**Spring 2014 MIS: Annual Version**

This year's MIS requests information from project leaders about activities, participants, outcomes, and dissemination.

Please include data and activities for your project that occurred during the following time period only: **September 1, 2012 – August 31, 2013**

Project work from September 1, 2013 through August 31, 2014, will be recorded in the next MIS administration.

The survey should take about 45 minutes to complete. For some questions, you may want to consult with your evaluator before responding. With this in mind, the survey has been designed so that you can move between sections, save your responses and come back to the survey at any time. If you would like others on your project to help you complete the MIS, you can give them the unique web link that you received.

While you may progress without answering all questions, we strongly encourage you to respond to each item before final submission of the MIS; if not, we may need to follow up with you by phone later.

There are a total of 40 items, but not every project will be prompted to answer every item. If you have any questions as you go, please feel free to contact us at stelar@edc.org. Thank you very much for your participation!

1a Indicate your project's PRIMARY discipline. You may choose only one PRIMARY discipline, but in the next item you will have an opportunity to identify as many secondary disciplines as are relevant.

- ❍ Bioscience - general (1)
- ❍ Bioscience - bioinformatics (2)
- ❍ Bioscience - biomedicine (3)
- ❍ Bioscience - biotechnology (4)
- ❍ Bioscience - DNA analysis/sequencing (5)
- ❍ Bioscience - neuroscience (6)
- ❍ Computer Science - general (7)
- ❍ Computer Science - computer hardware (8)
- ❍ Computer Science - gaming and simulations (9)
- ❍ Computer Science - general skills and mathematics (10)
- ❍ Computer Science - multimedia - audio, video, and animation (11)
- ❍ Computer Science - programming (12)
- ❍ Computer Science - web development (13)
- ❍ Engineering - general (14)
- ❍ Engineering - aerospace (15)
- ❍ Engineering - astronomy (16)
- ❍ Engineering - design (17)
- ❍ Engineering - nanotechnology (18)
- ❍ Engineering - robotics (19)
- ❍ Environmental Science - general (20)
- ❍ Environmental Science - climate modeling (21)
- ❍ Environmental Science - ecological research and analysis (22)
- ❍ Environmental Science - GIS/GPS (23)
- ❍ Environmental Science - remote sensing technology (24)
- ❍ Mathematics - general (25)
- ❍ Other (please specify) (26) _____

1b Indicate your project's SECONDARY discipline(s). (check all that apply)

- ❑ Bioscience - general (1)
- ❑ Bioscience - bioinformatics (2)
- ❑ Bioscience - biomedicine (3)
- ❑ Bioscience - biotechnology (4)
- ❑ Bioscience - DNA analysis/sequencing (5)
- ❑ Bioscience - neuroscience (6)
- ❑ Computer Science - general (7)
- ❑ Computer Science - computer hardware (8)
- ❑ Computer Science - gaming and simulations (9)
- ❑ Computer Science - general skills and mathematics (10)
- ❑ Computer Science - multimedia - audio, video, and animation (11)
- ❑ Computer Science - programming (12)
- ❑ Computer Science - web development (13)
- ❑ Engineering - general (14)
- ❑ Engineering - aerospace (15)
- ❑ Engineering - astronomy (16)
- ❑ Engineering - design (17)
- ❑ Engineering - nanotechnology (18)
- ❑ Engineering - robotics (19)
- ❑ Environmental Science - general (20)
- ❑ Environmental Science - climate modeling (21)
- ❑ Environmental Science - ecological research and analysis (22)
- ❑ Environmental Science - GIS/GPS (23)
- ❑ Environmental Science - remote sensing technology (24)
- ❑ Mathematics - general (25)
- ❑ Other (please specify) (26) _____

2 Indicate in which area(s) of the US your project work took place over the last year. (check all that apply)

- ❑ New England (ME, NH, VT, MA, RI, CT) (1)
- ❑ Mid-Atlantic (NY, PA, NJ) (2)
- ❑ East North Central (WI, MI, IL, IN, OH) (3)
- ❑ West North Central (MO, ND, SD, NE, KS, MN, IA) (4)
- ❑ South Atlantic (DE, MD, DC, VA, WV, NC, SC, GA, FL) (5)
- ❑ East South Central (KY, TN, MS, AL) (6)
- ❑ West South Central (OK, TX, AR, LA) (7)
- ❑ Mountain (ID, MT, WY, NV, UT, CO, AZ, NM) (8)
- ❑ Pacific (AK, WA, OR, CA, HI) (9)

3 Indicate in which geographic area(s) your project worked over the last year. (check all that apply)

- ❑ Rural (1)
- ❑ Suburban (2)
- ❑ Urban (3)

4 Indicate which grade span(s) your project focused on over the last year. (check all that apply)

- ❑ Early childhood (PK) (1)
- ❑ Elementary (K-5) (3)
- ❑ Middle (6-8) (4)
- ❑ High (9-12) (5)

5 Indicate in what type of school(s) your project worked. (check all that apply)

- ❑ Charter (1)
- ❑ Magnet (2)
- ❑ Private (3)
- ❑ Public (4)
- ❑ Other (please specify) (5) _____

6a Indicate whether or not the following groups of youth participated in your project over the last year.

| | Yes (1) | No (2) |
|---|---|---|
| Youth in informal settings out of school (direct project work in either summer or after school settings) (1) | ❍ | ❍ |
| Youth in formal school settings (only include youth who participated directly in project work in school settings; later in the survey you will be able to record numbers of students in classrooms of your teacher participants) (2) | ❍ | ❍ |

If no, then skip to 16a.

6b Use this table to record the number of youth served in out of school settings during the last project year. Only include youth who participated directly in project work in out of school settings; later in the survey you will be able to record numbers of students in classrooms of your teacher participants. Provide demographic information as accurately and in as much detail as possible.

| | Youth out of school |
|---|---|
| | Total number |
| Girls (1) | |
| Boys (2) | |
| American Indian or Alaska Native (4) | |
| Asian or Pacific Islander (5) | |
| Black/African American (not of Hispanic origin) (6) | |
| Hispanic or Latino (7) | |
| White/ Caucasian (not of Hispanic origin) (8) | |
| More than one race reported (9) | |
| Total youth served out of school (11) | |

6c Use this table to record the number of youth served in formal school settings during the last project year. Only include youth who participated directly in project work in formal school settings; later in the survey you will be able to record numbers of students in classrooms of your teacher participants. Provide demographic information as accurately and in as much detail as possible.

| | Youth in formal education |
|---|---|
| | Total number |
| Girls (1) | |
| Boys (2) | |
| American Indian or Alaska Native (4) | |
| Asian or Pacific Islander (5) | |
| Black/African American (not of Hispanic origin) (6) | |
| Hispanic or Latino (7) | |
| White/ Caucasian (not of Hispanic origin) (8) | |
| More than one race reported (9) | |
| Total youth served in school (11) | |

7 Use the space below to provide more information about **your** youth participants, if relevant.

| |
|---|
| |

8 Indicate in what way(s) your project work with youth was structured over the last year. (check all that apply)

- ❑ After school program (1)
- ❑ Distance learning (2)
- ❑ In-school program (3)
- ❑ Online/social networking (4)
- ❑ Summer program: 1-2 week sessions (5)
- ❑ Summer program: more than 2 weeks per session (6)
- ❑ Weekend program (7)
- ❑ Youth employment/internship component (8)
- ❑ Other (please specify) (9) _____

9 On average, how many contact hours did each individual youth participate in your project over the last year? If youth had different levels of participation, check all that apply.

- ❑ Less than 25 hours (1)
- ❑ 25-49 hours (2)
- ❑ 50-74 hours (3)
- ❑ 75-99 hours (4)
- ❑ More than 100 hours (5)

10 On average, how long do individual youth participate in your project?

- ❍ Less than one year (1)
- ❍ One year (2)
- ❍ More than one year (3)
- ❍ Participant years vary (4)
- ❍ The length of the project (5)

11 List each of your project outcomes for youth and to what extent each outcome was achieved over the last year. Your project may have fewer than six outcomes for youth. If your project has more than six outcomes for youth, please contact STELAR at STELAR@edc.org to complete the table.

| | **Outcome (choose from the list)** | **Outcome status (select one for each outcome)** | **Provide a brief description of the status and/or findings for this outcome over the last year** |
|---|---|---|---|
| | changes in self efficacy in STEM (1)<br>changes in participation in STEM-related activities (2)<br>changes in interest in STEM (3)<br>changes in engagement in STEM (4)<br>changes in STEM content knowledge (5)<br>changes in skills using technology tools (6)<br>changes in skills applying STEM concepts (7)<br>changes in ways of thinking and problem-solving (8)<br>changes in knowledge of STEM careers, workplace demands (9)<br>changes interest in STEM careers (10)<br>changes in preparation for STEM careers (11)<br>documentation of youth entry into STEM career paths (12)<br>Other youth-related outcomes (13) | Findings complete<br>Data collection in progress<br>Not begun | Brief explanation |
| Youth Outcome 1 (1) | | | |
| Youth Outcome 2 (2) | | | |

| | | | |
|---|---|---|---|
| Youth Outcome 3 (3) | | | |
| Youth Outcome 4 (4) | | | |
| Youth Outcome 5 (5) | | | |
| Youth Outcome 6 (6) | | | |

12a Indicate the data collection method(s) your project used with youth over the last year. (check all that apply)

- ❑ Embedded assessments (37)
- ❑ ITEST project observations (summer institutes, youth activities) (38)
- ❑ Performance-based assessments (39)
- ❑ Pre and/or Post Assessments (40)
- ❑ Youth interviews (41)
- ❑ Youth focus groups (42)
- ❑ Youth self-reports (journals) (43)
- ❑ Youth web-based data (blogging, emails, posts) (44)
- ❑ Other (please specify) (45) _____

12b Indicate the type of Pre- and/or Post-Assessments (content and mode of administration) your project used with youth over the last year. (check all that apply)

| | Pre-Assessment | | Post-Assessment | |
|---|---|---|---|---|
| | Written Survey (1) | Other than Written Survey (2) | Written Survey (1) | Other than Written Survey (2) |
| Attitudes toward STEM and/or STEM careers (1) | ❑ | ❑ | ❑ | ❑ |
| STEM content (2) | ❑ | ❑ | ❑ | ❑ |
| Technology skills (3) | ❑ | ❑ | ❑ | ❑ |
| Other (please specify) (4) | ❑ | ❑ | ❑ | ❑ |

14 Indicate what external youth outcome metric(s) were collected over the last year? [i.e. existing data you gathered, but not data you collected through project-administered instruments]

- ❑ College major (1)
- ❑ Competency/skills progress reports (2)
- ❑ Examples of student academic work (3)
- ❑ High school grades (4)
- ❑ Participation in additional extracurricular activities (5)
- ❑ Participation in advanced STEM classes (6)
- ❑ Participation in college courses (7)
- ❑ Participation in high school courses (8)
- ❑ Participation in science fair or other STEM competitions (9)
- ❑ Participation in STEM-related work experience (10)
- ❑ Selection of post-high school career/school pathway (11)
- ❑ Standardized test scores (12)
- ❑ Videos of students and/or educators (13)
- ❑ Other(please specify) (14) _____

15a Were any of the instruments used with youth externally developed and validated?

- ❍ Yes (1)
- ❍ No (2)

If Yes is selected, answer 15b. If No, go to 16a.

15b Please list the names of the externally developed and validated instruments your project used with youth over the last year.

16a Did your project work directly with educators over the last year?

- ❍ Yes (1)
- ❍ No (2)

If No Is Selected, Then Skip #24

16b How many educators participated in your project over the last year?

Total educators (1)
PK-2 (2)
3-5 (3)
6-8 (4)
9-12 (5)

17a Were any youth taught by participating educators as part of your project's work over the last year?

- ❍ Yes (1)
- ❍ No (2)

17b How many youth were taught by participating educators as part of your project's work over the last year? Only include youth/students here that you did NOT include earlier when asked about direct youth/student participants.

18 Indicate in what way(s) your project work with educators was structured over the last year. (check all that apply)

- ❑ Professional development day(s) during the academic year – after school (1)
- ❑ Professional development day(s) during the academic year – during school hours (2)
- ❑ Professional development day(s) during the academic year – weekends (3)
- ❑ Virtual/ Distance Learning (online training or courses, webinars, online community, conference calls) (4)
- ❑ Summer Institute and/or Training (5)
- ❑ Summer Institute and/or Training with youth participants (6)
- ❑ Other (please specify) (9) _____

19 On average, how many contact hours did each individual educator participate in your project over the last year? If educators had different levels of participation, check all that apply.

- ❑ Less than 25 hours (1)
- ❑ 25-49 hours (2)
- ❑ 50-74 hours (3)
- ❑ 75-99 hours (4)
- ❑ More than 100 hours (5)

20 On average, how long do individual educators participate in your project?

- ❍ Less than one year (1)
- ❍ One year (2)
- ❍ More than one year (3)
- ❍ Participant years vary (4)
- ❍ The length of the project (5)

21 List each of your project outcomes for educators and to what extent each outcome was achieved over the last year. Your project may have fewer than six outcomes for educators. If your project has more than six outcomes for educators, please contact STELAR at STELAR@edc.org to complete the table.

| | **Outcome (choose from the list)** | **Outcome status (select one for each outcome)** | **Provide a brief description of the status and/or findings for this outcome over the last year** |
|---|---|---|---|
| | changes in self-efficacy in teaching STEM content (1)<br>changes in implementation of ITEST materials (2)<br>changes in knowledge for using technology tools in STEM teaching (3)<br>changes in knowledge of STEM career information (4)<br>changes in perception of STEM (5)<br>changes in practice/pedagogy (6)<br>changes in STEM content knowledge (7)<br>changes in use of technology tools (8)<br>Other educator-related outcomes (9) | Findings complete<br>Data collection in progress<br>Not begun | Brief explanation |
| Educator Outcome 1 (1) | | | |
| Educator Outcome 2 (2) | | | |
| Educator Outcome 3 (3) | | | |
| Educator Outcome 4 (4) | | | |
| Educator Outcome | | | |

| | | | |
|---|---|---|---|
| 5 (5) | | | |
| Educator Outcome 6 (6) | | | |

22a Indicate the data collection method(s) your project used with educators over the last year. (check all that apply)

- ❑ Classroom observations (34)
- ❑ Educator focus groups (35)
- ❑ Educator interviews (36)
- ❑ Educator self-reports (journals) (37)
- ❑ Educator web-based data (blogging, emails, posts) (38)
- ❑ Embedded assessments (39)
- ❑ Examples of educator class plans (40)
- ❑ ITEST project observations (summer institutes, youth activities) (41)
- ❑ Pre and/or Post Assessments (42)
- ❑ Videos of students and/or educators (43)
- ❑ Other (please specify) (44) _____

Answer If Pre and/or Post Assessments Is Selected

22b Indicate the type of Pre- and/or Post-Assessments (content and mode of administration) your project used with educators over the last year. (check all that apply)

| | Pre-Assessment | | Post-Assessment | |
|---|---|---|---|---|
| | Written Survey (1) | Other than Written Survey (2) | Written Survey (1) | Other than Written Survey (2) |
| Attitudes toward STEM and/or STEM careers (1) | ❑ | ❑ | ❑ | ❑ |
| STEM content (2) | ❑ | ❑ | ❑ | ❑ |
| Technology skills (3) | ❑ | ❑ | ❑ | ❑ |
| Other (please specify) (4) | ❑ | ❑ | ❑ | ❑ |

23a Were any of the instruments used with educators externally developed and validated?

❍ Yes (1)
❍ No (2)

Answer If Yes Is Selected

23b Please list the names of the externally developed and validated instruments your project used with educators over the last year.

24 Indicate which activity or activities were included in your project over the last year. (check all that apply)

- ❑ Curriculum development (1)
- ❑ Field experiences for educators (2)
- ❑ Field experiences for youth/students (3)
- ❑ Problem-based learning (5)
- ❑ Place-based learning (6)
- ❑ Participation of visiting scientists or STEM professionals (7)
- ❑ Hands-on activities using technologies common in the STEM workplace (8)
- ❑ Other (please specify) (9) _____
- ❑ Career skills development (laboratory work, engineering or science lab, using tools, equipment and instruments found in STEM careers) (11)
- ❑ Classroom work (academic content learning, in-class projects, guest speakers) (12)
- ❑ Mentoring of youth/student participants (13)
- ❑ Mentoring of educator participants (14)
- ❑ Career development (creating a career plan, providing information about career pathways) (15)

25 Many ITEST projects involve participants in addition to youth and/or educators. Indicate who worked with your project, whether as paid or unpaid staff, volunteers, participants, or who provided any kind of formal support over the last year. (check all that apply)

- ❑ Community volunteers (1)
- ❑ Education professionals (2)
- ❑ Graduate student volunteers (3)
- ❑ IT/STEM professionals (4)
- ❑ Parents/families (5)
- ❑ Professional association staff or volunteers (6)
- ❑ Tribal elders (7)
- ❑ Undergraduate student volunteers (8)
- ❑ University faculty or staff (9)
- ❑ Other (please specify) (10) _____
- ❑ The project did not involve additional participants (11)

26 Indicate what type of partner institution(s) worked with your project over the last year. (check all that apply)

- ❑ Business/Industry (1)
- ❑ College/University (2)
- ❑ Community-based organization (3)
- ❑ Government laboratory (4)
- ❑ Hispanic serving institution (5)
- ❑ Historically Black college/university (6)
- ❑ Other minority serving institution (7)
- ❑ Informal science education organization (8)
- ❑ PK-12 school (9)
- ❑ Not-for-profit organization (10)
- ❑ Researcher, Research institution (11)
- ❑ Other (please specify) (12) _____
- ❑ The project did not work with partner institutions (13)

27 Indicate what study design(s) was/were used to answer your project's research and/or evaluation questions over the last year. If mixed methods were used, or different methods were used to answer different questions, select all methods that were used.

- ❑ Experimental (1)
- ❑ Quasi-Experimental (with comparison group) (2)
- ❑ Quantitative, with comparison group (3)
- ❑ Quantitative, no comparison group (4)
- ❑ Qualitative, with comparison group (5)
- ❑ Qualitative, no comparison group (6)
- ❑ Other (please specify) (7) _____
- ❑ Quantitative with pre/post design (8)

28a Are there data that you would have liked to collect over the last year, but did not?

- ❍ Yes (1)
- ❍ No (2)

Answer If Yes Is Selected

28b Please explain what data you would have liked to collect, why you would have liked to collect them, and why you did not.

29a Have changes been made to your project's research methods over the last year?

- ❍ Yes (1)
- ❍ No (2)

Answer If Yes Is Selected

29b Please explain what changes have been made to your project's research design over the last year, and why you made those changes.

30 How often did the PI/project staff and the evaluator interact over the last year?

- ❍ Once a week (1)
- ❍ A few times a month (2)
- ❍ Once a month (3)
- ❍ Once a quarter (4)
- ❍ Once a year (5)

31 Was your project's work presented at a conference over the last year?

- ❍ Yes (1)
- ❍ No (2)

If No Is Selected, Then Skip To Please note which of the following di...

32 Indicate at which conference(s) your project's work was presented over the last year. Select ONLY those conferences in which a presentation was given, not those planned for the future. (check all that apply)

- ❑ ACM Special Interest Group on Computer Science Education (SIGCSE) (1)
- ❑ American Educational Research Association (AERA) (2)
- ❑ American Evaluation Association (AEA) (3)
- ❑ American Society for Engineering Education (ASEE) (4)
- ❑ Association for Science Teacher Education (ASTE) (5)
- ❑ Association of Science-Technology Centers (ASTC) (6)
- ❑ International Conference on Computer-Supported Collaborative Learning (CSCL) (7)
- ❑ International Council of the Learning Sciences (ICLS) (8)
- ❑ International Society for Technology in Education (ISTE) (9)
- ❑ International Technology and Engineering Educators Association (ITEEA) (10)
- ❑ League for Innovation Science, Technology, Engineering and Math (STEMtech) (11)
- ❑ National Afterschool Association (NAA) (12)
- ❑ National Association for Research in Teaching (NARST) (13)
- ❑ National Education Association (NEA) (14)
- ❑ National Science Teachers Association (NSTA) (15)
- ❑ Serious Games (16)
- ❑ Society for Information Technology and Teacher Education (SITE) (17)
- ❑ Other (please specify) (18) _____
- ❑ Computer Science Teachers' Association (CSTA) (19)
- ❑ American Indian Science and Engineering Society (AISES) (20)
- ❑ SACNAS: Advancing Hispanics/Chicanos & Native Americans in Science (21)

33 Did one or more of the conference presentations involve collaboration with other ITEST projects in some way?

- ❍ Yes (1)
- ❍ No (2)

34 Indicate what dissemination activity(ies) your project engaged in over the last year. Select ONLY those activities which your project engaged in, not those planned for the future. (check all that apply)

- ❑ Blogs (1)
- ❑ Book chapters (2)
- ❑ Books (3)
- ❑ Invited presentations (4)
- ❑ Media (newspaper, TV, video, radio) (5)
- ❑ Meetings/topical convenings (6)
- ❑ Newsletters (7)
- ❑ Peer-reviewed journal articles (8)
- ❑ Social networking (9)
- ❑ Website (10)
- ❑ Workshops (11)
- ❑ Other, please specify (12) _____
- ❑ The project did not have any dissemination activities over the last year (13)
- ❑ Conference presentations (14)
- ❑ Podcasts or webinars (15)

35a Indicate what product(s) has/have been developed for your project over the last year. Select ONLY those products which have been developed, not those which will be developed in future years. (check all that apply)

- ❑ Curriculum/instructional materials (1)
- ❑ Evaluation strategies (2)
- ❑ Games (3)
- ❑ Implementation models (4)
- ❑ Instruments (e.g., to assess interest, engagement, persistence, motivation, skills, knowledge of dispositions, etc.) (5)
- ❑ Professional development materials/teacher training (6)
- ❑ Program models (7)
- ❑ Research findings (8)
- ❑ Software (9)
- ❑ Technology designs/Prototypes (10)
- ❑ Textbooks (11)
- ❑ Theoretical constructs (12)
- ❑ Videos/Multimedia (13)
- ❑ Virtual environments (14)
- ❑ Other, please specify (15) _____
- ❑ The project did not develop any products over the last year (16)
- ❑ Website (17)
- ❑ Apps for phone or tablet (20)

35b Please enter URLs with links to articles, papers, talks, videos, news articles, or other publications about your project.

**In this section we ask that you place your project work in the context of NSF's current goals that are applicable to the ITEST program, specifically looking at Workforce Development and Broadening Participation. We also ask you to consider your project's innovations and unexpected outcomes. For each question, providing 1-2 sentences is sufficient.**

36 In your project, what specific strategies were used over the last year to broaden participation in your activities to traditionally underrepresented populations?

37 In your project, what specific strategies were used over the last year to contribute to STEM workforce development?

38a Indicate in what area(s) your project has experienced an unexpected outcome--whether positive or negative--over the last year. (check all that apply)

- ❑ Broadening participation (1)
- ❑ Deliverables/products (2)
- ❑ Dissemination strategies (3)
- ❑ Program implementation (4)
- ❑ Use of technology (5)
- ❑ Other (please specify) (6) _____
- ❑ The project did not experience an unexpected outcome (7)
- ❑ Workforce development (8)

38b Please describe the unexpected outcome(s).

39a Indicate in what area(s) your project developed an innovation over the last year. (check all that apply)

- ❑ Broadening participation (1)
- ❑ Deliverable/products (2)
- ❑ Dissemination strategies (3)
- ❑ Program implementation (4)
- ❑ Use of technology (5)
- ❑ Other (please specify) (6) _____
- ❑ The project did not experience an innovation (7)
- ❑ Workforce development (8)

39b Please describe the innovation(s).

40 If there is anything else you would like us to know about your project that you have not had the opportunity to note, please use this box to do so.

Before you submit your MIS, please be sure that you have answered all questions in each section. Even if sections have a check mark, there may be remaining unanswered questions. Once you have checked your responses to all questions, please click the Submit MIS below. Upon submission you will be presented with your responses to each section. We suggest that you save this information as a PDF. To do so, click on the red PDF icon at the upper right of the screen. Once again, thank you for completing this year's MIS. Your participation contributes to a broader understanding of the value of the ITEST program for the youth and educators it serves.