

# 2005 Information Technology/Computer Science Alumni Survey

---

Dear IT/CS Alum:

The American Association for the Advancement of Science (AAAS) and the Commission on Professionals in Science and Technology (CPST) have partnered with 26 universities, including your alma mater, in a National Science Foundation-funded study to track the career paths of the academic year 2000 IT/CS bachelor's graduates in Washington, DC, Maryland, and Virginia. As a graduate of one of those institutions, we are interested not only in why you chose to enter the IT/CS field, but also in when and how you chose that career path, and in your work experience thus far. Our overall purposes are to increase the number of people choosing a career in IT/CS, particularly those groups who have traditionally not participated in this field in large numbers, as well as to gain understanding about the different paths taken by those seeking such careers. Our findings will be used to make policy recommendations about the best way to fund IT/CS programs in higher education to make certain there is an adequate and diverse supply of IT/CS personnel and to ensure that the U.S. remains competitive in the increasingly global economy.

We ask that you help us by completing this background survey and returning it to us in the self-addressed, stamped envelope enclosed. Or, if you prefer, you may fill out the survey online at <http://chrweb.aaas.org/itwf> (*no longer a live link*). The survey results will also be available to you on this site, so that you will have the opportunity to compare your experiences and circumstances with those of your fellow graduates. Two follow-up surveys will be sent to you within the next two years, so that we can get an accurate picture of your postgraduate experiences.

## PROVISIONS FOR PROTECTION OF CONFIDENTIALITY

All team members involved in this project will be required to protect the confidentiality of respondents during the course of this project. Information obtained from case records will only be used for the purposes of this project and will not be released to any person or persons not connected with the project. Survey responses will be aggregated to form group data, and only these data will be used in our reports.

Thank you for your participation. The survey is designed to be quick and easy to complete. Please direct any questions or comments to [itwf@aaas.org](mailto:itwf@aaas.org).



**A. EDUCATIONAL BACKGROUND**

1. Please give the month and year that you received your High School diploma or GED.  
 Month: \_\_\_\_\_ Year: \_\_\_\_\_
2. Please give the month and year that you **began** work on your IT/CS bachelor’s degree.  
 Month: \_\_\_\_\_ Year: \_\_\_\_\_
3. Please give the month and year that you graduated with your IT/CS bachelor’s degree.  
 Month: \_\_\_\_\_ Year: \_\_\_\_\_
4. What is the name of the college or university from which you graduated with your IT/CS degree?  
 \_\_\_\_\_

5. What was your major? *(Please check only one)*
  - Computer Science
  - Computer Engineering
  - Computer Information Systems/Information Systems
  - Business or Management Information Systems
  - Other *(Please specify)*: \_\_\_\_\_

6. What was your **primary** reason for choosing to pursue an IT/CS degree? *(Please check only one)*
  - Opportunities for promotion/advancement
  - Salary potential
  - Personal interest
  - Family/parental influence
  - Friend/peer influence
  - K-12 teacher influence
  - Other *(Please specify)*: \_\_\_\_\_

7. Using the following five-point scale, assess the importance of each of the following in your selection of the university/college where you obtained your IT/CS degree. *(Please circle choice)*

	1	2	3	4	5	0
	Essential	Very Important	Important	Limited Importance	Not Important	Not Applicable
Cost .....	1	2	3	4	5	0
Geographic location of campus .....	1	2	3	4	5	0
Convenience of commute .....	1	2	3	4	5	0
Flexibility of course offerings .....	1	2	3	4	5	0
Reputation of institution/program/professor(s) .....	1	2	3	4	5	0
Size and/or culture of institution .....	1	2	3	4	5	0
Presence of minority and/or female students and faculty .....	1	2	3	4	5	0
Employer tuition reimbursement program .....	1	2	3	4	5	0
Existence of online courses .....	1	2	3	4	5	0
Relative/friend attended .....	1	2	3	4	5	0
Other reason(s) .....	1	2	3	4	5	0
<i>(Please specify)</i> : _____						

8. For the majority of time you were pursuing your IT/CS degree, did you attend college full-time or part-time?

- Full-time
- Part-time

9. While pursuing your IT/CS bachelor's degree, did you do any of the following?

- |                                    | Yes                      | No                       |
|------------------------------------|--------------------------|--------------------------|
| Attend night/evening classes       | <input type="checkbox"/> | <input type="checkbox"/> |
| Attend weekend classes/programs    | <input type="checkbox"/> | <input type="checkbox"/> |
| Take a web-based or online course  | <input type="checkbox"/> | <input type="checkbox"/> |
| Take any distance learning courses | <input type="checkbox"/> | <input type="checkbox"/> |

10. What was your primary employment status **before** pursuing your IT/CS degree?

- Full-time
- Part-time
- Self-employed
- Summer work/internships
- Temporary jobs
- Not working

11. What was your primary employment status **during** the years spent pursuing your IT/CS degree?

- Full-time
- Part-time
- Self-employed
- Summer work/internships
- Temporary jobs
- Not working

12. What was your main source of financing for your IT/CS degree? *(Please check only one)*

- Financial support from parents/partners/other relatives, not to be repaid
- Loans from the school you attended, banks, federal/state government
- Loans from parents or other relatives that must be repaid
- Financial assistance or reimbursement from your employer
- Tuition waivers, fellowships, grants, scholarships
- Earnings from employment
- Savings
- Other *(Please specify)*: \_\_\_\_\_

13. Did you attend any other universities or colleges prior to the one from which your IT/CS degree was awarded?

- Yes
- No

If yes, what other institutions did you attend?

---

---

---

14. Did you receive any other degree(s) from a college or university prior to your IT/CS degree?

- Yes
- No

If yes, specify degree(s) and degree-granting institution(s):

---



---

15. Since completing your IT/CS bachelor's degree, are you pursuing any additional formal education?

- |                                        | Yes                      | No                       |
|----------------------------------------|--------------------------|--------------------------|
| A certificate program in IT/CS         | <input type="checkbox"/> | <input type="checkbox"/> |
| Additional training courses in IT/CS   | <input type="checkbox"/> | <input type="checkbox"/> |
| A graduate degree in an IT/CS field    | <input type="checkbox"/> | <input type="checkbox"/> |
| A graduate degree in a non-IT/CS field | <input type="checkbox"/> | <input type="checkbox"/> |
| Other                                  | <input type="checkbox"/> | <input type="checkbox"/> |

(Please specify): \_\_\_\_\_

16. Using the following five-point scale, please indicate how satisfied you are with your IT/CS bachelor's degree program in each of the following areas. (Please circle choice)

	1	2	3	4	5	0
	Very Satisfied	Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable
Quality of instruction . . . . .	1	2	3	4	5	0
Facilities and equipment . . . . .	1	2	3	4	5	0
Academic advising . . . . .	1	2	3	4	5	0
Career mentoring . . . . .	1	2	3	4	5	0
Faculty/administration support . . . . .	1	2	3	4	5	0
Working relationships with professors . . . . .	1	2	3	4	5	0
Working relationships with other students . . . . .	1	2	3	4	5	0
Exposure to cutting-edge technology . . . . .	1	2	3	4	5	0
Opportunities to participate in co-op/internship programs . . . . .	1	2	3	4	5	0
Opportunities to attend professional meetings . . . . .	1	2	3	4	5	0

## B. EMPLOYMENT INFORMATION

1. Have you been involuntarily terminated since you received your IT/CS degree?

- Yes
- No

If yes, please indicate reason(s):

- Laid off/down-sized
- Company shutdown
- Other (*Please specify*): \_\_\_\_\_

2. Are you currently working?

- Yes, I am currently employed.
- No, I am currently not working, but actively seeking employment.  
(*Please skip to section C, question 1*)
- No, I am currently not working and not actively seeking employment.  
(*Please skip to section C, question 1*)

3. Are you currently:

- employed in an IT/CS job?
- employed in a non-IT/CS job? (*Please specify employment field*): \_\_\_\_\_

self-employed and doing IT/CS work?

self-employed and doing non-IT/CS work? (*Please specify employment field*): \_\_\_\_\_

*Please check here if you are employed and also an independent consultant.*

4. How did you find your current job? (*Please check only one*)

- Through a newspaper advertisement
- Through an advertisement in an IT publication
- On the Internet (for example, monster.com or other job websites)
- Through internship/co-op contacts
- Through an unsolicited resume or contact you made with the company
- On-campus recruitment
- Faculty advisors
- University/college career center or alumni job bank
- Professional meetings
- Job fairs
- Headhunter/IT recruiter
- Employment agency
- Transfer within company
- Other (*Please specify*): \_\_\_\_\_

5. If you are currently employed outside of IT/CS, please explain why. *(Please check all that apply)*

- Better pay or opportunities for advancement
- Better working conditions
- Job location
- Change in career interest
- Family-related issues
- A job in IT/CS was not available
- Other *(Please specify)*: \_\_\_\_\_

6. If you were working while attending school, are you still working for the same employer?

- Same employer/same position
- Same employer/different position
- Different employer
- Not applicable

7. Have you been promoted since starting with your current employer?

- Yes
- No

If yes, how long after initial employment was your promotion? \_\_\_\_\_

If you were working for this employer prior to receiving your degree, how long after receiving your degree was your promotion? \_\_\_\_\_

Do you believe your degree had an impact on your promotion? \_\_\_\_\_

8. What is your current job title? \_\_\_\_\_

9. How many job offers did you receive as part of the search for your present position? \_\_\_\_\_

10. In what sector is your primary employment? *(Please check only one)*

- IT/CS services
- Health care
- Agriculture
- Federal government agency
- State or local government agency
- IT/CS hardware products
- Banking/financial
- Hospitality
- Nonprofit organization
- IT/CS software products
- Manufacturing (non-IT/CS)
- Food products/services
- Educational institution
- Consulting
- Telecommunications/networking
- Transportation
- Other *(Please specify)*: \_\_\_\_\_

11. Using the following five-point scale, please rate each of the following in terms of what attracted you most to your current employer. (Please circle choice)

	1	2	3	4	5	0
	Essential	Very Important	Important	Limited Importance	Not Important	Not Applicable
Cost . . . . .	1	2	3	4	5	0
Good salary and benefits package . . . . .	1	2	3	4	5	0
Stock or equity options . . . . .	1	2	3	4	5	0
Signing bonus . . . . .	1	2	3	4	5	0
Opportunities for promotion . . . . .	1	2	3	4	5	0
Flexible hours/schedule . . . . .	1	2	3	4	5	0
Location/ease of commute . . . . .	1	2	3	4	5	0
Telecommuting option . . . . .	1	2	3	4	5	0
Internship/co-op experience . . . . .	1	2	3	4	5	0
Challenging work environment . . . . .	1	2	3	4	5	0
Organizational culture . . . . .	1	2	3	4	5	0
Intellectual environment . . . . .	1	2	3	4	5	0
Friendly work environment . . . . .	1	2	3	4	5	0
Opportunities to work on new technology . . . . .	1	2	3	4	5	0
Opportunities to gain new technical skills . . . . .	1	2	3	4	5	0
Good management . . . . .	1	2	3	4	5	0
Job security . . . . .	1	2	3	4	5	0
Social benefits of work to society . . . . .	1	2	3	4	5	0
Work relates to undergraduate research . . . . .	1	2	3	4	5	0
Support networks . . . . .	1	2	3	4	5	0
Presence of minority or female employees . . . . .	1	2	3	4	5	0
Family-friendly work environment . . . . .	1	2	3	4	5	0
Friends or family working for same employer . . . . .	1	2	3	4	5	0
Other . . . . .	1	2	3	4	5	0

(Please specify): \_\_\_\_\_

12. What is your employer's approximate number of employees (total for the whole organization)?

- Under 100 employees
- 100–499 employees
- 500–999 employees
- 1,000–4,999 employees
- 5,000+ employees

13. At your primary employer, what is your current salary range?

- |                                                    |                                                     |
|----------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> \$24,999 per year or less | <input type="checkbox"/> \$65,000–\$69,999          |
| <input type="checkbox"/> \$25,000–\$29,999         | <input type="checkbox"/> \$70,000–\$74,999          |
| <input type="checkbox"/> \$30,000–\$34,999         | <input type="checkbox"/> \$75,000–\$79,999          |
| <input type="checkbox"/> \$35,000–\$39,999         | <input type="checkbox"/> \$80,000–\$84,999          |
| <input type="checkbox"/> \$40,000–\$44,999         | <input type="checkbox"/> \$85,000–\$89,999          |
| <input type="checkbox"/> \$45,000–\$49,999         | <input type="checkbox"/> \$90,000–\$94,999          |
| <input type="checkbox"/> \$50,000–\$54,999         | <input type="checkbox"/> \$95,000–\$99,999          |
| <input type="checkbox"/> \$55,000–\$59,999         | <input type="checkbox"/> \$100,000 per year or more |
| <input type="checkbox"/> \$60,000–\$64,999         |                                                     |

14. Since starting with your current employer, have you received a raise?

- Yes
- No

If yes, how long after initial employment did you receive your first raise? \_\_\_\_\_

If you were working for this employer prior to receiving your degree, how long after receiving your degree was your first raise? \_\_\_\_\_

15. Do you receive either of the following in addition to your base salary?

- |               |                          |                          |
|---------------|--------------------------|--------------------------|
|               | Yes                      | No                       |
| Stock Options | <input type="checkbox"/> | <input type="checkbox"/> |
| Bonuses       | <input type="checkbox"/> | <input type="checkbox"/> |

16. How many hours do you work in an average workweek at your primary place of employment?  
\_\_\_\_\_ hours

17. Using the following five-point scale, please indicate how often you are involved in each of the following technical areas in your current job. *(Please circle choice)*

	1	2	3	4	5	0
	Very Frequently	Frequently	Sometimes	Rarely	Never	Not Applicable
Applications, database, or systems development . . . . .	1	2	3	4	5	0
Applications, database, or systems maintenance . . . . .	1	2	3	4	5	0
Client/customer IT support . . . . .	1	2	3	4	5	0
Feasibility studies/business case development . . . . .	1	2	3	4	5	0
Help desk/customer center support . . . . .	1	2	3	4	5	0
Internal IT support . . . . .	1	2	3	4	5	0
Network or systems administration/operations . . . . .	1	2	3	4	5	0
Network or systems documentation development . . . . .	1	2	3	4	5	0
Requirements analysis . . . . .	1	2	3	4	5	0
Technical specifications development . . . . .	1	2	3	4	5	0
User manual/instructions development . . . . .	1	2	3	4	5	0
Marketing, sales, or business development . . . . .	1	2	3	4	5	0
Project management . . . . .	1	2	3	4	5	0
Teaching client or internal staff courses... . . . .	1	2	3	4	5	0
Programming . . . . .	1	2	3	4	5	0

*(Please specify languages):* \_\_\_\_\_

18. Using the following five-point scale, please indicate how often you were involved in each of the following activities in your current job over the past year. *(Please circle choice)*

1	2	3	4	5	0	
Very Frequently	Frequently	Sometimes	Rarely	Never	Not Applicable	
Attending conferences, trades shows, or professional society meetings . . . . .	1	2	3	4	5	0
Participating in client or vendor meetings . . . . .	1	2	3	4	5	0
Participating in internal staff meetings . . . . .	1	2	3	4	5	0
Participating in standards development or on technical committees . . . . .	1	2	3	4	5	0
Problem-solving or troubleshooting . . . . .	1	2	3	4	5	0
Performing research . . . . .	1	2	3	4	5	0
Presenting informal or formal briefings or talks . . . . .	1	2	3	4	5	0
Writing memos and progress reports . . . . .	1	2	3	4	5	0
Managing and supervising . . . . .	1	2	3	4	5	0
Writing white papers, research reports, and other publications	1	2	3	4	5	0

19. In your work, how often do you apply the skills and knowledge from your degree program?

- Very frequently
- Frequently
- Sometimes
- Rarely
- Never

20. Using the following five-point scale, please rate how important each of the following skills is in your current job. *(Please circle choice)*

1	2	3	4	5	0	
Very Frequently	Frequently	Sometimes	Rarely	Never	Not Applicable	
Collaboration/teamwork . . . . .	1	2	3	4	5	0
Logic design . . . . .	1	2	3	4	5	0
Oral communications . . . . .	1	2	3	4	5	0
Data structures . . . . .	1	2	3	4	5	0
Structured decision-making . . . . .	1	2	3	4	5	0
Numerical methods . . . . .	1	2	3	4	5	0
Team leadership . . . . .	1	2	3	4	5	0
Probability and statistics . . . . .	1	2	3	4	5	0
Up-to-date technical knowledge . . . . .	1	2	3	4	5	0
Computer architecture . . . . .	1	2	3	4	5	0
Written communications . . . . .	1	2	3	4	5	0
Systems analysis/design methods . . . . .	1	2	3	4	5	0
Programming techniques . . . . .	1	2	3	4	5	0
Software engineering methods . . . . .	1	2	3	4	5	0
Problem-solving methods . . . . .	1	2	3	4	5	0
Management/supervision . . . . .	1	2	3	4	5	0

21. Are there additional skills or content knowledge that your degree program should have included, that you need in your current job or to move up in the IT/CS profession? (Check all to which you might have wanted more exposure in your coursework)

- |                                                       |                                                     |
|-------------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Collaborative work/teamwork  | <input type="checkbox"/> Basic computer concepts    |
| <input type="checkbox"/> Creative problem-solving     | <input type="checkbox"/> Computer hardware          |
| <input type="checkbox"/> Cost-benefit analysis        | <input type="checkbox"/> Design methodologies       |
| <input type="checkbox"/> Grant/project management     | <input type="checkbox"/> Project/task planning      |
| <input type="checkbox"/> Decision-making              | <input type="checkbox"/> Statistics and probability |
| <input type="checkbox"/> Presentation/public speaking | <input type="checkbox"/> Technical writing          |
| <input type="checkbox"/> Research methods             | <input type="checkbox"/> Management/supervision     |
| <input type="checkbox"/> Writing for business         | <input type="checkbox"/> Other (Please specify):    |
| <input type="checkbox"/> Advanced computer topics     | _____                                               |

22. Does your postgraduate work experience meet your pre-college expectations?

- Yes, exceedingly well
- Yes, for the most part
- Somewhat
- No, not for the most part
- No, not at all

23. How well do you feel you are doing in comparison to your colleagues who do not have an IT/CS degree?

- Much better
- Slightly better
- Same
- Slightly worse
- Much worse

24. Are you actively seeking other employment?

- Yes
- No

25. Have you had headhunters and recruiters approach you unsolicited in the last year?

- Yes
- No

If yes, how often? \_\_\_\_\_

### C. DEMOGRAPHIC INFORMATION

1. Gender

- Female
- Male

2. Do you have any of the following long-lasting conditions?

- Blindness, deafness, or a severe vision or hearing impairment
- A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?

3. Are you a: *(Please check only one)*

U.S. citizen?

- Native born
- Naturalized

Non-U.S. citizen?

- With a permanent U.S. resident visa
- With a temporary U.S. resident visa

4. If a U.S. citizen, are you Spanish/Hispanic/Latino?

- Yes
- No

5. If a U.S. citizen, please indicate your race. *(Mark one or more)*

- African American
- Asian
- Pacific Islander
- Native American
- White
- Other *(Please specify)*: \_\_\_\_\_

6. In what year were you born? \_\_\_\_\_

7. What is your zip code where you currently live? \_\_\_\_\_ - \_\_\_\_\_

8. Were you the primary caregiver to any children while pursuing your IT/CS degree?

*(Only count children who lived with you at least 50% of the time)*

- Yes *(please specify number of children)*: \_\_\_\_\_
- No

**Thank you again for your participation!** Please share any additional comments with us in the space below.

## D. EMPLOYEE INTERVIEW PROTOCOL

Interviewer: \_\_\_\_\_

Organization: \_\_\_\_\_

Interviewee: \_\_\_\_\_

1. We define a nontraditional student as someone who began their bachelor's degree later in life (after age 20) or took longer than 6 years to finish. With this definition, would you consider yourself to have been a nontraditional student?

- Yes  
 No

If yes, how did this nontraditional course of study affect your education? (i.e., make it harder or easier, force you to take night, weekend, or web-based classes, etc.)

2. What were the particular reasons that you chose the college or university where you got your IT/CS degree?

3. Did you have adequate access to lab facilities at your undergraduate institution?

- Yes  
 No

If yes, how would you rate the quality of your lab facilities?

How did this influence your studies?

4. Were you employed while pursuing your bachelor's degree?

- Yes
- No

In an IT-related job?

- Yes
- No

Please describe:

Full-time (*if yes, go to 5A*)

Part-time (*if yes, go to 5A*)

Internship (*if yes, go to 5B*)

Co-op (*if yes, go to 5B*)

Other

5A. If you were regularly employed during college, did the same employer offer you a full-time position after you obtained your degree?

- Yes
- No

Did you take it?

- Yes
- No

Why or why not?

If yes, did the job offer come with a promotion or a raise?

B. If you participated in internships or co-ops during college, were you offered a full-time position at the same organization after obtaining your degree?

- Yes
- No

Did you take it?

- Yes
- No

Why or why not?

6. Did you find your work experience during college to be beneficial?

- Yes
- No

How so?

7. Is this your first job since obtaining your bachelor's degree?

- Yes
- No

If no, where was your previous job and why did you leave?

8. What kind of resources, if any, did you utilize at your college/university to help you in your job search?  
(i.e., career center, faculty, mentors, teachers, advisor, etc.)

9. Did the reputation of your undergraduate institution make any difference in the types of jobs you applied for, or the companies or organizations you applied to? How?

What about the interviewing process? Do you think your school made a difference in where you received an interview? How?

10. How many job offers did you receive while searching for your present position? \_\_\_\_\_  
When was this—approximately what months and year?

Have you had headhunters or recruiters approach you unsolicited?

- Yes
- No

How satisfied are you with the types and number of employment opportunities now available to you?

11. What was your primary reason for choosing your current job?

12. What is your current job title?

13. What are your three primary job responsibilities?

14. How do you feel your college education has prepared you for the duties of your current job?

15. How often do you apply the skills and knowledge you obtained from your degree program in your current job?

16. Did you receive any specialized job training after you were hired for your current job?  
(i.e., courses, workshops, certification, etc.)

17. Are you performing the job responsibilities for which you were hired?

Yes

No

If no, how are they different?

18. Were there any college courses that you found particularly useful for an IT job?

19. Now that you are working, what, if anything, do you feel was lacking in your college education? (i.e., are there any additional skills or content knowledge that your degree program should have included?)

How are you coping with that lack? (i.e., more courses, graduate degree, searching for another job, nothing, etc.)

20. How would you rate your educational preparation in comparison to your co-workers?

Do you feel you are now doing better, worse, or the same as your coworkers without IT/CS degrees?

21. Do you feel valued and respected by your managers?

Yes

No

Why?

Peers?

Yes

No

Why?

Subordinates?

Yes

No

Why?

22. Do you feel that your salary is commensurate with your college education?

Yes

No

Why or why not?

23. If you are paying off school loans, is your salary adequate to do so in a timely manner?

Yes

No

24. Thinking back, when you were in college, what were your expectations for the kind of job you would have after graduation?

How does your current work experience meet those expectations?

25. Do you feel you will ever change your job field?

Yes

No

Why?

Go back to school?

Yes

No

Why?

26. Is there anything else you would like to add about how your educational experiences influenced your employment?

## E. EMPLOYER PRE-INTERVIEW QUESTIONS

Dear Employer:

The American Association for the Advancement of Science (AAAS) and the Commission on Professionals in Science and Technology (CPST) would like to thank you for participating in this interview. Before we begin, we ask that you please fill out this questionnaire with some basic background information.

### PROVISIONS FOR PROTECTION OF CONFIDENTIALITY

All team members involved in this project will be required to protect the confidentiality of respondents during the course of this project. Individual information obtained will be aggregated to form group data for our reports. No individual data or data aggregated by organization will be released to your organization, nor to any person or persons not connected with the project.

1. What is your current position? \_\_\_\_\_
2. How long have you been in this position?  
\_\_\_\_\_ years, and \_\_\_\_\_ months
3. How many years have you been with this organization? \_\_\_\_\_
4. What is your gender?  
 Female  
 Male
5. Are you a: *(Please check only one)*  
 U.S. citizen?  
 Non-U.S. citizen with permanent residency?  
 Non-U.S. citizen with a temporary visa?
6. If a U.S. citizen, are you Spanish/Hispanic/Latino?  
 Yes  
 No
7. If a U.S. citizen, please indicate your race. *(Mark one or more)*  
 African American  
 Asian  
 Pacific Islander  
 Native American  
 White  
 Other *(Please specify)*: \_\_\_\_\_

## F. EMPLOYEE PRE-INTERVIEW FORM

Dear IT/CS Employee:

The American Association for the Advancement of Science (AAAS) and the Commission on Professionals in Science and Technology (CPST) would like to thank you for participating in this interview. Before we begin, we ask that you please fill out this questionnaire with basic demographic, educational, and employment data.

### PROVISIONS FOR PROTECTION OF CONFIDENTIALITY

All team members involved in this project will be required to protect the confidentiality of respondents during the course of this project. Individual information obtained will be aggregated to form group data for our reports. No individual data or data aggregated by firm will be released to your organization or to any person or persons not connected with the project.

1. Where did you obtain your IT/CS bachelor's degree?  
Institution: \_\_\_\_\_ City: \_\_\_\_\_
2. When did you begin pursuing your IT/CS bachelor's degree?  
Month: \_\_\_\_\_ Year: \_\_\_\_\_
3. When did you finish your IT/CS bachelor's degree?  
Month: \_\_\_\_\_ Year: \_\_\_\_\_
4. What was your IT/CS major? \_\_\_\_\_  
Minor? \_\_\_\_\_  
  
If you changed your major, what did you change it from? \_\_\_\_\_
5. Did you attend your university/college primarily Part-time? or Full-time? (*Circle one*)  
Do you have any other degrees?  
 Yes  
 No
6. If yes, what degree(s) do you have? \_\_\_\_\_ In what field? \_\_\_\_\_  
  
At what institution did you obtain this degree, and when? \_\_\_\_\_  
\_\_\_\_\_ Year: \_\_\_\_\_
7. In what year were you born? \_\_\_\_\_
8. What is your gender?  
 Female  
 Male

9. Are you a: *(Please check only one)*
- U.S. citizen?
  - Non-U.S. citizen with permanent residency?
  - Non-U.S. citizen with a temporary visa?
10. If a U.S. citizen, are you Spanish/Hispanic/Latino?
- Yes
  - No
11. If a U.S. citizen, please indicate your race. *(Mark one or more)*
- African American
  - Asian
  - Pacific Islander
  - Native American
  - White
  - Other (please specify) \_\_\_\_\_
12. Are you the primary caregiver to any children? *(Only count children who live with you at least 50% of the time)*
- Yes *(Please specify number of children):* \_\_\_\_\_
  - No
13. Do you have any of the following long-lasting conditions?
- | Yes                      | No                       |                                                                                                                                              |
|--------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Blindness, deafness, or a severe vision or hearing impairment                                                                                |
| <input type="checkbox"/> | <input type="checkbox"/> | A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying |
14. Did you receive any federal financial aid during school? If yes, what type of aid?
- | Yes                      | No                       |                                      |
|--------------------------|--------------------------|--------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Stafford loan                        |
| <input type="checkbox"/> | <input type="checkbox"/> | PLUS loan                            |
| <input type="checkbox"/> | <input type="checkbox"/> | Pell Grant                           |
| <input type="checkbox"/> | <input type="checkbox"/> | Work-study                           |
| <input type="checkbox"/> | <input type="checkbox"/> | Montgomery GI Bill                   |
| <input type="checkbox"/> | <input type="checkbox"/> | Other <i>(Please specify):</i> _____ |
15. Did you receive other forms of financial aid? *(Please check all that apply)*
- Financial support from parents/partner/other relatives
  - Loans from the school you attended
  - Financial assistance or reimbursement from your employer
  - Tuition waivers, fellowships, grants, scholarships from the college
  - Teaching or research assistantships from the college
  - Other *(Please specify):* \_\_\_\_\_

## G. FACULTY INTERVIEW PROTOCOL

Interviewer: \_\_\_\_\_

Date and Time: \_\_\_\_\_

Institution and Department: \_\_\_\_\_

*[Interviewer: Please specify from the outset that all the questions in this interview will refer to faculty and administrators' experiences with undergraduate IT/CS students only.]*

1. In your estimation, what is the defining concept of an IT/CS education? What core courses should be included in any IT/CS degree program?
  
  
  
  
  
  
  
  
  
  
2. Do incoming undergraduates generally see IT/CS in terms of that concept? How do their perceptions differ? Is that a problem?

**For the purposes of our study, we define nontraditional students as anyone who a) begins their baccalaureate degree after the age of 20 and/or b) takes longer than 6 years to complete a baccalaureate degree.**

3. Given our definition, are there both nontraditional and traditional majors in your program? What is an approximate percentage of nontraditional undergraduate majors?
  - 0–10%
  - 11–25%
  - 26–50%
  - Over 50%
  - Don't know
  
4. What is the approximate percentage of women undergraduate majors currently enrolled in your department?
  - 0–5%
  - 6–10%
  - 11–15%
  - 16–25%
  - 26–40%
  - Over 40%
  - Don't know

5. What is the approximate percentage of international undergraduate majors currently enrolled in your department?
- 0–5%
  - 6–10%
  - 11–15%
  - 16–25%
  - 26–40%
  - Over 40%
  - Don't know
6. What is the approximate percentage of underrepresented minority (African Americans, Hispanic Americans, and American Indians) undergraduate majors currently enrolled in your department?
- 0–5%
  - 6–10%
  - 11–15%
  - 16–25%
  - 26–40%
  - Over 40%
  - Don't know
7. What is the largest percentage of women students enrolled in one of your undergraduate courses in the last two years?
- 0–5%
  - 6–10%
  - 11–15%
  - 16–25%
  - 26–40%
  - Over 40%
  - Don't know
8. What is the largest percentage of underrepresented minority (African Americans, Hispanic Americans, and American Indians) students enrolled in one of your undergraduate courses in the last two years?
- 0–5%
  - 6–10%
  - 11–15%
  - 16–25%
  - 26–40%
  - Over 40%
  - Don't know
9. Have you ever taught a course in which one or more of the students had a disability as defined by the Americans with Disabilities Act (ADA)?
- Yes
  - No

If yes, what special provisions did you make for the student(s)?

10. Is there a significant difference between day and evening/weekend classes offered for undergraduates in terms of curriculum, instruction, and/or labs? What are those differences?
  
  
  
  
  
  
  
  
  
  
11. How does your department generally recruit undergraduate students/majors? Are you actively involved in recruiting students? What recruiting activities do you undertake? Do these differ for traditional and nontraditional students?
  
  
  
  
  
  
  
  
  
  
12. Does your university undertake undergraduate recruitment activities? How do these differ from departmental recruitment activities? How do these differ for traditional and nontraditional undergraduates? Are you involved in any recruitment activities? Please describe.
  
  
  
  
  
  
  
  
  
  
13. Is there anything that makes your institution attractive to nontraditional undergraduates?
  
  
  
  
  
  
  
  
  
  
14. How do the schedules of traditional versus nontraditional students vary both on a daily basis and throughout the course of their studies? Do their academic programs vary? How?
  
  
  
  
  
  
  
  
  
  
15. Do you perceive any friction between traditional and nontraditional students? Over access to professors? Over access to campus resources? Over availability of courses? Over access to financial aid?



22. Do students perceive these courses as “weed outs?” Does this affect students’ perception of their ability to complete the coursework and the program?

23. Do the same faculty teach traditional and nontraditional students?

24. Are the same courses available for both types of students? (Frequency of course offerings?)

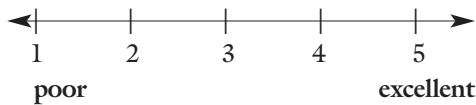
25. Are the same kinds of educational resources available to both types of students? (e.g., library access, computer access, access to faculty, career counseling and placement, financial aid)

26. Is there any academic interaction between the two types of students? Joint projects? Do you encourage students to work in teams?

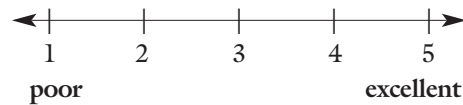
27. How important are internships or external work programs for traditional students?
  
28. How important are internships or external work programs for nontraditional students?
  
29. Do you have co-op programs? When do students usually begin doing co-ops?
  
30. What is the most important impact that co-op or internship programs have on students? Is this different for traditional and nontraditional students?
  
31. What kind of career placement program does your institution have? Does your institution monitor the career outcomes of your students?
  
32. Does your institution have direct interaction or contacts with employers to ascertain their workforce needs? Does your department make course/curriculum decisions or changes based on these interactions?
  
33. Does this interaction help with student placement in internships, co-ops, or jobs after graduation?

34. Approximately what percent of your seniors accept a job offer by the time they graduate? \_\_\_\_\_%  
How does this percentage differ for traditional and nontraditional students?
35. Approximately what percent of your seniors are admitted to a graduate program? \_\_\_\_\_%  
How does this percentage differ for traditional and nontraditional students?
36. What is the typical starting salary for your graduating seniors in recent years? \$ \_\_\_\_\_  
How does this amount differ for traditional and nontraditional students?
37. On a scale of 1 to 5, with 5 being excellent, how would you rate the current job market in your geographic area for your graduating seniors? How would you rate the current national job market for your graduating seniors?

**Local job market**



**National job market:**



Do you perceive any differences in the job market for traditional and nontraditional students? What are those differences?

38. Given our definition of nontraditional students, are there other characteristics that describe nontraditional students that you can think of? What do you see as the most pressing needs of nontraditional students?

39. Is there anything else you'd like to add?

## H. EMPLOYER INTERVIEW PROTOCOL: HUMAN RESOURCES

Interviewer: \_\_\_\_\_

Organization: \_\_\_\_\_

Interviewee (optional): \_\_\_\_\_

Date and Time: \_\_\_\_\_

Our study is particularly interested in the recruitment of baccalaureate degree graduates in information technology or computer science. I'd like to ask you several questions having to do with how your organization recruits personnel in the IT/CS area.

1. What is your own role in recruiting such people? What specifically do you do in this role?

2. What is the single most important skill you look for in new hires in these areas?

*(Probe: Is this true for all job positions, or is this position-dependent?)*

3. What methods does your organization use to recruit for IT/CS staff? *(Check all mentioned by respondent)*

- On-campus visits
- Internet
- Newspapers
- Print journals/magazines
- "Executive search firms," or "headhunters"
- Referrals from employees within your organization
- Referrals from IT professionals outside your organization
- Professional associations or meetings
- Job fairs
- Other *(Please specify)*: \_\_\_\_\_

4. Approximately what percent of your IT hiring is of new college graduates (at the bachelor's level?)

To what extent does your organization target its recruiting toward new college graduates?  
(Probe: *Why is that? [Look for reasons for specifically seeking out—or not—new graduates.]*)

5. Does your organization actively recruit on-campus at colleges and universities?

Yes (If Yes:)

Nationally?

Yes

No

Locally?

Yes

No

No

6. Which schools in particular does your organization try to recruit from, and why?

7. What kinds of departments in particular do you target for your recruitment efforts? (*Check all mentioned by respondent. Prompt for each, if needed*)

Computer Science

Computer Engineering

Computer Information Systems/Information Systems

Business or Management Information Systems

Other (*Please specify*) \_\_\_\_\_

8. Do you recruit differently for different job titles—from different schools, colleges, or departments?

(Probe: *Would you target certain schools or departments for some positions more than others?*)

No

Yes (If Yes:) Why is that, and how do you go about it differently?

9. Are there any schools that you actively avoid in recruiting?

No

(If Yes:) Which ones, and why?

*(Note: If employer is reluctant to name schools, then ask: Can you tell me what types of schools and why?)*

10. What influence does the reputation of a particular school have on your decision to interview a candidate?

A great deal of influence

Some influence

Relatively little influence

No influence at all

11. Are there graduates of any particular schools that you actively avoid in interviewing or hiring?

No

Yes (If Yes:) Which ones in particular, and why? *(See note on #9)*

12. Do you ever offer a higher starting salary in order to recruit someone from what you consider a better school?

Yes

No

In your experience, do recent graduates of the top schools ask for higher starting salaries?

Yes

No

Do they get them at your organization?

Yes

No

13. Does your organization have an ongoing relationship (either formal or informal) with any colleges or universities (for example, internship program, advisory board, recruiting network)?

No

Yes (If Yes:) What have been the benefits of each specific arrangement, if any?

14. Do you feel that your organization has had an impact on the undergraduate curriculum of any educational institution?

- No
- Yes (If Yes:) What kind of impact has it had?

15. In what ways would you say that colleges and universities have been responsive, or not, to your organization's needs?

Please explain how they've been responsive or unresponsive:

16. Do you look more favorably on job candidates with prior work experience (such as internships, "co-op programs," or other prior employment)?

- No
- Yes (If Yes:) Does it make a significant difference whether the person's prior experience has been in the IT/CS area, or in some other area?

- Yes
- No

*(For either answer.)* Could you say a bit more about that?

17. What kinds of experiences has your organization had with so-called "re-tooled" majors, that is, persons originally trained in another area who then undergo training in information technology or computer science?

18. Assuming the employee has the necessary technical knowledge, how much does your organization also value a broad education for IT employees?

For the purposes of our study, we define a “nontraditional student” as anyone who (a) begins his or her baccalaureate degree after the age of 20 and/or (b) takes longer than 6 years to complete a baccalaureate degree.

19. Given this definition, to your knowledge, has your organization had experience with IT employees who had been nontraditional students when they were in school?

- No
- Yes (If Yes:) Has that different experience caused you to try to actively recruit nontraditional students?
  - Yes
  - NoWhy or why not?

20. Do you see any particular advantages or disadvantages to hiring nontraditional students compared to traditional students?

- No
- Yes (If Yes:) Please specify what these advantages or disadvantages are.

21. Do you actively recruit or encourage IT students to begin employment prior to their completing their bachelor’s degree?

- Yes
  - No
- (For either answer:) Why is that?

Now I’d like to ask you a few questions dealing with how easy or difficult it is to recruit new employees these days.

22. Is your organization experiencing hiring difficulties these days, i.e., shortages of workers?

- Yes (Continue below)
- No (Skip to Question #27)

23. What is the extent of these hiring difficulties? Are they:

- Across-the-board?
- Only in some areas?

(If the latter:) In what particular areas or for what job titles is your organization currently experiencing hiring difficulties?

24. If your organization is finding it difficult to hire, to what do you attribute this?

(Check all mentioned by respondent)

- A shortage of qualified people
- A non-competitive compensation package
- The type of work performed by the company
- The time demands of the job
- Location
- Other (Please specify): \_\_\_\_\_

(If not already answered:) Which of these reasons is the *most* important in making it difficult to hire appropriate personnel now? (Circle the option they mention)

Are you experiencing greater difficulties finding qualified workers *now* than you were a year ago? If yes, why?

25. If your organization is finding it difficult to hire appropriate personnel, how is the organization coping? (Check all mentioned by respondent)

- Hiring partially qualified workers and providing training to the new employees to become fully qualified
- Outsourcing the work
- Hiring temporary or contract employees
- Shifting work to existing employees
- Relying more on special visas for foreign-born workers
- Cutting back work in some areas
- Other (Please specify): \_\_\_\_\_

26. Is your organization making special efforts to diversify its workforce?

- Yes
- No

How does your organization define diversity?

What kinds of efforts does your organization make along these lines?

27. Does your organization experience any difficulties in recruiting and obtaining women or underrepresented minorities in IT fields?

- No
- Yes (If Yes:) What kind of difficulties?

28. Has your organization laid off a significant number or percentage of its IT/CS staff in the past year?

- No
- Yes (If Yes:) Has this affected:
  - where you recruit? Could you please explain?

- your organization's ability to meet its diversity goals? Could you please explain?

Next I'd like to turn from recruiting new employees to talk a bit about your organization's policies regarding its current employees.

29. What kind of assistance, if any, does your organization provide for employees to earn a bachelor's degree? Please describe.

Does this assistance depend upon what grade the employees get in their classes?

Yes

No

30. If a current employee of your organization were to earn a bachelor's degree while he or she was employed here, would he or she automatically receive a salary increase as a result?

Yes

No

31. Is there anything about your organization that makes it especially attractive or unattractive:

(a) To women? What is that?

(b) To underrepresented minorities? What is that?

(c) To nontraditional students as we define them in this study? What is that?

(d) To persons with disabilities? What is that?

32. To the best of your knowledge, how many employees are in your IT workforce? \_\_\_\_\_

To the best of your knowledge, how many of these are women? \_\_\_\_\_

To the best of your knowledge, how many of these are underrepresented minorities? \_\_\_\_\_

33. In your organization, what is the average length of employment for IT employees? \_\_\_\_\_

34. Is the average length of employment different for:

(a) Women?

No

Yes (If Yes:) How and why is it different?

(b) Underrepresented minorities?

No

Yes (If Yes:) How and why is it different?

(c) People who were nontraditional students?

No

Yes (If Yes:) How and why is it different?

35. Is there anything else that you'd like to add?

## I. EMPLOYER INTERVIEW PROTOCOL: LINE MANAGERS

Interviewer: \_\_\_\_\_

Organization: \_\_\_\_\_

Interviewee (optional): \_\_\_\_\_

Date and Time: \_\_\_\_\_

First, let me ask you some general questions about your experience with new employees and their training. We are concerned here with employees who have a bachelor's degree only.

1. Are there any universities or colleges whose graduates stand out in your mind as exceptionally well prepared for the job?

Yes (If Yes:) Which ones, and why are their graduates so well prepared?

No (If No:) Do no schools stand out because the school makes no difference or because you are unaware of the schools your employees attended?

2. Are there any universities or colleges whose graduates stand out in your mind as consistently unprepared in any way?

Yes (If Yes:) Which ones, and in what ways are their graduates so unprepared?

No

3. Do you look more favorably on job candidates with prior work experience (such as internships, "co-op programs," or other prior employment)?

No

Yes (If Yes:) Does it make a significant difference whether the person's prior experience has been in the IT/CS area, or in some other area?

Yes

No

(For either answer:) Could you say a bit more about that?

4. What kinds of experiences has your organization had with so-called “re-tooled” majors, that is, persons originally trained in another area who then undergo training in information technology or computer science? *(Probe, if necessary: Do you find any advantages or disadvantages on the part of such employees? If so, what are they?)*

5. For the work people do here, how important is it that an IT employee is broadly educated: that is, he or she does not have only technical knowledge? *(Probe, if necessary: What are the advantages and disadvantages to a broad education, assuming they also have the technical knowledge?)*

**For the purposes of our study, we define a “nontraditional student” as anyone who (a) begins his or her baccalaureate degree after the age of 20 and/or (b) takes longer than 6 years to complete a baccalaureate degree.**

6. Given this definition, to your knowledge, have you had much experience in this organization with employees who were nontraditional students?

No

Yes (If Yes:) What has been your personal experience with such persons?

How has this experience affected your recruitment of job candidates who were nontraditional students?

7. Do you see any particular advantages or disadvantages to hiring employees who were nontraditional students? Please explain.

8. Do you find any advantages or disadvantages of employees who earned their bachelor's degree in a non-traditional way? Specifically, in terms of:

The quality of their laboratory work?

How rigorous their training was?

Their work skills and work habits?

Their social skills?

How easy or difficult they are to train for the job at hand?

How realistic their expectations tend to be?

Their maturity and responsibility?

9. Is there anything else you'd like to add?

## J. PRE-INTERVIEW FACULTY QUESTIONNAIRE

Dear Faculty Member/Administrator:

The American Association for the Advancement of Science (AAAS) and the Commission on Professionals in Science and Technology (CPST) would like to thank you for participating in this interview. Before we begin, we ask that you please fill out this questionnaire with some basic background information.

### PROVISIONS FOR PROTECTION OF CONFIDENTIALITY

All team members involved in this project will be required to protect the confidentiality of respondents during the course of this project. Individual information obtained will be aggregated to form group data for our reports. No individual data or data aggregated by institution will be released to your academic department or to any person or persons not connected with the project.

1. If you are a faculty member, what is your current rank?
  - Full Professor
  - Associate Professor
  - Assistant Professor
  - Adjunct/Lecturer
  - Other (*Please specify*): \_\_\_\_\_
  
2. If you hold an administrative position, what is that position?
  - Program Director
  - Academic Advisor
  - Department Head
  - Dean/Assistant/Associate Dean
  - Other (*Please specify*): \_\_\_\_\_
  
3. What is your tenure status?
  - Tenured
  - Tenure track
  - Not tenure track
  - Tenure system not used
  
4. What is your current appointment?
  - Full-time
  - Part-time
  
5. How many years have you been teaching at the college/university level? \_\_\_\_\_
  
6. How many years have you been teaching at this institution? \_\_\_\_\_
  
7. How many courses do you teach in an academic year and what is the average course size?  

Number of undergraduate courses: _____	Average course size: _____
Number of graduate courses: _____	Average course size: _____

8. How many students are assigned to you to advise in a normal academic year?

Number of undergraduate student advisees: \_\_\_\_\_

Number of graduate student advisees: \_\_\_\_\_

9. What is your gender?

- Female
- Male

10. Are you a: *(Please check only one)*

- U.S. citizen?
- Non-U.S. citizen with permanent residency?
- Non-U.S. citizen with a temporary visa?

11. If a U.S. citizen, are you Spanish/Hispanic/Latino?

- Yes
- No

12. If a U.S. citizen, please indicate your race. *(Please check all that apply)*

- African American
- Asian
- Pacific Islander
- Native American
- White
- Other *(Please specify)*: \_\_\_\_\_

## K. PRE-INTERVIEW STUDENT QUESTIONNAIRE

Dear Information Technology/Computer Science Student:

The American Association for the Advancement of Science (AAAS) and the Commission on Professionals in Science and Technology (CPST) would like to thank you for participating in this interview. Before we begin, we ask that you please fill out this questionnaire with basic demographic, educational, and employment data.

### PROVISIONS FOR PROTECTION OF CONFIDENTIALITY

All team members involved in this project will be required to protect the confidentiality of respondents during the course of this project. Individual information obtained will be aggregated to form group data for our reports. No individual data or data aggregated by institution will be released to your academic department or to any person or persons not connected with the project.

1. When did you graduate from high school or receive your GED?  
Year: \_\_\_\_\_
2. When did you begin pursuing your bachelor's degree?  
Month: \_\_\_\_\_ Year: \_\_\_\_\_
3. When do you anticipate finishing your bachelor's degree?  
Month: \_\_\_\_\_ Year: \_\_\_\_\_
4. What year are you in school?  
 Freshman  
 Sophomore  
 Junior  
 Senior  
 Other (*Please specify*): \_\_\_\_\_
5. In what year were you born? \_\_\_\_\_
6. What is your gender?  
 Female  
 Male
7. Are you a: (*Please check only one*)  
 U.S. citizen?  
 Non-U.S. citizen with permanent residency?  
 Non-U.S. citizen with a temporary visa?
8. If a U.S. citizen, are you Spanish/Hispanic/Latino?  
 Yes  
 No

9. If a U.S. citizen, please indicate your race. *(Please check all that apply)*

- African American
- Asian
- Pacific Islander
- Native American
- White
- Other *(Please specify)*: \_\_\_\_\_

10. Are you the primary caregiver to any children? *(Only count children who live with you at least 50% of the time)*

- Yes *(Please specify number of children)* \_\_\_\_\_
- No

11. Do you have any of the following long-lasting conditions?

- Yes    No
- Blindness, deafness, or a severe vision or hearing impairment
  
  - A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying

12. Are you receiving federal financial aid? If yes, what type of aid?

- Yes    No
- Stafford loan
  - PLUS loan
  - Pell Grant
  - Work-study
  - Montgomery GI Bill
  - Other *(Please specify)*: \_\_\_\_\_

13. Do you receive other forms of financial aid?

- Yes    No
- Financial support from parents/partners/other relatives
  - Loans from the school you attend
  - Financial assistance or reimbursement from your employer
  - Tuition waivers, fellowships, grants, scholarships from the college
  - Teaching or research assistantships from the college
  - Other *(Please specify)*: \_\_\_\_\_

14. Before selecting your current college/university, did you attend any other higher education institution?

- Yes
- No
- a. If yes, where and when? \_\_\_\_\_
- b. Did you receive a degree? If yes, please specify degree and field:  
\_\_\_\_\_

15. Are you currently employed?

- Yes
- No

If yes, approximately how many hours a week? \_\_\_\_\_

16. If employed, will you continue to work for the same employer after graduation?

- Yes
- No

17. What was your employment status during most of the year before starting your current degree program?

- Full-time
- Part-time
- Self-employed
- Temporary jobs
- Full-time student
- Not working
- Other (*Please specify*): \_\_\_\_\_

## L. STUDENT INTERVIEW PROTOCOL

Interviewer: \_\_\_\_\_

Date and Time: \_\_\_\_\_

Institution and Department: \_\_\_\_\_

---

1. What were your favorite subjects in elementary and secondary school? Did you like math?

2. What are your favorite pastimes now? Please give examples.

3. What is your major?

- Computer Science
- Computer Engineering
- Computer Information Systems/Information Systems
- Business or Management Information Systems
- Other (*Please specify*): \_\_\_\_\_

Do you have a second major or minor? (*If so, please specify*):

---

4. Why did you choose to pursue an Information Technology/Computer Science (IT/CS) degree? Have you changed majors or contemplated changing majors since you started? From what and why?

5. Did you have a different conception of IT/CS before you started your degree than you do now? Of computer scientists? What specific perceptions that you had have changed since you've been in your degree program?



11. Are there particular classes that are extraordinarily difficult in your degree program? Which classes? Why? Are these courses considered weed-out courses? Have these courses caused you to consider dropping out of the major?
12. How would you describe your own abilities to do your coursework in comparison to the other students in your program?
13. In the past year, have you contemplated leaving college for any reason? What reason(s) specifically? (e.g., personal reasons, economic reasons, program limitations, lack of self-confidence, grades or academic performance, etc.) What made you stay?
14. How often do you miss class? If you miss class, what is most likely the reason? How do you make up the work?
15. Does your program offer night, weekend, or web-based classes? If yes, have you participated in any of the following while pursuing your bachelor's degree? If yes, what were your experiences?
- | Yes                      | No                       |                                      |
|--------------------------|--------------------------|--------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Attend night classes                 |
| <input type="checkbox"/> | <input type="checkbox"/> | Attend weekend classes/programs      |
| <input type="checkbox"/> | <input type="checkbox"/> | Take any web-based or online courses |
| <input type="checkbox"/> | <input type="checkbox"/> | Take any distance-learning courses   |

16. How often do you meet with your professors outside of class? Do you have a faculty advisor or mentor whom you can go to and discuss career plans, problems with coursework, etc.? If not, would you like one?

17. Does your institution consider you a full-time student?

- Yes
- No

18. Have you had any difficulties in getting the classes you need to complete your degree in a timely manner? What kinds of difficulties?

19. Do you feel that you've had the same access to resources as other students in your degree program? (e.g., faculty time, administrative offices, research equipment, financial aid, etc.) Why or why not?

20. Do you receive financial aid? If yes, has that aid been adequate? Would you have attended college without receiving any financial aid?

21. Have you had the opportunity to conduct research with faculty members or other students outside the classroom? Describe your experiences.

22. Have you or do you plan on doing an internship or co-op job before completing your degree?

23. Does your institution have a career placement center? Are you using it or do you plan on using it to find a job?

24. Do you have plans to continue your education after completing your bachelor's degree with the intention of earning a graduate or professional degree? Certificate program? If so, in an IT/CS field?

25. Is there anything else you'd like to add?