Appendix D

Principal Investigator Crosswalk and Survey

Crosswalk of Principal Investigator Survey Items to Research Questions and Uses in Analysis

	Research Questions ¹								- 8.,
Survey Item	RQ 1a	RQ 1b	RQ 1c	RQ 1d	RQ 1e	RQ 2a	RQ 2d	RQ 3c	Analysis ²
A. Status of Principal Investigator and the Noyce Program									
Status with the Noyce Program									Α
Last academic year IHE had an active Noyce award									Α
Content area/discipline of department									M
Types of certifications given by the teacher certification program									М
B. Goals, Activities, and Administration of the Noyce Award	•								
Goals and objectives of respondent's Noyce Program (scale)	•								D
Activities funded by respondent's Noyce award			•	•	•				M,D
Roles played by faculty/staff from the teacher prep program, STEM departments and K-12		•					•	•	D
districts/schools in administrative activities associaed with Noyce award									
Roles played by faculty/staff from the teacher prep program, STEM departments and K-12			•	•	•		•	•	A,D,M
districts/schools in other activities associaed with Noyce award	<u> </u>								
C. Noyce Award and Recipient Information									
Types of recipients that were funded by repondent's Noyce Program									A,M
Types of activities that Noyce supported for master teaching fellows			•						D
Types of activities that Noyce supported for interns			•		•				D
Sources used to recruit Noyce recipients		•							D
mportance of various criteria in selecting applicants for receiving Noyce awards		•							D
Other scholarship or grant opportunities in IHE to support teacher prep activities									A,M
Were there have enough qualified applicants to use all available Noyce funds?									M
Did any Noyce candidates turn down Noyce award?									M
Reasons potential Noyce recipients decline a Noyce award									М
D. Noyce Recipients' Activities	1								
Educational activities available to Noyce recipients and other teacher candidates			•						A,D,M
Educational activities required for Noyce recipients and other teacher candidates			•						A,D,M
Any Noyce recipients in program employed as STEM educators in K-12 schools?									A,M
Activities available to Noyce recipients and other teacher candidates during their early				•					D,M
years of STEM K-12 teaching									
Type of teacher preparation program (model)									M
E. Relationship among the Teacher preparation program and High-Need Districts and Sch	ools								-
Number of districts with which teacher preparation program had a working relationship			•						D
Number of high need districts with which teacher preparation program had a working									D
relationship			•						D
	<u> </u>								
F. Perceived Impacts of the Noyce Program Perceived changes to IHE as a result of receiving a Noyce award	<u> </u>								D.M.
Other changes as a result of receiving a Noyce award						:			D,M D
Difficulties associates with implementation of Noyce Program elements						•			D
G. Additional Information									
Month and year repondent first become PI/Co-PI									A,M
Number of years the respondent held a faculty or administrative position at IHE									M
Respondent's principal activity at IHE									М
Tenure status									M

¹Research Questions Answered by Principal Investigator Survey

What are the goals and objectives of the Noyce awards?

What strategies do Noyce awardees use to recruit and select Noyce candidates?

What activities and supports do teacher preparation programs that have Noyce awards use to prepare Noyce recipients to teach in RQ1c general, and to teach in high-need schools, in particular?
What activities do teacher preparation programs that have Noyce awards use to support Noyce completers once they are teaching?

RQ1d

RQ1e What activities do teacher preparation programs that have Noyce awards use to introduce Noyce interns to teaching mathematics and science as a career option?

RQ2a What effects do PIs and STEM faculty believe the Noyce award has had on recruitment of STEM teachers, in terms of quantity, quality, and diversity, the retention of those teachers? How do they perceive the burdens imposed by the Noyce award?

RQ2d What are STEM departmental/faculty responsibilities for preparing K-12 mathematics and science teachers? What are STEM faculty/departments perceptions of the effects of the Noyce award on their departments?

RQ3c How do the schools in which Noyce recipients teach work with Noyce IHEs?

²Analysis Notes

A: indicates that the variable from this item is used for administrative purposes (e.g., respondent contact information, to drive skip

D: indicates that the variable from this item is used in descriptive analysis

P: indicates that the variable from this item is used as a predictor for relational/impact analysis

O: indicates that the variable from this item is used as an outcome

C: indicates that the variable from this item is used as a control variable

M: indicates that the variable from this item could be used to describe the teaching certification progam but it is not tied to a particualr research question

Principal Investigator Survey Items

Dear [Respondent Name],

As a current or former Principal Investigator or Co-Principal Investigator of the Robert Noyce Teacher Scholarship Program at [IHE], you are invited to participate in a short survey about your experiences.

This survey is being conducted by <u>Abt Associates Inc.</u>, an independent social research firm, for the <u>National Science Foundation</u> (NSF) to gain a better understanding of how institutions of higher education are implementing activities funded through the Noyce Program, and how the program as a whole is attracting and retaining science and math teachers. It is part of a comprehensive evaluation, the results of which will be used to make recommendations regarding the Noyce Program.

OMB Clearance Number: XXXX-XXXX Expiration Date: XX/XX/XXXX

Burden Disclosure Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection is XXXX-XXXX. Public reporting burden for this collection of information is estimated to average 30 minutes, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Confidentiality and Participation

Participation in the survey is voluntary and nonparticipation will have no impact on you or your institution. All information that would permit identification of an individual respondent will be held in strict confidence, will be used by only persons engaged in and for the purpose of the survey, and will not be disclosed or released to others for any purpose except as required by law. Reports will never identify you by name, and information from the study will only be reported in the aggregate at the program level, combined with about 125 other responses. Survey data files will be shared with NSF at the end of the study, only after study team members have examined the data to be free of any information that could help identify you; your frank and open responses will help NSF make changes to improve the program to make it more effective. Hence, we encourage you to respond candidly about your experiences.

If you have questions about the study, please contact us at NoyceEval@abtassoc.com. You may also contact Joan Prival, the Lead Program Director of the Robert Noyce Teacher Scholarship Program, by e-mailing iprival@nsf.gov, or Connie Kubo Della-Piana, the Program Evaluation

Officer at the Division of Undergraduate Education within the National Science Foundation, by e-mailing cdellapi@nsf.gov.

Completing the Survey

[Programming instruction: Insert text from "Completing the Survey.doc"]

Consent

If you agree to participate in this study, please press "Next" to continue with the survey.

Programming Instructions:

- The text that is highlighted in yellow needs to be replaced.
- Programming instructions are indicated in blue text.
- Terms that require pop-up definitions are highlighted in blue. See Glossary document for full list of definitions.
- A text box should appear whenever a respondent selects a response option with the text "Other (Please specify)", "Other (Explain)" or something similar.
- Unless otherwise indicated, only one response is allowed per question.
- For questions that allow multiple responses, if "Don't Know" or "Not Applicable" is checked, no other option may be selected.
- If response list includes "None of the above," only allow this to be checked if all the other items are unchecked.
- We will send you a Glossary and FAQ document separately.

A. Status of Principal Investigator and the Noyce Program

A1.	Investi	gator (e Foun	nost recently completed academic year (2009-2010), were you the Principal (PI) or Co-Principal Investigator (Co-PI) of an active award from the National Idation's Noyce Program at [IHE] (i.e., Award #[Award number], [Award
		¹ Yes	[SKIP to A4]
		₀ No	[Ask A1a]
	cor dis	mpleted play tex	ming Instructions: This question is required. If A1=1, Timing phrase = "the most recently discademic year (2009-2010)." If R tries to move to the next question without answering A1, at: "This question is required. If you are unsure how to answer this question based on your cumstances, please contact us at NoyceEval@abtassoc.com . Thank you.]
	A1a.		you ever the PI or Co-PI of an active award from the National Science dation's Noyce Program at [IHE] (i.e., Award # [Award number], [Award])?
		\Box_{1}	Yes, prior to academic year 2009-2010.
		\square_2	Yes, during the current academic year, 2010-2011.
		\square_3	No
		withou	amming Instruction: If A1 = No, A1a is <u>required</u> . If R tries to move to the next question at answering A1, display text: "This question is required. If you are unsure how to answer restion based on your unique circumstances, please contact us at <u>NoyceEval@abtassoc.com</u> .you.]
A2.			an active Noyce award at [IHE] during the most recently completed academic 2010)?
		1 Yes	[Ask A2a]
		_o No	[See Instructions below]
		₉₈ Don	't Know [See Instructions below]
	[Prog	If A2 Ineli	ng Instructions: # Yes and A1a=2 or 3, go to "thank-you script" at the end of the survey. Survey Status = gible IHE. # Yes and A1a=1, SKIP to A3.]

	A2a.	Who was the Principal Investigator of the Noyce program at [IHE] during academic year (2009-2010)?
		Name: Title: E-mail: Phone:
		Don't Know
		[Programming Instruction: Go to "thank-you script" at the end of the survey and send auto- notification to Abt staff member who will verify/add new contact information from A2a and send a new survey to the correct PI. Survey Status = Ineligible Respondent]
A3.	What	was the last academic year your program had Noyce funding?
		The last year your program received Noyce funding was during: [dropdown menu] 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005 2003-2004 2002-2003 Don't Know [Programming Instruction: Continue with this survey; timing phrase = "the last academic year your program had Noyce funding ([A3])." If "Don't Know" is selected, display text: "It would be helpful to have this information when answering several of the following questions. If possible, please locate this information prior to continuing with the survey. Otherwise, click "Next" to continue." If A3=DK, timing phase = "the last academic year your program had Noyce funding"]
A4.	area of Biolo Che Com Eduo Geo Mat Phys	nathematics education science education er <mark>STEM</mark> discipline (Please specify)
	□ Oth	er Non-STEM discipline (Please specify)

A5. *During [Timing Phrase]*, for which of the following types of certifications did your teacher preparation program(s) prepare students generally and prepare Noyce recipients specifically?

(Select all that apply. If a certification type covers two of the grade bands below (e.g., certification for grades 3-7), please check both grade bands (e.g., "elementary" and "middle school").

	Teacher preparation program students	Noyce recipients
Elementary school		
Middle school	1	
High School		

B. Goals, Activities, and Administration of the Noyce Award

This section asks questions about your Noyce award during [Timing Phrase].

B1. We are interested in learning more about the goals and objectives of your Noyce award, particularly with regard to the preparation of and support for K-12 STEM teachers. For each of the potential goals listed below, please indicate whether it was a primary goal, a secondary goal or not a goal of your Noyce program during [Timing Phrase].

	Primary Goal	Secondary Goal	Not a Goal for our Program
a. Increase the number of K-12 STEM teachers trained in your teacher preparation program	1	2	3
 b. Increase the quality of K-12 STEM teachers trained in your teacher preparation program 	1	2	3
 c. Increase the number of K-12 STEM teachers in high- need schools or districts 	1	2	3
d. Increase the number of K-12 STEM teachers from under-represented minority groups	1	2	3
e. Increase the number of STEM undergraduates who become K-12 STEM teachers	1	2	3
f. Increase the number of freshman and sophomore students in STEM departments who consider pursuing a career in STEM K-12 education	1	2	3
g. Increase the quality of K-12 STEM education in high- need schools or districts	1	2	3
h. Increase the amount of professional support provided to new STEM teachers	1	2	3
i. Develop or initiate an alternative certification program.	1	2	3
 j. Strengthen the relationship between the teacher preparation program and STEM departments 	1	2	3
k. Initiate or develop relationships with high-need schools and districts	1	2	3
I. You may list up to 3 other goals Other 1 Other 2	1 1	2 2	3
Other 3	1	2	3

[Programming notes: If any of rows a-k are left blank, display the following soft prompt: "Please provide a response for each of the items below. If the text does not describe one of your Noyce program's goals during [Timing Phrase], please select 'not a goal of our program'. Thank you!"]. If text is entered under "other goal" but a scale item is not checked, say "You entered a response for at least one "other goal", but did not indicate whether this was a primary or secondary goal of your Noyce program. Please do so now." If a scale item under "other goal" was selected but no text was entered, say "Please describe "other" primary and secondary goals of your Noyce program in the text box(es)."

B2. Which of the following activities did your Noyce award fund either entirely or partly during [Timing Phrase]?

			Did not	
		Used	use	Dow/t
		Noyce Funds	Noyce Funds	Don't Know
Admii	nistration Activities	Tunus	Tulius	KIIOW
a.	Meetings among faculty from STEM and teacher education departments	\square_1	\square_0	98
b.	Meetings between the staff at your institution who are involved with Noyce award and staff from K-12 schools or districts		\Box_0	98
c.	Salaries or salary supplements for faculty and staff who work on	\Box_1	\square_0	98
	activities related to Noyce award			
d.	Tracking recipients' progress	1	<u> </u>	98
e.	Evaluation of the impacts of Noyce award	<u></u> 1	<u></u> 0	98
f.	Dissemination about Noyce award	1	0	98
Activi	ties for Noyce Recipients Enrolled in the Teacher Preparation or Internship I	Programs		
g.	Special courses or educational activities for Noyce recipients in teacher	<u>1</u>	Шo	98
h.	preparation programs Mostings among Neuro recipients in teacher proparation programs		_	
i.	Meetings among Noyce recipients in teacher preparation programs	1		98
	Activities associated with the Noyce internship program designed to introduce students to K-12 STEM teaching as a career option	<u> </u>	 0	<u></u> 98
Activi	ties for Former Noyce Recipients Who are Teaching in K-12 Schools			
j.	Support or mentoring of former Noyce recipients beginning K-12 teaching		<u> </u>	98
k.	Professional development activities for former Noyce recipients who are	\square_1	\square_0	98
I.	K-12 teachers in schools Meetings among former Noyce recipients who are beginning K-12			
1.	teaching	<u> </u>	□ o	98
m.	Courses or educational activities for former Noyce recipients who are		\square_0	98
	beginning K-12 teaching	_	_	_
n.	Mentoring for K-12 master teachers supported by the Noyce Program		o	98
	Activities			
0.	Travel to meetings and conferences	<u>1</u>	<u></u> 0	<u></u> 98
p.	You may list up to 3 other activities Other 1			
	Other 2			
	Other 3			
	- 5.11-2			

This section asks about the roles played by faculty or staff members from the teacher preparation program, STEM departments, and K-12 districts or schools in activities associated with the Noyce award during [Timing Phrase]. By "district or school staff" we mean: district administrators, principals, department chairs, instructional coaches or specialists, and teachers associated with your Noyce program or funding.

B3. Please indicate whether faculty or staff from the teacher preparation program, the STEM departments, the K-12 districts/schools and/or other groups participated in these administrative activities as part of the Noyce award during [Timing Phrase], regardless of whether Noyce funding was used. (Select all that apply).

If this administrative activity did not occur as part of the Noyce award *during* [Timing Phrase], please select "Did not occur."

۵ ما س	ninistration Activities	Teacher preparation	STEM	K-12 districts	Other [Specify	Did not
a.		program	departments	or schools	below]	occur
a.	Informational/management meetings about the Noyce award				[enter text]	
b.	Disseminating information about Noyce award/advertising the award to students				[enter text]	
C.	Managing the Noyce funds or leading activities associated with the Noyce award				[enter text]	
d.	Developing or maintaining relationships among the staff involved in the Noyce award, teacher preparation program, and high-need districts or schools				[enter text]	
e.	Selecting Noyce recipients				[enter text]	
f.	Having a liaison between the Noyce award and another department or institution				[enter text]	

[Programming instruction: The other column should include text boxes instead of checkboxes. If someone checked "Did not occur" do not allow them to select any other column. If any of the rows for B3 do not have at least one response, display the following soft prompt: "Please provide a response for each of the items below. If you are not sure how to answer this question for a particular activity, please describe under "other."]

B3a. Please indicate whether you considered each of the following activities to be *part of the Noyce award during [Timing Phrase]*, whether or not Noyce funding was used?

		Yes	No	Don't Know
Acti	vities for Noyce Recipients			
a.	Teaching special courses or programs specifically for Noyce recipients			
b.	Placing Noyce recipients in K-12 classrooms for field experiences			
C.	Supervising Noyce recipients' classroom field experiences			
d.	Helping Noyce recipients get certified			
e.	Helping Noyce recipients to obtain K-12 teaching positions			
f.	Mentoring Noyce recipients during their first years of teaching			
g.	Working with participants in the Noyce internship program in activities designed to introduce them to STEM teaching in K12 schools as a career option			
Oth	er Activities			_
h.	Attending Noyce conferences			
i.	You may list up to 3 other activities			
	Other 1			
	Other 2			
	Other 3			

[Programming note: If any of the rows for B3a are left blank, display the following soft prompt: "Please provide a response for each of the items below. If no items = "Yes," and no text is entered under "other," display this text: "You did not select "Yes" for any of the items listed above. If you know of any activities that occurred as part of the Noyce award during [Timing Phrase], whether or not Noyce funding is used, please specify under "Other." If still no "Yes" responses, skip to section C.]

B3b. Of the activities you just selected, please indicate whether faculty or staff from the teacher preparation program, the STEM departments, the K-12 districts/schools or other groups participated in these activities during [Timing Phrase]. (Select all that apply).

[Programming instruction: Only display rows that correspond to items in B3 with a "Yes" response.]

			Faculty or staff from:					
		Teacher preparation program	STEM departments	K-12 districts or schools	Other (Please specify)			
Acti	vities for Noyce Recipients							
a.	Teaching special courses or programs specifically for Noyce recipients							
b.	Placing Noyce recipients in K-12 classrooms for field experiences							
c.	Supervising Noyce recipients' classroom field experiences							
d.	Helping Noyce recipients get certified							
e.	Helping Noyce recipients to obtain K-12 teaching positions							
f.	Mentoring Noyce recipients during their first years of teaching							
g.	Working with participants in the Noyce internship program in activities designed to introduce them to STEM teaching in K12 schools as a career option							
Other Activities								
h.	Attending Noyce conferences							
i.	[B3 Other Specify 1 Response]							
	[B3 Other Specify 2 Response]							
	[B3 Other Specify 3 Response]							

[Programming instruction: If any of the rows for B3b do not have at least one response, display the following soft prompt: "Please provide a response for each of the items below. If you are not sure how to answer this question for a particular activity, please describe under "other."]

Progran B3b, ask	mming instruction: If no activities were checked in the "Teacher preparation program" column for B3 or c:
B3b1.	Did Faculty or Staff from the Teacher preparation program have any responsibilities for participating in activities involved with the Noyce Program <i>during [Timing Phrase]</i> ?
	$\square_{\scriptscriptstyle 1}$ Yes (Specify)
	□₀ No
	☐ ₉₈ Don't Know
Progran	nming instruction: If no activities were checked in the "STEM department" column for B3 or B3b, ask:
B3b2.	Did Faculty or Staff from the STEM department have any responsibilities for participating in activities involved with the Noyce Program <i>during</i> [Timing Phrase]?
	☐₁ Yes (Specify)
	\square_0 No
	□ ₉₈ Don't Know
Program	nming instruction: If no activities were checked in the "K-12 districts or schools" column for B3 or B2b, ask:
B3bc.	Did Faculty or Staff from K-12 districts or schools have any responsibilities for participating in activities involved with the Noyce Program during [Timing Phrase]?
	☐₁ Yes (Specify)
	□₀ No
	☐ ₉₈ Don't Know

C. Noyce Award and Recipient Information

C1.		no received stipends, scholarships, or fellowships through your Noyce award during ming Phrase]? (Select all that apply)
		Freshmen and sophomores (summer internships)
		STEM undergraduate majors in teacher preparation programs
		Post-baccalaureate students in teacher preparation programs
		Former STEM professionals in teacher preparation programs
		Post-baccalaureate students in teacher preparation programs
		Former STEM professionals in teacher preparation programs
		K-12 STEM teachers with Master's degrees preparing to become Master Teachers
		Other (Please specify)
		ming Instruction: Ask C2 ONLY if "K-12 STEM teachers with Master's degrees preparing to become achers" was checked for C1.]
C2.		nich of the following activities for Master Teaching Fellows did your Noyce award oport during [Timing Phrase]? (Select all that apply)
		Mentoring
		Peer tutoring
		Clinical experiences
		Research
		Professional Development
		Leadership opportunities
		Other (Please specify)
[Prog	ramr	ming Instruction: Ask C3 ONLY if "Freshmen and sophomores (summer internships)" was checked for C1.]
C3.		nich of the following activities for interns did your Noyce award support during [Timing rase]? (Select all that apply).
		Courses, seminars, or workshops introducing undergraduates to K-12 STEM teaching and education.
		Placements working with students in K-12 schools.
		Placements working with students in STEM activities outside of K-12 schools
		Placements in STEM research projects, laboratories, or companies
		Placements assisting staff in the [IHE] with administrative tasks (e.g., grading, inventory of lab supplies/materials)
		Other (Please specify)

The following questions focus on how Noyce recipient candidates were recruited and selected for your program during [Timing Phrase].

C4.	Fro	om which sources did you <u>recrui</u> t Noyce recipients? (Select all that apply)
		STEM undergraduate departments in four-year institutions of higher learning (IHEs)
		STEM undergraduate departments in two-year institutions of higher learning (IHEs) (i.e., community colleges)
		STEM-related industries
		Current teaching workforce
		Other (Please Specify)

[Programming instructions: If C4 is left blank, display the following soft prompt: "Please select at least one recruiting source below. If active recruiting was not done, or recruitment was done via a source other than those listed below, please select "other" and describe. Thank you!"]

C5. During [Timing Phrase], how important were each of the following criteria in <u>selecting</u> applicants for receiving Noyce awards? Was it a primary factor, a secondary factor, or not a factor at all?

		Primary Factor	Secondary Factor	Not a Factor
a.	Grade point average in STEM content courses	1	2	3
b.	Overall grade point average	1	2	3
C.	Undergraduate degree in a STEM content area	1	2	3
d.	Completion of STEM prerequisite courses (prior to degree receipt)	1	2	3
e.	Recommendations from STEM faculty	1	2	3
f.	Other recommendations (from teacher preparation faculty or other sources)	1	2	3
g.	Expressed interest in STEM K-12 teaching in essays, interviews, etc.	1	2	3
h.	Prior classroom teaching experience	1	2	3
i.	Prior experience working in a STEM field	1	2	3
j.	Experience with high-need populations	1	2	3
k.	Financial need	1	2	3
I.	You may list up to 3 other activities	1	2	3
	Other 1	1	2	3
	Other 2	1	2	3
	Other 3	1	2	3

[Programming note: If any of rows a-k are left blank, display the following soft prompt: "Please provide a response for each of the items below. If the item was not a factor in selecting which applicants would receive Noyce awards during [Timing Phrase], please select 'Not a Factor'. Thank you!" If text is entered under "other specify" but a scale item is not checked, say "You entered a response for at least one "other" activity, but did not indicate whether this was a primary or secondary factor in your Noyce application selection process. Please do so now." If a scale item under "other activities" was selected but no text was entered, say "Please describe "other" primary or secondary factors in the Noyce application selection process, in the text box(es)."]

C6.	During [Timing Phrase], were there other scholarship or grant opportunities at [IHE] that Noyce recipient candidates could receive to support their teacher preparation activities?
	□₁ Yes
	□₀ No [Skip to C8]
	Don't Know [Skip to C8]

C7.	nat other scholarship or grant opportunities were available for Noyce recipients at [IHE ring [Timing Phrase] to support teacher preparation activities?
	[Programming Instruction: Insert a text box with space for a large amount of text].
C8.	d you have enough qualified applicants each semester to use all available Noyce funds ring [Timing Phrase]?
	₁ Yes
	₀ No
	₉₈ Don't Know
C9.	ring [Timing Phrase], did any Noyce candidates who were offered Noyce awards, turn em down?
	₁ Yes
	₀ No [Skip to Section D]
	98 Don't Know [Skip to Section D]
C10.	sed on your knowledge, please check all of the reasons below that potential Noyce cipients declined a Noyce award offered to them. (Select all that apply)
	The funds were insufficient to cover their needs
	There were other scholarships available
	There were many requirements to fulfill in order to receive funding
	The requirements of the funds would have made it take longer to complete the teacher preparation program
	The potential recipients did not want to commit to teaching
	The potential recipients did not want to commit to teaching in a high-need district
	Other (Please specify)
	I do not know

D. Noyce Recipients' Activities

This section asks questions about the educational activities available to and used by students within [IHE]'s teacher preparation program, including Noyce recipients, participated in during [Timing Phrase].

D1. Which of the following activities were available to students within [IHE]'s teacher preparation program during [Timing Phrase]?

Note: For this question, please select "Yes" if an activity was available to <u>any</u> students within this program, even if it was only offered to select group of teacher preparation students (e.g., just Noyce recipients).

		Available wi	thin teacher pr	ep program?
		Yes	No	Don't Know
a.	Courses in STEM content areas		o	98
b.	Courses on child or cognitive development	1	0	98
c.	Courses on teaching methods	1	0	98
d.	Courses on teaching STEM content areas	1	0	98
e.	Courses on learning in different cultures and/or teaching in high-need schools		o	98
f.	Opportunities to participate in STEM research	1	0	98
g.	Opportunities to conduct observations in K-12 STEM classrooms (excluding the teaching practicum)		o	98
h.	Student teaching or practicum in high-need schools	1	О	98
<u>i.</u>	Student teaching or practicum in ANY type of school (not specifically high-need)		О	98
j.	You may list up to 3 other activities			
	Other 1			
	Other 2			
	Other 3			

[Programming instructions:

If any of the rows are left blank, display the following soft prompt: "Please provide responses for each of the items below. If you are not sure whether a particular activity was available to students (any students) within [IHE]'s teacher preparation program during [Timing Phrase], please select 'don't know."

If "Yes" is not selected for at least one activity, display the following soft prompt: "You did not indicate that any of the items listed below were available through [IHE]'s teacher preparation program during [Timing Phrase]. If you know of any activities that were available through this program during [Timing Phrase], please select the appropriate boxes below and/or describe the activities under "Other activities." If still no "Yes" responses = 1, skip to D2.

[Programming instruction: Question D1a should only ask about the course types in D1 that were offered (i.e., activities a-e that have a "Yes" response). Only ask D1a if "Yes" was selected for at least one of activities a-e.]

D1a. You indicated that the following courses were available to students within [IHE]'s teacher preparation program during [Timing Phrase]. Were these courses available to all students, just those in the Noyce program or some combination of both (e.g., there were some STEM courses that were only available to Noyce recipients and others that were available to all students in the program including Noyce recipients)? (Select one response for each row)

		Available to the following students				
				Some courses for all		
		All		teacher prep		
		Students in	Noyce	and some for		
		program	Only	Noyce only	Don't Know	
a.	Courses in STEM content areas		2	3	98	
b.	Courses on child or cognitive development	1	2	<u></u> 3	98	
c.	Courses on teaching methods		\square_2	3	98	
d.	Courses on teaching STEM content areas	1	2	3	98	
e.	Courses on learning in different cultures and/or teaching in high-need schools		2	3	98	

[Programming instruction: Only ask D1b if "Yes" was selected for at least one of activities f-j in D1. Also, only display the activities that have a "Yes" response for these items in D1.]

D1b. You indicated that the following activities were available to students within [IHE]'s teacher preparation program during [Timing Phrase]. Were these activities available to all students or just those in the Noyce program? (Select one response for each row)

		Available to the following students			
		All Students			
		in program	Noyce Only	Don't Know	
f.	Opportunities to participate in STEM research		2	98	
g.	Opportunities to conduct observations in K-12 STEM classrooms (excluding the teaching practicum)	1	2	98	
h.	Student teaching or practicum in high-need schools	1	2	98	
i.	Student teaching or practicum in ANY type of school (not specifically high-need)		2	98	
j.	You may list up to 3 other activities	1	2	98	
	[D1 Other Specify 1 Response]		\square_2	98	
	[D1 Other Specify 2 Response]		2	98	
-	[D1 Other Specify 3 Response]	1	2	98	

[Programming instruction: If any of the rows for D1a or D1b are left blank, display the following soft prompt: "Please provide responses for each of the activities below. If you are not sure whether a particular activity was available to students (any students) within [IHE]'s teacher preparation program during [Timing Phrase], please select 'don't know.'"]

[Programming note: The matrix for D1c should only include the activities for which "All students in program" was selected in D1a or D1b. Only ask D1c if "All students in program" was selected for at least one activity in D1a or D1b.]

- D1c. You indicated that the following activities were available through [IHE]'s teacher preparation program during [Timing Phrase] for all students in the program (not simply Noyce recipients). For each of these activities, please indicate whether...
 - A. All students were required to participate,
 - B. Only Noyce recipients were **required** to participate, or
 - C. No students in the teacher preparation program were **required** to participate.

		Who was required to participate?				
		All students were required	Only Noyce recipients were required	No students in the teacher preparation program were required	Don't Know	
a.	Courses in STEM content areas				98	
b.	Courses on child or cognitive development	1	\square_2	3	98	
c.	Courses on teaching methods		2	3	98	
d.	Courses on teaching STEM content areas		2	3	98	
e.	Courses on learning in different cultures and/or teaching in high-need schools		2	3	98	
f.	Opportunities to participate in STEM research		2	3	98	
g.	Opportunities to do observations in K-12 STEM classrooms (this does not include teaching practicum)	<u> </u>	2	3	98	
h.	Student teaching or practicum in high-need schools	1	2	3	98	
i.	Student teaching or practicum in ANY type of school (not specifically high-need)		2	3	98	
j.	[D1 Other Specify 1 Response]	1	2	3	98	
	[D1 Other Specify 2 Response]		2		98	
	[D1 Other Specify 3 Response]	1	2	3	98	

[Programming note: The matrix for D1d should only include the activities for which "Noyce Only" was selected in D1a or D1b. Only ask D1d if "Noyce Only" was selected for at least one activity in D1a or D1b.]

D1d. You indicated that the following activities were available through [IHE]'s teacher preparation program during [Timing Phrase] exclusively for Noyce recipients. Which of these activities were required?

		Required?		
		Yes	No	Don't Know
a.	Courses in STEM content areas	1	0	98
b.	Courses on child or cognitive development	1	0	98
c.	Courses on teaching methods	1	o	98
d.	Courses on teaching STEM content areas	1	0	98
e.	Courses on learning in different cultures and/or teaching in high-need schools		o	98
f.	Opportunities to participate in STEM research	1	0	98
g.	Opportunities to do observations in K-12 STEM classrooms (this does not include teaching practicum)		o	98
h.	Student teaching or practicum in high-need schools	1	0	98
i.	Student teaching or practicum in ANY type of school (not specifically high-need)		О	98
j.	[D1 Other Specify 1 Response]	1	\square_0	98
	[D1 Other Specify 2 Response]	1	o	98
	[D1 Other Specify 3 Response]	1	 0	98

[Programming instruction: Only ask D1e/D1f if "Some courses for all teacher prep and some for Noyce only" was selected for at least one activity in D1a. Each matrix for D1e/D1f should only include the activities for which "Some courses for all teacher prep and some for Noyce only" was selected in D1a.]

D1e. For each of the following course types, you indicated that there were some courses available for all teacher prep students and some for Noyce only.

For the courses that were available exclusively to Noyce recipients, please indicate whether the Noyce recipients were required to take them.

			Required?	
		Yes	No	Don't Know
a.	Courses in STEM content areas that were only offered to Noyce recipients		o	98
b.	Courses on child or cognitive development that were only offered to Noyce recipients	1	\Box_0	98
c.	Courses on teaching methods that were only offered to Noyce recipients		\Box_0	98
d.	Courses on teaching STEM content areas that were only offered to Noyce recipients	1	О	98
e.	Courses on learning in different cultures and/or teaching in high-need schools that were only offered to Noyce recipients		<u> </u>	98

- D1f. For the courses that were available to <u>all teacher prep students</u>, please indicate whether...
 - A. All students were **required** to participate,
 - B. Only Noyce recipients were **required** to participate, or
 - C. No students in the teacher preparation program were **required** to participate.

		Wh	Who was required to participate?				
		All students were required	Only Noyce recipients were required	No students in the teacher preparation program were required	Don't Know		
k.	Courses in STEM content areas that were available to all teacher prep students		2	3	98		
I.	Courses on child or cognitive development that were available to all teacher prep students		2	3	98		
m.	Courses on teaching methods that were available to all teacher prep students		2	3	98		
n.	Courses on teaching STEM content areas that were available to all teacher prep students		2	3	98		
0.	Courses on learning in different cultures and/or teaching in high-need schools that were available to all teacher prep students		2	3	98		

D2.	As of [Timing Phrase], were any of the N STEM educators in K-12 in schools?	oyce recip	oients in y	our progi	am empl	oyed as			
	□₁ Yes [Ask D3]								
	□₀ No [SKIP to D4]								
	Don't Know [SKIP to D4]								
D3.	We are interested in knowing which activation through [IHE]'s teacher preparation progression. These activities should excludinternships or "student teaching" ("practivations")	<mark>gram</mark> , duri e those so	ing their	early year	s of <mark>STEM</mark>	<mark>1</mark> K-12			
	Which of the following activities were averaged teaching during [Timing Phrase]? Were who graduated from the teacher preparaceeived Noyce support?	these acti ation prog	vities also gram rega	o available ardless of	to ALL to whether	eachers they			
			e to formo recipients	-		ble to all t p gradua			
				Don't	p. c	<u>p graada</u>	Don't		
		Yes	No	Know	Yes	No	Know		
	Mentoring by experienced STEM teachers a. in their school		o	98	1	<u> </u>	98		
	b. Mentoring by teacher certification faculty		О	98	1	О	98		
	Mentoring by STEM Faculty c.		<u> </u>	98		<u> </u>	98		
	d. Courses on teaching methods	1	О	98	1	О	98		
	Courses in STEM content areas e.		\Box_0	98	1	0	98		
	f. Courses on teaching STEM content areas	1	О	98	1	О	98		
	Workshops on teaching or STEM content areas (including summer retreats and professional development)		О	98		О	98		
	h. Meetings among Noyce recipients		О	98	1	О	98		
	i. Online networking between teachers		\Box_0	98		<u> </u>	98		
	j. You may list up to 3 other activities								
	Other 1								

Other 2

Other 3

96	[IHE]'s teacher preparation program did not offer any activities to former Noyce recipients who
	during their early years of STEM K-12 Teaching (i.e., during [Timing Phrase]).

[IHE]'s teacher preparation program did not offer any activities to teachers who graduated from their teacher preparation program (regardless of whether they received Noyce support) during their early years of STEM K-12 Teaching (i.e., during [Timing Phrase]).

[Programming instructions:

- Only allow R to select code 96 if none of the items under "available to Noyce recipients" = 1.
- Only allow R to select code 97 if none of the items under "Available to all teacher prep graduates" = 1.
- If any of rows are left blank, display the following soft prompt: "Please provide responses for each of the items below. If you are not sure whether a particular activity was offered during [Timing Phrase], please select 'don't know."
- If none of the activities under ""available to Noyce recipients" or "Available to all teacher prep graduates" have a response of 1 and neither 96 nor 97 are checked, display the following text: "You did not indicate that any of the items listed below were available to Noyce recipients through [IHE]'s teacher preparation program during their early years of STEM K-12 teaching (i.e, during [timing phrase]). If you know of any such activities, please select the appropriate boxes below and/or describe the activities under "Other activities." If no activities were provided to former Noyce recipients during this time period, please select the appropriate checkboxes below."
- If none of the activities under "Available to all teacher prep graduates" have a response of 1 and 97 is not checked, display the following text: "You did not indicate that any of the items listed below were available to teacher prep graduates through [IHE]'s teacher preparation program during their early years of STEM K-12 teaching (i.e, during [timing phrase]). If you know of any such activities, please select the appropriate boxes below and/or describe the activities under "Other activities." If no activities were provided to teacher prep graduates during this time period, please select the appropriate checkbox below."
- If text is enter under "other" but 1 is not selected, prompt for either "available to Noyce recipients" or "Available to all teacher prep graduates," display the following soft prompt: "You entered a response for at least one "other activity." For each "other activity" listed, please indicate whether it was available for Noyce recipients and/or all teacher prep graduates who were teaching during [Timing Phrase]. If a box was checked for "other activity," text was entered, say "Please describe "other activities" in the text box(es)."
- If "available to Noyce recipients"=0 and "Available to all teacher prep graduates"=1 for a particular item, display the following soft prompt: "You indicated that [Item] was available to all teacher prep graduates, but not former Noyce recipients. If this is correct, click "Next" to continue."]

[Programming instruction: If all of the activities under "Available to Noyce recipients"=0 or 96 = selected in D3, SKIP to D4. If some items under "Available to Noyce recipients" = DK or Missing and the corresponding items do not equal 1 under "Available to all teacher prep graduates", SKIP to D4.]

D4. In the previous question, you indicated that the following activities were available to Noyce recipients, through [IHE]'s teacher preparation program, during their early years of STEM K-12 teaching (i.e. during [Timing Phrase]).

Please indicate below which whether these supports were available during their first year of teaching, their second year of teaching and/or during their 3rd year or beyond. (Select all that apply)

[Programming instruction: Only display rows that correspond to items under "Available to Noyce recipients" in D3 with a response of 1 plus those where "Available to Noyce recipients" = DK or Missing but the corresponding item under "Available to all teacher prep graduates"=1].]

		Year 1	Year 2	Year 3+	DK
a.	Mentoring by experienced STEM teachers in their school		2	o	98
b.	Mentoring by teacher certification faculty	1	2	О	98
c.	Mentoring by STEM Faculty		2	o	98
d.	Courses on teaching methods	1	2	o	98
e.	Courses in STEM content areas	1	2	o	98
f.	Courses on teaching STEM content areas	1	2	<u> </u>	98
g.	Workshops on teaching or STEM content areas (including summer retreats and professional development)	1	2	О	98
h.	Meetings among Noyce recipients	1	2	o	98
i.	Online networking between teachers		2	О	98
j.	[D3 Other Specify 1 Response]		2	О	98
	[D3 Other Specify 2 Response]	1	2	\Box_0	98
	[D3 Other Specify 3 Response]		\square_2	o	98

D5.		ch of the following statements best describes the way that Noyce recipients
	prog	ressed through the teacher preparation program? (Select one response)
	1	The program followed a cohort model, grouping together pre-service teachers at the same level to take a common set of courses and/or participate in a common set of learning activities together.
	2	The program did not follow a cohort model; individual pre-service teachers determined their own progression through courses and requirements.
	<u></u> 3	Both models were options that were available to pre-service teachers.
	95	Other (Please specify)
		Don't Know

E. Relationship among the Teacher preparation program and High-Need Districts and Schools

The following questions ask about relationships among your teacher preparation program, districts, and schools, during [Timing Phrase].

E1. With approximately how many districts did your teacher preparation program have a working relationship?

Please note: A "working relationship" could include (but is not limited to) districts and schools in which: your students had internships, practicum, or student teaching placements; or your faculty provided professional development either in-service or at your institution of higher education.

Number of Districts [dropdown menu]

- None
- 1 District
- 2 Districts
- [Programming instruction: List individual #s through 20]
- More than 20
- Don't Know

[Programming note: If R chooses "none," SKIP to Section F. If "more than 20" or "Don't Know" is selected, ask: "Approximately how many?" and include a text box.]

E2. Of the districts with which your teacher preparation program had a working relationship, how many were high need districts?

Number of Districts [dropdown menu]

- None
- 1 District
- 2 Districts
- [Programming instruction: List individual #s through 20]
- More than 20
- Don't Know

[Programming note: If "more than 20" or "Don't Know" is chosen, ask: "Approximately how many?" and include a text box. If response to E2 > E1, prompt.

F. Perceived Impacts of the Noyce Award

F1. Please review the list below and indicate whether or not you agree with each statement about how [IHE] may have changed as a result (either directly or indirectly) of receiving a Noyce award. When answering the questions, please consider *all of the years that your institution has received Noyce funding up through [Timing Phrase]*.

	As a result of receiving a Noyce award at our institution	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know
a.	The number of teacher certification candidates with strong backgrounds in STEM fields has increased	1	2	3	4	98
b.	The diversity of K-12 STEM teachers trained in our teacher preparation program has increased	1	2	3	4	98
c.	The quality of candidates recruited to be K-12 STEM teachers has increased	1	2	3	4	98
d.	STEM Faculty members are more involved in recruiting STEM K-12 teaching candidates	1	2	3	4	98
e.	STEM Faculty members are more involved in training STEM K-12 teachers	1	2	3	4	98
f.	STEM content has been strengthened in K-12 STEM teacher preparation	1	2	3	4	98
g.	Noyce recipients are more prepared to meet the needs of students in high-need schools than most new STEM teachers	1	2	3	4	98

	As a result of receiving a Noyce award at our institution	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know
h.	The number of meetings between faculty or staff from our teacher education department and K-12 schools or districts has increased	1	2	3	4	DK
i.	STEM undergraduates have more opportunities to be introduced to K-12 STEM teaching as a career early in their college experiences	1	2	3	4	DK
j.	STEM K-12 teachers in-training have more opportunities to participate in research	1	2	3	4	DK
k.	Collegial networks or support among Noyce recipients' teaching in K-12 schools has increased	1	2	3	4	DK
I.	The level of mentoring by IHE faculty available to former Noyce recipients teaching STEM courses in K-12 schools has increased	1	2	3	4	DK

[Programming instruction: If any of the items for F1 are left blank, display the following soft prompt: "Please provide a response for each of the items below. If you are not sure how to respond to a particular item, please select "Don't Know."]

F2. Are there any other ways that your students, departments, teacher preparation program, or institution have changed as a result of receiving a Noyce award? If there are, please describe in the space below.

[Programming Instruction: Insert a text box with space for a large amount of text].			

F3. To what extent, if at all, did you encounter difficulty in implementing the following activities associated with the Noyce award?

		No difficulty	Slight difficulty	Moderate difficulty	Great difficulty	Not Applicable
a.	Progress monitoring of Noyce recipients	1	2	3	4	96
b.	Other administrative or management responsibilities related to managing the Noyce Program or funds	1	2	3	4	96
C.	Developing professional connections between STEM and teacher education departments	1	2	3	4	96
d.	Recruiting STEM Faculty members to be actively involved in activities associated with the Noyce award	1	2	3	4	96
e.	Developing or maintaining relationships among the staff involved in the Noyce award, teacher preparation program, and high-need districts or schools	1	2	3	4	96
f.	Providing educational activities that are directed specifically to Noyce recipients	1	2	3	4	96
g.	Providing internships and/or student teaching opportunities for Noyce recipients in high-need schools or districts	1	2	3	4	96
h.	Providing support or mentoring to former Noyce recipients teaching in schools	1	2	3	4	96
i.	Providing ongoing professional development for former Noyce recipients during their first few years of teaching (e.g., in meetings, seminars, retreats, workshops, or webinars)	1	2	3	4	96
j.	You may list up to 3 other activities					
	Other 1	1	2	3	4	
	Other 2	1	2	3	4	
	Other 3	1	2	3	4	

[Programming Instruction: Popup definition for "Not Applicable": This program element was not part of our Noyce Program. If text is entered under "other," but no scale item is selected, prompt for a response. If text is entered under "other activities" but a scale item is not checked, say "You entered a response for at least one "other activity", but did not specify difficulty level. Please do so now."

If a scale item under "other activity" was selected but no text was entered, say "Please describe "other activities" in the text box(es)."]

G. Additional Information

G1. When did you first become the Principal Investigator or Co-Principal Investigator for the Noyce Program at [IHE]?

[Programming note: Only ask G2 if A1a=1.]

[If Timing phrase="the most recently completed academic year (2009-2010)," ask G2a. Else, ask G2b.]

G2a. **Excluding** the current 2010-2011 academic year, for how many years have you held a faculty or administrative position at [IHE]?

I have been teaching here for a total of: [dropdown]
 1 year (2009-2010 was my 1st year as a faculty member at this institution)
2 years (2009-2010 was my 2 nd year as a faculty member at this institution)
 3 years (2009-2010 was my 3rd year as a faculty member at this institution)
4 years
[Programming Instruction: List individual years through 20]
Over 20 years

- \square_{96} 2010-2011 is my first year as a faculty member at [IHE].
- \square_{97} I have never held a faculty or administrative position at [IHE].

[Programming instruction: If G2a=97, SKIP to "thank-you script"]

[If Timing phrase="the last academic year your program had Noyce funding ([A3])," ask G2b.]

G2b. Prior to and including [Timing Phrase], for how many years had you held a faculty or administrative position at [IHE]?

I had been teaching at [IHE] for a total of: [dropdown]		
1 year ([A3] was my 1st year as a faculty member at this institution)		
2 years ([A3] was my 2 nd year as a faculty member at this institution)		
3 years		
[Programming Instruction: List individual years through 20]		
Over 20 years		

If A3=Don't Know, G2b should read as follows:

G2c. Prior to and including the last academic year your program had Noyce funding, for how many years had you held a faculty or administrative position at [IHE]?

I ha	nd been teaching at [IHE] for a total of: [dropdown]
•	1 year ([Timing Phrase] was my 1 st year as a faculty member at this institution)
•	2 years ([Timing Phrase] was my 2 nd year as a faculty member at this institution)
•	3 years
•	[Programming Instruction: List individual years through 20]
•	Over 20 years

G3. What was your principal activity at [IHE] during [Timing Phrase]? (Please check one)

If you had equal responsibilities among activities, please select or	ıе.
--	-----

☐₃ Not in a tenure-track position, but institution had a tenure system

_1	reaching
\square_2	Research
\square_3	Administration (e.g., Dean, Chair, Director etc.)
\square_4	Other (Please specify)
What	t was your Tenure Status during [Timing Phrase]?
1 Te	enured
☐ ₂ T	enure-track, not-tenured

☐4 Institution did not have a tenure system

□₁ Teaching

G4.

Thank you for taking the time to respond to this survey! Your responses will help the National Science Foundation support teacher preparation in the future.

[Programming instruction: Once R submits responses, send them a thank you e-mail/confirmation that responses have been submitted.]