Primer for the
MSP Management Information System

Section 1—Overview

Overview of the Math and Science Partnership (MSP) Program

The Math and Science Partnership (MSP) Program is a major research and development effort that supports innovative partnerships to improve K-12 student achievement in mathematics and science. MSP projects are expected to both raise the achievement levels of all students and significantly reduce achievement gaps in the mathematics and science performance of diverse student populations. Successful projects serve as models that can be widely replicated in educational practice to improve the mathematics and science achievement of all the nation's students.

The MSP program seeks to improve K-12 student achievement through a sharp focus on three interrelated issues:

- Ensuring that all students have access to, are prepared for, and are encouraged to participate and succeed in challenging and advanced mathematics and science courses;

- Enhancing the quality, quantity, and diversity of the K-12 mathematics and science teacher workforce; and

- Developing evidence-based outcomes that contribute to our understanding of how students effectively learn mathematics and science.

MSP projects aim to address these issues by incorporating a depth and quality of creative strategic actions that extend beyond commonplace approaches. Although all MSP projects share a focus on the same set of fundamental issues, individual MSP projects differ in their scope and are categorized accordingly. MSP provides awards to the following three distinct types of partnerships:[1]

- *Comprehensive Partnerships* implement change in mathematics and/or science educational practices in both higher education institutions and in schools and school districts, resulting in improved student achievement across the K-12 continuum.

- *Targeted Partnerships* focus on improved K-12 student achievement in a narrower grade range or disciplinary focus within mathematics or science.

- *Institute Partnerships,* also referred to as *Teacher Institutes for the 21st Century,* focus on the development of mathematics and science teachers as school- and district-based intellectual leaders and master teachers.

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[1] The MSP Management Information System (MIS) pertains to all three types of partnerships.

Purpose and Structure of the Math and Science Partnership (MSP) Management Information System

The MSP Management Information System (MIS) is designed to obtain annual information about each MSP-funded project, its grant recipient, partner organizations, participants, activities, and outcomes. Completed surveys will be used to assess the overall implementation of the MSP program and to monitor the progress of individual MSP grants. Because the same data will be collected each year, the system will allow for comparisons both within and across projects over time. Data collected through this system will be used to provide NSF and other stakeholders (e.g., Congress) with timely information on the implementation and impact of the overall MSP program. These data will also enable your program officer to assess the annual progress of your project. Because these data will be made available to you and your project evaluators, your project will also be able to make use of this information for your own planning and evaluation efforts.

This data collection system is designed so that information can be collected in an efficient and systematic manner. All information is collected online through a Web-based system consisting of automatic skip patterns and internal validations. Many of the items will be answered using prelisted response categories that allow users to choose the most appropriate response. Other questions require brief narrative answers or explanations. Each question asked in each section must be answered completely. After the first year, some of the questions will be pre-filled with information from the preceding year. As such, the time it takes to complete subsequent year surveys will be reduced from what will be needed in the first year of the collection.

The system is currently composed of six surveys plus an administrative module. Each of the modules should be completed by the appropriate individual or institution, as detailed below. These modules will pertain to the indicated type(s) of MSP projects and are to be completed on an annual basis throughout the life of the MSP project. The MSP MIS comprises the following surveys:

- **Annual Survey for Comprehensive and Targeted Partnership Projects.** This survey collects information on each of the project's partner organizations (e.g., Institutions of Higher Education (IHEs), K-12 school districts, project evaluators), the grades and subject areas the project will address, project activities by key feature, and involvement with MSP Research, Evaluation, and Technical Assistance (RETA) awardees. It can be completed by the principal investigator (PI) or someone designated by the PI. Included in the survey is an Administrative Module that must be completed in order that K-12 district partners, IHE partners, and IHE participants can have access to the system to complete the survey modules for which they are responsible.

- **Annual Survey for Institute Partnership Projects.** This survey collects information on each of the project's partner organizations (e.g., Institutions of Higher Education (IHEs), K-12 school districts, project evaluators), the scope of the project (e.g., grades and subject areas the project addresses and criteria for selecting teachers) and project activities by key feature. It also collects information about the demographic characteristics of students and teachers in the K-12 Institute enrollees. It can be completed by the principal investigator (PI) or someone designated by the PI. Included in the survey is an Administrative Module that must be completed in order that IHE participants can have access to the system to complete the survey modules for which they are responsible.

- **Annual K-12 District Survey.** This survey module collects information about each K-12 school district that is serving as a lead, core, or supporting partner in a *Comprehensive or Targeted* partnership —as well as on the participating schools within those districts. The survey can be completed by a project-level evaluator, by project staff within a given district, or by the PI. The following data will be collected about each K-12 school district: (1) the number of K-12 individuals (e.g., teachers, principals, guidance counselors) who developed and/or delivered MSP activities during the previous school year; (2) the amount of professional development received by teachers and administrators, both during the previous school year and since the beginning of the MSP project; and (3) the number of schools within the district participating in MSP during the previous school year. The following data will be collected about each participating K-12 school that meets certain criteria (see Section 5 for criteria): (1) the demographic characteristics (gender, race/ethnicity, etc.) of all K-12 teachers in participating schools and of K-12 teachers who actively participated in MSP in the previous school year; (2) the demographic characteristics of students in participating schools by grade level; (3) the demographic characteristics of students enrolled in and completing challenging mathematics and science courses; and (4) student achievement on statewide, criterion-based, math and science accountability assessments that were administered during the previous school year.

- **Annual Institution of Higher Education Survey.** This survey collects the following data about each IHE partner of Comprehensive and Targeted MSPs: (1) the number of individuals who developed and/or delivered MSP activities; and (2) the number of individuals who were recipients of MSP activities. The survey can be completed by project staff at each IHE or by the PI.

- **Annual IHE Participant Survey for Comprehensive and Targeted MSPs.** This survey module collects information about the characteristics and contributions of IHE faculty members and administrators who are active participants in an MSP project. Information collected includes demographic characteristics, current fields of research and instruction, and contributions to their MSP. The survey must be completed by each individual IHE faculty member and administrator who is directly supported by the MSP grant and/or directly participated in the development or implementation of MSP-related activities during the previous school year.

- **Annual IHE Participant Survey for Institute MSPs.** This survey module collects information about the characteristics and contributions of IHE faculty members and administrators who are active participants in an Institute MSP project. Information collected includes demographic characteristics, current fields of research and instruction, and contributions to their MSP. The survey must be completed by each individual Institute IHE faculty member and administrator who is directly supported by the MSP grant and/or directly participated in the development or implementation of MSP-related activities during the previous school year.

Purpose and Content of this Primer

This primer provides information about how to navigate the online system and how to respond to individual collection items. The remainder of Section 1 provides general instructions of relevance for all

systems users. Section 2 provides information on how to navigate the online system. Sections 3-8 provide information on each of the six surveys:

- If you are the PI for a Comprehensive, or Targeted MSP, see *Section 3* for additional context or explanation about the administrative module and the Annual Survey for Comprehensive and Targeted Partnership Projects.**.**

- If you are the PI for an Institute MSP, see *Section 4* for additional context or explanation about the administrative module and the Annual Survey for Institute Partnership Projects**.**

- If you are involved in the completion of the Annual K-12 District Survey, see *Section 5*.

- If you are involved in the completion of the Annual Institution of Higher Education Survey, see *Section 6*.

- If you are an IHE participant in a Comprehensive or Targeted MSP, see *Section 7* for additional information about the Annual IHE Participant Survey for Comprehensive and Targeted MSPs**.**.

- If you are an IHE participant in a Comprehensive or Targeted MSP, see *Section 8* for additional information about the Annual IHE Participant Survey for Institute MSPs.

Section 9 is a glossary of terms used in the survey.

General Information

This section provides general information that you should become familiar with prior to completing a survey.

Why is completing this survey important? The MSP program is one of the major educational programs funded by the National Science Foundation (NSF). Although NSF expects the funded programs to benefit from their grants, NSF's primary goal is to identify what types of programs are most effective in improving educational opportunities for our nation's children. To do this, it is critical for NSF to obtain feedback from as many program participants as possible. This information will then be used to help NSF and others in designing future educational programs. It will also be used to help NSF comply with annual congressional reporting requirements.

Do I need to review all the detailed instructions in this primer? Most questions in this system should be self-explanatory. However, there are questions that include terms that need to be defined or require additional context or explanation. Furthermore, the online instructions do not cover situations that may be relevant to only a small number of respondents. Thus, reviewing the detailed instructions for the survey you are completing is strongly encouraged. You should also consult the primer when you are unsure of how to respond to a question.

What should I do when a question asks me to choose only one response and I'm not sure which response to choose? Some of the survey questions ask you to select one response from a list. Please read the whole list and then select the response that *best* answers the question. If you stop reading

when you first get to a response that seems to fit, you may miss a later response that better describes your situation. If you really cannot decide on which of two or more responses is best, please choose one response using whatever arbitrary means you would like.

How should I report information for a program that includes pre-kindergarten children? Some survey questions ask for information about K-12 or K-20 programs, students, and teachers; however, some Cohort 1 projects did include programs addressing the needs of pre-kindergarten children. For the purposes of this survey, please consider these teachers and students to be part of the elementary school population.

How do you define a school year? Many questions on these surveys ask about things that occurred during the *previous school year*. In order to ensure that no relevant summertime activities are missed, please consider a given school year to include the summer months following the end of the academic year (e.g., the 2004-05 school year refers to the period September 1, 2004, through August 31, 2005). Feel free to deviate somewhat from these exact dates if it makes sense for your project. For example, if your school year starts in late August, you may feel that August 15, 2004, through August 14, 2005, makes more sense for you. However, please **include summer months with the preceding school year** rather than including them with the following school year. The important thing is that you are **consistent** from one reporting year to the next, so that information you report in one year can be compared with that reported in other years.

Who should I contact if I have a question? On the home page of all of the surveys you will find the name and phone number of the individual to contact for that particular survey. Questions can also be emailed to MSPMIS@westat.com. When sending emails, in addition to the question, please be sure to include your name and phone number, your project's name and/or award ID number, and the survey that you are referring to.

What happens if I don't respond to this survey? NSF expects that all Partnership projects will fully enter data into the MSP MIS. While it is the responsibility of the PI to achieve a response rate of 100 percent for all surveys, the system allows other appropriate individuals/institutions to complete parts of different surveys.

Section 2—Navigating the System

This section describes some of the technical and navigational features built into the MSP Management Information System (MIS), as well as how to perform other basic system functions, such as printing and resources for finding help. Additional system features that are accessible only to PIs are discussed in Sections 3 and 4.

Logging In and Passwords

To use the MSP MIS, you must have access to the Internet through a Web browser. To access this system, type in the following Internet address:

www.msp-mis.org

Westat will provide each PI with an initial login name and password that will allow access to the system. After setting up login names and passwords for their partners and IHE participants, the PIs or their designees will be responsible for communicating these login names and passwords to their partners and IHE participants responsible for completing surveys. (Comprehensive and Targeted PIs should see Section 3 and Institute PIs should refer to Section 4 for more information about creating login names and passwords.)

General Navigation

After logging in to the system, you can begin completing the survey by clicking on a section name. All section names are listed as links in a menu on the initial screen. Except for the IHE Participant Surveys, which have only one section, this system allows you to complete the sections in whatever order you prefer (unless information from one section is used in formulating and pre-filling the questions in another section). After a section has been completed, a checkmark will appear next to that section name on the initial screen.

For each individual question in the system, you are asked to provide information either through text fields or drop-down menus, or by checking or filling in boxes, or a combination of these. After entering and/or selecting the appropriate information for a question, click on "Save & Continue" at the bottom of the screen. *If you do not click on "Save & Continue" after answering a question, the information you entered will be lost.* Clicking on Save & Continue will automatically save the information you have entered and will take you to the first unanswered item in the section. If, after clicking on the Save & Continue button, you receive an error message and the information that you had just entered is lost, clicking on your browser's back button usually will retrieve your data. To avoid this potential problem, we recommend enabling JavaScript.

Up until the time you do a final submit of a survey, you may, at any time, return to an item that has been saved and revise your response. *Please be aware that in some cases, when one item is linked to another, revising one response may result in the loss of data.*

On most screens in the system, a question guide appears on the left side of the screen (see the screen shot below). This guide provides a list of all questions in the particular section of the survey you are completing. In the question guide, a red bar with a checkmark indicates that the question has been completed. A blue bar with an arrow indicates that you are able to respond to a particular question that you have not yet completed. A black bar with an "X" indicates that the question does not need to be addressed—or that the item cannot be accessed until prior questions in that section have been completed.
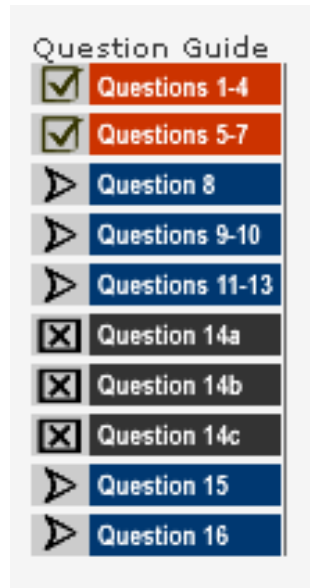
In some cases when you try to save a question response, the system will alert you to a problem with your response. This may occur, for example, because you have failed to complete a required field or because you have entered inconsistent numbers (e.g., data that you have entered across several rows do not sum to the total). The system message will explain what the problem is. Because the system uses JavaScript to report response error, we suggest having JavaScript enabled.

If you wish to modify your response to a question, you can click on the appropriate question number in the question guide on the left hand side of the screen, modify your response, and then click Save and Continue. Your original information will then be replaced by the new information.

You must answer questions within some of the sections in sequential order; however, you may skip to any question you have already answered within a particular section by clicking on the appropriate bar in the question guide. You may also access sections you have already completed and submitted by clicking on that section's link in the matrix on the home screen.

At any time while you are inputting information into the system, you may return to a previous screen or question by clicking on the Back button on your Web browser.

In addition to the section links, there are several other links at the top of every screen in the system. The following links will allow you to navigate through the system (if you click any of these links while answering a question, you will be taken out of that question and the information you have entered will not be saved. To return to that question, click the Back button on your browser):

Home: For surveys with multiple sections (i.e., all surveys except for the IHE participant surveys), this links back to the most recently viewed menu page. For the IHE Participant Surveys, the Home link will open the instruction page.

Glossary: An alphabetized listing of acronyms and key terms and their definitions is provided here.

Help: If you have questions about the system, try this link. You can also use this link to obtain paper copies of the survey instruments and this primer.

Sign Out: This will automatically log you out of the system and link you back to the login page.

Section Submittal

Once you have successfully completed all questions in a section, you should submit the section to the system. At this point, the system considers the section to be completed and a check mark appears next to the section on the menu screen. Note that until you have made a final submittal of a survey (see below), you can still return to make additional changes to a submitted section of that survey.

Final Submittal

Once you have successfully completed all questions in all sections of the survey, the data must be submitted to the system. A final submission of data is your last step in completing a survey. After the final submission of a survey, access to that year's survey will be denied. In the event that you need to reopen the system after a final submission (e.g., to make additional changes), you must contact the person who provided you with your login name and password and request that your survey be reopened.

Text Entry

Many screens in the system have text boxes in which you are asked to supply information in narrative form. None of the text boxes within the system asks you to submit an exorbitant amount of information (generally, no more than 1-2 paragraphs are requested). However, you should be prepared to provide complete answers to all open-ended questions. Therefore, since there are no text formatting or editing tools, such as spell check, built into the system, it may be easier for you to type your answer in a word processing program, format and edit it, and then copy and paste it into the appropriate text box.

Numeric Entries

To distinguish between a cell that you have not yet entered data and a cell value of 0, we request that you enter 0s into numeric cells when appropriate and enter "x" into the cell when you cannot provide the answer rather than leaving the cell blank. This will enable us to distinguish between data that are unavailable and situations in which there were actually no cases in a particular cell.

Printing

If you would like to print the information entered into the system, you should click on the link to "Printable Version of Completed Survey," which will be presented after you submit the report to the system. If you have not yet completed a section, you can print out any visible Web page by clicking on the Web print icon. Note that the information printed in this way has not necessarily been saved. Further printing and viewing capabilities for PIs can be found in Sections 3 and 4.

Logging Out/Saving Information

If you are unable to complete an entire section or survey at one time, you may complete part of the section or survey by clicking on Save & Continue at the bottom of any question and then logging out by clicking on the "Sign Out" link, which can be found at the top of any screen. This will return you to the main login screen, which asks for the login name and password. All information entered up to that point will be saved.

As stated above, you can complete only part of a survey, log out, and enter the system later to complete any remaining information. When you reenter the system, you will be taken to the starting screen for your survey. For surveys with multiple sections, this lists the section names for that survey. When you reenter a section (or one of the IHE Participant Surveys), you will be directed to the first question in the section that has not yet been answered.

Section 3—Information for MSP Comprehensive and Targeted PIs

This section addresses three topics of relevance to Comprehensive and Targeted MSP PIs and their designees: (1) monitoring tools that are only available to PIs and their designees, (2) the administrative module, and (3) the Annual Survey for Partnership Projects. Similar information for PIs of Institute Partnerships is contained in Section 4.

The administrative module and the Annual Survey for Partnership Projects are to be completed by each MSP principal investigator (except for RETA and Institute PIs). Some of the item responses in these modules will be used to pre-fill subsequent year data collections, thereby reducing the time it takes to complete this survey in future years. Most pre-filled items will only need to be reviewed and, if necessary, updated on an annual basis.

In addition to reading this section, please review the general information provided in Sections 1 and 2 before completing the administrative section or the survey. You will note that only sections and questions that respondents are likely to need specific guidance to answer are included here. If you have a question about how we are using a specific term, you may find the glossary helpful. If your specific questions are not covered, please contact the person indicated at the beginning of your survey. Not only will this help you in providing answers that are meaningful and comparable to those submitted by other respondents, but the questions will help us in revising this manual for use in future data collection activities.

At the end of this section, we have provided you with some information about capabilities that we have built into the system to help you monitor your partners' and IHE participants' survey completion.

MONITORING TOOLS

PIs or their designees are responsible for monitoring the survey submissions of their partners and IHE participants. The system has some features to assist you in performing this task. You will be able to determine which of your partners and IHE participants have completed their surveys. To access their survey status, click on the appropriate link (Annual K-12 District Survey, Annual Institution of Higher Education Survey or Annual IHE Participant Survey) in the **Survey Management** menu on the page that appears on your home screen. Each of these links lists the participants or institutions in your MSP that you have indicated should be responding to the selected survey. If the survey has been submitted to the system, a green checkmark will appear in the column indicating survey status. If you or the survey respondent wishes to modify a response after final submission of a survey to the system, you can reactivate user access by clicking the "Reopen Survey" button on this page. Once **all** project surveys have been submitted to the system, a submit section button will appear. Each set of surveys must be submitted to the system by the PI or their designee. This feature allows the PI to sign-off on all project surveys. On the Survey Management menu, a check to the left of a survey indicates that all surveys are complete and have been submitted to the system. Please note that the check may disappear if the administrative section is revised.

If you wish to view survey information submitted (without modifying it) you should click on "Reports," which appears at the top of your screen. This will allow you to print out, view, or download information submitted to the system by clicking the appropriate print, view, or Excel icon. You can also activate the same functions for those sections of the Annual Survey for Partnership Projects that you have submitted.

ADMINISTRATIVE SECTION

After the initial login (using the login name and password assigned by the Westat system administrator), **this is the <u>first</u> section that must by completed by the PI.** This section, which can be accessed by clicking on "Admin" in the menu on the top of the screen, consists of six lists that must be completed **as soon after the system opens as possible.**

- *Annual Survey for Partnership Projects: List of Users* allows for the addition of new users for the Annual Survey for Partnership Projects (e.g., if you would like your project director and evaluator to have access to the Annual Survey for Partnership Projects, you can create new login names and passwords for them in this section). There is no limit to the number of users who may have access to the Annual Survey for Partnership Projects. Also, multiple users, responsible for the completion of separate sections, may be signed into the system at the same time.

- The list of *K-12 District Partners* is designed to record all core and supporting K-12 district partners and their current participation status (active, not active, etc.). You will find that this list has been pre-filled with information provided by your MSP. Please select and update participation status for each district listed. You may also add any new partner districts to this list. Please be sure to include **all** core and supporting district partners in this list.

- *Annual K-12 District Survey: List of Users* is to be completed *after* the K-12 District Partners list. You must create at least one login name and password for **each** active K-12 district partner. The login information that you create will grant access to the K-12 District Survey for the specified district. You must provide the individual responsible for the completion of the K-12 District Survey with the new login information. There is no limit to the number of users who may have access to each district's survey.

- The next two lists are similar to the K-12 district lists, but they record information about institute of higher education (IHE) partners. The list of *IHE Partners* records the names and participation status of all core and supporting IHE partners. This list has also been pre-filled with information provided by your MSP. You should select and update participation status for each IHE listed and add IHE partners to the list as necessary. Complete the *Annual Institution of Higher Education Survey: List of Users* list **after** the IHE Partners list has been completed. Again, you must create at least one login name and password for **each** active IHE partner, as the login information you create will grant access to the IHE Survey for the specified IHE. You must provide the individual responsible for the completion of the IHE Survey with the new login information. There is no limit to the number of users who may have access to each IHE's survey.

- The final list, *Annual IHE Participant Survey: List of Users*, must also be completed **after** the IHE Partners list has been completed. Use this list to create login names and passwords for all IHE participants. For the purposes of this collection, this includes any faculty member or

administrator who was (1) directly supported by the MSP grant, and/or (2) directly participated in the development or implementation of MSP-related activities during the previous school year. Each active participant will be required to complete the Annual IHE Participant Survey. Please note that while the system will track IHE participants from year to year, the identity of the individual IHE Participant Survey respondent will not be known by NSF or Westat. Since the system will not link login names with an individual, **it is strongly recommended that you create a database that stores a list of participants associated with specific login names and passwords** so that you can follow up with participants who do not complete their surveys in a timely manner or need to be reminded of their login information in future collection years. Neither NSF nor Westat will be able to provide this information to you or to other respondents in future years. You may want to consider assigning login names and passwords in such a manner that will allow the PI (or other project staff) to easily identify the participant (e.g., use the participant's first initial followed by the last four digits of his/her Social Security number as a login name and/or password). **Just as with the K-12 District Survey and IHE Survey, you must provide all IHE participants with their login information.**

In filling out this information, please note:

- You should be *consistent in the names* used to identify organizations throughout the surveys in order to minimize the chance of confusion. For example, if the University of ABC is one of your IHEs, do not sometimes abbreviate it as UABC, sometimes refer to it as Univ. of ABC and sometimes refer to it as University of ABC. To facilitate consistency, you will probably find it helpful to print out the administrative module after you complete it, so that you can use it in completing other sections of the Annual Survey for Partnership Projects.

- In assigning login names and passwords, please consider whether your choice will *permit your partners to figure out how to access information from other organizations or individuals*. For example, if the University of ABC and the University of 123 are among your IHEs and you make both the login name and the password for the University of ABC "UABC," and make the login name and password for the University of 123 "U123," it is likely that they could figure out how to look at one another's information.

ANNUAL SURVEY FOR COMPREHENSIVE AND TARGETED PARTNERSHIP PROJECTS

In addition to completing the Administrative section and monitoring their partners and IHE participants, PIs or their designees are responsible for completing all remaining sections of the Annual Survey for Comprehensive and Targeted Partnership Projects. Some items from these sections of the survey are described here. Once all sections of the Annual Survey for Comprehensive and Targeted Partnership Projects are complete (including the Survey Management sections), be sure to **submit the survey to NSF before the system closes.**

Information about Partner Organizations

Q1: Partner Organization Name. When you are entering the names of K-12 districts and IHE partner organizations, please enter their names exactly as they appear in the administrative module to avoid confusion. Please note that each active district/IHE listed in the administrative screen must be entered as a partner organization, in addition to other core or supporting partners.

Information About Partnership-Driven Activities Conducted During the Previous School Year

Q1: Indicate the number of non-academic individuals that <u>developed</u> and/or <u>delivered</u> MSP activities during the previous school year. For Q1, do **not** include persons affiliated with either an IHE or a K-12 institution—this information is obtained elsewhere in the collection. Do include all other individuals who participated in the development and/or delivery of an MSP activity regardless of the duration or intensity of participation or the numbers of individuals served. Do **not** count an individual in more than one broad discipline (scientist, mathematician, engineer, or other). If you know the person's specific discipline but are uncertain about which broad discipline it falls under, please use the Glossary for more information on which detailed fields should be included in each broad discipline. If the Glossary does not provide adequate information for classification, it is best to ask the participant to identify the appropriate discipline. If this is not possible, use your best judgment to determine the most appropriate response.

Q3: To what extent did each of the following hinder your efforts to engage or organize your partners during the previous school year? This item is designed to obtain information about challenges that your project faced during the previous school year in engaging your MSP partners. 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.

In addressing this item, you should consider the **collective effect** of the specified challenge on your ability to engage and organize your partners. For example, Q3b asks to what extent a lack of time or other resources among K-12 partners hindered your efforts to engage or organize your partners. If your MSP had no challenges with most of your K-12 partners in this regard, but had sufficient trouble with one partner that it seriously impeded your ability to get the K-12 partners engaged or organized (e.g., you might have significantly delayed important organizational meetings to accommodate the schedule of the one partner), the appropriate response is "To a large extent." However, if the challenges with the one partner had no impact on your ability to engage and organize the remaining partners, a response of "to a small extent" would be more appropriate.

For each item in Q3 for which you selected "To a large extent" or "To a moderate extent," you will be asked to answer the following question: *Why did this occur—and what steps were taken to overcome this challenge?* You will be required to provide a brief narrative (i.e., one or two paragraphs) in each instance and you should make your best effort to address the question completely. This answer need not be lengthy, but should provide your program officer with an understanding of the type of challenge encountered and what steps were taken during the previous school year to address it.

- In some cases, you may know there was a challenge, but are unclear about the underlying cause. For example, you may know that you often had to reschedule meetings because of one of your K-12 partners, but may not be sure whether this was because the partner lacked time (3b) or had a low level of commitment (3e). Take your best guess as to what was the underlying cause of the challenge. In your answer about why this occurred (assuming the challenge had a moderate or large impact), you may wish to explain that you are not sure what the exact cause of the challenge was.

- In some cases, you may believe that a combination of factors contributed to the same challenge. For example, you may have had to reschedule meetings often because one of your K-12 partners lacked time (3b) and another K-12 partner had a low level of commitment (3e). In this situation, please report both challenges. In your answer about why this occurred (assuming these challenges had a moderate or large impact), you may wish to explain this joint effect in more detail. In addition, you may find it helpful to copy all or most of your answer to the first response in completing the second.

Q4: What lessons have you learned regarding efforts to engage partners that would be of use to other MSP projects? Q4 is an opportunity to present lessons learned about engaging and organizing partners that others may benefit from that have **not** been captured in your answers from preceding questions. For example, you may have done something innovative that got your partners engaged at the start of the MSP program.

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

Q2: 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 previous school year? This item is designed to obtain information about challenges that your project faced during the previous school year in obtaining data about the implementation and impact of your MSP. Once again, 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.

 For Q2, consider the **collective effect** of the specified challenge on your ability to make use of data to assess the implementation and impact of your MSP. For example, for Q2b, obtaining data about participating teachers from some schools may be difficult, while it is easy to obtain data from others. If you were never able to get the necessary data for several large school districts, this may have had a large or moderate impact on your ability to assess the implementation and impact of your MSP, even though the remaining school districts provided data on time.

For each item for which you select "To a large extent" or "To a moderate extent," you will be asked to answer the following question: *Why did this occur—and what steps were taken to overcome this challenge?* You will be required to provide a brief narrative (i.e., a paragraph) in each instance, and you should make your best effort to address the question completely. This answer need not be lengthy, but should provide your program officers an understanding of the type of challenge encountered and what steps were taken during the previous school year to address that challenge.

Q3: What lessons have you learned regarding efforts to collect and use data that would be of value to other MSP projects? Q3 is an opportunity to present lessons learned about collecting and using data that other MSP programs may benefit from that have not been captured in your answers to the preceding questions. For example, you might want to explain procedures that were particularly effective in getting schools to cooperate, or you might want to describe an innovative way of collecting and/or analyzing data.

Information about Teacher Quality, Quantity and Diversity Activities Conducted during the Previous School Year

Q1: 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 previous school year. Q1 asks for the identification of MSP activities that were in place or under development during the previous school year (approximately September 1 of one year to August 31 of the next). Response options include "Yes," "No, but activity is under consideration for future years" and "No."

- If the listed activity was under development OR delivered during the previous school year, the appropriate response option would be Yes.

- If you are considering an activity for possible development in the future or have decided to implement the activity in the future, but have not actually started development, select No, but activity is under consideration for future years.

- If neither of these options is correct (i.e., you currently have no plans to conduct a given activity), select No.

In completing this section, consider the activities of **all** your partners. For example, even if only one of your IHE partners is providing scholarships to undergraduate students as an MSP activity, select Yes as the response option. This is the appropriate response whether or not other partners are considering development of such a program. If no partners are developing or delivering the activity, but one or more partners is considering development, answer, No, but activity is under consideration for future years.

In some cases, a particular activity may appear to fit into more than one of the categories listed. For example, an MSP may have used STEM undergraduates to provide presentations at career fairs for K-12 students. This activity fits under both "(d) Invite STEM undergraduate/graduate students to help at (or participate in) K-12 special events" and "(f) Conduct presentations at career fairs" under pre-service recruitment activities. Please mark Yes for both of the activities listed. You may describe the activity when asked for a description of the first listed activity and then cut and paste this information when asked for the description of the second listed activity.

For **each** activity that was being developed or delivered, you will be required to provide further information. You will be asked to provide a brief description of the overall purpose and scope of this activity to enable program officers to provide stakeholders with narrative summaries of the range of activities that MSPs are using to enhance teacher quantity, quality, and diversity. The following provides an example of the type of narrative that might be provided for career fairs:

This career fair is a collaborative program by IHE STEM and education faculty, graduate and undergraduate students at XXX and YYY Universities, and K-12 science and math teachers at ABC school. It provides 11th and 12th grade students with information about teaching careers. The goal of this activity is to provide students with an understanding of the rewards of a career in science and math education and the steps that they need to take to become qualified for such a career. The purposes of this activity are to (1) recruit K-12 students into the Schools of Education at XXX and YYY; (2) recruit STEM majors at XXX and YYY into teaching programs; (3) encourage current students in the Schools of Education at XXX and YYY to remain in their programs; and (4) encourage K-12 science and math teachers to remain in their positions. A typical career fair lasts for approximately three hours. During the first hour and a half, formal presentations are made by IHE faculty and graduate students and K-12 teachers. During the next hour and a half, students have an opportunity to meet informally with presenters and with undergraduate students in the School of Education at XXX and YYY.

For each activity, you will also be asked to provide a brief description of design and implementation efforts that occurred during the previous school year. The purpose is to inform your program officer of progress made during the previous school year on this specific activity. The following is an example of the type of narrative that might be provided for career fairs:

During the last year, a total of four career fairs were held in three school districts. On average, two IHE STEM faculty, four education faculty, five graduate students, six undergraduate students, and four K-12 teachers met twice prior to the career fair to plan each fair and subsequently participated in the fair. In addition, a coordinator from one of the IHE participants spent approximately 20 hours working with the K-12 schools on logistics for the career fair. During the course of the year, 40 persons were involved in planning and participating in the fair. A total of 200 students attended the four career fairs.

You will also be asked, "Which of the following MSP participants were responsible for designing and/or delivering this activity during the previous school year?" Only those participants involved in *designing/delivering* activities should be included in the response to this item. Recipients of MSP activities (e.g., in-service teachers *attending* a professional development workshop) should **not** be included in the response. In completing this item, you should check **all** that apply. In some cases, it may not be clear which group to check—e.g., someone may be on both the STEM and education faculty at an IHE institution. In these cases, consider the role that the person played in designing or delivering the activity. For example, if the person with the joint appointment was representing STEM faculty at a meeting to design the program, classify him/her as a STEM faculty. If a person "wore two hats" in the process, then check both boxes.

Finally, for each activity, you will be asked, "What is the focus of this activity?" In some cases, none of the response options will apply to the activity; in this case, you should select "None of the above."

Information about Mathematics Challenging Courses and Curricula Activities Conducted During the Previous School Year

This section is to be completed by projects with a mathematics focus. See "Information about Teacher Quality, Quantity and Diversity Activities Conducted During the Previous School Year" for further information about this section.

Information about Science Challenging Courses and Curricula Activities Conducted During the Previous School Year

This section is to be completed by projects with a science focus. See Information about Teacher Quality, Quantity and Diversity Activities Conducted During the Previous School Year for further information about this section.

Information about RETA Involvement

Q3: To what extent did each of the following hinder your ability to get involved with RETAs during the previous year? For Q3, consider the extent to which your total involvement with RETAs was impacted by each of the factors listed. For example, in Q3d, if you found a good match between one or more RETAs for all of your activities that you thought could benefit from RETA involvement, choose "Not at all," even though there were other RETAS that did not match your needs.

For each item in which you selected "To a large extent" or "To a moderate extent," you will be asked to answer the following question: Why did this occur—and what steps were taken to overcome this challenge? You will be required to submit an answer in each instance, and you should make your best effort to address the question completely. This answer need not be lengthy, but should give your program officers an understanding of the type of challenge encountered and what, if anything, you were able to do about it. If you are unable to address the question, you should indicate so in the text box provided.

Section 4—Information for Institute PIs

This section addresses three topics of relevance to MSP Institute PIs and their designees: (1) monitoring tools that are only available to PIs and their designees, (2) the administrative module, and (3) the Annual Survey for Institute Partnership Projects. Similar information for PIs of Comprehensive and Targeted Partnerships is contained in Section 3.

The administrative module and the Annual Survey for Institute Partnership Projects are to be completed by each Institute principal investigator. Some of the item responses in these modules will be used to pre-fill subsequent year data collections, thereby reducing the time it takes to complete this survey in future years. Most pre-filled items will only need to be reviewed and, if necessary, updated on an annual basis.

In addition to reading this section, please review the general information provided in Sections 1 and 2 before completing the administrative section or the survey. You will note that only sections and questions that respondents are likely to need specific guidance to answer are included here. If you have a question about how we are using a specific term, you may find the glossary helpful. If your specific questions are not covered, please contact the person indicated at the beginning of your survey. Not only will this help you in providing answers that are meaningful and comparable to those submitted by other respondents, but the questions will help us in revising this manual for use in future data collection activities.

At the end of this section, we have provided you with some information about capabilities that we have built into the system to help you monitor your partners' and IHE participants' survey completion.

MONITORING TOOLS

PIs or their designees are responsible for monitoring the survey submissions of their IHE and K-12 participants. The system has some features to assist you in performing this task. You will be able to determine which of your IHE and K-12 participants have completed their surveys. To access their survey status, click on the appropriate link (Annual Survey for IHE Institute Participants or Annual Survey for K-12 Participants[1]) in the **Survey Management** menu on the page that appears on your home screen. Each of these links lists the participants in your MSP that you have indicated should be responding to the survey. If the survey has been submitted to the system, a green checkmark will appear in the column indicating survey status. If you or the survey respondent wishes to modify a response after final submission of a survey to the system, you can reactivate user access by clicking the "Reopen Survey" button on this page. Once **all** project surveys have been submitted to the system, a submit section button will appear. Each set of surveys must be submitted to the system by the PI or their designee. This feature allows the PI to sign-off on all project surveys. On the Survey Management menu, a check to the left of a survey indicates that all surveys are complete and have been submitted to the system. Please note that the check may disappear if the administrative section is revised.

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[1]   This survey is still under development. The primer will be updated to include this survey and the corresponding administrative section when the survey is available.

If you wish to view survey information submitted (without modifying it) you should click on "Reports," which appears at the top of your screen. This will allow you to print out, view, or download information submitted to the system by clicking the appropriate print, view, or Excel icon. You can also activate the same functions for those sections of the Annual Survey for Institute Partnership Projects that you have submitted.

ADMINISTRATIVE SECTION

After the initial login (using the login name and password assigned by the Westat system administrator), **this is the <u>first</u> section that must by completed by the PI.** This section, which can be accessed by clicking on "Admin" in the menu on the top of the screen, consists of three lists that must be completed **as soon after the system opens as possible.**

- *Annual Survey for Institute Projects: List of Users* allows for the addition of new users for the Annual Survey for Institute Partnership Projects (e.g., if you would like your project director and evaluator to have access to the Annual Survey for Institute Partnership Projects, you can create new login names and passwords for them in this section). There is no limit to the number of users who may have access to the Annual Survey for Institute Partnership Projects. Also, multiple users, responsible for the completion of separate section, may be signed into the system at the same time.

- The list of *Partner Organizations* is designed to record all core and supporting partners and their current participation status (active, not active, etc.). You will find that this list has been pre-filled with information provided by your MSP. Please select and update participation status for each district listed. You may also add any new partner districts to this list. Please be sure to include **all** core and supporting district partners in this list.

- The final list, *Annual IHE Institute Participant Survey: List of Users*, must be completed **after** the Partners list has been completed. Use this list to create login names and passwords for all IHE participants.   For the purposes of this collection, this includes any faculty member or administrator who was (1) directly supported by the MSP Institute grant, and/or (2) directly participated in the development or implementation of Institute-related activities during the previous school year. Each active participant will be required to complete the Annual IHE Participant Survey. Please note that while the system will track IHE participants from year to year, the identity of the individual IHE Participant Survey respondent will not be known by NSF or Westat. Since the system will not link login names with an individual, **it is strongly recommended that you create a database that stores a list of participants associated with specific login names and passwords** so that you can follow up with participants who do not complete their surveys in a timely manner or need to be reminded of their login information in future collection years. Neither NSF nor Westat will be able to provide this information to you or to other respondents in future years. You may want to consider assigning login names and passwords in such a manner that will allow the PI (or other project staff) to easily identify the participant (e.g., use the participant's first initial followed by the last four digits of his/her Social Security number as a login name and/or password). **You must provide all IHE participants with their login information.**

    In filling out this information, please note:

- You should be *consistent in the names* used to identify organizations throughout the surveys in order to minimize the chance of confusion. For example, if the University of ABC is one of your IHEs, do not sometimes abbreviate it as UABC, sometimes refer to it as Univ. of ABC and sometimes refer to it as University of ABC. To facilitate consistency, you will probably find it helpful to print out the administrative module after you complete it, so that you can use it in completing other sections of the Annual Survey for Partnership Projects.

- In assigning login names and passwords, please consider whether your choice will *permit your participants to figure out how to access information from other organizations or individuals*. For example, if the University of ABC and the University of 123 are among your IHEs and you make both the login name and the password for the first participant of University of ABC "UABC_1," and make the login name and password for the University of 123 "U123_1," it is likely that they could figure out how to look at one another's information.

ANNUAL SURVEY FOR INSTITUTE PARTNERSHIP PROJECTS

In addition to completing the Administrative section and monitoring IHE participants, PIs or their designees are responsible for completing all remaining sections of the Annual Survey for Institute Partnership Projects. Some items from these sections of the survey are described here. Once all sections of the Annual Survey for Institute Partnership Projects are complete (including the Survey Management sections), be sure to **submit the survey to NSF before the system closes.**

Information about MSP Project Scope

Q2: Primary foci. Please check **each** of the listed items that constitute a major goal or focus of your Institute. Do not include those goals that are less peripheral to your particular Institute. If a major goal of your Institute is not contained on the list, please specify it under the Other category.

Q5: Selection criteria. This question asks what criteria you use in selecting participants for your Institute. Required criteria are those criteria that all participants must meet. Preferred criteria are criteria that are not strictly required but are used to give some applicants preference over other applicants. If you have more than one criterion in a given category, it is possible for one to be required and one preferred. For example, you may require certain credentials but give preference to applicants with other credentials. In this situation, please check "Yes – a required criterion" and explain the various criteria, including which are required and which are preferred, when prompted to provide a brief description of the criterion.

Information about Partner Organizations

Q1: Partner Organization Name. When you are entering the names of partner organizations, please enter their names exactly as they appear in the administrative module to avoid confusion. Please

note that each active IHE listed in the administrative screen must be entered as a partner organization, in addition to other core or supporting partners.

School-Level Information

In the first part of this section, you are asked to identify and provide basic information on each K-12 school that had teachers enrolled in your MSP Institute at any time since the inception of the program. Some of the item responses in this section will be used to pre-fill subsequent year collections, thereby reducing the time it takes to complete this survey in future years. Most pre-filled items will only need to be reviewed and, if necessary, updated.

Grade levels. Note that there are two questions asking about grade-level for each of the schools. The first question asks what grades are served by the school. The second asks about grades targeted by your Institute. For example, if the school serves grades 7-12, but your Institute focuses on middle school mathematics, you would check each of the grades 7 through 12 for the first question, but only 7 and 8 for the second.

Q1. Gender and race/ethnicity of math and science teachers. For each of the schools that have teachers in your program, please classify the teachers by gender and by race/ethnicity and whether they teach in a self-contained classroom, teach math, or teach science. Do **not** count teachers more than once. For example, if a teacher teaches both mathematics and science, count that teacher as either a math **or** a science teacher. Please fill in the appropriate totals for all of the columns, even if the number is 0. For teachers for whom you have neither race nor ethnicity information, please count them as "Neither race nor ethnicity reported" (the last row of the table). If you know a teacher is Hispanic but do not have information on race, please report the teacher as "Race Not Reported" (the first row of the race/ethnicity part of the table). If ethnicity is not reported but race is known, please enter the race information in the second part of the race/ethnicity table.

Q2. Gender and race/ethnicity of students. For each of the schools that have teachers in your program, please classify the students by gender and by race/ethnicity. Count all students in the school, even if they are not students of teachers in your Institute. Please fill in the appropriate totals, even if the number is 0. For students for whom you have neither race nor ethnicity information, please count them as "Neither race nor ethnicity reported" (the last row of the table). If you know a student is Hispanic but do not have information on race, please report the student as "Race Not Reported" (the first row of the race/ethnicity part of the table). If ethnicity is not reported but race is known, please enter the race information in the second part of the race/ethnicity table.

Information About Partnership-Driven Activities Conducted between September of the Previous School Year and the Following August

Q1: Indicate the number of IHE individuals who were involved in the <u>development</u> and/or <u>delivery of</u> MSP activities during the previous school year. Include all IHE individuals (including faculty, administrators, students, etc.) who participated in the development and/or delivery of an MSP activity regardless of the duration or intensity of participation or the numbers of individuals served. Do

not count an individual in more than one category. If you cannot determine the number of individuals in a category, please enter "X" into the cell. If there were no individuals in a category, please enter "0."

Q2: Indicate the number of K-12 individuals who were involved in the <u>development</u> and/or <u>delivery of</u> MSP activities between September of the previous school year and the following August. Include all K-12 individuals **except** those included in response to Question 1 who participated in the development and/or delivery of an MSP activity regardless of the duration or intensity of participation or the numbers of individuals served. Do **not** count individuals whose only role was to be enrolled in your institute. Do **not** count an individual in more than one category. If you cannot determine the number of individuals in a category, please enter "X" into the cell. If there were no individuals in a category, please enter "0."

Q3: Indicate the number of non-academic individuals that <u>developed</u> and/or <u>delivered</u> MSP activities between September of the previous school year and the following August. For Q3, do **not** include persons affiliated with either an IHE or a K-12 institution—this information is obtained in other questions. Do include all other individuals who participated in the development and/or delivery of an MSP activity regardless of the duration or intensity of participation or the numbers of individuals served. Do **not** count an individual in more than one broad discipline (scientist, mathematician, engineer, or other). If you know the person's specific discipline but are uncertain about which broad discipline it falls under, please use the Glossary for more information on which detailed fields should be included in each broad discipline. If the Glossary does not provide adequate information for classification, it is best to ask the participant to identify the appropriate discipline. If this is not possible, use your best judgment to determine the most appropriate response.

Q5: To what extent did each of the following hinder your efforts to engage or organize your partners between September of the previous school year and the following August? This item is designed to obtain information about challenges that your project faced during the previous school year in engaging your MSP partners. 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.

In addressing this item, you should consider the **collective effect** of the specified challenge on your ability to engage and organize your partners. For example, Q5b asks to what extent a lack of time or other resources among K-12 partners hindered your efforts to engage or organize your partners. If your MSP had no challenges with most of your K-12 partners in this regard, but had sufficient trouble with one partner that it seriously impeded your ability to get the K-12 partners engaged or organized (e.g., you might have significantly delayed important organizational meetings to accommodate the schedule of the one partner), the appropriate response is "To a large extent." However, if the challenges with the one partner had no impact on your ability to engage and organize the remaining partners, a response of "to a small extent" would be more appropriate.

For each item in Q5 for which you selected "To a large extent" or "To a moderate extent," you will be asked to answer the following question: *Why did this occur—and what steps were taken to overcome this challenge?* You will be required to provide a brief narrative (i.e., one or two paragraphs) in each instance and you should make your best effort to address the question completely. This answer need not be lengthy, but should provide your program officer with an understanding of the type of challenge encountered and what steps were taken during the previous school year to address it.

■ In some cases, you may know there was a challenge, but are unclear about the underlying cause. For example, you may know that you often had to reschedule meetings because of one of your K-12 partners, but may not be sure whether this was because the partner lacked time (5b) or had a low level of commitment (5e). Take your best guess as to what was the underlying cause of the challenge. In your answer about why this occurred (assuming the challenge had a moderate or large impact), you may wish to explain that you are not sure what the exact cause of the challenge was.

■ In some cases, you may believe that a combination of factors contributed to the same challenge. For example, you may have had to reschedule meetings often because one of your K-12 partners lacked time (5b) and another K-12 partner had a low level of commitment (5e). In this situation, please report both challenges. In your answer about why this occurred (assuming these challenges had a moderate or large impact), you may wish to explain this joint effect in more detail. In addition, you may find it helpful to copy all or most of your answer to the first response in completing the second.

Q6: What lessons have you learned regarding efforts to engage partners that would be of use to other MSP projects? Q6 is an opportunity to present lessons learned about engaging and organizing partners that others may benefit from that have **not** been captured in your answers to the preceding questions. For example, you may have done something innovative that got your partners engaged at the start of the MSP program.

Information about Evidence-based Design and Outcomes Activities Conducted between September of the Previous School Year and the Following August

Q2: 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 of the previous school year and the following August? This item is designed to obtain information about challenges that your project faced during the previous school year in obtaining data about the implementation and impact of your MSP. Once again, 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.

For Q2, consider the **collective effect** of the specified challenge on your ability to make use of data to assess the implementation and impact of your MSP. For example, for Q2b, obtaining data about participating teachers from some schools may be difficult, while it is easy to obtain data from others. If you were never able to get the necessary data for several large school districts, this may have had a large or moderate impact on your ability to assess the implementation and impact of your MSP, even though the remaining school districts provided data on time.

For each item for which you select "To a large extent" or "To a moderate extent," you will be asked to answer the following question: *Why did this occur—and what steps were taken to overcome this challenge?* You will be required to provide a brief narrative (i.e., a paragraph) in each instance, and you should make your best effort to address the question completely. This answer need not be lengthy, but

should provide your program officers an understanding of the type of challenge encountered and what steps were taken during the previous school year to address that challenge.

Q3: What lessons have you learned regarding efforts to collect and use data that would be of value to other MSP projects? Q3 is an opportunity to present lessons learned about collecting and using data that other MSP programs may benefit from that have not been captured in your answers to the preceding questions. For example, you might want to explain procedures that were particularly effective in getting schools to cooperate, or you might want to describe an innovative way of collecting and/or analyzing data.

Information about Institute Planning and Development between September of the Previous School Year and the Following August

Q1: Using the table below, identify the planning and development activities of your MSP between September of the previous school year and the following August. Q1 asks for the identification of MSP Institute activities that were in place or under development between September 1 of the previous school year to August 31 of the following year. Response options include "Yes," "No, but activity is under consideration for future years" and "No."

- If the listed activity was under development OR delivered during the previous school year, the appropriate response option would be Yes.

- If you are considering an activity for possible development in the future or have decided to implement the activity in the future, but have not actually started development, select No, but activity is under consideration for future years.

- If neither of these options is correct (i.e., you currently have no plans to conduct a given activity), select No.

In some cases, a particular activity may appear to fit into more than one of the categories listed. For example, an Institute may have involved K-12 staff in developing a curriculum aligned with other courses/standards. This activity fits under both "(d) Involve K-12 staff (e.g., superintendents, principals, teachers) in Institute curriculum planning" and "(e) Develop curriculum aligned with other courses/standards." Please mark "Yes" for both of the activities listed. You may describe the activity when asked for a description of the first listed activity and then cut and paste this information when asked for the description of the second listed activity.

For **each** activity that was being developed or delivered, you will be asked to provide a brief description (i.e., 2-3 sentences) of the activity. The following provides an example of the type of narrative that might be provided for recruiting teachers who participated in previous teacher improvement programs sponsored by the partner IHEs:

> *Three of the partner IHEs that had conducted previous professional development programs identified participants whom they believed were potential teacher leaders. Letters were sent to each of the 20 identified teachers describing the program and inviting their participation. Six of the teachers identified have, in fact, enrolled in the program.*

Information about Institute Professional Development Activities between September of the Previous School Year and the Following August

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 between September of the Previous School Year and the Following August. Response options include "Yes," "No, but activity is under consideration for future years" and "No."

- ■ If the listed activity was under development OR delivered during the previous school year, the appropriate response option would be Yes.

- ■ If you are considering an activity for possible development in the future or have decided to implement the activity in the future, but have not actually started development, select No, but activity is under consideration for future years.

- ■ If neither of these options is correct (i.e., you currently have no plans to conduct a given activity), select No.

In some cases, a particular activity may appear to fit into more than one of the categories listed. For example, an Institute may conduct courses designed to increase teachers' mathematical content and pedagogical knowledge. This activity fits under both "a) Conduct courses with K-12 teachers that increase mathematical or science content knowledge" and "b) Conduct courses with K-12 teachers that increase pedagogical knowledge." Please mark Yes for both of the activities listed. You may describe the activity when asked for a description of the first listed activity and then cut and paste this information when asked for the description of the second listed activity.

For **each** activity undertaken, you will be asked to provide a brief description (i.e., 2-3 sentences) of the activity. The following provides an example of the type of narrative that might be provided for "providing enrichment activities during summer Institute":

> *The summer Institute included a lecture series by prominent mathematicians. A total of four lectures were held on the following topics…. Each lecture consisted of an hour long lecture by the mathematician followed by a half hour question and answer period.*

Section 5—Information for Completing the Annual K-12 District Survey

This survey is to be completed for **each** core and supporting K-12 district partner that is currently or was previously participating in a Comprehensive or Targeted MSP Program. Some of the item responses in this survey will be used to pre-fill subsequent year collections, thereby reducing the time it takes to complete this survey in future years. Most pre-filled items will only need to be reviewed and, if necessary, updated.

In addition to reading this section, please review the general information provided in Sections 1 and 2 before completing this survey. You will note that only sections and questions that respondents are likely to need specific guidance to answer correctly are included here. If you have a question about how we are using a specific term, you may find the glossary helpful. If your specific questions are not covered, please contact your PI.

District-level Information

Q1: Indicate the number of K-12 participants in your district who were involved in the <u>development</u> and/or <u>delivery</u> of MSP activities during the previous school year. Q1 asks about K-12 personnel who were involved in the development or delivery of MSP activities during the previous school year (from approximately September 1 of one year through August 31 of the following year). In completing this item, do **not**:

- include individuals who only *received* MSP services; and

- count participants more than once in this table.

Q2: Provide the following information about the amount of MSP-supported professional development received by K-12 teachers and school-level administrators in your district *during the previous school year.* Q2 asks about K-12 personnel who received *MSP-supported* professional development services during the previous school year. In answering this question, professional development should be broadly construed, and not limited to participation as a recipient during activities such as a Teacher Institute or a university-offered course. It might, for example, include (a) developing or delivering MSP activities for other teachers or for students, (b) taking part in learning communities, and/or (c) gaining leadership skills.

Information about participation in non-MSP professional development activities should **not** be included on this table. In addition, participants should **not** be counted more than once in this table. Use your best judgment in selecting the appropriate classification for personnel who could be described in more than one category (i.e., math OR science, teacher OR administrator, elementary OR middle school OR high school). For ungraded schools, select the level that corresponds most closely to the grade level in which you would expect the teacher's students to be placed, if the students were transferred to an elementary, middle, or high school.

The first row in the table, which requests the total number of K-12 teachers participating in professional development at the specified school and subject level, should be equal to the sum of the six cells beneath it. Please fill in the appropriate totals for all of the columns, even if the number is 0. Apply the same rules when filling out the school-level administrator portion of the table.

Q3: Provide the following information about the amount of MSP-supported professional development received by K-12 teachers and school-level administrators in your district *since the beginning* **of your MSP.** Q3 is similar to Q2 except that it is asking about K-12 personnel who received MSP-supported professional development services *since the start of the district's participation in MSP-supported programs*. For the first year of your project, your responses to Q2 and Q3 will be the same. However, to fill out this table correctly in the second and subsequent years, you **cannot** simply add together the figures from all of the Q2 tables you may have completed, since some individuals may have participated in MSP-supported activities in more than one year. Consider the following example:

> A teacher participates in 25 hours of MSP-supported professional development activities in 2002-03 (this person would have been counted in Q2 in the 2002-03 survey as one teacher receiving 21-40 hours of professional development) and then participated in 60 hours of MSP-supported activities in 2003-04 (this person would have been counted in Q2 in the 2003-2004 survey as one teacher receiving 41-80 hours of professional development). In filling out Q3 for 2003-04, this teacher has received a cumulative total of 85 (i.e., 25 + 60) hours of professional development. As such, the teacher should be counted as one teacher who has received 81-120 hours of professional development since the beginning of the MSP program.

With this in mind, we strongly recommend that the amount of professional development provided to individual teachers be maintained on a database that tracks the following for **each** teacher and **each** MSP-sponsored professional development activity:

- Teacher name (or some other identifier);

- Number of hours of MSP-sponsored professional development that a teacher received;

- Date(s) that the professional development occurred;

- School district name (for the participating teacher); and

- School name (for the participating teacher).

The remaining guidelines for Q2 are applicable.

School-level Information

This section of the Primer provides general information about answering the school-level questions. It then provides information about how to address specific items.

The Management Information System (MIS) asks you to provide a minimum amount of information (i.e., school name, National Center for Education Statistics (NCES) code, school level, and grade level) about ALL schools in your district that are working with the MSP program IN ANY CAPACITY. This will provide NSF with a database of all schools that comprise the MSP universe.

After you enter the basic information about a school, you will be asked a question (Question A) that will determine whether the school's level of participation requires the provision of additional data (i.e., teacher characteristics, student characteristics, course enrollment, and student achievement). These supplemental questions will be asked if you indicate that any of the following conditions pertain to the school:

- 30 percent or more of targeted teachers participated in 30 or more hours of MSP-sponsored activities during the previous school year;

- 30 percent or more of targeted students were engaged in a challenging mathematics or science curriculum that was initiated or revised with MSP support during the previous school year; and/or

- 30 percent or more of targeted students participated in a MSP-supported academic enrichment activity during the previous school year.

For the purposes of this collection, the term "targeted" refers to those teachers and students who were expected to be directly impacted by your MSP during the previous school year. For example, if your project is focusing on mathematics in grades 7 and 8, you would determine if 30 percent or more of a school's 7th and 8th grade mathematics teachers had participated in 30 or more hours of MSP-sponsored activities in the previous school year (as opposed to 30 percent of all teachers at the school).

Please be aware that if a school meets one or more conditions for supplemental data reporting in a specific year, you will also be asked to complete these supplemental items in *all* future years, even if the school no longer meets any of the conditions.

In this section, we have provided instructions for all of the questions that *may* be asked about a participating school. However**, not all questions are asked about each school.** As described above, only a limited amount of information is requested for schools that do not have significant involvement with the MSP. Furthermore, questions or parts of a question are not asked if they are not relevant for a given school that does have significant involvement with the MSP. For example, if an MSP is focused only on math, the system will not collect information about science teachers or science courses. Similarly, questions about elementary school students are not asked if a school only serves high school students. And, detailed information about participating schools will only be requested for those schools with substantial program participation. If you believe that the wrong series of questions has been asked for a given school, please let us know immediately, so that we can make any necessary modifications to the system.

Identifying participating schools. Enter the school name and additional descriptive information requested for each school that started participating in your MSP during the school year you are reporting on. Include all schools in this list, even if their participation has been minimal. You will only be asked to provide additional information about those schools that have had substantial involvement in your MSP. After the first data collection year, descriptive information about schools that participated in preceding years will be pre-filled, so that you will only need to make any necessary modifications to the prior year's descriptive information. Please be sure to check your response to items Qc-f before you click the Save & Continue button. Returning to these items and revising your response **may result in the loss of data for that particular school.**

> **Qb: NCES ID.** Report the school's 12 digit identification number. ID numbers can be looked up at: http://nces.ed.gov/ccd/schoolsearch/. Once you have found the NCES ID at this Web site, you can cut and paste this information into Qb.

> **Qc: Selecting school-level designation.** Elementary, middle, high, and ungraded designations are to be determined by the district. Please use the same classification for your school that you use in reporting school data to NCES (see the Glossary for the NCES definitions of these terms).

> **Qd: Selecting grade levels.** If a school is ungraded, select all of the grade levels in which you would expect students to be placed, if they were transferred to an elementary, middle, or high school.

> **Qe-f: Self-contained and single subject classrooms**. Depending upon your answers to the preceding questions, you *may* be asked whether a school has self-contained classroom teachers and whether the school has single subject teachers. The first of these questions is used to determine whether some of the classrooms are self-contained classrooms, i.e., classes other than special education classes where a single teacher teaches math and/or science plus other subjects to one group of students, as is typically the case in elementary schools. The second question is used to determine if the school has teachers who only teach science OR math. This information is used to select the appropriate information to request in later sections of the survey.

Student and Teacher Characteristics. This survey includes a number of tables that obtain counts of students or teachers with specified characteristics. Please be aware that some of these tables request counts as of the beginning of the school year, while others ask for information at any time during the school year. Before completing a table, please make sure that you know which type of table you are completing and follow the appropriate instructions. **For tables requesting counts *at the beginning of the school year*:** To be consistent with NCES standards, the preferred date for counts as of the beginning of the school year is the school day closest to October 1. If an alternate date is preferred for some reason, it must be within the first two months of the start of the school year, must be the **same** for all reported counts, and must be the **same** date (or the closest school day to that date) for all reporting years.

Race and Ethnicity. Several of the tables ask you to report the race and ethnicity of groups of teachers and students. When reporting race and ethnicity:

- ■ To provide information about Hispanic or Latino teachers/students for whom race is not reported or unknown, use the "Race Not Reported" row adjacent to "Hispanic or Latino."

- To provide information for those teachers/students for whom race is known, but ethnicity is unknown, report race in the second block of rows under Race/Ethnicity ("NOT Hispanic or Latino OR Ethnicity NOT reported").

- To provide information for those teachers/students for whom both race and ethnicity are unknown, use the "Neither Race nor Ethnicity Reported" row.

- See the glossary for race and ethnicity definitions.

Q1: Provide the following information about the TOTAL number of math and science teachers at the beginning of the previous school year. Q1 consists of two sub-tables: one for gender and one for race/ethnicity. Do **not** count a teacher more than once within each of the sub-tables. For example, if a teacher teaches both math and science, count him or her as either a math or a science teacher. Use your best judgment in selecting which is more appropriate.

Q2: Using the definition for "participating teachers" below, provide the following information about the number of teachers that actively participated in your MSP during the previous school year. Q2 refers to teachers participating in MSP, where participation is defined as having been engaged in 30 or more hours of MSP-sponsored professional development. Engagement is broadly construed and not limited to participating as a recipient during activities such as a Teacher Institute or a university-offered course. Engagement might, for example, include (a) developing or delivering MSP activities for other teachers or for students, (b) taking part in learning communities, or (c) gaining leadership skills.

Q2 consists of two sub-tables: one for gender and one for race/ethnicity. Do **not** count a teacher more than once within each of the sub-tables. For example, if a teacher teaches both math and science, count him or her as either a math or a science teacher. Use the same classification for this table as you used in answering Q1. Note that teachers participating in MSP are a sub-group of all teachers, i.e., the number of MSP participants within a category cannot be greater than the total number of teachers in that category (as reported in Q1).

Q3: Provide the following information about student enrollment for __each__ grade at the beginning of the previous school year. Q3 consists of five sub-tables for each grade: one each for gender, race/ethnicity, participation in the National School Lunch Program, special education students, and limited English proficiency students. Do **not** count a student more than once within each of the sub-tables.

Q7: Provide student achievement data on all statewide math and science accountability assessments administered during the previous school year. Q7 asks for information on the results of **all** statewide math and science assessment exams administered at the school during the school year that report proficiency levels, regardless of whether the MSP focuses on math and/or science. If the state reporting system provides separate reports for regular and alternate assessments (e.g., special assessments for students with disabilities or limited English proficiency), please consider these separate assessments for the purpose of this section. You will be asked to provide additional information on each assessment. For example, if assessments in math and science were administered to all 3rd and 6th grade students in the school, you will be asked to provide assessment information for 3rd grade math, 6th grade math, 3rd grade science and 6th grade science. If the assessment as an end-of-course exam, you will provide information for all students who took the exam at the end of the course, regardless of their grade level. If the same grade-level accountability assessment is given to students in more than one grade, you will need

to enter one assessment for each grade. This information is to be provided for all students tested, **not** just students of teachers who participated in MSP-supported activities. Q7f consists of four sub-tables for each grade/assessment test: one each for gender, race/ethnicity, special education students, and limited English proficiency students. Do **not** count a student more than once within a column of a sub-table. Note that column 2 asks for the number of students scoring at or above the proficient level and column 3 asks for students scoring below proficient level. If the exam is graded on a pass/fail basis, consider "pass" to be the equivalent of "at or above the proficient level" and "fail" to be "below the proficient level." The sum of these two numbers within a given row must equal the number in column 1—i.e., the number of students taking the assessment.

Please fill in the appropriate totals, even if the number is 0. For students for whom you have neither race nor ethnicity information, please count them as "Neither race nor ethnicity reported" (the last row of the table). If you know a student is Hispanic but do not have information on race, please report the student as "Race Not Reported" (the first row of the race/ethnicity part of the table). If ethnicity is not reported but race is known, please enter the race information in the second part of the race/ethnicity table. If you cannot classify students by their special education status or their English proficiency status, please enter X's into the corresponding boxes.

Section 6—Information for Completing the Annual Institution of Higher Education Survey

This survey is to be completed by **all** core and supporting institution of higher education (IHE) partners participating in the Comprehensive and Targeted MSP Programs. Some of the item responses in this survey will be used to pre-fill subsequent year collections, thereby reducing the number of items and the time it takes to complete this survey in subsequent years. Most pre-filled items will only need to be reviewed and, if necessary, updated.

In addition to reading this section, please review the general information provided in Sections 1 and 2 before completing the survey. You will note that only sections and questions that respondents are likely to need specific guidance to answer correctly are included here. If you have a question about how we are using a specific term, you may find the glossary helpful. If your specific questions are not covered, please contact the person indicated at the beginning of your survey. Not only will this help you in providing answers that are meaningful and comparable to those submitted by other respondents, but the questions will help us in revising this manual for use in later data collection activities.

If you wish to print completed sections of the survey for your records (without modifying the section) you should click on "Reports," which appears at the top of your screen.

IHE Participants in the MSP

Include in the first column only IHE individuals who participated in the development or delivery of MSP services during the previous school year (from approximately September 1 to August 31). Include in the second column those IHE individuals who received MSP services during the same time. An individual **can** be included in both columns, but should **not** be counted more than once in a given column. If an individual fits under more than one category (e.g., a K-12 teacher in residence who is also a graduate student), use your best judgment to classify him or her. If you had no individuals in a given category, please enter 0.

Q9: How many pre-service students took this course/seminar during the previous school year? Q9 asks for the number of pre-service students enrolled in MSP-supported courses, disaggregated by gender and race/ethnicity. This table should include information for all students who enrolled in the designated course at any time during the school year. This table consists of two sub-tables: one for gender and one for race/ethnicity. Do **NOT** count a student more than once within a column for each of these sub-tables.

When reporting race and ethnicity:

■ To provide information about Hispanic or Latino teachers/students for whom race is not reported or unknown, use the "Race Not Reported" row adjacent to "Hispanic or Latino."

- To provide information for those teachers/students for whom race is known, but ethnicity is unknown, report race in the second block of rows under Race/Ethnicity ("NOT Hispanic or Latino OR Ethnicity NOT reported").

- To provide information for those teachers/students for whom both race and ethnicity are unknown, use the "Neither Race nor Ethnicity Reported" row.

- See the glossary for race and ethnicity definitions.

Section 7—Information for Completing the Annual IHE Participant Survey

This survey is to be completed by **all** institution of higher education (IHE) faculty and administrators that are participating in the Comprehensive and Targeted MSP Programs. For the purposes of this collection, this includes any faculty member or administrator who was (1) directly supported by the MSP grant, and/or (2) directly participated in the development or implementation of MSP-related activities.

Some of the item responses in this survey will be used to pre-fill subsequent year collections, thereby reducing the time it takes to complete this survey in subsequent years. Most pre-filled items will only need to be reviewed and, if necessary, updated.

In addition to reading this section, please review the general information provided in Sections 1 and 2 before completing the survey. You will note that only sections and questions that respondents are likely to need specific guidance to answer correctly are included here. If you have a question about how we are using a specific term, you may find the glossary helpful. If your specific questions are not covered, please contact the person indicated at the beginning of your survey. Not only will this help you in providing answers that are meaningful and comparable to those submitted by other respondents, but the questions will help us in revising this manual for use in future data collection activities.

In order for you to log onto the MSP Management Information System (MIS), you will need a login name and password that the PI for your MSP (or someone she/he designates) will provide to you. Only the PI and/or designee will know which participants are associated with which login names. Neither NSF nor Westat will obtain this information.

Q8: Use the list below to identify your primary fields of *research* and *instruction* during the preceding school year. Q8 asks you to identify your primary field of research and your primary field of instruction. If you are unsure of the appropriate field(s), please see the Glossary.

Q14a-c: Using the table below, identify the MSP Activities that you participated in during the preceding school year. Q14a-c ask for the identification of MSP activities that you participated in designing and/or delivering during the previous school year. In some cases, a particular activity may fit into more than one of the categories listed. For example, you may have conducted a review of K-12 course curricula as part of an effort to align K-12 mathematics and science curricula to other courses/standards, i.e., a) and b) under 14b. Please mark Yes for both of the activities listed. You may describe your role in the activity when asked for a description for the first listed activity and then cut and paste this information when asked for the description of the second listed activity. **Please note that revising your response to Question 12 and/or 13, may clear Questions 14a-c.** Please check your responses to Questions 12 and 13 before continuing with the survey to avoid this problem.

Section 8—Information for Completing the Annual IHE Participant Survey for Institute MSPs

This survey is to be completed by **all** institution of higher education (IHE) faculty and administrators that are participating in MSP Institute Programs. For the purposes of this collection, this includes any faculty member or administrator who was (1) directly supported by the MSP grant, and/or (2) directly participated in the development or implementation of MSP-related activities.

Some of the item responses in this survey will be used to pre-fill subsequent year collections, thereby reducing the time it takes to complete this survey in subsequent years. Most pre-filled items will only need to be reviewed and, if necessary, updated.

In addition to reading this section, please review the general information provided in Sections 1 and 2 before completing the survey. You will note that only sections and questions that respondents are likely to need specific guidance to answer correctly are included here. If you have a question about how we are using a specific term, you may find the glossary helpful. If your specific questions are not covered, please contact the person indicated at the beginning of your survey. Not only will this help you in providing answers that are meaningful and comparable to those submitted by other respondents, but the questions will help us in revising this manual for use in future data collection activities.

In order for you to log onto the MSP Management Information System (MIS), you will need a login name and password that the PI for your MSP (or someone she/he designates) will provide to you. Only the PI and/or designee will know which participants are associated with which login names. Neither NSF nor Westat will obtain this information.

Q8: Use the list below to identify your primary fields of *research* and *instruction* during the 2004-2005 school year. Q8 asks you to identify your primary field of research and your primary field of instruction. If you are unsure of the appropriate field(s), please see the Glossary.

Q14a-d: Using the table below, identify the MSP Institute Activities that you participated in during the 2004-05 school year. Q14a-d ask for the identification of MSP activities that you participated in designing and/or delivering during the previous school year. In some cases, a particular activity may fit into more than one of the categories listed. For example, you may have conducted a course designed to increase teachers' mathematical content and pedagogical knowledge. This activity fits under both "a) Teach courses with K-12 teachers that increase mathematical or science content knowledge" and "b) Teach courses with K-12 teachers that increase pedagogical knowledge" in Question 14b. Please mark Yes for both of the activities listed. You may describe the activity when asked for a description of the first listed activity and then cut and paste this information when asked for the description of the second listed activity. **Please note that revising your response to Question 12 and/or 13, may clear Questions 14a-d.** Please check your responses to Questions 12 and 13 before continuing with the survey to avoid this problem.

Section 9—Glossary

Administrator: See school administrator.

American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent; for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Astronomy: One of the physical sciences concerned with understanding the material universe and its phenomena. The following fields are among those included in this classification: laboratory astrophysics, optical astronomy, radio astronomy, theoretical astrophysics and X-ray, gamma-ray, and neutrino astronomy.

Atmospheric sciences: One of the environmental sciences that are concerned with the gross nonbiological properties of the areas of the solar system that directly or indirectly affect human survival and welfare. The following fields are among those included in this classification: aeronomy, extraterrestrial atmospheres, meteorology, solar, and weather modification.

Beginning of school year: To be consistent with NCES standards, the preferred date for the beginning of the school year is the school day closest to October 1. If an alternate date is preferred for some reason, it must be within the first two months of the start of the school year, must be the same for all reported counts, and must be the same for all reporting years.

Biological sciences: The following fields are among those included in this classification: anatomy, biochemistry, biology, biometry and biostatistics, biophysics, botany, cell biology, entomology and parasitology, genetics, microbiology, neuroscience (biological), nutrition, physiology, and zoology.

Black or African American: A person having origins in any of the black racial groups of Africa.

Challenging course/curriculum: To be defined by your project.

Chemistry: One of the physical sciences concerned with understanding the material universe and its phenomena. The following fields are among those included in this classification: inorganic, organic, organometallic, and physical.

Computer science: Employs logical reasoning with the aid of symbols and is concerned with the development of methods of operation employing such symbols and with the application of such methods to automated information systems. The following fields are among those included in this classification: computer and information sciences; design, development, and application of computer capabilities to data storage and manipulation; information sciences and systems; programming languages; and systems analysis.

Elementary schools: Schools with a low grade of pre-kindergarten through grade 3 and a high grade of up to 8.

Engineer: Person employed in an engineering field (see engineering).

Engineering: Concerned with studies directed toward developing engineering principles or toward making specific principles usable in engineering practice. The following fields are among those included in this classification: aeronautical, astronautical, chemical, civil, electrical, mechanical, and metallurgy and materials.

Evaluation: 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.

Externship: A training program that is part of a course of study of an educational institution and is taken in private business.

Geosciences: One of the environmental sciences that are concerned with the gross nonbiological properties of the areas of the solar system that directly or indirectly affect human survival and welfare. The following fields are among those included in this classification: engineering geophysics, general geology, geodesy and gravity, geomagnetism, hydrology, inorganic geochemistry, isotopic geochemistry, laboratory geophysics, organic geochemistry, paleomagnetism, paleontology, physical geography and cartography, seismology, and soil sciences.

Guidance counselor: Professional staff assigned specific duties and school time for any of the following activities in an elementary or secondary setting: counseling with students and parents, consulting with other staff members on learning problems, evaluating student abilities, assisting students in making educational and career choices, assisting students in personal and social development, providing referral assistance, and/or working with other staff members in planning and conducting guidance programs for students. Each state applies its own standards in apportioning the aggregate of guidance counselors/ directors into the elementary and secondary level components.

High schools: Have a low grade of 7 to 12 and must extend through grade 12.

Hispanic or Latino: A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

IHE: Institution of higher education.

In-service (**K-12) activities:** Those activities taking place within or for the benefit of a K-12 school/district and its professional teaching staff. In-service activities include teacher professional development.

Internship: A position designed to provide supervised practical experience.

K-12 teachers in residence: K-12 teachers who have a temporary position at an IHE.

Kindergarten: A group or class that is part of a public school program and is taught during the year preceding first grade.

LEA: Local educational agency (i.e., school district).

LEP: Limited English proficiency.

Level 1 math courses: Includes Algebra 1, Elementary, Beginning, Unified Math 1, Integrated Math 1, Algebra 1B (second year of two-year sequence for Algebra 1), and Math B.

Limited English proficiency: Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English can be limited English proficient or "LEP." These individuals may be entitled to language assistance with respect to a particular type or service, benefit, or encounter. Also referred to as "English language learner" (ELL).

Mathematical sciences: Employ logical reasoning with the aid of symbols and are concerned with the development of methods of operation employing such symbols. The following fields are among those included in this classification: algebra, analysis, applied mathematics, foundations and logic, geometry, numerical analysis, statistics, and topology.

Mathematician: Person employed in a mathematical science field (see mathematical sciences).

Middle schools: Contain a low grade of 4 to 7 and a high grade ranging from 4 to 9. (A 4th grade center would be counted as a middle school.)

MSP: Math and Science Partnership Program.

MSP liaison/coordinator: An individual maintaining communication or a connection between partner organizations.

MSP-supported course: A course developed, modified, or enhanced using MSP funds. To be considered an MSP-supported course, a course need not have been developed or modified in the previous school year.

MSP-supported professional development: Professional development provided to K-12 teachers using MSP funds.

National School Lunch Program: A student who is eligible to participate in the reduced-price or free lunch program under the National School Lunch Act.

Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific islands.

Non-academic: Refers to an individual or institution that is not affiliated with an institution of higher education or a school/school district.

Ocean sciences: One of the environmental sciences that are concerned with the gross nonbiological properties of the areas of the solar system that directly or indirectly affect human survival and welfare or are concerned with life in the sea or other bodies of water. The following fields are among those included in this classification: biological oceanography, chemical oceanography, marine geophysics, and physical oceanography.

Physics: One of the physical sciences concerned with understanding the material universe and its phenomena. The following fields are among those included in this classification: acoustics, atomic and molecular, condensed matter, elementary particle, nuclear structure, optics, and plasma.

Pre-kindergarten student: Student who is enrolled in a group or class that is part of a public school program taught during the year or years preceding kindergarten, excluding Head Start students unless part of an authorized public education program of a local educational agency.

Pre-kindergarten teacher: Teacher of a group or class that is part of a public school program, and which is taught during the year or years preceding kindergarten; includes teachers of Head Start students if part of authorized public education program of a local educational agency.

Professional development: Consists of formal or informal opportunities expected to increase the recipients' knowledge base or improve their skills and abilities in a career.

Research: A systematic, empirical activity designed to develop or contribute to generalizeable knowledge in a particular field.

RETA: Research, Evaluation and Technical Assistance awards.

School administrator: Staff member whose activities are concerned with directing and managing the operation of a particular school, including principals, assistant principals, other assistants; and those who supervise school operations, assign duties to staff members, supervise and maintain the records of the school and coordinate school instructional activities with those of the education agency, including department chairpersons.

School district: An educational agency or administrative unit that operates under a public board of education.

Science: Includes earth, atmospheric, and ocean sciences; agricultural sciences; biological sciences; or computer sciences.

Scientist: Person employed in a science field (see science).

Secondary education: The general level of instruction classified by state and local practice as secondary and composed of any span of grades beginning with the next grade following the elementary grades and ending with or below grade 12.

Self-contained classroom teacher: A teacher who provides instruction to one group of students in many or all subject areas.

Special education: A student receiving instruction using curriculum, materials or instruction adapted to their needs for any of the following: autism, deaf-blindness, developmental delay, hearing impairment, mental retardation, multiple disabilities, orthopedic impairment, serious emotional disturbance, specific learning disability, speech or language impairment, traumatic brain injury, visually impairment, and other health impairments.

STEM: Science, technology, engineering and mathematics.

Ungraded: Programs or schools to which students are assigned without standard grade-level designations, e.g., first grade, second grade. Classes that combine grades, such as a fourth-fifth combination class, are not ungraded. Students should be counted in the grades to which they are assigned within that class.

White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.