



Mentor-Connect Quick Reference Guide

Preparing Forms for Your NSF ATE Proposal

NOTE: This reference guide has been updated since the webinar to address recent changes to Research.gov, including updates to the Senior/Key Personnel Documents that were discussed in the webinar.

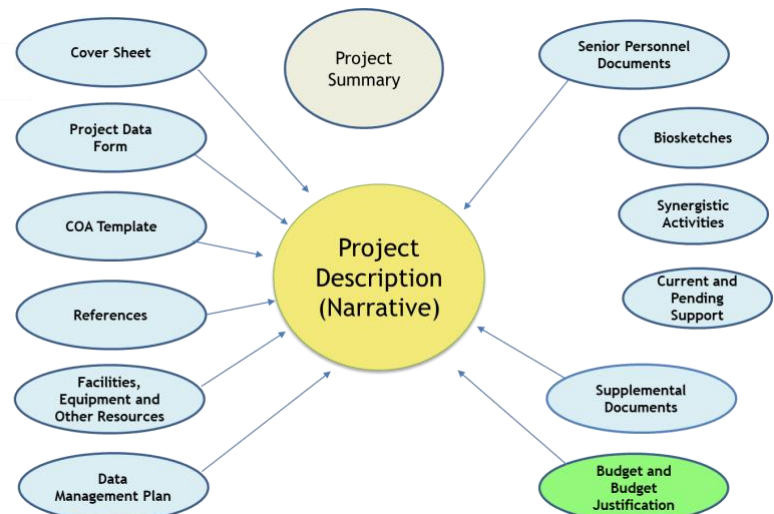


This reference guide will assist you with an important process - correctly preparing and submitting the forms that will be part of your grant proposal to the National Science Foundation's Advanced Technological Education Program.

It is based on a Mentor-Connect webinar, conducted May 8, 2024, which is available as a recording in the resource library at Mentor-Connect.org. Webinar presenters were Mentor-Connect PI Elaine Craft, Co-PIs Emery DeWitt and Pamela Silvers, and Mentor-Fellows Leader Matthew Swenson.

It is easy to underestimate how long it will take to complete the forms. The forms can exceed 60 pages, so begin work on them early to ensure that they are ready and error-free before the due date! Certain errors can result in your proposal being returned without review. Other errors can signal carelessness and give reviewers a negative impression of your work.

The following pages focus mainly on the forms shown in blue in this diagram. The Project Description and one-page Project Summary are key components of all proposals, but they are addressed relatively briefly since they are covered in detail elsewhere for Mentor-Connect participants. The Budget and Budget Justification will be addressed in a separate, May 22, 2024, webinar for which a recording and reference guide will be available in the Resource Library.



Before you begin working on the forms:

1. Become familiar with two critical resources

- The Proposal and Award Policies and Procedures Guide (PAPPG): NSF 24-1 (Section II) - <https://new.nsf.gov/policies/pappg/24-1>
- The current ATE Program Solicitation:
NOTE: NSF 21-598 is no longer in effect. You can review it at <https://www.nsf.gov/pubs/2021/nsf21598/nsf21598.htm> for general information.

Study the proposal preparation guidelines in both documents very carefully. Make sure that you use the current versions, since older versions remain online. The PAPPG is updated annually, and the 2024 version is now in effect. *The ATE Program Solicitation is updated every three years, and the 2024 version will be published very soon. Use the 2021 version in the meantime but watch carefully for publication of the new version.*

Both documents can be accessed from the search engine on the NSF website (www.nsf.gov): use search term NSF 24-1 for the PAPPG and 21-598 for the 2021 ATE Solicitation. When the 2024 ATE Solicitation is available, it will be identified as NSF 24-XXX (where XXX indicates the NSF-assigned number). If you sign up on the NSF website to receive publications, you will be notified when it is published.

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Proposal & Award Policies & Procedures Guide (PAPPG)

NSF 24-1: Effective for proposals submitted or due on or after May 20, 2024

View image credit

Proposal & Award Policies & Procedures Guide (PAPPG) (NSF 24-1)

PAPPG - printable version (PDF)

Summary of Changes to the PAPPG

Table of Contents

Introduction +

Part I: Proposal Preparation and Submission Guidelines -

I: Pre-Submission Information

II: Proposal Preparation Instructions

III: NSF Proposal Processing and Review

IV: Non-Award Decisions and Transactions

V: Renewal Proposals

Part II: Award, Administration and Monitoring of NSF Assistance Awards +

PAPPG (NSF 24-1) dated January 22, 2024 (PDF, 2.94 MB)

Summary of Changes to the PAPPG

Table of Contents

Introduction

A. About the National Science Foundation

The National Science Foundation (NSF) is an independent Federal agency created by Congress in 1950 to "promote the progress of science; [and] to advance the national health, prosperity, and welfare" by supporting research and education in all fields of science and engineering.

From those first days, NSF has had a unique place in the Federal Government: it is responsible for the overall health of science and engineering across all disciplines. In contrast, other Federal agencies support research focused on specific missions such as health or defense. The Foundation also is committed to ensuring the nation's supply of scientists, engineers, and science and engineering educators.

Section II of the PAPPG covers what you need to know to submit a proposal to any division of the National Science Foundation, including allowable font sizes, margins, and specific requirements for the various proposal components. The ATE solicitation provides critical information for meeting all requirements that are specific to the ATE program.

If information differs between the PAPPG and the Solicitation, defer to the ATE Program Solicitation! Be sure that your PI, Co-PI(s), grants professional, and the AOR (Authorized Organizational Representative) know this and have access to both key documents.

2. Identify your Authorized Organizational Representative (AOR).

The AOR is your college's representative to NSF for authorizing and submitting NSF proposals on behalf of the institution. You will see more about the AOR's role below.

3. Register in Research.gov.

This is a task for your AOR, who will register your institution, along with the project PI, Co-PI(s), other senior personnel, appropriate Business Office personnel, and anyone else who may require access to the grant proposal or other functions, such as requesting grant funds, that are related to the proposal. Once registered and granted specific permissions, individuals can log in with temporary passwords set by the AOR, then set their personal passwords. If the college and any of the relevant individuals have previously been registered in Fastlane, those registrations should have automatically transferred to Research.gov (you should verify this).

4. Decide who will be responsible for inputting proposal information and uploading content.

This is usually the PI or the grant writer. Remember that all forms and proposal content can be uploaded and "parked" in Research.gov for later completion or revision. Content can be uploaded, replaced, or edited continuously prior to submission. Nothing is final until the AOR hits "submit" to transmit the proposal to NSF.

Using Research.gov

Some college grant professionals are accustomed to submitting grants to federal agencies through Grants.gov. However, for ATE grants you will need to use Research.gov because:

- Only Research.gov provides all the required forms.
- Any proposal submitted through Grants.gov will be transmitted to NSF rather than received directly by NSF. Transmission delays could result in a missed deadline.

Additional advantages of Research.gov include:

- A fast and easy-to-use wizard
- Immediate compliance feedback when you upload documents
- Stable uploads of PDFs
- On-screen links to the relevant sections of the PAPPG

NOTE: You will be using Research.gov as the NSF platform for grants management when your proposal is funded so registering now will save you double work.

Steps for proposal preparation and submission

1. Open Research.gov and sign in with your login and password. If you do not already have an account, use the “New to NSF?” link to register and create an account.

NSF User Sign In

Use your Primary Email Address, NSF ID, LOGIN.GOV or your organization credentials to sign in to Research.gov

NSF Account

Primary Email Address or NSF ID

Forgot ID

Password

Forgot Password

Sign In

New to NSF? Register

Organization Credentials

Pick Your Organization

Select an Option

Sign In

Login.gov Credentials

LOGIN.GOV

Sign In

Don't see your organization? [Learn more](#) / [Register for InCommon](#)

Sign In for NSF Staff

2. Under Proposals, select **Prepare and Submit Proposals** to begin using the system. If you see a pop-up that asks if you want to continue to the proposal system, click to go to the next screen, shown. (If you need more guidance, click on **Demo Site** before you begin preparing your proposal.)

Proposals

- [Prepare and Submit Proposals](#) (Letters of Intent, Preliminary, Full, Renewal, Postdoctoral Fellowships and SBIR/STTR)
- [Demo Site: Prepare Proposals \(Training\)](#)
- [Proposal Status](#)

3. On the next screen, under Prepare New, select **Full Proposal**. When you return to work on the proposal after this initial log-in, use the In Progress tab to access your previous work.

Letters of Intent and Proposals (Preliminary, Full, and Renewal)

What would you like to work on?

Prepare New

Answer a few questions to set up letters of intent or proposals (including renewals).

Prepare New

- Letter of Intent
- Preliminary Proposal
- Full Proposal
- Renewal Proposal
- Accomplishment-Based Renewal

In Progress

Continue working on a previously prepared letter of intent or proposal that has not yet been submitted to the NSF.

Work with In Progress

Submitted and Updates

View or download a submitted letter of intent or proposal. Perform a Proposal File Update/Budget Revision on a submitted proposal.

View/Update Submitted

- Proposal File Update (PFU) / Budget Revision
- Proposal Withdrawal

4. Next, select the relevant NSF solicitation, i.e. Advanced Technological Education. Note that funding opportunities are listed by solicitation number, and remember that the current ATE solicitation, 21-598 has expired and is being replaced.

Select	Funding Opportunity Number	Funding Opportunity Title
<input type="radio"/>	NSF 22-1	Proposal & Award Policies & Procedures Guide - PAPPG
<input type="radio"/>	NSF 22-595	Engineering Research Initiation
<input type="radio"/>	NSF 22-594	Leading Engineering for America's Prosperity, Health, and Infrastructure

Select	Funding Opportunity Number	Funding Opportunity Title
<input type="radio"/>	NSF 21-621	Human-Environment and Geographical Sciences Program - Doctoral Dissertation Research Improvement
<input type="radio"/>	NSF 21-616	Computer and Information Science and Engineering (CISE): Core Programs
<input type="radio"/>	NSF 21-611	Facility and Instrumentation Request Process
<input type="radio"/>	NSF 21-609	Ecology and Evolution of Infectious Diseases
<input type="radio"/>	NSF 21-607	NSF-Simons Collaboration on a National Institute for Theory and Mathematics in Biology
<input type="radio"/>	NSF 21-606	Research Experiences for Teachers (RET) in Engineering and Computer Science
<input type="radio"/>	NSF 21-600	Division of Materials Research: Topical Materials Research Programs
<input type="radio"/>	NSF 21-598	Advanced Technological Education

5. Next, you will see a verification screen. Make sure that Advanced Technological Education is listed for both the Funding Opportunity (i.e. the solicitation) and the Program. If so, everything else on this screen will also be correct. If not, use the “previous” button and make any corrections.

Prepare New Full Proposal

1. Funding Opportunity ✓
2. Where to Apply ✓
3. Proposal Type
4. Proposal Details

Confirm Where to Apply

i Additional programs, including those that are not identified in the funding opportunity, can be added once the proposal is created.

Your proposal will be directed to the following NSF program. Click 'Next' to continue.

Funding Opportunity
NSF 21-598 - Advanced Technological Education

Directorate/Office
Direct For Education and Human Resources (EHR)

Division
Division Of Undergraduate Education (DUE)

Program
Advanced Tech Education Prog

Previous
Next

6. On the next screen, you will select the Proposal Type. Select **Research**. All ATE proposals are designated as Research, since they are considered applied educational research.

The screenshot shows the 'Prepare New Full Proposal' interface. At the top, there is a progress bar with four steps: 1. Funding Opportunity, 2. Where to Apply, 3. Proposal Type (highlighted in dark blue), and 4. Proposal Details. Below the progress bar, the heading 'Select Proposal Type' is followed by the question 'What type of proposal will be used?'. A list of proposal types is provided, with 'Research' selected and circled in red. Other options include Planning PAPPG II.E.1, Rapid Response Research (RAPID) PAPPG II.E.2, Early-concept Grants for Exploratory Research (EAGER) PAPPG II.E.3, Research Advanced by Interdisciplinary Science and Engineering (RAISE) PAPPG II.E.4, Grant Opportunities for Academic Liaison with Industry (GOALI) PAPPG II.E.5, Ideas Lab PAPPG II.E.6, Facilitation Awards for Scientists and Engineers with Disabilities (FASED) PAPPG II.E.7, Conference PAPPG II.E.9, Equipment PAPPG II.E.10, Travel PAPPG II.E.11, Center PAPPG II.E.12, and Research Infrastructure PAPPG II.E.13.

7. The following screen asks for additional proposal details. Most of you will indicate that you are developing a single proposal, rather than a more complex collaborative proposal. In this location you will provide the proposal title. Make certain the title reflects the purpose of your project. Do NOT try to come up with a cute acronym and make the name match! Remember that if your focus shifts, the title can be edited.

The screenshot shows the 'Prepare New Full Proposal' interface at the 'Proposal Details' step. The progress bar shows steps 1 through 4, with '4. Proposal Details' highlighted in dark blue. The heading 'Proposal Details' is followed by the question 'What type of proposal are you submitting?'. Two options are listed: 'Single proposal (with or without subawards)' (selected) and 'Separately submitted collaborative proposal'. A red arrow points to the 'Single proposal' option. To the right, there is a section titled 'What is a Collaborative Proposal?' with a brief description and a link to 'Methods to submit collaborative proposals'. Below this, the 'Proposal Title' field is highlighted with a red box. The field is empty and has a character count of '0 of 180 characters'. At the bottom right, there are two buttons: 'Previous' and 'Prepare Proposal'.

8. Click on **Prepare Proposal** to go to the Control Page. You will provide information for all items except the last one, which is for postdoctoral students. When you click on an item, a hot link will take you to the section for that item (which might be a form to complete or a document to upload). Under Compliance Status, the words “*Form not checked,*” means that this proposal component is a form that is going to be completed within the Research.gov site. “*Document unavailable for check,*” indicates that this is a document

that you will create and upload. When you upload a document, compliance information for that item is automatically provided. The center column shows the date when you last updated it.

This reference guide will cover the topics on the control page in the order that they were addressed in the webinar. Remember that the Budget and Budget Justification will not be covered since they will be the focus of a separate webinar on May 22, 2024. A separate reference guide will be based on that webinar.

CONTROL PAGE

Proposal Actions	Proposal Sections	Last Updated	Compliance Status <small>[Key]</small>
<div style="background-color: #00728f; color: white; padding: 5px; margin-bottom: 5px;">Share Proposal with SPO/AOR i</div> <div style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;"><input checked="" type="checkbox"/> Check Error(s) and Warning(s)</div> <div style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;">Manage Personnel and Subaward Organizations</div> <div style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;">Print Proposal</div> <div style="background-color: #f0f0f0; padding: 5px; margin-bottom: 5px;">Delete Proposal</div> <div style="background-color: #00728f; color: white; padding: 5px; margin-top: 10px;">Proposal Details</div> <div style="background-color: #f0f0f0; padding: 5px; margin-top: 5px;"> Proposal Status: Not Shared with SPO/AOR </div> <div style="font-size: 0.8em; margin-top: 5px;">Helpful Links</div>	Required		
	Cover Sheet		Form not checked
	Project Summary		Document unavailable for check
	Project Description		Document unavailable for check
	References Cited		Document unavailable for check
	Budget(s)		Form not checked
	Budget Justification(s)		Document unavailable for check
	Facilities, Equipment and Other Resources		Document unavailable for check
	Senior/Key Personnel Documents i		Document unavailable for check
	Data Management and Sharing Plan		Document unavailable for check
Project Data Form		Form not checked	
Mentoring Plan		Document unavailable for check	
	i Conditionally required		

Cover Sheet

Start preparing your proposal by clicking on the Cover Sheet hot link on the control page (the first item in the list above.) It provides NSF with administrative details and data that are required for a proposal and with certifications that all statements in the proposal are true and that the college is following the appropriate federal grant regulations.

Project start date and duration

The most frequently requested ATE project start dates are June 1, July 1, and September 1. Your business office may prefer a July 1 start date so that the grant budget year aligns with the fiscal year at the college. However, if your project involves faculty who are not on contract in the summer, you may want to choose September 1 so that you have personnel on board at the start of the project. You may start the project in another month but do begin on the first day of your chosen month. (Note that requesting an earlier start date will have no impact on when your grant award is made. You can't speed up the funding process by requesting an earlier start date!)

The proposed duration of an ATE project can be either two or three years. Mentor-Connect strongly recommends requesting 3 years (36 months) for maximum flexibility. If you conclude your work in less than 36 months, you can close out the grant early.

Proposal - 8377

Manage Personnel and Subaward Organizations

Required

Cover Sheet

Project Summary

Project Description

References Cited

Budget(s)

Budget Justification(s)

Facilities, Equipment and Other Resources

Senior Personnel Documents

Data Management Plan

Project Data Form

Postdoctoral Mentoring Plan

Cover Sheet

[Give Feedback >](#)

Cover Sheet (PAPPG) [↗](#)

*** Required**

Requested Start Date and Proposal Duration

The requested start date is important to NSF staff; however, requests for specific start dates may not be met. The duration should be consistent with the nature and complexity of the proposed activity.

Requested Start Date (mm/dd/yyyy) ⓘ

*** Proposed Duration**

 Months

Prime Organization

<p>Prime Organization</p> <p>FLORENCE-DARLINGTON TECHNICAL COLLEGE (INC)</p> <p>2715 W LUCAS ST</p> <p>FLORENCE, SC 29501-1242</p> <p>US</p>	<p>Time Zone ⓘ</p> <p>America/New_York (GMT-5:00)</p>	<p>Unique Entity Identifier (UEI)</p> <p>RU92GVPJNNV1</p>
<p>Employer or Taxpayer Identification Number</p> <p>570-42-4007</p>		

As you continue to answer questions on the Cover Sheet, you will find some that you can leave blank because they are not applicable to ATE proposals. One question, for example, is only for prospective grantees that are not colleges or universities. Another is an inquiry on whether the proposal has been or will be submitted to another government entity, which is not something that community colleges are likely to do.

General Information

The next section of the cover sheet asks for information about the place where your project will be performed. In most cases, this will be your college.

Primary Place of Performance

Please edit this information if the work will primarily be performed at a location that is different from the Prime Organization.

*** Organization Name**

*** Country**

*** Street Address**

Street Address (Line 2)

Department Name

*** City**

*** State/Territory** *** Postal Code**

 ZIP Code+4 Lookup (USPS)

Other information

In this section, the question under Human Subjects about Institutional Review Board (IRB) approval applies to all ATE grant applicants. The other questions will not be relevant to most prospective ATE grantees.

Indicate that the IRB review is pending unless your proposal was reviewed by an IRB that issued a determination letter prior to proposal submission. *Note that an IRB determination letter will be required before NSF can award a grant. Be sure to submit your proposal for IRB review while it is being considered for funding at NSF.*

Other Information

Check appropriate box(es) if this proposal includes any of the items listed below. Some selections may require additional information.

- Beginning Investigator (*Biological Sciences Directorate proposals only*) ⓘ PAPPG II.D.2 [↗](#)
- Disclosure of Lobbying Activities ⓘ About Disclosure of Lobbying Activities PAPPG II.C.1.d [↗](#)
- Proprietary or Privileged Information ⓘ PAPPG II.D.1 [↗](#) & II.C.1.c [↗](#)
- Special Exception to the Deadline Date Policy ⓘ About Natural or Anthropogenic Events PAPPG I.F.3 [↗](#)
- Historic Places PAPPG II.C.2.j [↗](#) & XI.J [↗](#)
- Vertebrate Animals PAPPG II.D.4 [↗](#)
- Human Subjects PAPPG II.D.5 [↗](#)

* Has the human subjects research for the project been approved by an Institutional Review Board (IRB)?

Approved Pending Exempt

IRB requirements and language about IRBs can be confusing. It takes one level of IRB review to be completed by the IRB chair to determine if your proposal is “exempt,” which means your proposal is exempt from further review. Should a proposal not be considered “exempt” at the first level of review, then all members of the IRB must review the proposal and other guidelines may apply. ATE proposals are almost always deemed “exempt.”

Eight categories of research qualify for exemption from coverage by the regulations for protection of human research subjects. (Keep in mind that all NSF grant-funded work is considered research.) ATE projects typically fall in the exempt category based on Basic Health and Human Services (HHS) Policy for Protections of Human Research Subjects, Subpart A, subsection 46.104(1), which covers educational settings and subsection 46.104(2), which deals with educational tests, survey procedures, observation of behavior, etc. Review by the IRB chair will determine if your proposal falls into at least one of the 8 categories. If so, your proposal can be declared exempt from further IRB review. The IRB Chair can then issue the determination letter.

Mentor-Connect recommends setting up an IRB at your college instead of relying on another institution to provide IRB review of your proposal. Since establishing an institutional policy and procedure is required to establish an IRB, your college needs to do this well in advance of the time your proposal will be considered for an award. See the Mentor-Connect resource library for guidance on how to establish an IRB; how to train those who will serve on this board; sample templates for submitting your proposal to the IRB for review; and a sample determination letter that is required from that review.

Using the Auto-Check System

When you have completed your Cover Sheet, the auto-check system prevents you from omitting critical information. You will see messages like the examples below if something is missing. If the Cover Sheet is complete, you will see a message saying that it has been saved.

The second page of the cover sheet shows the required college certifications. Note that the Authorized Organizational Representative (AOR) is the only individual who may submit and sign this certification page.

CERTIFICATION PAGE		
<p>Certification for Authorized Organizational Representative(or Equivalent) By electronically signing and submitting this proposal, the Authorized Organizational Representative(AOR) is:(1)certifying that statements made here in are true and complete to the best of the individual's knowledge; and(2)agreeing to accept the obligation to comply with NSF award terms and conditions if an award is made as a result of this proposal. Further, the proposer is hereby providing certifications regarding conflict of interest, flood hazard insurance, responsible and ethical conduct of research, organizational support,and safe and inclusive working environments for off-campus or off-site research, as set forth in the NSF Proposal & Award Policies & Procedures Guide(PAPPG).Willful provision of false information in this application and its supporting documents or in reports required under an ensuing award is a criminal offense(U.S.Code,Title 18,Section§1001).</p>		
<p>Certification Regarding Conflict of Interest The AOR is required to complete certifications stating that the organization has implemented and is enforcing a written policy on conflicts of interest (COI), consistent with the provisions of PAPPG Chapter IX.A; and that, to the best of the individual's knowledge, all financial disclosures required by the conflict of interest policy were made; and that conflicts of interest, if any, were, or prior to the organization's expenditure of any funds under the award, will be, satisfactorily managed, reduced or eliminated in accordance with the organization's conflict of interest policy. Conflicts that cannot be satisfactorily managed, reduced or eliminated and research that proceeds without the imposition of conditions or restrictions when a conflict of interest exists, must be disclosed to NSF via use of the Notifications and Requests module with Research.gov</p>		
<p>Certification Regarding Flood Hazard Insurance Two sections of the National Flood Insurance Act of 1968 (42 USC §4012a and §4106) bar Federal agencies from giving financial assistance for acquisition or construction purposes in any area identified by the Federal Emergency Management Agency (FEMA) as having special flood hazards unless the: (1) community in which that area is located participates in the national flood insurance program; and (2) building (and any related equipment) is covered by adequate flood insurance.</p> <p>By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent) located in FEMA-designated special flood hazard areas is certifying that adequate flood insurance has been or will be obtained in the following situations: (1) for NSF awards for the construction of a building or facility, regardless of the dollar amount of the award; and (2) for other NSF awards when more than \$25,000 has been budgeted in the proposal for repair, alteration or improvement (construction) of a building or facility.</p>		
<p>Certification Regarding Responsible and Ethical Conduct of Research (RECR) (This Certification applies to proposals submitted prior to July 31, 2023, and is not applicable to proposals for conferences, symposia, and workshops.) By electronically signing the Certification Pages, the Authorized Organizational Representative is certifying that, in accordance with the NSF Proposal & Award Policies & Procedures Guide, Chapter IX.B., the institution has a plan in place to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students and postdoctoral researchers who will be supported by NSF to conduct research. The AOR shall require that the language of this certification be included in any award documents for all subawards at all tiers.</p>		
<p>Certification Regarding Responsible and Ethical Conduct of Research (RECR) (This Certification applies to proposals submitted on or after July 31, 2023, and is not applicable to proposals for conferences, symposia, and workshops.) By electronically signing the Certification Pages, the Authorized Organizational Representative is certifying that, in accordance with the NSF Proposal & Award Policies and Procedures Guide, Chapter IX.B., the institution has a plan in place to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, postdoctoral researchers, faculty, and other senior personnel who will be supported by NSF to conduct research. As required by Section 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act (42 USC 1862o –1), as amended, the training addresses mentor training and mentorship. The AOR shall require that the language of this certification be included in any award documents for all subawards at all tiers.</p>		
<p>Certification Regarding Organizational Support By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent) is certifying that there is organizational support for the proposal as required by Section 526 of the America COMPETES Reauthorization Act of 2010. This support extends to the portion of the proposal developed to satisfy the Broader Impacts Review Criterion as well as the Intellectual Merit Review Criterion, and any additional review criteria specified in the solicitation. Organizational support will be made available, as described in the proposal, in order to address the broader impacts and intellectual merit activities to be undertaken.</p>		
<p>Certification Regarding Dual Use Research of Concern By electronically signing the certification pages, the Authorized Organizational Representative is certifying that the organization will be or is in compliance with all aspects of the United States Government Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern.</p>		
<p>Certification Requirement Specified in the William M.(Mac)Thornberry National Defense Authorization Act for Fiscal Year 2021, Section 223(a)(1) (42 USC 6605(a)(1)) By electronically signing the Certification Pages, the Authorized Organizational Representative is certifying that each individual employed by the organization and identified on the proposal as senior personnel has been made aware of the certification requirements identified in the William M.(Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, Section 223(a)(1) (42 USC 6605(a)(1)).</p>		
<p>Certification Regarding Safe and Inclusive Working Environments for Off-Campus or Off-Site Research (This certification applies only to proposals in which data/information/samples are being collected off-campus or off-site, such as fieldwork and research activities on vessels and aircraft.) By electronically signing the Certification Pages, the Authorized Organizational Representative is certifying that, in accordance with the NSF Proposal & Award Policies and Procedures Guide, Chapter II.E.9, the organization has a plan in place for this proposal regarding safe and inclusive working environments.</p>		
AUTHORIZED ORGANIZATIONAL REPRESENTATIVE	SIGNATURE	DATE
NAME [REDACTED]	Electronic Signature	Sep 25 2023 09:36 AM
TELEPHONE NUMBER [REDACTED]	EMAIL ADDRESS [REDACTED]	FAX NUMBER

Project Data Form

The *Project Data Form* is listed near the bottom of the control page, and it is a logical next step as you begin submitting information.

Proposal Actions	Proposal Sections	Last Updated	Compliance Status [Key]
Share Proposal with SPO/AOR	Required		
<input checked="" type="checkbox"/> Check Error(s) and Warning(s)	Cover Sheet		Form not checked
Manage Personnel and Subaward Organizations	Project Summary		Document unavailable for check
Print Proposal	Project Description		Document unavailable for check
Delete Proposal	References Cited		Document unavailable for check
	Budget(s)		Form not checked
	Budget Justification(s)		Document unavailable for check
	Facilities, Equipment and Other Resources		Document unavailable for check
	Senior/Key Personnel Documents i		Document unavailable for check
	Data Management and Sharing Plan		Document unavailable for check
	Project Data Form		Form not checked
	Mentoring Plan		Document unavailable for check
	i Conditionally required		

This is where you will choose the ATE funding track for your proposal from a dropdown menu. Under the 21-598 Solicitation, most applicants who are developing their first ATE proposal will choose Track 1, Small Projects for Institutions New to ATE. (Track 2, Projects, is a general track for proposal submission and where the majority of ATE proposals are submitted.) Selecting the appropriate funding track is important since it guides everything from setting the funding limits for your proposal to determining how your proposal is placed for review.

Program Information

* **Program Track**

Select Program Track

- Select Program Track
- 7412-ATE:Track 1: Small projects, institutions new to ATE
- 7412-ATE:Track 2: Projects
- 7412-ATE:Track 3: Consortia for Innovations in Technician Education
- 7412-ATE:Track 4: Centers
- 7412-ATE:Track 5: Applied Research on Technician Education
- 7412-ATE: Conferences and Meetings

It is important to select an appropriate discipline on the Project Data Form, since this is part of the information that Program Officers use to help select appropriate reviewers for your proposal.

The choices for project discipline are somewhat generic and may not be a perfect fit for your project. Select the one you think is most reasonable.

Don't worry if your project doesn't directly align with one of the areas on the provided list, which is used for all types of NSF funding. For the ATE Program, where the emphasis is on technician education, this won't impact your chances of funding.

Project Data	
* Discipline ⓘ	
Select Discipline	
Select Discipline	
Chemistry	
Computer and Information Science and Engineering	
Engineering	
Evaluation	
Geosciences	
Life Sciences	
Materials Research	
Mathematical Sciences	
Physics and Astronomy	
Psychology	
STEM	
STEM Education and Learning Research	
Social Sciences	

You will provide other information on the Project Data Form by checking the appropriate boxes in three categories. These are elements of your project that will contribute to Broader Impacts.

Project Feature(s) (Select up to five) ⓘ
<input type="checkbox"/> Connections with Business and Industry (5)
<input type="checkbox"/> Educational Uses of Technology (3)
<input type="checkbox"/> Field Experiences (4)
<input type="checkbox"/> Integration of Research and Education (2)
<input type="checkbox"/> International Activities (7)
<input type="checkbox"/> Research on Teaching and Learning (1)
<input type="checkbox"/> Science Literacy for Non-STEM Majors (6)
<input type="checkbox"/> Undergraduate Research Experiences (8)

Project Features: The first item on this list is Connections with Business and Industry. *Every ATE proposal should have this box checked.* If your project isn't connected in some meaningful way with business and industry, it is unlikely that your proposal will be successful. Explain your business and industry connections in detail in the Project Description.

Based on the focus and features of your project, you may be able to check additional boxes on this list. Just make certain that if you check a box, you have substantive information in the Project Description about that item.

Private Sector Participation: Business and industry are private sector enterprises, so every ATE proposal should respond "yes" to this question.

Audiences: Think carefully about your audiences and the potential impact your project will have on different groups. Benefits can and should cascade. For example: You may work with 12 teachers in a workshop, but your goal is for each of those teachers to take activities and new knowledge back to their classrooms where a large number of students will benefit.

*** Private Sector Participation** ⓘ

No. The proposed project will not have private sector participation.

Yes. The proposed project will have private sector participation (PS).

Audience(s) ⓘ

Each group indicated must be discussed explicitly and substantively in the Project Description.

Faculty Professional Development (F)

In-Service Teachers (I)

Persons with Disabilities (D)

Pre-Service Teachers (T)

Secondary School Students (S)

Technicians and Technologists (H)

Underrepresented Minorities (M)

Women (W)

Individuals involved: Select those who will be involved with or impacted by your project and estimate the total number in each category. Be sure to explain their involvement and how they will benefit in the Project Description.

Estimated number of unique individuals involved over all years	
* PreK-12 Students:	<input type="text"/>
* PreK-12 Teachers:	<input type="text"/>
* Undergraduate Students:	<input type="text"/>
* Graduate Students:	<input type="text"/>
* Postdoctoral Fellows:	<input type="text"/>
* Higher Education Faculty:	<input type="text"/>

Keep notes about how you determine the numbers you report. You may be asked about this during the negotiations with NSF that often take place prior to recommending your proposal for an award.

Additional Organizations

The Project Data Form also asks for information about other organizations that will be involved in your project. The ATE Solicitation states: “Activities may have either a national or a regional focus, but not a purely local one since results and outcomes should be applicable to a broad community.”

Partnerships can help you adhere to this ATE stipulation, and partners become increasingly important if you move from a Small Project for Institutions New to ATE to a larger ATE Project. List the organizations with which you will collaborate.

Add Other Organizations

*** Are additional organizations involved in the project's operation?**

Indicate if other organizations are involved in the project directly or through shared use of equipment. Also list any subaward organization(s) here, as well as on the Manage Personnel and Subaward Organizations page.

No. No additional organizations are involved in the project's operation.

Yes. Additional organizations are involved in the project's operation.

To add an organization, begin typing the name and select it when it appears in the dropdown list. If the desired name does not appear, type the complete name and select 'Add other organization' at the bottom of the list. You may add up to 20 organizations.

*** Organization(s)**

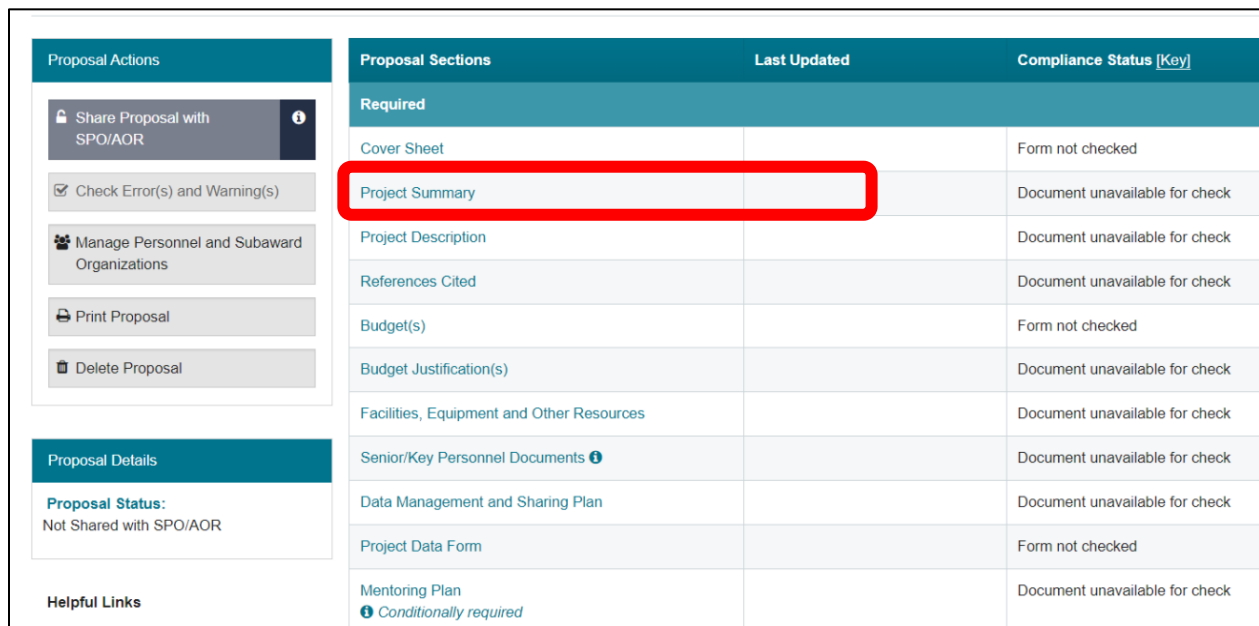
1.

[+ Add Additional Organization](#)

Any organization listed here should provide a commitment letter for you to include with Supplemental Documents that explains the ways in which it will contribute to the project.

Project Summary

Develop your Project Summary as a separate, 1-page document and upload it as a PDF file. Research.gov only accepts PDF files.



Proposal Actions	Proposal Sections	Last Updated	Compliance Status [Key]
Share Proposal with SPO/AOR	Required		
<input checked="" type="checkbox"/> Check Error(s) and Warning(s)	Cover Sheet		Form not checked
Manage Personnel and Subaward Organizations	Project Summary		Document unavailable for check
Print Proposal	Project Description		Document unavailable for check
Delete Proposal	References Cited		Document unavailable for check
	Budget(s)		Form not checked
	Budget Justification(s)		Document unavailable for check
	Facilities, Equipment and Other Resources		Document unavailable for check
	Senior/Key Personnel Documents ⓘ		Document unavailable for check
	Data Management and Sharing Plan		Document unavailable for check
	Project Data Form		Form not checked
	Mentoring Plan ⓘ		Document unavailable for check
	<small>ⓘ Conditionally required</small>		

The Project Summary consists of three components, Overview, Intellectual Merit, and Broader Impacts, each with its own heading on a separate line. This is one of the most important pages in your proposal. The summary is a concise explanation of your project. It will be read several times during the review process: when assigning your proposal to a review panel, during panel review, in post-panel discussions comparing competitive proposals, and during the award process.

Overview: Clearly indicate in the first few sentences: the disciplinary focus of the project, the kinds of activities proposed (i.e. curriculum or program development, professional development for educators, etc.), and the primary audience for those activities. Explain your proposal's objectives and what you will do to achieve them. If this is all someone reads about your project, they should be able to understand what you plan to do and how you will do it.

Do not use this space for building a rationale for your project, describing your college or community environment, or stating the amount of money that you are requesting.

Broader Impacts: Describe the potential of the proposed activity to benefit society. Be specific about your project's anticipated impact on items such as your discipline, regional economic needs, industries, and under-represented populations. Questions you will address in your Broader Impacts may include:

- Will the project address projected workforce needs?
- Has an assessment of relevant workforce needs been conducted?
- Does the project work with employers to assess their current and future needs for technicians?
- Does the project promote diversity in the technical workforce?

Intellectual Merit: Describe the potential of the proposed activities to advance knowledge. Questions you will address in your Intellectual Merit may include:

- Does the project have the potential for improving student learning in science or engineering technician education programs?
- Are the goals, objectives, and outcomes and the plans and procedures for achieving them worthwhile, well-developed, and realistic?

Study the criteria for Broader Impacts and Intellectual Merit provided in the ATE Program Solicitation and the PAPPG to be sure that you understand what NSF means by these terms. Your project does not need to align with all mentioned NSF criteria, but you need to be clear in describing how it will specifically address some of them.

Project Description

Proposal Actions	Proposal Sections	Last Updated	Compliance Status [Key]
Share Proposal with SPO/AOR	Required		
Check Error(s) and Warning(s)	Cover Sheet		Form not checked
Manage Personnel and Subaward Organizations	Project Summary		Document unavailable for check
Print Proposal	Project Description		Document unavailable for check
Delete Proposal	References Cited		Document unavailable for check
	Budget(s)		Form not checked
	Budget Justification(s)		Document unavailable for check
	Facilities, Equipment and Other Resources		Document unavailable for check
	Senior/Key Personnel Documents ⓘ		Document unavailable for check
	Data Management and Sharing Plan		Document unavailable for check
	Project Data Form		Form not checked
	Mentoring Plan ⓘ <i>Conditionally required</i>		Document unavailable for check

The Project Description must begin with a section titled Results of Prior NSF Support. New-to-ATE small grant proposals with PI/Co-PIs who have no previous grant experience will not be expected to show results of prior support. However, you must include this section heading. State that, if funded, this will be your first ATE grant.

If senior personnel have served as PIs or Co-PIs on other NSF grants for your institution or *at other institutions* with end dates in the past five years, information about those projects must be reported. Identify the personnel, the name(s) of the institution(s) that received the award(s), title of the award(s), award number(s) of the project(s), a description of the outcomes, and metrics that demonstrate results. Make sure that any institution with NSF funding whose employees will be Senior Personnel for your project is current with required NSF reporting, since an overdue report will prevent your own institution from receiving an NSF grant. NSF also recommends that you include information about recent grants received by your college from other funding sources, if they relate to the proposed work, even though the section heading refers to NSF support.

It is also appropriate to NSF to note here if you are a participant in the ATE-funded Mentor-Connect project or any another ATE-funded initiative that assisted you as you prepared your proposal.

The rest of the Project Description is the HEART of your proposal. Explain what you want to do, why you want to do it, how you plan to do it, how you will know if you are successful, and what benefits and impacts will result from a successful project. This means including information about the project's motivating rationale, goals, objectives, deliverables, and activities, intellectual merit and broader impacts - as well as a timetable, management plan, the roles and responsibilities of the PI, Co-PIs, and other senior personnel; a plan for sustainability after the period of NSF funding ends, an evaluation plan, and a dissemination plan - ALL WITHIN 15 PAGES!

Issues related to Intellectual Merit must be discussed in the Project Description but do not require a separate heading. Broader Impacts must, however, be addressed in a separate section with the heading Broader Impacts on its own line.

The Evaluation Plan must also be a separate section of the Project Description. It must provide detailed information about how the project will be evaluated, in terms of both implementation and outcomes. Include specific data sources and collection methods and explain how your evaluation data will be used to assess the work of the project and to improve it. If you can select a project evaluator before submitting the proposal, include that person's name and affiliation, and be sure that they collaborate on this section of the proposal. For more information about developing evaluation plans for ATE proposals, see the Mentor-Connect Resource Library. The EvaluATE website, <https://Evalu-ATE.org>, also has excellent resources.

Reviewers may read as many as 10-12 proposals, and they appreciate readability.

- All reviewers will receive electronic copies of your proposal, and many will print it in black and white. Avoid color as well as any shading that does not print well.
- Avoid packing your pages with too much text. Use informative section headings and summarize information in bulleted lists and charts.
- Remember that illustrations and other visuals must be included in the 15-page limit.
- A Logic Model is an excellent way to present concise information about inputs and outcomes.
- Pay careful attention to the PAPPG information about typeface and formatting.
 - In all uploaded sections of your proposal, including supplementary documents, the PAPPG allows a minimum 10-point font in Arial 6 (not Arial Narrow) and Courier New and a minimum 11-point font in Times New Roman. Mentor-Connect recommends that you avoid minimum size fonts, except in tables, to ensure readability.
 - Margins, in all directions, must be at least an inch. Your proposal may have no more than six lines of text within a vertical space of one inch. Use a ruler and measure the lines on a printed PDF page before uploading!

Do not include URLs or hyperlinks that would cause reviewers to leave the project description to view an external site. Including such external information is not allowed since it circumvents page limitations. In addition, websites could be altered or removed between submission and review of your proposal.

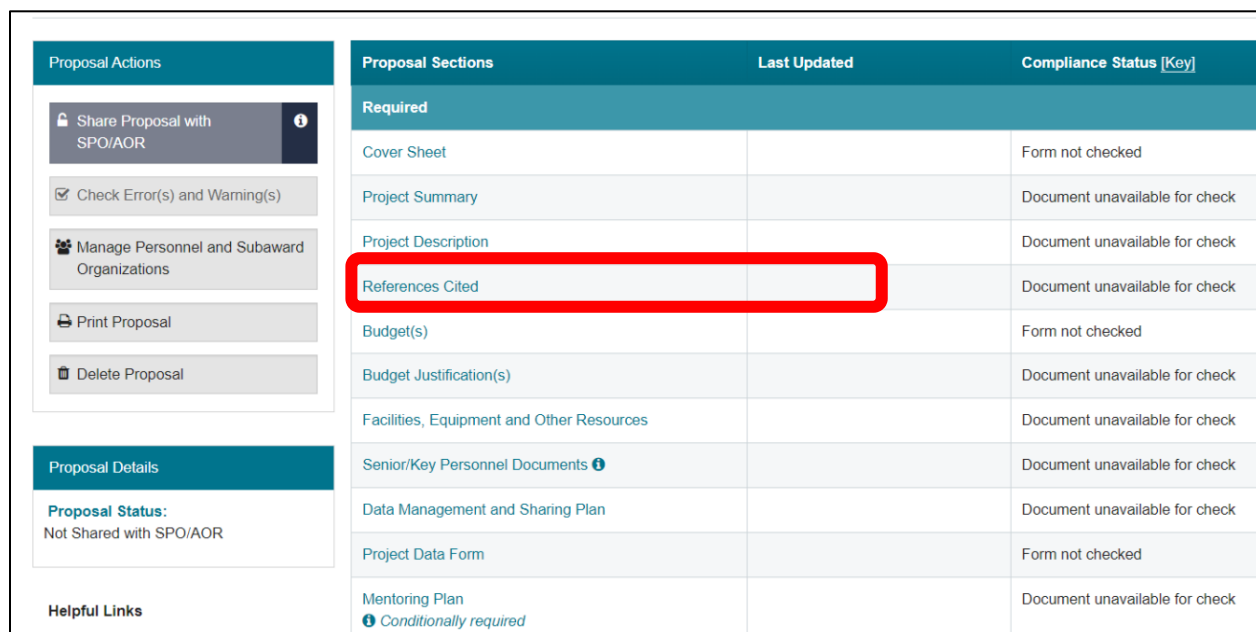
Remember that Appendices are not allowed. You will see a place to upload Supplementary Documents, but only Letters of Collaboration and the evaluator’s biosketch (or selection criteria if the evaluator will be selected via bid process) may be uploaded here.

Develop your Project Description as a separate document and upload it as a PDF file.

Do not number the pages. Research.gov will enter page numbers in your Project Description automatically.

Once your Project Description is uploaded, print it to make sure that it follows the PAPPG rules for page limits, margins, and formatting. These are rules, not guidelines. If you break any of them your proposal can be returned automatically without being considered.

References Cited



Proposal Sections	Last Updated	Compliance Status [Key]
Required		
Cover Sheet		Form not checked
Project Summary		Document unavailable for check
Project Description		Document unavailable for check
References Cited		Document unavailable for check
Budget(s)		Form not checked
Budget Justification(s)		Document unavailable for check
Facilities, Equipment and Other Resources		Document unavailable for check
Senior/Key Personnel Documents i		Document unavailable for check
Data Management and Sharing Plan		Document unavailable for check
Project Data Form		Form not checked
Mentoring Plan i <i>Conditionally required</i>		Document unavailable for check

Reference citations are essential! They document the sources of data and information that you provide as you build the rationale for your project. References also demonstrate that you have done the research that enabled you to draw from or build upon relevant work.

NSF encourages both adaptation and adoption of strategies and work undertaken in other funded projects. Cite references to sources of data and/or work that led you to select a particular strategy, curriculum, teaching methodology or other promising or proven approaches. Note that reference citations are where you provide the sources of data that support your results of prior support and your motivating rationale. Citing labor market data from a government agency or a study published in a peer-reviewed academic journal could, for example, support your rationale for developing new courses that address specific workforce needs.

Follow standard accepted scholarly practices (e.g., APA, MLA) for listing references. Be consistent in using the style you choose. Avoid the use of et al. except for large consortia papers.

In the Project Description *manually* number your references. Then prepare the separate References Cited document with citations that correspond to those numbers. If you use automated endnotes, the references will be included in your 15-page project description and use up valuable space. Note that if you use automated endnotes or otherwise include your references within your Project Description, you will still need to provide a separate document listing References Cited. Avoid this needless duplication!

Senior/Key Personnel Documents

Proposal Actions	Proposal Sections	Last Updated	Compliance Status [Key]
Share Proposal with SPO/AOR ⓘ <input checked="" type="checkbox"/> Check Error(s) and Warning(s) Manage Personnel and Subaward Organizations Print Proposal Delete Proposal	Required		
	Cover Sheet		Form not checked
	Project Summary		Document unavailable for check
	Project Description		Document unavailable for check
	References Cited		Document unavailable for check
	Budget(s)		Form not checked
	Budget Justification(s)		Document unavailable for check
	Facilities, Equipment and Other Resources		Document unavailable for check
	Senior/Key Personnel Documents ⓘ		Document unavailable for check
	Data Management and Sharing Plan		Document unavailable for check
Proposal Details			
Proposal Status: Not Shared with SPO/AOR			
Helpful Links			
	Project Data Form		Form not checked
	Mentoring Plan ⓘ Conditionally required		Document unavailable for check

Four separate documents are required from all senior personnel: A Biographical Sketch, Synergistic Activities, Current and Pending Support, and Collaborators and Other Affiliations.

Biographical Sketches

Documents	Last Updated	Compliance Status [Key]
Biographical Sketch		Document unavailable for check
Current and Pending (Other) Support		Document unavailable for check
Collaborators and Other Affiliations (Single Copy Document ⓘ)		Document unavailable for check
Synergistic Activities		Document unavailable for check

Biosketches are required for all senior personnel (including PIs and Co-PIs). This is something you can work on very early. For consistency, you may want to designate one person to check and upload all biosketches.

As of October 2023, biosketches must be prepared on the Science Experts Network Curriculum Vitae (SciENCv) website, which is maintained in partnership with the National Institutes of Health. Enter SciENCv in your browser’s search engine and log in. You will see several options for logging in. The easiest may be to use your email address under the More Options tab. Follow the instructions for establishing an account, then create your biosketch by providing information on the topics listed below. Do not include any personal contact information. Once you have completed the biosketch, download it as a PDF and upload it with the senior personnel documents in Research.gov.

Biosketch topics are covered in the following order:

- Professional Preparation: Names of undergraduate, graduate, and post-doctoral institutions (as applicable), in reverse chronological order. For each institution provide: location, major discipline, degree, and the year the degree was awarded.
- Appointments: Academic and professional appointments with dates, position title, organization, and location, in reverse chronological order.
- Products: Do not be concerned if you have no products to list. They are not an ATE requirement. This biosketch format was created to serve the university research community, which has a stronger need to stress products and publications in grant proposals. If you do have products to list, follow the SciENCv guidelines:
 - Provide a list of (i) up to five products that are closely related to the proposed project and (ii) up to five other significant products, that may or may not be related to the project.
 - Acceptable products must be citable and accessible, including but not limited to publications, data sets, software, patents, and copyrights.
 - Unacceptable products are unpublished documents not yet submitted for publication, invited lectures, and additional lists of products. Only the list of ten (see first bullet) will be used in the review of the proposal.
 - Each product must include full citation information.

Synergistic Activities

Documents	Last Updated	Compliance Status [Key]
Biographical Sketch		Document unavailable for check
Current and Pending (Other) Support		Document unavailable for check
Collaborators and Other Affiliations (Single Copy Document ⓘ)		Document unavailable for check
Synergistic Activities		Document unavailable for check

This one-page PDF document must be provided by all senior personnel. The list of Synergistic Activities may include up to 5 examples that demonstrate the broader impact of professional and/or scholarly activities, as they relate to the proposed project. (Do not

try to exceed five examples by including multiple, independent, and distinct activities under one example.)

This is a place for Senior Personnel to list their skills and assets. Examples might be:

- Teaching and training innovations - development of curricular materials and pedagogical methods
- Broadening the participation of groups underrepresented in STEM
- Service to the scientific community outside of the individual's immediate organization
- Serving as a subrecipient of an ATE Centers grant or as a primary partner in other ATE projects
- Membership or participation in a professional society (if it relates to the proposed project)

Current and Pending Support

Documents	Last Updated	Compliance Status [Key]
Biographical Sketch		Document unavailable for check
Current and Pending (Other) Support		Document unavailable for check
Collaborators and Other Affiliations (Single Copy Document ⓘ)		Document unavailable for check
Synergistic Activities		Document unavailable for check

The Current and Pending Support forms show NSF how much Senior Personnel time is committed, or will be committed, to funded projects and other obligations. This helps Program Officers determine each person's capacity to take on the proposed scope of work if the project is funded, and it alerts them to possible conflicts of overlapping projects, time commitments, and budget allocations.

All proposals must therefore include Current and Pending Support form(s) for each person serving as Senior Personnel.

Some projects, especially those in the New-to-ATE category, may include only the PI and Co-PI(s), while others may have additional Senior Personnel for whom forms must be completed.

Separate forms must provide information for each current, pending, or planned project. The Current and Pending Support Form page in Research.gov has a hotlink to the specific section of the PAPPG that provides guidance for filling out the forms.

Current and Pending Support forms must be completed in the SciENCv system, downloaded as PDFs, and uploaded in Research.gov. The information submitted must be revisited each year. If commitments have changed within the year, an updated Current and Pending Support form must be submitted for senior personnel with time-commitment changes at the time you submit your Annual Report to NSF. Most often, an update is needed because a new project has been funded that includes financial support and a time commitment. The end of another project can also change a person's Current and Pending Support and trigger the need for an updated form.

If you are working only on your NSF ATE grant while it is funded and nothing changes from the time commitment reported in the proposal, no updates to Current and Pending Support forms will be needed for the duration of your project.

NSF expects that any person working on a grant will either be paid directly by the grant, or that the person will be released from a portion of his or her teaching or other workload to do project work. Time commitments are reported in person months and by year. If you need assistance calculating person-months, you can download an Excel spreadsheet tool from the Mentor-Connect Resource Library that will make these calculations for you.

This screen shows how the Current and Pending Support template is structured to accept time commitment information. Person months may be reported to 2 decimal places. Time is prorated and reported by year based on the total portion of the year that will be dedicated to grant work.

Categories on the form include:

Project/Proposal Title: Provide the full title.

Status of Support: The proposal you are currently working on is considered “pending.”

Award Number: This applies only to already funded proposals.

Source of Support: Typical sources include the NSF, Department of Labor, US Department of Education, a state (such as California), or a Foundation (such as the Lumina Foundation).

Primary Place of Performance: This is the grantee’s location. If someone on your team is working on a funded project not based at your college, they will list the other college’s location.

Starting Date: Actual or proposed date.

Ending Date: Actual or anticipated end of the project.

Total Award Amount including Indirect Costs: The total awarded or requested budget.

Person-Months Per Year Committed to the Project: NSF requires individual time commitments to be reported in person-months. See examples below.

Overall Objectives: A brief statement of the objectives of the reported project.

Potential Overlap: This only applies to subsequent and/or multiple grants. If this is your first ATE proposal, it can be left blank.

The screenshot shows a web form titled "Project/Proposal" with the following fields and options:

- Project/Proposal Title ***: A text input field.
- Status of Support ***: Radio buttons for Current and Pending.
- Proposal/Award Number (if available)**: A text input field.
- Source of Support ***: A text input field.
- Primary Place of Performance ***: A text input field.
- Total award amount ***: A text input field with a note "Enter as USD. (Include Indirect Costs)".
- Project/Proposal Start Date ***: A date picker showing "mm/yyyy".
- Project/Proposal End Date ***: A date picker showing "mm/yyyy".
- Person Month(s) (or Partial Person-Months) Per Year Committed to the Project**: A section with a "Year" picker showing "yyyy" and a "Person Months" input field. A "+ ADD YEAR" link is below.
- Overall Objectives ***: A large text area.
- Statement of Potential Overlap ***: A large text area.

At the bottom right, there are three buttons: "CANCEL", "SAVE & ADD ANOTHER ENTRY", and "SAVE".

Reporting person-months is where most mistakes are made. Remember to provide the full-time equivalent months (person-months) that personnel will dedicate to the project, not the number of months during which they will devote some portion of time to the project.

Note that faculty time on ATE grants is not limited to 2 months/year, as is the case for most NSF grant proposals. However, when budgeting for more time, you must provide a strong justification for the additional time. Ask the advice of a Program Officer if you plan to allocate significantly more than 2 months faculty time to your project.

Three different scenarios may help clarify the person month reporting method:

1. A 12-month employee devotes 10% of time (10% FTE) to the project each year. Ten percent of 12 months is reported as 1.2 months. (Note: part-time work over 12 months is not reported as working 12 months on the project.)

*Person-Month(s) (or Partial Person-Months) Per Year Committed to the Project

*Year (YYYY)	*Person Months (##.##)	Year (YYYY)	Person Months (##.##)
1. 2021	01.20	4.	
2. 2022	01.20	5.	
3. 2023	01.20		

2. A faculty member has one course release time for fall and spring each year. The normal full-time teaching load is five courses. If the academic year is 9 months, the release time is reported as 1.8 months (1/5 - or 20% - of 9 months).

*Person-Month(s) (or Partial Person-Months) Per Year Committed to the Project

*Year (YYYY)	*Person Months (##.##)	Year (YYYY)	Person Months (##.##)
1. 2021	01.80	4.	
2. 2022	01.80	5.	
3. 2023	01.80		

3. A faculty member has one-course release time fall and spring semesters each year and works 0.5 months in the summer in Project Years 1 and 2 only. The summer work of 0.5 months is added to 1.8 months release time in Years 1 and 2, making the total person-months for those years 2.3.

*Person-Month(s) (or Partial Person-Months) Per Year Committed to the Project

*Year (YYYY)	*Person Months (##.##)	Year (YYYY)	Person Months (##.##)
1. 2021	02.30	4.	
2. 2022	02.30	5.	
3. 2023	01.80		

Include time commitments for any unpaid project work. All projects or activities requiring a portion of Senior Personnel time must be included, *even if they provide no salary support*. Beware, however, of having personnel donate large amounts of time to your ATE project. Reviewers may not believe that the scope of work will be completed if it relies on significant amounts of non-compensated time. Never attach a monetary value to non-compensated time because it will be considered voluntary cost sharing, which is prohibited by the ATE Program.

Ensure that the time allocated to your ATE project is reasonable for the scope of work, carefully aligned with each person’s responsibilities, and consistent with information provided elsewhere in the proposal, particularly in the budget. All grant-supported time must be thoroughly justified. Reviewers expect to see personnel included in the budget with compensation for time they will devote to grant work.

While it is preferable that time planned for work on a grant does not result in faculty overloads, ATE permits overload pay to the extent that it is part of a formal written college policy that applies to all faculty (not just those working on grants). The Budget Justification must explain any budgeted overload pay and reference the applicable college overload pay policy. See the solicitation for more specific information.

Collaborators and Other Affiliations (COA)

Documents	Last Updated	Compliance Status [Key]
Biographical Sketch		Document unavailable for check
Current and Pending (Other) Support		Document unavailable for check
Collaborators and Other Affiliations (Single Copy Document ⓘ)		Document unavailable for check
Synergistic Activities		Document unavailable for check

The COA form is designed to help NSF Program Officers avoid conflicts of interest when placing proposals for panel review. All proposed senior personnel will need to use the template on the NSF website (use the search words NSF COA Template) to list relevant collaborators and affiliations and the relevant time frame for each collaboration.

It is unlikely that senior personnel will have information to submit in all five categories listed (individuals; personal, family, or business affiliations; Ph.D. and thesis advisees; co-authors; and editorial affiliations). However, even those who have no information to submit must still complete the form by indicating that none of the categories are applicable.

Facilities, Equipment and Other Resources

Proposal Actions	Proposal Sections	Last Updated	Compliance Status [Key]
<p>Share Proposal with SPO/AOR ⓘ</p> <p>Check Error(s) and Warning(s)</p> <p>Manage Personnel and Subaward Organizations</p> <p>Print Proposal</p> <p>Delete Proposal</p> <hr/> <p>Proposal Status: Not Shared with SPO/AOR</p> <hr/> <p>Helpful Links</p>	Required		
	Cover Sheet		Form not checked
	Project Summary		Document unavailable for check
	Project Description		Document unavailable for check
	References Cited		Document unavailable for check
	Budget(s)		Form not checked
	Budget Justification(s)		Document unavailable for check
	Facilities, Equipment and Other Resources		Document unavailable for check
	Senior/Key Personnel Documents ⓘ		Document unavailable for check
	Data Management and Sharing Plan		Document unavailable for check
Project Data Form		Form not checked	
Mentoring Plan		Document unavailable for check	
	Conditionally required ⓘ		

NSF uses the Facilities, Equipment and Other Resources form to assess the adequacy of the resources, such as infrastructure, laboratories, and equipment, available to support your proposed project at the home institution and elsewhere. You will provide information for a list of categories shown on the next page. If a category is not relevant to your project, state on the form that it is not applicable. (The Clinical and Animal categories, for example, typically do not apply to ATE-funded projects.)

The information should be narrative and focus on items and personnel directly supporting the proposed project. Do not include quantifiable financial information, photographs of physical space and equipment, or descriptions of all the capabilities of your college.

Some examples of items to include are:

- **Laboratory:** If lab support is important for your project, describe your current capability even if the proposal calls for improvements or additional equipment.
- **Computer Capability:** Describe the available computer capabilities that are essential for your project.
- **Office Support:** Grant budgets may not include office furnishings or standard equipment like computers, copiers, and other items that support normal office operations. Make it clear that such resources will be available. Office space, administrative support, and similar resources should also be reported here.
- **Major Equipment:** This can be an important category for some ATE grants since advanced technology programs are often equipment intensive. If your project will be dependent on existing major equipment, describe it, whether it belongs to your college or a collaborating institution or industry.
- **Other:** Describe resources other than facilities and equipment, such as personnel support provided by the college, an internal advisory committee, a college recruiter who will support outreach activities without grant compensation, or institutional research personnel who will help with internal evaluation and data collection without grant compensation. This is also the place to describe any other donated time. But remember to limit such time, and do not assign it monetary value to avoid having it be seen as cost-sharing.

Below is an example of a completed form:

FACILITIES, EQUIPMENT AND OTHER RESOURCES

Laboratory: The makerspace, located in the Newton building, will be used for the Power of Us program's Tech Tuesdays, Taste of Industry, and Summer Camps. The makerspace will provide a collaborative space for the students to use equipment that might not be available in other labs across campus. Other conference rooms and labs will also be used for these events. The targeted program labs in the Newton and Ingram buildings will also be used because they contain equipment that cannot be moved. The multipurpose rooms in the Wynn Center and Ingram buildings will be used for the opening session, lunch, and closing session for the Taste of Industry event.

Clinical: Not applicable

Animal: Not applicable

Computers: In addition to the computers in the labs referenced above, the College employees involved in the Power of Us project will utilize computers provided by the College in their offices.

Office: Office space for College employee project participants will be provided by the College. Each office has a computer, a phone, office furniture, and office related items. The offices are in the Newton and Ingram buildings.

Other: Other personnel supporting the project will include members of the College's leadership staff, the College's high school liaisons, selected nine- and twelve-month faculty, the College's marketing department, and the program's student workers (Power of Us Ambassadors). The staff from the College's institutional research office (Research, Evaluation, Assessment, and Planning (REAP)) will work with the PI, Co-PI, and Evaluator to provide the data needed to report outcomes.

Major Equipment: The following special equipment will be used in the specific program labs:

- Automotive Systems Technology Labs – Equipment in Durham Tech's garage includes but is not limited to car lifts; hand, power, and specialty tools; and diagnostic equipment.
- Biomedical Equipment Technology Labs – Students receive instruction and have hands-on learning experiences in a lab stocked and outfitted with biomedical equipment most used by healthcare providers and private industry, such as sterilization machines and diagnostic equipment. Instructors use the equipment as teaching aides and students use the equipment to gain experience with troubleshooting and repair skills. Students learn to use hand, power, and specialty tools in the lab.
- Networking Labs – Labs are equipped with computers, switches, routers, and closed networks that instructors can use to teach students how to analyze, test, troubleshoot, and evaluate network systems and plan, implement, upgrade, or monitor security measures for the protection of computer networks and information.
- Electrical Systems Technology Labs – Students have hands-on learning experiences with everything from basic electricity kits that include bulbs, batteries, simple switches to demonstration systems that include the same kinds of complex switches and wiring found in residential, commercial, industrial facilities and programmable logic controllers (PLCs).

Data Management and Sharing Plan

Proposal Actions	Proposal Sections	Last Updated	Compliance Status [Key]
Share Proposal with SPO/AOR	Required		
<input checked="" type="checkbox"/> Check Error(s) and Warning(s)	Cover Sheet		Form not checked
Manage Personnel and Subaward Organizations	Project Summary		Document unavailable for check
Print Proposal	Project Description		Document unavailable for check
Delete Proposal	References Cited		Document unavailable for check
	Budget(s)		Form not checked
	Budget Justification(s)		Document unavailable for check
	Facilities, Equipment and Other Resources		Document unavailable for check
	Senior/Key Personnel Documents ⓘ		Document unavailable for check
	Data Management and Sharing Plan		Document unavailable for check
	Project Data Form		Form not checked
	Mentoring Plan ⓘ <i>Conditionally required</i>		Document unavailable for check

The Data Management and Sharing Plan is a requirement for all NSF proposals. It is a supplementary document of *no more than two pages*, and it must be labeled Data Management and Sharing Plan. Use this form to describe how the project will conform to NSF policies regarding the dissemination and sharing of results.

Plans for sharing the outcomes of your work, such as primary data, samples, and supporting materials, are evaluated by NSF as part of the Intellectual Merit of your proposal.

However, you must consider privacy, confidentiality, intellectual property, and other rights. The Data Management and Sharing Plan provides an opportunity for you to describe the care that will be taken in this regard.

Your Data Management and Sharing Plan should specify:

- The types of data and other materials and products that the project will generate or collect
- How data will be stored, protected, and appropriately shared
- How data generated by the project will be preserved during and beyond the project
- How others will be able to access the project's data and products

See below for an example of a Data Management Plan, provided by Asheville-Buncombe Technical Community College in North Carolina. Additional examples are available in the Mentor-Connect Resource Library. You will also find a good source for frequently asked questions about Data Management Plans on the NSF website if you enter Dissemination and Sharing of Research Results in the search engine.

NOTE: The name of the form was changed to Data Management and Sharing Plan in the 24-1 release of the PAPPG.

Data Management Plan

Asheville-Buncombe Technical Community College will conform with NSF's policy to disseminate and share results of the proposed project as defined in AAG Chapter VI.D.4. As stated in the Project Description, A-B Tech's plan to disseminate materials includes the following:

A-B Tech will work with SC ATE and CyberWatch to disseminate the PBLs adapted for the EGR110, EGR115, EGR125 as well as NET110, NET125, and NOS 110. Recruitment materials, retention strategies, and PBL materials will be disseminated nationally by the SC ATE Center via their website (TeachingTechnicians.org), CyberWatch, through conferences attended by A-B Tech personnel, and through the North Carolina Network for Excellence in Teaching (NC-NET).

NC-NET provides professional development for instructors. All training materials for instructors developed over the course of the grant period can be disseminated to the entire 58-college system in North Carolina. The PI will ensure that materials are disseminated via NC-NET. PI Pamela Silvers has developed an NC-NET presence for a previous Perkins grant.

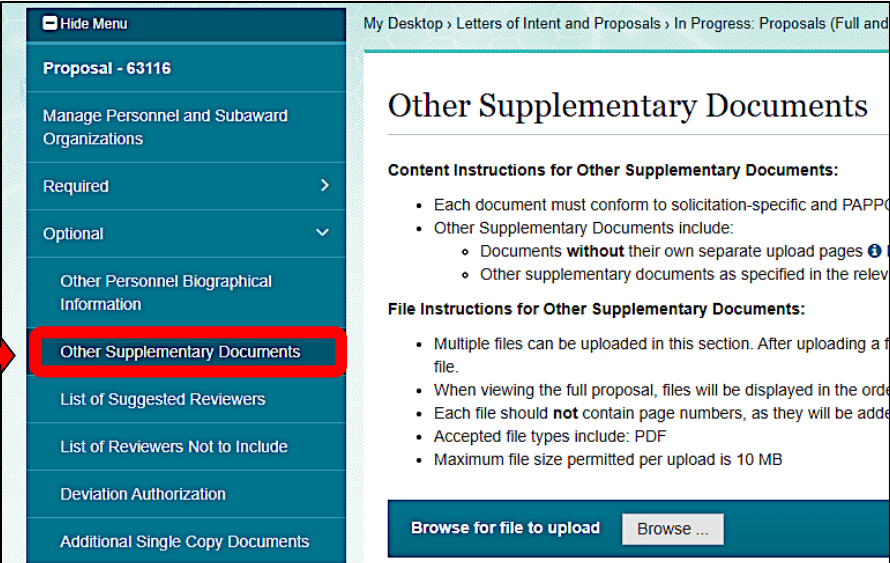
The project leaders will attend selected national and regional conferences over the course of the grant period such as the bi-annual North Carolina Community College System Conference, National Career Prep Conference, HI-TEC Conference, and the North Carolina Computer Instruction Association Conference. A-B Tech will submit proposals to present and/or displays in exhibition halls.

This proposed project is made possible due to other ATE-funded institutions (SC ATE and CyberWatch) adhering to NSF's policies. A-B Tech will support the dissemination of this information that will benefit a wide audience of educators.

A-B Tech will maintain either paper or electronic copies of all evaluation results, both formative and summative. Participant will not be individually identifiable in any data. The PI will develop a database which will be the primary method for monitoring and tracking participant (both students and faculty via professional development) enrollment, retention, and progress. Any hardcopy materials will be maintained in locked filing cabinets. The PI and Co-PIs will update records on a regular basis.

Other Supplementary Documents

Not optional for ATE proposals!



My Desktop > Letters of Intent and Proposals > In Progress: Proposals (Full and

Other Supplementary Documents

Content Instructions for Other Supplementary Documents:

- Each document must conform to solicitation-specific and PAPPG
- Other Supplementary Documents include:
 - Documents **without** their own separate upload pages
 - Other supplementary documents as specified in the relevant

File Instructions for Other Supplementary Documents:

- Multiple files can be uploaded in this section. After uploading a file,
- When viewing the full proposal, files will be displayed in the order
- Each file should **not** contain page numbers, as they will be added
- Accepted file types include: PDF
- Maximum file size permitted per upload is 10 MB

Browse for file to upload

Other Supplementary Documents are listed as “optional” but for the ATE program two kinds of supplemental documents are required. This is one instance where PAPPG information differs from that in the ATE Solicitation. *Use the Solicitation for guidelines regarding the format of these letters!*

Note that only the documents listed below may be included as Supplementary Documents. Proposals that include other documents in this section could be returned automatically without being reviewed.

Letters of Collaboration

Letters from industry, education partners, or others must document significant commitments to the project. Some NSF programs consider such letters optional but for the ATE Program, they are a requirement.


All letters of collaboration must make specific commitments of support for project activities. You may suggest content topics but avoid providing boilerplate letters for the writers to use or adapt. Duplicate or contrived letters will be obvious to reviewers and will raise questions about the extent of partner commitments. As an alternative to individual letters, you may submit one letter signed by several collaborators who agree to provide the same kind of support. For larger projects, a letter of commitment from the president or other appropriate college administrator outlining specific college commitments to the project is also appropriate.

Biographical Sketch for the External Evaluator

If the evaluator is named in the project description, you must upload a biosketch in the Supplementary Documents. There is no specified format. You may choose to use the same format as the senior personnel biosketches as long as the evaluator’s credentials and experience are clear. If an evaluator has not been identified, provide a document with information about the selection criteria to be used for your institution’s procurement bid process.

Final advice from Mentor-Connect

- Begin working on your forms as soon as possible.
- Review what you have written several times, before and after uploading to Research.gov.
- Uploaded all forms without page numbers in research.gov as PDFs - one file per section with a maximum file size of 10 MB.
- Remember to abide by the formatting rules in the PAPPG (Chapter II:B, II-2, and II-3)
- Don't be afraid to ask questions - your mentors and the Mentor-Connect team are here to help. You can reach our help desk at Mentor-Connect@fdtc.edu or 843 676 8541.
- Visit the Mentor-Connect resource library at <http://library.mentor-connect.org> for examples of completed forms and other resources related to NSF ATE proposal submission, such as Webinars, Quick Reference Guides, and Coffee Break recordings on specific topics.
- Make use of the Research.gov help desk.




Contact Us

For general questions about Research.gov, please see our Frequently Asked Questions.

For technical questions or immediate assistance, please contact the NSF Help Desk

7 AM - 9 PM Eastern Time, Monday through Friday (except for federal holidays):

- **Email** the Help Desk at: rgov@nsf.gov
- Call the Help Desk at **1-800-381-1532**
- To give feedback or comments, see the feedback page.

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