

Attachment E

Annual Survey for Institute Partnership Projects

Math and Science Partnership Program

Annual Survey for Institute Partnership Projects

**Sponsored by the
National Science Foundation**

**Conducted by
Westat
1650 Research Boulevard
Rockville, Maryland 20850**

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Public Burden

Paperwork Reduction Act Notice. The Paperwork Reduction Act of 1995 says we must tell you why we are collecting this information, how we will use it and whether you have to give it to us. The reasons and purpose of this survey are described in the introduction and instructions for this survey and your response is voluntary. Failure to provide full and complete information, however, may reduce the possibility of NSF continuing support for the award or project subject to this monitoring survey. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The OMB control number for this survey is 3145-0199. The estimated average burden associated with this collection of information is 50 hours per respondent, depending on individual circumstances. Comments concerning the accuracy of this burden estimate and suggestions for reducing the burden should be sent to Suzanne Plimpton, Reports Clearance Officer for OMB 3145-0199, NSF/OGC, 4201 Wilson Boulevard, Arlington, VA 22230.

Annual Survey for Institute Partnership Projects For the **[INSERT SCHOOL YEAR]** School Year

The National Science Foundation (NSF) is conducting an annual survey of its Math and Science Partnership (MSP) projects. The purpose is to assess the overall implementation of the MSP program and to monitor the progress of individual MSP grants.

INSTRUCTIONS FOR COMPLETING THE SURVEY

Before responding to the survey, it is recommended that you review the **Primer**, which can be accessed electronically by clicking on "Help" in the menu on the top of the page. The primer provides information about how to respond to individual collection items and navigate the online system.

You **MUST** begin this survey by completing the **Administrative Section**, which can be accessed by clicking on "Admin" in the menu on the top of the page. This section will allow you to create login names and passwords for all other system users.

As you are completing this survey, please click the Save & Continue button after you respond to each item. Once an item or section is saved, you may use the menu below or the Question Guides to return to an item and revise your response. If you exit the system without saving, you will lose any unsaved data.

To print and view completed sections of this survey, click on "Reports" in the menu on the top of the page.

Please complete each of the following sections of the Annual Survey for Institute Projects as they pertain to your MSP. You must complete and submit this survey by November X, 2005. A check mark to the left of a section indicates that the section is complete.

MSP Project Scope	Lead Institution and Project Leadership	Partner Organizations	School-level Information	Project Evaluators
Partnership-Driven Activities	Institutional Change and Sustainability Activities	Evidence-based Design and Outcomes Activities	Institute Planning and Development Activities	Professional Development Activities
Report Status: Not Complete				

Information about MSP Project Scope

This section collects information on the subject areas and grades that your MSP is designed to address in each year of your MSP Institute.

1. Use the table below to indicate the preK-12 grades that your Institute MSP is designed to address in each year of your project: (check all cells that apply)

Grade	Year 1	Year 2	Year 3	Year 4	Year 5
PreK					
K					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
Not Applicable					

2. Which of the following constitute your Institute's *primary foci* in providing teacher leaders with professional development? (check all that apply)

- ☐ Building depth within one or more disciplines or sub-disciplines in mathematics or the sciences.
- ☐ Exploring newer or cross-disciplinary themes at the research frontiers of mathematics, the sciences, and/or engineering.
- ☐ Developing strategies to cultivate student enthusiasm and interest in science and/or mathematics.
- ☐ Developing leadership skills.
- ☐ Developing strategies for making curricula more challenging.
- ☐ Implementing teaching methods that reflect contemporary research findings on effective classroom practice and the science of learning.
- ☐ Other (specify): _____

3. Which of the following *best* describes the component of your Institute program that occurs during the summer? (check one response)

- ☐ It primarily provides online courses
- ☐ It is primarily a residential program in one location
- ☐ It is primarily a residential program in multiple locations
- ☐ It is primarily a commuter program.
- ☐ Other (specify): _____

4. What was the TOTAL number of teachers and administrators enrolled in your Institute at any time between September [INSERT START YEAR] through August [INSERT END YEAR]? _____

5. Using the table below, identify the criteria that you used in selecting teachers for participation in your Institute:

Criterion	Was this a selection criterion?	Narrative ¹
a) Minimum number of years of experience	☐ Yes – a required criterion ☐ Yes – a preferred criterion ☐ No	
b) Credentials	☐ Yes – a required criterion ☐ Yes – a preferred criterion ☐ No	
c) Degree attainment	☐ Yes – a required criterion ☐ Yes – a preferred criterion ☐ No	
d) Demographic characteristics of school (e.g., a minimum percent of minority students)	☐ Yes – a required criterion ☐ Yes – a preferred criterion ☐ No	
e) Level taught (e.g., high school teachers)	☐ Yes – a required criterion ☐ Yes – a preferred criterion ☐ No	
f) Geographical location	☐ Yes – a required criterion ☐ Yes – a preferred criterion ☐ No	
g) Other	☐ Yes – a required criterion ☐ Yes – a preferred criterion	

¹ Note: After completing the Yes/No column, the respondent will be prompted to: **Provide a brief description of this criterion (no more than one or two paragraphs) of how it was applied** for all “Yes” responses.

Information about the Lead Organization and Project Leadership

This section collects information about the lead organization for your MSP Institute, which is defined as the lead fiscal agent.

1. Lead organization name:² _____

2. Provide the following contact information for the Principal Investigator:³

Name: _____
Title: _____
Street address: _____
City: _____
State: _____
Zip code: _____
Phone number: _____
Fax number: _____
E-mail: _____
Web address: _____

3. Provide the following contact information for the Project Director:⁴

☐ Check this box if the Principal Investigator is also the Project Director⁵

Name: _____
Organization: _____
Title: _____
Street address: _____
City: _____
State: _____
Zip code: _____
Phone number: _____
Fax number: _____
E-mail: _____
Web address: _____

² This item will be pre-filled in future years. The online system will allow for organization name change.

³ This is how this item will appear in the first year that a project completes this collection. In subsequent years, the text for this item will read as follows: “**Please review and update the following contact information for the Principal Investigator:**” This item will also be pre-filled in future years.

⁴ This is how this item will appear in the first year that a project completes this collection. In subsequent years, the text for this item will read as follows: “**Please review and update the following contact information for the Project Director:**” This item will also be pre-filled in future years.

⁵ If this box is checked, auto fill in information for these questions based on information provided for PI.

Information about Partner Organizations

This section collects information about *each* partner organization involved in the MSP project. In completing this section, be sure to provide information about *all* of the core and supporting partners that are affiliated with your MSP Institute.

NOTE—Information about the Lead Organization is collected in a separate section. In future years, you will be able to update information on existing partner organizations and add new partners.

To add a partner organization, click on the *Add Partner Organization* button below.

To provide or update information on a partner organization listed below, click on the link in the matrix (in the column titled *Partner Organization Name*).

Partner Organization Name	Core/Supporting Partner	Contact	Information Complete?
(from Q1)	(from Q2)	(from Q4)	(yes or no)

If you have entered information on all partner organizations, proceed to the next section you want to complete by clicking on the section link in the menu above.

1. **Partner organization name:**⁶ _____

2. **Is this organization a core or supporting partner?**⁷ (Check one response)

- ☐ **Core partner** (i.e., a partner that shares responsibility *and* accountability for the MSP project. All core partner organizations ARE REQUIRED to provide evidence of their commitment to undergo the coordinated institutional change necessary to sustain the partnership effort beyond the funding period.)
- ☐ **Supporting partner** (i.e., a partner that is not required to commit to the institutional change necessary to sustain project activities beyond the funding period, but is an important stakeholder/stakeholder organization in K-12 mathematics and science education.)

3. **Which of the following best describes this organization?**⁸ (Check one response)

- ☐ Institution of Higher Education (IHE)
- ☐ Higher education system/consortium
- ☐ K-12 school or school district
- ☐ County, regional or state education agency
- ☐ Other government agency (i.e., non-education)
- ☐ Business or industry organization
- ☐ Community organization
- ☐ Science center or museum
- ☐ Disciplinary or professional society
- ☐ Research laboratory
- ☐ Dissemination or implementation center
- ☐ Private foundation
- ☐ Public or private organization (such as educational research organization, business roundtable or chamber of commerce)
- ☐ Other (specify): _____

⁶ This item will be pre-filled in future years. The online system will allow for organization name change.

⁷ This item will be pre-filled in future years.

⁸ This item will be pre-filled in future years.

4. Provide the following information for the primary MSP contact at this partner organization:⁹

Name:	_____
Title:	_____
Street address:	_____
City:	_____
State:	_____
Zip code:	_____
Phone number:	_____
Fax number:	_____
E-mail:	_____
Web address:	_____

⁹ This is how this item will appear in the first year that a project completes this collection. In subsequent years, the text for this item will read as follows: “**Please review and update the following contact information for the primary MSP contact at this partner organization:**” This item will be pre-filled in future years.

School-level Information

This section obtains information on *each* K-12 school that currently (or previously) had one or more teachers or other personnel enrolled in your MSP Institute.

Do not leave any cell in a table blank. Enter an “X” in each cell where information is not currently available (e.g., the number of students taking an assessment cannot be disaggregated by race). Only enter “0” when it is the actual number that you wish to report for a given cell (e.g., to report that there are no Asian math teachers at the school). **In completing this section, please add ALL schools that had one or more teachers or other personnel enrolled in your MSP Institute to the list below.**

To add a K-12 school that had teachers or other personnel enrolled in your MSP Institute at any time since the inception of the program, click on the *Add a School* button below.

To provide or update information on a school listed below, click on the link in the matrix (in the column titled *School Name*).

School Name	School Level	Information Complete?
(from Q1)	(from Q3)	(yes or no)

1. **School Name:**

2. **NCES School ID:**¹⁰

3. **School Level:** (check the one that best applies to this school)

- ☐ Elementary
- ☐ Middle
- ☐ High
- ☐ Ungraded

4. **Grade Levels at this school:** (check all that apply)

- | | |
|--------------------------------|---|
| ☐ Pre-K | ☐ 7 |
| ☐ K | ☐ 8 |
| ☐ 1 | ☐ 9 |
| ☐ 2 | ☐ 10 |
| ☐ 3 | ☐ 11 |
| ☐ 4 | ☐ 12 |
| ☐ 5 | ☐ Other (specify): _____ |
| ☐ 6 | |

5. **Were teachers from this school enrolled in your MSP Institute between September [INSERT START YEAR] and August [INSERT END YEAR]?**

- ☐ Yes
- ☐ No—School closed (skip questions 6 and 7)
- ☐ No—Other reasons

¹⁰ Online system will provide link to: <http://nces.ed.gov/ccd/schoolsearch/>

6. Provide the following information about the TOTAL number of teachers who teach **[math/science]** in **[INSERT NAME OF SCHOOL]** at the beginning of the **[INSERT SCHOOL YEAR]** school year:

Enter an “X” in ALL cells where information is currently not available. Only enter “0” when it is the actual number that you wish to report (e.g., to report that there are no Asian math teachers at this school.)

		[Math/Science]¹¹ Teachers ¹²
Total		
Gender		
Male		
Female		
Not Reported		
Race/Ethnicity		
Hispanic or Latino	Race Not Reported ¹³	
	American Indian or Alaska Native	
	Asian	
	Black or African American	
	Native Hawaiian or Other Pacific Islander	
	White	
	More than One Race Reported	
	SUB-TOTAL: Hispanic or Latino	<i>(auto total)</i>
NOT Hispanic or Latino OR Ethnicity NOT Reported¹⁴	American Indian or Alaska Native	
	Asian	
	Black or African American	
	Native Hawaiian or Other Pacific Islander	
	White	
	More than One Race Reported	
	SUB-TOTAL: Non-Hispanic or Latino	<i>(auto total)</i>
	Neither Race nor Ethnicity Reported¹⁵	

¹¹ Display “Math” for projects with a math focus and “Science” for projects with a science focus.

¹² For elementary schools (and some middle schools), this includes regular classroom teachers who teach math/science and/or a variety of other subjects. It can also include math/science resource teachers and special education teachers. Do not include specialized teachers (e.g., art, music, physical education) who do not teach math or science as part of their regular assignments.

¹³ Use “Race Not Reported” to provide information about Hispanic or Latino teachers for whom race is not reported or unknown.

¹⁴ Use “NOT Hispanic or Latino OR Ethnicity NOT Reported” to provide race information for those teachers (1) who are not Hispanic or Latino, or (2) for whom ethnicity is not reported or unknown.

¹⁵ Use “Neither Race nor Ethnicity Reported” for those teachers for whom both race and ethnicity are unknown.

7. **Provide the following information about the total number of students that were enrolled in [INSERT NAME OF SCHOOL] at the beginning of the [INSERT SCHOOL YEAR] school year:**

Enter an “X” in all cells where information is not currently available. Only enter “0” when it is the actual number that you wish to report (e.g., to report that there are no American Indian or Alaska Native students at this school.)

NOTE—provide information about all students in the school—regardless of whether those students or their teachers participated in the MSP Institute during the previous school year.

		Total Number of Students <i>(at the beginning of the [INSERT SCHOOL YEAR] school year)</i>
Total		
Gender		
Male		
Female		
Not Reported		
Race/Ethnicity		
Hispanic or Latino	Race Not Reported ¹⁶	
	American Indian or Alaska Native	
	Asian	
	Black or African American	
	Native Hawaiian or Other Pacific Islander	
	White	
	More than One Race Reported	
	SUB-TOTAL: Hispanic or Latino	<i>(auto total)</i>
NOT Hispanic or Latino OR Ethnicity NOT Reported¹⁷	American Indian or Alaska Native	
	Asian	
	Black or African American	
	Native Hawaiian or Other Pacific Islander	
	White	
	More than One Race Reported	
	SUB-TOTAL: Non-Hispanic or Latino	<i>(auto total)</i>
Neither Race nor Ethnicity Reported¹⁸		
Students participating in the National School Lunch Program ¹⁹		
Special Education Students		
Limited English Proficiency Students		

¹⁶ Use “Race Not Reported” to provide information about Hispanic or Latino students for whom race is not reported or unknown.

¹⁷ Use “NOT Hispanic or Latino OR Ethnicity NOT Reported” to provide race information for those students (1) who are not Hispanic or Latino, or (2) for whom ethnicity is not reported or unknown.

¹⁸ Use “Neither Race nor Ethnicity Reported” for those students for whom both race and ethnicity are unknown.

¹⁹ Students receiving free or reduced price lunch.

Information about Project Evaluators

This section collects information on each organization or consultant that is conducting an independent evaluation of the implementation and/or impact of your MSP.

To add an evaluator, click on the *Add Another Evaluator* button below.

To provide or update information on an evaluator, click on the link in the matrix (in the column titled *Name of Primary Contact*).

Organization Name	Name of Primary Contact	Information Complete?
(from Q1)	(from Q1)	(yes or no)

If you have completed entering information on all evaluators, please click the button to the right to submit this section and return to the survey menu.

1. Provide the following information for this organization or consultant that is conducting an independent evaluation of the implementation and/or impact of your MSP: ²⁰

Name: _____

Organization: _____

Street address: _____

City: _____

State: _____

Zip code: _____

Phone number: _____

Fax number: _____

E-mail: _____

Web address: _____

2. Which of the following best describes the organization to which the evaluator belongs? ²¹ (*Check one response*)

- ☐ IHE or higher education system that is a partner organization of this MSP
- ☐ IHE or higher education system that is not a partner organization of this MSP
- ☐ Private firm
- ☐ Non-profit organization
- ☐ Other (specify): _____
- ☐ Not applicable

3. Describe any significant evaluation *activities* (e.g., data collection or analysis) that were conducted by this evaluator between September [INSERT START YEAR] and August [INSERT END YEAR] to assess the implementation and/or impact of your MSP Institute.

NOTE—your response to this item should not exceed two paragraphs.

²⁰ This is how this item will appear in the first year that a project completes this collection. In subsequent years, the text for this item will read as follows: “**Please review and update the following information for the organization or consultant that is conducting an independent evaluation of the implementation and/or impact of your MPS:**” This item will be pre-filled in future years.

²¹ This item will be pre-filled in future years.

4. Describe any noteworthy *findings* that this evaluator reported between September [INSERT START YEAR] and August [INSERT END YEAR] regarding the implementation and/or impact of your MSP Institute.

NOTE—you may be asked by NSF at a later date to provide documentation supporting any quantitative or qualitative findings reported by your evaluator. Your response to this item should not exceed two paragraphs.

Information about *Partnership-Driven Activities* Conducted between September [INSERT START YEAR] and August [INSERT END YEAR].

This section collects information on the contributions of your partners—as well as steps taken by your MSP to establish and maintain your partnership during the previous school year.

1. Indicate the number of IHE individuals who were involved in the *development* and/or *delivery* of MSP Institute services between September [INSERT START YEAR] and August [INSERT END YEAR]. (e.g., IHE education faculty who recruited teachers to participate in the Institute, IHE STEM faculty who presented at a professional development seminar).

Enter an “X” in all cells where information is not currently available.

	Number
IHE STEM faculty (<i>tenure track</i>)	
IHE STEM faculty (<i>non-tenure track</i>)	
IHE education faculty (<i>tenure track</i>)	
IHE education faculty (<i>non-tenure track</i>)	
IHE administrators with or without instructional/research responsibilities (e.g., deans, department chairs)	
K-12 teachers in residence	
MSP liaisons/coordinators	
STEM undergraduate students	
Pre-service undergraduate and alternative certification students	
Graduate students (including doctoral candidates)	
Postdoctoral students	
Other (specify):	

2. Indicate the number of K-12 participants who were involved in the *development* and/or *delivery* of MSP Institute services between September **[INSERT START YEAR]** and August **[INSERT END YEAR]**:

NOTE—Count only those K-12 participants who were involved in the development and/or delivery of Institute services, such as:

- *Co-teaching an Institute course*
- *Developing Institute curricula*
- *Presenting at a summer institute*

*Do **NOT** count K-12 participants who were recipients of an MSP activity, such as:*

- *Guidance counselors who received professional development*
- *K-12 administrators who attended a weekend seminar*

*Do **NOT** double count participants—e.g., if a guidance counselor is also a teacher, do not count that individual twice—classify that individual based on his or her primary role.*

Enter an “X” in all cells where information is not currently available.

	Number
Teachers	
Principals, vice principals and assistant principals	
Instructional coordinators and supervisors (e.g., curriculum specialists)	
Guidance counselors	
District-level administrators/staff	
Other (specify):	

3. Indicate the number of non-academic individuals²² that *developed* and/or *delivered* MSP Institute services between September [INSERT START YEAR] and August [INSERT END YEAR]: (enter '0' where applicable)

NOTE—include individuals from both core and supporting partner organizations.

Enter an "X" in all cells where information is not currently available.

	Number of non-academic individuals	Which of the following organization types were these non-academic participants employed by or affiliated with? (check <u>all</u> that apply)
Scientists		☐ A business or industry organization ☐ A science center or museum ☐ A disciplinary or professional society ☐ A research laboratory ☐ A private foundation ☐ A public employer ☐ Other (specify):
Mathematicians		☐ A business or industry organization ☐ A science center or museum ☐ A disciplinary or professional society ☐ A research laboratory ☐ A private foundation ☐ A public employer ☐ Other (specify):
Engineers		☐ A business or industry organization ☐ A science center or museum ☐ A disciplinary or professional society ☐ A research laboratory ☐ A private foundation ☐ A public employer ☐ Other (specify):
Professional Developers		☐ A business or industry organization ☐ A science center or museum ☐ A disciplinary or professional society ☐ A research laboratory ☐ A private foundation ☐ A public employer ☐ Other (specify):
Other (specify):		☐ A business or industry organization ☐ A science center or museum ☐ A disciplinary or professional society ☐ A research laboratory ☐ A private foundation ☐ A public employer ☐ Other (specify):

²² Employed by or affiliated with: a business or industry organization; a science center or museum; a disciplinary or professional society; a research laboratory; a private foundation; a public employer.

4. Describe any steps that were taken between September [INSERT START YEAR] and August [INSERT END YEAR] to recruit STEM faculty and other disciplinary experts for the MSP.

NOTE—your response to this item should not exceed two paragraphs.

5. To what extent did each of the following hinder your efforts to engage or organize your partners between September [INSERT START YEAR] and August [INSERT END YEAR]?²³

NSF encourages candor in your response to this question. Valuable lessons learned on a project are often the result of unanticipated or unavoidable events. Describing your project's experiences in resolving these challenges will help NSF staff provide assistance to other projects that are having similar difficulties.

a. Lack of time or other resources among <i>IHE</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
b. Lack of time or other resources among <i>K-12</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
c. Lack of time or other resources among <i>other</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all ☐ Not applicable
d. Low levels of commitment or interest among <i>IHE</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all

²³NOTE: The following question should appear each time that respondents indicate “To a large extent” or “To a moderate extent:” **Why did this issue occur—and what steps were taken to overcome this challenge?** Text responses should be limited to 1-2 paragraphs.

e. Low levels of commitment or interest among <i>K-12</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
f. Low levels of commitment or interest among <i>other</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all ☐ Not applicable
g. Lack of flexibility among <i>IHE</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
h. Lack of flexibility among <i>K-12</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
i. Lack of flexibility among <i>other</i> partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all ☐ Not applicable
j. Conflicting goals or missions among all MSP partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all

k. Unbalanced levels of authority and decision making ability among core MSP partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
l. Poor communication among all MSP partners (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
m. Personnel turn-over within K-12 partner organizations (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
n. Personnel turn-over within <i>other</i> partner organizations (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all ☐ Not applicable
o. Other (specify): _____ (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all

6. What lessons have you learned regarding efforts to engage partners that would be of use to other MSP Institute projects?

Include lessons learned from successes and/or problems encountered.

NOTE—your response to this item should not exceed two paragraphs.

Information about *Institutional Change and Sustainability* Activities Conducted between September [INSERT START YEAR] and August [INSERT END YEAR]

This section collects information on the efforts of your K-20 core partner organizations to redirect resources and design and implement new policies and practices to result in well-documented, inclusive and coordinated institutional change at both the college/university and the local school district levels.

- 1. Describe any new practices or policies that your IHE partners implemented between September [INSERT START YEAR] and August [INSERT END YEAR] to reward IHE STEM faculty for (a) strengthening their own teaching practices or (b) participating in K-20 teacher preparation and professional development programs.**

NOTE—your response should be limited to 1-2 summary paragraphs that include examples and indicate the scope of change (i.e., change occurred at one partner IHE, change occurred at all partner IHEs). As part of your response, you should also describe any impacts that can be directly or indirectly attributed to these new policies and practices (e.g., an increase in IHE STEM faculty participation in pre-service programs).

- 2. Describe any new practices or policies that your IHE partners implemented between September [INSERT START YEAR] and August [INSERT END YEAR] to encourage IHE STEM faculty to take responsibility and accountability for MSP Institute project goals (e.g., tie bonuses or tenure to achievement of MSP goals).**

NOTE—your response should be limited to 1-2 summary paragraphs that include examples and indicate the scope of change (i.e., change occurred at one partner IHE, change occurred at all partner IHEs). As part of your response, you should also describe any impacts that can be directly or indirectly attributed to these new policies and practices.

- 3. Describe any new practices or policies that your K-12 partners implemented between September [INSERT START YEAR] and August [INSERT END YEAR] to provide additional support to Institute participants (e.g., providing release time for teachers to allow them to perform their new functions, providing salary incentives for Institute participants).**

NOTE—your response should be limited to 1-2 summary paragraphs that include examples and indicate the scope of change (i.e., change occurred at one partner K-12 district, change occurred at all partner K-12 schools). As part of your response, you should also describe any impacts that can be directly or indirectly attributed to these new policies and practices.

- 4. Describe any steps taken between September [INSERT START YEAR] and August [INSERT END YEAR] to encourage the long-term involvement and commitment of non-academic mathematicians, scientists and/or engineers to participate in the improvement of K-20 educational practices.**

NOTE—your response should be limited to 1-2 summary paragraphs that include specific examples. As part of your response, you should also describe any impacts that can be directly or indirectly attributed to these new policies and practices (e.g., an increase in participation by non-IHE scientists in K-12 classrooms).

Information about *Evidence-based Design and Outcomes* Activities Conducted between September [INSERT START YEAR] and August [INSERT END YEAR]

This section collects information on the efforts of your MSP Institute to make use of newly-collected data to inform the design and implementation of your project.

1. Provide examples of how data that your project has collected about your own MSP informed the design or implementation of your project between September [INSERT START YEAR] and August [INSERT END YEAR].

2. To what extent did each of the following hinder your efforts to make use of data to assess the implementation and impact of your MSP Institute between September [INSERT START YEAR] and August [INSERT END YEAR]? ²⁴

NSF encourages candor in your response to this question. Valuable lessons learned on a project are often the result of unanticipated or unavoidable events. Describing your project's experiences in resolving these challenges will help NSF staff provide assistance to other projects that are having similar difficulties.

- | |
|---|
| a. Obtaining data about <i>IHE faculty</i> who are participating in MSP-related activities (<i>check <u>one</u> response</i>) |
|---|

- | |
|---|
| ☐ To a large extent
☐ To a moderate extent
☐ To a small extent
☐ Not at all
☐ Not applicable |
|---|

- | |
|--|
| b. Obtaining data about <i>teachers</i> who are participating in MSP-related activities (<i>check <u>one</u> response</i>) |
|--|

- | |
|---|
| ☐ To a large extent
☐ To a moderate extent
☐ To a small extent
☐ Not at all
☐ Not applicable |
|---|

²⁴ NOTE: the following question should appear each time that respondents indicate “To a large extent” or “To a moderate extent:” **Why did this issue occur—and what steps were taken to overcome this challenge?** Text responses should be limited to 1-2 paragraphs.

c. Obtaining data about <i>students</i> of teachers enrolled in your MSP Institute (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all ☐ Not applicable
d. Obtaining data about <i>K-12 schools</i> that are participating in MSP-related activities (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all ☐ Not applicable
e. Obtaining data about <i>K-12 districts</i> that are participating in MSP-related activities (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all ☐ Not applicable
f. Linking student achievement data to individual K-12 teachers (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all ☐ Not applicable
g. Lack of available funding at the project <i>or</i> partner level (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all
h. Lack of available expertise at the project <i>or</i> partner level (<i>check <u>one</u> response</i>) ☐ To a large extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all

i. Other (specify): _____ (*check one response*)

- ☐ To a large extent
- ☐ To a moderate extent
- ☐ To a small extent
- ☐ Not at all

3. What lessons have you learned regarding efforts to collect and use data that would be of value to other MSP Institute projects?

NOTE—your response to this item should not exceed two paragraphs.

**Information about *Institute Planning and Development*
Activities Conducted between September [INSERT START
*YEAR] and August [INSERT END YEAR]***

In completing this section, you will be asked to review a list of activities associated with Institute planning and development. You will then be asked to provide additional information for each activity on the list that your project was developing or delivering between September **[INSERT START YEAR]** and August **[INSERT END YEAR]**.

1. Using the table below, identify the planning and development activities of your MSP Institute between September **[INSERT START YEAR]** and August **[INSERT END YEAR]**.²⁵

Institute Planning and Development Activities	Activity in place or under development between September [INSERT START YEAR] and August [INSERT END YEAR] ²⁶
a) Build on an existing/prior teacher education improvement program as a base for designing the Institute (e.g., prior NSF grant)	Yes
b) Organize collaboration between partner IHE faculty and school district stakeholders to determine K-12 district needs, Institute mission and goals	No
c) Collaborate with a professional development organization to design curriculum for Institute participants	No
d) Involve K-12 staff (e.g., superintendents, principals, teachers) in Institute curriculum planning	No
e) Develop curriculum aligned with other courses/standards (e.g., degree or certification requirements, district standards, national, state and local mathematics and science reform attempts)	No
f) Enlist expert individuals external to the MSP management to act as an advisory committee (e.g., assist in evaluation/oversight of the project, review Institute curricula)	No, but activity is under consideration for future years
g) Establish a team-oriented approach for recruiting teacher leader participants (e.g., selecting at least two teachers per district or per geographic region)	No
h) Recruit teachers who participated in previous teacher improvement programs sponsored by the partner IHE(s)	Yes
i) Conduct district/school/teacher recruiting activities (e.g., hold meetings with chairs/department heads/administrators at K-12 schools, attend mathematics or science conferences for K-12 teachers, establish communication with programs that employ highly motivated teachers in mathematics and science)	Yes
j) Set up mechanisms allowing teachers to apply on their own, according to established teacher leader requirements	No

²⁵ NOTE: The right hand column has been filled in to illustrate a completed table.

²⁶ NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No.

Institute Planning and Development Activities (Continued)	Activity in place or under development between September [INSERT START YEAR] and August [INSERT END YEAR] ²⁷
k) Establish a selection committee composed of members of the Institute management structure to make the final participant selections	Yes
l) Establish a priority for selecting teachers from low-performing schools or classes and those with significant numbers of under-represented populations	No
m) Establish a priority for selecting teachers with professional accreditations (e.g., National Board Certified teachers)	No
n) Other (specify):	

²⁷ NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No.

A “Yes” on the preceding table has generated this list of Institute planning and development activities. Select an activity from the list below to provide further information about that activity. Each of the listed activities must be selected to complete this section.

Institute Planning and Development Activities	Completed?
<u>a) Build on an existing/prior teacher education improvement program as a base for designing the Institute</u>	
<u>h) Recruit teachers who participated in previous teacher improvement programs sponsored by the partner IHEs</u>	
<u>i) Conduct district/school/teacher recruiting activities</u>	
<u>k) Establish a selection committee composed of members of the Institute management structure to make the final participant selections</u>	

Complete the following items for the Institute planning and development activity you selected:
*Build on an existing/prior teacher education improvement program for designing the Institute*²⁸

1. Provide a brief description (i.e., 250 words or less) about the purpose, scope and intensity of this activity.

NOTE—This response will help NSF staff—and representatives from other MSPs—understand the overall approach and intended outcome of this activity.

2. What steps were taken to design and/or implement this activity between September [INSERT START YEAR] and August [INSERT END YEAR]?

NOTE—If applicable, your response to this item should include information that can be used to quantify your level of effort for the previous school year (e.g., number of workshops held, number of K-12 teachers served, number of MSP-supported scholarships awarded).

3. Which of the following MSP participants were responsible for designing and/or delivering this activity between September [INSERT START YEAR] and August [INSERT END YEAR]?
(check all that apply)

NOTE—only check individuals responsible for designing or delivering this activity. Do NOT check individuals who were recipients of this activity.

- ☐ IHE STEM faculty
- ☐ IHE education faculty
- ☐ IHE administrators (e.g., deans, department chairs)
- ☐ Graduate students (including doctoral candidates)
- ☐ Postdoctoral students
- ☐ STEM undergraduate students
- ☐ Pre-service undergraduate students
- ☐ K-12 district and/or school-level administrators/staff
- ☐ K-12 teachers
- ☐ K-12 instructional coordinators and supervisors (e.g., curriculum specialists)
- ☐ K-12 guidance counselors
- ☐ Non-academic mathematicians
- ☐ Non-academic scientists
- ☐ Non-academic engineers
- ☐ Other (specify): _____

²⁸ The following is an example of the item set that would appear if the respondent selected the in-service enhancement activity:
Build on an existing/prior teacher education improvement program as a base for designing the Institute from the list of activities in place.

**Information about *Professional Development Activities*
between September *[INSERT START YEAR]* and August
*[INSERT END YEAR]***

In completing this section, you will be asked to review a list of activities associated with professional development that your Institute may have undertaken. After indicating which activities you have undertaken, you will be asked to provide additional information for each activity on the list that your project was developing or delivering in the previous school year.

1. Using the table below, identify the professional development activities of your MSP Institute between September **[INSERT START YEAR]** and August **[INSERT END YEAR]**.²⁹

Summer Institute Activities	Activity in place or under development between September [INSERT START YEAR] and August [INSERT END YEAR]³⁰
a) Conduct courses with K-12 teachers that increase mathematical or science content knowledge	Yes
b) Conduct courses with K-12 teachers that increase pedagogical knowledge (e.g., cognitive science and its impact on instruction)	Yes
c) Conduct <u>targeted</u> courses with K-12 teachers on mathematical or science content knowledge or pedagogical skills (e.g., conduct a course that is specifically linked to the curriculum/text used at partner schools)	No
d) Conduct courses with K-12 teachers that improve leadership skills and strategies	Yes
e) Conduct courses with K-12 teachers that increase abilities to develop new and challenging curriculum materials	No, but activity is under consideration for future years
f) Conduct courses with K-12 teachers that increase understanding of how to use technology for course content innovation (e.g., mathematical modeling; online science experiments; access to digital images on online libraries)	No, but activity is under consideration for future years
g) Conduct courses with K-12 teachers that increase their ability to use assessment data to inform their teaching	No,
h) Conduct courses with K-12 teachers that increase their ability to use research to inform their teaching	No, but activity is under consideration for future years
i) Conduct courses for school administrators (e.g., sessions to increase knowledge of effective classroom observation, professional development for teachers, or supporting teacher leaders)	No
j) Provide opportunities for participants to earn a master's, other advanced degree/certification, or graduate credits upon completion of the Institute	No

²⁹ NOTE: The right hand column has been filled in to illustrate a completed table.

³⁰ NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No.

Summer Institute Activities (Continued)	Activity in place or under development between September [INSERT START YEAR] and August [INSERT END YEAR]³¹
k) Provide seminars by and access to content experts, practitioners, and leading researchers in math and/or science during the summer institute	No
l) Teach courses through distance learning (e.g., online, videoconferencing)	Yes
m) Provide courses that include instruction by fellow K-12 teachers	No
n) Involve graduate students in Institute course instruction	No
o) Provide enrichment activities during summer Institute (e.g., seminars, visiting lecturers, classroom visits)	Yes
p) Provide an opportunity for teachers to take on organizational and leadership roles in summer institutes	No
q) Provide opportunities for participants to get hands-on experiences during the summer Institute (e.g., classroom visitations, opportunities to experiment with their newly learned materials during the summer institute on actual teachers and students)	No
r) Require teachers to complete an evidence-based project, using knowledge from the institutes in their own classrooms	Yes
s) Provide opportunities during the summer Institute for teachers and administrators to meet together (with or without university faculty) and discuss strategies for school-based leadership and develop a plan for how teacher leaders will impact teachers at their school	No
t) Provide curriculum resources to teacher participants during the institute (e.g., technology, print, audio-visual, laboratory)	No
u) Other (specify):	

³¹ NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No.

Academic Year Activities	Activity in place or under development between September [INSERT START YEAR] and August [INSERT END YEAR] ³²
a) Conduct workshops/courses with K-12 teachers that increase content and/or pedagogical knowledge (e.g., conduct a workshop on cognitive science and its impact on instruction)	No
b) Conduct <u>targeted</u> workshops/courses with K-12 teachers (e.g., a workshop specifically linked to the curriculum/text used at partner schools)	No
c) Conduct workshops/courses with K-12 teachers on utilizing technology for course content innovation (e.g., mathematical modeling; online science experiments; access to digital images on online libraries)	No, but activity is under consideration for future years
d) Organize and/or provide site-specific workshops/courses relevant for partner K-12 school districts (e.g., rural education workshop, inner-city workshop)	No
e) Conduct courses with K-12 teachers that increase their ability to use assessment data to inform their teaching	No
f) Conduct courses with K-12 teachers that increase their ability to use research to inform their teaching	No
g) Facilitate online workshops and/or courses during the academic year for institute participants	No
h) Establish/Provide adjunct positions for K-12 teacher leaders at the partner IHEs	No
i) Provide externship opportunities for K-12 teachers (e.g., teachers spend a year, semester, or summer working with a MSP business/industry partner related to their discipline)	Yes
j) Provide pre-service professional development opportunities	No
k) Provide curriculum resources to teacher participants after completion of the institute (e.g., technology, print, audio-visual, laboratory)	Yes
l) Establish/provide STEM in-person or online learning communities/study groups (e.g., lesson study groups; discipline dialogues)	No
m) Have IHE faculty remain “on call” for classroom teachers (e.g., communicate with K-12 teachers via email or telephone to clarify a concept or content issue)	No
n) Provide mentoring and instruction on professional development strategies and other leadership responsibilities (e.g., conduct onsite visits to K-12 partner schools)	No

³² NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No.

Academic Year Activities (Continued)	Activity in place or under development between September [INSERT START YEAR] and August [INSERT END YEAR] ³³
o) Provide access to a network of regional professional development groups made up of IHE faculty members as well as teachers, where they are able build on the summer institute activities	No
p) Establish regular, organized meetings of teacher leaders within K-12 districts during the academic year	No
q) Work with K-12 building staff to facilitate the work of the teacher leaders (e.g., meet with and advise school principal, mathematics or science specialists)	No
r) Increase collaborative activities between IHE faculty and regional school systems to improve K-12 instruction and learning	No
s) Establish new/modified degree or certification program at your IHE partners as a result or part of the Institute (e.g., Mathematics or science specialist certification; Master of Science Education)	No
t) Encourage IHE partners to make improvements of K-12 instruction and learning a core portion of their departmental responsibilities	No
u) Other (specify):	

³³ NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No.

A “Yes” on the preceding table has generated this list of professional development activities. Select an activity from the list below to provide further information about that activity. Each of the listed activities must be selected to complete this section.

Professional Development Activities	Completed?
Summer Institute Activities	
<u>a) Conduct courses with K-12 teachers that increase mathematical or science content knowledge</u>	
<u>b) Conduct courses with K-12 teachers that increase pedagogical knowledge</u>	
<u>d) Conduct courses with K-12 teachers that improve leadership skills and strategies</u>	
<u>l) Teach courses through distance learning</u>	
<u>o) Provide enrichment activities during summer Institute</u>	
<u>r) Require teachers to complete an evidence-based project, using knowledge from the institutes in their own classrooms</u>	
Academic Year Activities	
<u>i) Provide externship opportunities for K-12 teachers</u>	
<u>k) Provide curriculum resources to teacher participants after completion of the institute</u>	

Complete the following items for the professional development activity you selected: *Conduct courses with K-12 teachers that increase mathematical or science content knowledge*³⁴

- 1. Provide a brief description (i.e., 250 words or less) about the purpose, scope and intensity of this activity.**³⁵

NOTE—This response will help NSF staff—and representatives from other MSPs—understand the overall approach and intended outcome of this activity.

- 2. What steps were taken to design and/or implement this activity between September [INSERT START YEAR] and August [INSERT END YEAR]?**

NOTE—If applicable, your response to this item should include information that can be used to quantify your level of effort for the previous school year (e.g., number of workshops held, number of K-12 teachers served, number of MSP-supported scholarships awarded).

- 3. Which of the following MSP participants were responsible for designing and/or delivering this activity between September [INSERT START YEAR] and August [INSERT END YEAR]? (check all that apply)**

NOTE—only check individuals responsible for designing or delivering this activity. Do NOT check individuals who were recipients of this activity.

- ☐ IHE STEM faculty
- ☐ IHE education faculty
- ☐ IHE administrators (e.g., deans, department chairs)
- ☐ Graduate students (including doctoral candidates)
- ☐ Postdoctoral students
- ☐ STEM undergraduate students
- ☐ Pre-service undergraduate students
- ☐ K-12 district and/or school-level administrators/staff
- ☐ K-12 teachers
- ☐ K-12 instructional coordinators and supervisors (e.g., curriculum specialists)
- ☐ K-12 guidance counselors
- ☐ Non-academic mathematicians
- ☐ Non-academic scientists
- ☐ Non-academic engineers
- ☐ Other (specify): _____

³⁴ The following is an example of the item set that would appear if the respondent selected the in-service enhancement activity: *Conduct courses with K-12 teachers that increase mathematical or science content knowledge* from the list of activities in place.

³⁵ This is how this item will appear the first year an activity is developed or delivered. In subsequent years, the item will ask for the respondent to review and modify the text provided from the previous year.