

NSF PARTNERSHIPS — INTERVIEW PROTOCOL PROJECT PIs AND OTHER RESEARCHERS (COMPARISON PROJECTS)

INTRODUCTION

Thank you for agreeing to meet with us regarding the {SPECIFY RESEARCH PROJECT}. As we indicated in our earlier note, we are doing an evaluation of some of NSF's programs that are jointly funded by NSF and private industry. Our study involves comparing projects conducted under such partnership programs with projects, addressing similar research topics, funded by NSF. We've asked to speak with you as part of our effort to get a better understanding of your project and how the {SPECIFY NAME OF PROGRAM} supported your project.

1. To get started we'd like to know more about how you were involved in the project.

- When did your involvement with the project start?
- What was your role and how long did your participation last?

2. Can you tell me a little bit about the {SPECIFY RESEARCH PROJECT}, specifically the goals of the project and what was hoped to be achieved through it?

3. What type of activities were implemented to reach the project goals?

[Probe] Did you encounter any challenges implementing any of these activities? If yes, why did these challenges occur and what steps did you take to address them?

4. How successful was your project in achieving the goals you just outlined?

[Probe] Ask for each area mentioned earlier in Q2, then follow up in other areas

- Building broader research communities/networks of researchers

- Allowing for interdisciplinary approaches/multiple perspectives/transformational approaches/different methodologies
- Accelerating discovery and innovation
- Providing new opportunities for career development
- Enhancing the diversity of the STEM workforce

5. Has the project resulted in any of the following outputs? (If yes, ask for details)

- Publications
- Patents
- Commercial products
- Other

6. Have you continued this line of research?

[PROBE] If yes, ask for details

WORKING WITH THE INDUSTRY PARTNERS

Now I'd like to ask you a few questions about whether you partnered with industry on this research project.

7. Did you have any interactions with industry partner(s) to help you carry out your research project?

- IF YES, GO TO Q8
- IF NO, ASK THE FOLLOWING QUESTION AND THEN PROCEED TO Q19: **Did you consider an industry partnership? Why or why not?**

8. Who was your industry partner?

9. Why did you select this industry partner?

[Probe] Ask about whether the private industry partner provided them with the necessary capacity/resources, shared vision/common goals

10. Had you ever worked with this industry partner before?

[Probe] If yes, ask: On which research topics?

11. Thinking of {SPECIFY RESEARCH PROJECT}, what were the areas/activities on which the industry partner collaborated?

[Probe] Ask about potential areas of interaction and collaboration

- Advising or collaborating with researchers
- Informing decisions on the design or implementation of research projects
- Offering supports, such as providing researchers to be part of the project team or access to its technology, infrastructure, or sites
- Providing opportunities to researchers, such as retreats or related interactions
- Providing opportunities to students, such as mentoring or access to research opportunities
- Providing supports for dissemination of project findings and products

[Ask for *each* areas of interaction mentioned]

- Can you give me some specific examples of how this was done?
- Why were these activities selected and how were they agreed upon?

12. How were the activities coordinated between industry partner and research staff? How well did this coordination work?

13. How well did the industry partner communicate with you and other research staff?

[Probe] Frequency of communication and mode

14. Overall, how would you describe the engagement of industry partner?

15. How did you monitor whether the industry partner delivered expected activities and met their goals?

16. Can you identify any particular benefits that you feel resulted from interacting with the industry partner?

[Probe] Ask about potential areas of added value

- Building broader research communities/networks of researchers
- Allowing for interdisciplinary approaches/multiple perspectives/transformational approaches/different methodologies
- Accelerating discovery and innovation
- Accelerating transition from basic research to product
- Providing new opportunities for career development
- Disseminating findings to a broad and diverse audience

17. Were there any challenges in partnering with your industry partner(s)? If yes, what were they? Why did these challenges occur and how did you try to overcome them?

[Probe] Ask about any challenges encountered

- Burdens
- Conflict between priorities
- Disagreement on intellectual property
- Lack of clarity surrounding roles
- Lack of reliable access to the partner

16. Have you continued to work with the industry partner(s) on extension of the research being discussed here or new research? In what capacity did you involve the industry partner?

18. Can you please provide us with contact information for the industry partner (s) that was involved on this research project?

CONCLUSION

19. Are there areas that you think NSF could change to promote better collaboration between industry partners and researchers on research projects?

Feb 6, 2023

Thank you for taking the time to talk with us about this work. Your insights have been very helpful.