ATE Survey 2014

The survey is conducted online—this copy is for review purposes only.

Overview

This annual survey of the National Science Foundation's Advanced Technological Education program grantees is used to obtain information about the program's characteristics, activities, and impacts. The findings may be used by (1) NSF program staff to prepare their annual reports and make program decisions, (2) ATE grantees to help them gauge their performance in relation to the other grantees, and (3) researchers investigating issues related to technician education.

Some of the data collected from this survey will be shared in selected ways to further ATE collaboration and research efforts. We encourage you to review the Confidentiality section of the Survey FAQs at www.evalu-ate.org/annual_survey for details about data protections and uses.

The survey period is February 10–March 31, 2014. We recommend that you review this document in its entirety before responding to the online version so that you will have all the necessary information at hand to answer the questions. The survey is Web-based; access information will be e-mailed to principal investigators at the start of the survey period.

Additional information about the survey is available at www.evalu-ate.org/annual_survey. Questions should be directed to Corey Smith at (269) 387-5895 or corey.d.smith@wmich.edu.

Thank you for participating in this survey.

General Instructions

1. Your responses should address the calendar year: **January 1–December 31, 2013**.

2. Section 1 is required for all respondents, including grantees in their first year. This section is about grantee characteristics, organizational practices, evaluation, and collaboration.

3. Sections 2-4 are about materials development, professional development, and program improvement, respectively. At the start of each of these sections, you are asked to indicate whether your grant activities in that area met a certain threshold (i.e., if in the target year you allocated EITHER 30 percent or more of your project/center's direct costs OR at least $100,000 to the activity in question) or whether you do not meet the threshold, but want to report on that aspect of your work anyway.

4. Section 5 includes questions that are being asking on a one-time or rotational basis. We ask that all respondents complete this brief section.

Section 1: Grantee Characteristics and Practices

1. Award category:
    - ☐ Project
    - ☐ Center
    - ☐ Targeted research
    - ☐ Small grants for colleges new to the ATE program

2. Begin date for current award: _____ / _____ / _____ (MM/DD/YYYY)

3. End date for current award: _____ / _____ / _____ (MM/DD/YYYY)

4. Which of the following is the grantee institution?
    - ☐ 4-year college/university
    - ☐ 2-year college or 2-year college system
    - ☐ K-12 school or school system
    - ☐ Nonprofit organization
    - ☐ Association/society
    - ☐ Other (describe):

5. Your office address: _____

6. Phone: (____ ____ ____) ____ ____ ____ - ____ ____ ____ ____

7. Project/center Web site: http://_____

8. a. Total funds awarded to date in the current grant for this project/center: $ _____
    b. Annual budget for 2013: $ _____
    c. Estimate the percentage of your annual budget (8b), including salaries, allocated to the following activities. Percentages should total 100.

_____ %	Materials development for national dissemination
_____ %	Professional development including teacher preparation
_____ %	Program improvement
_____ %	Targeted research
_____ %	Evaluation (internal and external)
_____ %	Advisory committees
_____ %	Institutional indirect costs
_____ %	Other (specify): _____
100 %	Total 2013 project/center costs

9. What percentage of the annual budget (8b) was targeted to serve individuals at each type of institution? Estimate to the nearest 10 percent. Percentages should total 100.

_____	%	4-year college/university
_____	%	2-year college
_____	%	Association/society
_____	%	Secondary school
_____	%	Business/industry
_____	%	Other (specify): _____
100	%	Total

10. Choose one of the following options to describe the major emphasis of your project/center.

Advanced Manufacturing Technologies

☐ Automotive manufacturing

☐ General manufacturing

☐ Additive manufacturing

Agricultural and Environmental Technologies

☐ Agricultural and natural resources

☐ Energy production

☐ Energy use (or conservation)

Biotechnology and Chemical Processes

☐ Biotechnology

☐ Chemical processes

Engineering Technologies

☐ Optics

☐ Electronics and controls

☐ Marine technologies

☐ Space technologies

Information, Geospatial, and Security Technologies

☐ Information and communications technologies

☐ Geospatial technologies

☐ Security, information assurance and forensics

Learning, Evaluation, and Research

☐ Evaluation

☐ Research

☐ Learning

Micro and Nanotechnologies

☐ Micro and nanotechnologies

Recruitment

☐ From underrepresented groups

☐ Into specific programs

Core Courses

☐ Core courses

Technology Teacher Preparation

☐ Technology teacher preparation

Other

☐ Other (specify): _____

ATE-Supported Instruction

Respond to questions 11-14 if your project/center supported the provision of science, technology, engineering, or mathematics instruction in 2013.

If you conducted contract training, report the numbers for those students separately. Do not include contract training numbers in the education-level figures.

	Education Level of Participating Students				Contract Training
	Secondary	Associate	Baccalaureate	Post Baccalaureate	
11. Total number of locations where the ATE-supported programs were offered					
12. Total number of individual students who took at least 1 course in 1 of your ATE-supported programs (if a student took more than 1 course, count that person only once)					

13. Based on the total number of students reported in **Question 12**, indicate the number of students in each of the following demographic categories.

	Education Level of Participating Students				Contract Training
	Secondary	Associate	Baccalaureate	Post Baccalaureate	
a. Male					
b. Female					
c. Hispanic/Latino					
d. American Indian or Alaska Native					
e. Asian					
f. Black or African American					
g. Native Hawaiian or other Pacific Islander					
h. Multiracial					
i. White Non-Hispanic/ Latino					
j. Students requesting accommodation under the Americans with Disabilities Act					

Respond to Question 14 only if your ATE grant supported a *degree or certification program in 2013*.

14. Indicate the number of students across all of your **ATE-funded degree or certification programs** who met the following conditions in 2013.

Student Status	Education Level of Students			
	Secondary	Associate	Baccalaureate	Post Baccalaureate
a. Completed the specified program				
b. Left the program prior to completion and is not expected to return to complete (e.g., dropped out, changed majors)				
c. Students remaining in the program (i.e., did not complete or leave the program in 2013).				

Articulation Agreements

Articulation agreements are defined as specific agreements between two or more institutions that allow students who complete an education program or series of courses to matriculate to a higher level of education at specified institutions.

Matriculation may occur in a sequential or concurrent fashion. Sequential matriculation occurs when a student completes the program at the lower level and then begins taking courses at the higher level institution. Concurrent matriculation occurs when the student is enrolled simultaneously at both institutions.

15. Was developing articulation agreements ever part of your project/center activities?
    - ☐ Yes
    - ☐ No (If NO, please skip to Question 17)

16. Report the number of articulation agreements, institutions, and students associated with each education level.

	Education Level	
	High school to 2-year college	2-year college to 4-year college
a. Total number of articulation agreements <u>developed</u> in 2013		
b. Total number of articulation agreements <u>in place</u> in 2013 (sequential and concurrent)		
c. Number of <u>institutions</u> involved in all the agreements		
d. Number of <u>students</u> that matriculated in 2013 (enrolled at the higher education level under the terms of an articulation agreement)		

Evaluation

17. Do you have a current, written evaluation plan for your project/center?
    - ☐ Yes
    - ☐ No

18. If you have *any information* related to the evaluation of your grant online (e.g., plans, instruments, reports), please provide the URL where they can be located:
    http://_____

19. Select the type of evaluator(s) used by your project/center (check all that apply).
   - ☐ We do not have an evaluator, either internal or external
   - ☐ Evaluator **external to project/center and institution** (i.e., hired specifically to evaluate this grant)
   - ☐ Evaluator **external to project/center, but internal to institution** (i.e., hired specifically to evaluate this grant)
   - ☐ Internal evaluator (i.e., is a member of your staff)

   a. Please provide the name of your evaluator and her/his organizational affiliation (e.g., John Smith, Western Michigan University).
   _____

20. What type of report did you receive from your evaluator in 2013? (check all that apply)
   - ☐ Written
   - ☐ Oral
   - ☐ None (If NONE, skip to Question 22)

21. How has your project/center used the information provided in the report(s)? (check all that apply)
   - ☐ To make changes in our activities
   - ☐ To make changes in our goals
   - ☐ To make changes in our evaluation strategies
   - ☐ For marketing our work
   - ☐ To gauge impact
   - ☐ To inform stakeholders (e.g., partners, industry, advisory board, NSF)

Answer Question 22 only if you indicated use of an *external* evaluator in Question 19.

22. How frequently did your <u>external evaluator</u> interact with your staff (e.g., e-mail, teleconferences, face-to-face) in 2013?
   - ☐ Rarely (annually or semiannually)
   - ☐ Infrequently (not every month but at least quarterly)
   - ☐ Occasionally (more often than quarterly and as much as monthly)
   - ☐ Often (more often than monthly and as much as biweekly)
   - ☐ Continually (very nearly weekly, weekly, or more often)

Collaboration

Collaboration is a relationship with another institution, business, or group that provides money or other support (e.g., volunteer instruction, donated materials) to your project or center. Collaborators are not funded by the grant.

23. For each type of collaborating organization listed below, report the number of different organizations you collaborated with in 2013.

   _____ Business/industry

   _____ Within your host institution (e.g., other department or administrative unit)

   _____ Other education institutions

   _____ Public agencies (e.g., government agencies)

   _____ Other ATE projects/centers

   _____ Other (specify): _____

24. Report the total dollar value of monetary and in-kind support received by your project/center from all sources <u>other</u> than your ATE award in 2013 (round to the nearest thousand dollars).

   a. Monetary support $ _____

   b. In-kind support $ _____

25. For each type of collaborating organization listed below, check up to two options that best describe the main benefits to your project/center in 2013. *Each <u>column</u> should not have more than two checked benefits*.

Type of Benefit	Type of Collaborating Organization				
	Business/ Industry	Within Your Host Institution	Other Education Institution	Public Agency	Other ATE Grantee
a. General support	☐	☐	☐	☐	☐
b. Financial or in-kind support	☐	☐	☐	☐	☐
c. Developing program content	☐	☐	☐	☐	☐
d. Facilitating service delivery	☐	☐	☐	☐	☐
e. Access to decision makers	☐	☐	☐	☐	☐
f. Information about workforce needs	☐	☐	☐	☐	☐
g. Developing articulation agreements	☐	☐	☐	☐	☐
h. Student support	☐	☐	☐	☐	☐
i. Other	☐	☐	☐	☐	☐

Section 2: Materials Development

This section of the survey focuses strictly on materials developed for national dissemination to serve instructional purposes (it does not include project/center promotional materials).

All respondents are asked to complete at least the first question in this section—a determiner of who should complete the full section.

1. Did your project/center allocate at least 30 percent of its direct costs **OR** at least $100,000 to instructional materials development in 2013?
   - ☐ Yes (Complete this section)
   - ☐ No, BUT we consider it a significant area of our activity, and we want to report our work. (Complete this section)
   - ☐ No (You are now finished with this section)

Materials addressed here are the media (textbooks, laboratory experiments and manuals, software, online materials, CD-ROMs, videos, or other courseware) used to convey the content and instruction of activities, modules, and courses.

DEFINITIONS
Course: A stand-alone collection of instructional content and activities to achieve desired educational outcomes. Courses usually last a semester or a year.

Module: A self-contained collection of content and activities designed to achieve a set of specific objectives. Modules are generally shorter than courses and focus on fewer outcomes.

Activity: An activity is an instructional exercise—for example, a laboratory experiment—designed to achieve a discrete learning outcome or a test to measure achievement or progress toward that outcome.

What is of interest here is the number of **discrete** activities, modules, and courses that your project/center developed in 2013. Do **not** count an **activity** if it was included as part of a **module** or **course** you are reporting on. Similarly, do not count a **module** separately if it is part of a **course** that you are reporting on.

2. For each type of material listed below, report the number of materials that were in draft or field-test stage, completed, or published in 2013.

Development Stage	Type of Material		
	Course	Module	Activity
a. In draft or field-test stage			
b. Completed *(If your answer is 0 for each of these three cells, skip to Question 5)*			
c. Published commerically			

3. For the materials you reported as complete in **Question 2b**, report the number that are being used at various locations. A single course, module, or activity might be reported in multiple rows.

Location	Type of Material		
	Course	Module	Activity
a. Number in use locally (at your institution/organization)			
b. Number in use at institutions/organizations that partnered with your project/center in the development effort			
c. Number in use elsewhere (i.e., at nonpartner institutions/organizations)			

4. For the materials you reported as complete in **Question 2b**, report the number of institutions/organizations, other than your own, that are using **at least one** of them. _____

5. For all materials you reported in **Questions 2a & 2b**, report the number directed at each type of audience.

Target Audience	Type of Material		
	Course	Module	Activity
a. Secondary school			
b. 2-year college			
c. 4-year college			
d. Business/industry training or education program			
e. Other (specify):			

Section 3: Professional Development

This section addresses professional development provided to secondary school teachers, college faculty, and preservice teachers to enhance their disciplinary capabilities, teaching skills, understanding of current technologies and practices, and 21st century skills in ways that will directly impact technician education.

All respondents are asked to complete at least the first question in this section—a determiner of who should complete the full section.

1. Did your project/center allocate at least 30 percent of its direct costs **OR** at least $100,000 to professional development in 2013?
   - ☐ Yes (Complete this section)
   - ☐ No, BUT we consider it a significant area of our activity, and we want to report our work. (Complete this section)
   - ☐ No (You are now finished with this section)

Questions 2 and 3 ask about the number of different types of professional development activities offered by your project/center and the number of participants in those activities. If your project/center did not offer the activity in question, put a zero (0) in the space provided.

DEFINITIONS

Intact classroom: Participants and instructors worked together in the same physical setting.

Distance education: Activities conducted primarily online.

Follow-up: Activities to support implementation after the initial professional development activity.

2. Report the number of professional development activities offered by your project/center in 2013 and their characteristics.

Type of Professional Development Activity	Total Number of Activities Offered	Number Offered in Intact Classroom Settings	Number Offered Using Distance Education Techniques	Number Offered With Follow-Up Support
a. Short presentations to raise awareness				
b. Instructional activities of less than a day (e.g., lecture, training session)				
c. Instructional activities that last one day or more, but less than one week (e.g., workshop, online module)				

Type of Professional Development Activity	Total Number of Activities Offered	Number Offered in Intact Classroom Settings	Number Offered Using Distance Education Techniques	Number Offered With Follow-Up Support
d. Instructional activities that last from one to several weeks (e.g., course, summer institute)				
e. A long-term periodic instructional activity (e.g., internship, peer coaching)				

3. Report the number of participants in your project/center's 2013 professional development activities.

Type of Professional Development Activity	Total Number of Participants	Number of Participants in Intact Classroom Settings	Number of Participants in Distance Education Settings	Number of Participants Who Received Follow-Up Support
a. Short presentations to raise awareness				
b. Instructional activities of less than a day (e.g., lecture, training session)				
c. Instructional activities that last one day or more, but less than one week (e.g., workshop, online module)				
d. Instructional activities that last from one to several weeks (e.g., course, summer institute)				
e. A long-term periodic instructional activity (e.g., internship, peer coaching)				

4. Report the number of participants in your 2013 professional development activities that are associated with each education level.

Professional Development Activity	Total Number of Participants			
	Secondary Level	Associate Level	Baccalaureate Level	Other
a. Short presentations to raise awareness				
b. Instructional activities of less than a day (e.g., lecture, training session)				
c. Instructional activities that last one day or more, but less than one week (e.g., workshop, online module)				
d. Instructional activities that last from one to several weeks (e.g., course, summer institute)				
e. A long-term periodic instructional activity (e.g., internship, peer coaching)				

5. What percentage of participants implemented new materials or ideas after attending your professional development activities? Your estimates should be based on data your project/center collected. *If you did not collect data for an activity, enter NA.*

Type of Professional Development Activity	% of participants who implemented one or more of the new materials or ideas
a. Short presentations to provide awareness	_____ %
b. Instructional activities of less than one day (e.g., a lecture, training session)	_____ %
c. Instructional activities that last one day or more, but less than one week (e.g., workshop, online module)	_____ %
d. Instructional activities that last from one to several weeks (e.g., a course, summer institute, etc.)	_____ %
e. A long-term periodic instructional activity (e.g., internship, peer coaching)	_____ %

Section 4: Program Improvement

This section addresses the development or improvement of technician education programs for secondary students, college students, or persons employed as technicians.

All respondents are asked to complete at least the first question in this section—a determiner of who should complete the full section.

DEFINITION

Program: A sequence of classes, laboratories, and/or work-based experiences that lead students to a degree, certification, or an occupational competency point.

1. Did your project/center allocate at least 30 percent of its direct costs **OR** at least $100,000 to program improvement in 2013?
    ☐   Yes (Complete this section)
    ☐   No, BUT we consider it a significant area of our activity, and we want to report our work. (Complete this section)
    ☐   No (You are now finished with this section)

2. Report the number of programs and courses for each education level and on-the-job training included in your program improvement work in 2013.

    If you conducted contract training, report the numbers for those students separately. Do not include contract training numbers in the education-level figures.

	Education Level				On-the-Job Training/ Contract Training
	Secondary	Associate	Baccalaureate	Post Baccalaureate	
a. Total number of programs supported by your ATE grant in 2013					
b. Total number of ATE grant-funded programs <u>developed or modified in 2013</u>					
c. Total number of separate courses <u>developed or modified in 2013</u> with ATE support (if a course appears in more than one program, count it only once)					

Section 5: Special Topics

This section addresses research and emerging topics of interest to NSF program officers, ATE researchers, and other ATE projects/centers. Questions in this section are intended to be included for a limited time and/or on a rotational basis. All respondents are asked to complete this section. Skip any questions that are not applicable to your context.

Note: If you are interested in submitting a question to be included on the 2014 ATE survey, please contact EvaluATE prior to December 1, 2014. We will provide you with criteria and guidelines for ATE Special Topics survey questions. Questions may serve research or needs assessment purposes. Email corey.d.smith@wmich.edu.org.

This section addresses ATE-funded activities at the secondary school level. All respondents are asked to complete at least the first question in this section—a determiner of who should complete the full section.

1) Does your project/center conduct activities at the secondary school level?
   ☐   Yes
   ☐   No (if NO, you are finished with Section 5)

2) Indicate whether or not your project/center is engaged in each of the following activities at the secondary school level.

Activity	Did you engage in the activity?	
	Yes	No
a. Providing professional development for secondary school teachers	☐	☐
b. Developing problem-based learning activities for secondary students	☐	☐
c. Providing secondary students with hands-on learning opportunities	☐	☐
d. Developing *other* types of instructional materials for secondary school courses	☐	☐
e. Offering dual enrollment programs or courses with secondary schools	☐	☐
f. Providing out-of-school time programming/activities for secondary students	☐	☐
g. Organizing or assisting with STEM-related competitions for secondary students	☐	☐
h. Offering summer camp programming for secondary students	☐	☐
i. Developing technician career pathways that include the secondary school level	☐	☐
j. Supporting the development of partnerships between secondary schools and industry	☐	☐

3. Does your project/center have formal agreements (i.e., documentation of each entity's roles/responsibilities) in place with any of the following entities?
☐ Regional intermediate school district(s)
☐ Local school district(s)
☐ Individual secondary school(s)
☐ Individual secondary school teacher(s)
☐ Other_____
_____

4. Please briefly describe the primary purpose of your project/center's work at the secondary level.

5. Was there an evaluation of the professional development that you provided for secondary school teachers?
☐Yes
☐No (if NO, you are finished with this section)

6. Did the evaluation measure teachers' satisfaction with the professional development activity?
☐Yes
☐No

7a. Did the evaluation measure changes in teachers' knowledge, skills, or abilities?
☐Yes
☐No (If NO, skip to question 7a)

7b. If yes, please describe the evaluation strategies used (e.g. data collection methods and sources)?

8a. Did the evaluation measure the extent to which teachers applied what they learned from the professional development?
☐Yes
☐No (If NO, go to question 8a)

8b. If yes, please describe the evaluation strategies used (e.g. data collection methods and sources)?

9a. Did the evaluation measure the impact of the professional development on student achievement?
☐Yes
☐No (If NO, go to question 9a)

9b. If yes, please describe the evaluation strategies used (e.g. data collection methods and sources)?

9a) Did your evaluation measure the impact of the professional development on developing student interest in one or more STEM fields?
☐   Yes
☐   No (If NO, you are done)

9b) If yes, please describe the evaluation strategies used (e.g. data collection methods and sources)?