California Innovation Corridor

BASIC/BAC Economic Institute
PhD Preparedness and Career Project

Survey Tool for Student Interviews

[Call initiation cushion—2:00 min. | 02:00 elapsed]

[Introduction—2:00 min. | 04:00 elapsed]

Thank you for taking the time to speak with me about your experience pursuing doctoral-level education and the career you have envisioned in the life sciences.

I expect we will take a little more than 45 minutes for this conversation. Is that okay?

[If not, work out when / how to follow-up to complete the interview.]

First, a little about myself [quickly, where you're from, academic course of study].

Our conversation is part of research I am conducting on behalf of the Bay Area Science and Innovation Consortium, known as BASIC, which is part of the Bay Area Council Economic Institute. BASIC is a partnership of national laboratories, research universities, private and independent laboratories and community organizations. BASIC works to support the Bay Area's scientific and research infrastructure, and advance science as a cornerstone of the region's technology-led economy. This project is funded by a grant from the US Department of Labor and the California Space Authority under a project called WIRED, a portion of which is focused on developing profiles for the 21st Century Workforce.

Our conversation is one of 20 such interviews we are conducting with people like yourself. We will be using this information in conjunction with other background research we have conducted, including interviews of employers and industry experts. Any resulting findings that we produce will be available to you.

Your comments will only be used in the aggregate. You will not be personally identified. Your name will not be used publicly in our findings, so I hope you will be as candid with me as possible.

I will be recording our conversation, but that is only to be sure I capture all your thoughts. We will not be using the recording publicly.

Do you have any questions for me?

[Basic information—2:00 min. | 06:00 elapsed]
Tell me a little about yourself:

1. [30 sec.]
   When did you (or when do you expect to) get your doctorate, what university, and what is your area of expertise?

2. [Number. 10 sec.]
   How old are you?

3. [Short answer. 30 sec.]
   Where were you born or grew up / what is your nationality? [For US-born, what city/state]

[Initial career decision factors—5:00 min. | 11:00 elapsed]
Thank you. I'd like to explore how you got into this field.

4. [Short list. 45 sec.]
   Describe for me the main factors that persuaded you to pursue an advanced degree in this field.

5. [Yes/No. 10 sec.]
   Was this the same general area as your undergraduate degree?

6. [Short answer. 45 sec.]
   Thinking back to elementary and high school, did your early schooling help you at all in deciding and preparing to pursue a science career?

7. [Short answer, 90 sec. Prompt with the examples, but skip if already covered in #4.]
   Were you familiar with the <u>technical area</u> of your PhD before entering the PhD program? For instance:

   • Did you work in the field before, during or after your undergraduate degree?

   • Did you complete work-study or an internship in the field?

   • Have a relative or a close friend or associate who works in the field?

8. [Y/N plus short answer. 60 sec.]
   Did you experience any people strongly pushed you into or out of this field? [If yes, probe briefly for who and what did they say or do.]

[Academic satisfaction / abandonment factors—19:00 min. | 30:00 elapsed]
Let's turn to how your academic program went.

9. [Probe for thoughtful answer. 2 min.]
   Thinking back over the time from when you decided to enroll to today, describe for me any of the major moments when you considered abandoning the field [probe for who/what/why and how strong].

10. [Number 1-10. 30 sec.]
    On a scale of 1 to 10, with 10 being highest, how satisfied were you with your university experience?

11. [Number and short answer. 45 sec.]
    How many years after receiving your undergraduate degree, including time off from school for work or travel, will it have taken to get your PhD, and is that a problem?

12. [Probe. 60 sec.]
    While it is common for many to struggle with money during school, to what extent did economic issues make it difficult for you to pursue this degree or pursue opportunities after the degree [probe for how much and why]?

13. [Probe for thoughtful answer. 2 min.]
    In your university experience, was (is) there a reasonable balance between your research interests and a need to pursue grant funding projects?

14. [Probe for thoughtful answer. 2 min.]
    Thinking back to when you started your PhD program, were your career path options made clear to you?

15. [Short answer. 60 sec.]
    What, if any, adjustments did you make in your academic program to accommodate the university system?

16. [Probe for thoughtful answer. 2 min.]
    Was the university supportive of your needs/ambitions? [If not, how did you overcome this lack of support?]

17. [Probe for thoughtful answer. 2 min.]
    What ways, if any, has the university exceeded your expectations?

18. [Probe for thoughtful answer. 2 min.]
    How would you rate the level of structure in your university training (i.e. overly structured and confining, too broad and unsupervised, etc)?

19. [Short answer. 60 sec.]
    Did your university help you gain experience using automated lab equipment and computing packages for research or project design and management?

20. [Probe for thoughtful answer. 2 min.]
    Have you had any structured opportunity to gain business knowledge—such as business development, people management, or finance—either through classes or some form of work placement?

[Post-graduate success / abandonment factors—10:00 min. | 40:00 elapsed]
Thanks for all that. I'd like to look at how things are going for you now as you start to pursue work after your PhD.

21. [Short answer. 30 sec.]
    (If not already working) how soon do you plan to enter the workforce in your field?

22. [Short answer. 60 sec.]
    Do you plan to engage in a post-doc (or are you already), where, and for how long?

23. [Probe for thoughtful answer. 2 min.]
    Do you have a focused goal in your future employment, do you have a good understanding of the opportunities and career path of that choice [if not, why not]?

24. [Short answer. 60 sec.]
    Looking over the next two to five years, what do you want from your workplace (eg, type and size of organization, amount of research, work on a large team or independently)?

25. [Probe for thoughtful answer. 2 min.]
    Do you feel that the training you have received has given you the best chance to achieve your immediate goals? Please describe why or why not.

26. [Short answer. 60 sec.]
    Looking long term, how would you measure success in your career? (money, advancing

science, improving the human condition, meeting expectations of friends and family, career stability, diversity of experiences)?

27. [Probe for thoughtful answer. 2 min.]
Did your PhD program support you and other students in entering a variety of career paths? In other words, to what extent is the program highly focused on and directly supportive of producing university researchers, industrial lab researchers, entrepreneurs, or industry technical executives/managers?

- **[Suggestions—6:00 min. | 46:00 elapsed]**
Terrific. We're almost done.

28. [Probe for thoughtful answer. 2 min.]
Overall, what things do you believe should be implemented at the university level that would maximize the students' academic experience and better prepare them to achieve their expectations? (e.g., industry internship program, more grant money, more structured training/oversight, guaranteed tenure, etc?)

29. [Probe for thoughtful answer. 2 min.]
Nationally, there is a concern that an increasing number of new technical PhD graduates are seeking employment in other, non-technical jobs or even abandoning PhD programs and just taking a Masters. Thinking about the people you know or have observed, do you think this is true, and if so, why do you think it's happening?

30. [Probe for thoughtful answer. 2 min.]
Do you think that not enough people are entering science careers? If so, do you have any ideas on how to increase the number of people?

Thank you very much. We've covered all my questions.