



# **AISES' COMMUNAL EFFORTS TO ENHANCE THE TRANSFER EXPERIENCE FOR INDIGENOUS STUDENTS IN STEM**

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NSF INCLUDES Planning Grant 2022-2023

NASEM Roundtable on Systemic Change in  
Undergraduate STEM Education



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# PROJECT TEAM MEMBERS

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- ❖ Brittany Anderson (Fond du lac Ojibwe), Research and Career Support Senior Programs Officer, AISES
- ❖ Dr. Bethany Klemetsrud (White Earth Nation), Assistant Professor in Chemical Engineering, University of North Dakota
- ❖ Amber Finley (Mandan, Hidatsa, Arikara Nation, Spirit Lake Dakota, and Standing Rock Lakota), Director of Research and Development and Science Faculty, Nueta Hidatsa Sahnish College

# PROJECT OVERVIEW

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- **WHO:** The proposed planning grant will bring together Tribal College, Community College, and four-year institution representatives from across the country.
- **WHAT:** Tackle the issue of successfully transferring more Native American students to four-year institutions.
- **WHY:** The broadening participation challenge for the proposed collaborative project will address the underrepresentation of Native Americans with four-year degrees in STEM fields.
- **HOW:** To address this challenge, the proposed INCLUDES planning grant's mission is solidify the shared vision and necessary partnership strategy to successfully develop a transfer pathway model for Native students in STEM.





# PROJECT GOALS & OUTCOMES

Best practices and lessons learned regarding transfer and retention programs and other relevant student support services of all the partner institutions and organizations

Identification of gaps in knowledge and understanding of factors affecting transfer and four-year degree completion for Native Americans in STEM; and

A model for more effectively transferring, retaining, and graduating Native American STEM students, including an action plan around sustainability.

# METHODS

## Faculty/Staff Virtual Talking Circles

- 21 total participants
- 10 faculty, 11 student Support staff
  - $\frac{1}{3}$  from TCUS
  - $\frac{2}{3}$  from four-year institutions

## Student Surveys/Talking Circles

- 191 total responses
- 36 participated in the in-person talking circles at the 2022 National Conference in Palm Springs, CA

# IDENTIFYING CHALLENGES & SUPPORTS

# CHALLENGES: FACULTY/STAFF FEEDBACK

## Lack of institutional support/infrastructure for Native students

- Strong supports have mostly been funded through grants
- Non-sustainable for both financial and human resources

## TCUs and four-year institutions

- Challenge with traveling away from home for weeks at a time
- Those who do participate find a disconnect in paradigms between settler colonial institutions and relevance to tribal communities

# CHALLENGES & SUPPORTS: STUDENT FEEDBACK

- Difficult/rigorous course load compared to experience at two-year college/too easy at CC not prepared
  - Faculty at TCUs are better equipped to teach Native students
  - TCU provided stronger programming to support cultural foundations and intersectional identity development
- Difficult/overwhelming to navigate at 4-year institution
- Culture shock upon transferring
- College affordability/lack of financial support
- Misinformation or no information in the transfer process
- Non-linear pathways
- Mentors have major impact on success



## QUOTE FROM STUDENT WHO TRANSFERRED

**“Because the environment at the tribal college, every one of my professors or teachers went above and beyond to make sure that I understood the material and asked if I needed help or questions or anything. They went out of their way. They made themselves available even on their off time, versus the four-year university that refused to open an AISES chapter because they said they didn't have enough Native American students on their campus to worry about it.**

**Then I've been there almost six years trying to finish my bachelor's degree because I have no resources, and I pay for everything out of pocket. It has been very stressful going to a four-year university that says they're inclusive; they claim to be an international school; they boast having students from all around the world, but they can't even include the Native students that they have in their own backyard.”**

# QUOTE FROM STUDENT ABOUT TCU EXPERIENCE

“I think just speaking on my own personal experience, **the tribal college was a lot more on a personal level.** The professors got to know you. They wanted to know how you were doing. If you had situations at home that that were causing issues that interfered with your studies, they tried to see if there were ways that they could help you.”



# RECOMMENDATIONS

# RECOMMENDATION: BUILD A SOLID FOUNDATION

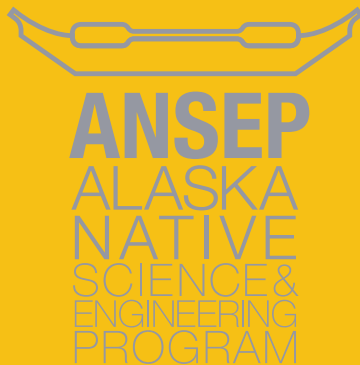
- Bringing in TCUs at the beginning of the process to better support transfer pathway
  - Mutual understanding of admissions and financial aid processes and supports
  - Active engagement in community development
- Supporting staff and faculty to develop skills to ensure smooth transition between institutions
- Clear articulation of academic requirements
- Engage STEM faculty and staff in professional development to effectively supporting Indigenous learners

# RECOMMENDATION: FORMALIZE PARTNERSHIPS AND PROMOTE SUSTAINED SUPPORT

- Commitment from institutional leadership to develop formalized partnerships to support Indigenous STEM transfer students - should be a decentralized effort
  - MOUs
    - More collaboration between Universities and connecting to resources
  - Summer institute or orientation program for transfer students
    - Assists students in wayfinding through the large institutional spaces
    - Include families
  - Transfer STEM Mentorship Program and/or Living-Learning Community
    - Pair students anticipating undergoing the transfer pathway
    - Intentional Mentorship with structured practices

# RECOMMENDATION: BROADEN YOUR SCOPE OR COLLABORATE

- Identify opportunities for community and tribal partnerships and act on them
- Look to existing models and champions of change
- Expand scope of programming to include Indigenous lens or provide additional support targeted at transfer students in STEM fields



# WADO/MVTO

Questions?

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