

Appendix B: Survey Items Mapped to Sources and Research Questions

Recipient Survey

Key to Sources

Acronym	Source*
NPSAS04	National Postsecondary Student Aid Study, 2004 Survey
BPS:04/09	Beginning Postsecondary Students, 2009 Follow-up Survey
NSSE 2011	National Survey of Student Engagement, 2011. Center for Postsecondary Research National Survey of Student Engagement at Indiana University
New	New item written for the Evaluation of the S-STEM Program

*The recipient survey includes items drawn from national surveys, some of which are preserved in their original wording. Items that have been modified from national surveys are noted.

Mapping of Survey Items to Source

The item number listed in the exhibit below corresponds to the recipient survey, the source lists the national survey the item was drawn from (see previous exhibit for complete source information), and the source variable name provides the name of the variable for the item in its original source.

Section A: Enrollment History

Item No.	Source	Source Variable Name
A1	New	
A2	BPS:04/09	MBCREN00
A3	BPS:04/09	MBETYP00
A4	NPSAS04	N4DOB
A5	NPSAS04	N4FSTMM, N4FSTYY
A6	BPS:04/09	MBDEG01
A7	BPS:04/09	MBRSN00
A8	BPS:04/09	MBDAT00
A9	BPS:04/09	MBERN00
A10	BPS:04/09	MBERN200
A11	BPS:04/09	MBDGMY00
A12	BPS:04/09	MBPLAN00
A13	BPS:04/09	MBMNL00

Section A: Enrollment History		
Item No.	Source	Source Variable Name
A14	BPS:04/09	MBENR00
A15	BPS:04/09	MBEARNED
A16	BPS:04/09	MBSCHOLA
A17	BPS:04/09	MBSCH01, MBSCH02, MBSCH03
A17a	BPS:04/09	MBSCH01
A18	BPS:04/09	MBCREN01, adapted: "By currently enrolled we mean enrolled as of Reference_Date_02" was not included in the BPS:04/09 survey.
A19	BPS:04/09	MBETYP01
A20	BPS:04/09	MBDEG01
A21	BPS:04/09	MBDAT01
A22	BPS:04/09	MCDBLMAJ
A23	BPS:04/09	MCMAJ01, adapted
A24	BPS:04/09	MBERN01
A25	BPS:04/09	MBERN201
A26	BPS:04/09	MBDGM01
A27	BPS:04/09	MBPLAN01. Dates have been modified from original (BPS:04/09 referred to the 2009-10 school year)
A28	BPS:04/09	MBMNL01
A29	BPS:04/09	MBENR01
A30	New	
A31	New	
A32	New	
A33	New	
A34	BPS:04/09	MBDAT00
A35	BPS:04/09	MCDEGMAJ
A36	BPS:04/09	MCDBLMAJ
A37	BPS:04/09	MCMAJ1
A38	BPS:04/09	MCMAJ2
A39	New	
A40	New	

Section A: Enrollment History		
<i>Item No.</i>	<i>Source</i>	<i>Source Variable Name</i>
A41	BPS:04/09	MBENGRD
A42	BPS:04/09	MBCRGR01
A43	BPS:04/09	MBDGGR01
A44	BPS:04/09	MBERGR01
A45	New	
A46	BPS:04/09	MBMRGR01. Note that the item in the BPS:04/09 survey includes an additional response option, "Yes, will be enrolled in an additional degree/certificate program before July, 2009." This option was omitted here: the relevant date for survey respondents in this study is REFERENCE_DATE_02, namely the date prior to onset of survey fielding. This response option will be nonsensical (e.g., if the survey is fielded in April, 2013 setting REFERENCE_DATE_02 to April 1, 2013, then the response option would read "Yes, will be enrolled in an additional degree/certificate program before April 1, 2013." For respondents completing a survey after 4/1/2013, this option does not make sense.
A47	New	
A48	New	

Section B: Characteristics of Enrollment at S-STEM Institution		
<i>Item No.</i>	<i>Source</i>	<i>Source Variable Name</i>
Introduction to Section B	BPS:04/09	ENROLLMENT CHARACTERISTICS, INTRO
B1	BPS:04/09	MCDEGMAJ
B2	BPS:04/09	MCDBLMAJ
B2a	BPS:04/09	MCCLSTC, MCCLTY
B3	BPS:04/09	MCMAJ1
B4	BPS:04/09	MCMAJ2
B5	BPS:04/09	MCNUMJOB
B6	BPS:04/09	MCRELMAJ, MCRELCRS
B7	New	
B8	BPS:04/09	MCHOURS
B9	BPS:04/09	MCWRKRSN
B10	BPS:04/09	MCUGLN

Section B: Characteristics of Enrollment at S-STEM Institution		
Item No.	Source	Source Variable Name
B11	BPS:04/09	MCUGLAM
B12	New	Note to reviewers: B13 was not included in BPS:04/09. There was no information on response options available in the BPS:04/09 specifications or Methodology Report. We have added this categorical item in case recall burden for B12 is too high.]
B13	New	
B14	New	
B15	New	
B16a	New	
B16b	NPSAS04	N4CLSTYA-N4CLSTYL, N4CLTYX
B17	NPSAS04	Item adapted from N4DBLMAJ
B18	NPSAS04	Item adapted from N4MAJ1A
B19	NPSAS04	Item adapted from N4MAJ2A
B20	NPSAS04	Item adapted from N4MAJ2A
B21	New	
B22	New	
B23	New	
B24	New	
B25a	NSSE 2011	Item 7; item adapted for students not currently enrolled.
B25b	NSSE 2011	Item 7; item adapted for students not currently enrolled.
B25c	NSSE 2011	Item 7; item adapted for students not currently enrolled.
B25d	NSSE 2011	Item 7; item adapted for students not currently enrolled.
B25e	NSSE 2011	Item 7; item adapted for students not currently enrolled.
B25f	NSSE 2011	Item 7; item adapted for students not currently enrolled.
B26a	New	
B26b	New	
B26c	New	
B26d	New	
B26f	New	
B27a	NSSE 2011	Item 9

Section B: Characteristics of Enrollment at S-STEM Institution		
Item No.	Source	Source Variable Name
B27b	NSSE 2011	Item 9
B27c	NSSE 2011	Item 9
B27d	NSSE 2011	Item 9
B28a	NSSE 2011	Item 1
B28b	NSSE 2011	Item 1
B28c	NSSE 2011	Item 1
B28d	NSSE 2011	Item 1
B28e	NSSE 2011	Item 1
B28f	NSSE 2011	Item 1
B28g	NSSE 2011	Item 1
B28h	NSSE 2011	Item 1
B28i	NSSE 2011	Item 1
B29a	NSSE 2011	Experimental Item 1
B29b	NSSE 2011	Experimental Item 1
B29c	NSSE 2011	Experimental Item 1
B29d	NSSE 2011	Experimental Item 1
B29e	NSSE 2011	Experimental Item 1
B29f	NSSE 2011	Experimental Item 1
B29g	NSSE 2011	Experimental Item 1
B29h	NSSE 2011	Experimental Item 1
B29i	NSSE 2011	Experimental Item 1
B29j	NSSE 2011	Experimental Item 1
B29k	NSSE 2011	Experimental Item 1
B29l	NSSE 2011	Experimental Item 1
B29m	NSSE 2011	Experimental Item 1
B29n	NSSE 2011	Experimental Item 1
B29o	NSSE 2011	Experimental Item 1
B30	NSSE 2011	Item 19

**Section C: First Year at S-STEM
Institution (for S-STEM degree)**

<i>Item No.</i>	<i>Source</i>	<i>Source Variable Name</i>
C1	NPSAS04	N4GPATYP
C2	NPSAS04	Item adapted from N4GPA
C3	NPSAS04	Item adapted from N4GPAEST
C4	NPSAS04	Item adapted from N4LT30
C5	NPSAS04	N4MARR
C6	NPSAS04	Item adapted from N4DEP
C7	NPSAS04	N4DEP2
C8	NPSAS04	Item adapted from N4DAGE1
C9	NPSAS04	Item adapted from N4PARNC
C10	NPSAS04	Item adapted from N4INCSP
C11	NPSAS04	Item adapted from N4RCVAID
C12	NPSAS04	Item adapted from N4FEDLN
C13	NPSAS04	Item adapted from N4PELL
C14	NPSAS04	Item adapted from N4STAID
C15	NPSAS04	Item adapted from N4OTAID
C16	NPSAS04	Item adapted from N4PRVLN
C17	NPSAS04	Item adapted from N4SCHJOB
C18	NPSAS04	Item adapted from N4INCOM
C19	NPSAS04	N4COLLCRM
C20	NPSAS04	N4AP
C21	NPSAS04	N4ENSOPH
C22	NPSAS04	N4ACTSAT
C23	New	
C23a	New	
C23b	New	
C24	NPSAS04	SATMATH; note that in the NPSAS study, SAT/ACT scores were abstracted from student transcripts provided by participating institutions; this item was not presented on survey
C24a	New	

Section C: First Year at S-STEM Institution (for S-STEM degree)

<i>Item No.</i>	<i>Source</i>	<i>Source Variable Name</i>
C25	NPSAS04	SATREAD; note that in the NPSAS study, SAT/ACT scores were abstracted from student transcripts provided by participating institutions; this item was not presented on survey
C25a	New	
C26	NPSAS04	ACTSCORE; note that in the NPSAS study, SAT/ACT scores were abstracted from student transcripts provided by participating institutions; this item was not presented on survey
C26a	New	
C27a	NPSAS04	N4DISSEN; item adapted to refer to first year of enrollment at S-STEM_IHE
C27b	NPSAS04	N4DISMOB; item adapted to refer to first year of enrollment at S-STEM_IHE
C27c	NPSAS04	N4DISOTH; item adapted to refer to first year of enrollment at S-STEM_IHE

Section D: Employment History

<i>Item No.</i>	<i>Source</i>	<i>Source Variable Name</i>
D1	BPS:04/09	MDINTRO; MDJSTAT
D2	BPS:04/09	MD0CC1
D3	BPS:04/09	MDHOURS
D4	BPS:04/09	MDEARN
D5	BPS:04/09	MDFIRSTJ

Section E: Background

<i>Item No.</i>	<i>Source</i>	<i>Source Variable Name</i>
E1	NPSAS04	N4EXPVR
E2	NPSAS04	N4GENDR
E3	NPSAS04	N4HISP (adapted)
E4	NPSAS04	N4RAC1
E5	NPSAS04	N4DADED
E6	NPSAS04	N4MOMED
E7	NPSAS04	N4LANG

All Items in the Principal Investigator Survey are new.

Major RQ#	Detailed RQ#	
1	How do individual awardees implement their S-STEM projects?	
	1a	What are promising practices in key areas (e.g. recruitment, academic support, retention) of and/or lessons learned from highly effective and successful S-STEM projects?
2	What are the educational and career outcomes of the S-STEM scholarship recipients? How do outcomes of S-STEM recipients compare to an appropriate comparison group or national trends?	
	2a	What is the effect of the S-STEM program scholarships on recipients?
	2b	To what extent do S-STEM scholarship recipients transfer to a four-year program as compared to an appropriate comparison or national trends?
	2c	To what extent do S-STEM scholarship recipients join the STEM workforce after graduation as compared to an appropriate comparison or national trends?
	2d	To what extent do S-STEM scholarship recipients apply for and attend a STEM graduate program as compared to an appropriate comparison group or national trends?
	2e	How effectively does the program meet the needs of academically talented financially needy STEM students as compared to other need-based opportunities and/or mechanisms?
3	Are there student or programmatic outcomes associated with receipt of an S-STEM award?	
	3a	What is the effect of the S-STEM program on student outcomes (e.g. recruitment, retention) in STEM at institutions that have received an award compared to an appropriate comparison or national trends?
	3b	What is the added value of the S-STEM program on institutions that receive awards?
	3c	What is the added value of the S-STEM program on student support and educational opportunities for recipients in institutions receiving S-STEM program funding?
	3d	What are the added value of the S-STEM program on STEM programs, STEM departments, and/or IHEs that have received S-STEM funding?
4	What is the relationship between specific project features or practices and student outcomes? Are there promising practices or lessons learned about implementation of S-STEM projects?	
	4a	Are there any unintended positive and negative consequences/outcomes that can inform project and program management and design?
	4b	To what extent can outcomes be attributed to components supported by the S-STEM program?
	4c	Are there other NSF-funded education-oriented projects at the institution?
	4d	What is the relationship among these NSF-funded education-oriented efforts at the institution?

RECIPIENT SURVEY: MAPPING ITEMS TO RESEARCH QUESTIONS

Key: **Admin** = this item is used to route the respondent appropriately through the survey.

Control = data from this item will be used for a control variable in analyses.

Outcome = data from this item will constitute an outcome of interest

Descriptive = data from this item will be summarized statistically to describe the S-STEM program or its participants

Relational = data from this item will be used as a predictor or dependent variable in correlational analyses of the relationships between program and individual recipient characteristics and outcomes

Item	Major RQ Detailed RQ	Research Questions												Use in Analysis		
		1		2				3				4				
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c	4d
Section A: Enrollment History: S-STEM DEG at S-STEM IHE, other undergrad, other post-baccalaureate schools attended																
A1	Confirms enrollment at S-STEM_IHE															Admin
A2	Currently enrolled at S-STEM_IHE							1								Outcome, Admin
A3	Enrolled in degree/certificate program, or just taking classes?							1								Outcome, Admin
A4	Date of birth															Control, Admin
A5	Date first enrolled at S-STEM_IHE							1								Outcome
A6	If not S-STEM_DEG, what degree?															Admin
A7	Reasons for enrolling at S-STEM_IHE to take classes							1								Descriptive, Admin
A8	Months enrolled at S-STEM_IHE							1								Outcome
A9	Was S-STEM_DEG at S-STEM_IHE earned			1				1								Outcome
A10	Enrolled at S-STEM_IHE for any (other) undergrad degrees?															Admin
A11	Date S-STEM_DEG at S-STEM_IHE earned							1								Outcome
A12	Plans to enroll at S-STEM_IHE in 2013-2014															Admin
A13	Reason for leaving S-STEM_IHE without earning S-STEM_DEG		1									1				Descriptive
A14	Enrollment at OtherIHE (undergrad) since first enrolled at S-STEM_IHE			1												Outcome, Descriptive
A15	Ever enrolled for (or earned) Bachelor's degree			1												Outcome, Admin
A16	[list of undergrad IHEs so far. No response needed]															

Item	Major RQ Detailed RQ	Research Questions														Use in Analysis
		1	2				3				4					
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b	4c	4d	
A17	Name of any other UndgrdIHE since first enrolled at S-STEM_IHE [Begin other UndgrdIHE school loop with iteration=1]		1													Outcome, Descriptive
A17a	ErrorCheck: If ever enrolled for BS degree, get name of Bachelor's IHE where enrolled (if not S-STEM_IHE)															Admin
A18	Currently enrolled at UndgrdIHE_1? (if i=2, at UndgrdIHE_2?)						1									Outcome, Admin
A19	Enrolled in degree program or just taking classes (i=1, UndgrdIHE_1; i=2, UndgrdIHE_2)		1													Admin
A20	Degree expected at UndgrdIHE_1 (or UndgrdIHE_2)						1									Outcome
A21	What months enrolled at UndgrdIHE_1 (or UndgrdIHE_2)						1									Outcome
A22	Declared a major at UndgrdIHE_1 (or UndgrdIHE_2)?		1				1									Outcome
A23	What major?		1				1									Outcome
A24	Earned degree from UndgrdIHE_1 or UndgrdIHE_2?		1				1									Outcome
A25	Enrolled at UndgrdIHE_1 for any other undergrad degrees?															Admin
A26	Date UGDEG_1 earned (or Date UGDEG_2 earned)						1									Outcome
A27	Plans to enroll at UndgrdIHE_1 in 2013-2014? Plans to enroll at UndgrdIHE_2 in 2013-14?															Admin
A28	Reason for leaving UndgrdIHE_1 without UGDEG_1 Reason for leaving UndgrdIHE_2 without UGDEG_2		1								1					Descriptive
A29	Enrollment at any other UndrgrdIHE not yet listed since first enrolled at S-STEM_IHE? [end of school loop; next iteration is i=2]		1				1									Outcome, Admin
A30	Ever earned a Bachelor's degree between REF_DATE_01 and REF_DATE_02?		1													Outcome
A31	Currently enrolled in Bachelor's degree program?						1									Outcome, Admin
A32	Name of school enrolled in for Bachelor's degree (set as UndgrdIHE_3)															Admin, Descriptive
A33	Earned (or earning) a 4-year or a 5-year Bachelor's degree from UndgrdIHE_3?						1									Outcome

Item	Major RQ	Research Questions														Use in Analysis
		1	2				3				4					
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b	4c	4d	
A34	What months enrolled at UndgrdIHE_3?						1								Outcome	
A35	Double major at UndgrdIHE_3? [if no longer enrolled]		1												Outcome	
A36	Declared a major at UndgrdIHE_3? [if currently enrolled]		1												Outcome	
A37	Primary major at UndgrdIHE_3?		1												Outcome	
A38	Secondary major at UndgrdIHE_3?		1												Outcome	
A39	Month and year Bachelor's degree awarded from UndgrdIHE_3						1								Outcome	
A40	Month and year expect to earn Bachelor's degree from UndgrdIHE_3						1								Outcome	
A41	Enrolled in any post-baccalaureate degree program since date of Bachelor's degree? [begin graddegree loop, i=1, max=2]				1										Outcome	
A42	Currently enrolled in a GradDEG program?				1										Outcome, Admin	
A43	What GradDEG are/were you pursuing				1										Outcome	
A44	GradDEG earned?				1										Outcome	
A45	Major field of GradDEG				1										Outcome	
A46	Enrolled for any other post-bac degrees other than GradDEG_1 [end graddegree loop]				1										Admin	
A47	Expect to enroll in any GradDEG program in 2013-14?				1										Outcome	
A48	If A47=yes, In what field do you expect to pursue GradDEG?				1										Outcome	

Item	Major RQ	Research Questions												Use in Analysis	
		1	2				3				4				
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c
Section B: Characteristics of Enrollment at S-STEM IHE for S-STEM degree															
B1	Did you have/Do you have a double major at S-STEM_IHE (for S-STEM_DEG)?		1					1							Outcome, Admin
B2	Have you declared a major at S-STEM_IHE? (for S-STEM_DEG)		1					1							Outcome, Admin
B2a	What subject areas were you taking classes in at S-STEM_IHE?		1					1							Descriptive, Admin
B3	What is your (primary) major?														Outcome
B4	What is your secondary major (if appl: only for those with double major)?		1					1							Outcome
B5	How many jobs do you have [did you have when last enrolled] for S-STEM_DEG at S-STEM_IHE?		1					1							Descriptive, Relational
B6	Is/was job [where you worked the most hours] related to academic major/coursework?		1									1			Descriptive
B7	Is/was job any of the following (research assistant, peer tutor, etc.)		1									1			Descriptive
B8	How many hours per week do/did you work [in main job] while at S-STEM_IHE for S-STEM_DEG		1					1							Descriptive, Relational
B9	What is/was main reason for working while at S-STEM_IHE for S-STEM_DEG							1							Descriptive
B10	Did you have any educational loans while at S-STEM_IHE for S-STEM_DEG							1							Descriptive, Relational
B11	How much did/have you borrowed in student loans for entire undergraduate education?							1							Descriptive, Relational
B12	[if B11=don't recall]: What range below best approximates amount you borrowed in student loans?							1							Descriptive, Relational

Item	Major RQ	Research Questions												Use in Analysis		
		1	2				3				4					
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c	4d
B13	Did you receive an S-STEM scholarship while at S-STEM_IHE for S-STEM_DEG? [note: recipient may not recall, may not know the term "S-STEM."]		1													Descriptive, Relational, Admin
<i>if B13=yes, respondent sees Items B14-B23/B24; else skips to B25</i>																
B14	Date first received S-STEM scholarship funding		1													Descriptive, Relational
B15	Months during which you had S-STEM funding		1													Descriptive, Relational
B16a	During the months you received S-STEM scholarship funding, was your major [major from Item B3]?		1													Descriptive, Control
B16b	[if just taking classes]: During the months you received S-STEM scholarship funding what areas have you been taking classes in?		1													Descriptive, Control
B17	During the months you've received S-STEM scholarship funding have you declared a double major?		1													Admin, Descriptive, Control
B18	[if B16a=no]: During the months you've received S-STEM scholarship funding what was your [primary] major?		1													Descriptive, Control
B19	[if applicable]: During the months you've received S-STEM scholarship funding was your secondary major [major from Item B4]?		1													Descriptive, Control
B20	[if applicable]: During the months you've received S-STEM scholarship funding what was your secondary major?		1													Descriptive, Control
B21	[if S-STEM_DEG earned:] Did S-STEM scholarship help you finish S-STEM_DEG?		1													Descriptive, Relational
B22	[if B21=yes]: How did S-STEM scholarship help you finish S-STEM_DEG? <i>Check all list.</i>		1										1			Descriptive, Relational
B23	[if B21=no]: Why didn't S-STEM scholarship help you finish S-STEM_DEG? <i>Check all list.</i>		1									1	1			Descriptive, Relational
B24	Did you have any S-STEM scholarship funding when you [transferred to another undergrad IHE]?			1												Descriptive
Only respondents Currently Enrolled at S-STEM_IHE for S-STEM_DEG receive Items B25 to B30.																
B25	While at S-STEM IHE, which of the following did you do/have you done:		1													Descriptive
B25a	Practicum, internship, field experience, co-op experience, or clinical assignment		1													Descriptive
B25b	Community service or volunteer work		1													Descriptive
B25c	Participated in a learning community		1													Descriptive
B25d	Worked on a research project with a faculty member		1													Descriptive

Item	Major RQ	Research Questions														Use in Analysis
		1	2				3				4					
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b	4c	4d	
B25e	Independent study or self-designed major		1													Descriptive
B25f	Capstone course, senior project or thesis		1													Descriptive
B26a	Were any of these experiences (practicum, internship, ...) related to your major?		1													Descriptive
B26b	Was this community service or volunteer work related to your major?		1													Descriptive
B26c	Was this participation in a learning community related to your major?		1													Descriptive
B26d	What this research project related to your major?		1													Descriptive
B26f	Was this capstone course, senior project or thesis, related to your major?		1													Descriptive
B27	About how many hours in a typical 7-day week do you spend: [question stem only]															
B27a	...preparing for class		1													Descriptive
B27b	...participating in co-curricular activities		1													Descriptive
B27c	...providing care for dependents		1													Descriptive
B27d	...commuting to class		1													Descriptive
B28	During the current school year how often have you: [question stem only]															
B28a	Come to class without completing ...assignments		1													Descriptive
B28b	Worked with other students on projects during class		1													Descriptive
B28c	Worked with classmates outside of class to prepare assignments		1													Descriptive
B28d	Tutored other students		1													Descriptive
B28e	Participated in a community-based project as part of a course		1													Descriptive
B28f	Talked about career plans with a faculty member or advisor		1													Descriptive
B28g	Discussed ideas from your readings or classes with faculty members		1													Descriptive
B28h	Received prompt written or oral feedback from faculty on your work		1													Descriptive
B28i	Worked harder than you thought you could to meet an instructor's standards		1													Descriptive
B29	During the current school year, to what extent has your academic advisor: [question stem only]															
B29a	Responded when you contact them		1													Descriptive
B29b	Made themselves available		1													Descriptive
B29c	Asked you to make an appointment		1													Descriptive
B29d	Listened closely to your concerns and questions		1													Descriptive
B29e	Provided you with accurate information about academic requirements		1													Descriptive
B29f	Helped you understand school academic policies		1													Descriptive

Item	Major RQ	Research Questions												Use in Analysis		
		1	2				3				4					
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c	4d
B29g	Kept you informed of support options such as tutoring		1													Descriptive
B29h	Kept you informed of important deadlines		1													Descriptive
B29i	Provided accurate information about courses		1													Descriptive
B29j	Assisted you with academic difficulties		1													Descriptive
B29k	Assisted you with the credit transfer process		1													Descriptive
B29l	Showed you where to get information on educational options		1													Descriptive
B29m	Talked with you about career interests/plans for after graduation		1													Descriptive
B29n	Showed interest in your plans for the future		1													Descriptive
B29o	Offered you support to meet your career goals		1													Descriptive
B30	What is your classification in college? (freshman, sophomore, etc.)															Control
Section C: First Year at S-STEM Institution																
C1	Is your GPA on a 4.0 scale?															Admin
C2	What was GPA at end of 1st year?			1	1	1										Matching
C3	[if C1 ne Yes]: Which [category] best describes GPA at end of 1st year			1	1	1										Matching
C4	[if A4=missing]: Categorize your age at start of 1st year: <24, 25-29, ≥30															Control
C5	Marital status at end of 1st year															Control
C6	During 1st year did you have any children you were supporting financially															Control
C7	[if C6=yes]: How many children?															Control
C8	[if C6=yes]: Ages of children															Control
C9	[if age <30]: What was parents' income at end of 1st year?															Control
C10	[if married]: In first full calendar year of first year of enrollment, what was spouse's income?															Control
C11	During 1st year, any financial aid?			1	1	1										Matching
C12	During 1st year, federal Stafford student loan?			1	1	1										Matching
C13	During 1st year, Pell grant?			1	1	1										Matching
C14	During 1st year, any scholarships/grants from your school or state?			1	1	1										Matching
C15	During 1st year, any of the following other financial aid?			1	1	1										Matching
C16	During 1st year, any commercial or private loan (TERI, Excel, Access)?			1	1	1										Matching
C17	During 1st year, any work study or assistantship?			1	1	1										Matching

Item	Major RQ Detailed RQ	Research Questions														Use in Analysis	
		1	2				3				4						
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b	4c	4d		
C18	In first full calendar year of first year of enrollment, what was your income																Control
C19	Did you earn college credit for any college courses taken in high school?		1	1	1												Matching
C20	Any AP [advanced placement] credits accepted by S-STEM IHE?		1	1	1												Matching
C21	[if C20=yes]: Enough credits to enter S-STEM IHE as a sophomore?		1	1	1												Matching
C22	Did you take SAT or ACT?		1	1	1												Matching
C23	When did you most recently take SAT/ACT prior to date of entry to S-STEM IHE?																Matching
C23a	[if C23 date is after date enrolled at S-STEM IHE]: Did you take SAT/ACT before enrolling at S-STEM IHE for S-STEM degree?																Admin
C23b	[if C23a=yes]: When did you take SAT/ACT before enrolling at S-STEM IHE for S-STEM degree?																Admin
C24	SAT Math score		1	1	1												Matching
C24a	As best as you can recall, what range did your SAT Math score fall into?		1	1	1												Matching
C25	SAT Reading score		1	1	1												Matching
C25a	As best as you can recall, what range did your SAT Reading score fall into?		1	1	1												Matching
C26	ACT composite score		1	1	1												Matching
C26a	As best as you can recall, what range did your ACT score fall into?		1	1	1												Matching
C27a	During 1st year, any sensory disability (sight, hearing)?																Control
C27b	During 1st year, and mobility disability?																Control
C27c	During 1st year, any other physical, mental, emotional, learning condition of 6 months or longer?																Control
	[NO RESPONSE, NO ITEM: INTERNAL ROUTING ITEM ONLY]																Admin
Section D: Employment History [only for respondents not currently enrolled at any IHE]																	
D1	INTRO: The next section asks about your current employment. Are you currently employed?			1													Outcome
D2	[if D1=yes]: What is your job title and job duties?			1													Outcome
D3	How many hours per week do you work on average?			1													Outcome
D4	How much do you earn (select per year, per month, per week, per hour)			1													Outcome
D5	Is this job the first you've had since you were last enrolled at [most recent undergraduate IHE]?			1													Outcome

Item	Major RQ	Research Questions														Use in Analysis
		1	2				3				4					
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b	4c	4d	
Section E: Your Background [all respondents]																
E1	What is the highest level of education you expect to complete?		1												Outcome	
E2	Gender														Control	
E3	Ethnicity (Hispanic/Latino)														Control	
E4	Race														Control	
E5	Father's highest level of education completed														Control	
E6	Mother's highest level of education completed														Control	
E7	Was English the language most spoken at home when you were growing up?														Control	

PI SURVEY: MAPPING ITEMS TO RESEARCH QUESTIONS

Item	Major RQ Detailed RQ	Research Questions												Use in Analysis	
		1	2				3				4				
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c
Module A: Verification															
A1	Our records indicate that you are [First, Last Name]: correct?														Admin
A2	Are you a current or former Principal Investigator (PI) of a National Science Foundation Scholarships in Science, Technology, Engineering and Mathematics (S-STEM) award?														Admin
A3	What type of system is your institution's academic calendar (semester, quarter, trimester)?														Admin
Module B: Your S-STEM Award															
B1	Do scholarship recipients know S-STEM by a different name?														Admin
B1a	Local, Institutional name for S-STEM														Admin
B2a (i)	Is local S-STEM programming/activities funded solely by S-STEM award? If no, list additional funding sources												1	1	Descriptive, Relational
B2a(ii)	What proportion of S-STEM programming is funded by each source (including S-STEM award)												1	1	Descriptive, Relational
B3a	Was this S-STEM award to your institution only or others as well?	1													Descriptive
B3b	[If B3a=2+ institutions]: List co-awardee IHEs and co-PIs	1													Descriptive
B4	a. How many faculty at your IHE serve as PI or co-PI? b. How many faculty serve a role on S-STEM award?	1									1				Descriptive
B5	Which of the following NSF awards does your IHE have [has your IHE had since 2001]													1	Descriptive
B6	Does your IHE have funding from any non-NSF sources to support recruitment/retention of undergraduates in STEM?													1	Descriptive
B6a	[if B6=yes]: List name of each grant and funding organization													1	Descriptive
B7	Did your IHE use S-STEM award to help obtain other external funding?										1				Descriptive

Item	Major RQ Detailed RQ	Research Questions												Use in Analysis		
		1	2			3			4							
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c	4d
Module C: Recruitment and Selection of S-STEM scholarship recipients																
C1	How do you recruit or identify potential scholarship recipients?	1														Descriptive
C1a	How successful have your recruitment efforts been?	1											1			Descriptive, Relational
C1b	[if C1a =less than expected]: What are reasons for recruitment difficulty?												1			Descriptive
C2a	Which of the following criteria do you use to identify or select scholarship recipients? (High school coursework, high school GPA, undergraduate coursework, cumulative undergraduate GPA, STEM undergraduate coursework GPA, standardized test scores)	1														Descriptive, Relational
C2b	Which of the following criteria do you use to identify or select scholarship recipients? (Letters of recommendation, personal statements, employment or internship experiences, candidate interviews, informal faculty recommendation, other)	1														Descriptive, Relational
C3	Students in what academic majors are eligible at your IHE for an S-STEM scholarship?	1														Descriptive
C4	Does your IHE give priority for scholarship to any of the following types of students?	1														Descriptive
C5	Do prospective scholars complete a formal application for S-STEM scholarship?															Admin
C5a	[if C5=yes]: what % of applicants typically receive an S-STEM scholarship?	1														Descriptive, Relational
C6	[if C5=no]: what % of eligible students receive an S-STEM scholarship?	1														Descriptive, Relational
C7	When does a typical student begin participation in your IHE's S-STEM program?	1														Descriptive, Relational
C8	How many first-ever S-STEM scholarships do you award per year? [categorical range]	1														Descriptive, Relational
C9	For how many academic terms (e.g. semesters) does a typical student receive S-STEM scholarship funding?	1														Descriptive, Relational
C10	How much scholarship funding does a typical recipient receive per academic term?	1														Descriptive, Relational
C11	What is the maximum scholarship amount per recipient?	1														Admin
C12	What is required of scholars to continue receiving S-STEM funding?	1														Descriptive

Item	Major RQ Detailed RQ	Research Questions												Use in Analysis		
		1	2				3				4					
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c	4d
C13	Have any students turned down an S-STEM scholarship?															Admin
C13a	[if C13=yes]: For which of the following reasons (or other)?											1				Descriptive
Module D: Non-financial support of scholarship recipients																
D1	Do recipients have a designated S-STEM faculty advisor (other than regular academic advisor)?	1										1				Descriptive, Relational
D1a	[if D1=yes]: How often are recipients encouraged to meet with S-STEM advisor?	1										1				Descriptive, Relational
D2	Does your S-STEM program cluster students for co-enrollment in one or more common courses?	1										1				Descriptive, Relational
D2a	[if D2=yes]: For which courses are students clustered together?	1										1				Descriptive, Relational
D3	Does your S-STEM program offer recipients peer mentoring/tutoring?	1										1				Descriptive, Relational
D3a	[if D3=yes]: Is peer mentoring/tutoring one-on-one, small group, or large group?	1										1				Descriptive, Relational
D3b	[if D3=yes]: How often are recipients encouraged to meet with peer mentor/tutor?	1										1				Descriptive, Relational
D4	Are any of the following academic/professional development opportunities provided to scholarship recipients? If so, is participation strongly encouraged or voluntary? a. lectures, colloquia, seminars b. Student chapters of professional associations c. Hands-on research opportunities d. Learning communities/study groups e. Internships f. Attendance at professional conferences g. Other (specify)	1										1				Descriptive, Relational

Item	Major RQ Detailed RQ	Research Questions												Use in Analysis		
		1	2				3				4					
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c	4d
D5	<p>Are any of the following support services offered to scholarship recipients? If so, is participation strongly encouraged or voluntary?</p> <p>a. Courses/seminars to aid in college transition</p> <p>b. Learning support center for math/science</p> <p>c. Learning support center for writing</p> <p>d. Support that targets students from under-represented groups</p> <p>e. [2-year IHEs only]: Support for prospective transfers to a 4-year IHE</p> <p>f. [4-year IHEs only]: Support for incoming transfer from a 2-year IHE</p> <p>g. Advising for application to graduate school</p> <p>h. Career counseling</p> <p>i. Other</p>	1							1							Descriptive, Relational
D6	<p>At your institution, does coordination exist between the S-STEM project and the other NSF- or non-NSF-funded campus initiatives to recruit and retain students in STEM occur at your institution? Check all that exist</p> <p>a. Some of the same faculty (and staff) are involved in the oversight and administration of S-STEM are also involved in other STEM initiatives on campus;</p> <p>b. S-STEM scholarship recipients are encouraged to participate in activities sponsored or supported by these other initiatives</p> <p>c. S-STEM scholars can receive additional financial support from these other initiatives</p> <p>d. S-STEM scholars have access to resources, equipment that are partially or fully funded by these other initiatives</p> <p>e. S-STEM scholarship recipients have educational opportunities that might not exist without these other initiatives</p> <p>f. S-STEM scholarship recipients have access to support services that might not exist without these other initiatives</p> <p>g. Other coordination</p>												1	1	Descriptive, Relational	
Module E: Scholarship Recipient Outcomes																
E1	What percent of current and former recipients are majoring in a STEM field?							1(a)				1				Descriptive
E1a	[if E1=don't know]: Does your S-STEM program collect data on: percent of current S-STEM recipients majoring in a STEM field; percent of former S-STEM recipients majoring in STEM field?															

Item	Major RQ Detailed RQ	Research Questions												Use in Analysis			
		1	2				3				4						
		1a	2a	2b	2c	2d	2e	3a	3b	3c	3d	4a	4b		4c	4d	
E2	What percent of current and former recipients have graduated with STEM degree?							1(a)				1					Descriptive
E2a	[If E2=don't know]: Does your S-STEM program collect data on: percent on current S-STEM recipients graduating with STEM degree; percent of former recipients graduating with STEM degree?																
E3	[2yr IHEs only]: What percent of recipients have transferred to BA-degree program?							1(a)				1					Descriptive
E3a	[If E3=don't know]: Does your S-STEM program collect data on the per cent of S-STEM recipients that transfer to a BA program?																
E4	What percent of recipients have pursued graduate study in STEM?							1(a)				1					Descriptive
E4a	[If E4=don't know]: Does your S-STEM program collect data on the percent of S-STEM recipients that pursue STEM grad study?																
E5	What percent of recipients are currently working in STEM occupations?							1(a)				1					Descriptive
E5a	[If E5= don't know]: Does your S-STEM program collect data on the percent of recipients that work in STEM occupations?																
F1	Please tell us anything else about your S-STEM award and program that we should know. [open-ended]	1											1				Descriptive

(a) These survey items (E1a-E2e) do not allow any attribution of causal effect of S-STEM on institutional outcomes, but rather allow description of aggregate S-STEM recipient outcomes at the PI's institution (outcomes which could have occurred in the absence of S-STEM award).