



**National Science Foundation  
Advanced Technological Education  
Program Grant Funding &  
Mentoring Opportunities**

**NCPN Conference  
November 2021  
Greg Kepner**



# NSF ATE Grant Experience

**Greg Kepner – 15 years**

**Principal Investigator**

**Midwest Photonics Education Center**

**Project**

**Co-Principal Investigator**

**Micro Nano Technology Education Center**

**National Center for Optics and Photonics Education**

**Project Evaluator**

**Mentor-Connect Mentor Fellow**

**MentorLinks Mentor**



# NSF ATE Grant Experience

**Mel Cossette – 22 years**

**Principal Investigator**

**Online Institutional Resource for Material  
Science Technology Education**

**Co-Principal Investigator**

**Micro Nano Technology Education Center  
And 2 other ATE Projects**

**Project Evaluator**

**Mentor-Connect Master Mentor**







# ATE Collaboration

- **Micro Nano Technology Education Center**
  - **NSF DUE #2000281**
  - **Pasadena City College, Pasadena, CA**
- **Mentor-Connect**
  - **NSF DUE #1840856**
  - **Florence-Darlington Technical College, Florence, SC**
- **ATE Collaborative Outreach and Engagement Project**
  - **NSF DUE #1723419**
  - **Hillsborough Community College, Tampa, FL**





# Agenda

## **Part 1: Introduction to the NSF ATE Program**

- **NSF - the agency**
- **Opportunities for NSF ATE Grant Funding**
- **Small Projects for Institutions New to ATE**
- **ATE Solicitation – NSF 21-598**

## **Part II: Mentoring Opportunities**

- **Mentoring and Technical Assistance**
  - **Application/Selection Criteria & Deadlines**
  - **Success Rate**
- 

# NSF Headquarters



National Science Foundation  
2415 Eisenhower Avenue  
Alexandria, VA 22314





# Why NSF ATE?



=

- **Faculty development**
- **New equipment**
- **More students/graduates**
- **Greater diversity**
- **Industry partnerships**



www.nsf.gov



National Science Foundation  
WHERE DISCOVERIES BEGIN

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NSF-FUNDED RESEARCH

Do more workers mean  
more work done?

FULL STORY

Advancing the Sciences

Funding & Supporting

Inspiring & Educating

-HIDE



# ATE

*Finding ATE*



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# NSF ATE Webpage

The image is a screenshot of the NSF ATE Webpage. The top navigation bar includes the NSF logo, the text "National Science Foundation WHERE DISCOVERIES BEGIN", a search bar, and links for "Contact" and "Help". Below this is a dark blue navigation bar with links: "NSB", "Research Areas", "Funding", "Awards", "Document Library", "News", and "About NSF". The "Funding" link is circled in black. On the left side, there is a vertical menu with links: "Funding", "About Funding", "Browse Funding Opportunities A-Z", "Due Dates", "Find Funding", "Merit Review", "Policies and Procedures", "Preparing Proposals", "Recent Opportunities", "Small Business", and "Transformative Research". The "Policies and Procedures" link is circled in black. The main content area is titled "Division of Undergraduate Education" and "Advanced Technological Education (ATE)". Below this is a "CONTACTS" section with a table listing program officers. The table has four columns: "Name", "Email", "Phone", and "Room". The first row is circled in black. At the bottom, there is a note: "For questions about specific areas of technology or disciplines proposers are encouraged to contact a Program Officer from the list below."

NSF National Science Foundation WHERE DISCOVERIES BEGIN

Contact | Help

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NSB Research Areas Funding Awards Document Library News About NSF

Home Funding

Email Print Share

Division of Undergraduate Education

## Advanced Technological Education (ATE)

### CONTACTS

Name	Email	Phone	Room
V. Celeste Carter	vccarter@nsf.gov	(703) 292-4651	W11126
Thomas B. Higgins	thhiggin@nsf.gov	(703)292-2937	W11137
Pushpa Ramakrishna	pusramak@nsf.gov	(703) 292-2943	

For questions about specific areas of technology or disciplines proposers are encouraged to contact a Program Officer from the list below.

NSF 21-598

## Advanced Technological Education (ATE)

**PROGRAM SOLICITATION**

**NSF 21-598**

**REPLACES DOCUMENT(S):  
NSF 18-571**



**National Science Foundation**

Directorate for Education and Human Resources  
Division of Undergraduate Education

**Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):**

October 14, 2021

October 06, 2022

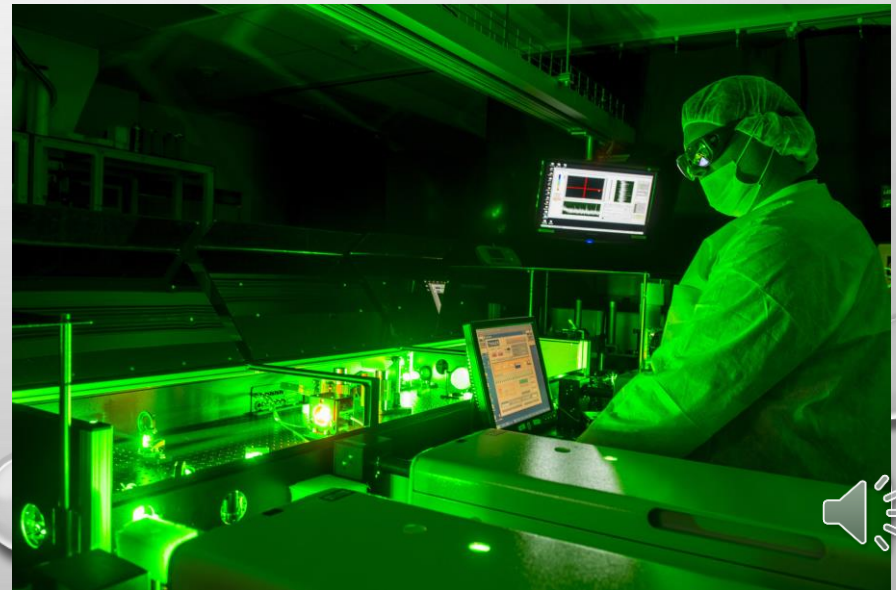
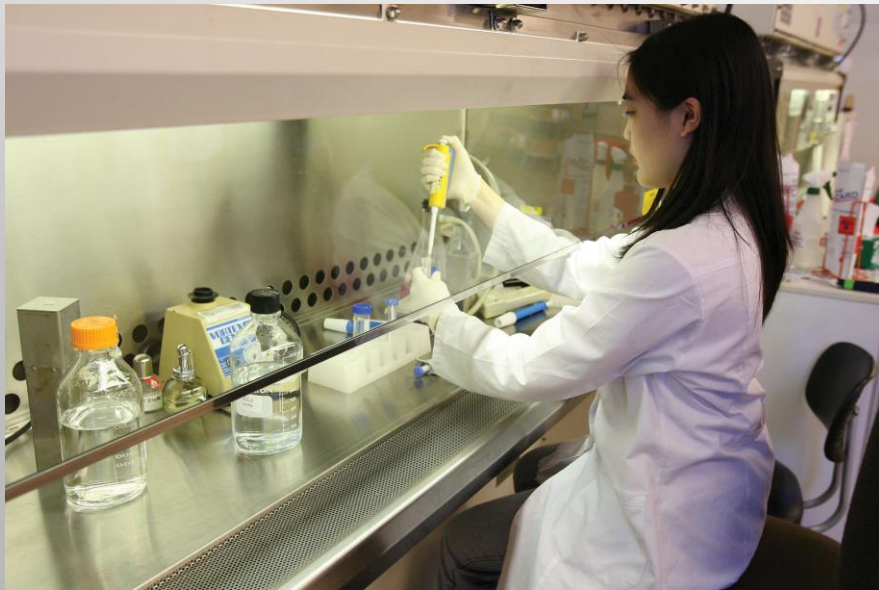
October 05, 2023





# NSF ATE Program Focus

The education of highly qualified science and engineering technicians for the advanced technology fields that drive our nation's economy.





# NSF ATE Program

- **Institutions of Higher Education that award certificates and 2-year technology degrees.**
- **IHE faculty should have a leadership role on all projects.**
- **2-yr, 4-yr institutions and high schools can be supported. (Education Pathways)**
- **Partnerships with Industry and Workforce or Economic Development Entities encouraged**





# ATE Technology Areas

- **Advanced Manufacturing Technologies**
  - **Biotechnology**
  - **Agricultural Technologies**
  - **Energy and Environmental Technologies**
  - **Engineering Technologies**
  - **Information Technologies**
  - **Micro and Nano Technologies**
  - **Security Technologies**
  - **Geospatial Technologies**
  - **Emerging Technologies**
- 





# ATE Program Tracks

- **Small Projects for Institutions New to ATE**
- **Projects**
- **Consortia for Innovations in Technician Education**
- **Applied Research on Technician Education**
- **Centers and Resource Centers**





# Small Projects New to ATE

- **Small Projects for Institutions New to ATE**
  - **Up to 20 awards per year**
  - **Up to \$350k per award**
  - **Up to 3 year duration**





# Grant Opportunities

- **Projects**
  - **Up to 45 awarded per year**
  - **Up to \$650k per award**
  - **Up to 3 year duration**







# Grant Opportunities

- **Consortia for Innovations in Technician Education**
- **Specific industry or technology convergence**
- **Collaborations with:**
  - **ATE Centers and Projects**
- **Program improvement and development**





# Grant Opportunities

- **Consortia for Innovations in Technician Education**
  - **Up to 5 new awards**
  - **Up to \$1.2 M per award for 2 institutions**
  - **Up to \$3M per award for 3+ institutions**
  - **Up to 4 year duration**





# Grant Opportunities

- **Applied Research on Technician Education**
  - **Up to 5 awards per year**
  - **Up to \$150k - 2 years (Planning and Pilot)**
  - **Up to \$300k - 3 years (Exploratory R&D)**
  - **Up to \$800k - 3 years (Full-scale Study)**







# Grant Opportunities

- **Centers**
  - **Up to 10 total in U.S.**
  - **Typically 1-2 awards per year**
  - **Up to \$7.5m - 5 years (renewable)**
- **Resource Centers**
  - **Transition after center grant ends**
  - **Up to \$1.65m - 3 years (renewable)**





# Grant Opportunities

## **Projects or Small Projects for New to ATE**

- **Program Development and Improvement**
  - **Professional Development for Educators**
  - **Curriculum Development**
  - **Educational Materials Development**
  - **CTE and STEM Teacher Preparation**
  - **Undergraduate Research Experiences**
  - **Industry Internships & Apprenticeships**
  - **Industry & Instrumentation Acquisition**
- 



# Mentoring

- **Mentor-Connect**
  - **Small Projects for Institutions New to ATE**
  - **Second Chance**
  - **Moving Up**
  - **Co-mentoring**
- **Micro Nano Technology Education Center**
  - **Project proposal mentoring**
  - **Co-mentoring with Mentor-Connect**
  - **Emphasis in Micro Nano Technology**





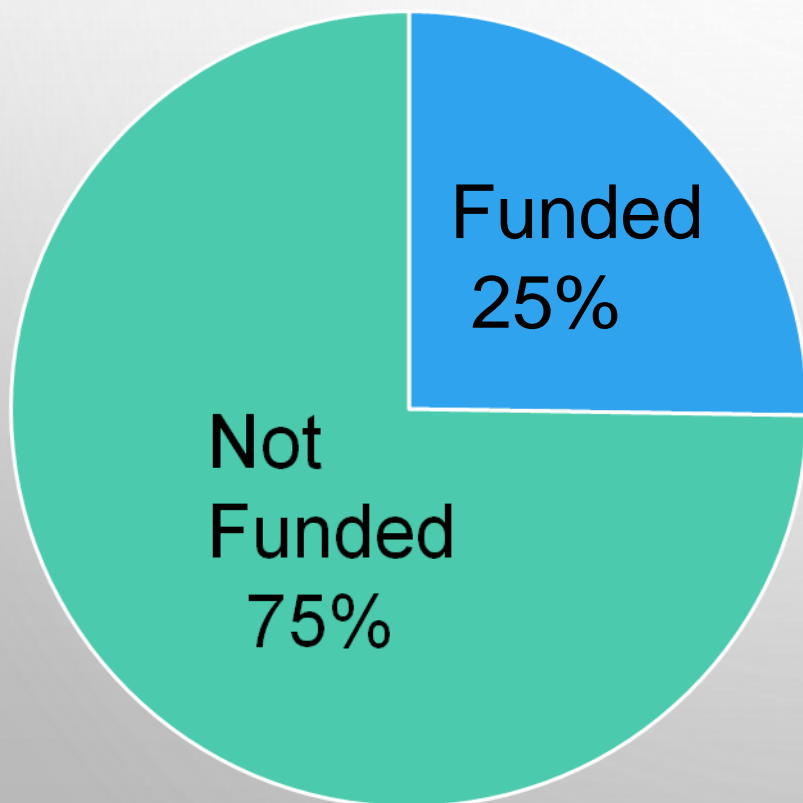


# Mentor-Connect Focus

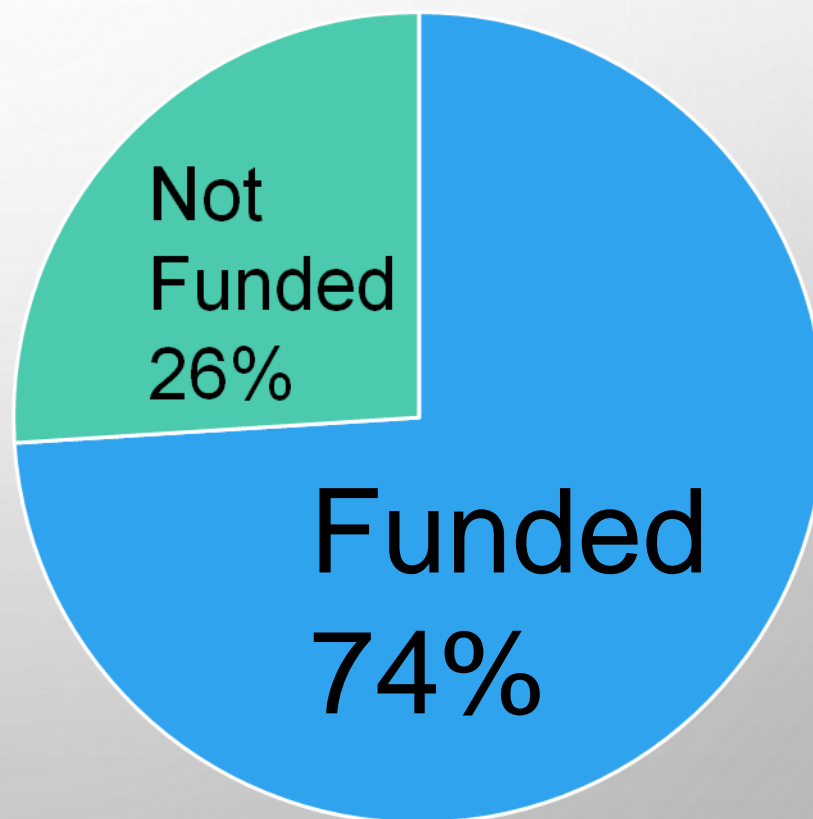
- **Small Projects for Institutions New to ATE**
  - **Individual Mentoring**
  - **Technical Assistance**
  - **Webinars & Tutorials**
  - **Workshops**
  - **Help Desk – Just-in-time answers**
  - **Online Resource Library**
  - **NSF Funding Process Guidance & Start-up Help**
  - **Leadership Development**
- 

# Why Mentor-Connect?

NSF Average  
Funding Rate



Mentor-Connect  
Average Funding Rate





# Mentor-Connect Eligibility

- **No ATE grant funding in the past 7 years**
- **Branch campus with an Academic Officer**
- **STEM or CTE 2-year college faculty**
- **Technician education**
- **One team application per eligible college**







# Encouraged to Apply

- **Minority Serving Institutions (MSI)**
- **Hispanic Serving Institutions (HSI)**
- **Historically Black Colleges & Universities (HBCU)**
- **Tribal Colleges and Universities**
- **Alaska Native and Native Hawaiian Serving**
- **Rural Colleges**





# Encouraged to Apply

- **Diverse STEM Faculty (underrepresented)**
  - **Female**
  - **Hispanic/Latino**
  - **African-American**
  - **Alaskan Native**
  - **Native American**



# How to Apply

- Go to [www.Mentor-Connect.org](http://www.Mentor-Connect.org)
  - Select: “Get a Mentor”
  - Complete application package
  - Available on July 1
  - Deadline in 2<sup>nd</sup> week of October
  - Electronic application and college affidavit
  - 150 word personal statement of interest
  - 500 word proposal description



# www.mentor-connect.org

[HOME](#)[MENTOR  
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MENTOR](#)[BE A  
MENTOR](#)[FIND A  
RESOURCE](#)[CONTACT  
US](#)

## MENTORING FOR STEM FACULTY THAT TRANSFORMS TECHNICIAN EDUCATION



### 2021 Technical Assistance Webinars Budget, Evaluation and Forms are Now Available

Each year, Mentor-Connect conducts live technical assistance webinars to help prospective grantees complete various sections of their New-to-ATE proposals. Read more to see a complete listing of our 2021 archived webinars, including tutorials, and miscellaneous older webinars.

[READ MORE](#)

# Get a Mentor

[HOME](#)[MENTOR  
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## GET A MENTOR

Mentor-Connect offers three types of no-cost mentoring to community colleges seeking to improve technician and related STEM education through projects funded by the [National Science Foundation's Advanced Technological Education Program \(NSF ATE\)](#).

### 1. New-to-ATE (Deadline: October 8, 2021)

helps colleges develop grant proposals for the Small Grants for Institutions New to ATE track. (Colleges are considered new to ATE if they have not received ATE funding in the past seven years.)







# MNT-EC Mentoring

- **Mentoring for Micro/Nano related proposals**
  - **Micro/Nano Technology**
  - **Materials Science Technology**
  - **Photonics Technology**
  - **Manufacturing Technology**
  - **Engineering Technology**
  - **Biotechnology**







# MNT-EC Mentoring Services

- **Review Micro/Nano related proposals**
  - **Provide feedback and recommendations**
  - **Subject matter expertise**
- **Guidance on:**
  - **NSF ATE Solicitation 21-598**
  - **PAPPG**
  - **NSF New Awardee Packet**
  - **NSF onboarding process**



# MNT-EC Mentoring

- **Apply at [micronanoeducation.org](http://micronanoeducation.org)**
  - **Select “Educators”**
  - **Select “Mentoring”**
  - **Select “New to ATE”**
- or**
- **Select “Micro/Nano Related Proposals”**
- **Select “Project Proposal Application”**
- **Application opens on January 1**



# www.micronanoeducation.org



Educators

Students and Parents

Industry

Affiliates & Partners

Calendar

Journal

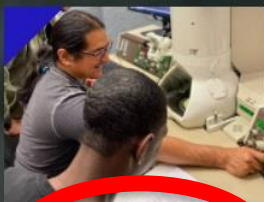
News & Updates

About

► Micro Nano Technology Education Center



## Explore



● Educators



● Students & Parents



● Industry



● Partners



● Journal

CALENDAR

## Upcoming





# MNT-EC Educators Menu



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▲ Educators

Professional Development Grant Opportunities **Mentoring** Journal Get Involved



## For Educators

Access to a plethora of educational content and tools

### Events & Opportunities

October 20 — October 22

**ATE-PI Conference**



# MNT-EC Mentoring Menu



Educators  
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## Mentoring Opportunities

MNT-EC partners with Mentor-Connect for Co-mentoring New to ATE grant proposals. Mentors help prospective grantees by sharing successful grant-writing strategies, knowledge, and resources with a goal of developing the next generation of Principal Investigators for the Advanced Technological Education (ATE) Program. MNT-EC Mentors will provide feedback on grant proposals, review NSF ATE requirements, and communicate with mentees periodically throughout the grant writing process.

[Get a Mentor](#) →

[Be a Mentor](#) →



[Get a Mentor](#)



# MNT-EC Application Process

## Get a Mentor

### New to ATE

MNT-EC partners with Mentor-Connect for Co-mentoring New to ATE grant proposals. Please click on APPLICATION to be directed to the Mentor-Connect website.

**New to ATE Mentor-Connect Application**

### Micro/Nano Related Project Proposals

MNT-EC Mentors

## Be a MNT-EC Co-Mentor Fellow



# Future Projects

- **Teacher Preparation for STEM and CTE**
- **Business and Entrepreneurial Skills Development for Students**
- **Pilot Program Testing**
- **Program Expansion**





# ATE Central

- **Information hub for NSF ATE community**
- **Free online portal**
- **Collection of products and materials**
- **ATE Central Handbook**
- **ATE Outreach Kit**
- **Activity Reports**





# www.atecentral.net

## What is ATE?

With an emphasis on two-year colleges, the National Science Foundation's ATE (Advanced Technological Education) program focuses on the education of technicians for the high-technology fields that drive our nation's economy.

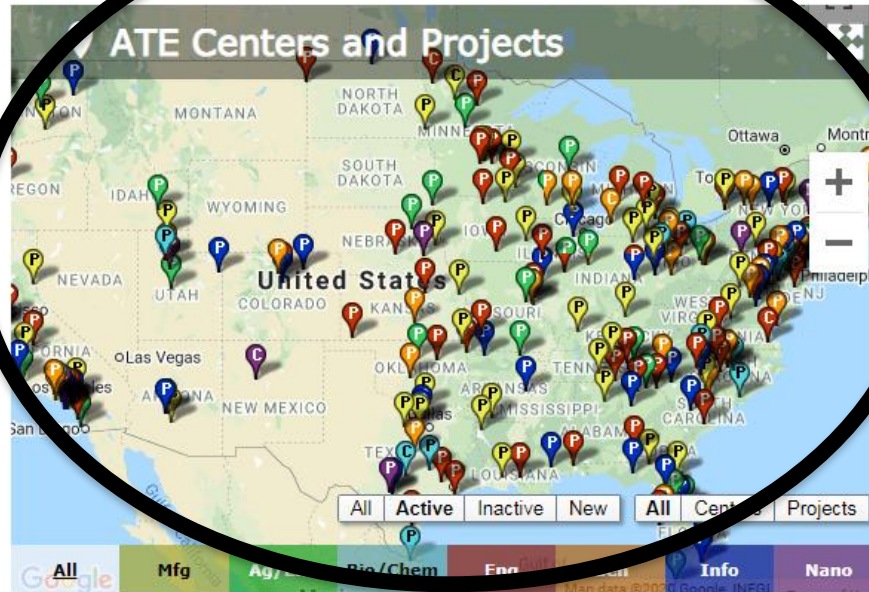
Learn More About ATE

ATE Central Tools & Services

## ATE Events

- 9 MNT-EC Seminar Sep 9
- 10 NSF ATE Grant Proposal Help Sep 10
- 15 Archiving with ATE Central Sep 15
- 16 MNT-EC Seminar Sep 16
- 23 MNT-EC Seminar Sep 23
- 24 Midwest Cisco Networking

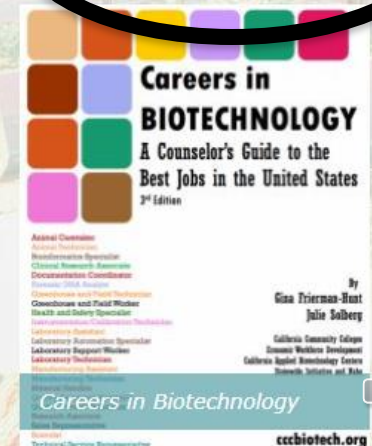
## ATE Centers and Projects



## ATE Fact Sheet

Active ATE Centers	30
Active ATE Projects	335
ATE Resources	5,479
New Projects/Centers	116
New Resources	110

## ATE Resources



## ATE News





# NSF ATE Resources

NSF ATE [www.nsf.gov/ATE](http://www.nsf.gov/ATE)

Mentor-Connect [www.mentor-connect.org](http://www.mentor-connect.org)

MNT-EC [www.micronanoeducation.org](http://www.micronanoeducation.org)

ATE Central <https://atecentral.net/>

EvaluATE <https://www.evalu-ate.org/>



# PAPPG

NATIONAL SCIENCE FOUNDATION

## PROPOSAL AND AWARD POLICIES AND PROCEDURES GUIDE




National Science Foundation  
WHERE DISCOVERIES BEGIN

Effective October 4, 2021  
NSF 22-1  
OMB Control Number 3145-0058





# PAPPG

- **Proposal preparation instructions**
  - **Submission guidelines**
  - **NSF proposal processing and review**
  - **Budget information**
  - **Allowability of costs**
  - **Financial requirements**
  - **Post award requirements**
  - **Grant administration**
- 



# Questions?

Greg Kepner – [greg@micronanoeducation.org](mailto:greg@micronanoeducation.org)

Mel Cossette – [mel@micronanoeducation.org](mailto:mel@micronanoeducation.org)

Elaine Craft - [Elaine.Craft@fdtc.edu](mailto:Elaine.Craft@fdtc.edu)

Elaine is the Principal Investigator for Mentor-Connect.

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