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**National Institute of Standards and Technology (NIST)
Summer Undergraduate Research Fellowship
Needs Assessment
FINAL DRAFT
SURF Alumni Survey Questionnaire**

NOTE: TEXT IN ALL CAPS ARE PROGRAMMER INSTRUCTIONS AND WILL NOT APPEAR TO SURVEY RESPONDENTS.

Thank you for participating in this survey for the National Institute of Standards & Technology (NIST). NIST has hired Camper Consulting and Edge Research, independent consulting and survey research firms, to conduct this survey with Alumni of the Summer Undergraduate Research Fellowship (SURF) Program. Your remarks are confidential and will be viewed by NIST only in the aggregate with the responses of others. We highly value your feedback and your time – the survey should take between 5 to 10 minutes to complete.

Note: This collection of information contains Paperwork Reduction Act (PRA) requirements approved by the Office of Management and Budget (OMB). Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA unless that collection of information displays a currently valid OMB control number. Public reporting burden for this collection is estimated to be 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the National Institute of Standards and Technology, Attn: Dr. Brandi Toliver, brandi.toliver@nist.gov.

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Please click 'Next' to begin!

SURF PROFILE

First, please tell us about when and where you were in the SURF Program.

1. Please select the year that you participated in the SURF program. If you attended the SURF program more than one year, please start by selecting the last year you attended below:

a. [DROPDOWN WITH YEARS 2014 TO 1993]

I participated in SURF another year

IF PARTICIPATED IN SURF ANOTHER YEAR:

Select the next year you participated in the SURF program:

b. [DROPDOWN WITH YEARS 2014 TO 1993]

I participated in SURF another year

IF PARTICIPATED IN SURF ANOTHER YEAR:

Select the next year you participated in the SURF program:

c. [DROPDOWN WITH YEARS 2014 TO 1993]

2. Did you attend the SURF program in Gaithersburg, MD or in Boulder, CO?

1 Gaithersburg

2 Boulder

3. In what lab(s) was your SURF fellowship? *Please select all that apply.*

1 Physics Lab (PL)

2 Information Technology Lab (ITL)

3 Building and Fire Research Lab (BFRL)

4 Materials Science & Engineering (MSEL)

5 NIST Center for Neutron Research (NCNR)

6 Chemical Science and Technology Lab (CSTL)

7 Manufacturing Engineering (MEL)

8 Engineering Lab (EL)

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- 9 Electronics and Electrical Engineering Lab (EEEL)
 - 10 Material Measurement Lab (MML) – Materials Science
 - 11 Material Measurement Lab (MML) - ChemBio
 - 12 Physical Measurement Lab (PML) – Electrical Engineering
 - 13 Physical Measurement Lab (PML) – Physics
 - 14 Center for Nanoscale Science and Technology (CNST)
 - 15 Technology Services (TS)
 - 16 Other, please explain: _____

EDUCATION & EMPLOYMENT

In the next few questions, please tell us about what you are doing today.

4. Which of the following best describes your employment status? *Please select all that apply.*
 - 1 Full-time employed → GO TO Q5
 - 2 Part-time employed → GO TO Q5
 - 3 Full-time student → GO TO Q5 THEN SKIP TO Q6
 - 4 Part-time student → GO TO Q5 THEN SKIP TO Q6
 - 5 Unemployed, but looking for employment → GO TO Q5
 - 6 Homemaker → GO TO Q5
 - 7 Retired → GO TO Q5

EDUCATION

ASK EVERYONE:

5. What is the most advanced academic degree that you currently hold?
 - 1 Bachelor's degree
 - 2 Master's degree
 - 3 Doctorate degree
 - 4 Other
 - 5 None of these

IF HOLD A DEGREE (Q5 '1-4') AND NOT CURRENTLY A STUDENT (Q4 '1, 2, 5, 6, 7')

- 5A. In the list below, please indicate which field(s) are directly associated with your degree, if any, and which field(s) are indirectly associated with your degree. *Please*

select up to three per column, or you may choose fewer than three, or 'none of these.'

RANDOMIZE LIST	Directly associated (select up to three)	Indirectly associated (select up to three)
a. Physics		
b. Chemistry/Chemical Engineering		
c. Earth Science		
d. Biology		
e. Logic		
f. Mathematics		
g. Decision Theory		
h. Systems Theory		
i. Technology/Computer Science		
j. Applied Science		
k. Materials Science		
l. Engineering		
m. Fire Science		
n. None of these		

IF HOLD A DEGREE (Q5 '1-4') AND NOT CURRENTLY A STUDENT (Q4 '1, 2, 5, 6, 7')

5B. What is the title of your degree?

[OPEN END - REQUIRED RESPONSE]

IF HOLD A DEGREE (Q5 '1-4') AND NOT CURRENTLY A STUDENT (Q4 '1, 2, 5, 6, 7')

5C. Did you pursue this advanced degree immediately after your other academic degree(s), or did you take a break to hold a full-time job or some other pursuit?

- 1 Continued advanced degrees uninterrupted
- 2 Took a break from academic pursuits to hold a full-time job
- 3 Took a break from academic pursuits for other reasons
- 4 Other

IF HOLD A DEGREE (Q5 '1-4') AND NOT CURRENTLY A STUDENT (Q4 '1, 2, 5, 6, 7')

5D. Based on what you know now, do you anticipate you will pursue an advanced academic degree in the next five years?

- 1 Yes

2 No

IF YES (Q5D '1')

5DD. Is your anticipated degree in science, technology, engineering, or math?

- 1 Yes
- 2 No

IF CURRENTLY A STUDENT (Q4 '3-4')

6. What type of degree are you pursuing?

- 1 Bachelor's degree
- 2 Master's degree
- 3 Doctorate degree
- 4 Other
- 5 None of these

IF CURRENTY A STUDENT (Q4 '3-4')

6A. In the list below, please indicate which field(s) are directly associated with your area of study, if any, and which field(s) are indirectly associated with your area of study. *Please select up to three per column, or you may choose fewer than three, or 'none of these.'*

RANDOMIZE LIST	Directly associated (select up to three)	Indirectly associated (select up to three)
a. Physics		
b. Chemistry/Chemical Engineering		
c. Earth Science		
d. Biology		
e. Logic		
f. Mathematics		
g. Decision Theory		
h. Systems Theory		
i. Technology/Computer Science		
j. Applied Science		
k. Materials Science		
l. Engineering		
m. Fire Science		
n. None of these		

IF STUDENT (Q4 '3-4')

6B. What is the title of your expected degree?

[OPEN END – REQUIRED RESPONSE]

IF PURSUING ADVANCED DEGREE (Q6 '2-4')

6C. Did you pursue this advanced degree immediately after your other academic degrees, or did you take a break to hold a full-time job or some other pursuit?

- 1 Continued advanced degrees uninterrupted
- 2 Took a break from academic pursuits to hold a full-time job
- 3 Took a break from academic pursuits for other reasons
- 4 Other

IF PURSUING ADVANCED DEGREE (Q6 '2-4')

6D. Do you anticipate you will pursue another advanced academic degree after you complete your current program?

- 1 Yes
- 2 No

IF YES (Q6D '1')

6DD. Is your anticipated degree in science, technology, engineering, or math?

- 1 Yes
- 2 No

EMPLOYMENT

IF WORKING FULL-TIME OR PART-TIME (Q4 '1-2')

7. In the list below, please indicate which field(s) are directly associated with your field of work, if any, and which field(s) are indirectly associated with your field of work. *Please select up to three per column, or you may choose fewer than three, or 'none of these.'*

	Directly associated (select up to three)	Indirectly associated (select up to three)
RANDOMIZE LIST		
a. Physics		
b. Chemistry/Chemical Engineering		
c. Earth Science		

d. Biology		
e. Logic		
f. Mathematics		
g. Decision Theory		
h. Systems Theory		
i. Technology/Computer Science		
j. Applied Science		
k. Materials Science		
l. Engineering		
m. Fire Science		
n. None of these		

8. In what industry do you work?

- | | |
|--|--|
| 1 Accounting | 18 Legal |
| 2 Arts & Entertainment | 19 Manufacturing/Production |
| 3 Automotive | 20 Marketing /Advertising |
| 4 Agriculture, Forestry and Fishing | 21 Media |
| 5 Architecture | 22 Mining |
| 6 Hospitality (hotel, restaurant) | 23 Non-profit |
| 7 Construction | 24 Personal Services |
| 8 Consulting | 25 Plumbing, Heating or Air-
Conditioning |
| 9 Education | 26 Professional Services |
| 10 Electric, Gas and Sanitary Services | 27 Public Policy |
| 11 Engineering | 28 Banking/Retail Banking |
| 12 Finance | 29 Retail |
| 13 Gas | 30 Real Estate |
| 14 Government | 31 Telecommunications |
| 15 Health/Medical | 32 Transportation |
| 16 Information Technology | 33 Utilities |
| 17 Insurance | 34 Wholesale Trade/Distribution |
| | 99 Other (Specify :_____) |

8B. What is your job title?

 [OPEN END – REQUIRED RESPONSE]

8C. Do you teach science, technology, engineering or math in an academic setting?

- 1 Yes, secondary education
- 2 Yes, university

3 No

SURF INFLUENCE

There are many factors that influence a student's academic and professional interests - please tell us about yours.

9. For you personally, what role did each of the following play in shaping the areas of interest that you pursued?

- 4 Single most influential
- 3 One of the most influential, with others
- 2 Some influence
- 1 No influence
- 5 Not sure

RANDOMIZE

- a. The NIST Summer Undergraduate Research Fellowship (SURF)
 - b. Your undergraduate adviser
 - c. Undergraduate professors/instructors
 - d. Mentors, not including your undergraduate adviser or professors
 - e. A parent or relative
 - f. Coursework and undergraduate lab experience
 - g. An internship
 - h. Another Fellowship program
 - i. A club or activity you were involved in
10. Which of the following best describes the outcome of your SURF experience at NIST?
Select one.
- 1 It directed you towards an area of study/work that you had already been considering
 - 2 It directed you towards an area of study/work that you had not considered before but you learned about and found interesting while at NIST

-
- 3 It gave you the experience that convinced you not to pursue an area of study/work that you had been considering as an undergraduate
 - 4 None of the above

10A. In your own words, what impact did the SURF program have on your career development? [OPEN END]

PROGRAM ASSESSMENT

In this next section, you will be asked to rate your SURF experience in several different areas.

11. To the best of your knowledge, were you...
- 1 The first student from your college to apply for and accept a SURF Fellowship
 - 2 Within the first class of students to apply for and accept a SURF Fellowship
 - 3 Not among the first students from my college to apply for and accept a SURF Fellowship
 - 4 Not sure
12. To what extent were you provided guidance about the application process for SURF - i.e. from an adviser, professor, family member, etc.
- 4 A lot of guidance
 - 3 Some guidance
 - 2 Very little guidance
 - 1 No guidance
 - 5 Not sure
13. Overall, how satisfied were you with your SURF experience?
- 5 Extremely satisfied
 - 4 Very satisfied
 - 3 Somewhat satisfied
 - 2 Not very satisfied
 - 1 Not at all satisfied
 - 6 Not sure

14. How likely would you be to recommend SURF to a friend or family member interested in the STEM fields?

Extremely likely											Not at all likely
10	9	8	7	6	5	4	3	2	1	0	

15. How well do each of the following statements describe your personal experience with SURF?

- 5 Describes perfectly
- 4 Describes well
- 3 Describes somewhat
- 2 Does not describe well
- 1 Does not describe at all
- 6 Not sure

RANDOMIZE

- a. The application process was clear and easy to follow
 - b. The application and acceptance process gave me time to consider other options if I were not accepted
 - c. I was placed in a NIST lab and project that fit with my interests
 - d. I felt like I was contributing to something meaningful
 - e. I felt like an integral part of the research team
 - f. I gained increasing independence on the project over the course of the summer
 - g. My adviser(s) gave me the technical guidance I needed and let me know what was expected of me
 - h. My SURF adviser(s) set aside time each week to speak with me about my project and/or discuss my goals and interests in research
 - i. I learned a lot from my SURF adviser(s)
 - j. The weekly lectures enhanced my SURF experience
 - k. The weekly lectures were interesting and engaging
 - l. I met a diverse group of peers interested in the STEM fields
 - m. I was satisfied with the SURF living arrangements
 - n. Preparing and presenting my project at the end of the summer was a learning experience
16. Thinking about the weekly lectures, how much would each of the following have improved this part of the SURF experience for you personally?

-
- 1 A great deal
 - 2 Some
 - 3 Not an improvement
 - 4 Not sure

RANDOMIZE

- a. A greater focus on lectures and seminars by NIST researchers to learn more about other research efforts taking place at NIST
- b. A greater focus on lectures and seminars by university professors not affiliated with NIST
- c. Knowing in advance the subject of the lecture and having flexibility to choose which lectures you attend

17. In addition to the technical lectures and seminars, SURF is considering offering professional development seminars. Thinking about your time as a SURF student, how interested would you be in each of the following professional development seminar topics?

- 4 Very interested
- 3 Somewhat interested
- 2 Not too interested
- 1 Not at all interested
- 5 Not sure

RANDOMIZE

- a. How to find funding for grad school
- b. How to apply for a government job
- c. Public speaking: giving technical presentations

18. NIST provides living accommodations for SURF students that do not live in the area. In the past, NIST would find group accommodations at a hotel or other extended stay option where SURF students would live as roommates and in close proximity to other students in the program.

NIST is considering an alternative option - NIST could provide a housing stipend to be used by students to obtain housing for themselves. Based on your experiences and opinions as a SURF participant, would this...

- 5 Improve the SURF experience a great deal
- 4 Improve the SURF experience somewhat
- 3 Have no impact on the SURF experience
- 2 Diminish the SURF experience somewhat
- 1 Diminish the SURF experience a great deal
- 6 Not sure

19. In your opinion, would the housing stipend and finding housing accommodations for yourself have made you more or less likely to have participated in SURF?

- 5 Much more likely
- 4 Somewhat more likely
- 3 No impact/No change
- 2 Somewhat less likely
- 1 Much less likely
- 6 Not sure

DEMOGRAPHICS

And finally, just a few questions for demographic purposes.

20. What is your gender?

- 1 Male
- 2 Female

21. What is your age? _____ [RANGE 18-99]

22. Which of the following categories describes your ethnic background? Please select all that apply.

- 1 White/Caucasian
- 2 Black/African American
- 3 Asian
- 4 Pacific Islander
- 5 Native American
- 6 Other
- 7 Prefer not to disclose

23. Are you Hispanic, Latino or of Spanish descent?

- 1 Yes
- 2 No
- 3 Prefer not to disclose

Thank you for taking the time to complete this survey!