

Learning Together: Outcomes from an S-STEM PI Mentoring Network

Brandon Mitchell

Professor of Physics, West Chester University
Director, NSF S-STEM PI Mentoring Program*

*NSF S-STEM Pilot Program (Award #2447079)

What you wanted:

To increase the academic, personal and professional success of STEM scholars, particularly for low-income and underrepresented student populations.

What did you do?

Wrote a long grant proposal and were successfully awarded a large million or multi-million dollar grant!



Congratulations!



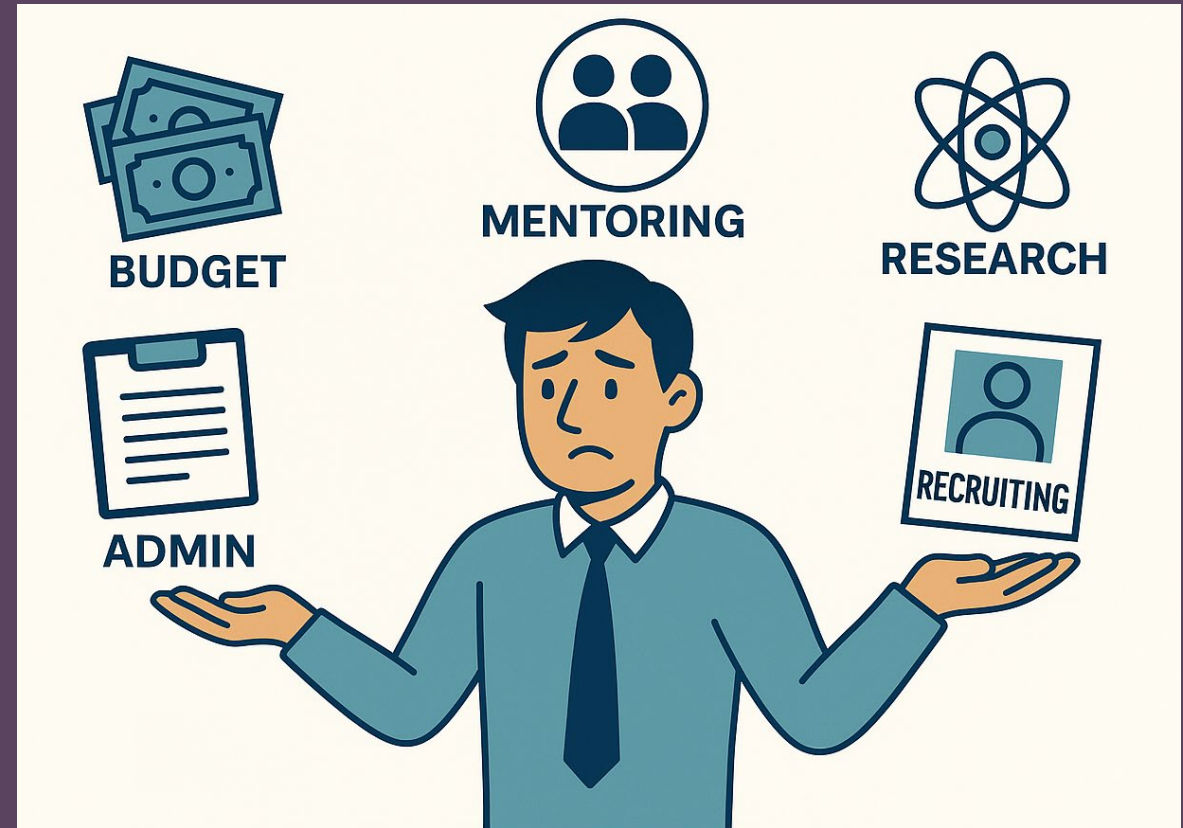
What you may be thinking...



Activity 1: How Are You Feeling?

Why a Mentoring Program for PIs?

- Managing an S-STEM award is complex:
 - Recruitment & retention challenges
 - Scholarship disbursement & financial aid systems
 - Institutional bureaucracy and reporting.
- S-STEM PIs are asked to do **much more than “run a project.”**



What many PIs feel in Year 1 ...



But they planned so hard?



The goal of the S-STEM Peer Mentoring Program is to make your program implementation easier!



More Moving Parts than you might Imagine...

- High Schools' Policies for Recruitment
- Admissions
- Financial Aid
- Business Office
- Payroll
- HR
- Public Relations
- Web services
- Other Colleges (and divisions within)
- Funding Agency

Recruitment

Perhaps you had an “if I build it, they will come” attitude... but not a lot of people showed up...



Or your grant was funded in January, and many students have already made their choices.

Admissions

- Maybe they aren't as helpful at promoting as you hoped

Financial Aid

- These are final dollar awards, and they sometimes get them wrong

Business Office

- Doesn't know how to manage a large grant and work with external consultants

Housing

- Won't let your scholars live on campus in the summer, when your camp is scheduled

Just put it in the Annual Report!

- New PIs may not be comfortable sharing these challenges in all the gory details with the program officer.
 - Don't want to seem like you can't handle it.
 - Don't want to throw your institution under the bus.
 - Want to be eligible for another one of these!

Results from Our Pilot Program



MN Associates, Inc.
www.mnassociatesinc.com

- **Pilot Program:** January–July 2025
- **External Evaluation:** MN Associates, Inc. / Kavita Mittapalli, Ph.D.
- Generated a **Lessons Learned report** providing:
 - Insights into shared PI challenges and areas of growth
 - Guidance for strengthening and scaling the mentoring model

Updates and details on the next Mentoring Session will be discussed later

What was the purpose of the Pilot?

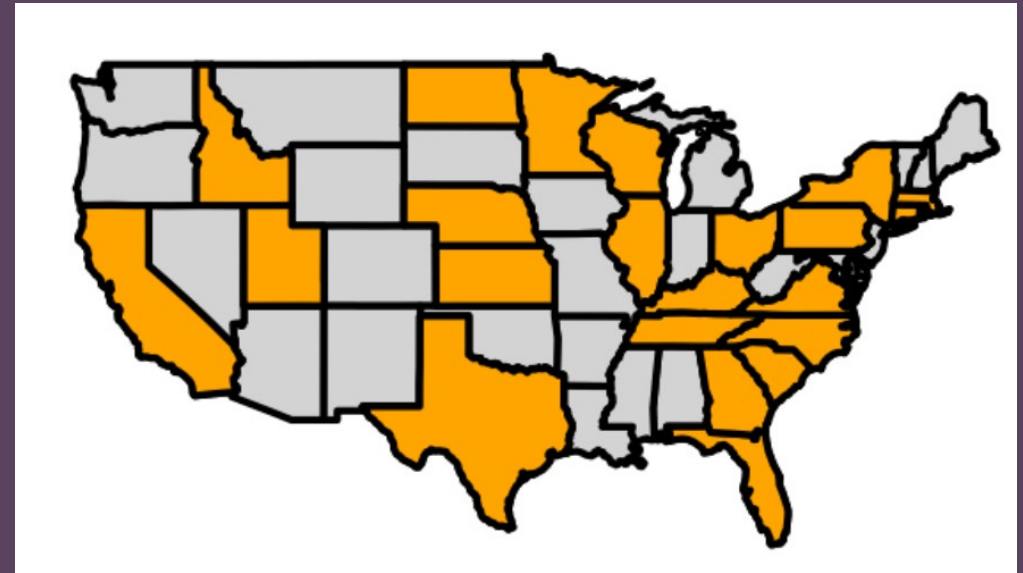
Directly help new PIs by reducing time spent navigating institutional barriers, increasing the effectiveness and efficiency of executing recruitment plans, and assisting PIs in conveying their successes and struggles to the NSF through their annual reports.

There is a breadth of knowledge from the S-STEM program from the perspective of helping scholars succeed. Similar knowledge can be gained from such a mentoring program, as common institutional barriers and recruitment challenges can be identified, and solutions can be tested and tracked.

These results could serve as a “guide” for all S-STEM PIs and potentially help institutions looking to implement strategies for increasing the persistence of low-income students in STEM.

The Pilot at a Glance

- Launched in **2025** with 53 participants across 22 states
- Monthly **small-group mentoring** + quarterly mentor forums
- Diverse mentor team: **community colleges, PUIs, R1s**
- External evaluation by **MN Associates, Inc.**



G1: R1 Mid-US

Tim Dallas
Michael Thompson
Angela Hodgson
Karina Vielma
Monique Ogletree
Marisa Brunsvik

G2: R1/R2 Public ECC

Brandon Mitchell
Cory Budischak
Mao-Lun Weng
Radoslaw Wojciechowski
Thitima Srivatanakul
Perla Myers
Carla Penha Vasconcelos
Virginia Thompson

G3: 4-YR Mid-E

Olivia Carducci
Burcu Ozden
Laurence Bray
Jessica Rettig
Ashley Bartelson
Kristopher Schmidt
Rick Silvey

G5: CC Mid-US

Suneetha Menon
Beth Edmonds
Bulmuo T Maakuu
Kristyn VanderWaal Mills
Tyrun Flaherty
Kara Reed
Kitrina Carlson
Ken McCullough
Elise Van Ginkel

G4: CC Coasts

Anna Thompson
Patricia Foley
Tanya Hoerer
Rebecca Binney
Ellen Beaulieu
Kyle Knust
Thomas Ndolo

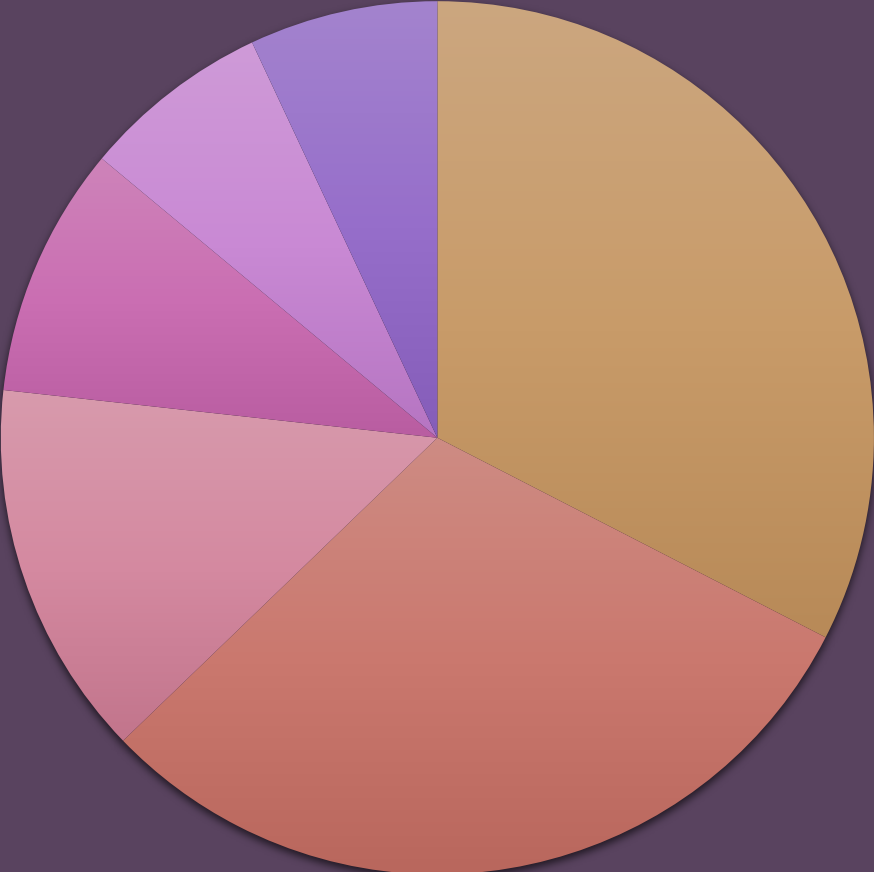
G6: 4-yr Southeast

Marisol Santisteban
Sanjukta Bhanja
Maria Siopsis
Rebecca Fillmore
Sara Johnson
Hasitha Mahabaduge
Wes Hitt
Robin Lammi

G7: EPSCOR - W

Katherine Wright
Todd Frauenholtz
Vince Rossi
Paul W Denton
Charlisa Daniels
Greg Arbuckle
Katie Peterson

Topics of Conversation



■ Administrative Issues

■ Student Engagement Strategies

■ Budget Management

■ Collaboration and Networking

■ Program Evaluation

■ Compliance and Regulations

What New PIs Gained

- **Clarity & confidence** in managing S-STEM awards
- **Dedicated peer network** that reduces isolation
- **Practical strategies** for recruitment, disbursement, and scholar engagement
- **A true sounding board** – a safe space to share challenges, test ideas, and receive feedback from peers

Activity 2: Case Study

You are entering the early weeks of the fall semester as a new S-STEM PI. Over the summer, you successfully onboarded your first cohort of STEM scholars and worked closely with your institution's financial aid office to provide all required documentation for scholarship disbursement.

As the semester begins, you receive multiple urgent emails from scholars stating that their scholarships have not yet been applied to their accounts. Several scholars report receiving notices from the registrar indicating they may be dropped from their classes due to nonpayment. Others have received warnings from housing that they may be removed from campus housing if their balances are not resolved soon.

The scholars do not have the funds to cover their balances out of pocket and are reluctant to take out bank loans, as they were relying on the STEM scholarship to cover these costs. You have already been told by financial aid that everything was "submitted correctly," but the funds have not posted.

Discussion Questions. In your group, discuss the following:

- 1. What are your immediate priorities in this situation?**
- 2. Who do you contact first, and what information do you need to gather?**
- 3. How do you communicate with the affected scholars in the short term?**
- 4. What steps could you take to prevent a similar situation in future semesters?**

Be prepared to share one or two key takeaways or strategies from your discussion.

Lessons Learned: Program Implementation

- **Recruitment is harder than expected** → alumni (if applicable) ambassadors & first-year outreach more effective
- **Scholarship disbursement timing matters** → strong PI–financial aid partnerships reduce stress
- **Institutional capacity varies** → CCs often lack the infrastructure; R1s face silos and inter-office delays. R1s know grants, but S-STEM is different...

“It’s a lot harder to get rid of money than you would think.” – Pilot Mentor

Lessons Learned: Supporting scholars

- **Cohort cohesion needs leadership cultivation** → avoid over-reliance on one “glue” scholar
- **Mental health support is essential** → counseling, stress management, flexible scheduling
- **Non-traditional scholars bring value but need flexibility** → hybrid and inclusive options boost participation

Join the next round!

Why Join the Next Cohort?

- **Be part of a national PI network** – mentors + peers across the U.S.
- **Learn proven strategies** *and* gain a **sounding board** for your challenges and growth.
- **Experienced mentors** who've faced the same hurdles
- **Shape the program** as it grows to 40+ states

Benefits of a Mentoring Program for PIs



Leadership
Development



Expanded
Network



Efficiency

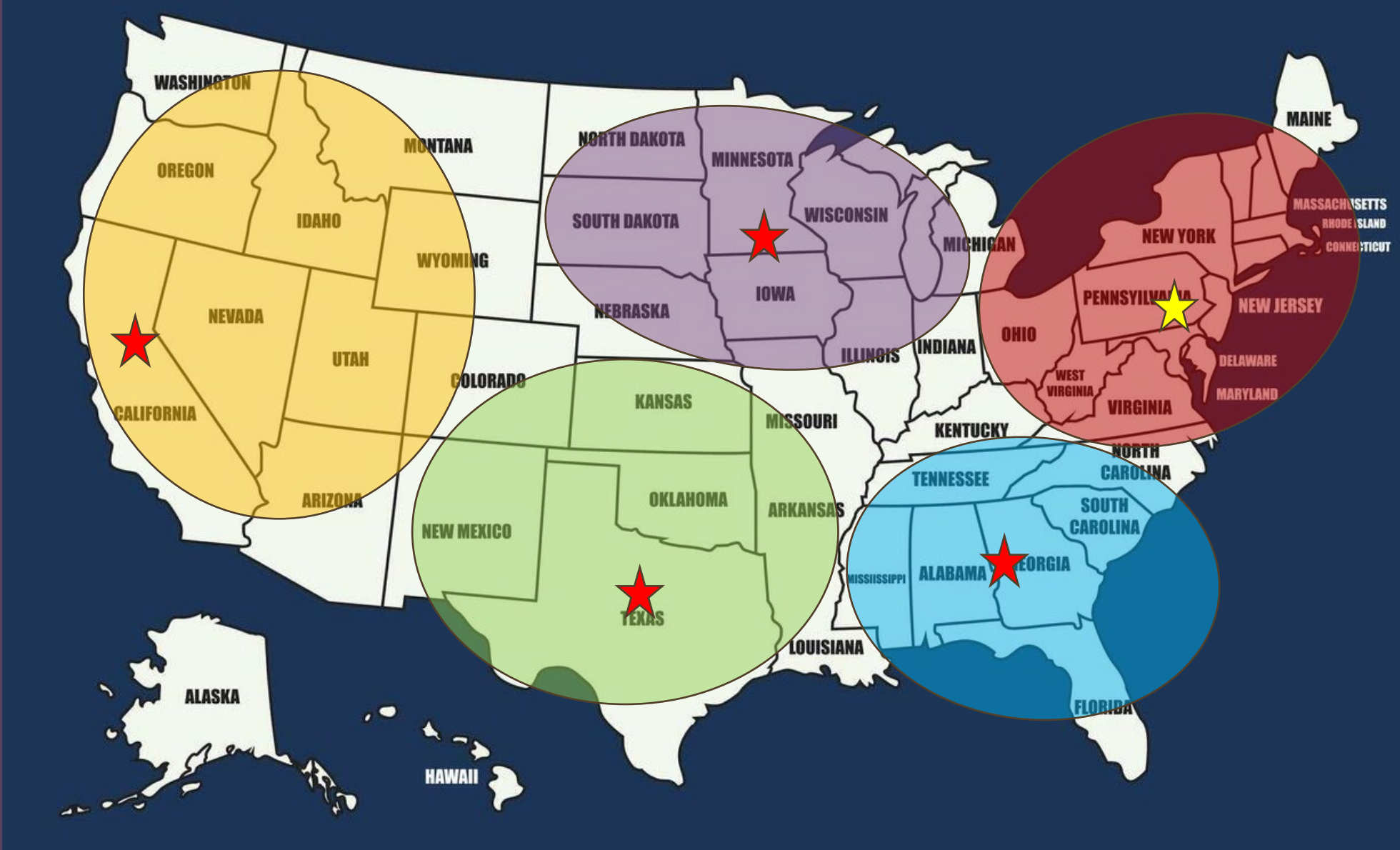


Efficiency



Research
Insight

Hub Model



What does the program look like?

Hub Leaders – There will be 5 hubs with 2-3 mentoring groups in each hub and a hub leader.

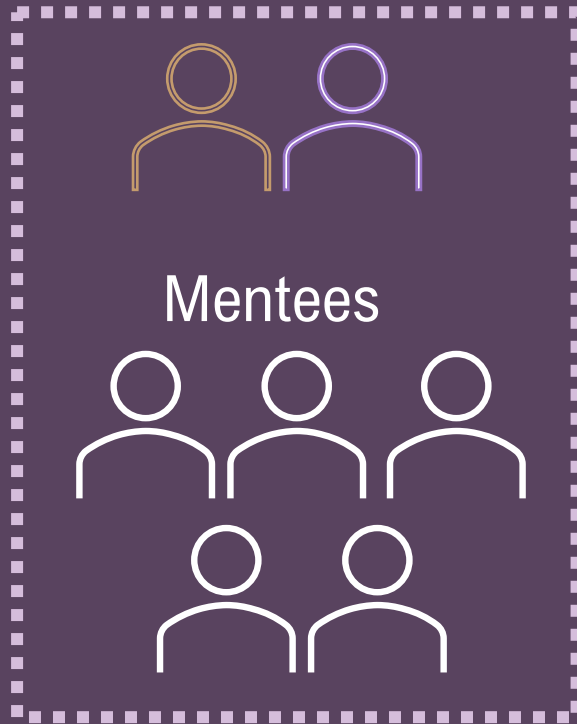
Mentoring Leads– There will be a lead PI mentor in each group of 3-6 mentees, all with similar program backgrounds and institutional types.

Assistant Mentors – Each mentor group will have an assistant mentor who will help with the monthly meetings.

Multiple mentors will be able to give different but related advice based on their experiences and comfort level with certain areas of running an S-STEM.

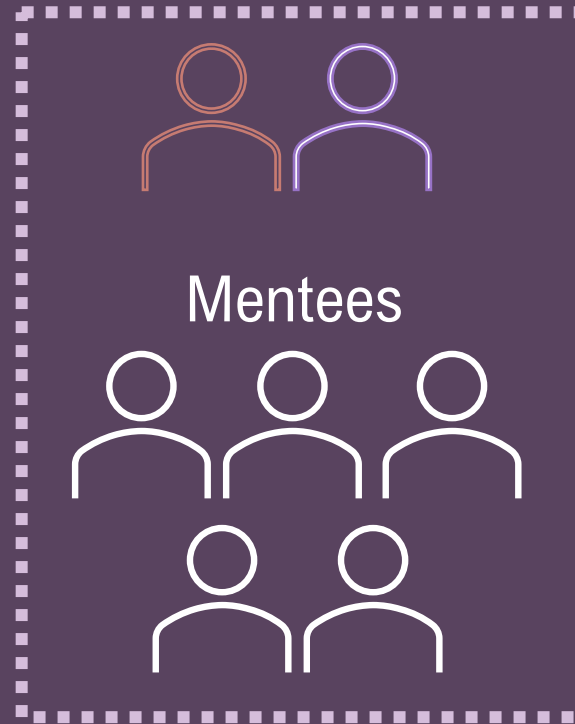
What is the HUB structure?

Hub Leads



Community Colleges

Mentoring Leads



Primarily Undergraduate

Co-Mentors



Research Institutions

Topics for each meeting

Week	Proposed Topic
1	Kickoff + Building Your S-STEM Mentoring Team and Vision
2	Implementing Successful Recruitment and Applicant Selection Strategies
3	Navigating Scholarship Distribution and Budget Management Issues
4	Building and Maintaining Strong Relationships with Student Services Colleagues
5	Engaging S-STEM Student Scholars and Cohort Building
6	Successfully Tracking Student Success and Implementing Efficient Data Collection
7	Adjusting to Unexpected Challenges

How to Join... See Program Flyer

Or follow this QR Code:

