Transformative and Interdisciplinary Research:
Survey of Principal Investigators in the National Science Foundation's Programs

This survey is about your role as a current Principal Investigator (PI) of a National Science Foundation (NSF) award, "[INSPIRE/COMPARISON_PROJECT_NAME]". The survey asks about your satisfaction with the proposal submission process, challenges to carrying out the proposed research, and your perceptions of the level of encouragement by NSF for high-risk, high-reward research. The survey should take approximately 10 minutes to complete.

Researchers at Abt Associates, an independent research firm with 50 years of experience in program evaluation, are conducting this survey as part of an assessment of the Integrated NSF Support Promoting Interdisciplinary Research and Education (INSPIRE) program. This formative evaluation is examining program implementation and the differences in processes and types of research funded compared to other NSF interdisciplinary programs.

Participation is voluntary. Choosing to participate or not has no effect on your current or future receipt of NSF funding (we will not reveal to NSF whether or not you have participated). **We will protect your privacy** to the extent permissible by law by separating the responses you provide from your name, contact information and other identifiers (e.g., your computer's IP address, your institution's name). Your survey results will be summarized along with the responses of other PIs in aggregate form only. All identifiable information will be removed from the data before they are shared with NSF.

Questions? Contact Ellen Bobronnikov, the study director at Abt Associates Inc. at: NSF_INSPIRE@abtassoc.com or Simona Gilbert, who oversees the project at NSF at TBD@nsf.gov.

[CONTINUE]

1. How satisfied were you with the following aspects of the application process? *Mark one answer in each row.*

Row		Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Not Applicable
A	Obtaining information about the program	○ 1	○ 2	○ 3	○ 4	○ 5	○ 0
B	Clarity of program goals	○ 1	○ 2	○ 3	○ 4	○ 5	○ 0
C	Clarity of application instructions	○ 1	○ 2	○ 3	○ 4	○ 5	○ 0
D	The inquiry process	○ 1	○ 2	○ 3	○ 4	○ 5	○ 0
E	Length of time to submit a proposal	○ 1	○ 2	○ 3	○ 4	○ 5	○ 0
F	Procedures for submitting proposals	○ 1	○ 2	○ 3	○ 4	○ 5	○ 0
G	Proposal review process	○ 1	○ 2	○ 3	○ 4	○ 5	○ 0

If INSPIRE respondent selects responses 1 "Very Dissatisfied" or 2 "Dissatisfied" in rows A-G, Go to 1A.
Otherwise, Go to 2 (if INSPIRE respondent) or 4 (if COMP respondent).

INSPIRE Only
Display 1a once for each row in question 1 where the response is 1 "Very Dissatisfied" or 2 "Dissatisfied":

1a. You indicated dissatisfaction with _____ [option from Q1_Row (A-H)]. Please explain why this was the case and what NSF can do to improve the process. Limit 300 words.

[textbox, 300 words]

If INSPIRE respondent, Go to 2.
Otherwise, Go to 4.

2. Did you try to get this research funded by NSF through a different funding mechanism before applying to the INSPIRE program?

      $\bigcirc_1$ Yes, but the work was not funded.
      $\bigcirc_2$ Yes, but the work was partially funded.
      $\bigcirc_0$ No, I did not try.
      $\bigcirc_{-1}$ Other [textbox, 100 words].

If INSPIRE respondent selects response item 0 "No, I did not try," Go to 3
Otherwise, Go to 4

3. How likely or unlikely do you think it is that your research could have been funded through a regular program with more standard merit review mechanisms? *Mark one response.*

      $\bigcirc_4$ Very Unlikely
      $\bigcirc_3$ Unlikely
      $\bigcirc_2$ Likely
      $\bigcirc_1$ Very Likely
      $\bigcirc_0$ Unsure

If the INSPIRE respondent selects response items 4 or 3, Go to 3a.
Otherwise, Go to 4.

3a. If you think it is unlikely that your research could have been funded through a traditional merit review mechanism, please explain why this is the case. *Check all that apply.*

My research would be considered:
- ❑ Too high-risk.
- ❑ The level of interdisciplinarity would not fit in regular programs .
- ❑ In conflict with current thinking in the field.
- ❑ Infeasible to conduct within the proposed time frame.
- ❑ Other [textbox, 100 words].

Go to 4.

4. On a scale of 1-5, where 1 indicates "not at all" and 5 indicates "very," how would you rate the proposal you submitted using the following descriptions? *Mark one answer in each row*.

Row		1 (Not at All)	2	3	4	5 (Very)
A	Out-of-the-box, unconventional	○	○	○	○	○
B	High-risk	○	○	○	○	○
C	Paradigm shifting	○	○	○	○	○
D	Interdisciplinary	○	○	○	○	○

4a. Please list the characteristics describing the ways in which your project is paradigm shiftin. *Check all that apply.*

❑ Challenges conventional wisdom.
❑ Leads to insights that enable new techniques or methodologies.
❑ Redefines the boundaries among disciplines of science, engineering, or education.
❑ Other [textbox, 100 words].

4b. Please list the characteristics describing the ways in which your project is interdisciplinary. *Check all that apply.*

❑ Combines concepts/methods from multiple fields in new, surprising ways.
❑ Proposes problem-driven research that requires a comprehensive and integrative approach to a grand challenge issue.
❑ Raises new fundamental questions or interesting new directions for research at the interface of disciplines.
❑ Makes major changes in understanding or use of existing concepts or methods to address complex phenomena.
❑ Other [textbox, 100 words].

INSPIRE Respondents only

5. Did you propose your most high-risk, high-reward research ideas in your proposal to the INSPIRE program? *Mark one response.*

        ○$_1$ Yes, I proposed my most high risk, potentially transformative research ideas.
        ○$_0$ No, I had higher-risk, potentially more transformative ideas, but I did not think they were likely to be funded by NSF.

Go to 6a.

INSPIRE Respondents only

6a. Have you experienced any of the following challenges with your project so far? *Please check one or more responses.*

❑ Getting the project off the ground
❑ Maintaining progress consistent with the desired timeline
❑ Language barriers with researchers from other disciplines
❑ Recognition of the importance of the project by your department or institution
❑ Communicating with multiple NSF Program Directors from different disciplines about your project
❑ Other. Please explain [textbox, 300 words]

Go to 7a

Non-INSPIRE (Comparison Group) Respondents only

6b. Have you experienced any of the following challenges with your project so far? *Please check one or more responses.*

❑ Getting the project off the ground
❑ Maintaining progress consistent with the desired timeline
❑ Language barriers with researchers from other disciplines
❑ Recognition of the importance of the project by your department or institution
❑ Communicating with your NSF Program Director(s) about your project
❑ Other. Please explain [textbox, 300 words]

Go to 7b

7a.　Do you think NSF has been successful in encouraging researchers to submit their most high-risk, high-reward research ideas through the INSPIRE program? *Mark one response.*

◯₁ Yes
◯₀ No. Please explain [textbox, 300 words]
◯₋₉₈ Not Sure

7b.　Do you think NSF has been successful in encouraging researchers to submit their most high-risk, high-reward research ideas?

◯₁ Yes
◯₀ No. Please explain [textbox, 300 words]
◯₋₉₈ Not Sure

8.　What can NSF do to improve the INSPIRE program in the future?

[textbox, 300 words]

CONCLUSION

Thank you! We appreciate the time you have taken to complete the survey. Your responses are very important to the National Science Foundation; they will be used to improve the management of NSF programs and provide information for how to best support transformative and interdisciplinary research in the future.

The survey is now complete. You may close your internet browser or click Exit. < EXIT >

If you would like to send NSF any comments about the survey please contact:
Simona Gilbert, who oversees the project at NSF at TBD@nsf.gov and include the OMB Control No. = 3145-0215.