are you to apply for graduate programs in the future?

- Not at all likely
- A little likely
- Moderately likely
- Quite a bit likely
- Extremely likely

129. Do you plan to attain another degree?

- Yes [Answer remaining section questions]
- No [Skip to "General career questions"]

130. What is the highest degree you plan to attain?

- Associate's degree
- Bachelor's degree
- Graduate certificate
- Master's degree
- Doctoral degree

131. In which field do you intend to earn your highest degree? Note: If you do not see your exact field, please select the option most closely related.
[List of fields]

Pathway Option 3

PROMPT: Earlier in this survey, you indicated that you are currently a graduate student. The next questions will ask about how your REU influenced your decisions.

Note: If you had more than one formal REU, you may think about the impact of all of your experiences in impacting your decisions.

132. To what degree did your REU influence your decision to go to graduate school?

- Not at all
- Somewhat
- A moderate amount
- Quite a bit
- A great deal
- I don't remember

133. Which of the following are true for your graduate school application process? Select all that apply.

- Your REU mentor wrote a letter of recommendation
- You applied to graduate school at the same institution of your REU

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- You attended graduate school at the same institution of your REU
- Your REU connections helped you find a graduate advisor to work with
- None of the above

134. Which of the following are true for your graduate school experience thus far? Select all that apply.

- Your graduate advisor is your former REU mentor
- Your graduate institution was the same as your REU institution
- Your graduate work is in the same area as your REU
- None of the above

135. To what degree has your REU help set you up for success in your graduate program?

- Not at all
- Somewhat
- A moderate amount
- Quite a bit
- A great deal
- I don't remember

8. General career questions

In these last few questions, we would like to ask you some general questions about your career.

136. To what degree is the following a regular aspect of your career?
(Not at all; A little; A moderate amount; Quite a bit; A great deal)
- mentoring others
 - helping prepare grant proposal(s) (not as a PI or Co-PI)
 - publishing in tier 1 conferences and journals in my field
 - leading grants as PI or co-PI

9. Open ended perceptions of REU

137. Thank you for your responses so far. Before we collect some demographic information from you, please use the space below to tell us anything else you would like to share about your REU experience and how it did or did not affect the choices you made about your education and career path. This information will help guide future REU program policy:

10. Demographics

PROMPT: Thank you for answering all of those questions! We are almost finished. These final questions will help us better understand our respondents. You may skip any question that you wish to not answer.

138. What sex were you assigned at birth, on your original birth certificate?

- Male
- Female
- Refused
- Don't know

139. Do you currently describe yourself as male, female or transgender?

- Male
- Female
- Transgender
- None of these

140. Just to confirm, you were assigned {insert from QError: Reference source not found} at birth and now you describe yourself as {insert from QError: Reference source not found}. Is that correct?

- Yes
- No
- Refused
- Don't know

139.

-
-
-
-
-

140.

-
-

141. What is your ethnicity? Select all that apply.

- Not of Hispanic, Latinx, or Spanish origin
- Mexican, Mexican American, Chicanx
- Puerto Rican
- Cuban
- Another Hispanic, Latinx, or Spanish origin

142. What is your race? Please select all that apply.

- African American/African/Black
- American Indian/Alaska Native
-
- Arab/Middle Eastern
- Caucasian/European/White
- East Asian (e.g., Chinese, Japanese, Korean)
- Southeast Asian (e.g., Cambodian, Vietnamese, Hmong, Filipino)
- South Asian (e.g., Indian, Pakistani, Nepalese, Sri Lankan)
- Other Asian
- Native Hawaiian/Pacific Islander
-

143. Have you ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?

- Never served in the military
- Only on active duty for training in the Reserves or National Guard
- Now on active duty
- On active duty in the past, but not now

144. What is your citizenship status?

- U.S. citizen or permanent resident (includes dual-citizenship)
- Non-U.S. citizen with temporary visa
- Other non-U.S. citizen

[If Q144. is NOT "U.S. citizen or permanent resident (includes dual-citizenship)"]

145. Of which country are you a citizen?

[Drop down list of countries]

146. In which year were you born?

[Drop down list of years]

147. Which of the following best describes your sexual orientation?

- Heterosexual
- Homosexual
- Bisexual
- Asexual
- Something else
- I don't know

148. What type of disability do you have? Select all that apply.

- I do not have a disability
- Attention deficit
- Auditory disability
- Autism spectrum disorder
- Blind or visually impaired (does not include near/far sightedness)
- Health-related disability

- Learning disability
- Mental health disability
- Mobility or orthopedic disability
- Speech or language disorder
- Something else

149. What is the highest level of education attained by your any of your parent(s)/guardian(s)?

- Less than high school
- High school graduate or GED
- Some college (no degree earned)
- Associate's degree
- Bachelor's degree
- Master's degree
- Doctoral degree
- I don't know

150. Do any of your parent(s)/guardian(s) currently have, or have held, a career related to the following fields:

- Computer science/Information Technology
- Engineering
- Mathematics
- Any other STEM fields
- Yes
- No
- I don't know

151.Raffle Opt-in

If you are interested in being entered in a raffle to win [TBD], please provide your email address. The email you provide will only be used to contact you if your name is drawn for the prize; it will not be used for any other purpose.

Raffle email address:

152.Update Contact Information

Thank you for completing our survey!

We contacted you with this email address: [INSERT EMAIL ADDRESS]. Is this still your primary email address?

If not, please consider updating your email address with us below:

Update primary email address:

153.Follow-up Permission

We would like to follow up with you in the future regarding your career progression. You would receive an online survey similar to this one. If you would like to participate, please provide us with your email address so that we can contact you in the future. Your participation will help inform the computing community about how people make decisions regarding computing careers.

For information on how we will protect your privacy, please read our privacy policy.
[Privacy policy linked in-text].

We would prefer a primary email address and a secondary email address as a backup.

Primary email address that you expect to stay active long-term:

Secondary email address:

[end survey]