

Undergraduate & Post-Undergraduate Experiences Follow-Up Survey [REU Program Follow-up Survey] NON-DEGREE STUDENT VERSION

Thank you for taking part in the Computing Research Association's (CRA's) Undergraduate Experiences Survey [REU Program Survey]! The survey should take no more than 20 minutes of your time to complete. This survey works best with Google Chrome.

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.

1. Are you currently a student?

- Yes, I am currently an **undergraduate student** [If selected, go to undergraduate student survey]
- Yes, I am currently a **graduate student** [If selected, go to graduate student survey]
- Yes, I am currently a **non-degree earning student** (e.g., taking courses only, certificate program, bootcamps, etc.)
- No, I am NOT currently a student [If selected, go to non-student survey]

DEFINITION TO RESPONDENT:

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

NON-DEGREE STUDENT: EDUCATIONAL PROGRAM

2. Please select the institution that you are currently attending from the list below. If you do not see your

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institution on the list, scroll to the bottom of the list and select 'Other'.
[List of institutions]

[If Other is selected]

3. Please list the name of the institution that you are currently attending below.:

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

- Post-baccalaureate certificate program [Go to Q9.]
- Graduate certificate program [Go to Q9.]
- Code School, Data Bootcamp, etc. [Go to Q9.]
- MOOC or series of MOOCs
- Taking courses for a specific skill or interest
- Other; please specify: _____ [Go to Q9.]

[Display question if Q4. is "MOOC or series of MOOCs" or "Taking courses for a specific skill or interest"]

5. Which of the following apply to the courses you are taking?

- Computing related
- Introductory level
- General studies
- Prerequisite for something else
- Skills development
- Includes certificate upon completion
- None of the above [Exclusive answer]

[Answer section here if MOOC or taking courses for a specific skill; otherwise answer later in survey]

EDUCATIONAL FINANCING

6. How are you paying for your education? Please select all that apply.

- Federal student loans
- State student loans
- Private student loans
- Credit (e.g., personal loans, credit cards, etc.)
- Personal savings
- Scholarship, fellowship, grant, or other aid – NOT to be repaid
- Research assistantship
- Teaching assistantship
- Full-time work
- Part-time work
- Employer support (e.g., vocational rehabilitation, tuition benefits, etc.)
- Military/Veterans benefits/assistance
- Family support (e.g., spouse/partner, parents, etc.) – to be repaid
- Family support (e.g., spouse/partner, parents, etc.) – NOT to be repaid
- Other

7. Are you receiving a stipend from your institution?

- Yes, I am receiving a stipend
- No, I am not

[Display if Q7. is "Yes, I am receiving a stipend"]

8. 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 EMPLOYMENT STATUS

9. What is your **current** employment status? Select all that apply.
- I have a full-time job
 - I have a part-time job
 - I work as an independent consultant or similar role
 - None of the above [Exclusive answer; Go to section "Completed Education"]

[Display if Q9. is "I have a full-time job" AND "I have a part-time job"]

You indicated you are employed both full-time and part-time.

In the next section, we will ask about your career as it relates to only one position. Think about the job you consider to be your primary position and answer the following questions

10. Which career level best describes your current position?
- Entry level
 - Mid-level
 - Senior level
 - Executive level
11. 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 fields]

[Display question if a non-computing field is selected]

12. Based on your responses, you work in a non-computing field.
Which of the following reasons below best explain why you do not currently work 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
 - There is nothing available in my field of interest
 - I am not interested in working in a computing related job
 - Jobs in computing are too stressful
 - I am experiencing a two-body problem, which currently inhibits my ability to work in computing
 - 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 in the job market for a computing job
 - Other; please specify: _____

13. How long have you been at your current **place of employment**? Please use numerical values only.

- Years: _____
- Months: _____

14. How many times have you **been promoted or changed your position** at your current place of employment?

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

[Display if Q14. is NOT "Never"]

15. In the previous question, you indicated you have been promoted at least once.

How long have you been in your **current position** at your current place of employment? Please use numerical values only.

- Years: _____
- Months: _____

16. In which setting do you currently work?

- Academia, PhD granting institution
- Academia, non-PhD granting institution
- Industry
- Government (includes national labs)
- Other

[Display if Q16. is "Academia, PhD granting..." OR "Academia, Non-PhD granting..."]

17. Are you tenured or tenure track?

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

18. 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/Leadership
- Administrative tasks
- Advising
- Technical
- Analytical
- Management
- Skilled labor
- Developer
- Operations
- Other

[Display Q19.-Q20. if Q16. is "Academia, PhD granting..." OR "Academia, Non-PhD granting..."]

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

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

20. Which of the following apply to your academic position? Select all that apply.

- Received distinction or endowment
- Associate department chair
- Department chair
- Faculty director
- Associate faculty director
- Director of a center
- None of the above [Exclusive answer]

[Display if Q16. is NOT "Academia..." OR Q19. is NOT a professor]

21. What is your job title? _____

[Display if Q9. is "I have a full-time job" OR "I have a part-time job"]

JOB SALARY AND COMMITMENT

22. Which of the following apply to your current position? Select all that apply.

- I received a signing bonus
- I received a start-up package
- I received relocation funds
- I have received at least one raise
- I relocated to a new area for my job
- My position is a postdoctoral position
- I manage or supervise other staff
- I have professional development opportunities
- I have a flexible schedule with options for working from home
- None of the above [Exclusive answer]

[Display question if Q22. "I relocated to a new area for my job" is selected]

23. To which country/location did you relocate for your current position?

Note: The list below is taken from the US State Department List of Countries & Regions. If you are relocating within your same country, please select that country.

[List of countries]

24. What is your annual salary (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.

▼ \$0 (23) ... More than \$150,000 (22)

25. How difficult or easy is it to cover your basic expenses on your current salary?

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

26. How much do you feel you deserve to be paid relative to the amount of work expected of you for your current position?

- Deserve a lot less
- Deserve a little less
- Deserve neither less nor more
- Deserve a little more
- Deserve a lot more

27. How committed are you to your current position?

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

[Display if Q9. is "I have a full-time job" OR "I have a part-time job"]

JOB PERSISTENCE

28. How often have you considered leaving your current position?

- Never [Skip to section "Completed Education"]
- Once or twice
- Occasionally
- Often
- All of the time

29. Why did you consider leaving? Choose up to 3 responses.

- I was interested in trying different types of work
- I was having trouble advancing in my current position
- I was looking for better career prospects
- I was looking for educational advancements
- I was not making enough money for the job I was doing
- I had negative experiences in my workplace
- I did not like my supervisor/boss
- I had personal reasons (e.g., family responsibilities, etc.)
- Other; please specify: _____

30. What helped you continue when you were contemplating leaving? Choose up to 3 responses.

- My family encouraged/supported me

- I enjoyed the work
- I found a better supervisor/boss
- My friends encouraged/supported me
- The pay was good
- My mentor(s) encouraged/supported me
- I was not able to find a better option
- I need the job
- I have grant considerations
- My advisees are here
- My benefits are good
- Other; please specify: _____

COMPLETED EDUCATION

31. What is your highest level of completed education?

- Some college (no degree earned)
- Associate's degree
- Bachelor's degree
- Master's degree
- Doctoral degree

32. How long has it been since you completed your highest level of education?

- Less than 1 year
- 1 - 5 years
- More than 5 years

[Display if Q31. is "Some college (no degree earned)"]

You indicated you have at least some college experience. We would like to ask about your pre-college experience (i.e., prior to entering some type of undergraduate/postsecondary program).

[Display if Q31. is "Associate's degree"]

You indicated you have an Associate's degree. We would like to ask about your experience prior to entering your undergraduate level Associate's degree.

[Display section if Q31. is NOT "Associate's degree"]

COMMUNITY COLLEGE EXPERIENCE

33. Which of the following applies to you? Select all that apply.

- I have taken courses for credit at a community college
- I have completed a degree or certificate at a community college
- None of the above [Exclusive answer]

[Display if Q33. is "I have completed a degree or certificate at a community college"]

34. In the previous question, you indicated that you completed a degree or certificate at a community college.

What did you earn from community college? Select all that apply.

- Associate's degree
- A certification (not a degree)
- Something different

[Display section if Q31. is "Associate's degree" OR Q34. is "Associate's degree"]

ASSOCIATE'S DEGREE INFORMATION

35. 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]

[Display if Q35. is "Other"]

36. Please list the name of the institution at which you earned your most recent **associate's degree**. Please avoid acronyms.

37. What was your field of study for your most recent associate's degree? Choose up to 2 responses if you had a double-major.

Note: If you do not see your exact program name, please select the option(s) most closely related.

[List of fields]

38. In which year did you earn your most recent associate's degree?

[List of years]

[Display section if Q31. is "Bachelor's degree", "Master's degree", OR "Doctoral degree"]

BACHELOR'S DEGREE INFORMATION

39. 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]

[Display if selected Q39.: Other]

40. Please list the name of the institution at which you earned your most recent **undergraduate degree**?

41. In which year did you earn your most recent **undergraduate degree**?

[List of years]

42. What was your **undergraduate major** in college for your most recent undergraduate degree? Choose up to 2 responses if you had a double major.

Note: If you do not see your exact program name, please select the option(s) most closely related.

[List of majors]

REU UNDERGRADUATES EXPERIENCES

REU PROMPT (Questions 43. through 46. are for COMPARISON GROUP PARTICIPANTS ONLY)

The next set of questions will focus on your previous **formal research experience as an undergraduate student** (i.e., REU). Formal research 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.

43. During your **undergraduate program**, which of the following experiences were you involved in that were NOT part of a formal REU?

- Independent research projects
- Course-based research projects
- Internships or co-ops
- Research Assistant
- None of the above

44. During your **undergraduate program**, did you participate in any formal REUs?

Reminder: Formal REU includes any experience you applied for and through which you worked closely with a mentor or research advisor.

- Yes, I participated in at least one formal research experience as an undergraduate [Go to Q46.]
- No, I NEVER participated in a formal research experience as an undergraduate [Answer Q45.; skip to PRE-GRADUATE SCHOOL JOB EXPERIENCE section]

[If Q44. is “No, I never...”]

45. Which of the following reasons explain why you did not participate in a formal research experience?

Choose up to 3 responses.

- I was not aware of research opportunities available to me
- I didn't have time
- It never occurred to me to do research
- I was not interested in doing research
- I preferred more practical experiences such as internships
- It didn't pay well enough or not at all
- Other; please specify: _____

[If Q44. is “Yes...”]

46. 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: _____

[Answer the section below (PAST REU INFORMATION) if Q44. is “Yes...”]

PAST REU INFORMATION (COMPARISON GROUP)

47. During your undergraduate program, how many formal REUs did you complete?

- 1
- 2
- 3
- 4 or more

[Repeat Q48. – Q57. for each REU]

48. In which year did your [first/second/third/fourth] formal REU start?
[List of years]

49. Was this REU funded by NSF?

- Yes [answer next question]
- No [skip to Q52.]
- I do not know [skip to Q52.]

50. Please indicate the NSF program in which you participated. Select all that apply.

- Research Experiences for Undergraduates (REU)
- Louis Stokes Alliance for Minority Participation
- Research Experiences for Teachers
- Other: please specify

51. [If Q50. = "REU"] Was this an REU Site or REU Supplement?

- REU Site (typically involves working with a group of 10 or so other undergraduates at a university other than one's undergraduate institution)
- REU Supplement (typically working individually or with one other student on a PI's funded project, usually at one's undergraduate institution)
- Don't know

52. When and where did your formal REU take place?

{Academic Year; Summer}

- 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

[If "At another college or university"]

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

[If "At a company..."]

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

55. Which of the following apply to this REU?

- 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 had a dedicated space to do your work
- You could attend professional development seminars (including grad school advice)
- You could attend technical seminars
- You received one-on-one advising from my faculty mentor
- You met peers with whom you have kept in touch
- I don't remember [Exclusive answer]
- None of the above [Exclusive answer]

[Answer Q56. - 57. if received a stipend]

56. You indicated that you received a stipend for this REU. How much do you feel you deserved to be paid relative to the amount of work expected of you during this REU?

- Deserved a lot less
- Deserved a little less
- Deserved neither less nor more
- Deserved a little more
- Deserved a lot more

57. 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

REU PROMPT (Questions 58. through 67. are for NSF REU PARTICIPANTS ONLY)

The next set of questions will focus on your previous **formal research experiences as an undergraduate student** (i.e., REU). Formal research 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.

58. During your **undergraduate program**, which of the following experiences were you involved in that were NOT part of a formal REU?

- Independent research projects
- Course-based research projects
- Internships or co-ops
- Research Assistant
- None of the above

Now we would like to ask about your NSF REU experience that you participated in from [insert start date] to [insert end date].

59. How often are you in touch with the following people from this 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

60. Which of the following happened after this REU experience? Please select all that apply.

- You received an NSF-funded stipend to continue working on this REU project for additional semesters/quarters
- You had an opportunity to continue research with the REU faculty as an intern or in a non-NSF-funded paid position when your REU ended
- You developed a new research project based on your work in this REU
- You began working with another research group based on your REU work
- You submitted a research paper or poster to a conference based on your REU
- You presented a research paper or poster at a conference based on your REU
- You contributed to a research article with your peers and PI from your REU
- You published your research from your REU

61. In what way did this 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

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

(Less interested, More interested, No impact)

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

63. Since completing this REU(s), have you ever worked on an REU in a supervisory or mentoring role?

- Yes
- No

[Display Q64.-66. if Q9. is "I have a full-time job" or "I have a part-time job"]

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

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

65. To what degree did this REU influence your career pathway?

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

66. To what degree did this 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

67. After [insert end date of REU], did you participate in any additional formal REUs 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.

If your NSF REU extended beyond the term listed above, please answer "Yes."

- Yes, I participated in at least one formal undergraduate research experience after that time. [\[Go to Q69.\]](#)
- No, I did not participate in another formal undergraduate research experience after that time. [\(Go to Q68.\)](#)

[\[If Q67. is "No..."\]](#)

68. Which of the following reasons explain why you did not participate in another formal research experience? Choose up to 3 responses.

- I was close to graduating
- I was not aware of research opportunities available to me
- I didn't have time
- It never occurred to me to do more research
- I was not interested in doing research
- I preferred more practical experiences such as internships
- It didn't pay well enough or not at all
- Other; please specify: _____

[\[If Q67. is "Yes..."\]](#)

69. Which of the following reasons best explain your motivations to participate in another 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: _____

[Answer the section below (PAST REU INFORMATION) if Q67. is “Yes...”]

PAST REU INFORMATION (NSF REU PARTICIPANTS)

70. Since your NSF REU that you participated in from [insert start date] to [insert end date], how many additional formal REUs did you complete? Reminder – If you participated in your NSF REU for additional terms, please include this in your count below.

- 1
- 2
- 3
- 4 or more

[Repeat Q71. – Q80. for each REU]

71. In which year did your [first/second/third/fourth] formal REU start?
[List of years]

72. Was this REU funded by NSF?

- Yes [answer next question]
- No [skip to Q75.]
- I do not know [skip to Q75.]

73. Please indicate the NSF program in which you participated. Select all that apply.

- Research Experiences for Undergraduates (REU)
- Louis Stokes Alliance for Minority Participation
- Research Experiences for Teachers
- Other: please specify

74. [If Q73. = “REU”] Was this an REU Site or REU Supplement?

- REU Site (typically involves working with a group of 10 or so other undergraduates at a university other than one’s undergraduate institution)
- REU Supplement (typically working individually or with one other student on a PI’s funded project, usually at one’s undergraduate institution)
- Don’t know

75. When and where did your formal REU take place?

{Academic Year; Summer}

- 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

[If “At another college or university”]

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

[If “At a company...”]

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

78. Which of the following apply to this REU?

- 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 had a dedicated space to do your work
- You could attend professional development seminars (including grad school advice)
- You could attend technical seminars
- You received one-on-one advising from my faculty mentor
- You met peers with whom you have kept in touch
- I don't remember [Exclusive answer]
- None of the above [Exclusive answer]

[Answer Q79. - 80. if received a stipend]

79. You indicated that you received a stipend for this REU. How much do you feel you deserved to be paid relative to the amount of work expected of you during this REU?

- Deserved a lot less
- Deserved a little less
- Deserved neither less nor more
- Deserved a little more
- Deserved a lot more

80. 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

[Display section if Q31. is "Master's degree" OR "Doctoral degree"]

PRE-GRADUATE SCHOOL JOB EXPERIENCE

81. How many jobs did you have after you graduated from your undergraduate studies, but before you began your graduate studies?

- 0
- 1
- 2
- More than 2

[Display if Q81. is NOT "0"]

82. Which of the following apply to the job(s) you had after you graduated from your undergraduate studies, but before you began your graduate studies? Select all that apply

- Computing related
- Research focused
- Industry position
- Academic position
- None of the above [Exclusive answer]

[Display section if Q31. is "Doctoral degree"]

DOCTORAL STUDENTS/HOLDERS: EARN TERMINAL MASTER'S DEGREE?

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

Note: A terminal master's degree program is a program to which you applied to earn a master's degree only. You would have graduated and finished the program with a master's degree.

- Yes, I completed a terminal master's program
- No, I did not complete a terminal master's program

[Display if Q83. is "Yes..."]

84. Which of the following help explain why you decided to pursue a doctoral program after completing a terminal master's program? Select all that apply

- 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 specify: _____

[Display if Q31. is "Master's degree OR "Doctoral degree"
AND Q83. is "Yes, I have completed a terminal master's program"]

MASTER'S DEGREE INFORMATION

85. At which institution did you earn your most recent terminal **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]

[Display if Q85. is "Other"]

86. Please list the name of the institution at which you earned your most recent terminal **master's degree**?

87. In which year did you earn your most recent terminal **master's degree**?

[List of years]

88. In which field did you earn your **terminal master's degree**? Choose up to 2 responses.

Note: If you do not see your exact field, please select the option(s) most closely related.

[List of fields]

89. Before you earned your master's degree, did you complete any of the following?

- A master's thesis
- A capstone project (not your thesis)
- An independent research project (not your thesis or capstone)
- A teaching assistantship
- A research assistantship
- An internship
- None of the above **[Exclusive answer]**

[Display if Post-baccalaureate, graduate certificate, or code school/bootcamp student]

CURRENT PROGRAM DETAILS

Now, we would like to ask about your experiences in your **current program**.

The following questions will ask about the academic institution in which you are currently enrolled. Although you are a non-degree earning student, you are probably taking courses affiliated with an academic institution. Think about your current affiliation and answer the following questions to the best of your ability.

* If you are in a **Code School, Bootcamp, or related program outside of a university**, please think of your "institution" and/or "department" as the entity that runs your program.

90. Which of the following applies to you? Select all that apply.

- I temporarily withdrew from my current institution due to economic hardships.
- I temporarily withdrew from my current institution for reasons not related to economic hardships.
- None of the above **[Exclusive answer]**

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

[List of years]

[Display Q92.-93. if Q5. is NOT "Taking courses for a specific skill or interest"]

92. 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"]

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

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

[Display if Post-baccalaureate, graduate certificate, or code school/bootcamp student – MOOC/taking courses]

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students answer earlier]

EDUCATIONAL FINANCING

94. How are you paying for your education? Please select all that apply.

- Federal student loans
- State student loans
- Private student loans
- Credit (e.g., personal loans, credit cards, etc.)
- Personal savings
- Scholarship, fellowship, grant, or other aid – NOT to be repaid
- Research assistantship
- Teaching assistantship
- Full-time work
- Part-time work
- Employer support (e.g., vocational rehabilitation, tuition benefits, etc.)
- Military/Veterans benefits/assistance
- Family support (e.g., spouse/partner, parents, etc.) – to be repaid
- Family support (e.g., spouse/partner, parents, etc.) – NOT to be repaid
- Other

95. Are you receiving a stipend from your institution?

- Yes, I am receiving a stipend
- No, I am not

[Display if Q95. is "Yes, I am receiving a stipend"]

96. 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

[Display section if Post-baccalaureate, graduate certificate, or code school/bootcamp student]

GRADUATE PROGRAM INFORMATION

97. What is your enrollment status for your current program?

- Full-time student
- Part-time student

98. In which field is your current 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]

[If Q98. is "Other computing & technology field" OR "Other Engineering field" OR "Other field"]

99. In the previous question, you selected either "Other computing & technology field" or "Other Engineering field" or "Other field".

Please specify your program in the space below:

[If Q98. is a computer science, technology, or engineering field]

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

- No specialty [Exclusive answer]
- Artificial Intelligence
- Computer-Supported Cooperative Work
- 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
- Operating Research
- Programming Languages/Compilers
- Robotics/Vision
- Scientific/Numerical Computing
- Security/Information Assurance
- Social Computing/Social Informatics
- Software Engineering
- Theory and Algorithms
- Other; please specify: _____

101. Why did you choose your program? Choose up to 3 responses.

- I like learning about this field
- My friends are enrolled in this program
- The courses required of this program are interesting
- Professors/faculty at my institution influenced my decision
- The program will allow me to make an impact on society
- The job market for this field is promising
- I want to pursue research in this field
- This program will enable me to make a lot of money
- My family influenced my decision
- I will be successful completing the coursework required of this program
- I aspire to make a difference in this field
- I wanted to change fields
- Other; Please specify: _____

102. How committed are you to completing your current program?

- Not at all committed
- Slightly committed

- Moderately committed
- Quite committed
- Extremely committed

[Display if Post-baccalaureate, graduate certificate, or code school/bootcamp student]

PERSISTENCE

103. During your studies at your current institution, how often have you considered leaving your program before completing it?

- Never [Skip to section "Perceptions of Department and Institution"]
- Rarely
- Occasionally
- Often
- All of the time

104. Why did you consider leaving your current program? Choose up to 3 responses.

- The courses were difficult
- The math requirements were too hard
- I was interested in trying something new
- I did not like the course material
- I was having trouble passing my courses
- I did not have any friends in the major
- The professors were not supportive
- I felt isolated in my program
- The department did not make me feel welcome
- I experienced health issues that inhibited my ability to feel/be successful
- I was considering a job
- Other; please specify: _____

105. What helped you continue in your current program when you were contemplating leaving? Choose up to 3 responses.

- My family encouraged/supported me
- My friends encouraged/supported me
- Professors/faculty encouraged/supported me
- I had already invested too much time and resources
- I liked the field of study
- The job market is promising
- Other; please specify: _____

[Display section if Post-baccalaureate, graduate certificate, or code school/bootcamp student]

PERCEPTIONS OF DEPARTMENT AND INSTITUTION

Next, we would like to ask about your perceptions of the computing program at your institution. The following questions relate to the courses and people within the computing program at your institution.

Note: If you are in a Code School, Bootcamp, or related program, please think of your "institution" and "department" as the entity that runs your program.

106. Please indicate the extent to which you disagree or agree with the following statement:

{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}

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- Overall, I am satisfied with the computing program at my institution.

107. How often do you receive the following from **other students** at your institution:

{Never; Rarely; Occasionally; Often; All of the time}

- Help and support
- Willingness to listen to issues you are having in your program
- Helpful feedback about your work
- Respect for your work and/or ideas
- Inclusion of your perspective on their work and/or ideas
- Opportunities to collaborate

108. Think about the **faculty, staff, administrators (e.g., the department chair, dean, staff)** in the computing department and rate the extent to which you disagree or agree with the following statements:

{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}

- The department cares about its students.
- The department is NOT very supportive of students.
- Computer science administrators and faculty care about diversity.

109. Think about the environment of the computing department as **a whole (including faculty, staff, administrators, and students)** and rate the extent to which you disagree or agree with the following statements:

{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}

- I feel a sense of community in the computing department.
- People in the department often attribute my success to special treatment or luck, rather than my competence.
- The environment in the computing department inspires me to do the best job that I can.
- My ideas or opinions are minimized or ignored.

110. Please provide any additional comments you have about your experiences in the computing department or in your current program.

[Display section if Post-baccalaureate, graduate certificate, or code school/bootcamp student]

ADVISOR QUESTIONS

An **academic advisor** is an individual, or group of people, that is responsible for helping you manage the requirements of your degree program and giving academic advice.

111. Do you have access to one or more academic advisors? Select all that apply.

- Yes, I have an academic advisor(s) affiliated with the **computing department**
- Yes, I have an academic advisor(s) affiliated with **another department**
- No, I do not have an advisor yet, but I know how to get one [Go to section "Current Students: Activities"]
- No, I do not have an advisor yet, and I do not know how to get one [Go to section "Current Students: Activities"]
- No, I do not have access to advisors as a non-degree student

[REU ONLY - If Q111. is "Yes, I have an academic advisor(s) affiliated with the computing department" or "Yes, I have an academic advisor(s) affiliated with another department"]

112. Is your academic advisor a former REU advisor?

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- Yes
 No

113. How dissatisfied or satisfied are you with the following?

{Very dissatisfied; Somewhat dissatisfied; Neither dissatisfied nor satisfied; Somewhat satisfied; Very satisfied}

- How often you meet with your advisor(s)
- The academic guidance your advisor(s) provides
- The career advice your advisor(s) provides
- How available your advisor(s) is to meet with you
- How supportive your advisor(s) is of your academic goal(s)

114. About how many times **per academic term** do you interact with academic advisor(s) for the following reasons?

{Never; Once; Two or three times; Four or more times}

- Course-related guidance
- Career advice
- Advice related to graduate school
- Other reason

RESEARCH SKILLS AND KNOWLEDGE

115. How would you rate your current skill level in each of the following:

{Poor/Fair/Good/Very good/Excellent}

- Generating hypotheses
- Using scientific methods to test a hypothesis
- Collaborating with colleagues
- Collecting data or conducting experiments
- Analyzing data with statistics or other tools

116. How would you rate your current skill level in each of the following:

{Poor/Fair/Good/Very good/Excellent}

- Summarizing published research results
- Explaining research results
- Writing or co-authoring a research paper or report
- Presenting a research paper or report
- Publishing a research paper or report

CURRENT STUDENTS: ACTIVITIES

117. How often have you been involved in the following during your current program?

{Never, Once, Two or three times, Four or more times}

- Visited lectures related to computing
- Mentored students
- Taught courses
- Led an independent research project

118. How often have you been involved in the following during your current program?

{Never, Once, Two or three times, Four or more times}

- Received study support in computing (e.g. received tutoring, supplemental instruction [SI])

- Provided study support in computing (i.e., provided tutoring, supplemental instruction [SI])
119. How often have you been involved in the following during your current program?
{Never, Once, Two or three times, Four or more times}
- Worked as a teaching assistant
 - Worked as a research assistant
 - Jobs related to computing (not as a TA or RA)
 - Internships related to computing
 - Entrepreneurial or consulting projects (e.g., tech start-ups, client services, etc.)
 - Independent computing projects (e.g., tinkering and technical skill building outside of your coursework)
120. How often have you been involved in the following during your current degree program?
{Never; Once; Two or three times; Four or more times}
- Computing-related contests (e.g., Hackathons, robotics competitions, programming competitions, etc.)
 - Computing-related online social networking (listservs, etc.)
 - Outreach to K-12 students related to computing
 - Involvement in efforts to broaden participation in computing
 - Computing-related student groups (e.g., technical organizations on campus, ACM student chapters, etc.)
 - Other student groups (e.g., Greek Life, volunteer groups, academic merit societies, etc.)
121. How often have you been involved in each of the following during your current degree program?
{Never; Once; Two or three times; Four or more times}
- Professional societies related to computing
 - Technical conferences related to computing
 - Career mentoring programs or workshops
 - Trainings or workshops in computing (other than conferences)
 - Summer institutes or short courses related to computing (other than summer research programs) (e.g., Google for Education Computer Science Summer Institute, online courses/MOOCs, etc.)
122. How often have you been involved in the following during your current degree program?
{Never; Once; Two or three times; Four or more times}
- Submitted a poster proposal to a conference
 - Presented a poster at a conference
 - Submitted a paper proposal to a conference
 - Had a paper accepted for publication in conference proceedings
 - Given an oral presentation at a conference
 - Submitted a paper for publication in a peer reviewed journal
 - Had a paper accepted for publication in a peer reviewed journal

DIVERSITY ACTIVITIES - STUDENTS

123. Have you participated in any of the following conferences or programs? Select all that apply.

Note: If you are not sure, click each link that will take you to a webpage to learn more. The webpage will open in a new window.

- ACM Richard Tapia Celebration of Diversity in Computing
- ACM Programming Languages Mentoring Workshops (PLMW)
- CRA-WP Career Mentoring Workshop for PhDs and Postdocs
- CRA-WP Early-career Mentoring Workshops

- CRA-WP Grad Cohort for Women
- CRA-WP Grad Cohort for Inclusion, Diversity, Equity, Accessibility, and Leadership Skills (IDEALS)
- Grace Hopper Celebration of Women in Computing
- STARS Computing Corps conference or workshops, or home team meetings
- Residential/Living Learning Community on campus
- Local events related to diversity in computing
- None of the above [**Exclusive answer**]

SKILLS PROFICIENCY

124. Please rate the degree of your proficiency (how skilled you are) in the following items:
{Highly deficient; Deficient; Average; Proficient; Highly proficient}

- Mentoring others
- Building/maintaining a professional network
- Dealing with conflict
- Providing constructive feedback

125. Please rate the degree of your proficiency (how skilled you are) in the following items:
{Highly deficient; Deficient; Average; Proficient; Highly proficient}

- Time management
- Speaking clearly and effectively
- Presenting research
- Planning and organizing projects
- Writing scientific papers

126. Please rate the degree of your proficiency (how skilled you are) in the following items:
{Highly deficient; Deficient; Average; Proficient; Highly proficient}

- Identifying career options
- Preparing job application materials
- Interviewing techniques
- Preparing your CV/resume
- Preparing graduate school application materials
- Identifying graduate school options

SCIENTIFIC IDENTITY

The following questions ask how you think about yourself and your personal identity. We want to understand how much you think that being a scientist is part of who you are.

127. How true of you are the following statements:

{Not at all true; A little true; Moderately true; Quite true; Extremely true}

- In general, being a scientist is an important part of my self-image.
- I have a strong sense of belonging to the community of scientists.
- Being a scientist is an important reflection of who I am.
- I have come to think of myself as a “scientist.”
- I am a scientist.

BELONGING

128. Please indicate the extent to which you agree or disagree with the following statements.

{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}

- I see myself as a “computing person”.

- I feel like I belong in computing.
- I feel like an outsider in computing.
- Computing is a big part of who I am.
- I feel welcomed in computing.
- I do not have much in common with the other students in my computing classes.

SELF-EFFICACY

129. Please indicate the extent to which you disagree or agree with the following statements:

Note: Even if you do not have experience with an item below, please rate your confidence in your ability to do so.

I am confident that I can...

{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}

- clearly communicate technical problems and solutions to a range of audiences.
- articulate thoughtful answers to questions about my work during a presentation.
- introduce myself to new peers/colleagues at professional meetings
- be a capable researcher in computing
- find employment in an area of computing interest.

130. Please indicate the extent to which you disagree or agree with the following statements:

Note: Even if you do not have experience with an item below, please rate your confidence in your ability to do so.

I am confident that I can...

{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}

- pass my computing courses.
- learn the foundations and concepts of computing.
- do well in a computing-related contest (e.g., programming contest, robotics contest, hackathon).
- quickly learn a new programming language on my own.
- contribute to a research project in computing.

[Display if Q31. is "Some college (no degree earned)", OR "Associate's degree"]

131. Please indicate the extent to which you disagree or agree with the following statements:

Note: Even if you do not have experience with an item below, please rate your confidence in your ability to do so.

I am confident that I can...

{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}

- complete an undergraduate degree in computing.
- get admitted to a graduate computing program.
- be successful in a graduate computing program.

[Display if Q31. is "Bachelor's degree"]

132. Please indicate the extent to which you disagree or agree with the following statements:

Note: Even if you do not have experience with an item below, please rate your confidence in your ability to do so.

I am confident that I can...

{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}

- get admitted to a graduate computing program.
- be successful in a graduate computing program.

[Display if Q9. is "I have a full-time job" OR "I have a part-time job"]

133. Please indicate the extent to which you disagree or agree with the following statements:

I am confident that I can...

{Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree}

- raise important issues in meetings.
- speak directly with my supervisor about issues at work.
- negotiate for resources (e.g., salary, lab space, equipment, etc.)

MENTOR SUPPORT

134. A **mentor** is someone with whom you have an ongoing relationship, and who provides you with advice and assistance in advancing in your career. To what extent do you have a mentor who...

{Not at all; A little; A moderate amount; Quite a bit; Very much}

- helps you improve your computing skills?
- helps you improve your research skills?
- helps you identify or develop your research interests?
- gives you insight into what graduate school is like?
- provides information or advice about applying for graduate school?
- shows compassion for any issues you discussed with them?
- shares personal experiences as an alternative perspective to your problems?

135. To what extent do you have a mentor who...

{Not at all; A little; A moderate amount; Quite a bit; Very much}

- explores career options with you?
- encourages you to do the best you can in your coursework?
- supports your research ideas?
- provides constructive feedback?

136. Among the people below, who do you consider to be a mentor? Select all that apply.

- My advisor
- A former REU mentor (display to REU participants only)
- A professor within my department (not my advisor)
- A professor outside of my department
- A director or administrative faculty
- A graduate student (includes graduate teaching/research assistants and student mentors)
- An undergraduate student (includes undergraduate teaching/research assistants and student mentors)
- Someone I met at a conference or mentoring program sponsored by an outside organization (or other professional activity)
- A family member, partner, friend, religious leader, or someone else with whom I have a personal relationship
- A co-worker, supervisor, or someone else with whom I have a professional relationship
- Someone else
- No one [Exclusive answer]

PROFESSIONAL NETWORK

137. To what extent is each of the following available to you at this point?

{Not at all; A little; A moderate amount; Quite a bit; Very much}

- A strong network of peers to interact with at conferences.
- A strong network of mentors to interact with at conferences.

- People with whom you can discuss graduate school opportunities.
- People who would be excited to learn about your professional successes.
- People with whom you can discuss issues you are having.
- People with whom you can ask questions related to your professional development.

ENTITY BELIEFS

138. Please indicate the extent to which you disagree or agree with the following statements:
{Strongly disagree; Somewhat disagree; Neither disagree nor agree; Somewhat agree; Strongly agree}
- People have a certain amount of ability to learn computing, and they really can't do much to change it.
 - Anyone has the ability to learn computing and be good at it.
 - Computing comes naturally to some people but not others.
 - Not everyone is well-suited for computing.

IMPOSTER SYNDROME

139. In your opinion, to what extent are each of the following statements **true of you**:
{Not at all true; A little true; Moderately true; Quite true; Extremely true}
- I can give the impression that I'm more competent than I really am.
 - When others praise me for something I have accomplished, I am afraid I will not be able to live up to their expectations of me in the future.
 - At times, I feel my success has been due to some kind of luck.
 - At times, I am disappointed in my present accomplishments and think I should have accomplished much more by now.

INTEREST IN COMPUTING RESEARCH

The following questions ask about your interests in and knowledge about future computing research pathways.

140. What is your current level of interest in the following:
{Not at all interested/Slightly interested/Moderately interested/Quite interested/Extremely interested}
- Conducting research as a graduate student
 - Learning more about computing
 - Pursuing a master's degree in a computing field
 - Pursuing a doctoral degree in a computing field
 - Pursuing a research career
 - Pursuing a non-research career
 - Mentoring others on a future REU project

141. How likely is it that you will enroll in a terminal master's program in a computing field?
- Not at all likely
 - Slightly likely
 - Moderately likely
 - Quite likely
 - Extremely likely

142. How likely is it that you will enroll in a doctoral program in a computing field?
- Not at all likely
 - Slightly likely
 - Moderately likely

- Quite likely
- Extremely likely

143. How much do you feel you know about the following:
{Nothing, a little, a moderate amount, quite a bit, a lot}

- What to look for in a graduate research advisor
- The research areas you would pursue in graduate school
- What graduate admissions committees look for in an applicant
- How to choose graduate programs that are a good fit for you
- What being a graduate student would be like

144. How much do you feel you know about the following:
{Nothing, a little, a moderate amount, quite a bit, a lot}

- Career options in computing
- Career options in research
- What it would be like to work in academia

FUTURE PLANS AND ASPIRATIONS PROMPT

Now, we would like to ask you about your future plans and career aspirations.

HIGHEST DEGREE ASPIRATIONS

[Display if NOT selected Q31.: Doctoral degree]

145. What is the highest degree you plan to attain? Note: Even if you are not sure yet, please select the degree you would like to attain if you could.

- I have already earned the highest degree I plan to attain
- High school degree
- Technical certificate
- Associate's degree
- Bachelor's degree
- Graduate certificate
- Master's degree
- Doctoral degree

146. In which field do you intend to earn your highest degree? Choose up to 2 responses.

Note: If you do not see your exact field, please select the option most closely related. Even if you are unsure about your highest degree plans, please select the field in which you would attain that degree in if you were to pursue it.

[List of fields]

FUTURE PLANS PROMPT

[Display if Q4. is "Post-baccalaureate certificate program", "Graduate certificate program", OR "Code School, Data Bootcamp, etc"]

At this point in your career, what are your

147. After you complete your current program, what are your plans after graduation? Choose up to 2 responses.

- Go back to school
- Start working (includes internship, full/part time work, postdoc, etc.)
- Change employers [Display if Q9. is NOT "None of the above"]

- Continue working in my same job [Display if Q9. is NOT "None of the above"]
- Move up the career ladder with my employer [Display if Q9. is NOT "None of the above"]
- Create a start-up
- Take a break from work and school
- Traveling
- Another plan
- I don't know at all [Exclusive answer]

[Display if Q4. is NOT "Post-baccalaureate certificate program", "Graduate certificate program", OR "Code School, Data Bootcamp, etc"]

148. At this point in your career, what are your plans moving forward? Choose up to 2 responses.

- Go back to school
- Start working (includes internship, full/part time work, postdoc, etc.)
- Continue working in my same job [Display if Q9. is NOT "None of the above"]
- Move up the career ladder with my employer [Display if Q9. is NOT "None of the above"]
- Change employers [Display if Q9. is NOT "None of the above"]
- Create a start up
- Other
- I don't know at all [Exclusive answer]

[Display section if Q147. is "Start working" AND student graduating in current or subsequent year]

FUTURE PLANS -START WORKING

149. Which of the following steps, if any, have you taken in the job search process? Select all that apply.

- Met with someone from my institution's career services
- Exploring my options
- Applied for jobs
- Interviewed for jobs
- Received a job offer
- Negotiated a job offer
- Accepted a full-time job offer
- Accepted a part-time job offer
- None of the above [Exclusive answer]

[Display if "Received a job offer"]

150. How many job offers have you received since starting the job search process? (Please use numerical values only.)

[Display section if Q149. is "Accepted a ... offer"]

FUTURE PLANS – WORKING, ACCEPTED A JOB OFFER

We would like to ask you some questions about the job offer you accepted.

151. How best would you describe your new job?

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

152. To which field is your new job most closely related? Choose up to 2 responses.

Note: If you do not see your exact field, please select the option(s) most closely related.

[List of fields]

153. In what setting is your new job?

- Academia, PhD-granting institution
- Academia, non-PhD-granting institution
- Industry
- Government (includes national labs)
- Other

154. What is the focus of your new job? Select up to 2 responses.

- Research
- Teaching
- Administration/Leadership
- Technical
- Administrative
- Analytical
- Management
- Skilled labor
- Developer
- Operations
- Other

155. What is your job title? (50 character limit): _____

156. What is the starting annual salary (in US dollars) for your job?

▼ \$0 (23) ... More than \$150,000 (22)

157. Which of the following apply to your new job?

- I received a signing bonus
- I received relocation funds
- I will relocate to a new area for my job
- I will be managing or supervising other staff
- None of the above [Exclusive answer]

[If Q is "I will relocate to a new area for my job"]

158. To which country/location are you relocating for your job? If you are relocating within the same country, please select that country.

▼ Afghanistan (1) ... Zimbabwe (1357)

[Display section if Q147. is "Go back to school"]

FUTURE PLANS: GRAD SCHOOL, ATTENDING OR APPLYING

You indicated your plans and/or goals for your future include going back to school.

159. Where are you in the application process for going back to school? Select all that apply.

- Exploring my options
- Preparing applications
- Submitting applications
- Received waitlist notifications
- Received acceptance letters
- Accepted an offer from a program to which I applied
- None of the above [Exclusive answer]

[If Q is "Received waitlist notifications"]

160. How many waitlist notifications did you receive? (Numbers only) _____

[If Q is "Received acceptance letters"]

161. How many acceptance letters did you receive? (Numbers only) _____

[Display section if Q is "Preparing applications" or "Submitting applications"]

FUTURE PLANS: PREPARING AND SUBMITTING APPLICATIONS TO GO BACK TO SCHOOL

162. To which type of program are you applying to go back to school? Select all that apply.

- Certificate programs
- Associate's programs
- Bachelor's programs
- Master's programs
- Doctoral programs
- None of the above [Exclusive answer]

163. Are you applying for on campus or online programs? Select all that apply.

Note: Please do not include temporary circumstantial changes to program formats due to the novel coronavirus (COVID-19).

- On campus only
- Online only
- Primarily on campus, but some courses are online
- Primarily online, but some courses are on campus

164. In which fields are you applying, or have you applied, for your future program? Select all that apply.

Note: If you do not see your exact field, please select the option(s) most closely related.

[List of fields]

[Display section if Q is "Accepted an offer..."]

FUTURE PLANS - GRAD SCHOOL, ACCEPTED OFFER

165. From which program did you accept an offer?

- Certificate program
- Associate's program
- Bachelor's program
- Master's program
- Doctoral program
- Other

166. In which field will your program be? Choose up to 2 responses.

Note: If you do not see your exact field, please select the option(s) most closely related.

[List of fields]

167. Will your program be full time or part time?

- Full time
- Part time
- Non-degree earning student

168. Is your program on campus or online?

Note: Please do not include temporary circumstantial changes to program formats due to the novel coronavirus (COVID-19).

- On campus only
- Online only
- Primarily on campus, but taking some online courses
- Primarily online, but taking some courses on campus

169. Will you have to relocate to a new geographic location for your program?

- Yes, I am relocating within the United States
- Yes, I am relocating to a country outside of the United States.
- No, I am not relocating.

[If Q169. is "Yes, I am relocating to a country outside of the United States"]

170. To which country/location are you relocating for your program?

Note: The list below is taken from the US State Department List of Countries & Regions. If you are locating within your same country, please select that country.

[List of countries]

FUTURE PLANS : WHY NOT GO BACK TO SCHOOL?

[Displayed if Question 31. is NOT "Doctoral degree" AND Question 147. is NOT "Go back to school"]

171. We are interested in why your future plans do not include going back to school after you finish your current program.

Why are you not planning to go back to school? Choose up to 3 responses.

- I have personal and/or family obligations
- I do not feel academically prepared
- I am worried about financial support
- I want to take a break from school
- I am considering a job
- It takes too long to complete
- I do not see the value in it
- I think school is too difficult
- I am not interested in getting another degree
- I have already earned the highest degree I plan to attain
- I am currently earning the highest degree I plan to attain
- I had not considered it
- Other; please specify: _____

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

- Not at all

- A little
- Moderately
- Quite a bit
- Extremely

GENERAL JOB INTEREST

173. How interested are you in having the types of jobs listed below?

{Very uninterested; Somewhat uninterested; Neither uninterested nor interested; Somewhat interested; Very interested}

- College or university professor in computing field (**teaching focused**)
- College or university professor in computing field (**research focused**)
- K-12 computing teacher
- Computing researcher in industry
- Computing researcher in a government lab or agency

174. How interested are you in having the types of jobs listed below?

{Very uninterested; Somewhat uninterested; Neither uninterested nor interested; Somewhat interested; Very interested}

- A non-research computing position in industry (e.g., software engineer)
- A non-research computing position in government
- Entrepreneur (computing related; e.g., individual contractor; build a start-up)
- Non-computing career

SPECIFIC CAREER INTERESTS

175. For your future career, in which setting would you like to work **the most**?

- Academia
- Industry
- Government (includes national labs)
- Self-employment
- Something else

176. How likely will your future career have a **computing-related** focus?

- Extremely unlikely
- Somewhat unlikely
- Neither unlikely nor likely
- Somewhat likely
- Extremely likely

177. How likely will your future career have a **research** focus?

- Extremely unlikely
- Somewhat unlikely
- Neither unlikely nor likely
- Somewhat likely
- Extremely likely

[Display if Q171. is NOT "I have already earned the highest degree I plan to attain"]

178. What job title would you like to have after you finish your highest degree? If you are uncertain, you are welcome to enter a job title that interests you the most (e.g., Professor; Software Engineer; Senior

Researcher; etc. 50 character limit.). _____

179. How concerned are you that the economic impact of the novel coronavirus (COVID-19) will negatively impact your ability to move up in your career within the next 5 years?

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

CAREER VALUES

180. How important to you is it that **your career** allows you to do each of the following?

{Not important; A little important; Moderately important; Quite important; Extremely important}

- Make a lot of money
- Work independently
- Work collaboratively
- Spend a lot of time with my family and friends
- Have a social impact

181. How important to you is it that **your career** allows you to do each of the following?

{Not important; A little important; Moderately important; Quite important; Extremely important}

- Have a flexible work schedule
- Be a role model
- Become well-known in my field
- Help others
- Build a strong professional network

182. In your opinion, to what extent would (or does) a **career in computing** allow you to do the following?

{Not at all; A little; A moderate amount; Quite a bit; Very much}

- Serve humanity
- Be in a position of influence in society
- Spend a lot of time with family

GPA & TEST SCORES PROMPT

183. Do you accumulate a GPA score in your program?

- Yes
- No
- I don't know

[Display if "yes"]

184. Please tell us your GPA below using numerical values. If you do not know your GPA, simply leave the space blank.

Note: If you have a weighted GPA (e.g. 5.0 scale), please convert to a 4.0 scale for the questions below.

- Overall GPA [choices]

YOUR BACKGROUND

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).

We have just a few more questions about your academics and background.

TEST SCORES

185. Have you taken the GRE?

- Yes
- No

[If Q185. is "No"]

186. Do you plan to take the GRE in the future?

- Yes, I plan to take the GRE in the future
- No, I do not plan to take the GRE in the future
- I am not sure yet

[If Q185. is "Yes"]

187. Please provide us with your GRE scores using numerical values. If you do not know your score, simply leave the space blank.

Verbal score: _____

Quantitative score: _____

Analytic writing score: _____

UPDATE DEMOGRAPHICS?

Our records indicate that on a past survey you completed for us, you answered our demographics questions. Here is the list of demographic questions we ask: *Gender identity Race/ethnicity Veteran status Citizenship status Disability status Annual household income Sexual orientation Marital & family status Family background*

188. If you think something has changed and you would like to update your demographic data, please indicate which sections you would like to update.

- Gender
- Race/ethnicity
- Veteran status
- Citizenship status
- Disability status
- Annual household income
- Sexual orientation
- Marital & family status
- Family history
- I do not need to update my demographic data

[Display all Demographics questions from T1 selected above]

RAFFLE BLOCK – ALL RESPONDENTS

189. If you are interested in being entered in the CRA raffle to win 1 of 150 \$10.00(USD) gift cards to Amazon, 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.

Email address: _____

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