



# 2018 Tribal Energy Webinar Series

American Indian Science and Engineering Society (AISES)

Sarah EchoHawk, CEO

# Mission

Founded in 1977, AISES is a national nonprofit organization focused on substantially increasing the representation of American Indians, Alaska Natives, Native Hawaiians, Pacific Islanders, First Nations and other indigenous peoples of North America in science, technology, engineering and math (STEM) studies and careers.



[https://www.youtube.com/watch?v=fdG\\_xoeHlfl](https://www.youtube.com/watch?v=fdG_xoeHlfl)



# Why STEM Matters

## STEM is where the jobs are

STEM employment is expected to grow 17% between 2008 and 2018, far faster than the 10% growth projected for overall employment

## STEM workers earn higher salaries

The average wage for all STEM occupations is \$85,570, nearly double the average for all occupations (\$47,230).

## The U.S. is not producing enough STEM workers

60% of the new jobs that will open in the 21st century will require skills possessed by only 20 percent of the current workforce.

Worldwide, the United States ranks 17th in the number of science degrees it awards.

## The U.S. is losing its competitive edge

The U.S. is ranked sixth among 40 countries and regions, based on 16 indicators of innovation and competitiveness.

The prestigious World Economic Forum ranks the U.S. as No. 48 in quality of math and science education.

# Why STEM Matters in Indian Country



- STEM is the key to ensuring that Native People have a voice in the workforce within (non-Native) companies, institutions and agencies – providing Tribal Nations broader influence and input.
- Building STEM capability within Tribal Nations provides greater control over decision-making by avoiding or reducing non-Native outsourcing; and providing stronger control of Tribal assets.
- A strong tribal STEM workforce helps generate entrepreneurial opportunities to create businesses to support tribal communities.
- In short, Native STEM workforce development is a key component of tribal sovereignty and self-determination.





# Four Strategies for American Indian STEM Workforce Development

**Strategy #1: Build Awareness and Increase Retention in K-12 STEM:** Start the pathway by providing Native K-12 Students, parents, and educators exposure to quality curriculum, programs, and opportunities to interest and engage them STEM.

**Strategy #2: Increase Access to and Success in STEM Higher Education:** Continue the pathway through higher education by providing financial and academic support and opportunities to Native college students to increase the numbers of successful Native STEM majors.

**#3: Provide Leadership and Promote Change to Improve Professional Opportunities in STEM:** Support the pathway to keep Natives in STEM careers through support of professional Native STEM network and career development resources.

**#4: Identify and Leverage Strategic Partnerships and Conduct Research in STEM Issues Specific to Native Americans:** Illuminate the pathway by identifying the challenges and successes in Native STEM Workforce Development through research, data collection, and partnerships with other key STEM stakeholders.

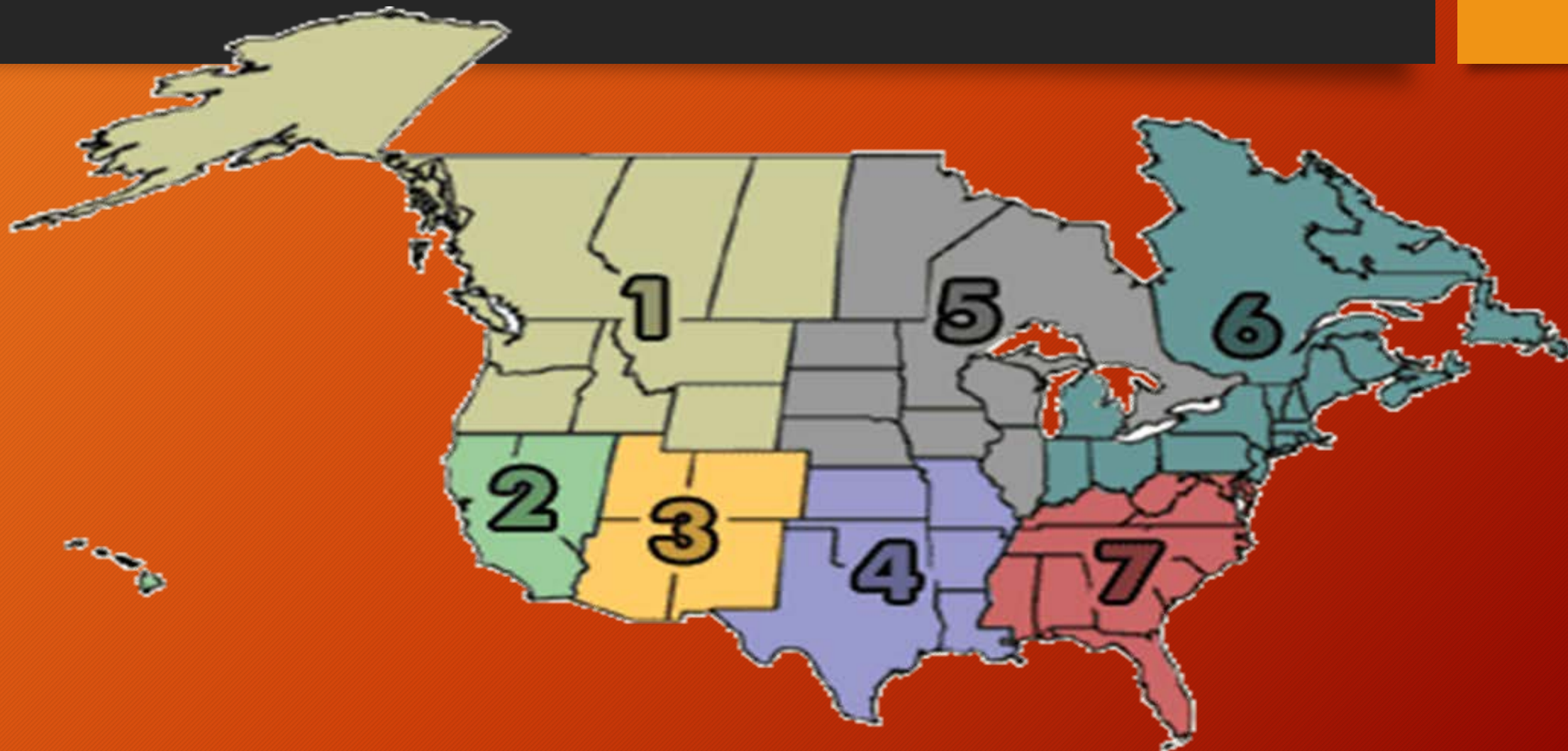
## AISES BY THE NUMBERS

- 4,400+ Individual Members
- 15 Professional Chapters
- 190 College/University Chapters
- 158 K-12 Affiliated Schools enrolling more than 55,000 Native Students
- \$10.8 Million in Academic Scholarships





# Seven Regions



# Advisory Councils

## Current Advisory Councils

Academic Advisory Council

Professional Chapter Advisory Council

Council of Elders

Corporate Advisory Council

Government Relations Council

## Two New Councils in 2017

Tribal Nations Advisory Council (TNAC)

Canadian Indigenous Advisory Council  
(CIAC)





## Government Relations Council



The Government Relations Council (GRC) is comprised of U.S. Government employees. The GRC establishes and supports working relationships between Federal government agencies and AISES, an identifies government resources, develops strategies, and promotes government careers in support of the AISES' mission by:

- Assisting in the placement of Native people into government jobs, by working closely with the AISES student chapters, and colleges and universities.
- Coordinating and participating in government sponsored workshops at the AISES National Conference, Leadership Summit, and Regional Conferences.
- Identifying federal funding opportunities for AISES.
- Supporting student and professional chapter events.
- Identifying federal internship and employment programs.

# Tribal Nations Advisory Council (TNAC)

- The role of Tribal Nations Advisory Council (TNAC) is to advise AISES in its work with Tribal Nations and is comprised of representatives from Tribal Nations.
- The TNAC works to address the growing tribal STEM workforce development needs while also advising AISES in its work with Tribal Nations to help shape and guide STEM programming for Native youth in those communities as well as the development of STEM infrastructure.
- The TNAC also assists AISES in creating opportunities for tribal members, and to support the AISES' mission of substantially increasing the representation of Native people in STEM fields.





# Some of Our Work in Indian Country...

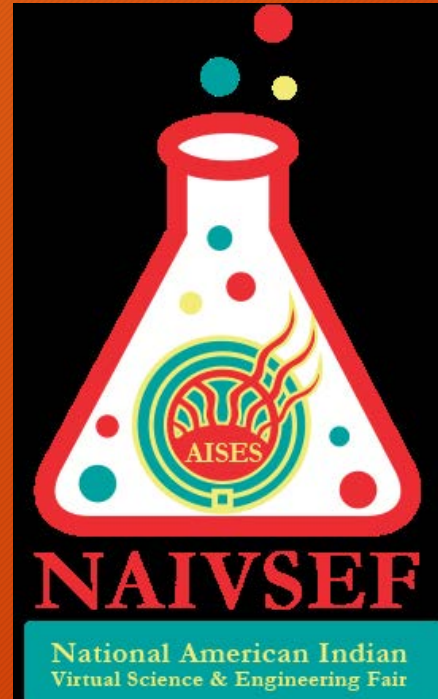
Native Youth and Community Project (NYCP), funded by the U.S. Department of Education, a four-year, \$700k, grant to support AISES' work with the Cheyenne-Eagle Butte Schools and the Cheyenne River Sioux Tribe to address barriers to college and career readiness, specifically in the STEM fields among American Indian students.

Cherokee Preservation Foundation - Recently awarded second of two grants supporting AISES' partnership with the EBCI schools and educators to provide STEM programming.





# Other Highlights



<https://www.youtube.com/watch?v=ygPDfo7b8RY>

**Energy Challenge**  
For American Indian/Alaskan Native Youth

