

# **ATTACHMENT A**

## **Math and Science Partnership Program**

### ***Annual Survey for Comprehensive and Targeted Partnership Projects***

**Sponsored by the  
National Science Foundation**

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

#### **Privacy Notice**

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## Annual Survey for Comprehensive and Targeted 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 Partnership 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.**

<a href="#">MSP Project Scope</a>	<a href="#">Lead Organization and Project Leadership</a>	<a href="#">Partner Organizations</a>	<a href="#">Project Evaluators</a>
<a href="#">Partnership-Driven Activities</a>	<a href="#">Institutional Change and Sustainability Activities</a>	<a href="#">Evidence-based Design and Outcomes Activities</a>	<a href="#">Teacher Quality, Quantity, and Diversity Activities</a>
<a href="#">Challenging Courses and Curricula Activities: Mathematics<sup>1</sup></a>	<a href="#">Challenging Courses and Curricula Activities: Science<sup>2</sup></a>	<a href="#">RETA Involvement</a>	
Report Status: <b>Not Complete</b>			

<sup>1</sup> To be completed by projects with a mathematics focus.

<sup>2</sup> To be completed by projects with a science focus.

## Information about MSP Project Scope

This section collects information on the grade levels and subject area that your MSP is designed to address in each year of your MSP project.

1. Use the table below to indicate the PreK-12 grade levels that your MSP is designed to address in each year of your project by subject focus: (*check all cells that apply*)

Grade	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Math</b>					
PreK	<input type="checkbox"/>				
K					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
<b>Science</b>					
PreK	<input type="checkbox"/>				
K					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

## Information about the Lead Organization and Project Leadership

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

1. **Lead organization name:**<sup>3</sup> \_\_\_\_\_

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

- Institution of Higher Education (IHE)
- Higher education system/consortium
- K-12 school district
- County, regional or state educational agency
- Non-profit private organization focused on K-12 math or science education
- Other (specify): \_\_\_\_\_

3. **Provide the following contact information for the Principal Investigator:**<sup>4</sup>

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Street address:** \_\_\_\_\_

**City:** \_\_\_\_\_

**State:** \_\_\_\_\_

**Zip code:** \_\_\_\_\_

**Phone number:** \_\_\_\_\_

**Fax number:** \_\_\_\_\_

**E-mail:** \_\_\_\_\_

**Web address:** \_\_\_\_\_

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<sup>3</sup> This item will be pre-filled in future years. The online system will allow for organization name change.

<sup>4</sup> 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:**”

4. Provide the following contact information for the Project Director:<sup>5</sup>

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Title: \_\_\_\_\_

Street address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip code: \_\_\_\_\_

Phone number: \_\_\_\_\_

Fax number: \_\_\_\_\_

E-mail: \_\_\_\_\_

Web address: \_\_\_\_\_

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<sup>5</sup> 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:**”

## 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. Please note that information about the lead organization is collected in a separate section.

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

*Note—Question 1 of this section asks for the partner organization name. As you are entering the names of K-12 district and IHE partner organizations, it is highly recommended that you print out the completed administrative section and copy the names of the districts/IHEs exactly as they appear into the Question 1 text field. Each active district/IHE listed in the administrative section must be entered as a partner organization in this section.*

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*).

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

If you have entered information on all partner organizations, please click the button to the right to submit this section and return to the survey menu.

1. **Partner organization name:**<sup>6</sup> \_\_\_\_\_

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

*NOTE—Cohort 1 projects should use the definitions listed below for core and supporting partners to classify each of their partners—even though these definitions were introduced in Year 2 of the MSP program.*

- 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?** (Check one response)

- Institution of Higher Education (IHE)
- Higher education system/consortium
- K-12 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): \_\_\_\_\_

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



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

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Street address:** \_\_\_\_\_

**City:** \_\_\_\_\_

**State:** \_\_\_\_\_

**Zip code:** \_\_\_\_\_

**Phone number:** \_\_\_\_\_

**Fax number:** \_\_\_\_\_

**E-mail:** \_\_\_\_\_

**Web address:** \_\_\_\_\_

## 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 Project Evaluator* button below.

To provide or update information on an evaluator listed below, click on the link in the matrix (in the column titled *Organization Name*).

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 contact information for the organization or consultant that is conducting an independent evaluation of the implementation and/or impact of your MSP:**

Name of primary contact: \_\_\_\_\_

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 this evaluator belongs? (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 during the **[INSERT SCHOOL YEAR]** school year to assess the implementation and/or impact of your MSP.

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

4. Describe any noteworthy *findings* that this evaluator reported during the **[INSERT SCHOOL YEAR]** school year regarding the implementation and/or impact of your MSP.

*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 During the Previous School 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 non-academic individuals that **developed** and/or **delivered** MSP activities during the **[INSERT SCHOOL YEAR]** school year: (enter '0' where applicable)

*NOTE*—include individuals from both core and supporting partner organizations. Information on the contributions of IHE and K-12 partners is collected in a separate section.

	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		<input type="checkbox"/> A business or industry organization <input type="checkbox"/> A science center or museum <input type="checkbox"/> A disciplinary or professional society <input type="checkbox"/> A research laboratory <input type="checkbox"/> A private foundation <input type="checkbox"/> A public employer <input type="checkbox"/> Other (specify):
Mathematicians		<input type="checkbox"/> A business or industry organization <input type="checkbox"/> A science center or museum <input type="checkbox"/> A disciplinary or professional society <input type="checkbox"/> A research laboratory <input type="checkbox"/> A private foundation <input type="checkbox"/> A public employer <input type="checkbox"/> Other (specify):
Engineers		<input type="checkbox"/> A business or industry organization <input type="checkbox"/> A science center or museum <input type="checkbox"/> A disciplinary or professional society <input type="checkbox"/> A research laboratory <input type="checkbox"/> A private foundation <input type="checkbox"/> A public employer <input type="checkbox"/> Other (specify):
Other (specify):		<input type="checkbox"/> A business or industry organization <input type="checkbox"/> A science center or museum <input type="checkbox"/> A disciplinary or professional society <input type="checkbox"/> A research laboratory <input type="checkbox"/> A private foundation <input type="checkbox"/> A public employer <input type="checkbox"/> Other (specify):

2. Describe any steps that were taken during the **[INSERT SCHOOL YEAR]** school year to recruit STEM faculty and other disciplinary experts for the MSP.

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

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3. To what extent did **each** of the following hinder your efforts to engage or organize your partners during the **[INSERT SCHOOL YEAR]** school year?<sup>7</sup>

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

<sup>7</sup>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.

<input type="checkbox"/> To a large extent <input type="checkbox"/> To a moderate extent <input type="checkbox"/> To a small extent <input type="checkbox"/> Not at all
<p>f. Low levels of commitment or interest among <i>other</i> partners (<i>check <u>one</u> response</i>)</p> <input type="checkbox"/> To a large extent <input type="checkbox"/> To a moderate extent <input type="checkbox"/> To a small extent <input type="checkbox"/> Not at all <input type="checkbox"/> Not applicable
<p>g. Lack of flexibility among <i>IHE</i> partners (<i>check <u>one</u> response</i>)</p> <input type="checkbox"/> To a large extent <input type="checkbox"/> To a moderate extent <input type="checkbox"/> To a small extent <input type="checkbox"/> Not at all
<p>h. Lack of flexibility among <i>K-12</i> partners (<i>check <u>one</u> response</i>)</p> <input type="checkbox"/> To a large extent <input type="checkbox"/> To a moderate extent <input type="checkbox"/> To a small extent <input type="checkbox"/> Not at all
<p>i. Lack of flexibility among <i>other</i> partners (<i>check <u>one</u> response</i>)</p> <input type="checkbox"/> To a large extent <input type="checkbox"/> To a moderate extent <input type="checkbox"/> To a small extent <input type="checkbox"/> Not at all <input type="checkbox"/> Not applicable
<p>j. Conflicting goals or missions among all MSP partners (<i>check <u>one</u> response</i>)</p> <input type="checkbox"/> To a large extent <input type="checkbox"/> To a moderate extent <input type="checkbox"/> To a small extent <input type="checkbox"/> Not at all
<p>k. Unbalanced levels of authority and decision making ability among core MSP partners (<i>check <u>one</u> response</i>)</p> <input type="checkbox"/> To a large extent <input type="checkbox"/> To a moderate extent <input type="checkbox"/> To a small extent <input type="checkbox"/> Not at all

l. Poor communication among all MSP partners (*check one response*)

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

m. Other (specify): \_\_\_\_\_ (*check one response*)

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

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

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

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## Information about *Institutional Change and Sustainability* Activities Conducted During the Previous School 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 during the **[INSERT SCHOOL YEAR]** school 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 during the **[INSERT SCHOOL YEAR]** school year to encourage IHE STEM faculty to take responsibility and accountability for MSP 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 during the **[INSERT SCHOOL YEAR]** school year to bring about institutional change (e.g., through the redirection of resources).

*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 during the **[INSERT SCHOOL YEAR]** school 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-academic scientists in K-12 classrooms).*

5. Describe any steps taken during the **[INSERT SCHOOL YEAR]** school year to maximize the participation of parents and other community members 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 parents in K-12 classrooms).*

## Information about *Evidence-based Design and Outcomes* Activities Conducted During the Previous School Year

This section collects information on the efforts of your MSP to make use of 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 during the **[INSERT SCHOOL YEAR]** school year.

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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 during the **[INSERT SCHOOL YEAR]** school year?<sup>8</sup>

*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 *IHE faculty* who are participating in MSP-related activities (*check one response*)

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

- b. Obtaining data about *teachers* who are participating in MSP-related activities (*check one response*)

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

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<sup>8</sup> 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.

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

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 projects?**

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

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## **Information about *Teacher Quality, Quantity and Diversity* Activities Conducted During the Previous School Year**

**This section collects information on the efforts of your MSP to enhance and sustain the quality and diversity of K-12 teachers of mathematics and/or the sciences by increasing the diversity of the K-12 teacher workforce, recruiting qualified individuals to the teaching profession, influencing the teacher certification process, providing for the effective induction of new teachers, establishing policies and procedures that appropriately impact teacher qualification requirements and placement, and/or increasing teacher retention rates.**

**In completing this section, you will be asked to review a list of activities associated with teacher quality, quantity and diversity. You will then be asked to provide additional information for each activity on the list that your project was developing or delivering in the **[INSERT SCHOOL YEAR]** school year.**

1. Using the table below, identify the pre-service recruitment and preparation activities and the in-service retention/enhancement activities that were under development or delivered by your MSP during the **[INSERT SCHOOL YEAR]** school year.<sup>9</sup>

Pre-Service Recruitment	Activity in place or under development during the <b>[INSERT SCHOOL YEAR]</b> school year? <sup>10</sup>
<b>a) Provide scholarships to undergraduate students</b> (e.g., to encourage STEM and minority undergraduates to pursue educational careers)	No
<b>b) Create/provide teaching assistant positions for STEM undergraduate/graduate students</b> (e.g., to allow STEM undergraduates to experience formal instruction and to encourage teaching as a career)	No
<b>c) Create/provide opportunities for STEM undergraduate/graduate students to tutor K-20 students</b> (e.g., undergraduate peer tutoring; tutoring in K-12 schools to allow STEM undergraduates to experience formal instruction and to encourage teaching as a career)	No, but activity is under consideration for future years
<b>d) Invite STEM undergraduate/graduate students to help at (or participate in) K-12 special events</b> (e.g., Invention Conventions; Lego Logo Fairs; Science Nights)	No
<b>e) Establish/provide alternative certification programs</b> (e.g., to encourage STEM undergraduates/career changers to pursue educational careers)	No
<b>f) Conduct presentations at career fairs</b> (e.g., to encourage high school students, community college students, or career changers to consider educational careers)	Yes
<b>g) Create/provide informative materials for potential STEM teaching candidates</b> (e.g., promotional video; promotional brochure)	No
<b>h) Establish and/or revise course articulation agreements between 4 year institutions and community colleges</b> (e.g., common course numbering to ease the 2 year to 4 year institution transfer)	No
<b>i) Establish a regional plan for recruiting pre-service students that encompasses multiple MSP partners</b> (e.g., coordinate regional participation in recruitment)	No, but activity is under consideration for future years
<b>j) Other</b> (specify):	

<sup>9</sup> NOTE: The right hand column has been filled in to illustrate a completed table.

<sup>10</sup> NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No.

<b>Pre-Service Preparation</b>	<b>Activity in place or under development during the [INSERT SCHOOL YEAR] school year?</b>
a) Develop/revise pre-service courses to align with national and/or state standards	Yes
b) Develop/revise pre-service course content to align with local school district curricula	No
c) Provide opportunities for pre-service students to gain experience in K-12 classroom settings before formal student teaching (e.g., an internship experience; teaching at a summer STEM camp; shadowing; tutoring )	No
d) Involve IHE STEM faculty in pre-service program (e.g., co-teach a pre-service course with education faculty; co-teach a pre-service course with a K-12 master teacher; develop an inquiry lesson for a traditional pre-service course)	No, but activity is under consideration for future years
e) Involve K-12 master teachers in pre-service program (e.g., co-teach a pre-service course as an adjunct along side education faculty; co-teach a pre-service course with STEM faculty)	No
f) Design/offer pre-service STEM content courses specifically for elementary/middle/high school teacher certification programs	No
g) Link the pre-service process to national teacher certification activities (e.g., the National Board Certification process)	No
h) Invite pre-service students to take part in local school district in-service activities (e.g., in-service summer institutes or ongoing LEA professional development)	No
i) Mentor pre-service students	No
j) Other (specify):	
<b>In-Service Retention/Enhancement</b>	<b>Activity in place or under development during the [INSERT SCHOOL YEAR] school year?</b>
a) Provide group induction supports for new STEM teachers (e.g., a highly structured and sustained group induction process to support beginning teachers)	No
b) Conduct workshops/institutes/courses with K-12 teachers that increase <b>general content and/or pedagogical knowledge</b> (e.g., summer science institutes; workshops on cognitive science and its impact on instruction; weekend professional development seminars)	No, but activity is under consideration for future years
c) Conduct <b>targeted</b> workshops/institutes/courses with K-12 teachers (e.g., conduct a summer science institute that is specifically linked to the curriculum/text used at partner schools)	No
d) Design/offer STEM content courses specifically for elementary/middle/high school teacher certification programs	No
e) Conduct activities that develop and utilize teacher leaders	Yes
f) Provide a peer coaching network for STEM teachers (e.g., emphasis upon experienced and veteran teachers, as well as beginning teachers)	No



<b>g) Provide individual supports for STEM teachers</b> (e.g., provide a mentor for each beginning STEM teacher; IHE faculty “on-call” for classroom teachers, discipline-based e-mentoring)	No
<b>h) Provide administrative supports for K-12 teachers</b> (e.g., release time for professional development; substitute teacher support; financial support for professional meetings; scheduling aid for special projects/field trips)	No
<b>i) Establish/provide STEM study groups</b> (e.g., lesson study groups; discipline dialogues)	No
<b>j) Provide instructional materials for K-12 teachers</b>	No
<b>k) Provide externship opportunities for K-12 teachers</b> (e.g., teachers spend a year, semester, or summer working with a MSP business/industry partner related to their discipline)	Yes
<b>l) Establish/provide adjunct positions for K-12 master teachers at the partner IHEs</b>	No
<b>m) Provide professional development for IHE STEM faculty to support new roles in K-12 education</b>	No
<b>n) Other</b> (specify):	

A “Yes” on the preceding table has generated this list of teacher quality, quantity and diversity 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.

Teacher Quality, Quantity and Diversity Activities	Completed?
<b>Pre-Service Recruitment Activities</b>	
<a href="#">f) Conduct presentations at career fairs</a>	
<b>Pre-Service Preparation Activities</b>	
<a href="#">a) Develop/revise pre-service courses to align with national and/or state standards</a>	
<b>In-Service Retention/Enhancement Activities</b>	
<a href="#">e) Conduct activities that develop and utilize teacher leaders</a>	
<a href="#">k) Provide externship opportunities for K-12 teachers</a>	

**Complete the following items for the in-service enhancement activity you selected: *Provide externship opportunities for K-12 teachers***<sup>11</sup>

- 1. Provide a brief description (i.e., 250 words or less) about the purpose, scope and intensity of this activity.**<sup>12</sup>

*NOTE—if you have separate activities for math and science, please describe each one separately. 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 during the [INSERT SCHOOL YEAR] school year?**

*NOTE—if you have separate activities for math and science, please describe each one separately. 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 during the [INSERT SCHOOL YEAR] school 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): \_\_\_\_\_

- 4. What is the focus of this activity? (check all that apply)**

*NOTE—check “None of the above” if none of the following options apply to this activity.*

- Mathematics
- Science
- Technology
- Engineering
- Content
- Pedagogy
- Leadership
- Elementary
- Middle
- High
- None of the above

<sup>11</sup> The following is an example of the item set that would appear if the respondent selected the in-service enhancement activity: *Provide externship opportunities for K-12 teachers* from the list of activities in place.

<sup>12</sup> 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.

## **Information about *Mathematics Challenging Courses and Curricula* Activities Conducted During the Previous School Year<sup>13</sup>**

**This section collects information on the efforts of your MSP to ensure that the K-12 students in your participating school districts are prepared for, have access to and are encouraged to participate in and succeed in challenging mathematics courses and curricula.**

**In completing this section, you will be asked to review a list of activities associated with mathematics challenging courses and curricula. You will then be asked to provide additional information for each activity on the list that your project was developing or delivering in the previous school year.**

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<sup>13</sup> To be completed by projects with a mathematics focus.

1. Using the table below, identify the challenging courses and curricula activities that were under development or delivered by your MSP during the **[INSERT SCHOOL YEAR]** school year.<sup>14</sup>

Mathematics Challenging Courses and Curricula Activities	Activity in place or under development during the <b>[INSERT SCHOOL YEAR]</b> school year? <sup>15</sup>
a) <b>Align challenging mathematics curricula to other courses/standards</b> (e.g., align to state standards; align to IHE expectations; articulate K-8 curricula with high school curricula)	No
b) <b>Support expert review of challenging mathematics course curricula</b> (e.g., mathematicians update curriculum based on current research; IHE mathematics faculty review curriculum for content accuracy)	Yes
c) <b>Adopt, adapt, and/or implement evidence-based mathematics curricula</b>	No
d) <b>Implement standards-based mathematics curricula</b>	No
e) <b>Emphasize the importance of K-12 gateway courses</b> (e.g., reduce sections of 8 <sup>th</sup> grade general math in favor of increased sections of algebra; promote pathway towards 12 <sup>th</sup> grade calculus)	No
f) <b>Utilize technology for content innovation</b> (e.g., introduce mathematical modeling; create access to digital images in online libraries)	No
g) <b>Offer challenging mathematics courses via computer-communications technology</b> (e.g., offer distance learning opportunities; offer Advanced Placement (AP) courses taught by IHE faculty via video-conferencing )	No
h) <b>Provide traditional mathematics courses at alternative venues</b> (e.g., students take credit bearing courses at a local museum or university)	Yes
i) <b>Develop/re-design traditional mathematics units or courses for in-depth immersion in a single topic</b> (e.g., restructure school schedules and classroom time to allow for concentration on a single topic)	No
j) <b>Offer activities that motivate K-12 student participation in challenging mathematics courses</b> (e.g., establish a mathematics student club; inaugurate Career Awareness days)	No, but activity is under consideration for future year
k) <b>Encourage high school student enrollment in IHE mathematics courses</b>	No
l) <b>Provide focused support/tutoring for K-12 students</b> (e.g., provide students with extended learning opportunities; create a tutoring center to work with low performing students)	No
m) <b>Implement efforts to increase time spent on mathematics at elementary school level</b>	No
n) <b>Provide guidance counselors with professional development on challenging mathematics courses</b>	No
o) <b>Provide outreach on challenging mathematics courses to parents</b>	No
p) <b>Other</b> (specify):	

<sup>14</sup> NOTE: The right hand column has been filled in to illustrate a completed table.

<sup>15</sup> NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No. The system is designed to mirror the functionality of the USP collection—i.e., additional information would be requested for all activities for which the response was “Yes.”

A “Yes” on the preceding table has generated this list of challenging courses and curricula 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.

Mathematics Challenging Courses and Curricula Activities	Completed?
<a href="#">b) Support expert review of challenging mathematics course curricula</a>	
<a href="#">h) Provide traditional mathematics courses at alternative venues</a>	

**Complete the following items for the activity you selected: *Support expert review of challenging mathematics course curricula*<sup>16</sup>**

- 1. Provide a brief description (i.e., 250 words or less) about the purpose, scope and intensity of the activity.<sup>17</sup>**

*NOTE—this is a one-time response that 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 during the [INSERT SCHOOL YEAR] school 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 guidance counselors receiving professional development).*

- 3. Which of the following MSP participants were responsible for designing and/or providing this activity during the [INSERT SCHOOL YEAR] school 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): \_\_\_\_\_

- 4. What was the school-level focus of this activity? (check all that apply)**

- Elementary
- Middle
- High

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<sup>16</sup> The following is an example of the item set that would appear if the respondent selected the activity: *Support expert review of challenging course curricula* from the list of activities in place.

<sup>17</sup> 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.

## **Information about *Science Challenging Courses and Curricula* Activities Conducted During the Previous School Year<sup>18</sup>**

**This section collects information on the efforts of your MSP to ensure that the K-12 students in your participating school districts are prepared for, have access to and are encouraged to participate in and succeed in challenging science courses and curricula.**

**In completing this section, you will be asked to review a list of activities associated with science challenging courses and curricula. You will then be asked to provide additional information for each activity on the list that your project was developing or delivering in the previous school year.**

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<sup>18</sup> To be completed by projects with a science focus.



1. Using the table below, identify the challenging courses and curricula activities that were under development or delivered by your MSP during the **[INSERT SCHOOL YEAR]** school year.<sup>19</sup>

Science Challenging Courses and Curricula Activities	Activity in place or under development during the <b>[INSERT SCHOOL YEAR]</b> school year? <sup>20</sup>
<b>a) Align challenging science curricula to other courses/standards</b> (e.g., align to state standards; align to IHE expectations; articulate K-8 curricula with high school curricula)	No
<b>b) Support expert review of challenging science course curricula</b> (e.g., scientists update curriculum based on current research; IHE science faculty review curriculum for content accuracy)	No
<b>c) Adopt, adapt, and/or implement evidence-based science curricula</b>	No
<b>d) Implement standards-based science curricula</b>	No
<b>e) Emphasize the importance of K-12 gateway courses</b> (e.g., promote pathway towards AP science course taking)	Yes
<b>f) Utilize technology for content innovation</b> (e.g., use technology for online experiments; create access to digital images in online libraries)	No
<b>g) Offer challenging science courses via computer-communications technology</b> (e.g., offer distance learning opportunities; offer Advanced Placement (AP) courses taught by IHE faculty via video-conferencing )	Yes
<b>h) Provide traditional science courses at alternative venues</b> (e.g., students take credit bearing courses at a local science museum or university)	Yes
<b>i) Develop/re-design traditional science units or courses for in-depth immersion in a single topic</b> (e.g., restructure school schedules and classroom time to allow for concentration on a single topic)	No
<b>j) Offer activities that motivate K-12 student participation in challenging science courses</b> (e.g., invite scientists to sponsor a hands-on event at a K-12 school; establish a science student club; inaugurate Career Awareness days)	No, but activity is under consideration for future year
<b>k) Encourage high school student enrollment in IHE science courses</b>	No
<b>l) Provide focused support/tutoring for K-12 students</b> (e.g., provide students with extended learning opportunities; create tutoring center to work with low performing students)	No
<b>m) Implement efforts to increase time spent on science at elementary school level</b>	No
<b>n) Provide guidance counselors with professional development on challenging science courses</b>	No
<b>o) Provide outreach on challenging science courses to parents</b>	No
<b>p) Other</b> (specify):	

<sup>19</sup> NOTE: The right hand column has been filled in to illustrate a completed table.

<sup>20</sup> NOTE: Response options include: Yes (activity was under development or delivered); No, but activity is under consideration for future years; No. The system is designed to mirror the functionality of the USP collection—i.e., additional information would be requested for all activities for which the response was “Yes.”

A “Yes” on the preceding table has generated this list of challenging courses and curricula 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.

Science Challenging Courses and Curricula Activities	Completed?
<a href="#">e) Emphasize the importance of K-12 gateway courses</a>	
<a href="#">g) Offer challenging science courses via computer-communications technology</a>	
<a href="#">h) Provide traditional science courses at alternative venues</a>	

**Complete the following items for the activity you selected: *Emphasize the importance of K-12 gateway courses***<sup>21</sup>

- 1. Provide a brief description (i.e., 250 words or less) about the purpose, scope and intensity of the activity.**<sup>22</sup>

*NOTE—this is a one-time response that 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 during the [INSERT SCHOOL YEAR] school 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 guidance counselors receiving professional development).*

- 3. Which of the following MSP participants were responsible for designing and/or providing this activity during the [INSERT SCHOOL YEAR] school 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): \_\_\_\_\_

- 4. What was the school-level focus of this activity? (check all that apply)**

- Elementary
- Middle
- High

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<sup>21</sup> The following is an example of the item set that would appear if the respondent selected the activity: *Emphasize the importance of K-12 gateway courses* from the list of activities in place.

<sup>22</sup> 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.

## **Information about RETA Involvement**

**This section collects information on any Research, Evaluation, and Technical Assistance (RETA) projects that provided assistance to your MSP project. A RETA project is one that builds and enhances large-scale research and evaluation capacity for MSP awardees and provides them with tools and assistance in the implementation and evaluation of their work.**

**For the purpose of this collection, provide information about each RETA that meets the any of the following conditions:**

- Your MSP contacted the RETA to request their assistance
- Your MSP contacted the RETA to request information/materials
- The RETA contacted your MSP to request information/materials
- The RETA contacted your MSP to participate in their project

1. Which RETA(s) did you work with during the [INSERT SCHOOL YEAR] school year? (check all that apply)

- The College Board**—Redesign of the AP Biology Course, Examination, and Teacher Professional Development Experience
- Council of Chief State School Officers**—Longitudinal Design to Measure Effects of MSP Professional Development in Improving Quality of Instruction in Mathematics and Science Education
- Education Development Center**—Leadership Content Knowledge and Mathematics Instructional Quality in the MSPs: A Study of Elementary and Middle School Principals
- Education Development Center**—Online Technologies to Enhance MSP Teacher Quality Programs
- Georgia Tech Research Corporation - GA Institute of Technology**—Alternative Approaches to Evaluating STEM Education Partnerships: A Review of Evaluation Methods and Application of an Inter-organizational Model
- Horizon Research Inc**—Assessing Teacher Learning About Science Teaching
- Institute for Advanced Study**—Mathematician Study Group of State Standards in Mathematics: Participation in the NCTM/ASSM Conference to be held in Park City, Utah, July 21-25, 2004
- National Academy of Sciences**—Building from the Research: Envisioning Quality Science Assessments
- National Academy of Sciences**—Facilitating Mathematics/Science Partnerships
- Northwestern University**—Developing Distributed Leadership: Understanding the Role Boundary Tools in Developing and Sustaining Leadership for Learning Networks
- TERC Inc**—MSP-Network: A Technical Assistance Design Project
- TERC Inc**—MSPnet: An Electronic Community of Practice Facilitating Communication and Collaboration
- University of Michigan**—Design, Validation, and Dissemination of Measures of Content Knowledge for Teaching Mathematics
- University of Michigan**—MSP Motivation Assessment Program
- University of Wisconsin (Madison)**—Adding Value to the Mathematics and Science Partnerships Evaluations
- Utah State University**—Building Evaluation Capacity of STEM Projects
- Westat Inc**—The Effect of STEM Faculty Engagement in MSP: A Longitudinal Perspective
- WestEd**—Research on MSP Teacher Recruitment, Induction, Retention

To add a RETA that you worked with during the 2003-04 school year, click on the *Add RETA* button below.

To provide information on a RETA, click on the link in the matrix (in the column titled *RETA Name*).

RETA Name	Information Complete?
(from Q1)	(yes or no)

If you have completed adding and updating your RETAs, proceed to Q3.

**2a. How was involvement initiated with this RETA?** (check one response)

- Your MSP contacted the RETA to request their assistance
- Your MSP contacted the RETA to request information/materials
- The RETA contacted your MSP to request information/materials
- The RETA contacted your MSP to participate in their project
- Other (specify): \_\_\_\_\_

**2b. Use the list below to indicate whether each of the following activities was a primary or secondary focus of your work with this RETA.** (Check one response for each activity type)

Activity Type	Focus		
	Primary	Secondary	Not a Focus with this RETA
<b>Evaluation</b> —the systematic acquisition and assessment of information to provide useful feedback about some activity and/or to ascribe value, worth, or merit to it based upon defined criteria.			
<b>Research</b> —a systematic, empirical activity designed to develop or contribute to generalizable knowledge in a particular field.			
<b>Research about evaluation methodology or theory</b>			
<b>Technical assistance</b>			
<b>Assessment instruments</b>			
<b>Curricular materials</b>			
<b>Other</b> (specify): _____			

**3. To what extent did each of the following hinder your ability to get involved with RETAs during the previous year?<sup>23</sup>**

*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.*

<p>a. Not knowing <i>how</i> to approach the RETAs (<i>check <u>one</u> response</i>)</p> <p><input type="checkbox"/> To a large extent</p> <p><input type="checkbox"/> To a moderate extent</p> <p><input type="checkbox"/> To a small extent</p> <p><input type="checkbox"/> Not at all</p>
<p>b. Not knowing <i>who</i> to contact at the RETAs (<i>check <u>one</u> response</i>)</p> <p><input type="checkbox"/> To a large extent</p> <p><input type="checkbox"/> To a moderate extent</p> <p><input type="checkbox"/> To a small extent</p> <p><input type="checkbox"/> Not at all</p>
<p>c. Convincing MSP partners that working with RETAs can benefit our project (<i>check <u>one</u> response</i>)</p> <p><input type="checkbox"/> To a large extent</p> <p><input type="checkbox"/> To a moderate extent</p> <p><input type="checkbox"/> To a small extent</p> <p><input type="checkbox"/> Not at all</p>
<p>d. Not being able to find a good match between our activities and those of the RETAs (<i>check <u>one</u> response</i>)</p> <p><input type="checkbox"/> To a large extent</p> <p><input type="checkbox"/> To a moderate extent</p> <p><input type="checkbox"/> To a small extent</p> <p><input type="checkbox"/> Not at all</p>
<p>e. Other (specify): _____ (<i>check <u>one</u> response</i>)</p> <p><input type="checkbox"/> To a large extent</p> <p><input type="checkbox"/> To a moderate extent</p> <p><input type="checkbox"/> To a small extent</p> <p><input type="checkbox"/> Not at all</p>

<sup>23</sup> 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.