

## APPENDIX H.3: Crosswalk of Survey Items to Research Questions and Sources

<i>Key to Sources Acronym</i>	<i>Source*</i>
NPSAS04	National Postsecondary Student Aid Study. 2004 Survey
BPS:04/09	Beginning Postsecondary Students, 2009 Follow-up Survey
S-STEM recipient	S-STEM Recipient Survey. 2013 Survey
IRFP applicant	Survey of Former applicants to the National Science Foundation's International Research Fellowship Program (IRFP). 2010 Survey
IRFP host	Survey of Host Scientists for U.S. Graduate Students of the National Science Foundation's International Research Fellowship Program (IRFP). 2010 Survey
EAPSI applicant	Survey of Former Applicants to the National Science Foundation's East Asia and Pacific Summer Institutes Program (EAPSI). 2010 Survey
SDR 2010	Survey of Doctoral Recipients. 2010 Survey
SURE	Survey of Undergraduate Research Experiences (SURE), Lopatto 2004, 2008
New	New item written for the Evaluation of the PIRE Program

\*PIRE surveys include items drawn from a variety of national surveys, some of which are preserved in their original wording. Items that have been modified from national surveys are noted.

<b>Research Questions</b>	
RQ 1.	What is the quantity and quality of the publications that PIRE projects have produced (and that are projected to be produced)?
RQ 2.	How does the quantity and quality of publications produced by PIRE projects—that are required, by definition, to include an international collaboration—compare to the quantity and quality of publications produced by similar NSF-funded projects that <i>do not require</i> an international collaboration?
RQ 3.	What are the program experiences of PIRE Principal Investigators (PIs and co-PIs), postdoctoral researchers, and graduate and undergraduate student participants? What are the research and educational or career outcomes for these participants?
RQ 4.	How do the research and educational or career outcomes for PIRE PIs, postdoctoral researchers, and graduate student participants compare to those of similar participant groups in similar NSF-funded projects that <i>do not require</i> an international collaboration?
RQ 5.	How do international affairs representatives at PIRE PIs' institutions perceive the effects of PIRE on their institutions' policies and practices for supporting international research and educational collaborations?
RQ 6.	What are the program experiences of foreign senior investigative partners in PIRE and how do they perceive the effects of PIRE on their research and educational practices and those of their institutions?
RQ 7.	How have PIRE projects contributed to research that may inform global societal challenges?

**Items Mapped to Research Questions, Use in Analysis, and Item Source (if applicable)**

**KEY**

- A:** the variable from this item is used for administrative purposes (e.g., respondent contact and background information, to drive skip patterns).  
**M:** the variable from this item is used for matching.  
**B:** the variable from this item will be used for benchmarking.  
**C:** the variable from this item will be used as a control variable in the analysis.

- D:** the variable from this item will be used in the descriptive analysis.  
**O:** the variable from this item will be used as an outcome in the relational or CITS analysis.  
**SG:** the variable from this item is a subgroup item that will be used in the descriptive analysis (e.g. major).

Principal Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
<b>Module A: Your Role In The [PIRE/Comp] Award</b>										
A1	Is your name [First Name, Middle Name/Initial, Last Name]?								A	IRFP applicant, A1, Modified
A2	Are you (or were you at one time) a Principal Investigator or Co-Principal Investigator of the NSF award, [PIRE/COMP PROJECT NAME]?								A	IRFP applicant, A2.1, Modified
A3	When did you first participate in activities associated with this award? If you are unsure of the month, please include your best estimate. Please en...								A	
A4	As of [SURVEY_DATE], have you completed your contributions to the [PIRE/COMP] project? Please mark Yes or No.								A	
A5	Were you still contributing to this project in the month that the award period ended?								A	
A6	When did you last contribute to research or other activities associated with the [PIRE/COMP] project? Please enter the month and year.								A	
A7	Between [PART_START_DATE] and [PART_END_DATE], how many weeks, months (or years) [have you been/were you] conducting research or educational activitie...								C/D	
<b>Module B: Collaborations</b>										
B1a_stem B1a_rowA B1a_rowB	While conducting research for the [PIRE/COMP] project, [have you collaborated/did you collaborate] with any of the following? I [have collaborated/collaborated] with: Researchers (senior- or postdoctoral-level) in the U.S. Researchers (senior- or postdoctoral-level) outside the U.S.			1	1				D, O	
B1b_stem B1b_rowA B1b_rowB B1b_rowC B1b_rowD	Between (PART_END_MONTH, PART_END_YEAR) and SURVEY_DATE, have you collaborated with any U.S. or foreign member of the [PIRE/COMP] project team? One or more... were/still are based in the U.S. One or more... were/still are based outside the U.S. One or more... were... in the U.S. but now... outside the U.S. One or more... were outside the U.S. but now... in the U.S.			1	1				O	
B1c_stem B1c_rowA B1c_rowB	When was the most recent time you have collaborated with a member of the [PIRE/COMP] project team? Most recent collaboration with: One or more... were/still are based in the U.S.			1	1				D	IRFP applicant, F1b, modified

Principal Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
B1c_rowC B1c_rowD	One or more... were/still are based outside the U.S. One or more... were... in the U.S. but now... outside the U.S. One or more... were outside the U.S. but now... in the U.S.									
B1d	Which of the following describe your collaboration(s) with a foreign colleague from the [PIRE/COMP] project team? Check all that apply.			1	1				D	IRFP applicant, F1a, Modified
B1e	Between [PART_END_DATE] and [SURVEY_DATE], have you collaborated with any foreign researchers who were not affiliated with the [PIRE/COMP] project?			1	1				O	
B1f	Between (PART_END_MONTH, PART_END_YEAR) and SURVEY_DATE, how many foreign colleagues have you collaborated with?			1	1				D	
B1g	Please think about the one foreign partner—that is, someone based primarily outside the U.S.—with whom you have collaborated the <b>longest</b> :			1	1				D	
<b>Module C: Results Of Your [PIRE/Comp] Award</b>										
C1a	[Have you been/were you] involved in planning, designing or conceptualizing the research for the [PIRE PROJECT NAME] project?			1	1				D	
C1b	During the planning of the research, did you meet in person (face-to-face) with foreign members of the research team (PIs, coPIs, other senior-level research...			1	1				D	
C2	As part of your participation in the [PIRE/COMP] project, [have you traveled/did you travel] outside the U.S. to conduct research or educational activ...			1	1				D/O	
C3	Where outside the U.S., [have you traveled/did you travel] for activities related to your [PIRE/COMP] project? Do not include brief stops due to trave...			1	1				C/D	
C4_stem C4_rowA C4_rowB	While conducting these activities outside the U.S. as part of your [PIRE/COMP] project, [have you interacted/were you interacting] directly with... Foreign senior- or postdoctoral-level researchers Foreign graduate or undergraduate students			1	1				D, SG	
C5a	As of [SURVEY_DATE], how many times [have you traveled/did you travel] outside the U.S. for activities related to the “[PIRE/COMP]” award?			1	1				D/C	
C5b_stem	How many consecutive days, weeks or months were you outside the U.S. on average, and on the single longest such trip? On average Single longest trip			1	1				D, C	
C5c	How many consecutive days, weeks or months were you outside the U.S. for [PIRE/COMP]-related activities?			1	1				D/C	
<b>Module D: Results Of Your NSF Award</b>										
D1a	Did any <b>foreign*</b> partner on the [ABBREVIATED_PROJECT_NAME] project receive funding to support research or educational activities for the project?			1	1				D	
D1b	Please estimate the total amount of funding that <b>all foreign* partners combined</b> received to support research or educational activities for the project.			1	1				D	
D2a	Aside from the [PIRE/COMP] award itself, [have you been awarded/were you awarded] other funding from NSF or other sources to support another part of y...			1	1				D	

Principal Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
D2b	Please estimate the total amount of additional funding from all other sources (other than from the [PIRE/COMP] program) you received to support your r...			1	1				D	
D3a_stem D3a_rowA D3a_rowB D3a_rowC	How many of the following works related to the project, "[PIRE/COMP PROJECT_NAME]," have you produced as an author, co-author, inventor, ... Conference abstracts posters or presentations... Patents, registered or pending, provisional or non-provisional ... Other products (e.g., educational material, software application...)			1	1				O	IRFP applicant, D6, Modified
D3b	How many invited talks, presentations or seminars have you given on research conducted as part of your [PIRE/COMP] project? Have any of these invite...			1	1				O	
D4a_stem D4a_rowA D4a_rowB D4a_rowC	How many of the following not yet published works related to the project, "[PIRE/Comp PROJECT_NAME]," have you produced as an author or co-author? Peer-reviewed research reports, articles or papers IN PRESS Research reports, articles or papers UNDER REVIEW Manuscripts IN PREPARATION			1	1				O	IRFP applicant, C7, Modified
D4b_stem D4b_rowA D4b_rowB	How many proposals for other grant funding have you submitted as Lead Principal Investigator, and how many of those grants have you received? Enter total number of proposals submitted as lead or coPI... Total number of grants received as lead or coPI...			1					O	
D5_stem D5_rowA D5_rowB D5_rowC D5_rowD D5_rowE D5_rowF D5_rowG	For each of the following statements please indicate whether you strongly agree, agree, disagree or strongly disagree: My research benefited from access to expertise from foreign researchers My research benefited from access to data in foreign locations My research benefited from access to equipment or facilities in foreign locations My research benefited from access to place-based phenomena that occur outside the U.S. (e.g., biological, geological, cultural phenomena) Regulatory, bureaucratic or administrative procedures [have hindered/hindered] the progress of the research* Cultural differences [have hindered/hindered] the progress of the research* Language difficulties [have hindered/hindered] the progress of the research*			1					D	

Principal Investigator Survey		Research Question							Analysis Use	Source (if appl.)	
No.	Item	1	2	3	4	5	6	7			
D6_stem D6_rowA D6_rowB D6_rowC D6_rowD D6_rowE D6_rowF D6_rowG D6_rowH	[Have you experienced/Did you experience] any of the following challenges during the PIRE project... Inadequate access to data, specimens, facilities, equipment, other resources Conflicts over authorship or credit for contributions to the research Funding expected from foreign (non-U.S.) sources did not materialize Delays in getting publications written due to the cross-cultural nature of the team Bias from foreign researchers based on my nationality, gender, race, ethnicity, religion, disability or sexual orientation Key foreign researchers were not as available as I expected or did not contribute enough to the project Other(please specify) None of the above			1						D	IRFP applicant, E5, Modified
D7_stem D7_rowA D7_rowB D7_rowC D7_rowD	Has the [PIRE/COMP] award resulted in any of the following career outcomes? Check yes or no for each statement Helped me receive tenure or led to a promotion Helped me receive a promotion Provided me an opportunity to leverage other funds to support my research Provided me an opportunity to move to a more prestigious institution			1	1					O	
D8	Have you received any unsolicited* offers of employment from other academic or non-academic institutions?			1	1					O	
<b>Module E: About You Prior To Your [PIRE/Comp] Award</b>											
E1	What is the highest degree you have completed? Mark one response.			1						M,C	EAPSI applicant, D1, Modified
E2	In what year did you receive your [HI_DEGREE]? If you completed more than one [HI_DEGREE], please enter the year that you received your most recent [H...			1						M,C	SDR 2010, D4, Modified
E3	What discipline best characterizes your primary field of research?			1						C	IRFP applicant, A5, Modified
E4_stem E4_rowA E4_rowB E4_rowC	Did you receive any of the following degrees from a ... university outside the U.S.? Doctoral degree or professional degree Master's degree or certificate Bachelor's degree (or its equivalent)			1						C	
E5	After completing your [HIDEGREE] did you ever hold any postdoctoral appointments outside the U.S.?			1						C	
E6	After...and before... had you collaborated on any research with a foreign researcher(s) who worked at an institution outside the U.S.?			1						C	
E7a	Were any of these collaborations (before the start of the [PIRE/COMP] award period) with foreign senior investigators (PIs/CoPIs or other senior perso...			1						D,C	
E7b	For how many months or years had you been collaborating with these individuals prior to receiving the [PIRE/COMP] award?			1						C	

Principal Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
E8	How many grants or other competitive funding awards for research had you received from the NSF, from other federal agencies, and from other sources (e...			1					C	
E9	Between the time [of first position and start of PIRE/COMP project] had you received unsolicited offers of employment from other academic or non-academic institutions?			1	1				C	
<b>Module F: Institutional Culture</b>										
F1	[Has/Did] the PIRE award resulted/result in any changes in policies or practices related to undergraduate and/or graduate education in the sciences, e...					1			D	
F1a	Please describe these changes					1			D	
F2_stem F2_rowA F2_rowB	At your institution, are there policies or practices that either facilitate or hinder participation of undergraduate or graduate students in research or education abroad? Undergraduate majors in sciences, mathematics or engineering Graduate students in sciences, mathematics or engineering					1			D	
F2a	Please describe how your institution's policies or practices facilitate or hinder the participation of undergraduate or graduate students in research/education abroad.					1			D	
F3	Has your institution done any of the following to facilitate or support PIRE's international research or education initiatives? (Check all that apply)					1			D	
F4	What administrative official at your institution would be most familiar with PIRE and any changes in institutional policies or practices regarding int...					1			A	
<b>Module G: Contributions To Global Challenges</b>										
G1	Aside from... what are the benefits of the PIRE project for society at large, or for those who have <b>not</b> participated directly in the project?							1	D	
G2	How might society implement (or how has society implemented) some of the research findings that the PIRE project [PROJECT NAME] has produced...?							1	D	
G3	Has your PIRE project advanced knowledge or led to discoveries that might help address global challenges such as the following? • Environmental, soci...							1	D	
G4	how would you describe the contributions of your PIRE project to policy-makers and the general public?							1	D	
G5	Although your PIRE project is still underway, has the project resulted in any contributions to this theme? Please describe separately any contributions that your project <i>has already made</i> and any contributions <i>that you anticipate</i> as the project progresses.							1	D	
<b>Module H: Demographic Information</b>										
H1	Did you ever attend elementary or secondary school outside the United States? (If you ever attended elementary or secondary school in Puerto Rico, Ame...			1	1				C, SG	NPSAS04, N4SCHUS, Modified
H2	When you were growing up, was English the language you spoke most often at home?			1	1				C, SG	NPSAS04, N4LANG

Principal Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
H3	What is your gender?			1	1				M, C, SG	IRFP applicant, G1
H4	What is your ethnicity?			1	1				C, SG	EAPSI applicant, G2
H5	What is your race? Check one or more			1	1				C, SG	NPSAS04, N4RAC1
H6a	Were you born in the United States?			1	1				C, SG	NPSAS04, N4USBORN
H6b	Are you a U.S. citizen?			1	1				M, C, SG	NPSAS04, N4CITZN
H7a_stem H7a_rowA H7a_rowB H7a_rowC H7a_rowD	What is the USUAL degree of difficulty you have with: Mark one answer for each item SEEING words or letters in... HEARING what is normally said in ... WALKING without human or mechanical assistance or using stairs ... LIFTING or carrying something as heavy as 10 pounds, such as...			1	1				C, SG	SDR 2010, E13
H7b	What is the earliest age at which you first began experiencing any difficulties in any of these areas?			1	1				C, SG	SDR 2010, E15

**POSTDOCTORAL SURVEY: Items Mapped to Research Questions, Use in Analysis, and Item Source (if applicable)**

**KEY**

- A:** the variable from this item is used for administrative purposes (e.g., respondent contact and background information, to drive skip patterns). **D:** the variable from this item will be used in the descriptive analysis.
- M:** the variable from this item is used for matching. **O:** the variable from this item will be used as an outcome in the relational or CITS analysis.
- B:** the variable from this item will be used for benchmarking. **SG:** the variable from this item is a subgroup item that will be used in the descriptive analysis (e.g. major).
- C:** the variable from this item will be used as a control variable in the analysis.

Postdoctoral Participant Survey		Research Question							Analysis Use	Source (if appl.)	
No.	Item	1	2	3	4	5	6	7			
<b>Module A: Your Role In The [PIRE/COMPARISON] Award</b>											
A1	Is your name [First Name, Middle Name/Initial, Last Name]?									A	IRFP applicant, A1, Modified
A2	Are you a current or former postdoctoral researcher on a project called "[PIRE/COMP_PROJECT NAME]"? ...									A	IRFP applicant, A2.1, Modified
A3	Are you a former postdoctoral researcher on a project called "[PIRE/COMP_PROJECT NAME]"? ...									A	BPS:04/09, MBCREN01, Modified
A4	In what month and year did your [SHORT_PIRE/COMP_PROJECT NAME] postdoctoral appointment end?			1	1					C	BPS:04/09, MBDGMY01, Modified
A5	In what month and year did you begin your [SHORT_PIRE/COMP_PROJECT NAME] postdoctoral appointment?			1	1					C	BPS:04/09, MBBGGR01, Modified
A5a	Did you begin your [SHORT_PIRE/COMP_PROJECT NAME] postdoctoral appointment before or after July 1st of [YEAR FROM A5]...			1	1					C	
A6	When did you first contribute to research or educational activities associated with this project? If you are unsure of the month, please enter your be...			1	1					C	
A7	have you completed your contributions to the PIRE project? If you will be engaging in research or educational activities that are part of this projec...			1	1					C	
A8	Were you still contributing to this project in the month that the award period ended?			1	1					C	
A9	When did you last contribute to research or other activities associated with the [PIRE/COMP] project? Please enter the month and year.			1	1					C	
<b>Module B: Collaborations</b>											

Postdoctoral Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
B1a_stem B1a_rowA B1a_rowB B1a_rowC B1a_rowD B1a_rowE B1a_rowF	While conducting research for the [SHORT_PIRE/COMP_PROJECT NAME], [have you collaborated/were you collaborating] with any of the following types of in... Faculty or other senior-level researchers ... within the U.S.? Postdoctoral-level researchers ... within the U.S.? Graduate or undergraduate students ... within the U.S.? Foreign faculty or other senior-level researchers ... outside the U.S.? Foreign or postdoctoral-level researchers ... outside the U.S.? Foreign graduate or undergraduate students ... outside the U.S.?...			1	1				D,O	
B1b_stem B1b_rowA B1b_rowB B1b_rowC B1b_rowD	Between (PART_END_MONTH, PART_END_YEAR) and SURVEY_DATE, have you collaborated with One or more... were/still are based in the U.S. One or more... were/still are based outside the U.S. One or more... were... in the U.S. but now... outside the U.S. One or more... were outside the U.S. but now... in the U.S.			1	1				D,O	
B1c_stem B1c_rowA B1c_rowB B1c_rowC B1c_rowD	When was the most recent time you have collaborated with a member of the [PIRE/COMP] project team? ... One or more... were/still are based in the U.S. One or more... were/still are based outside the U.S. One or more... were... in the U.S. but now... outside the U.S. One or more... were outside the U.S. but now... in the U.S.			1	1				D	IRFP applicant, F1b, Modified
B1d	Which of the following describe your most recent collaboration with a foreign colleague from the [PIRE/COMP] project team? Check all that apply.			1	1				D	IRFP applicant, F1a, Modified
B1e	Have you collaborated with any foreign researchers who were not affiliated with the [PIRE/COMP] project? Check one only.			1	1				D/O	
B1f	How many foreign colleagues have you collaborated with?			1	1				D	
B1g	Please think about the one foreign partner—that is, someone based primarily outside the U.S.—with whom you have collaborated the <b>longest</b> .			1	1				D	
B2	[Have you traveled/did you travel] outside the U.S. to participate in research or educational activities related to the [PIRE/COMP_SHORTPROJECTNAME] p...			1	1				D/O	
B3	Where outside the U.S. [have you traveled/did you travel] during your [PIRE/COMP] postdoctoral appointment for activities related to the [PIRE/COMP] p...			1	1				D/C	
B4	For which of the following purposes did you go abroad during your [PIRE/COMP] postdoctoral appointment? Check all that apply.			1	1				D	
B5_stem B5_rowA B5_rowB B5_rowC	Were you interacting directly with any foreign researchers, either at the senior/faculty-level, postdoctoral-level, or graduate/undergraduate student With foreign faculty or senior-level researchers... With foreign postdoctoral-level researchers... With foreign graduate or undergraduate students...			1					D, SG	
B6a	How many times [have you traveled/did you travel] outside the U.S. for activities related to the [PIRE/COMP] award, as of [SURVEY_DATE]?...			1	1				D/C	

Postdoctoral Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
B6b_stem B6b_rowA B6b_rowB	How many consecutive days, weeks or months were you outside the U.S. on average, and on the single longest such trip? On average: Single longest trip:			1	1				D/C	
B6c	How many consecutive days, weeks or months were you outside the U.S. during your [PIRE/COMP] postdoctoral appointment for [PIRE/COMP]-related...			1	1				D/C	
<b>Module C: Results of the Project</b>										
C1	how many weeks, months, or years [have you been/were you] conducting research associated with the project: [SHORT_PROJECT_NAME]? If you are unsure...			1	1				D/C	
C2a_stem C2a_rowA C2a_rowB C2a_rowC	How many of the following works related to the project, "[SHORT_PIRE/COMP_PROJECT NAME]," have you produced as an author, co-author, inventor, co-in... Conference abstracts, posters or presentations... Patents, registered or pending, provisional or non-provisional ... Other products... (e.g., educational material, software application...)			1	1				O	IRFP applicant, D6, Modified
C2b	How many invited talks, presentations or seminars have you given on research conducted as part of your [PIRE/COMP] postdoctoral appointment?			1	1				O	
C3_stem C3_rowA C3_rowB C3_rowA	How many of the following not yet published works related to the project, "[SHORT_PROJECT NAME]," have you produced as an author or ... Peer-reviewed research reports, articles or papers IN PRESS ... Research reports, articles or papers UNDER REVIEW ... Manuscripts IN PREPARATION...			1	1				O	IRFP applicant, C7, Modified
C4_stem C4_rowA C4_rowB C4_rowC C4_rowD C4_rowE C4_rowF C4_rowG	For each of the following statements please indicate whether you strongly agree, agree, disagree or strongly disagree: My research benefited from access to expertise of foreign partners in my field My research benefited from access to data in foreign locations My research benefited from access to equipment or facilities in foreign locations My research benefited from access to place-based phenomena outside the U.S. Regulatory... procedures in a foreign country [have hindered/hindered]... Different cultural perspectives [have improved/improved] the quality... Language differences [have hindered/hindered] the progress of the research.*			1					D	
C5	[Have you experienced/Did you experience] any of the following as a result of traveling outside the U.S. for the [SHORT_PROJECT_NAME] project?			1					D	IRFP applicant, E5, Modified
<b>Module D: About You Prior to the [PIRE/COMPARISON] project</b>										
D1	In what month and year did you receive your doctoral degree?			1	1				M,C	SDR 2010, D4, Modified
D2	What discipline best characterizes your primary field of research?			1	1				C	IRFP applicant, A5, Modified
D3_stem	Did you receive any of the following ... from a college or university outside the U.S.?			1	1				C	

Postdoctoral Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
D3_rowA	Doctoral degree or professional degree									
D3_rowB	Master's degree or certificate									
D3_rowC	Bachelor's degree (or its equivalent)									
D4_stem	How many postdoctoral appointments have you held (as of [SURVEY_DATE])?									
D4_rowA	PIRE/COMP postdoctoral appointment...			1	1				C, O	
D4_rowB	After completing your doctorate and before [PIRE/COMP] postdoctoral...									
D4_rowC	Between the end of your [PIRE/COMP] postdoctoral...and [SURVEY DATE]?									
D5	Prior to the start of the postdoctoral appointment...had you ever held any postdoctoral appointments <b>outside the U.S.?</b>			1	1				C	
D6	After...and before you began participating in the [PIRE/COMP] project, had you collaborated on research with a foreign researcher(s) ... outside the U.S.? ...			1	1				C	
D7	While you were a <u>graduate student</u> , did you participate in a study abroad program or spend a semester (or more) pursuing graduate research or educatio...			1	1				C,D	IRFP applicant, Item C3b
D8	While you were an <u>undergraduate</u> , did you participate in a study abroad program or did you spend a semester (or more) pursuing research or education ou...			1	1				C,D	IRFP applicant, Item C3a
<b>Module E: Career Outcomes</b>										
E1	Were you working for pay or profit, during the week of [SURVEY_DATE]?			1	1				O,B	SDR 2010, Item A1
E2_stem	Did your duties on this job require the ... expertise of a bachelor's degree or higher in:									
E2_rowA	Engineering, computer science, math or the natural sciences			1	1				O,B	SDR 2010, Item A22
E2_rowB	The social sciences									
E2_rowC	Some other field (e.g. health, business, or education)									
E3	Was this job a "postdoc"?			1	1				O,B	SDR 2010, Item A23
E4	Was your primary employer during the week of [SURVEY_DATE] an educational institution?			1	1				O,B	SDR 2010, Item A14
E4a	Was the educational institution where you worked a ...			1	1				O,B	SDR 2010, Item A15
E4b	During the week of [SURVEY_DATE] what was your faculty rank?			1					O,B	SDR 2010, Item A17
E4c	What was your tenure status?			1	1				O,B	SDR 2010, Item A18
E5_stem	Has your [PIRE/COMP] postdoctoral appointment resulted in any of the following career outcomes? Check yes or no in each row.									
E5_rowA	Helped me receive a full-time position that was my top choice.			1	1				D	
E5_rowB	Helped me win grant funding to support my research.									
E6	Would you recommend or not recommend to other postdoctoral researchers that they participate in international research or educational activities?			1	1				D	

Postdoctoral Participant Survey		Research Question							Analysis Use	Source (if appl.)	
No.	Item	1	2	3	4	5	6	7			
E6a	Why would you [strongly recommend/recommend/recommend but with reservations/not recommend] that other postdoctoral researchers participate in research or educational activities?			1	1					D	
E6b	What aspects of your participation as a postdoc in the PIRE project have been most beneficial? What aspects have been (or were) the most challenging?			1						D	
<b>Module F: Demographic Information</b>											
F1-F7b	For mapping to research questions and sources, see PI Survey Items H1-H7b										

**GRADUATE STUDENT PARTICIPANT SURVEY: Items Mapped to Research Questions, Use in Analysis, and Item Source (if applicable)**

**KEY**

- A:** the variable from this item is used for administrative purposes (e.g., respondent contact and background information, to drive skip patterns).  
**M:** the variable from this item is used for matching.  
**B:** the variable from this item will be used for benchmarking.  
**C:** the variable from this item will be used as a control variable in the analysis.

- D:** the variable from this item will be used in the descriptive analysis.  
**O:** the variable from this item will be used as an outcome in the relational or CITS analysis.  
**SG:** the variable from this item is a subgroup item that will be used in the descriptive analysis (e.g. major).

Graduate Student Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
<b>Module A: Your Role In The [PIRE/COMPARISON] Award</b>										
A1a	Is your name [First Name, Middle Name/Initial, Last Name]?								A	IRFP applicant, A1, Modified
A1b	When you first participated in the [PIRE/COMPARISON_PROJECT_NAME] project, where were you enrolled as a graduate student?								A	
A1c	When you first participated in the [PIRE/COMPARISON_PROJECT_NAME] project, what is the <b>highest</b> degree you were working on or that you expected to earn...?			1	1				A, C	BPS:04/09, MBCREN01, Modified
A2	Are you currently enrolled for this [GRAD_DEGREE] at [PIRE_IHE/Comp_IHE]?								A	S-STEM Item, A1, Modified
A3	What is/What was your field of study for your [GRAD_DEGREE] at [PIRE_IHE/COMP_IHE]? Please select your or field of study from the list provided.			1					C, SG	BPS:04/09, MBDEG01, Modified
A4	Did you complete your program of study and receive your [GRAD_DEGREE] from [PIRE_IHE/Comp_IHE] (or another institution) before [SURVEY_DATE]?			1	1				B,C	SDR 2010, D3, Modified
A5	In what month and year was did you receive your [GRAD_DEGREE] from [PIRE_IHE/Comp_IHE/OTHER_IHE/OTHER_IHE2]?			1	1				A,O	BPS:04/09, MBERN01, Modified
A6	In what month and year were you last enrolled for your [GRAD_DEGREE]?			1	1				A,C	BPS:04/09, MBDGMY01, Modified
A7	In what month and year did you first attend [PIRE_IHE/Comp_IHE] for your [GRAD_DEGREE]?			1	1				A,C	BPS:04/09, MBBGGR01, Modified
A7a	Did you first attend [PIRE_IHE/Comp_IHE] for your [GRAD_DEGREE] before or after July 1st of [YEAR FROM A6]			1	1				A,C	BPS:04/09, MBBGGR01, Modified
A7b	When did you first participate in research or educational activities associated with this award?			1	1				A,C	

Graduate Student Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
A8	Have you completed your contributions to the PIRE project?			1					A	
A9	Were you still contributing to this project in the month that the award period ended?			1					A,C	
A10	When did you last contribute to research or other activities associated with the [PIRE/COMP] project? Please enter the month and year.			1	1				A,C	
<b>Module B: Collaborations and [PIRE/COMPARISON] Project Experiences</b>										
B1	While pursuing your [GRAD_DEGREE] at [GRAD_INSTITUTION] [have you ever conducted/did you ever conduct] research related to the project, "[PROJECT_NAME]"?			1	1				D,A	
B2_stem B2_rowA B2_rowB B2_rowC B2_rowD B2_rowE B2_rowF	While conducting research related to the [SHORT_PROJECTNAME] project, [have you collaborated/were you collaborating] with any of the following? Faculty, senior-level or postdoctoral-level researchers... in the U.S? Graduate students at another university or research facility in the U.S.? Undergraduate students at another university or research facility in the U.S.? Foreign faculty, senior-level... outside the U.S.? Foreign graduate students... outside the U.S.? Foreign undergraduate students... outside the U.S.?			1	1				D,O	
B2a_stem B2a_rowA B2a_rowB B2a_rowC B2a_rowD	Between (PART_END_MONTH, PART_END_YEAR) and SURVEY_DATE, have you collaborated with any U.S. or foreign member of the PIRE/COMP project team? One or more... were/still are based in the U.S. One or more... were/still are based outside the U.S. One or more... were... in the U.S. but now... outside the U.S. One or more... were outside the U.S. but now... in the U.S.			1	1				D,O	
B2b_stem B2b_rowA B2b_rowB B2b_rowC B2b_rowD	When was the most recent time you have collaborated with. . . One or more... were/still are based in the U.S. One or more... were/still are based outside the U.S. One or more... were... in the U.S. but now... outside the U.S. One or more... were outside the U.S. but now... in the U.S.			1					D	IRFP applicant, Item F1b, Modified
B2c	Which of the following describe your most recent collaboration with a foreign colleague from the [PIRE/COMP] project team? Check all that apply.			1					D	IRFP applicant, Item F1a, Modified
B2d	Between [PART_END_DATE] and [SURVEY_DATE], have you collaborated with any foreign researchers who were not affiliated with the [PIRE/COMP] project?			1	1				D,O	
B2e	Between (PART_END_MONTH, PART_END_YEAR) and SURVEY_DATE, how many foreign colleagues have you collaborated with?			1	1				D	
B2f	Please think about the one foreign partner—that is, someone based primarily outside the U.S.—with whom you have collaborated the <b>longest</b> .			1					D	
B3	While pursuing your [GRAD_DEGREE] [have you traveled/did you travel] outside the U.S. to participate in research... related to [SHORT_PROJECTNAME]?			1					O	
B4	Where outside the U.S. have you traveled/did you travel for activities related to the [PIRE/COMP] project? Do not include brief stops due to travel la...			1	1				D	

Graduate Student Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
B5	For which of the following purposes did you go abroad? Check all that apply.			1	1				D/C	
B6	What types of coursework did you take at a foreign university or foreign educational institution as part of your participation in the [SHORT_PROJECTNAME]?			1	1				D	
B7	Which of the following describes your foreign internship setting and the type of work involved? Check all that apply.			1					D	
B8_stem B8_rowA B8_rowB B8_rowC	While conducting this research outside the U.S., were you interacting directly with any foreign researchers, either... With foreign senior- or postdoctoral-level researchers... With foreign graduate students... With foreign undergraduate students...			1	1				D, SG	
B9a	While pursuing your [GRAD_DEGREE], how many times have you traveled/did you travel outside the U.S. for ... the [SHORT_PROJECTNAME]" project?			1	1				D, SG	
B9b_stem B9b_rowA B9b_rowB	How many consecutive days, weeks or months were you outside the U.S. on average, and on the single longest such trip? On average Single longest trip			1	1				D/C	
B9c	How many consecutive days, weeks or months were you outside the U.S. for [PIRE/COMP]-related activities?			1	1				D/C	
<b>Module C: Project Experiences and Results</b>										
C1	Between [PART_START_DATE] and [PART_END_DATE], how many weeks, months (or years) [have you been/were you] conducting research associated with the project...?			1					C	
C2a_stem C2a_rowA C2a_rowB C2a_rowC	Between [PART_START_DATE] and [SURVEY_DATE], how many of the following works related to the project have you produced as an author, co-author,... Conference abstracts, posters or presentations Patents, registered or pending, provisional or non-provisional Other products (e.g., educational material, software application)			1	1				O	IRFP applicant, D6, Modified
C2b	...how many invited talks, presentations or seminars have you given on research conducted as part of your participation in the [PIRE/COMP] project?			1	1				O	
C3_stem C3_rowA C3_rowB C3_rowC	...how many of the following not yet published works related to the project have you produced as an author or co-author? Peer-reviewed research reports, articles or papers IN PRESS Research reports, articles or papers UNDER REVIEW Manuscripts IN PREPARATION			1	1				O	IRFP applicant, Item C7, Modified
C4_stem C4_rowA C4_rowB C4_rowC C4_rowD C4_rowE	For each of the following statements please indicate whether you strongly agree, agree, disagree or strongly disagree: My research benefitted from access My research benefitted from access to expertise from foreign researchers My research benefitted from access to data in foreign locations My research benefitted from access to equipment or facilities in foreign locations My research benefitted from access to place-based phenomena			1					D	

Graduate Student Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
C4_rowF C5_rowG	Regulatory, bureaucratic... [have hindered/hindered] the progress of the research* Cultural differences [have hindered/hindered] the progress of the research* Language difficulties [have hindered/hindered] the progress of the research*									
C5	[Have you experienced/Did you experience] any of the following challenges during the PIRE project? <i>Check all that apply.</i>			1					D	IRFP applicant, Item E5, Modified
<b>Module D: About You Prior To The Project</b>										
D1	In what month and year was your bachelor's degree awarded?			1	1				C	SDR 2010, D4, Modified
D2	Between [BA_DEGREE_DATE] and the time you began participating in ... the project, had you collaborated on research with any researcher(s) ... outside the U.S.?			1	1				C	
D3	Before you began participating in...the project, did you participate in a study abroad program as a <u>graduate student</u> ...?			1	1				C	IRFP applicant, Item C3b, Modified
D4_stem D4_rowA D4_rowB D4_rowC	Have you received any of the following degrees from a ... university outside the U.S.? Doctoral degree or professional degree Master's degree or certificate Bachelor's degree (or its equivalent)			1	1				C	
D5	While you were an undergraduate, did you participate in a study abroad program or did you spend a semester (or more) pursuing research or education ou...			1	1				C	IRFP applicant, Item C3a, Modified
<b>Module E: Career Outcomes</b>										
E1a	As of [SURVEY_DATE], what is the highest degree you have completed?			1	1				C	EAPSI applicant, D1, Modified
E1b	In what month and year did you receive your [HI_DEGREE]?			1	1				B/C	SDR 2010, Item D4, Modified
E1c	After completing your [HI_DEGREE], did you ever hold any postdoctoral appointments?			1	1				M,C	
E1d	Have you ever held any postdoctoral appointments outside the U.S.?			1	1				O/B	
E2	Were you working for pay or profit, during the week of [SURVEY_DATE]? Work includes being self-employed, on a postdoctoral appointment, or on any ty...			1	1				C	SDR 2010, A1
E3_stem E3_rowA E3_rowB E3_rowC	Did your duties on this job require the technical expertise of a bachelor's degree or higher in: Engineering, computer science, math or the natural sciences The social sciences Some other field (e.g. health, business, or education)			1					O/B	SDR 2010, A22
E4	Was this job a "postdoc?"			1					O/B	SDR 2010, A23

Graduate Student Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
E5	Was your primary employer during the week of [SURVEY_DATE] an educational institution?			1					O/B	SDR 2010, A14
E5a	Was the educational institution where you worked a . . .			1					O/B	SDR 2010, A15
E5b	During the week of [SURVEY_DATE] what was your faculty rank?			1					O/B	SDR 2010, A17
E5c	What was your tenure status?			1					O/B	SDR 2010, A18
E6_stem E6_rowA E6_rowB	Have your experiences with the [SHORTPROJECTNAME] project resulted in any of the following career outcomes? Helped me receive a full-time position that was my top choice. Helped me win grant funding to support my research			1					O	
E7	Would you recommend or not recommend to other graduate students that they participate in international research or educational activities?			1					D	
E7a	Why would you [strongly recommend/recommend/recommend but with reservations/not recommend] that other graduate students participate in international r...			1					D	
<b>Module F: Demographic Information</b>										
F1-F7a	For mapping to research questions and sources, see PI Survey Items H1-H7b									

**UNDERGRADUATE PARTICIPANT SURVEY: Items Mapped to Research Questions, Use in Analysis, and Item Source (if applicable)**

**KEY**

- A:** the variable from this item is used for administrative purposes (e.g., respondent contact and background information, to drive skip patterns).  
**M:** the variable from this item is used for matching.  
**B:** the variable from this item will be used for benchmarking.  
**C:** the variable from this item will be used as a control variable in the analysis.

- D:** the variable from this item will be used in the descriptive analysis.  
**O:** the variable from this item will be used as an outcome in the relational or CITS analysis.  
**SG:** the variable from this item is a subgroup item that will be used in the descriptive analysis (e.g. major).

Undergraduate Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
<b>Module A: Your Role In The [PIRE/COMPARISON] Award</b>										
A1	Is your name [First Name, Middle Name/Initial, Last Name]? .								A	IRFP applicant, Item A1, Modified
A2	When you first participated in the ... project, where were you enrolled as an undergraduate?								A	
A3	As of [SURVEY_DATE], are you currently enrolled for your bachelor's degree?								A	BPS:04/09, MBCREN01, Modified
A4	Did you ... receive your bachelor's degree prior to [SURVEY DATE]?			1					D, B	BPS:04/09, MBERN01, Modified
A5	In what month and year did you receive your bachelor's degree?			1					D, B	BPS:04/09, MBDGMY01, Modified
A5a	In what month and year were you last enrolled for your bachelor's degree			1					D	BPS:04/09, Modified
A6	In what month and year did you <b>first</b> attend [BA_INSTITUTION] for your bachelor's degree?								A	BPS:04/09, MBBGGR01, Modified
A6a	Did you first attend [BA_IHE] for your bachelor's degree before or after July 1st of [YEAR BA_DEGREE_DATE]:								A	
A7	When you received your bachelor's degree, what was your primary major or field of study?			1					D, B	SDR 2010, D3, Modified

Undergraduate Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
B1_stem B1_A B1_B B1_C	While pursuing your bachelor's degree, [have you ever traveled/did you ever travel] outside the U.S. for any of the following? Help conduct an original research project Take classes at an educational institution or study abroad program Participate in internship Attend a professional conference			1					D	
B2 B2_A B2_B B2_C	[Have any/Were any] of these activities ...[been related/related] to the project, ... Research project Classes or study abroad program Internship Professional conference			1					D	
B3	When did you first participate in activities associated with this award? If you are unsure of the month, please enter your best approximation. Please ...			1					D	
B4	Have you completed your participation in the PIRE project? If you will be engaging in research or educational activities that are part of this projec...			1					D	
B5	Were you still participating in this project in the month that the award period ended? ...			1					D	
B6	When did you last participate in research or educational activities associated with the PIRE project? Please enter the month and year. If you are u...			1					D	
B7	How many weeks, months or years [have you been/were you] participating in research or educational activities associated with the project: [SHORT_PROJE...			1					D	
B8	Where outside the U.S. [have you traveled/did you travel] for activities related to the [PIRE_SHORT_PROJECTNAME] project? Do not include brief stops d...			1					D	
B9	While you were abroad did you do any of the following other activities?			1					D	
B10	What types of coursework did you take while outside the U.S. or what did your study abroad program include?			1					D	
B11_1	Which of the following describes your internship setting and the type of work involved?			1					D	
B12_stem B12_1 B12_2	While conducting this research outside the U.S., were you interacting directly with Faculty, senior- or postdoctoral-level researchers or graduate students based outside the U.S.. Undergraduate students based outside the U.S.			1					D	
B13a	How many times have you traveled/did you travel outside the U.S. for activities related to the "[PIRE/COMP_SHORTPROJECTNAME]" project?			1					D	
B13b.stem B13b_1 B13b_2	Thinking about these [NUMBER OF TRIPS OUTSIDE THE U.S.], how many consecutive days, weeks or months were you outside the U.S. on average, and on the single longest such trip? On average Single longest trip			1					D	
B13c	How many consecutive days, weeks or months were you outside the U.S. for [PIRE/COMP]-related activities?			1					D	

Undergraduate Participant Survey		Research Question							Analysis Use	Source (if appl.)	
No.	Item	1	2	3	4	5	6	7			
B14_stem B14_1 B14_2 B14_3	When you were abroad for activities related to the [PIRE_SHORT_PROJECT_NAME] project, were you with other students or faculty from the U.S. Other undergraduates from the U.S. Graduate students from the U.S.... Faculty or postdoctoral researchers from the U.S....			1						D	
B15	Who was your primary mentor...			1						D	
B16_stem B16_rowA B16_rowB	Please respond to the following statements about your experience participating in research... My mentor helped me acquire the methods or techniques I needed My mentor showed sincere interest in my learning			1						D	
B17 B17_1 B17_2 B17_3	How much do you agree or disagree with the following statements about your interactions with foreign researcher(s) affiliated with the Regulatory, bureaucratic or administrative procedures [have hindered/hindered] the progress of the research* Different cultural perspectives [have improved/improved] the quality of the research Language differences [have hindered/hindered] the progress of the research...			1						D	
B18	[Have you experienced/Did you experience] any of the following as a result of traveling outside the U.S. to participate in an international research c...			1						D	IRFP applicant, Item E5, Modified
C1_stem C1a C1b	While conducting research associated with the project, "[SHORT_PROJECT_NAME]," as an undergraduate student, [have you collaborated/were you collaborating] with Faculty, senior- or postdoctoral-level researchers or graduate students who were based primarily at a university or research facility outside the U.S. Undergraduate students who were based primarily at a university or research facility outside the U.S.?			1						D	
C2a C2a_1 C2a_2	Between [PARTICIPATION_END_DATE] and SURVEY_DATE have you collaborated on research with any foreign member of the PIRE project team? One or more project members ...who were —and are still—based primarily outside the U.S. ...who were based primarily outside the U.S.—but <i>who are now</i> based in the U.S. ...who were based primarily in the U.S. --but <i>who are now</i> based outside the U.S.			1						D	
C2b C2b_A C2b_B	When was the most recent time you have collaborated with a member of the [PIRE/COMP] project team? ...who were —and are still—based primarily outside the U.S. ...who were based primarily outside the U.S.—but <i>who are now</i> based in the U.S. ...who were based primarily in the U.S. --but <i>who are now</i> based outside the U.S.			1						D	IRFP applicant, Item F1b, Modified
C2c	Which of the following describe your collaboration with someone... based primarily outside the U.S.?			1						D	IRFP applicant, Item F1a, Modified
C2d	Between [PARTICIPATION_END_DATE] and [SURVEY_DATE], have you collaborated			1						D	

Undergraduate Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
	with any foreign researchers who were <b>not affiliated</b> with the ... project?									
C2e	Between [PARTICIPATION_END_DATE] and [SURVEY_DATE], how many foreign colleagues have you collaborated with?			1					D	
C2f	Please think about ...how long have you been collaborating with this person?			1					D	
D1	[Have you been/Were you listed] as a co-author on any publication as the result of your participation in the PIRE project?			1					D	
D2a D2a_1 D2a_2	On how many publications resulting from the PIRE project are you listed (or will you be listed) as a co-author?... Publications: Number/ How many include a foreign co-author? Papers ... or in press: Number/How many include a foreign co-author?			1					D	IRFP applicant, Item C7, Modified
D2b D2b_1 D2b_2 D2b_3	Between [PARTICIPATION_START_DATE] and [SURVEY_DATE], to how many of the following works ... have you contributed Conference posters, or presentations Patents, registered or pending, provisional or non-provisional ... Software application, dataset, database, ...			1					D	IRFP applicant, D6, Modified
D3	What role [have you played/did you play] in preparing publications, conference presentations, patent applications, or other works that will be...			1					D	IRFP applicant, E4, Modified
D4_stem D4_1 D4_2 D4_3 D4_4	Please indicate how much your PIRE research experience may have benefitted you for each area of learning below. Clarification of a career path Tolerance for obstacles faced in the research process Understanding of how scientists work on real problems Self-confidence in my field of study			1					D	SURE, D4_4 Modified
D5	Would you recommend or not recommend to other undergraduates that they participate in international research or educational activities?			1					D	
D5a	Why would you recommend/not recommend... participate in international activities?			1					D	
D5b	What aspects of your participation as an undergraduate in the PIRE project have been most beneficial? Most challenging			1					D	
<b>Module E: Educational And Career Outcomes</b>										
E1	As of [SURVEY_DATE], what is the highest degree you have completed?			1					D, B	EAPSI applicant, D1, Modified
E2a	Where did you complete your [HI_DEGREE]?			1					D	
E2b	In what month and year did you receive your [HI_DEGREE]?			1					M,C	SDR 2010, Item D4, Modified
E2c	In what field was your [HIGHEST_DEGREE]?			1					D	
E2d	After completing your [HIDEGREE], did you ever hold any postdoctoral appointments?			1					C	
E2e	Have you ever held any postdoctoral appointments <b>outside the U.S.</b> ?			1					C	

Undergraduate Participant Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
E3	As of [SURVEY DATE], are you currently enrolled in a graduate degree program? ...			1					D	BPS:04/09, MBCRGR01, Modified
E4a	What degree do you expect to earn?			1					D	BPS:04/09, MBDGGR01, Modified
E4b	Where is your graduate school located?			1					D	
E4c	In what graduate field is your degree program			1					D	
E5	Which of the following best describes your plans for any education beyond your bachelor's degree:			1					D	SURE, Modified
<b>Module F: Employment</b>										
F1	Were you working for pay or profit, during the week of [SURVEY_DATE]? Work includes being self-employed, on a postdoctoral appointment, or on any typ...			1					D, B	SDR 2010, A1
F2 F2_1 F2_2 F2_3	Did your duties on this job require the technical expertise of a bachelor's degree or higher in: ... Engineering, computer science, math or the natural sciences ... The social sciences... Some other field (e.g. health, business, or education)...			1					D, B	SDR 2010, A22
<b>Module G: Demographics</b>										
G1-G8a	For mapping to research questions and sources, see PI Survey Items H1-H7b									

**Foreign Investigator Survey: Items Mapped to Research Questions, Use in Analysis, and Item Source (if applicable)**

**KEY**

- A:** the variable from this item is used for administrative purposes (e.g., respondent contact and background information, to drive skip patterns). **D:** the variable from this item will be used in the descriptive analysis.
- M:** the variable from this item is used for matching. **O:** the variable from this item will be used as an outcome in the relational or CITS analysis.
- B:** the variable from this item will be used for benchmarking. **SG:** the variable from this item is a subgroup item that will be used in the descriptive analysis (e.g. major).
- C:** the variable from this item will be used as a control variable in the analysis.

Foreign Investigator Survey		Research Question							Analysis Use	Source (if appl.)	
No.	Item	1	2	3	4	5	6	7			
<b>Module A: Your Role In The [PIRE/Comp] Award</b>											
A1	Are you affiliated with this project?									A	IRFP applicant, Item A2.1, Modified
A2	Is your name [First Name, Middle Name/Initial, Last Name]?									A	IRFP host, A2, Modified
A3	The [ABBREVIATED_PROJECT_NAME] officially began in [AWARD_MONTH, AWARD_YEAR]. When did you first participate in this project?									A	
A3a	When do you expect to begin participating in the PIRE project?									A	
A4	As of [November 15, 2014], have you completed your contributions to the PIRE project?									A	
A5	Were you still contributing to this project in the month that the award period ended?									A	
A6	When did you last contribute to research or other activities associated with the [ABBREVIATED_PROJECT_NAME] project?									A	
A7	Between... about what percent time, on average, [have you been/were you] participating in research or other activities associated with the PIRE project?							1		D	
A8	What is the highest degree you have completed?							1		D	EAPSI applicant, D1, Modified
A9	In what year did you complete this degree?							1		D/SG	SDR 2010, D4, Modified
A10	Where did you receive this degree?							1		D	
A11	As of [NOVEMBER 15, 2014], where were you primarily based (that is, where is the institution in which you work or where you are affiliated)?							1		D	

Foreign Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
A12	What discipline best characterizes your primary field of research?						1		D/SG	SDR 2010, D3, Modified
<b>Module B: Collaborations</b>										
B1a_stem B1a_rowA B1a_rowB B1a_rowC	While conducting research for the PIRE project, [have you collaborated/did you collaborate] with any of the following? Senior-level researchers based primarily in the U.S. Postdoctoral researchers based primarily in the U.S. Graduate or undergraduate students based primarily in the U.S.						1		D	
B1b_stem B1b_rowA B1b_rowB B1b_rowC B1b_rowD	Between [PARTICIPATION_END_DATE] and [NOVEMBER 15, 2014], have you collaborated with any U.S.-based* member of the PIRE project team? One or more... were/still are based in the U.S. One or more... were/still are based outside the U.S. One or more... were... in the U.S. but now... outside the U.S. One or more... were outside the U.S. but now... in the U.S.						1		D	
B1c_stem B1c_rowA B1c_rowB B1c_rowC B1c_rowD	When was the most recent time you have collaborated with a U.S.-based member of the PIRE project team? One or more... were/still are based in the U.S. One or more... were/still are based outside the U.S. One or more... were... in the U.S. but now... outside the U.S. One or more... were outside the U.S. but now... in the U.S.						1		D	IRFP applicant, Item F1b, Modified
B1d	Which of the following describe your collaboration(s) with a U.S.-based member of the PIRE project team?						1		D	IRFP Applicant Survey, F1a, Modified
B1e	Between [PARTICIPATION_END_DATE] and [November 15, 2014], have you collaborated with any U.S.-based partners... not affiliated with the PIRE project?						1		D	
B1f	Between [PARTICIPATION_END_DATE] and [November 15, 2014], how many U.S.-based partners have you collaborated with?						1		D	
B1g	Please think about the one U.S.-based partner—that is, someone based primarily at an institution within the U.S.—with whom you have collaborated the longest.						1		D	
<b>Module C: PIRE Project Experiences</b>										
C1	Have you obtained/Did you obtain] funding to support participation in the [ABBREVIATED_PROJECT_NAME] project from any of the following?						1		D	
C2	[How has this funding been used/How was this funding used]?						1		D	
C3	Please estimate the total amount of funding that you received to support research or educational activities for the [ABBREVIATED_PROJECT_NAME] project.						1		D	
C4	Have you been/were you] involved in planning, designing or conceptualizing the research or educational activities for the [ABBREVIATED_PROJECT_NAME] project?						1		D	

Foreign Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
C5	[Have there been/were there] any difficulties because you were not involved in planning the research or educational activities?						1		D	
C6	During the planning of the research, did you meet in person (face-to-face) with members of the project team who were primary based in countries other than your own?						1		D	
C7_stem C7_rowA C7_rowB C7_rowC	Approximately how many individuals based primarily at your institution have participated in the PIRE project as of [November 15, 2014]? Undergraduate students Graduate students Senior researchers –above the postdoctoral level						1		D	
C8	As part of your participation in the [ABBREVIATED_PROJECT_NAME] project, [have you traveled/did you travel] internationally to conduct research or educational activities?						1		D	
C9	Where [have you traveled/did you travel] for activities related to the [ABBREVIATED_PROJECT_NAME] project?						1		D	
C10a	As of [SURVEY_DATE], how many times [have you traveled/did you travel] internationally for activities related to the [ABBREVIATED_PROJECT_NAME] project?						1		D	
C10b_stem C10b_rowA C10b_rowD	how many consecutive days, weeks or months were you outside your country for activities related to the [ABBREVIATED_PROJECT_NAME] project? On average Single longest foreign trip						1		D	
C10c	How many consecutive days, weeks or months were you outside your country for activities related to the [ABBREVIATED_PROJECT_NAME] project?						1		D	
C11	Have any members of your institution traveled internationally to participate in research or educational activities for the [ABBREVIATED_PROJECT_NAME] project?						1		D	
C12_stem C12_rowA C12_rowB C12_rowC C12_rowD	What types of individuals from your institution have traveled internationally for the PIRE project? Undergraduate students Graduate students Postdoctoral researchers Senior researchers						1		D	

Foreign Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
C13_stem C13_rowA C13_rowB C13_rowC C13_rowD C13_rowE C13_rowF C13_rowG C13_rowH C13_rowI	Who [has been/was] primarily responsible for conducting the following aspects of research for the [ABBREVIATED_PROJECT_NAME] project? Developing the ideas, hypotheses, or vision for the research project Coordinating the multi-national team of researchers Developing instrumentation, software, equipment, or data collection approaches Collecting data Preparing samples or specimens Synthesizing or fabricating materials Analyzing data Interpreting results Disseminating results through publications and presentations						1		D	IRFP host, C1, Modified
<b>Module D: Pre-PIRE International Research Collaborations</b>										
D1	Between the year you completed your [HIGHEST_DEGREE] and the start of your participation... had you ever before collaborated on any research or education with someone who was based primarily at an institution in the U.S.?						1		D	
D2	Are/were any of these US-based* partners with whom you collaborated... also participants in the PIRE project?						1		D	
D3	For how many months or years had you been collaborating with these individuals prior to the start of the [ABBREVIATED_PROJECT_NAME] project...?						1		D	
<b>Module E: Benefits and Challenges of the PIRE Project</b>										
E1_stem E1_rowA E1_rowB E1_rowC E1_rowD E1_rowE E1_rowF E1_rowG	For each of the following statements please indicate whether you strongly agree, agree, disagree or strongly disagree: My research benefited from access to expertise from foreign researchers My research benefited from access to data in foreign locations My research benefited from access to equipment or facilities in foreign locations My research benefited from access to place-based phenomena Different cultural perspectives... the quality of the research Regulatory, bureaucratic... [have hindered/hindered] the progress of the research* Language difficulties [have hindered/hindered] the progress of the research*						1		D	
E2_stem E2_rowA E2_rowB E2_rowC E2_rowD	For each of the following statements please indicate whether you strongly agree, agree, disagree or strongly disagree. U.S.-based partners integrated well with members of my group U.S.-based partners showed interest in learning about the history, culture... Senior U.S.-based partners had sufficient knowledge and expertise to... U.S.-based partners showed interest in scientific culture and organization...						1		D	
E3	Did you experience any of the following challenges during the [ABBREVIATED_PROJECT_NAME] project?						1		D	IRFP host, E5, Modified
E4	What are the benefits of the PIRE project for society at large, or for those who have <b>not</b> participated directly in the project?							1	D	

Foreign Investigator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
E5	How might society implement (or how has society implemented) some of the research findings that the PIRE project has produced, or that you anticipate it will produce...?							1	D	
E6	Has the [ABBREVIATED_PROJECT_NAME] project advanced knowledge or led to discoveries that might help address global...?							1	D	
E7	Although the PIRE project is still underway, has the project resulted in any contributions to "the challenges of adapting to environmental...?"							1	D	
<b>Module F: PIRE and Your Institution</b>										
F1	[Has/Did] participation in the [ABBREVIATED_PROJECT_NAME] project resulted/result in any changes in policies or practices related to undergraduate and/or graduate...?							1	D	
F1a	Please describe these changes.							1	D	
F2_stem F2_rowA F2_rowB	At your institution, are there policies or practices that either facilitate or hinder participation of undergraduate or graduate students in research or education abroad? Undergraduate majors in sciences, mathematics or engineering Graduate students in sciences, mathematics or engineering							1	D	
F2a	Please describe how your institution's policies or practices facilitate or hinder the participation of undergraduate or graduate students in research/education abroad.							1	D	
F3	Has your institution done/Did your institution do any of the following to facilitate or support international research or education initiatives...?							1	D	
<b>Module G: Education or Employment in the U.S.</b>										
G1	Did you ever attend elementary or secondary school in the United States?								D	
G2_stem G2_rowA G2_rowB G2_rowC	Did you receive any of the following degrees from a college or university within the U.S.? Doctoral degree or professional degree Master's degree or certificate Bachelor's degree (or its equivalent)								D	
G3	Have you ever been employed in the United States for a period of 30 days or longer?								D	
G4	What is your gender?			1	1				D	IRFP applicant, G1

**Institutional Administrator Survey: Items Mapped to Research Questions, Use in Analysis, and Item Source (if applicable)**

**KEY**

- A:** the variable from this item is used for administrative purposes (e.g., respondent contact and background information, to drive skip patterns).  
**M:** the variable from this item is used for matching.  
**B:** the variable from this item will be used for benchmarking.  
**C:** the variable from this item will be used as a control variable in the analysis.

- D:** the variable from this item will be used in the descriptive analysis.  
**O:** the variable from this item will be used as an outcome in the relational or CITS analysis.  
**SG:** the variable from this item is a subgroup item that will be used in the descriptive analysis (e.g. major).

Institutional Administrator Survey		Research Question							Analysis Use	Source (if appl.)
No.	Item	1	2	3	4	5	6	7		
1	How familiar [were you/are you] with this PIRE award?								A	
2 2a	Has the PIRE award resulted/Did the PIRE award result in any changes in policies or practices related to undergraduate or graduate education in (STEM) fields? Please describe these changes.					1			D	
3 3a	For undergraduate or graduate students in (STEM) at your institution, are there policies/practices that either <i>facilitate/hinder</i> participation in research/education abroad? Undergraduate majors in sciences, technology, engineering or mathematics Graduate students in sciences, technology, engineering or mathematics Please describe these policies or practices and how they facilitate or hinder student participation in research or education abroad.					1			D	
4 4a	Has your institution encountered any challenges related to PIRE activities in other countries that have affected faculty or students? What were these challenges and how has your institution responded?					1			D	
5	In what ways has your institution facilitated or supported international research or education initiatives?					1			D	
6	How does PIRE fit within your institution's broader goals for international outreach, research and education? What contributions has PIRE made to these goals?					1			D	
7 7a	did your institution have any formal or informal partnerships with institutions in countries where participants in PIRE-related research or education were traveling? What is the nature of these partnerships with institutions in other countries? Did these partnerships play any role in PIRE activities?					1			D	
8	Has PIRE facilitated your institution's creation of any new formal or informal partnerships with institutions in other countries?					1			D	
8a	What is the nature of these partnerships?					1			D	