

ADVANCED TECHNOLOGICAL EDUCATION

GETTING STARTED



ATE Principal Investigators Conference
Washington, DC
October 23, 2019



ATE Getting Started Workshop 2019

Session 1: ATE Basics - National Science Foundation

- We want you to succeed
- We want you to understand the program and how you fit into the program
- There is a lot of help – ask questions and reach out
- Understand NSF/program officer expectations

Exercises:

1. What is your award date and when is your annual report due (90 days prior)?
2. Who is your program officer and who is your grants officer?
3. What is your grant number? Go to simple search on the NSF database and put in your grant title or number (or your name) to find info about your award in the NSF database. You can use the ATE program code (7412) in Advanced Search to look at other recent awards too.

<i>Issues/Challenges</i>	<i>Potential Source(s) of Help</i>	<i>Notes & Next Steps</i>

ATE Getting Started Workshop 2019

Session 2: NSF Office of the Inspector General

- Everything you spend is subject to audit
- Understand what the OIG investigates and why that is important to know
- Understand what you can and cannot pay for with your ATE grant funds

Exercise:

1. Find the list of items in the solicitation that NSF funds **may not** be used for – mark that section for reference. Write down any questions that you might have about spending below, and follow up as needed.

<i>Issues/Challenges</i>	<i>Potential Source(s) of Help</i>	<i>Notes & Next Steps</i>

ATE Getting Started Workshop 2019

Session 3: NSF Division of Grants and Agreements (DGA)

- How to manage the fiscal aspects of your award
- Understanding differences between institutional and PI responsibilities
- Considering who to reach out to about fiscal issues
- Participant support issues related to budgeting

Exercises:

1. An institution gets an award in the area of cybersecurity. A dean approaches the PI and wants to use a percentage of ATE award funds to update campus computer labs. Is this permissible? How do you think the PI should handle this situation?
2. Find out what your indirect rate is and who you will be working with on your campus about budgeting issues.

<i>Issues/Challenges</i>	<i>Potential Source(s) of Help</i>	<i>Notes & Next Steps</i>

ATE Getting Started Workshop 2019

Session 4: ATE Central

- Understand the services and tools available from ATE Central
- Use the map on the portal to find potential collaborators
- Know more about where to find information on outreach, sustainability, archiving

Exercises:

1. Find a collaborator on the ATE Central map and note their information to follow up with them during or after the conference.
2. Find resources on the ATE Central portal – do a simple or advanced search to find resources on a topic of interest to you.
3. Explore ATE Central's tools and services – follow up after the conference with ATE Central on any specific resources, tools, or services you'd like to know more about.

<i>Issues/Challenges</i>	<i>Potential Source(s) of Help</i>	<i>Notes & Next Steps</i>

ATE Getting Started Workshop 2019

Session 5: EvaluATE

- Understand the services and resources EvaluATE provides.
- Learning about what evaluation, why it's important, and how to implement it in your project.
- Feel comfortable with obtaining and working with an external evaluator.
- Be informed users and participants of the ATE Annual Survey, why it's important, what your role is, what questions will be asked, and how to obtain data for project and evaluation use.

Exercises:

1. What are the four basic steps of evaluation ?
2. What is the first evaluation timeline item you need to complete?
3. What date will the ATE Annual Survey open?

<i>Issues/Challenges</i>	<i>Potential Source(s) of Help</i>	<i>Notes & Next Steps</i>

ATE Getting Started Workshop 2019

Session 6: Mentor-Connect

Mentor-Connect provides mentoring, technical support, and resources to help two-year college personnel prepare competitive NSF ATE grant proposals, navigate the NSF funding process, and then implement funded projects to advance technician education and support the development of STEM faculty leaders in advanced technological education.

- When to Do What?
- Grant team administration and management
- Business office and grants office information
- Data- A Key to Success

<i>Issues/Challenges</i>	<i>Potential Source(s) of Help</i>	<i>Notes & Next Steps</i>
<ul style="list-style-type: none"> •What is the process and who is responsible for expending, managing, and tracking grant funds for your project? •What does it mean to cross-walk your grant budget to the college accounting system? •Do those involved, including the PI, understand the PI's role in the process of spending grant funds? 		
<ul style="list-style-type: none"> •Have those working on your project read the proposal thoroughly since it was funded? •Are the original goals, objectives, activities and timeline still viable? •If changes need to be made, who makes decisions and who needs to know about changes? 		
<ul style="list-style-type: none"> •Are all personnel scheduled to work on the grant ready and set up to do so? •Are there any unresolved issues regarding faculty release time, issuing contracts, or filling jobs? •If so, how will you address? 		
<ul style="list-style-type: none"> •Are communications processes within and external to the project understood? •Do you know how you will address delays or conflicts? 		

PRESENTATIONS





Getting Started Workshop

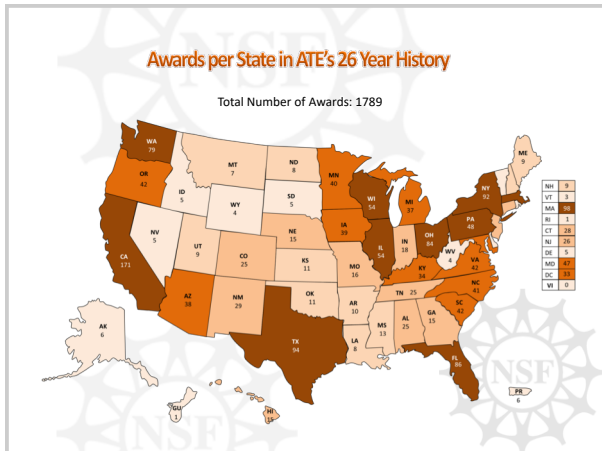
V. Celeste Carter Tom Higgins Heather Watson

Program Directors
Division of Undergraduate Education
National Science Foundation

AACC/NSF National ATE Principal Investigators
Conference
October 23, 2019

Agenda for this afternoon

- Introductions
- Check in:
 - Items you brought with you
 - Award letter, tablet or computer
 - Packets of Materials
 - Powerpoints
 - Exercises
- NSF: Award Management
 - General Information
 - Office of Budget, Finance, and Award Management
 - Office of the Inspector General
- ATE Central
- Evaluation Team (Evalu-ATE)
- Mentor Connect
- Roundtable Discussion time





Reporting, con't.

Research.gov: single sign in and template for reports

See appendix for report sections

You can attach .pdf files

- External evaluator's report; photographs, etc.
- Be concise and after submitting, check your report for spelling, cut-and-paste errors, etc.

Don't use .pdf files in place of entering text in the report!!!!

Reporting, con't.

Special Requirements:

- Notifications and Requests
 - Change of PI and/or Co-PI
 - Change scope of work
 - Reallocation of funds originally budgeted for participant support.
 - You can see the PAPPG for a complete list of notifications and requests. (**NOTE:** Notifications/requests are a separate action. Merely including this information in your annual report is not sufficient.)

Returned Annual Report

Final Report: only covers final year of project, follows same template

Project Outcomes Report: due same time as final, a brief summary, prepared specifically for the public, posted on the NSF website exactly as it is submitted and will be accompanied by a disclaimer

Advisory Boards

Advisory boards

- Often a good idea for a project to have one
- If you have one, USE IT!!!
- Program vs project advisory board
- They are NOT evaluators for your project

National Visiting Committee (only for Centers)

- Only Centers are required to have one
- Annual visits
- A group of experts who provide advice, assess the plans and progress of the project, and enhance dissemination
- 8-10 members



Institutional Review Boards (IRBs)

- All projects involving human subjects must either (1) have approval from the organization's Institutional Review Board (IRB) before issuance of an NSF award or, (2) must affirm that the IRB or an appropriate knowledgeable authority previously designated by the organization (not the Principal Investigator) has declared the research exempt from IRB review. The language presents the requirements clearly and emphasizes the need for someone other than the Principal Investigator to declare the relevant exemptions.



IRB approvals need to be updated yearly (approvals not exemptions)

Working with NSF ATE Program Officers

Communicate with Program Officers and Keep them informed of Progress and or Issues

- Please put your award number in the subject line of the email
- Emails are usually the best way
- Tell us when something is going to happen; e.g., a professional development workshop might be good time for a site visit by a Program Officer



Crediting NSF



Acknowledgment of Support

- "This material is based upon work supported by the National Science Foundation under Grant No. (NSF grant number)." (Oral acknowledgment if appropriate.)

Disclaimer

- "Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation."

Copies

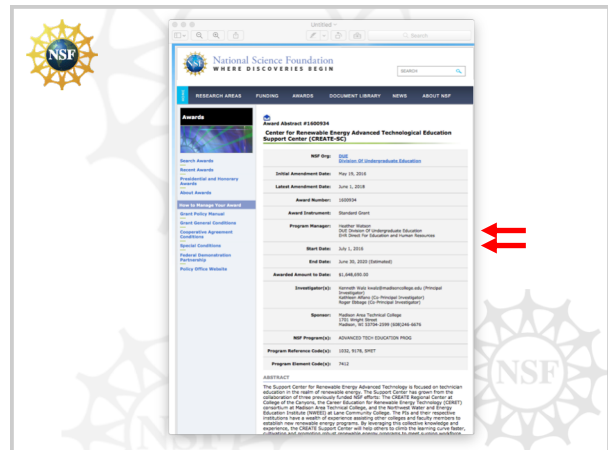
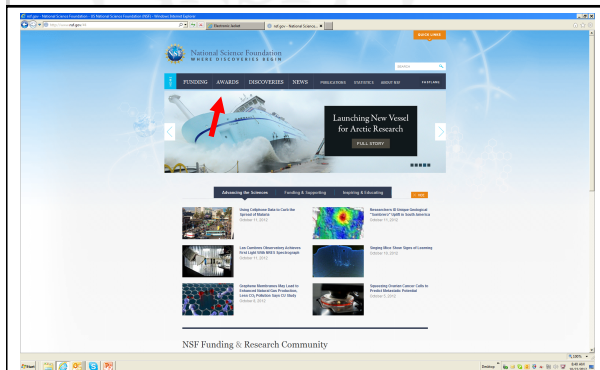
- The grantee is responsible for assuring that the cognizant NSF Program Officer is provided access to, either electronically or in paper form, a copy of every publication of material based on or developed under this award, clearly labeled with the award number and other appropriate identifying information, promptly after publication.

Logos

<http://www.nsf.gov/policies/logos.jsp>



How to find information about NSF awards www.nsf.gov



Reviewing Proposals for NSF

- Great professional development
- Service to the education community
- Opportunity to forge new collaborations
- Send your Program Officer a 2-page CV
- Not just ATE: DUE (IUSE, S-STEM, Noyce), DRL, DGE, HRD programs

Questions?



Jannele Gosey

ATE PI CONFERENCE

GRANT MANAGEMENT KEYS TO SUCCESS

OCTOBER 23, 2019

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DGA YEAR IN REVIEW



- Completed over 22,000 actions.
- Relatively small division
 - Staff under 30
 - Each staff roughly completed on average 1,000 actions
 - Conduct award monitoring assistance program among many other tasks.
 - Conducts Advanced Monitoring Site Visit Review to grantees.

GRANTEE RESPONSIBILITIES



- NSF's legal relationship is with the grantee institution.
- The grantee institution is responsible for proposals submitted to NSF.
- The grantee institution is also responsible for adhering to the terms and conditions of an NSF award.
- This includes establishing appropriate policies and procedures, oversight, internal controls, and training to ensure that award expenditures are allowable, allocable, reasonable, and necessary.
- This also includes complying with all relevant federal regulations and national policy requirements.

PI RESPONSIBILITIES



- Responsible for the scientific or technical direction of the project.
- Serves as the first line of communication to the NSF Program Officer and the project relating to the scientific, technical and budgetary aspects of the project.
- Responsible for all timely reports required by NSF.

KEYS TO SUCCESS



- Effective Communication
- Know requirements (award letter, award terms and conditions indirect cost rate agreement, Uniform Guidance)
- Good accounting practices – accumulation & segregation of costs

ALWAYS REMEMBER



- Focus on the solicitation budgetary guidelines
- Review budget with Sponsored Research Office prior to submission to NSF
- Document approvals and conversations between the awardee and NSF program and grant officials.




ASK EARLY, ASK OFTEN!

RESOURCES

Links to the Award & Administration Guide (AAG)

[nsf.gov/awards/managing/](https://www.nsf.gov/awards/managing/)

Find how to get assistance with your award from the Division of Grants & Agreements



National Science Foundation Office of Inspector General Office of Investigations

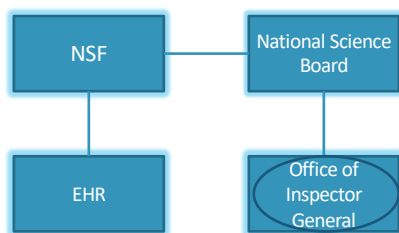
Valerie Hillgren, Investigative Scientist
Maureen Weir, Special Agent

ATE Conference
October 23, 2019

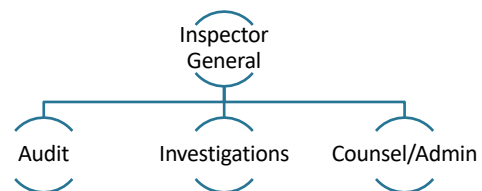
Office of Inspector General (OIG) Mission

- Conduct **investigations** and review of NSF and its programs
- Promote **efficiency, economy** and **effectiveness** of NSF internal operations and programs
- **Detect** and **prevent** fraud, waste and abuse

Where is OIG within NSF?



OIG Organizational Chart



Office of Investigations

- Investigate allegations of fraud, waste and abuse
- Investigate allegations of violations of federal policy and laws
- Investigate allegations of research misconduct (fabrication, falsification, plagiarism)
- Conduct outreach
- Conduct proactive reviews of targeted areas

Typical Allegations

- Research Misconduct (FFP)
 - NOTE: We review FFP for possible civil/criminal violations
- Embezzlement/Theft
- Fraud (including false statements, mail and wire fraud)
- Civil False Claims
- Criminal False Claims
- Violations of regulations and policies (conflict of interest, OMB Circulars, NSF policies)

Investigative Process

- We investigate by interviewing individuals, reviewing documents, issuing subpoenas
- We evaluate whether allegations have substance
- We issue Reports of Investigation to NSF with conclusions and recommendations
- We also refer matters to OIG's Office of Audit, and to Department of Justice or state law enforcement authorities, as appropriate

Possible Results of Investigation

- Nothing
- Special oversight or review
- Administrative sanctions
- Suspension/Debarment/Exclusion of individual
- Suspension/Termination of Award
- Civil/Criminal Remedies
- Compliance Plan

Your Role

- Manage award effectively— **know rules**, keep documentation, have good accounting practices
- **Notify** OIG of allegations of wrongdoing, and significant administrative or financial problems affecting the award
- **Respond** to OIG's requests for information
- Take appropriate **remedial action** if a problem is identified
- **Communicate** with your program officer

Knowing the Rules

- The **Solicitation** lists items NSF funds may not be used for, including:
 - replacement equipment or instrumentation that does not significantly improve instructional capability;
 - teaching aids (e.g., films, slides, projectors, "drill and practice" software);
 - vehicles, trailers, laboratory furnishings, or general utility items such as office equipment (including word-processing equipment), benches, tables, desks, chairs, storage cases, and routine supplies;
 - maintenance equipment and maintenance or service contracts;
 - the modification, construction, or furnishing of laboratories or other buildings;
 - the installation of equipment or instrumentation (as distinct from the on-site assembly of multi-component instruments—which is an allowable charge).
- You will be held accountable for what is in the Solicitation (and award letter, grant conditions, etc.)
- OIG may investigate you if you break the rules

Case Study

An audit identified purchase card misuse by a university accountant

Working with the university's internal auditors, we identified:

- Over 3,800 personal purchases made over 5 years
- Over 30 different accounts fraudulently charged
- Over \$300,000 fraudulently diverted

Case Study

- Concealment of fraud:
 - Majority of items shipped to home address
 - Forged her supervisor's signature on monthly purchase card statement review
 - Created false invoices
 - Manipulated university's accounting system



Case Study Continued

Results of investigation

- Indictment
 - 17 counts of Mail Fraud (18 U.S.C. § 1343)
 - 5 counts of Theft (18 U.S.C. § 666)
- Outcome
 - Guilty plea to all counts
 - Sentenced to 32 months in prison, followed by 3 years probation
 - \$316,000 restitution
 - 250 hours of community service

Contact Information

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Getting Started with ATECENTRAL

Getting Started Workshop
ATE Principal Investigators Conference
Washington, DC
October 23, 2019

Edward Almasy
Director, Internet Scout Research Group
Co-PI, ATE Central

What is ATE Central?

- Information hub for ATE
- Archive for ATE
- Supports and promotes ATE community work
- Provides tools, services, and publications



ATECENTRAL Scout

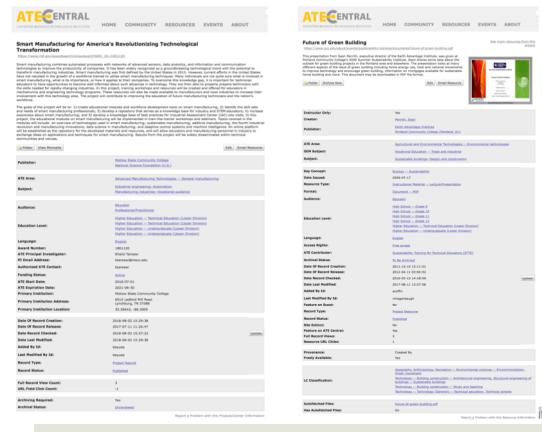
Information Hub

Information about:

- ATE projects and centers
- ATE-created resources
- ATE events
- ATE program and community



ATECENTRAL Scout



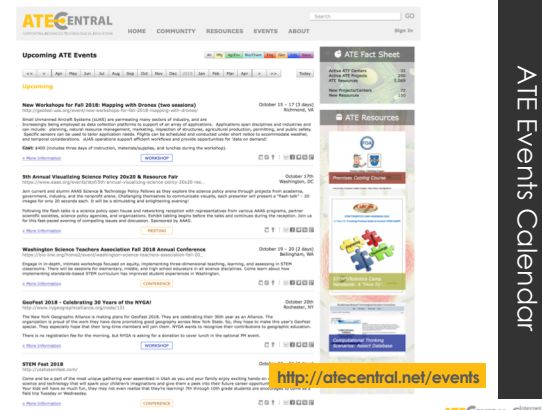
Tools, Services, and Publications

Tools and Services:

- Archiving service
- Evaluator directory
- Events calendar
- Microsite service
- Social media directory
- Sustainability support

Publications:

- ATE Central Connection
- ATE Activity Report
- ATE Outreach Kit
- ATE Fact Sheet
- ATE Impacts book+blog
- ATE PI Conference app



<http://atecentral.net/events>

ATECENTRAL Scout

Submit:
Conferences
Meetings
Summits
Webinars
Workshops
Student Events

Submit An Event

<http://atecentral.net/submitevent>

Social Media Directory

<http://atecentral.net/socialmedia>

[Featured Projects](#)
[Featured Resources](#)
[Community Connection](#)
[ATE Success Tips](#)
[Did You Know?](#)
[Upcoming ATE Events](#)
[News & Reminders](#)

ATE Central Connection

<http://atecentral.net/connection>

ATE Fact Sheet

Exercise: Find Potential Collaborators

- Go to <http://atecentral.net>
- Find the **map interface**
- Look for potential collaborators in **your field** or near you **geographically**
- Note this info in your worksheet, and make a goal to **follow up** with them **during** or **after** the PI conference
- Bonus points: Look up their showcase **booth number** via the PI conference **mobile app**



Activity Reports

[illegible]

ATECENTRAL Internet Scout

The image shows the front cover of a book titled "ADVANCED TECHNOLOGICAL EDUCATION IMPACTS". The title is prominently displayed in large, bold, sans-serif capital letters. "ADVANCED" and "TECHNOLOGICAL" are in a dark blue-grey, "EDUCATION" is in a lighter blue-grey, and "IMPACTS" is in a large, multi-colored font where each letter has a different hue. Below the title is a horizontal row of seven circular inset photographs showing diverse groups of students in various educational settings. Underneath these photos, the subtitle "Twenty-Five Years of Advancing Technician Education" is written in a smaller, dark font. On the right side of the cover, there are three logos: at the top, the "Internet Scout" logo with a small ship icon; in the middle, the AACC logo (American Association of Community Colleges) which includes the letters "AACC" in a stylized blue font; and at the bottom right, the NSF logo (National Science Foundation) featuring a blue globe with the letters "NSF" in white, surrounded by a golden gear-like border. At the bottom left, the years "2018-2019" are printed above a row of seven colored dots. At the bottom right, a yellow banner contains the URL "http://ateimpacts.net/book" in black text. The entire cover is set against a plain white background.

<http://ateimpacts.net/book>



ATE Impacts Book

Advancing the State of Practice and Innovation in Advanced Technological Education

Blog 11

Research Investigates Knowledge Retention in Hybrid AT Program

by Dr. Robert W. Hargrave, Director of the Center for the Advanced Technological Education Research, San Francisco State University

As the demand for advanced technological education continues to grow, so does the need for research that can help us understand how to best deliver this education. One of the most important areas of research is knowledge retention. How do we know if our students are learning what we teach them? And how can we ensure that they retain that knowledge long enough to use it in the workplace?

A recent study by Dr. Robert W. Hargrave, Director of the Center for the Advanced Technological Education Research at San Francisco State University, provides some answers. The study, titled "Knowledge Retention in Hybrid AT Programs," examined the knowledge retention of students in a hybrid advanced technological program. The study found that students in the hybrid program retained significantly more knowledge than students in a traditional classroom-based program. This finding is important because it suggests that hybrid programs may be a more effective way to deliver advanced technological education.

The study also found that students in the hybrid program were more engaged in their learning and more motivated to learn. This finding is also important because it suggests that hybrid programs may be a more effective way to deliver advanced technological education. The study's findings have important implications for the future of advanced technological education. They suggest that hybrid programs may be a more effective way to deliver advanced technological education, and that we should continue to invest in research that can help us understand how to best deliver this education.

For more information on this study and other research in the field of advanced technological education, please visit the Center for the Advanced Technological Education Research website at <http://www.ateimpacts.org>.

Read the full article: [Knowledge Retention in Hybrid AT Programs](#)

From the Archives: Sustainability

by Dr. Robert W. Hargrave, Director of the Center for the Advanced Technological Education Research, San Francisco State University

The concept of sustainability has become a household name in recent years. It refers to the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. This concept is often associated with environmental sustainability, but it also applies to social and economic sustainability. In the context of advanced technological education, sustainability means ensuring that our programs are able to meet the needs of the workforce for the long term.

One of the most important ways to ensure sustainability in advanced technological education is by staying up-to-date on the latest industry trends and technologies. This means that we need to invest in research and development, and that we need to provide our students with the most current and relevant training. Another important way to ensure sustainability is by building strong relationships with industry partners. This allows us to stay informed about the needs of the workforce and to ensure that our programs are meeting those needs.

Finally, sustainability also means ensuring that our programs are financially sustainable. This means that we need to find ways to generate revenue to cover the costs of our programs, while also ensuring that we are providing a high-quality education to our students. This can be done through a variety of means, including tuition, grants, and partnerships with industry partners.

By focusing on these three areas, we can ensure that our advanced technological education programs are sustainable and able to meet the needs of the workforce for the long term.

Read the full article: [Sustainability](#)

Workshop Report

by Dr. Robert W. Hargrave, Director of the Center for the Advanced Technological Education Research, San Francisco State University

The Center for the Advanced Technological Education Research recently hosted a workshop on the topic of "Advanced Technological Education in the 21st Century." The workshop was held on the campus of San Francisco State University and was attended by a group of experts in the field of advanced technological education. The workshop focused on the challenges and opportunities facing advanced technological education in the 21st century, and it provided a forum for participants to share their ideas and experiences.

One of the key topics discussed during the workshop was the need for advanced technological education to be more closely aligned with the needs of the workforce. Participants agreed that this is one of the most important challenges facing the field, and they discussed a variety of ways to address this challenge. Some suggested that we should focus more on providing training in specific, high-demand skills, while others suggested that we should focus more on providing a broad-based education that prepares students for a variety of careers.

Another key topic discussed during the workshop was the need for advanced technological education to be more accessible to a wider range of students. Participants agreed that this is another important challenge facing the field, and they discussed a variety of ways to address this challenge. Some suggested that we should focus more on providing online and hybrid programs, while others suggested that we should focus more on providing programs in underserved areas.

The workshop was a success, and it provided a valuable opportunity for experts in the field of advanced technological education to come together and discuss the challenges and opportunities facing the field. The findings of the workshop will be used to inform the work of the Center for the Advanced Technological Education Research, and they will also be shared with the broader community of advanced technological education practitioners.

Read the full article: [Workshop Report](#)

From the Archives: Job Skills

by Dr. Robert W. Hargrave, Director of the Center for the Advanced Technological Education Research, San Francisco State University

One of the most important goals of advanced technological education is to provide students with the job skills they need to succeed in the workforce. This is a goal that is shared by all stakeholders in the field, and it is one that has led to a variety of innovative programs and practices. In this article, we will explore some of the ways in which advanced technological education programs are working to provide students with the job skills they need to succeed in the workforce.

One of the most common ways to provide students with job skills is through the use of hands-on learning experiences. This can include a variety of activities, such as internships, apprenticeships, and project-based learning. These experiences allow students to apply the knowledge and skills they are learning in the classroom to real-world situations, and they provide them with the opportunity to develop the soft skills that are also important for success in the workforce.

Another way to provide students with job skills is through the use of industry partnerships. By working closely with industry partners, advanced technological education programs can ensure that they are providing students with the most current and relevant training. This can be done through a variety of means, including joint ventures, cooperative education programs, and the use of industry experts as instructors.

Finally, advanced technological education programs can also provide students with job skills through the use of specialized equipment and facilities. By investing in the latest technology and equipment, these programs can ensure that students are learning on the same equipment that they will use in the workplace. This is an important way to ensure that students are prepared for the demands of the modern workforce.

By focusing on these three areas, advanced technological education programs can ensure that they are providing students with the job skills they need to succeed in the workforce.

Read the full article: [Job Skills](#)

Up and Coming: Research in the Field of Advanced Technological Education

by Dr. Robert W. Hargrave, Director of the Center for the Advanced Technological Education Research, San Francisco State University

The field of advanced technological education is a rapidly evolving one, and it is one that is attracting increasing attention from researchers and practitioners alike. In this article, we will explore some of the most up-and-coming research in the field of advanced technological education, and we will discuss the implications of this research for the future of the field.

One of the most important areas of research in the field of advanced technological education is the study of the effectiveness of different teaching and learning practices. This research is important because it allows us to understand what works best in the classroom, and it provides us with the evidence we need to make informed decisions about our programs and practices. Some of the most recent research in this area has focused on the use of technology in the classroom, and it has found that technology can be a powerful tool for enhancing learning and engagement.

Another important area of research in the field of advanced technological education is the study of the needs of the workforce. This research is important because it allows us to understand what skills and knowledge are most in demand by employers, and it provides us with the information we need to ensure that our programs are meeting those needs. Some of the most recent research in this area has focused on the need for advanced technological education to be more closely aligned with the needs of the workforce, and it has found that this is one of the most important challenges facing the field.

Finally, another important area of research in the field of advanced technological education is the study of the barriers to access and completion. This research is important because it allows us to understand what factors are preventing students from accessing and completing advanced technological education programs, and it provides us with the information we need to develop strategies to address these barriers. Some of the most recent research in this area has focused on the need for advanced technological education to be more accessible to a wider range of students, and it has found that this is one of the most important challenges facing the field.

By focusing on these three areas of research, we can ensure that we are staying up-to-date on the latest research in the field of advanced technological education, and we can ensure that we are using this research to inform our programs and practices. This is an important way to ensure that we are providing the best possible education to our students, and it is a way to ensure that we are meeting the needs of the workforce for the long term.

Read the full article: [Up and Coming: Research in the Field of Advanced Technological Education](#)

http://ateimpacts.net

ATECENTRAL Internet Scout

ATE Impacts Blog

Questions? Find **ATECENTRAL** Here

Showcase Booth 001

Archiving with ATE Central
Thursday 10:10am
Embassy

Universal Access Lab
Thursday 7:15am-3:30pm
Committee

ATE Getting Started
Meet and Greet
Friday 10:15am
Bird Cage Walk

<http://atecentral.net>

<http://ateimpacts.net>

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archiving@atecentral.net

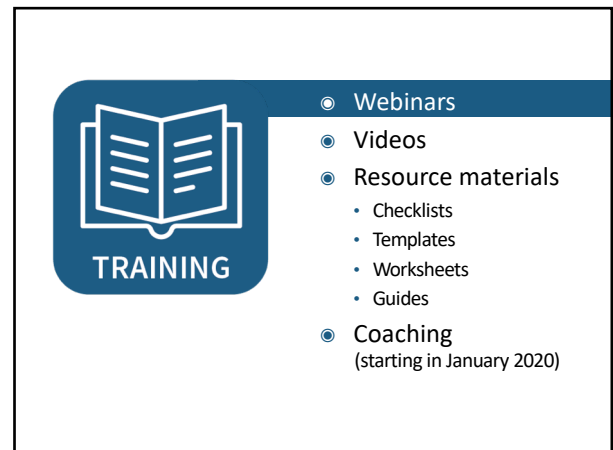
ealmasy@scout.wisc.edu

ATECENTRAL Internet Scout

ATE PI Conference App



ATECENTRAL Scout



WEBINAR

Impact Evaluation

Why, What, and How

evalu-ate.org/webinars

December 11, 2019
 1 – 2 p.m. ET

ATE SURVEY

- Gathers data on ATE program activities and achievements
- Review with your evaluator
- >90% of ATE PIs respond
- Required by NSF

ATE SURVEY

- Gathers data on ATE program activities and achievements
- Review with your evaluator
- >90% of ATE PIs respond
- Required by NSF

Questions are based on the activities in which your ATE project engages:

- Academic Program Development and Delivery
- Educational Materials Development
- Instrument Acquisition
- Student Services and Support
- Professional Development
- Professional Exchange
- Research and Publications
- ATE Program Service
- Collaboration
- Evaluation

I can get data on the students who participate in my project from _____.
 (e.g., office, person, other resource)

Getting these data will be _____.
 (e.g., super easy, a challenge, impossible)

January
February
March

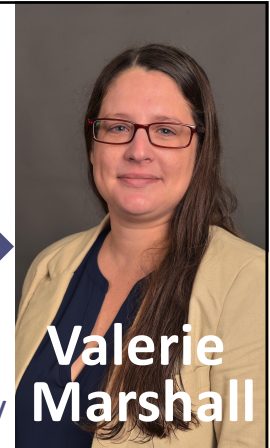
Project and PI info confirmed
Survey opens
Survey closes

October-
November

Reports released

- 2020 ATE Survey Question Preview
- FAQs
- Past Reports
- Friendly Staff

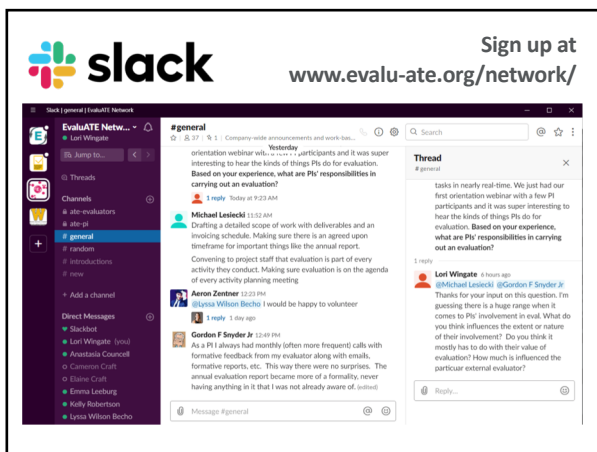
- 2020 ATE Survey Question Preview
- FAQs
- Past Reports
- Friendly Staff**



- Slack community
- Web chats
- Community-driven activities TBD



- Slack community
- Web chats
- Community-driven activities TBD





GETTING STARTED INFORMATION CARD



Name _____

Project Title _____

Evaluator's Name _____

Evaluator's Email _____

Question about evaluation _____





- ATE Evaluation Task Framework Validation
- Evaluation Services Procurement
- Evaluation of Equity, Diversity, and Inclusion
- Use and Impact of Evaluation

EvaluATE Overview

Getting Started with Evaluation

Evaluation at the Conference



EVALUATION

Systematic determination of a project's quality and impact.

1. Ask important **questions** about project implementation and outcomes

2. Gather **evidence**

EVALUATION

4. **Use and share** the information

3. Interpret **findings**



What will success look like in your project?

Do you have strategies in place to capture evidence of this success?

Who could name their project's evaluator?



Launch a Successful Evaluator-Client Partnership

- Schedule regular meetings with your evaluator.
- Work with your evaluator to create a project evaluation calendar.
- Keep track of what you're doing and who is involved.



EvaluATE Overview

Getting Started with Evaluation

Evaluation at the Conference



Visit with EvaluATE at Booth 2 at all showcases

EVALUATOR

Chat with evaluators

Look for their black Evaluator badges



Attend sessions in Track 4

Advancing Innovation through STEM Research and Evaluation



Meet with EvaluATE staff at the

ATE Getting Started

Meet and Greet

Friday 10:15-11:15 a.m.

Bird Cage Walk
(Level 2B, near health club)



TRAINING



NETWORK



RESEARCH



ATE SURVEY

www.evalu-ate.org

Mentor-Connect

Elaine Craft, PI Dennis Faber, Co-PI Rick Roberts, Co-PI
 Ellen Hause, Co-PI Emery DeWitt, Co-PI



Mentoring in the ATE Program

Getting Started Pre-Conference Workshop
 ATE PI Conference
 Wednesday, October 23, 2019



Mentoring & Technical Assistance for...

- ♦ Grant writing & funding processes
- ♦ Project start-up and management



Technical Assistance

Resources


Help desk

Mentors

Leadership Development



Timeline ---So Much to Do!



When to do What?

NSF Grant Management Checklist: Getting Started

NSF Grant Management Checklist: Getting Started

	Year 1		Year 2	
	0-6 Months	6-12 Months	0-6 Months	6-12 Months
Budget Management	✓✓✓	✓✓	✓✓	✓
Communication Needs	✓✓	✓✓	✓✓	✓✓
Grant Management/Implementation	✓✓✓	✓✓✓	✓✓	✓✓
Evaluation	✓✓	✓✓	✓✓	✓✓
Dissemination		✓	✓	✓
Advisory Board(s)/ NVC's	✓✓	✓✓	✓	✓
Report Preparation		✓	✓	✓

✓ = Emphasis/Time/Attention

Grant Team Administration & Management

- ♦ Internal & External Communication Processes & Tools
- ♦ Building/Maintaining Internal Support
- ♦ Advisory Committee Roles
- ♦ Speed Bumps & Conflicts



- ♦ Business & Grants Office
 - ♦ Responsibilities/Authority
 - ♦ Time & Effort Reporting
 - ♦ NSF/College Budget Alignment
 - ♦ Contracting Processes/Responsibilities
 - ♦ Budget Monitoring

• 7



- ♦ Data



DATA



KNOWLEDGE



ACTION

- ♦ Golden Rule



• 11



Leadership Development and Outreach for ATE

NSF DUE #1501183 & #1840886

Elaine Craft, Principal Investigator

Co-PIs: Dennis Faber Ellen Hause Emery DeWitt (Project Manager) Rick Roberts

SC ATE Center of Excellence
Florence-Darlington Technical College
Florence, SC 29501-0548

www.Mentor-Connect.org

Mentor-Connect@fdc.edu

(843)676-8840



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SUPPLEMENTARY



Annual Report Template Sections

Accomplishments

- What are the major goals of the project?
- What was accomplished under these goals (you must provide information for at least one of the 4 categories below):
- Major activities
- Specific Objectives
- Significant results
- Key outcomes or other achievements
 - What opportunities for training and professional development has the project provided?
 - How have the results been disseminated to communities of interest?
 - What do you plan to do during the next reporting period to accomplish these goals?

What Happened during this period?

- **Products**
 - Journal articles
 - Websites
- **Participants (Senior Personnel – not workshop participants)**
 - What individuals have worked on the project?
 - What other organizations have been involved as partners?
 - Have other collaborators or contacts been involved?

Impacts

- What is the impact on the development of the principal discipline(s) of the project?
- What is the impact on other disciplines?
- What is the impact on the development of human resources?
- What is the impact on physical resources that form infrastructure?
- What is the impact on institutional resources that form infrastructure?
- What is the impact on information resources that form infrastructure?
- What is the impact on technology transfer?
- What is the impact on society beyond science and technology?

Changes

- Changes in approach and reasons for change
- Actual or anticipated problems or delays and actions or plans to resolve them
- Changes that have a significant impact on expenditures
- Significant changes in use or care of human subjects
- Significant changes in use or care of vertebrate animals
- Significant changes in use or care of biohazards

Special Requirements

Respond to the items in this section if they are applicable.

- **Mention any requests submitted to FastLane/Research.gov Notifications and Requests.** For example, you may have submitted a request for significant modifications to the scope of work or reallocation of funds originally budgeted for participant support. You can see the web site for a complete list of notifications and requests.
- **NOTE:** NOTIFICATIONS AND REQUESTS ARE A SEPARATE FastLane/Research.gov action. Merely including this information in your annual report is not sufficient.

Attachments

- You must put relevant information into the appropriate text boxes and ONLY attach PDF files as backup documentation. Among the things that are appropriate to send as PDF attachments are:
- Evaluation information such as reports from your Advisory Committee and evaluators. These are often confidential or preliminary and not appropriate to be broadly shared.
- Charts, graphs, data tables, pictures, news articles, and similar material that cannot be represented in text-only format.
- Documents that are too long to be included in the text boxes, such as modules or short publications.

FastLane Help: 1-800-673-6188

Research.gov Help: 1-800-381-1532

Special Tips:

The PI develops the annual report. This should NOT be a copy and paste of the evaluation report. The evaluation report should be uploaded with the annual report (it is NOT your annual report).

Final Report and Project Outcomes Report: see PAPPG

PAPPG Scavenger Hunt

An important resource for the successful completion of an NSF grant is the *Proposal and Awards Policies and Procedures Guide* (PAPPG). This is a dynamic document and is usually updated annually, so it is a good practice to always check that you are working with the current version. As of today, the current version is NSF 18-1 and the link is: https://www.nsf.gov/pubs/policydocs/pappg18_1/index.jsp

Below are a set of common questions PIs have related to managing an award, along with a link to the current PAPPG guidance. See if you can find the answers!

One of my coPIs is moving to another college. Can she remain a coPI on my project?

Read the section on "Changes in PI/PD, co-PI/co-PD or Person-Months Devoted to the Project".

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_7.jsp#VII B2 (<https://bit.ly/2PD1Y7Y>)

We budgeted too much for student stipends and not enough for supplies and materials. Can I change my budget?

Read the "Research Terms and Conditions Appendix A: Prior Approval Matrix".

https://www.nsf.gov/bfa/dias/policy/fedrtc/appendix_a.pdf (<https://bit.ly/2P06tN2>)

We want to have an end of the semester pizza party to celebrate, along with a T-shirt raffle. Can I use grant funds to pay for this?

Read the section on "Allowable and Unallowable Costs".

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_2.jsp#II C2gxiii (<https://bit.ly/2CkSLgM>)

We got off to a slow start our first year and, now that the grant is ending, we have unmet objects and unspent funds. What do I do?

Read the section on "Changes in a Grant Period".

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_6.jsp#VID3 (<https://bit.ly/2yktZuK>)

We are making a presentation at a conference. How do we acknowledge the NSF?

Read the section on "Publication/Distribution of Grant Materials".

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_11.jsp#XIE (<https://bit.ly/2RSWTKr>)

Also read "NSF Logos and Usage Standards".

<https://www.nsf.gov/policies/logos.jsp> (<https://bit.ly/2COt09O>)

Does my final report have to cover the entire award period?

Read the section on "Technical Reporting Requirements".

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_7.jsp#VIID (<https://bit.ly/2CiJeXA>)

Our original IRB was only for a single year. Now that the award has been made, do I need to renew it?

Read the section on "Human Subjects".

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_11.jsp#XIB1 (<https://bit.ly/2Owaw4j>)

After implementing the grant, we determined that we will have changes in the objectives and scope of the project. Now that the award has been made, do I need to inform of the change?

Read the section on "Changes in project direction or management".

https://www.nsf.gov/pubs/policydocs/pappg18_1/nsf18_1.pdf (<https://bit.ly/2Eq4ZHV>)

PAPPG Scavenger Hunt

I am moving to another institution. What are my options for the grant? If both institutions agree, how do I transfer my grant to the new institution?

See “Disposition of a grant when a PI/PD transfers from one organization to another organization”.

https://www.nsf.gov/pubs/policydocs/pappg18_1/nsf18_1.pdf (<https://bit.ly/2Eq4ZHV>)

I am planning on applying for a patent based on the work of my ATE grant. What are the rules of NSF?

Please see the section on “Intellectual property”.

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_11.jsp (<https://bit.ly/2QSHMPO>)

The start date for my award is later than the proposed timeline, is it possible to request an early start date?

Read the section on “Conflicting guidelines”

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_10.jsp#XA2b

(<https://bit.ly/2OtXowA>)

Is it possible to request an early start of the budget to claim these expenses that have occurred prior to the actual start date?

Read the section on “Pre-Award (Pre -Start -Date) Costs”

https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_6.jsp#VID3a

(<https://bit.ly/2J2SvVc>)

Archiving & You

What is an archive?

An archive is a collection of materials—often comprised of primary source documents—that has been preserved for its enduring value. Archives come in all shapes and sizes, from a small personal archive of cherished family photographs to a large state archive encompassing millions of records. Each archive has a unique purpose and scope. For ATE, the Archive is a virtual space where deliverables and select administrative documents are collected, stored, and made available in digital format. By collecting these materials in a single location, the ATE Central Archive broadens the impact and reach of the ATE community as a whole.

Why should I archive?

No matter how far along you are in meeting the goals of your project or center, dissemination and continued access to the materials you create is vital. During the life of your project or center, ATE Central serves as a distribution channel to the greater ATE and STEM communities; as your project or center sunsets, ATE Central becomes a secure place to store your materials over time. Additionally, by archiving your materials in a single location, your colleagues and fellow grantees can benefit from the easy access that a central archive provides.

Am I required to archive with ATE Central?

If so, what must I archive?

New grantees that apply and are awarded funding under solicitation NSF 18-571 are required to archive their deliverables, as described in their initial grant proposals, with ATE Central. It is important to note that those who receive any new funding (e.g. a center that transitions from regional to national or from national to support center; or a project or center that receives a second round of funding) are also required to archive deliverables created under the new award.



Archiving & You

What do I need to know about copyright?

Copyright refers to the legally recognized, exclusive rights that are granted, for a limited time, to the creator of an original work. (To learn more about copyright, please visit <http://copyright.gov>.) These exclusive rights allow the creator to make important decisions as to how the work may be used or distributed; for this reason, we ask that copyright holders visit <http://atecentral.net/archiving> to review NSF's recommended practice for licensing materials created with support from the ATE program.



When should I get started? How do I plan for archiving with ATE Central?

The sooner you prepare to archive with ATE Central, the easier it will be. Ideally, you'll start planning to archive before you create your very first deliverable. If you're already mid-grant or even at the end of your grant, it's not too late! The first step to archiving with ATE Central is to complete our archiving checklist (<http://atecentral.net/archiving>). If you have any questions, please feel free to contact us for help. We'll gladly walk you through the process.

Where can I find more about archiving with ATE Central?

Visit us at <http://atecentral.net/archiving> for a copy of the archiving checklist, submission guidelines, and much more. It's your one-stop-shop for archiving with ATE Central! For questions about archiving with ATE Central, please contact Metadata and Information Specialist, Kendra Bouda, at kbouda@atecentral.net.



More Info:	http://atecentral.net/archiving
About Copyrights:	http://copyright.gov
Creative Commons:	http://creativecommons.org/licenses
Contact:	kbouda@atecentral.net



Grant Management Checklist – Getting Started

- ☐ **COMMUNICATION-PRESS RELEASE:** It is a good practice to issue a press release and otherwise announce receipt of your NSF grant. Your institution is relatively unique among community or technical colleges in receiving funding from the National Science Foundation. It is a notable accomplishment! Press releases should include attribution to the National Science Foundation Advanced Technological Education Program. When a news item appears in print or online, capture it and have the PI send it to the project's Program Officer. NSF logos are available for your project's use:
<https://www.nsf.gov/policies/logos.jsp>
- ☐ **COMMUNICATION-PARTNERS/CONTRACTORS:** Be certain to notify all partner organizations and individuals who assisted with or contributed to your grant proposal that your proposal resulted in a grant award. This includes those who provided commitment letters, your external evaluator (if named in the proposal), your Mentor if you were in a mentoring program like Mentor-Connect, and your team, colleagues, and administrators within your institution. Very often with subsequent grants you will call upon and work with some if not all of the same people/organizations. You want to reinforce at every opportunity that you value their support and assistance, and that their involvement is critical to the success of the project.
- ☐ **FINANCIAL-RECEIVING AWARD FUNDS:** Identify person in business office who will have responsibility for accounting for grant funds. NSF does not send a grant award check to the grantee but rather distributes grant funds by enabling the college to "draw down" funds as expenses are incurred. If your college business office and /or person responsible for grant accounting is new to financial management of NSF grant awards, you may want to share the following information about how to draw down funds. Transactions with NSF are all electronic. To access the Mentor Connect tutorial demonstrating how to draw down funds, go to www.Mentor-Connect.org, Visit Our Library, and then use the search term "NSF Funds." Alternately, use this link: <https://library.mentor-connect.org/index.php?P=SearchResults&FK=nsf+funds>
- ☐ **FINANCIAL-TRACKING/MANAGING GRANT FUNDS:** The PI needs to make sure he or she knows the specific budget codes the college has assigned to your grant budget line items. Codes will be assigned when the grant budget is loaded into the college's accounting system. There will likely be far more college codes assigned than grant line items in the NSF budget. The PI and others who will have budget authority for the grant need to thoroughly understand the cross-walk between the two. *BEST PRACTICE TIP:* Add college-assigned budget codes to purchase requisitions and reimbursement requests as well as to personnel and other contracts at the project level prior to submitting or forwarding for payment. Only project personnel understand what each expense is and where it fits into the overall project budget. The risk of error is greater if this coding is done by someone less familiar with the grant budget. If participant support costs are involved, it is especially important that mistakes in payment coding be avoided.

☐ **FINANCIAL-REPORTS:** The PI should confirm with the business office how and when reports of grant accounting will be provided to the PI and appropriate administrators. There is always a lag time between when these reports become available and when an expense was approved for the grant. It is important to keep up with grant expenditures throughout the life of the project. *BEST PRACTICE TIP:* Keep a separate spreadsheet accounting system for PI/project team use that lists expenditures as they are incurred or requested so that remaining budget amounts by category are readily available to guide future spending decisions. In-project accounting can then be compared to college reports when they become available to make sure that there are no discrepancies. It is not unusual for expenses to be incorrectly coded which can result in an expense being charged to the wrong line item; or worse, expenses incurred elsewhere at the college may inadvertently be charged to the grant. Someone working with the project outside the business office who thoroughly understands the grant budget needs to keep an eye on the money.

☐ **DATA – WITHIN PROJECT/INSTITUTION:** As quickly as possible, determine what data you need to collect for your project and where the data are located. If requests for data will need to be made to your college institutional research person/office (IR), be very specific about what you need and when you will need it. Work with IR to make sure you understand the specific information that you will need to provide for data to be pulled from college databases. Data queries require details you may not have considered. Consult with your evaluator about data requirements and be sensitive to requirements for protecting student data. Adhere to IRB requirements and your Data Management Plan.

☐ **DATA - PARTNERS:** Timely collection of data from partners is perhaps one of the most challenging tasks for any PI. As partnership agreements are put in place for your project (e.g., contract, memorandum of agreement, subaward), always make delivery of essential data integral to the agreement. Make expectations clear from the start. On occasion, it may be essential to withhold grant-funded financial support from an external entity to stimulate or ensure cooperation. When having this data is essential to project evaluation and to assess and document project outcomes and impact, partners who can't or won't provide data about their students or other essential data will detract from your project and chances of success. Allowing this to happen could also negatively impact your ability to receive future grant funding that will require strong results of prior support. Be tough about this. It is important. Again, adhere to IRB requirements and your Data Management Plan.

☐ **HUMAN RESOURCES-PROJECT PERSONNEL:** Reread the project proposal carefully, noting all personnel who are named. Individuals receiving compensation or release time should appear in the project description, in the budget/budget justification, and in a list of individuals who will receive funding from the grant (a required proposal document). Make sure that all named individuals understand the time commitment made to the project, or release time that is to be provided. Work with appropriate administrators to get faculty and personnel schedules set up for grant implementation. Be sensitive to the fact that relieving faculty from teaching responsibilities to work on a grant-funded project can be very challenging for those who manage class scheduling and faculty loading. Whether grant-supported time is within normal work schedule or an individual is being compensated via overload or stipend, reinforce the importance of each individual dedicating the time to grant work that has been planned and/or is necessary to achieve project goals.

☐ **HUMAN RESOURCES-GRANT FUNDS ALLOCATION:** The PI should make sure that the college human resources (HR) department knows if a portion of any employee's salary is to be charged to a grant. If there are part-time contracts or overload pay amounts to be charged to the grant, HR should know this

in advance of the work being done. It may be the PI's supervisor or someone else needs to have this conversation with HR, but the PI can alert the appropriate person and provide information for this communication. *BEST PRACTICE TIP:* Code each personnel request with the appropriate budget code that aligns with the budgeted funds for payment.

☐ **TIME & EFFORT REPORTING:** This is a requirement for anyone receiving grant-funded compensation (including an adjunct faculty teaching to provide release time for another person) and anyone receiving grant-funded release time. Forms that meet NSF expectations and instructions are available from the Mentor-Connect Resource Library. Click on Visit Our Library, use search term "Time and Effort," or access via this link:

<https://library.mentor-connect.org/index.php?P=SearchResults&FK=time+and+effort>

☐ **EVALUATION-GETTING STARTED:** The PI needs to jump-start this activity. The grant proposal included an evaluation plan, but the plan should be reevaluated and perhaps expanded upon as this activity begins. The PI needs to make sure that the evaluator has a contract (or that the bid process has been initiated if the college will hire an evaluator for the project by issuing a request for proposals (RFP) to which prospective contractors will respond with a bid for the contract). This will not happen automatically! Someone must request that these actions be taken. *BEST PRACTICE TIP:* If there were adjustments to the project made during pre-funded negotiations with NSF, this may impact the evaluation plan. Any changes should be discussed with the evaluator and/or may need to be incorporated in a RFP.

☐ **EVALUATION-RESOURCES:** Evaluation should be integral to your project. For information, tools, and resources to enhance this component of your NSF ATE grant, seek out the services of EvaluATE, an NSF ATE-funded resource for ATE grantees. www.Evalu-ATE.org

☐ **EVALUATION-ATE SURVEY:** In addition to the specific data and information needed by your evaluator for your project, other data and information are likely to be needed for the project to respond to the annual ATE Program Survey. This survey is administered by EvaluATE, an NSF ATE-funded initiative based at the Evaluation Center at Western Michigan University. All PIs are expected to respond to this survey and provide requested information. The survey is administered in the February-March timeframe each year.

A new survey is under development for 2019, but to get an idea of what to expect, the 2018 survey instrument may be accessed at <http://www.evaluate.org/wp-content/uploads/2018/02/ATE-Survey-2018-1.pdf> (on the EvaluATE website).

☐ **PROJECT WORK-MANAGING TIMELINE:** It has likely been many months since the grant team finalized and submitted the proposal. Once an award letter is received, encourage project team members to re-read the project proposal. Very often, work plans and timelines included in the proposal will need far more specificity than could be included in the proposal to be a good guide for project implementation. Begin by expanding the work plan for the first year, confirming activities, deadlines, and responsibilities. For example, preparing for the ATE PI Conference is an activity that will occur relatively early in the grant year, and work on this may begin as early as the first of July each year when conference information is distributed by the American Association of Community Colleges (AACC) who produces this conference for ATE grantees.

☐ **PROJECT WORK-AS ATE GRANTEE:** Are you having fun yet? As you launch your project and reflect on all of the work you have committed to do, take time to enjoy what you are doing and to appreciate the privilege that it is to have an ATE grant that empowers you to make a difference. The toughest part may be start up, when new activities and procedures are being initiated, and you don't yet know what impact your work will have. Keep the faith! You may be amazed at all you accomplish by actually implementing your project. Also remember that help is just an email or phone call away. ATE Program colleagues and Program Officers are available and want to help you overcome the challenges that are inevitable with any project that designed to bring about change.

☐ **PROJECT WORK-ANNUAL REPORT TO NSF:** Annual reports become due 90 days before the anniversary date of your grant award. The report must be submitted prior to the anniversary date, and submitting your report about a month prior to this deadline is preferred. Mentor-Connect Resource Library resources are available to help: Program Officer tips for preparing your annual report, Guidance in submitting annual reports via Research.gov, and helpful hints from experienced PIs about how to organize and collaborate on report writing and submission. www.Mentor-Connect.org, Find a Resource.

☐ **DISSEMINATION-SHARING PROJECT INFORMATION:** It will be awhile before you have significant outcomes or products to share with others, but keep in mind that proposals to present at conferences must be submitted far in advance of the actual event. In the meantime, focus on developing clear communications about what your project will accomplish when successfully completed and who can benefit from what you have done and what you expect to learn about technician education in the process. Take an "elevator speech" approach to quickly and succinctly explain your project work (don't expect others to read descriptions excerpted from your grant). Use pictures and graphics to tell your story and as few words as possible. Check out the "ATE Outreach Toolkit" among resources available from ATE Central, <https://ATECentral.net>.

☐ **DISSEMINATION-WEBSITE(S):** Having your project information accessible via Internet is often an important component of a dissemination plan. However, don't expect to "build it and they will come." If you have a web presence, you need to proactively work to give people a reason to seek out information about your project and make it easy for them to look you up. *BEST PRACTICE TIP:* quickly set up a web presence for your project by working with ATE Central to establish a "microsite," which they provide for ATE grantees at no cost. You can quickly upload basic information about your project, and you will have a URL to distribute for your project. This will be much faster and more cost effective than creating web pages for your project within your college's website or creating a stand-alone, external website for your project. Should your project evolve into a larger initiative later, microsite content can be transferred to a more complete project website. Go to <https://ATECentral.net> and then find microsite service under the Resources tab. This is the direct link: <https://atecentral.net/microsites>.

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