

# EvaluATE

Evaluation Resource Center for **ATE Survey 2015**  
advanced technological education

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 Survey FAQs at <http://www.evaluate.org/ate-survey-2015/> for details about data protections and uses.

The survey period is February 17–March 16, 2015. 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 <http://www.evaluate.org/ate-survey-2015/>. Questions should be directed to Corey Smith at (269) 387-5903 or [corey.d.smith@wmich.edu](mailto:corey.d.smith@wmich.edu).

Thank you for participating in this survey.

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## General Instructions

1. Your responses should address the calendar year: **January 1–December 31, 2014**.
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 asked on a one-time or rotational basis. We ask that all respondents complete this brief section.

# Section 1: Grantee Characteristics and Practices

1.1 Award category:

- Project
- Center
- Targeted research
- Small grant for college new to the ATE program

1.2. Was 2014 the first year of your current grant?

- Yes
- No

1.3. Is your current grant a continuation of a previous ATE project/center?

- Yes
- No

1.4. Does your grant have a Co-PI(s)?

- Yes
- No

1.4. Please list their names and contact information.

Co-PI	_____
Email address	_____
Co-PI	_____
Email address	_____
Co-PI	_____
Email address	_____
Co-PI	_____
Email address	_____

1.5. 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):

1.6. Project/center Web site: [http://\\_\\_\\_\\_\\_](http://_____)

1.7. Total award amount: \$ \_\_\_\_\_

1.8. Annual budget for 2014: \$ \_\_\_\_\_

1.9. Estimate the percentage of your annual budget (1.8), 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 2014 project/center costs

1.10. What percentage of the annual budget (1.8) 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

1.11. 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 1.12-1.14 if your project/center supported the provision of science, technology, engineering, or mathematics instruction in 2014.**

1.12. 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	
Total number of locations where the ATE-supported programs were offered					
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)					

1.13. Based on the total number of students reported in **the previous question**, 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					

1.14. Did your ATE grant support a degree or certification program in 2014?

- Yes (if YES complete next question)
- No (if NO go to question 1.15)

1.14. Indicate the number of students across all of your **ATE-funded degree or certification programs** who met the following conditions in 2014.

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 2014).				

## 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.**

1.15. Was developing articulation agreements ever part of your project/center activities?

- Yes
- No (If NO, please skip to Question 1.17)

1.16. 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 2014		
b. Total number of articulation agreements <u>in place</u> in 2014 (sequential and concurrent)		
c. Number of <u>institutions</u> involved in all the agreements		
d. Number of <u>students</u> that matriculated in 2014 (enrolled at the higher education level under the terms of an articulation agreement)		

**Evaluation**

1.17. Do you have a current, written evaluation plan for your project/center?

- Yes
- No

1.18. 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:// \_\_\_\_\_

1.19. 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)

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

\_\_\_\_\_

1.21. Please provide the email address of your evaluator.

\_\_\_\_\_

- 1.22. What type of report did you receive from your evaluator in 2014? (check all that apply)
- Written
  - Oral
  - None (If NONE, skip to Question 1.24)
- 1.23. 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 1.24 only if you indicated use of an *external* evaluator in Question 1.19.**

- 1.24. How frequently did your external evaluator interact with your staff (e.g., e-mail, teleconferences, face-to-face) in 2014?
- 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.**

1.25. For each type of collaborating organization listed below, report the number of different organizations you collaborated with in 2014.

\_\_\_\_\_ 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): \_\_\_\_\_

1.26. Report the total dollar value of monetary and in-kind support received by your project/center from all sources other than your ATE award in 2014 (round to the nearest thousand dollars).

a. Monetary support    \$ \_\_\_\_\_

b. In-kind support        \$ \_\_\_\_\_

1.27. For each type of collaborating organization listed below, check up to two options that best describe the main benefits to your project/center in 2014. *Each column 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Financial or in-kind support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Developing program content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Facilitating service delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Access to decision makers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Information about workforce needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Developing articulation agreements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Student support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 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.

- 2.1. Did your project/center allocate at least 30 percent of its direct costs **OR** at least \$100,000 to instructional materials development in 2014?
- 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.

- 2.2. For each type of material listed below, report the number of materials that were in draft or field-test stage, completed, or published in 2014.

Development Stage	Type of Material		
	Course	Module	Activity
a. In draft or field-test stage			
b. Completed <i>(If your answer is 0 for each of these three cells, skip to Question 2.5)</i>			
c. Published commercially			

2.3. For the materials you reported as complete in **Question 2.2**, 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 )			

2.4. For the materials you reported as complete in **Question 2.2**, report the number of institutions/organizations, other than your own, that are using **at least one** of them. \_\_\_\_\_

2.5. For all materials you reported in **Questions 2.2**, report the number directed at each type of audience.

Location	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 21<sup>st</sup> 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.

- 3.1. Did your project/center allocate at least 30 percent of its direct costs **OR** at least \$100,000 to professional development in 2014?
- 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 3.2 and 3.3 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.

- 3.2. Report the number of professional development activities offered by your project/center in 2014 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 activities (e.g., internship, peer coaching)				

3.3. Report the number of participants in your project/center's 2014 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 activities (e.g., internship, peer coaching)				

3.4. Report the number of participants in your 2014 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 activities (e.g., internship, peer coaching)				

3.5. 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. Long-term periodic instructional activities (e.g., internship, peer coaching)	_____ %

3.6. This question presents different outcomes that projects and centers might seek to achieve in a professional development program. If you believe your professional development work achieved the specified outcome, place a check in the first column. If your project/center gathered information regarding that outcome, regardless of whether it was achieved, place a check in the second column.

Type of Professional Development Activity	This outcome was achieved in 2014	Data were gathered in 2014 to provide evidence of this outcome
a. At least 90% of participants gained new information, techniques, skills, or materials that are applicable for use in their own technician courses.	<input type="checkbox"/>	<input type="checkbox"/>
b. At least 75% of participants believe that the workshop improved their teaching knowledge or skills.	<input type="checkbox"/>	<input type="checkbox"/>
c. At least 70% of the participants applied the ideas (information, techniques, skills, or materials) in their own technician courses.	<input type="checkbox"/>	<input type="checkbox"/>
d. Student improvement occurred in at least 30% of participants' classrooms resulting from their changed instruction (e.g., students were more interested, learned new content, or achieved higher scores)	<input type="checkbox"/>	<input type="checkbox"/>

## 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.

- 4.1. Did your project/center allocate at least 30 percent of its direct costs **OR** at least \$100,000 to program improvement in 2014?
- 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)
- 4.2. Report the number of programs and courses for each education level and on-the-job training included in your program improvement work in 2014.

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 2014					
b. Total number of ATE grant-funded programs <u>developed or modified in 2014</u>					
c. Total number of separate courses <u>developed or modified in 2014</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 2016 ATE survey, please contact EvaluATE prior to December 1, 2015. 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](mailto:corey.d.smith@wmich.edu).*

### Data Management Plans

5.1. Which of the following materials does your project/center generate?

- Data sets
- Learning Management Systems (LMS)-based curriculum
- Non-LMS-based curriculum
- Professional development materials
- White papers or other reports (excluding NSF annual reports and evaluation reports)
- Journal articles
- Newsletters
- Videos
- Webinars
- Other \_\_\_\_\_

5.2. For the materials you selected, indicate their availability-currently and after grant funding ends

	Current availability				Availability after grant funding ends				
	Not available to anyone outside the project	Available upon request	Available only to a select group	Publicly available on the internet	Not sure	Not available to anyone outside the project	Available upon request	Available only to a select group	Publicly available on the internet
Data sets									
Learning Management Systems (LMS)-based curriculum									
Non-LMS-based curriculum									
Professional									

development materials									
White papers or reports *									
Newsletters									
Videos									
Webinars									
Other									

\*(excluding NSF annual reports and evaluation reports)

5.3. Describe your plan for maintaining availability of your materials after NSF funding ends.

5.4. Are you aware of the Section 508 Standards for making materials accessible to people with disabilities?

- Yes (if YES go to question 5.9)
- No (if NO you are done)

5.5. Do the materials you generate adhere to the Section 508 Standards?

- No
- Some of our materials adhere to them
- Most of our materials adhere to them
- All of our materials adhere to them
- Not sure

## Partnerships and Evaluation

The following questions ask about the extent to which your business and industry partners are engaged in the evaluation of your project/center. For each of the following activities, indicate whether your business/industry partners are engaged and which aspects they are engaged in.

5.6. Are your business and industry partners engaged in the **planning** of the evaluation?

- Yes (go to the next question)
- No (skip to question 5.2)

5.6. In which of the following aspects of evaluation planning are your business and industry partners engaged?

Activity	Yes	No
Clarifying the focus of the evaluation	<input type="checkbox"/>	<input type="checkbox"/>
Setting standards for project success or quality	<input type="checkbox"/>	<input type="checkbox"/>
Planning data collection	<input type="checkbox"/>	<input type="checkbox"/>
Identifying potential sources of data	<input type="checkbox"/>	<input type="checkbox"/>
Other _____		

5.7. Are your business and industry partners engaged in **developing data collection tools**, such as surveys or assessments, for your evaluation?

- Yes (go to the next question)
- No (If NO go to question 5.3)

5.7. In which of the following aspects of **developing data collection tools** are your business and industry partners engaged?

	Yes	No
Drafting data collection tools	<input type="checkbox"/>	<input type="checkbox"/>
Piloting or field testing data collection tools	<input type="checkbox"/>	<input type="checkbox"/>
Other _____		

5.8. Are your business and industry partners engaged in **providing data** for your evaluation?

- Yes (go to the next question)
- No (if NO go to question 5.4)

5.8. What type of data do you receive from your business and industry partners?

5.9. Are your business and industry partners engaged in **reviewing or interpreting** your evaluation findings?

- Yes (go to the next question)
- No (if NO go to question 5.5)

5.9. Describe how you involve your business and industry partners in **reviewing or interpreting** your evaluation findings.

### Evaluation of Professional Development (PD)

5.10. Does your project provide professional development to faculty for the purpose of improving classroom instruction?

- Yes (if YES go to question 5.11)
- No (if NO you are done)

5.11. Who is the primary audience for this professional development?

- Secondary-level educators
- Associate-level educators
- Baccalaureate-level educators

**For each item, check all that apply:**

5.12. At the time participants were recruited, they agreed to provide follow up feedback on the impact of the professional development on:

- Their own instruction
- Their students' learning

5.13. During the professional development program participants:

- Demonstrated what they learned during the training (not including self-report)
- Received instruction on student assessment
- Were provided tools, protocols etc. for both gathering and reporting information on student impacts.

5.14. The evaluation of the professional development included or will include data obtained from participants regarding:

- Their application of the knowledge, skills, or materials they gained from the professional development
- Impact of the professional development on their students (learning gains, changes in STEM interest or attitudes)