

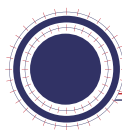
American Indian Science and Engineering Society

2017 ANNUAL REPORT

AISES
40
YEARS

The central graphic is a vertical banner with a white background and a blue border. It features several icons: a lightbulb inside a gear, a DNA helix, a microscope, a flask, a speech bubble, and a gear with a microscope. The text 'AISES 40 YEARS' is prominently displayed in the center.





COUNCILS



AISES Council of Elders

Dr. Bret R. Benally Thompson
(White Earth Ojibwe)

Antoinelle Benally Thompson
(Navajo)

Steve Darden (Navajo/
Cheyenne/Swedish)

Rose Darden (Ute)

Norbert Hill, Jr. (Oneida)

Phil Lane Jr. (Yankton
Dakota/Chickasaw)

Stan Lucero (Laguna Pueblo)

Cecelia Lucero (Acoma Pueblo)

Dr. Henrietta Mann
(Southern Cheyenne)

Dr. James May (United
Keetowah Band)

Faith Spotted Eagle (Ihanktonwan
Band of the Dakota/Nakota/
Lakota Nation of South Dakota)

Council of Elders Emeriti

Andrea Axtell (Nez Perce)

Mary Kahn (Navajo)

Council of Elders in Memoriam

Horace Axtell (Nez Perce)

Eddie Box, Sr. (Southern Ute)

Franklin Kahn (Navajo)

Bow Lane (Chickasaw)

Phil Lane, Sr. (Yankton Sioux)

Lee Piper, Ph.D. (Cherokee)

AISES Board of Directors

Dr. Twyla Baker (Three
Affiliated Tribes)

Chair

Richard Stephens (Pala
Band of Mission Indians)

Vice-Chair

Michael Laverdure (Turtle
Mountain Band of Chippewa)

Treasurer

Amber Finley (Three Affiliated Tribes)
Secretary

Bill Black

Dr. Grace Bulltail (Crow,
Mandan, Hidatsa, and Arikara)

Barney "B.J." Enos (Gila
River Indian Community)

Kristina Halona (Navajo)

Dr. John B. Herrington (Chickasaw)

Alicia Jacobs (Cherokee)

Dr. Adrienne Laverdure (Turtle
Mountain Band of Chippewa)

Shaun Tsabetsaye (Zuni Pueblo)

Advisory Council Chairs/Co-Chairs

Academic Advisory Council (AAC)

Dr. Mary Jo Ondrechen

(Mohawk), Northeastern University

Canadian Indigenous Advisory Council (CIAC)

Jamie Ricci

Matt Dunn (Dene, Athabasca
Chipewyan First Nation),
University of Saskatchewan

Corporate Advisory Council (CAC)

Laurence Brown (Navajo),
Sandia National Laboratories

Chuck Ross (Choctaw), Raytheon

Government Relations Council (GRC)

James Daugomah (Kiowa), National
Oceanic and Atmospheric Administration

Noller Herbert (Navajo), USDA
Natural Resources Conservation Service

Amanda James (Pyramid Lake Paiute
Tribe), Bureau of Land Management

Marcellus Proctor (Piscataway-
Conoy), National Aeronautics
and Space Administration

Professional Chapter Council (PCC)

Joe Connolly (Haudenosaunee
of the Onondaga Nation), National
Aeronautics and Space Administration

Tribal Nations Advisory Council (TNAC)

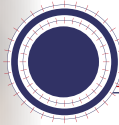
Maria Dadgar (Piscataway Tribe of
Accokeek), Inter Tribal Council of Arizona

Mark Harding (Mashpee
Wampanoag), Next7

John Lewis, (Gila River Indian
Community), Gila River Indian
Community Utility Authority

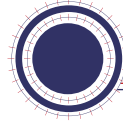
Alicia Ortega (Pojoaque Pueblo),
All Pueblo Council of Governors

Gary Santos (Tule River), Tule
River Indian Tribe of California



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40 YEARS

Letter from the AISES Board Chair and AISES Chief Executive Officer

Dear Friends,

Thank you in joining us for our celebration of AISES' 40-year anniversary! As you read through these pages, we think you'll be impressed at how much impact our organization has had in encouraging indigenous people in the fields of science, technology, engineering, and math (STEM). Although we have faced many challenges over the years, we persevered, and thanks to people like you who are the heart of the AISES family, achieved success.

As an organization, AISES grows stronger every year. We now offer more opportunities, programs, and services for our members than ever before. Together, we are celebrating a 40 year track record of milestone achievements, including:

- Awarding \$377,800 in 2016-2017 Academic Year Scholarships
- Hosting Indian Country's Largest College and Career Fair
- Publishing *Winds of Change* magazine and producing *Paths to Opportunities* newsletters - student and professional editions
- Championing Tribal Colleges in STEM education
- Pioneering Lighting the Pathway to Faculty Careers for Natives in STEM
- Hosting the National American Indian Virtual Science and Engineering Fair
- Annually awarding the Ely S. Parker Award to a Champion making significant contributions in STEM education or STEM workforce
- Supporting 190 College Chapters
- Hosting the Annual Leadership Summit
- Increasing STEM capacity in Indian Country through the annual AISES National Conference
- Improving STEM education from pre-college through college

We are so proud of our humble beginnings and what a difference 40 years of dedication, hard work, and support people like you have made. Please enjoy reading about the highlights of our 40th anniversary year and join us in the deep sense of pride we feel for AISES and all of its accomplishments.

Sincerely,

Dr. Twyla Baker
Chair, Board of Directors

Sarah EchoHawk
CEO



AMERICAN INDIAN SCIENCE AND ENGINEERING SOCIETY



AISES Founders

George Thomas (*Cherokee*) and **Jerry Elliott** (*Osage/Cherokee*) formed the National Society of American Indian Engineers (NSAIE) in Oklahoma in 1975.

A.T. Anderson (*Mohawk*), **Al Qöyawayma** (*Hopi*), and **Carol Metcalf Gardipe** (*Penobscot/Passamaquoddy*) formed the American Indian Engineering Council (AIEC) in New Mexico in 1976.

The organization that would eventually become AISES was officially created during a meeting at Winthrop Rockefeller Center in Winrock, Arkansas in 1977.

The National Society of American Indian Engineers is officially incorporated in Oklahoma with **George Thomas**, **Alex Labadie**, and **Jerry Elliott** signing the Articles of Incorporation. Later, the name will be changed to the **American Indian Science and Engineering Society** (AISES). **Al Qöyawayma** (*Hopi*) becomes the Founding Chairman and **A.T. Anderson** (*Mohawk*) becomes the founding Executive Director (AISES charter members) in 1977.

AISES Board Chairs Emeriti

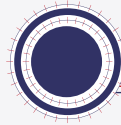
Al Qöyawayma (<i>Hopi</i>)	Donald Ridley (<i>Shoshone</i>)	Michael Avritt (<i>San Felipe Pueblo</i>)	Anthony Kahn (<i>Navajo</i>)
George Thomas (<i>Cherokee</i>)	Sandra Begay (<i>Navajo</i>)	Andrew Conseen Duff (<i>Eastern Band of Cherokee</i>)	Dr. Mary Jo Ondrechen (<i>Mohawk</i>)
Jaime Pinkham (<i>Nez Perce</i>)	Dr. Robert K. Whitman (<i>Navajo</i>)	Dwight Gourneau (<i>Turtle Mountain Chippewa</i>)	Rick Stephens (<i>Pala Band of Mission Indians</i>)
Thomas Dawson, Jr. (<i>Eastern Cherokee</i>)	Judy Gobert (<i>Blackfeet</i>)	Dr. Dorothy Pender (<i>Inupiat Eskimo</i>)	
	Tommie Lee (<i>Navajo</i>)		

**Special note: The current staff at AISES worked very hard to create this 40-year timeline in consultation with previous executive directors and others long affiliated with AISES. Please note we tried our best to capture the 40-year history of this extraordinary organization accurately. However, we may have mistakenly omitted milestones or important people and/or contributions. If this is the case, we offer our humble apologies and welcome comments to be sent to our communications team: mwhiteman@aises.org or ecraig@aises.org. We hope we have at the very least captured many of the key highlights for our AISES family.*

1975 George Thomas and Jerry Elliott form the National Society of American Indian Engineers (NSAIE) in Oklahoma.

1976 A.T. Anderson, Al Qöyawayma, and Carol Metcalf Gardipe form the American Indian Engineering Council (AIEC) in New Mexico.

1977 The American Indian Science and Engineering Society (AISES) is officially created during a meeting at Winthrop Rockefeller Center/Winrock, Arkansas. Al Qöyawayma will become the Founding Chairman and A.T. Anderson (Andy) the founding Executive Director. AISES receives its IRS tax exempt status and conducts its first membership drive.



HOW AND WHY

Why STEM Matters

- Available jobs in the field are set to increase 17% between 2014 and 2024, while non-STEM employment will grow just 12%. (Source: National Science Foundation)
- 8,650,000 - Estimated size of the STEM workforce in the U.S. by 2018. (Source: U.S. Bureau of Labor Statistics)
- The average wage for all STEM occupations is \$85,570, nearly double the average for all occupations (\$47,230). (Source: Bureau of Labor Statistics)
- The prestigious World Economic Forum ranks the U.S. as No. 48 in quality of math and science education.
- The U.S. has fallen behind the rest of the world at an alarming rate. U.S. students recently finished 27th in math and 20th in science in the ranking of 34 countries. (Source: Organisation for Economic Co-operation and Development)

Why Diversity Matters

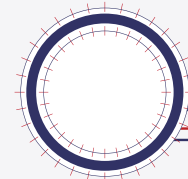
- Companies reporting highest levels of racial diversity in their organizations bring in nearly 15 times more sales revenue than those with lowest levels of racial diversity. (Source: American Sociological Review)
- In the U.S., for every 10% increase in diversity on the senior executive team, earnings rise 0.8%. (Source: McKinsey & Company)
- While more women than men are enrolled in all U.S. undergraduate programs, as recent as 2012, just 18% of women earned a bachelor's degree in engineering. (Source: National Science Foundation)

Why STEM Matters to 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 influence beyond their borders.
- 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.
- Tribal STEM professionals are fundamental to the proactive management of tribal lands and resources; technical infrastructure, and health care (environmental scientists, IT professionals, physicians, geologists, etc.)
- In short, Native STEM workforce development is a key component of tribal sovereignty and self-determination.

The Landscape of Native STEM Education

- According to the Office for Civil Rights, fewer than half of Native high school students have the full range of math and science courses available at their schools.
- According to the National Science Foundation in 2012, 66.7% of white freshmen intended to major in science and engineering fields, while only 2.5% of American Indian/Alaska Native freshmen declared the same. 33% of white students and 42% of Asian-American students who started college as STEM majors graduated with STEM degrees vs. 19% of Native American students.
- According to the Alfred P. Sloan Foundation, of the 11,764 research doctorates awarded in engineering and scientific fields in 2012, only 48 were awarded to AI/AN (0.4%).
- According to the U.S. Census, White Non-Hispanics hold 71% of STEM jobs vs. 0.4% held by American Indian/Alaska Native.



The Business of AISES

Why and How We Do What We Do

OUR VISION

The vision of the American Indian Science and Engineering Society (AISES) is for the next seven generations of Native people to be successful, respected, influential, and contributing members of our vast and ever-changing global community.

OUR MISSION

Founded in 1977, The American Indian Science and Engineering Society 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.

OUR VALUES

<p>Knowledge We are committed to the pursuit of knowledge and continuous growth in learning and teaching</p>	<p>Innovation We anticipate and embrace change and strive to learn and improve by seeking new approaches and forward-thinking solutions</p>	<p>Relationships We actively build and continually steward transparent, honest, and ethical relationships with our partners, members, and all others who are part of our extended AISES family</p>	<p>Commitment We do what we say we are going to do and conduct our business with the highest standards of professional behavior and ethics</p>	<p>Empowerment We embrace the collective power of Native people by encouraging initiative, leadership, and decision-making</p>	<p>Culture We honor our ancestors by carrying forward our cultural traditions and values in all that we do</p>
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OUR STRATEGIES

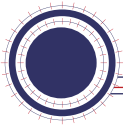
<p>Advancing Educational and Career Knowledge while Embracing Native Culture and Tradition</p>	<p>Empowering Native People through Relationships and Innovative Resources</p>	<p>Creating and Sustaining the AISES Community through a Full Circle of Support Services</p>
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OUR OBJECTIVES

<p>Build Awareness Increase awareness among Native people about STEM education and career opportunities</p>	<p>Foster Partnerships Develop and strengthen diverse partnerships with key STEM stakeholders</p>	<p>Provide Support Services Design and deliver comprehensive and effective programmatic and financial STEM support services</p>	<p>Maintain Effective Organizational Structure Support the staff, board, mission, and membership through effective infrastructure and systems</p>
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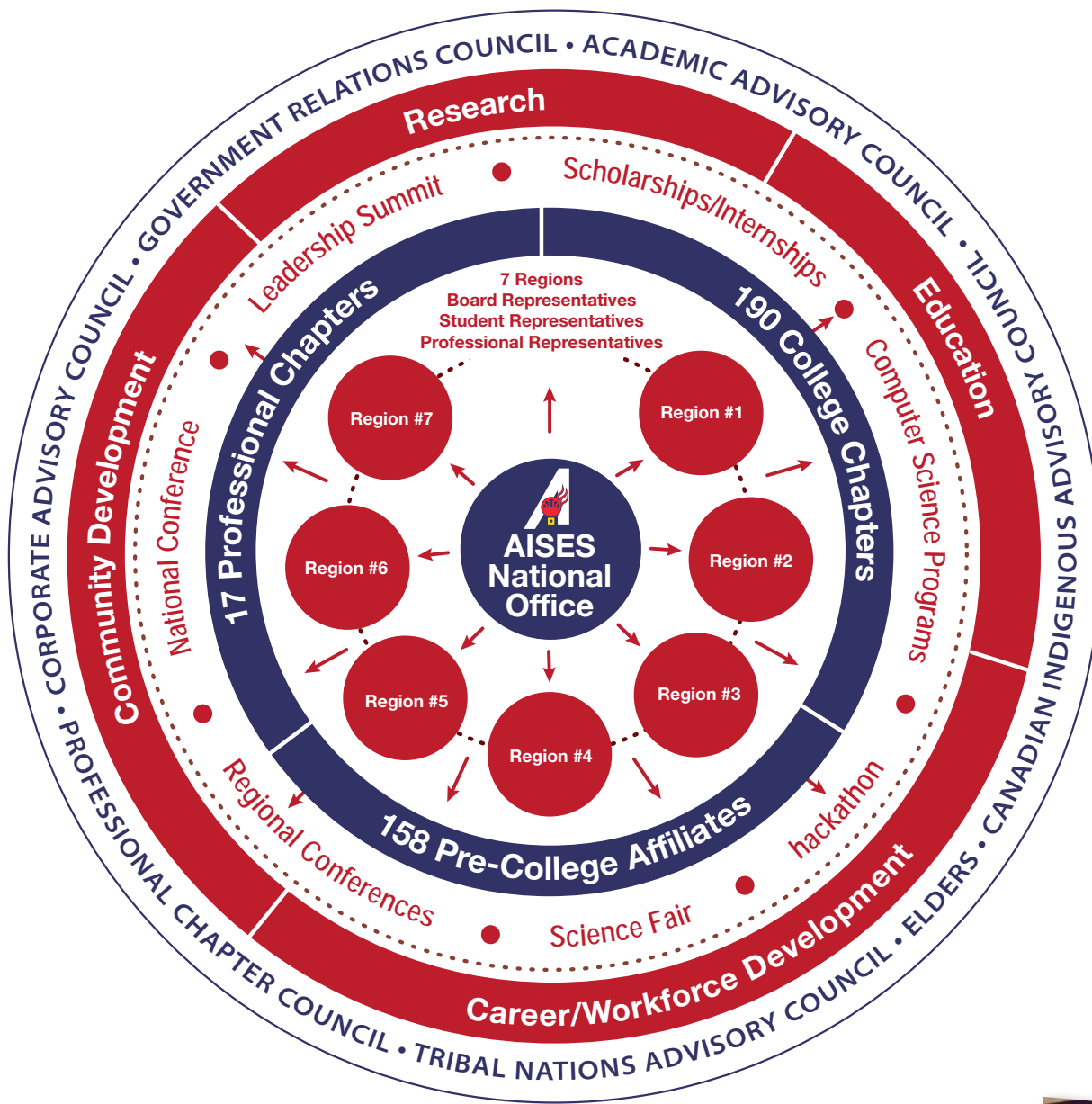
OUR PROGRAMMATIC FOCUS AREAS

<p>Pre-College: Awareness and Retention AISES creates and administers programs, projects, initiatives, and events to provide Native pre-college students, parents, and educators, exposure to resources and opportunities to engage them in STEM</p>	<p>College: Access and Success AISES creates and provides programs, events, projects, initiatives, and financial resources for Native college students to increase access to and boost success in STEM studies and career development</p>	<p>Professional: Leadership and Change AISES supports a network of Native STEM professionals through professional chapters, awards, career development resources, and research and mentoring opportunities</p>	<p>Strategic Partnerships and Research AISES identifies and engages in strategic partnerships and conducts research to further our mission of substantially increasing the representation of Natives in STEM studies and careers</p>
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STRUCTURE

Organizations, Chapters,
Programs, Councils, and Elders



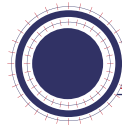
40 YEARS

1978 AISES conducts its first membership meeting at Cal State/Los Angeles to develop the organization's bylaws. AISES emerges onto the national scene at the Minorities in Engineering Symposium, sponsored by the National Academy of Sciences. Al Qöyawayma presents "Our Challenge: The American Indian Engineer."



1979 First Annual Conference held in Tempe, Arizona. AISES receives a grant from the Alfred P. Sloan Foundation to set up a fulltime office in Naugatuck, Connecticut, A.T. Anderson's home. The code for Student Chapters is established and Clarkson University in New York becomes the first chapter, followed by the University of Oklahoma, and Northern Arizona University.



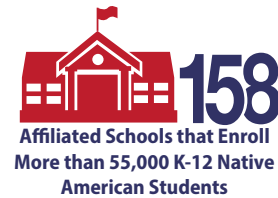


NUMBERS

AISES by the Numbers¹

Today

- 4,700+ Individual Members
- \$11+ Million in Academic Scholarships
- 17 Professional Chapters
- 190 College/University Chapters
- 158 K-12 Affiliated Schools enrolling more than 55,000 Native Students

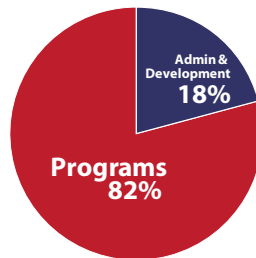


2017²

- Membership: 4,460
- Annual Revenue: \$6,162,987

How we spent our funding in 2017:
Administration and Development = 18%
Programmatic Support = 82%

How AISES Used Your Gift in 2017



Based on 2017 Audited financials

2016³

- Membership: 3,984
- Annual Revenue: \$5,435,512

How we spent our funding in 2016:
Administration and Development = 15%
Programmatic Support = 85%

2015⁴

- Membership: 3,727
- Annual Revenue: \$3,131,024

How we spent our funding in 2015:
Administration and Development = 24%
Programmatic Support = 76%

2014⁵

- Membership: 3,289
- Annual Revenue: \$2,740,432

How we spent our funding in 2014:
Administration and Development = 27%
Programmatic Support = 73%

2013⁶

- Membership: 2,819
- Annual Revenue: \$2,581,298

How we spent our funding in 2013:
Administration and Development = 31%
Programmatic Support = 69%

1. Audited financial statements and IRS 990 forms are available at: www.aises.org.
2. Revenue and program funding reported in 2017 audited financial statements.
3. Revenue and program funding reported in 2016 audited financial statements.

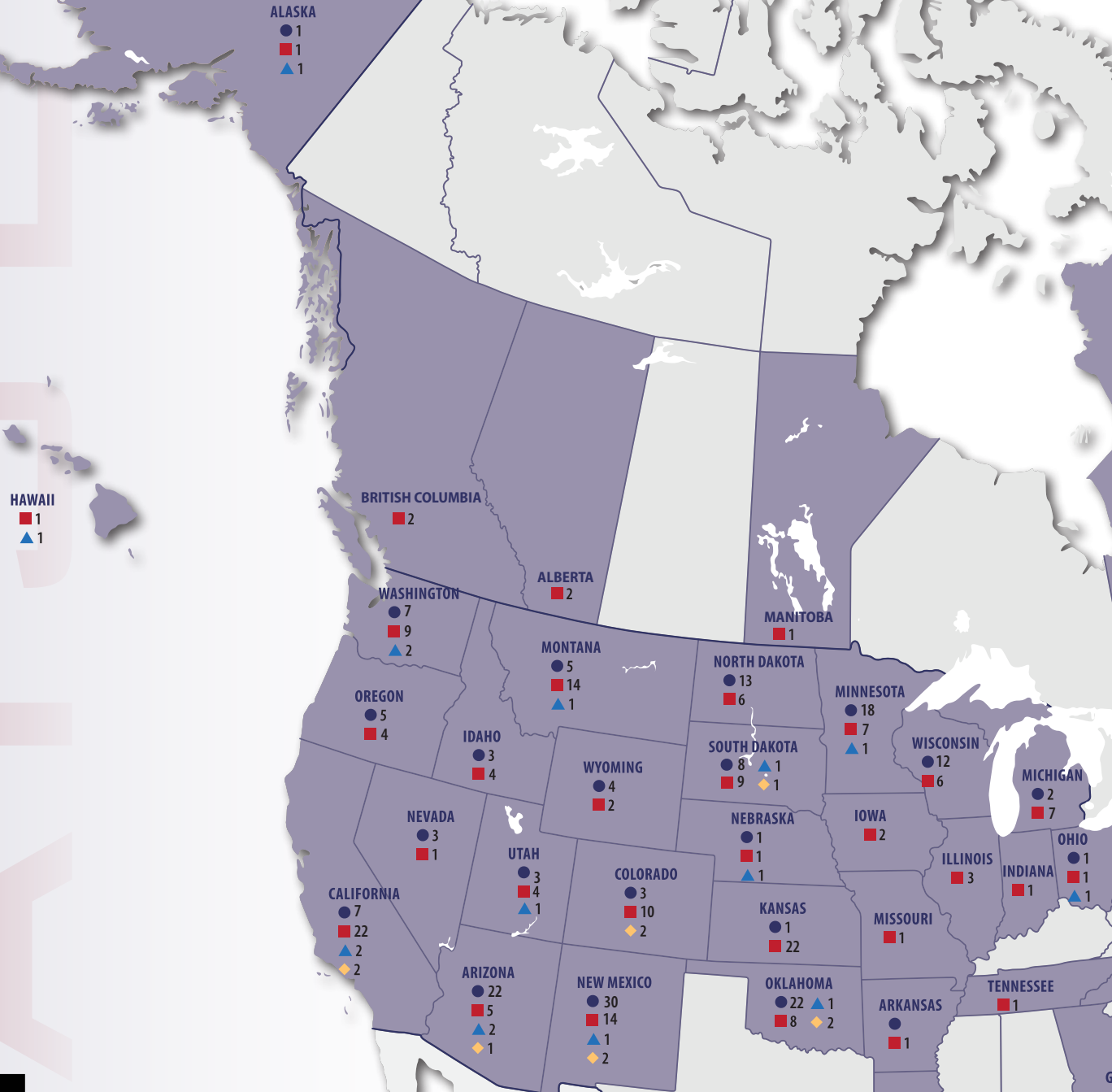
4. Revenue and program funding reported in 2015 audited financial statements.
5. Revenue and program funding reported in 2014 audited financial statements.
6. Revenue and program funding reported in 2013 audited financial statements.

40 YEARS

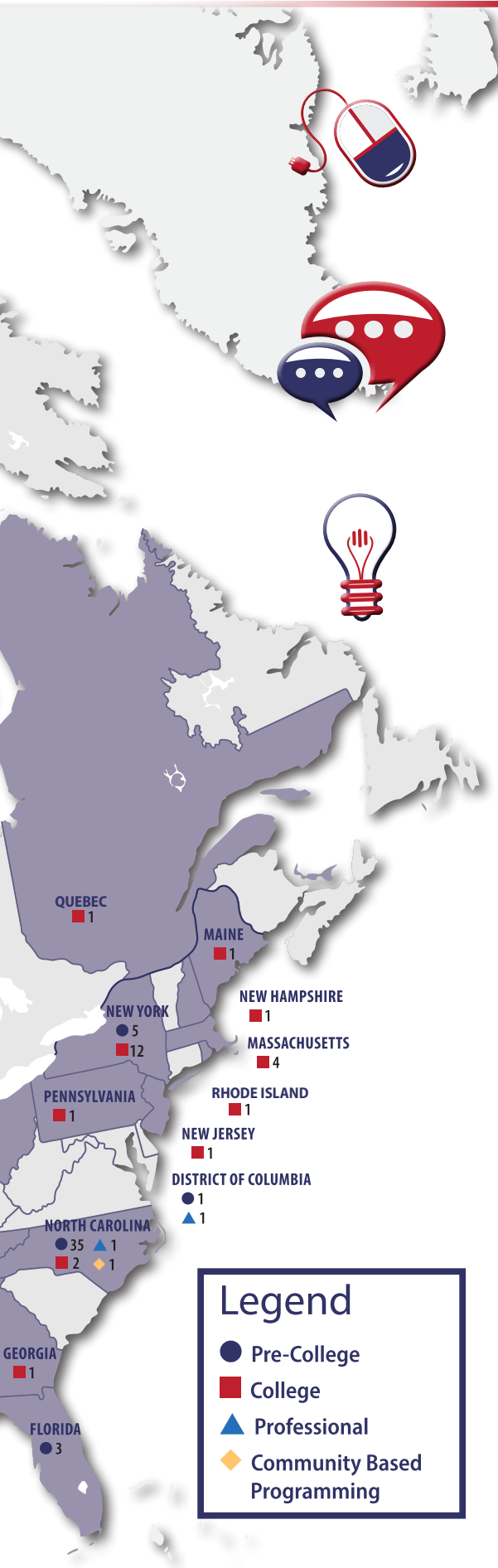
1980 AISES becomes the first minority group to become a member of the American Association of Engineering Societies (AAES), an umbrella for recognized engineering organizations. The 2nd Annual Conference is held in Denver. For the first time, AISES students from the east and west meet and the "AISES Family" concept is first used to describe AISES' membership body.

1981 AISES scholarship fund is established. Louis Pakiser/USGS becomes first scholarship donor. AISES receives its first major grant from the U.S. Department of Education (FIPSE) to bring science fairs to American Indian students in elementary and secondary schools. More than 10,000 teachers and Indian student participate in the three-year project. Teacher training program begins.

WHERE WE WORK



AMERICAN INDIAN SCIENCE AND ENGINEERING SOCIETY



United States

	● Pre-College	■ College	▲ Professional	◆ Community Based Programming
Alaska	1	2	1	
Arizona	22	6	2	1
Arkansas		1		
California	7	20	2	2
Colorado	3	10		2
District of Columbia	1		1	
Florida	3			
Georgia		1		
Hawaii		1	1	
Idaho	3	4		
Illinois		3		
Indiana		2		
Iowa		2		
Kansas	1	4		
Maine		1		
Massachusetts		4		
Michigan	4	7		
Minnesota	18	7	1	
Missouri		1		
Montana	5	14	1	
Nebraska	1	1	1	
Nevada	4	1		
New Hampshire		1		
New Jersey		1		
New Mexico	30	14	1	2
New York	5	12		
North Carolina	35	3	1	1
North Dakota	13	8		
Ohio	1	1	1	
Oklahoma	22	8	1	2
Oregon	5	5		
Pennsylvania		1		
Rhode Island		1		
South Dakota	8	9	1	1
Tennessee		1		
Utah	3	4		1
Washington	7	9	2	
Wisconsin	12	6		
Wyoming	4	2		

Canada

Alberta		2		
British Columbia		2		
Manitoba		1		
Quebec		1		

OUR PROGRAMS



Program Area One

Awareness and Retention for Native Pre-College Students, Students' Parents and Educators

In order to increase the numbers of Indigenous North Americans seeking degrees and careers in STEM fields, students must be started on the STEM pathway early. One of the biggest challenges in reaching this goal is ensuring that students, educators, and parents have access to information and resources related to STEM. Far too often, because there is little, if any, access to these critical resources, students are unprepared to undertake a STEM major when they begin college. Many students lack the necessary high school classes required for entrance into a STEM major in college and are thus faced with the challenge and costs of taking additional pre-requisite college classes. Given this, many Native students opt-out of STEM majors for other majors.

AISES provides the following programming:

Energy Challenge Competition • Power Up Workshops • SPRK-ing Interest in Computer Science • Research and Poster Presentations and Competitions • College and Career Fair • College Tours • National Conference Sessions • Pre-College Affiliate Chapter Membership to 158 Schools

Program Area Two

Access and Success for Native American Undergraduate and Graduate Students

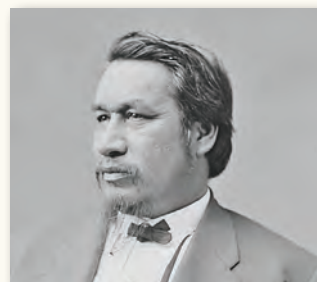
AISES administers many programs, services, and events for undergraduate and graduate students designed to increase their access to college and support their success in preparation for careers in STEM fields. Native college students need professional mentorship and peer support in addition to scholarship support. Students are most successful when they have a network of other Native students, as well as professionals who can provide ongoing support while they are pursuing undergraduate and graduate studies. AISES provides exactly this critically needed support through its programming.

AISES provides the following programming:

Scholarship Funds for STEM Majors • Internships in STEM Fields with Corporate and Government Agencies • Fellowships (Lighting the Pathway Program) • Research and Poster Presentations and Competitions • Professional Mentorship • 190 College Chapters Across North America • Regional Conferences • College and Career Fair • Leadership Development and Student Leadership Opportunities • National Conference Sessions

40 YEARS

1982 The Ely S. Parker award is established to recognize distinguished service to the Indian community and the professional achievements of American Indian scientists and engineers. A.T. Anderson is posthumously awarded the first Ely S. Parker award. As the result of his personal charisma and deep devotion to Native youth he becomes known as the "Father of AISES."



2017 ANNUAL REPORT

Program Area Three

Leadership and Change for Native STEM Professionals

AISES is dedicated to supporting early, mid, and executive professionals in STEM fields through professional development, career opportunities, networking, and research support to mentors who support professionals in STEM. AISES' support does not end once a student graduates from college and enters a STEM career, but rather provides ongoing career and professional development programming to help Native STEM professionals grow and succeed in their chosen career fields. Additionally, AISES offers a multitude of opportunities for professionals to "give back" through mentoring and supporting Native STEM students.

AISES provides the following programming:

Mentoring of Students • Scholarship Review and Scoring • Research and Science Fair Judging • Serving as Speakers and Trainers at AISES Events • Corporate Advisory Council Service • Government Relations Council Service • Professional Chapter Council Service • Academic Advisory Council Service • Canadian Indigenous Advisory Council Service • Tribal Nations Advisory Council Service • *Winds of Change* Ad Hoc Committee Service • Professional Development Programming • Career Fair • Professional Awards • 17 Professional Chapters Across North America • National Conference Sessions • Research Presentations

Program Area Four

Strategic Partnerships and Research for Native People in STEM

In addition to AISES' three core programs – Pre-College, College, and Professional – AISES also engages in strategic partnerships and conducts research to further our mission of substantially increasing the representation of Indigenous people in STEM studies and careers.

AISES engages in the following partnerships, projects, and research*:

Indigenous Education, Inc. • National Science Foundation • The 50K Coalition – NSBE, SWE, SHPE • AnitaB.org • Indigenous Education, Inc. (Cobell Scholarship Fund) • American Indian Business Leaders (AIBL) • American Indian Policy Institute at Arizona State University • National Center for Women in Information Technology (NCWIT) • National Native Scholarship Providers Working Group – AICF, AIGC, IEI • National Girls Collaborative Project • National Science Foundation (NSF) • Kapor Center • IMAGEN Network – Population Council

*this is not all inclusive



40 YEARS

1983 Norbert Hill becomes Executive Director and AISES relocates to Boulder, Colorado. AISES establishes the Corporate and Government Advisory Boards. A Hopi Morning Kachina is created for AISES by the Dukepoo family (first elder advisors) and becomes part of AISES collection of sacred (cultural)



objects, including the AISES Eagle Staff, that travel with AISES to its conferences and significant events. Eddie Box, Sr., Henrietta Mann, Bow Lane, Phil Lane, Horace Axtell, and Andrea Axtell become supporting elders for AISES. The collection of sacred objects will continue to grow in number and be cared for by the Elders, the AISES staff, and the AISES student representatives.



PRE-COLLEGE SPOTLIGHT

NAIVSEF

Sparks Creativity

In April, pre-college members in grades 5 - 12 presented their projects in the fourth annual National American Indian Virtual Science and Engineering Fair (NAIVSEF). Because this Society for Science and the Public-affiliated fair is held virtually, it does not require travel. Instead, entrants demonstrate their research online in the form of slide shows and videos and present their projects via teleconferencing. NAIVSEF welcomes entrants in two categories: Junior Division, grades 5 - 8, and Senior Division, grades 9 - 12. AISES awards cash prizes to each division's winners, and pays travel expenses and registration fees for Senior Division Grand Award winners and their sponsors to compete at the Intel International Science and Engineering Fair in Los Angeles.



40 YEARS

1984 AISES creates the Regional Governors program and the Sequoyah Fellowship program is established.

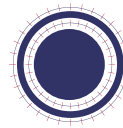
1985 AISES conducts the first Leadership Training Conference for American Indian college students at the Mountain Bell Training Center in Denver, Colorado. The Stelvio J. Zanin Distinguished Chapter Award is established and the University of Montana student chapter receives the first award. AISES Publishing, Inc. (API) is created to produce a quarterly magazine, *Winds of Change*.



The AISES National Conference

The AISES National Conference is a three-day event where participants have access to career pathways, professional and leadership development, research, networking, and cultural activities. The 2017 Conference Theme: "40 Years Supporting Native People in STEM" acknowledges almost half a century of progress and we're not stopping here. It lets us reflect on the story of our growth, but it also reinforces how much still needs to be done to mobilize people around the AISES mission.

Over 2,000 undergraduate, graduate, and pre-college (high school junior and senior) students, educators, workforce development professionals, corporate and government partners, tribes, and all members of the "AISES family" organize around communicating, sharing and learning the value of STEM. The national conference is about providing opportunities to maximize the development of STEM education, expertise, and research among pre-college, undergraduate, graduate, and professional workers.



NATIONAL CONFERENCE

AISES National Conference has the best line-up of presenters from all backgrounds representing STEM in higher education, pre-college, research, and global industry. We design conference tracks that are aligned to major topics in STEM. They are developed with the trends, challenges, and developments in STEM that are set to shape the future of exploration, teaching, and overall learning. Participants can select from one specific track or embark on multiple tracks to learn more and gain a well-rounded perspective on all things STEM. Pre-conference workshops are also available for hands-on learning to increase pre-college and college experiences in STEM and spark the imagination of the next generation of STEM leaders.

Pre-Conference* and Conference Highlights are:

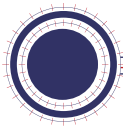
- STEM Activity Day*
- hackAISES*
- Native Links Golf Classic*
- The Largest American Indian College and Career Fair
- Industry Partner and University Tours
- Meetings, Gatherings, and Caucuses
- Keynote Speakers
- Professional, Partner, and Ely S. Parker Awards
- Research Competitions
- Student Awards Luncheon
- Conference Tracks and Session Topics for Pre-College, College, Professional, Educator, STEM and Business, and Researchers
- Traditional Native Powwow
- Native Artisan Marketplace



40 YEARS

1986 AISES Publishing, Inc. produces the first issue of *Winds of Change Magazine*.





LEADERSHIP SUMMIT

The AISES Leadership Summit is a well-organized gathering of people who deeply care about science, technology, engineering, and math (STEM). A more intimate setting than the AISES National Conference, the Leadership Summit emphasizes the “state of progress in STEM” for participants through two tracks – professional and higher education. In 2017, more than 215 people met at the Wild Horse Pass Hotel and Casino in Chandler, Arizona, to share in this event.

Participants met for three-days to collaborate across the AISES organization. It is a gathering of frontline leaders, along with students, professionals and partners who tackle the core competencies, skills or training that is required by AISES members as they advance through academia or the STEM industry workforce. It is a place where participants explore why achievement in STEM fields is important for everyone.

AISES has designed and conducted leadership summits for more than 25 years. We create a space with specific outcomes that spark engaging conversations; generate ideas; facilitate the exchange of knowledge and learning; and fortify the importance of STEM education and careers. Information flows in circles of Indigenous wholistic thought and knowledge. It is a powerful medium to participate in leadership training, engage in workshops, and introduce new strategies. Participants also get the full value of information from Indigenous elders, and corporate stakeholders that make our summits unique, effective, and deeply memorable.

It's Our World! Together participants inform, interpret, and utilize STEM as the foundation to build student readiness, support professional development, and spark innovation that gives individuals the ability to compete in a highly competitive global economy. We have learned that when we support each other in this way, incredible things happen.

Summit goals are:

- Increase the skill and talent level of AISES members in professional and career development
- Develop AISES professional members as role models for the AISES college and graduate students
- Provide AISES members with support and build their confidence to transition into the STEM workforce
- Provide a supportive environment that allows AISES members to learn from each other

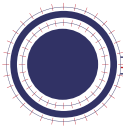


40 YEARS

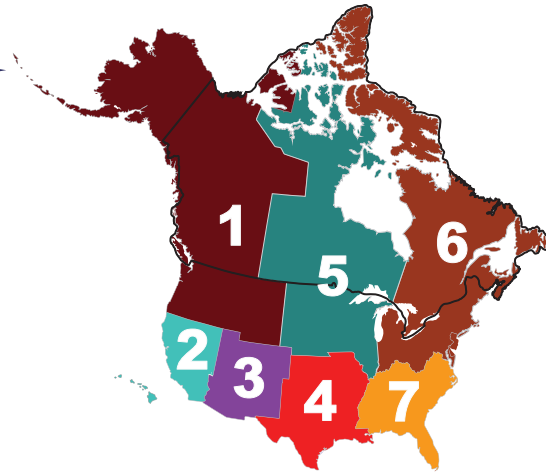
1987 Student chapters increase from 1 in 1979 to 40. AISES begins a historic dialogue series to bring together Indians from every recognized tribe and urban area to discuss education for American Indian youth. It is the first national effort which involves grassroots tribal members in the shaping of math and science education policy. The outcome of the series will be used to shape

academic preparation and school reform programs. The 9th Annual Conference is held in Seattle and AISES commemorates its ten-year anniversary.

1988 AISES establishes the National American Indian Science and Engineering Fair.



REGIONAL CONFERENCES



AISES Regional Conferences

Every spring the seven Regional Conferences gather student and professional members to champion each other and expand their knowledge and skills through a wide variety of workshops and sessions.

One enduring effect of Regional Conferences is the enthusiasm these events generate for STEM (science, technology, engineering, and math) education and careers via conference features like mini-career fairs, poster presentations, and engineering competitions. Terms like “innovation,” “intelligence,” and “increasing diversity” in STEM education and careers begin to capture the excitement.

Regional Conferences are typically held at college campuses, hosted by the school’s AISES Chapter. Many professional members participate as mentors and speakers, sharing their expertise and facilitating discussions that might follow an established theme or focus on an area like engineering or environmental science, or on crossovers between traditional ecological knowledge and western science.

The seven Regional Conferences are just one way AISES is actively addressing workforce deficits in diverse fields like cloud computing, cybersecurity, and statistical analysis. Long after the conferences adjourn, the direct benefits to individual members continue to help them meet new challenges in STEM disciplines and careers, where AISES graduates are in high demand.

Schedule of the 2017 Regional Conferences

- Regions 1 and 2 — Humboldt State University in Arcata, Calif., March 30–31
- Region 3 — Northern Arizona University in Flagstaff, Ariz., March 31–April 1
- Region 4 — University of Arkansas in Fayetteville, Ark., March 24–26
- Region 5 — South Dakota State University in Brookings, S.D., March 31–April 1
- Region 6 — The Ohio State University in Columbus, Ohio, March 25–26
- Region 7 — North Carolina State University in Raleigh, N.C., March 17–18

40 YEARS

1992 AISES Leadership Conference is held at US West in Colorado. The AISES Council of Elders is formalized at the Leadership Conference.

1994 AISES establishes the Outstanding Service Awards.

1995 The first *Winds of Change* College Guide is produced.

1997 The First Regional conferences are held.

1998 AISES creates its website: www.aises.org. Suzanne Benally serves as interim Executive Director. AISES national headquarters moves from Boulder, Colorado to Albuquerque, New Mexico and Sandra Begay becomes the Executive Director.

THE Student BODY

The students and young professionals profiled in this issue share their journeys and some tips they've picked up along the way. Our AISES college members come from diverse backgrounds and far-flung places, and not all take the traditional route to higher education. You will probably see some elements of your own story reflected in these pages. With the continuing support of family, friends, and AISES, these students — and you — are on the path to success.



Trisheena Kills Pretty Enemy

CROW AND HUNKPAPA LAKOTA

Montana State University

MICROBIOLOGY

When I was six years old, my older sister bought me a toy microscope. The first thing we did was prick her finger so we could look at a drop of blood under the microscope. I can still remember that first feeling of infatuation with the world of the unseen, the micro world, and was astonished by what I now know as red blood cells. It was at this young age that I fell in love with science.

Growing up on the Crow Reservation in Pryor, Mont., allowed me to further my interest in science and biology throughout my childhood. My family lived just outside town, closer to the mountains. I spent my summers playing outdoors and swimming in the creek, learning to appreciate nature and the world around me. I used to take my microscope outside with me to look at different plants and bugs, and I was blown away by what I saw.

My interest in science grew when I got to high school. My biology teacher taught with such passion and enthusiasm that it made learning fun, and I became

fascinated by the unseen world all over again. During high school biology I really began to think about a career, and I knew that my future involved the biomedical field.

The end of high school proved challenging, though, as my father was diagnosed with an autoimmune liver disease. We spent my junior and senior years shuttling him eight hours back and forth to his medical appointments, and trying not to notice that his health was quickly deteriorating. Both my parents had always stressed the importance of getting an education and being able to support ourselves. Seeing my dad so sick only reaffirmed my desire to pursue a degree.

I feel like I've found a good balance between my Native American interests and my scientific interests.

While I was getting my associate's degree at Little Big Horn College, my dad became terminally ill. It filled me with an overwhelming sense of determination to finish school, become a doctor, and conduct research that would benefit my dad and my people. Thankfully, my dad was able to watch me receive my associate's degree, and he saw me off to college at Montana State University, where I started in the fall of 2014.

During my first semester in college, my father passed away. I was devastated. Dealing with his death while also a full-time student was difficult. To complicate matters, I was also juggling being a mother to two young sons — a toddler and a preschooler. Thankfully, MSU was always there to support and encourage me.

Once I found my footing, I became immersed in my classes. In one, Introduction to Native American Studies, we learned about Native history and the genocide this country was built on. It saddened me to learn about such a dark time in America's history — but it also empowered me to learn about Native resilience. When I go through hard times, I think about what my people have overcome.

I used the strength I gained from this class to determine my major: microbiology. I'm fortunate that I had a variety of experiences both before and during my time at MSU that have helped me shape

my path. While getting my associate's degree, I worked with a professor to study *E. coli* in the Little Big Horn River. Rivers are a sacred part of the Crow culture, and being able to intertwine my culture and my scientific curiosity led me to channel my love for science into a passion for research.

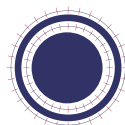
This research opened my eyes to a new career, and I decided to pursue more research opportunities. I participated in Bridges to the Baccalaureate, a Montana program that helps students transition from tribal colleges to four-year universities, and began doing research studying the molecular epidemiology of *Clostridium difficile* infection. I also spent the summer of 2017 in Salt Lake City, Utah, as a participant in the Native American Research Internship program, studying the congenital heart defects of zebra fish. Each of these experiences has been a stepping-stone toward a career in scientific research, and together they've fueled my enthusiasm.

Now, I'm a senior and expect to graduate next spring. I feel like I've found a good balance between my Native American interests and my scientific interests. I am currently a mentor to two Native students in STEM, the vice president of our AISES Chapter, and a member of the American Indian Council. And I was recently selected to represent MSU at the 42nd annual American Indian Council Pow Wow as head woman dancer.

I'm still considering what my next move will be after graduation. I used to get angry when people would comment on my last name, but now I'm proud and excited to be the future "Dr. Kills." Whether I end up going into medicine and return home to help my community, or go to graduate school and into academia to teach students like me, I know I want to help people.

My path hasn't been easy, but I wouldn't change it. I know that a major factor in my success has been my perseverance and resilience. Having support from my family and teachers has also been essential in helping me get to where I am today. As Native Americans, we have fought like heck to be here, and have encountered many setbacks along the way. I fight against the odds to honor those who have passed. Remember, you are not less than, you are more than. We have an opportunity to make a difference in our community, and we will.

— As told to Alexa D'Agostino



winds OF CHANGE

Expanding Opportunities for Native American Students and Professionals

Winds of Change magazine consistently delivers content relevant to every segment of the AISES family. Students, professional members, retirees and our elders, as well as our sponsors and supporters, all look to *Winds of Change* for articles that are both interesting and informative. From inspiring profiles to member news and feature articles, each issue is a reliable resource that brings indigenous STEM students and professionals content that will help them realize their aspirations and advance on their career path. Selective advertising promotes products and services that serve a diverse base of readers, increasing awareness of promising trends and opportunities that are shaping STEM careers. Through a combination of print and digital publishing, *Winds of Change* reaches a growing audience. The digital version employs social media to deliver compelling content and promote advertising campaigns that effectively target specific demographics.

Winds of Change is designed to reach readers with articles that resonate with critical AISES constituencies. Every issue includes the CEO Welcome, AISES Notebook, AISES People, Career Builder, Paths in Education, Partner Index, and Last Word. Together these components draw readers closer to AISES, and forward our mission, by offering extraordinary stories **only** AISES can tell. Cover articles are an engaging “hook” that

gets younger readers interested in and inspired by the possibilities that STEM education and careers can open for them. Behind the success of *Winds of Change* are the writers, editors, sales force, designers, advertisers, and others who creatively work together to build relationships with AISES and attract readers. Why STEM? That is the key question *Winds of Change* will continually work to answer in ways that inspire students, promote STEM careers, and address the current challenges of increasing diversity in STEM and promoting involvement with AISES. Ultimately, *Winds of Change* is dedicated to helping students and professionals succeed in doing what they love.

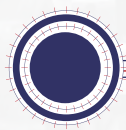
As AISES celebrates its 40th anniversary, we thank our friends, sponsors, and members for their enduring support of AISES and *Winds of Change* magazine. We strive to be the central hub for Native STEM students and professionals to engage and explore together, and inspire one another in our collective journey. Our goal beyond our 40th anniversary year is to continue working within our growing and thriving AISES family toward our shared vision for the next seven generations of Native people to be successful, respected, influential, and contributing members of our vast and every-changing global community. We hope you will join us in new areas of expansion and adventure in the next 40 years!



PROFESSIONAL OF THE YEAR

William Tiger

MICCOSUKEE TRIBE



PROFESSIONAL SPOTLIGHT

When William Tiger was in the fourth grade he made the trek from his home in Florida to Washington, D.C. It wasn't a school trip to tour the city's monuments and visit the museums. Instead, Tiger ventured to the nation's capital with three adults from his Miccosukee Tribe to appear before a U.S. Senate subcommittee meeting chaired by Robert Kennedy.

The point of the gathering was to highlight the dearth of educational opportunity available to the tribe. "I was a prop because I was in the fourth grade and had more formal education than all three of the adults with me combined," remembers Tiger, winner

of the 2017 Professional of the Year Award. "That's not all that long ago."

It's no exaggeration to say that Tiger has spent a large portion of his adult life trying to extend as much opportunity to Native children as possible. In part, Tiger has done this through the force of his own example. Not only did he obtain both a BS in mechanical and electrical engineering from the General Motors Institute and an MS in engineering from Rensselaer Polytechnic Institute, Tiger has had a remarkable career with GM.

2017 PROFESSIONAL AWARD

At each stop throughout his career Tiger has made a significant personal effort to reach out to local tribes to both connect them to GM and to encourage the young people to pursue a STEM path.

For nearly four decades, Tiger has held a series of positions with escalating responsibilities — everything from project engineer to his current role as plant manager for GM's Lockport, N.Y., facility, where he oversees more than 1,000 employees and is responsible for a budget of close to \$150 million. This most recent position in western New York is his fifth different GM plant and the second where Tiger has been a plant manager. It's a journey that still amazes Tiger, who was the first in his family to graduate from college. "With my career at GM, I've been able to go to Japan and Italy and Germany and all over the U.S.," he says. "So many times I've been to places that I remember reading about in books, never dreaming I'd ever be there."

Even though his education and career have taken him far from his youth in Florida, Tiger has never forgotten his roots. At each stop throughout his career Tiger has made a significant personal effort to reach out to local tribes to both connect them to GM and to encourage the young people to pursue a STEM path.

His current post in Lockport is no exception, and Tiger has invited many students to visit the plant. "We bring them to the plant and show them that if they like math and science, here's what engineers do. They meet them and go out on the floor," explains Tiger, who notes that he always tries to link Native students with Native workers to help strengthen the connection and meaning of the visit. "If they're not inclined toward engineering, we also show them how math and science apply if you want to be an operator or enter the skilled trades," he says.

Even Native students who don't live in western New York have benefited from Tiger's efforts to expand opportunity. With help from the GM Foundation, AISES, and other companies, Tiger has helped jump-start robotics programs at about a dozen schools around the country. This initiative has enabled schools to offer valuable education and training to their students, and the robotics program has been the basis for an annual competition that gives Native students the chance to demonstrate their new skills.

In some ways, Tiger's motivation to help Native students is the result of his own experience pursuing an education — an experience that took him away from home for the first time and saw the previously stellar student struggling. "I was failing in calculus and chemistry, which are both kind of important if you want to be an engineer," he says. "I had never failed a class in my life and didn't know what hit me."

But Tiger got help from his professors and persevered until everything started to click. It's a lesson he wants young people to remember because he knows firsthand just how badly companies like GM want to hire them. "All companies want to recruit and retain more minority engineers," he says. "I want students to understand that when you do stick with it and graduate, there are a lot of opportunities on the other side. The fact of the matter is that you are a precious commodity."

40 YEARS

- 1999** The first AISES golf tournament featuring Notah Begay III takes place.
- 1999** AISES creates the EPA Tribal Air Quality Program.
- 2000** Everett Chavez becomes Executive Director.
- 2002** AISES Board Member, John Herrington, becomes the first tribally enrolled American Indian to travel in space. Teresa Gomez becomes Executive Director.

- 2003** AISES establishes the AISES Foundation.
- 2003** AISES creates the STEP Program.
- 2004** Pamala M. Silas becomes Executive Director. The AISES Professional of the Year program is launched with Mr. Richard "Savic" Glenn as the first Professional of the Year awardee.

AISES Student Representatives

2016-2017

Senior National Student Representative: **Kory Joe** (*Asa'carsarmiut*)

Junior National Student Representative: **Hannah Balderas** (*Three Affiliated Tribes, Santee Sioux and Little Shell Ojibwa*)

Region 1: **Cody Kapotak** (*Portage Creek Village*)

Region 2: **Raquel Kamalu** (*Native Hawaiian*)

Region 3: **Nikki Tulley** (*Navajo*)

Region 4: **Ashleigh McIntosh** (*Caddo*)

Region 5: **Emily Falcon** (*Turtle Mountain Chippewa*)

Region 6: **Ben Oster** (*Mohawk*)

Region 7: **Chloe Blythe** (*Eastern Band of Cherokee Indians*)

2017-2018

Senior National Student Representative: **Hannah Balderas** (*Three Affiliated Tribes, Santee Sioux and Little Shell Ojibwa*)

Junior National Student Representative: **Steven Just** (*Sisseton Wahpeton Sioux Tribe*)

Region 1: **Cody Kapotak** (*Portage Creek Village*)

Region 2: **Ely Boone** (*Karuk*)

Region 3: **Chris Greenstone** (*Navajo*)

Region 4: **Madison McMillen** (*Cherokee*)

Region 5: **Emily Falcon** (*Turtle Mountain Chippewa*)

Region 6: **Bailee Hopkins-Hensley** (*Choctaw Nation of Oklahoma*)

Region 7: **Kayla Johnson** (*Eastern Band of Cherokee Indians*)



40 YEARS

2004 AISES loses two beloved AISES elders, Phil Lane Sr. and Bow Lane. The Phil Lane Sr. "Brown Bear" Endowment is established. Teaching Relevant Inquiry Based Environmental Science (TRIBES) Program is established and funded for six years in partnership with Bemidji University. AISES 26th Annual Conference is held in Alaska the first time ever outside of the contiguous United States.

2005 The IBM Scholarship Program is established. The National Science Foundation funds a three-year program: Broadening Participation in Computational Sciences. The Full Circle of Support Funding Program is created. National Conference revenue reaches \$1 million and membership shifts from 70% students/30% professionals to 53% students/46% professionals.

Professional Awards

AISES STEM Professional Awards recognize ingenuity and innovation among American Indian leaders in STEM, and their achievements in industry or government. These individuals are role models who promote STEM awareness by highlighting educational pathways and careers while also supporting AISES' mission to increase STEM education and careers among North America Indigenous people.

The 2017 STEM professionals are talented scientists and engineers who excel in their respective fields, and who advance and enhance STEM learning and achievement. Each year, individuals are nominated for awards in four categories: executive excellence, technical excellence, most promising engineer or scientist, and blazing flame. These outstanding role models compete as finalists in the overall professional of the year category. All recipients are recognized at the AISES National Conference.

Please join us in congratulating these accomplished professionals. We thank all our members who participated in the nomination process, our award selection panel, and our host academic institution (University of Arizona).

Professional of the Year

William Tiger (*Miccosukee Tribe*)
General Motors

Blazing Flame

Brandon Polingyumtewa (*Hopi Tribe*)
The Boeing Company

Executive Excellence

Gary Burnette (*Cheroenhaka (Nottoway) Indian Tribe*)
IBM

Most Promising Engineer or Scientist

Thomas Reed (*Hopi Tribe*)
Raytheon

Technical Excellence

Virginia Hernandez (*Cherokee*)
Sandia National Laboratories

Professional of the Year - The AISES Professional of the Year Award is presented for overall leadership and technical achievement. This individual is selected from among the top candidates submitted in all categories; therefore, individual nominations are not accepted for this award.

Blazing Flame Award - The Blazing Flame Award is presented to an individual who blazes a path for Indigenous people in STEM careers. This award recognizes individuals with 10 or more years of professional experience with significant accomplishments in advancing STEM education and careers.

Executive Excellence Award - Executive Excellence nominees must be an experienced upper-level manager or a career-path engineer, scientist, professional, or academician who has significant department and budget responsibilities.

Most Promising Engineer or Scientist Award - The Most Promising Engineer or Scientist nominee must be a professional engineer or scientist with less than five years' experience after earning his/her degree. The candidate's early technical contributions should already indicate a promising career.

Technical Excellence Award - The Technical Excellence nominee must have made a significant contribution to science, engineering, or technology by having designed, developed, managed, or assisted in the development of a product, service, system or intellectual property.

40 YEARS

- 2006** Cecilia and Stan Lucero, and Phil Lane Jr. join the Council of Elders.
- 2007** AISES conducts its first fundraising cruise to Alaska. The National Consortium for Graduate Degrees for Minorities in Engineering Degrees (NCOURAGES) is created in partnership with the GEM Consortium. AISES mourns the loss of beloved elder, Dr. Lee Piper. Membership shifts to majority professionals with 52%

professional/48% college students. Laurence Brown becomes Chair of the Corporate Advisory Council. James Daugomah, Amanda James, and Noller Herbert become Co-Chairs of the Government Advisory Council. AISES holds an open house to display its new national office and the unveiling of IBM major donation of network and computer upgrade worth over \$90,000. Dr. Karletta Chief and John Herrington are selected to serve as AISES 30-year anniversary spokespersons.

Ely S. Parker Award

Ely S. Parker walked in two worlds as a Chief of the Seneca Tribe, and a formidable leader in non-Native communities. In the 1850's he broke racial barriers, promoted tribal sovereignty, and advanced opportunities for American Indians as a lobbyist, decades before Congress granted citizenship to all American Indians born in the U.S under the 1924 Indian Citizenship Act.

Parker's resume includes attorney at law, brigadier general, scientist, and engineer; it is clear why AISES developed the Ely S. Parker Award.

The Ely S. Parker Award is the highest professional honor that AISES recognizes. Following the example of Ely S. Parker, the intent is to honor the achievements and performance of a leader who has forged an exemplary career in healthcare, education, or a STEM specialty.

Recipients are strong advocates for higher education, and they have a proven record of accomplishments throughout their careers. They are mentors, change agents, leaders, and outstanding professionals. Their contributions to diverse American Indian communities, and their continuous support of American Indians in STEM studies and careers stand out among others.

The Ely S. Parker Award is given out annually. AISES holds a nomination process where individuals are judged by the AISES Board of Directors. The criteria for the Award include but are not limited to: contributions to STEM disciplines, ability to overcome obstacles facing minorities in his/her field, uniqueness and innovation, and scope and level of responsibilities in their roles.

History of AISES Ely S. Parker Award Winners

1983	A.T. Anderson (<i>Seneca</i>), Engineering	1995	Dr. Cliff Poodry (<i>Seneca</i>), Biology	2007	Governor Joe A. Garcia (<i>Ohkay Owingeh</i>), Engineering
1984	Phil Stevens (<i>Oglala Sioux</i>), Engineering	1996	Dr. Fred Cooper (<i>Shoalwater Bay</i>), Engineering	2008	Norbert S. Hill, Jr. (<i>Oneida</i>), Educator
1985	Mary G. Ross (<i>Cherokee</i>), Mathematics/Engineering	1997	Dr. Jane Mt. Pleasant (<i>Tuscarora</i>), Agronomy/Soil Science	2009	Sandra Begay (<i>Navajo</i>), Engineering
1986	Al Qöyawayma (<i>Hopi</i>), Engineering	1998	Dick French (<i>Yakama</i>), Forestry	2010	Dr. Robert Whitman (<i>Navajo</i>), Engineering
1987	Phil Lane Sr. (<i>Yankton Sioux</i>), Engineering	1999	Dr. Robert Megginson (<i>Lakota</i>), Mathematics	2011	Everett Chavez (<i>Kewa Pueblo</i>), Educator
1988	Don Ridley (<i>Shoshone</i>), Engineering	2000	Dr. Jim May (<i>Cherokee</i>), Engineering/Business/Library Science	2012	Dr. Henrietta Mann (<i>Southern Cheyenne</i>), Educator
1989	Dr. Louis Steele (<i>Assiniboine</i>), Medicine	2001	Dr. Carolyn Elgin (<i>Choctaw</i>), Educator	2013	Bessie Newman Spicer (<i>Navajo</i>), Nursing
1990	Dr. George Blue Spruce (<i>Laguna/Ohkay Owingeh</i>), Dentist	2002	Dr. Judith Kaur (<i>Choctaw/ Cherokee</i>), Medicine	2014	Dr. Jason Younker (<i>Coquille</i>), Educator
1991	No Awardee	2003	Carol Metcalf Gardipe (<i>Penobscot</i>), Geology	2015	Dr. Bret Benally Thompson (<i>White Earth Band of Ojibwe</i>), Medicine
1992	Dr. Fred Begay (<i>Navajo</i>), Physics	2004	Jerry Elliott (<i>Osage/Cherokee</i>), Physics	2016	Dr. Robin W. Kimmerer (<i>Citizen Potawatomi Nation</i>), Educator
1993	Dr. Taylor Mackenzie (<i>Navajo</i>), Medicine	2005	George Thomas (<i>Cherokee</i>), Engineering	2017	Dr. Patricia Nez Henderson (<i>Navajo</i>), Medicine
1994	Dwight Gourneau (<i>Chippewa</i>), Engineering/Physics	2006	No Awardee		

40 YEARS

2008 AISES launches its 30-year anniversary year-long campaign to increase public awareness including AISES collector trading cards, and posters featuring Al Qöyawayma's art; a digital 30-year timeline, documentary video of AISES founders, and a webcast from the National American Indian Science and Engineering Fair. Sequoyah Fellows Membership grows to 1,000. AISES loses Mary Ross who leaves a financial bequest to AISES. The Google Scholarship is

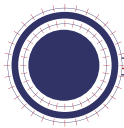
created with Google donating \$100,000 for Computer Science and Computer Engineering students. The AISES Chapter Awards program is expanded to five categories including the Stelvio J. Zanin Chapter of the Year Award.



**Brandon
Polingyumtewa**
HOPI



Each year Polingyumtewa spends hundreds of hours mentoring and guiding young people who are interested in STEM.



CORPORATE SPOTLIGHT

When Brandon Polingyumptewa was in grade school, he went on a field trip that changed his life. During a visit to what is now aerospace giant The Boeing Company's Mesa, Ariz., plant, Polingyumptewa got his first glimpse of the Apache helicopter that was being built at the facility. "Kids are impressionable; they see things that spark an interest and grab them," says Polingyumptewa, Hopi, recipient of this year's Blazing Flame Award. "For me, it was seeing the Apache helicopter — the way it flew was so graceful and so powerful and so strong and silent. It really pulled me in."

This is not hyperbole. For the past 22 years Polingyumptewa has worked in the very same Mesa facility he toured as a youngster. Among his jobs today? "I help to build the next-generation Apache, called the Apache Guardian," says Polingyumptewa, whose official job title is supply chain management specialist, a role that has him managing information flows, schedules, and materials and working with engineers and designers so that the operators in the factory can efficiently build this highly advanced helicopter.

Though Polingyumptewa may have been inspired by his initial visit to the Mesa facility, the mechanical science and technology skills he needed to do his job were honed initially out of necessity. "I received a Walkman as a gift and within a month I had dropped and

broken it," he recalls. "We didn't have much money, so I studied the parts, assessed the situation, and pieced it back together — and it worked."

That love of taking things apart and putting them back together naturally led Polingyumptewa down a STEM path, a direction that was encouraged both by his parents and by the other budding Native engineers he met at the AISES Summit Camp at Arizona State University he attended while still in middle school. "That really put me in the mind-set that I could do something with this interest in STEM," he says. "You can do this type of work and really enjoy it."

For the past two-plus decades, Polingyumptewa has been working tirelessly to encourage Native students to follow their own path into STEM education and careers. Each year he spends hundreds of hours mentoring and guiding young people who are interested in STEM.

At Boeing, Polingyumptewa is president of the company's American Indian Society and is also the Boeing Enterprise AISES deputy leader. In these and many other roles, Polingyumptewa works to break down some of the barriers he knows many Native young people face as they pursue STEM studies and careers.

He understands the obstacles because he had to overcome them himself, including ones that were internal. "For me, self-doubt was a major barrier.

Probably for most indigenous professionals in STEM, it's the same," says Polingyumptewa. "I was always questioning whether I was really as bright as others see me. Basically, am I really good enough?"

Because he struggled with self-doubt personally, Polingyumptewa makes it a point to identify — and try to erase — the doubts the young people he works with might have. "I don't want them to feel discouraged, and I want them to continue on whatever path they are pursuing," he explains. Sometimes, especially with younger students, that means ensuring they understand the many opportunities and possibilities that STEM can provide.

For high school and college students, Polingyumptewa emphasizes his own journey and makes sure they are aware of the nontechnical skills they'll need to master in order to succeed. "Some students are coming straight from home (the reservation) and don't have the skills necessary to function and thrive in a corporate environment," he says. "Some of it is critical yet subtle things like handshakes and eye contact and normal business etiquette that may be foreign to the students."

Polingyumptewa says his efforts are more than worthwhile when he sees the self-doubts melt away. "To see young people I have worked with and mentored who once doubted themselves experience their own brand of success is the best gift I can give them," he says. ■

Lighting the Pathway to Faculty Careers for Natives in STEM Fellows

Supported by the National Science Foundation, the "Pathways" Program is designed to increase the representation of Native Americans in STEM faculty positions in higher education through the creation and support of an intergenerational community of undergraduate and graduate students, postdoctoral scholars, and junior and senior faculty members.



2014 Fellows

Angelita Bearquiver (*Northern Cheyenne*)

Rene Begay (*Navajo*)

Rebecca Buckman (*Hopi*)

Katherine Crocker (*Kaw Nation*)

Joshua Danny (*Navajo*)

Megan Dunn (*Cherokee Nation*)

Devin Etcitty (*Jemez Pueblo, Navajo*)

Amber Eule-Nashoba (*Choctaw Nation*)

Bradley Ganoe (*Anishnaabe*)

Jennifer Remme (*Fort Peck Assiniboine Sioux*)

Ariel Helms (*Cherokee Nation*)

Kelsea Hosoda (*Native Hawaiian*)

Carrie Joseph (*Hopi*)

Nicole Kenote (*Menominee*)

Sandra Kjono (*Mohawk*)

Janie Locklear (*Lumbee*)

Jacinda Mainord (*Village of Selawik, Village of White Mountain*)

Jack Martin (*Navajo*)

Alexander McGirt (*Lumbee*)

Na'ta'ne Miles (*Comanche, Pine Ridge Oglala Sioux, Salt River Pima Maricopa*)

Jocelyn Painter (*Winnebago Tribe of Nebraska*)

Keith Parker (*Yurok*)

Anthony Barela Nystrom (*Chickasaw Nation*)

Mackenzie Pearson (*Menominee*)

Jesse Peltier (*Turtle Mountain Chippewa*)

Darryl Reano (*Acoma Pueblo, Santo Domingo Pueblo*)

Biidaaban Reinhardt (*Sault Ste. Marie Chippewa*)

Joshua Thomas (*Seneca Nation of New York*)

Ranalda Tsosie (*Navajo*)

Crystal Tulley-Cordova (*Navajo*)

2015 Fellows

Chad Auginash (*Red Lake Chippewa*)

Shanadeen Begay (*Navajo*)

Johnny Buck (*Yakama*)

Katrina Claw (*Navajo*)

Jesse Gibson (*Poarch Creek*)

Ciarra Greene (*Nez Perce*)

Candice Guy (*Delaware*)

Megan Kiedrowski (*Sault Ste. Marie Chippewa*)

Naomi Lee (*Seneca Nation of New York*)

Rebekah Lester (*Osage*)

Kristen Lycett (*Cow Creek Umpqua*)

Phillip Medina IV (*Huron Potawatomi*)

Jordan Oshiro (*Native Hawaiian*)

Ulali Phillip (*Navajo*)

Canek Phillips (*P'urepecha*)

Dylan Suvlu (*Arctic Slope Inupiat*)

Scott Tan (*Blackfeet*)

Henrietta Tsosie (*Navajo*)

Delbert Willie (*Navajo*)

2016 Fellows

Sarah Aarons (*Village of Unalakleet*)

Mark Berger (*Oneida Nation of New York*)

Edward Chew (*Tuscarora*)

Alexander Cody (*Kickapoo Tribe of Kansas*)

Kyle Dahlin (*Native Hawaiian*)

Tammi Duncan (*Navajo*)

Maxwell Goldstein (*Seminole Nation of Oklahoma*)

Danielle Guzman (*Nez Perce*)

Joshua Lelemia Irvine (*Native Hawaiian*)

Laurel James (*Yakama*)

Jordan Kennedy (*Blackfeet*)

Donna Kuehu (*Native Hawaiian*)

Moses Leavens (*Chippewa Cree*)

Lizzie Lightning (*Ponca Tribe of Oklahoma*)

Benjamin Lilley (*Eastern Cherokee*)

Michaela Long (*Navajo*)

Kevin McPherson

Jenny Nakai (*Navajo*)

Cheyenne Nelson (*Santa Ynez Chumash Mission*)

Talia Quandelacy (*Zuni*)

Kyle Roessler (*Salish Kootenai*)

Kenneth Swift Bird (*Pine Ridge Oglala Sioux*)

Jackie Taylor (*Choctaw Nation*)

Sidney Thompson (*St. Regis Mohawk*)

Kayle Thunstrom (*Minnesota Chippewa*)

Lani Tsinnajinnie (*Navajo*)

Tada Vargas (*Cheyenne River Sioux*)

Noelani Villa (*Kaw Nation*)

Clayton Wauneka (*Navajo*)

40 YEARS

2009 AISES dissolves its Foundation and assets are merged into AISES' existing 501c3 corporation. The Exxon Mobil Bernard Harris Summer Science Camp (EMBHSSC) is launched at the University of New Mexico. The Intel Scholarship is created and focuses on technical and leadership accomplishments and interest in computer science. Seven students are awarded scholarships

totaling \$50,000. The AISES mission is expanded to be more inclusive of all North American Indigenous peoples including Native Hawaiians and First Nations people.



2017 Fellows

Alissa Baker-Oglesbee (*Cherokee Nation*)

Maryrose Barrios (*Tule River*)

Joel Begay (*Navajo*)

Landon Charlo (*Salish Kootenai*)

Kali Dale (*Minnesota Chippewa*)

Lauren Dupuis (*Kootenai*)

Kristina Gonzales (*Navajo*)

Daniel Henry (*Turtle Mountain Chippewa*)

Samantha Hilborn (*Laguna Pueblo*)

Lydia Jennings (*Pascua Yaqui*)

Brandi Kamermans (*Navajo*)

Sierra Kafuman (*Shinnecock Indian Nation*)

Melissa Naeimi (*Muscogee Nation*)

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Corbin Schuster (*Yakama*)

Olga Skinner (*Village of Kwethluk*)

Lauren Smythe (*Hydaburg Cooperative Association*)

Nizhoni Tallas (*Navajo*)

Jacob Walker-Swaney (*Piqua Shawnee Tribe*)

2016-2017 A.T. Anderson Memorial Fund Scholars

Supported by: The Axtell Family, Bayer USA Foundation, The Boeing Company, Chevron Corporation, Chrysler Automobile Company, Forbes, Helen Roberti Charitable Trust, Intel, Lockheed Martin, Oracle, and the San Manuel Band of Mission Indians

Juliana Alden (*Native Hawaiian*)

Simone Ballard (*Osage, Quapaw*)

Gabriel Brien (*Turtle Mountain Chippewa*)

Kira Brown (*Cherokee*)

Justin Brown (*Jamestown S'Klallam*)

Holly Burk (*Muscogee*)

Thomas Carter (*Coharie*)

Andrew Cloud (*Red Lake Chippewa*)

Calle Collman (*Naknek Village*)

Rhea Cree (*Yakama*)

Janelle Cronin (*Navajo*)

Gabriel Cortez (*Navajo*)

Brandt Daniels (*Chickasaw*)

Keiyana Denetdale (*Navajo*)

Tammi Duncan (*Navajo*)

Blake Dusenberry (*Choctaw*)

William Ebke (*Iowa Tribe of Kansas and Nebraska*)

Zachary Felsman (*Salish & Kootenai*)

Matthew French (*Navajo*)

Luke Gibson (*Navajo*)

Tanya Harrison (*Native Hawaiian*)

Daniel Hayden (*Alabama-Quassarte, Cherokee, Comanche, Muscogee, Pawnee*)

Braden Walker Heid (*Cherokee*)

Hunter Holmes (*Muscogee*)

Caleb Lee House (*Cherokee*)

Laura Irons (*Picayune Chukchansi*)

Joshua Lelemia Irvine (*Native Hawaiian*)

Hunter Johnson (*St. Paul Pribilog Islands Aleut Community*)

Carrie Joseph (*Hopi*)

Raquel Kamalu (*Native Hawaiian*)

Justin Boy Kaye (*Navajo*)

Shaylin Marn (*Native Hawaiian*)

Jarrin McKinney (*Choctaw*)

Philip Medina IV (*Huron Potawatomi*)

Nicolas Morton (*Cherokee*)

Nathan Nakatsuka (*Native Hawaiian*)

Leslie R. Nelson (*Navajo*)

Nicholas Rajen (*Navajo*)

Anthony Nicholson (*Navajo*)

Gavin Neibuhr (*Citizen Potawatomi*)

Emily Neiderbremer (*Cherokee*)

Sabra Poitra (*Turtle Mountain Chippewa*)

Andrew Quinton (*Cherokee*)

Ciara Quine (*Citizen Potawatomi*)

Ivan Rajen (*Navajo*)

Samuel Christian Reimertz (*Cowlitz*)

Kyle Austin Rhine (*Cherokee*)

Colton Romannose (*Cheyenne-Arapaho*)

Adam Shareghi (*Citizen Potawatomi*)

Kaitlyn Shorty (*Navajo*)

Thaddeus Smith (*Shoshone-Bannock*)

Zachary Smith (*St. Regis Mohawk*)

Stephen Stanley (*Lumbee*)

Josh Sylvia (*Village of Selawik*)

Henrietta Tsosie (*Navajo*)

Ranalda Tsosie (*Navajo*)

Romilly Tsinhnahjinnie (*Navajo*)

Hope Ushiroda-Garma (*Native Hawaiian*)

Narae Wadsworth (*Paiute, Pyramid Lake Paiute*)

Trevin Wayne Ward (*Cherokee*)

Nathan M. Yellowhair (*Navajo*)

Blake Alan Yort (*Citizen Potawatomi*)

2010 *Winds of Change* magazine is redesigned and relaunched creating management oversight from the AISES national office. Pamala M. Silas, the Executive Director, becomes Chief Executive Officer reflecting the increase in responsibilities. AISES launches a major gifts program called "Pathfinders" with contributions for a feasibility study from Boeing and IBM. Boeing makes the lead gift of \$500,000. Motorola funds a new program called

"PowerUp Science" that introduces the scientific method to K-12 students. AISES mourns the loss of beloved elder Franklin Kahn.

2011 AISES hosts the Intertribal Middle School Science Bowl with a grant from the U.S. Department of Energy. The AISES Professional Chapters Council is created with Rita Peterson and Nadine Sharp as Co-Chairs.

40 YEARS

BNSF Railway Scholars

Clifford Courvoisier (*Navajo*)

Elizabeth Guerino (*Choctaw*)

Mara Lewis (*Cherokee*)

Alexis Newby (*Alaska
Native- Village of Tanana*)

Sofia Panarella (*Native Hawaiian*)

Chevron Corporation Scholars

Tillie Allen (*Choctaw*)

Wai Allen (*Navajo*)

Kimberlynn Cameron
(*Standing Rock Sioux*)

Kirsch Davis (*Navajo*)

Cameron Hedlund (*Choctaw*)

Zachary Holland (*Cherokee*)

Hozhoni Jansen (*Navajo*)

Adam Moore (*Iowa Tribe of
Kansas and Nebraska*)

Durante Pioche-Lee (*Navajo*)

Justin Sanders (*Cherokee*)

Brendan Smith (*Osage*)

Joshua Thomas (*Seneca*)

Naval Sea Systems Command (NAVSEA) Scholars

Rayne Anderson (*Navajo*)

Derrick Carner (*Choctaw*)

Hunter Johnson (*St. Paul Pribilog
Islands Aleut Community*)

Curtis Payne (*Cherokee*)

Randall Perryman (*Muscogee*)

NextEra Energy- Ford Dry Lake Scholars

Tiffany Adams (*Chemehuevi*)

Dusti Bacon (*Chemehuevi*)

Cody Gonzales (*Quechan*)

Sydney Harper (*Colorado
River Indian Tribes*)

Steven Leash (*Cahuilla Mission*)

Jameson Lopez (*Fort
Yuma Quechan*)

Sean Milanovich (*Agua
Caliente Cahuilla*)

Chris Soltero (*Chemehuevi*)

Intel Foundation Scholars

Kristy Carpenter (*Native
Village of Afognak*)

Maxwell Goldstein (*Seminole*)

Kelsea Hosoda (*Native Hawaiian*)

Sandra Kjono (*Kahnawake Mohawk*)

Riley Vancuren (*Cherokee, Choctaw*)

Colton S. Wall (*Choctaw*)

Keely Yazzie (*Navajo*)

Eastman Chemical Scholars

Trevor Mackey (*Seminole*)

Taylor Moore (*Muscogee*)

Katherine Shun-Gilmour
(*Native Hawaiian*)

Northrop Grumman Corporation Scholars

Levi Kohl (*Navajo*)

Parker Upton (*Ponca
Tribe of Nebraska*)

Virginia Drummond (*Choctaw*)

Mehrzad Van Gieson
(*Native Hawaiian*)

40 YEARS

2012 AISES received the San Manual Tribe Yawa' Award including a \$50,000 contribution. Faith Spotted Eagle becomes a member of the Council of Elders. AISES loses longtime spiritual leader and AISES elder, Edward Bent Box, Sr.

2013 Sarah EchoHawk becomes Chief Executive Officer and the Colorado Field Office opens in Longmont, Colorado. AISES redesigns and launches its new website.



2014 AISES debuts the National American Indian Virtual Science and Engineering Fair (NAIVSEF). AISES receives \$1.5 million grant from the National Science Foundation for "Lighting the Pathway to Faculty Careers for Natives in STEM" to prepare Native students to enter tenure track

2017 ANNUAL REPORT

ExxonMobil Geosciences Scholars**Wai Allen** (*Navajo*)**Sayge Wooldridge**
(*Cheyenne River Sioux*)**2017 National Conference Travel Scholars**

Supported by: General Motors and the USDA Natural Resource Conservation Service

Taymee Brandon (*Turtle Mountain Chippewa*)**Tanya Harrison** (*Native Hawaiian*)**Raven Waldron** (*Navajo*)**Zoe St. Claire** (*Turtle Mountain Chippewa*)**Haley Hilborn** (*Pueblo of Laguna*)**Dionne Zoanni** (*Fort Peck Assiniboine, Sioux*)**Levi Rickard** (*Tuscarora*)**2017 Leadership Summit Travel Scholars**

Supported by: General Motors, the San Manuel Band of Mission Indians and the USDA Natural Resource Conservation Service

Andrew Nicolai (*Village of Kwethluk*)**Tanya Harrison** (*Native Hawaiian*)**Tyler Rust** (*Pine Ridge Oglala Sioux*)**Miranda Felix** (*Cherokee*)**Sara Kroening** (*White Earth Ojibwe*)**Lisa Willis** (*Navajo*)**Darcy Grady** (*Mandan Hidatsa Arikara*)**Colton RomanNose**
(*Cheyenne-Arapaho*)**National Science Foundation ASSIST Project Travel Fellows**

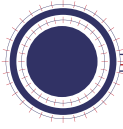
Funded by National Science Foundation ASSIST Project, this program is designed for early-career faculty, post-doctoral fellows, and graduate students in engineering to receive professional development support. AISES is one of seven diversity-serving national organizations that utilizes ASSIST Project travel grants to increase the number and diversity of engineering professionals. In 2017, Fellows attended the AISES 2017 National Conference in Denver, Colorado where they participated in specific professional development workshops.

Chad Auginash (*Red Lake Chippewa*)**Juanita Francis** (*Navajo*)**Donna "Sweetie" Kuehu**
(*Native Hawaiian*)**Grace Bulltail** (*Crow*)**Joshua Gosney** (*Little Shell Chippewa*)**Sandra Manosalvas-Kjono**
(*Kahnawake Mohawk*)**Michael Charles** (*Navajo*)**Joshua Lelemia Irvine**
(*Native Hawaiian*)**Phillip Medina** (*Huron Potawatomi*)**Ronson Chee** (*Navajo*)**Melia Iwamoto** (*Native Hawaiian*)**Canek Phillips** (*P'urepecha*)**Ann Cross** (*Pine Ridge Oglala Sioux*)**Jordan Kennedy** (*Blackfeet*)**Michael Valdez** (*Cherokee Nation*)**Megan Dunn** (*Cherokee Nation*)**2017 Bonneville Power Administration Summer Student interns****Shauna Payne** (*Navajo*)**Byron Shorty** (*Navajo*)**Nizhoni Tallas** (*Navajo*)**40 YEARS**

faculty careers at universities. Chuck Ross (Raytheon) becomes Co-Chair of the Corporate Advisory Council (CAC).

2015 Beloved AISES Elder, Horace Axtell, passes. AISES, the National Society of Black Engineers (NSBE), the Society of Hispanic Professional Engineers (SHPE), and the Society of Women Engineers (SWE), collectively serving more than 85,000 pre-collegiate, collegiate,

and professional members form the 50K Coalition to produce 50,000 diverse engineering graduates annually by 2025. AISES receives grant support from Comcast/NBC Universal to produce two public service announcements. Bret and Antoinelle Benally Thompson join the Council of Elders.



ADVISOR SPOTLIGHT



Dr. Nader Vadiee College Advisor

Creating Possibilities

Dr. Nader Vadiee has spent most of his career building the engineering program at Southwestern Indian Polytechnic Institute (SIPI). He started working with SIPI students in 1994 through a grant from Sandia National Labs, and continued in 1998 through a NASA grant with the University of New Mexico, where he was a research associate professor.

When that program ended in 2005, he wrote another grant to start an engineering program at SIPI. "It takes a lot of time, passion, and love for your students," he says. And he's right. SIPI is an open-enrollment college, which means many arrive lacking proficiency in math and science. "It takes time to get them up to speed," explains Vadiee.

To support struggling students, he enlisted UNM graduate students as mentors. That program has expanded, with freshmen mentored by sophomores and sophomores mentored by UNM students and professionals in industry. This collaboration among academic institutions and the business sector is all part of SIPI's VIP ROSE STEM program — Vertically Integrated Pyramid for Research, Outreach, and Student Education in Science, Technology, Engineering, and Mathematics. "In VIP you see the community, academia, and the industry working together," says Vadiee. "That entire system is there to support the student academically. When students come to SIPI they join a support system."



Adapted from a Winds of Change story by Patty Talahongva.

2017 National Conference Sponsors:

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 National Center for Women &
 Information Technology

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 Indians
 Poarch Band of Creek Indians
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 America's Navy

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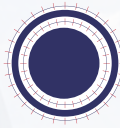
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Pre-College Programming
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 Motorola Foundation
 Confederated Tribes of Siletz Indians
 General Motors
 Cherokee Preservation Foundation
 Salt River Project
 Infosys Foundation





PARTNER SPOTLIGHT

Federal/Government Partner

The primary mission of the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) is to benefit both the environment and agricultural production by helping farmers and ranchers make conservation part of their success. And for the past 80 years the agency has been doing just that, fighting wasteful use of soil, water, graze land, forests, and other resources.

The agency was instituted by Congress as the Soil Conservation Service to help desperate farmers during the devastating drought conditions of the 1930s, and that early part of its history was recently portrayed in *The Dust Bowl*, a documentary by filmmaker Ken Burns. Over the years the agency took on responsibility for resources beyond soil, and in 1994 the agency's name changed to Natural Resources Conservation Service to reflect its broader scope.

Today the NRCS continues its legacy of conservation. Agency-developed tools and standards in a wide range of fields — including engineering, agronomy, forestry, economics, and wildlife biology — help NRCS conservationists serve effectively in the field, working with landowners to develop and implement a science-based conservation plan. Because NRCS works directly with landowners, the agency operates in numerous communities around the country, and 90 percent of its employees work outside Washington, D.C.

As a 2017 Top 50 STEM Workplace, NRCS embraces diversity and fosters employee resource groups like the American Indian Alaska Native Employee Association. Candidates from all walks of life are encouraged to investigate careers at the agency, where the culture reflects a collective passion for stewardship of the land.



40 YEARS

2016 AISES receives \$1.32 million contribution from Intel to support scholarships for Native Americans. The National Science Foundation (NSF) awards grants to two collaborative initiatives for which AISES is a partner. The grant awards are part of the NSF's INCLUDES Program, a comprehensive initiative to enhance U.S. leadership in

science and engineering by broadening participation in the fields of Science, Technology, Engineering, and Mathematics (STEM). AISES is awarded a four-year \$700,000 grant from the Department of Education. API and AISES receive a five-year \$500,000 contract with the Department of Interior for the Energy Challenge. The

2017 ANNUAL REPORT

2017 Individual Donors

Satya Alagarsamy	Karen Graves Pynch	Marilyn Mitsch	Dr. Cindi Schmitt
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American Indian Student Services - CU Denver	IBM Employees	Raytheon Company Employees	TRUiST Employees
Chevron	Intel	The Boeing Company	
	North Star AISES Alliance Professional Chapter		

40 YEARS

public service announcements created with funding from Comcast/NBC Universal are launched with over \$1.6 million in pro bono airtime. AISES assumes internal control of the planning and execution of its national conference and no longer relies on external event planning support. National conference revenue exceeds

\$1.3 million and AISES annual revenue exceeds \$5.4 million. Dr. James May, former AISES Board member, joins the Council of Elders.



Sequoyah, a citizen of the Cherokee Nation developed the Cherokee syllabary in 1821. Sequoyah's writing system is comprised of 86 symbols representing all the syllables of the Cherokee language.

Sequoyah's innovation, inspiration, and impact are visible today. He has left a lasting legacy that is recognized by the lifetime AISES membership program called the Sequoyah Fellowship. Fellows contribute to the growth and proficiency of AISES members in STEM fields that are vital in generating economic growth, advancing scientific innovation, and creating jobs. Today, there are over 1,300 Sequoyah Fellows who have made a leadership commitment to AISES.

AISES ᐃᐇᑭᑦ ᐅ ᐆᐴᐃ ᐅᐇᐈᐇ ᑭᑫ ᐇᑫᐇ ᐃᐇᑫᑦᑫᑦ ᐃᐇᑫᑦ ᑲᐇᑫ ᑫᑫᑦᑫ ᐃᐇᐇᑫᑦ. ᑭᑫ ᐃᐇᑫᑦ ᐅᐇᐈᐇ ᐆᐴᐃ ᐇᐇᑫᑫ ᐃᐇᑫᑦᑫᑦᑫᑦᑫ ᐅᐇᑫᑫᑫ ᐆᐴᐃ ᑫᑫ ᐃᑫᑫ ᐅᐇᑫᑫᑫᑫ ᐃᑫᑫᑫᑫ ᐃᐇᑫᑫᑫ ᐃᐇᑫᑫᑫ

Translation - AISES thanks the Sequoyah Fellows for their sustaining commitment and philanthropy in fostering and furthering American Indian STEM talent. Your Sequoyah Fellowship is a powerful and special way to memorialize Sequoyah's brilliance while contributing to the valuable work of AISES.

Sequoyah member recipients in 2017 are:

- | | | | |
|----------------------|------------------------|-----------------------|---------------------|
| Dr. Howard Adams | Dr. Marisa Duarte | Summer Lara | Cynthia Silvatierra |
| Chris Bartell | SunnyRose Eaton | Curtis Largo | Tatiana Shubin |
| Dr. Kenneth Bernard | Adam Elder | Shannon Martin | Frazer Tee |
| Chloe Blythe | Emily Falcon | Lyndee John McClellan | Jaime Thissen |
| Daniel Bird | Sage Garcia | Ashleigh McIntosh | Brook Thompson |
| William Black | Mountainflower | Doran MacDonald | Bernadette Tsosie |
| Ely Boone | Jefferson George | Dennis MacDonald | Mickie Vanhoy |
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| Caroline Colbert | Alicia Jacobs | Paulette Pico | Jennifer Wolf |
| Katherine Cristiano | Aimee Johnson | Andres Ramos | Shanikia Waikaniwa |
| Myriah Cypriano | Kayla Johnson | Jennifer Romero | Rachel Yellowhair |
| Robert Deadrick | Kory Joe | Laurie Roberson | Victor Yong Jen Ong |
| Kathy DeerInWater | Cody Kapotak | Ryan Rumley | |
| Kaya DeerInWater | Michelle LaGarde | Emery Sutherland | |

40 YEARS

2017 The U.S. Department of Health and Human Services, Indian Health Service (IHS), announces a five-year partnership with AISES, the American Indian Higher Education Consortium (AIHEC), and the Native Research Network (NRN) to support an Annual National Native Health Research Training (NNHRT) Conference. AISES

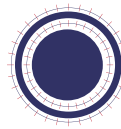
receives \$1 million to support the project. The annual Leadership Summit is financially supported by the Gila River Indian Community and held at the Tribe's resort, Wild Horse Pass in Arizona. The Canadian Indigenous Advisory Council (CIAC), and the Tribal Nations Advisory Council (TNAC) are established. AISES assumes in-

The Gila River Tribal Community: Guiding a Sustainable Future

Located in the Sonoran Desert region in Arizona adjacent to the southern border of the city of Phoenix lies the Gila River Indian Community (GRIC). The GRIC is comprised of the Akimel O'otham (Pima) and the Pee-Posh (Maricopa) tribes. Headquartered in Sacaton, Arizona, the Gila River Indian Community hosted AISES' 2017 Leadership Conference at the Wild Horse Pass Hotel and contributed a \$35,000 sponsorship.

The GRIC's commitment to the Summit was a high point of the annual event that made a real difference to everyone who attended and sparked a promising partnership with AISES. Namely, securing the commitment of two tribal leaders who continue to be involved with AISES as part of the Board of Directors and the Tribal Nations Advisory Council (TNAC). Mr. Barney (BJ) Enos, GRIC Councilman was elected by the membership to serve on the Board of Directors. As a board member and tribal official, BJ has helped to elevate the awareness of AISES and its mission to a broad audience of tribal leaders. John Lewis, TNAC Co-Chair, also leads the GRIC Utility Authority. A Stanford-educated civil and environmental engineer, John leads STEM projects for youth because he sees STEM education and programming as necessary to the future of the GRIC. He has developed youth summer internships for high school and college students and he designed a holistic approach STEM-focused youth initiative. "We have our own traditional methods," says Lewis, recalling how the ancient peoples united architecture, art, and agriculture in the construction and shared maintenance of their complex web of irrigation canals. Today the program gets fifth- through eighth-graders excited about the relationships between science and American Indian history and culture. "We're going to need engineers, line technicians, welders, general managers, accountants, and service reps," says Lewis. "We're getting our children into STEM programs at the youngest possible age. The benefits will be tenfold, even a hundredfold."

Adapted from a Winds of Change story by George Spencer.



TRIBAL SPOTLIGHT



40 YEARS

house management of the AISES Publishing, Inc. and its magazine, *Winds of Change*, and creates a new annual listing of the "25 Native STEM Enterprises to Watch" debuting in the fall 2017 issue. AISES and the Notah Begay III (NB3) Foundation launch the first annual Native Links Golf Classic to benefit Native youth programming. AISES now has over 4,000 individual members, over

1,300 Lifetime Sequoyah Fellows, 158 high school affiliated chapters, 190 college and university chapters, 15 professional chapters, a staff of 18, with national conference participation projected to well exceed 2,000 participants and projected annual organizational revenue of \$5.5 million.

Partner Service Awards

The AISES Partner Service Award winners are selected by the AISES staff to honor those who have gone *above and beyond* to support the organization. One winner is selected in each of six categories: Corporate Partner Service Award, Educator Partner Service Award, Foundation Partner Service Award, Government Partner Service Award, Nonprofit Partner Service Award, and Tribal Partner Service Award.

Strategic partners are important because they help to ensure the continued growth of AISES. The award recipients strengthen AISES by supporting and enhancing STEM education and careers. They expand the organization in ways that would have been impossible on our own.

Recipients of the 2017 honors are:

Government Partner Service Award
Laurence Brown (*Navajo*)
Sandia National Labs

Nonprofit Partner Service Award
Melvin Monette (*Turtle Mountain Band of Chippewa Indians*)
Indigneous Education, Inc.

Educator Partner Service Award
Holly Pellerine (*Athabaskan/Ojibwe*)
Fond du Lac Band of Lake Superior Chippewa

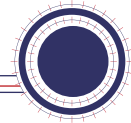
Fond du Lac Band of Lake Superior Chippewa

Corporate Partner Service Award
Chuck Ross (*Choctaw*)
Raytheon

Tribal Partner Service Award
Gila River Indian Tribe

Foundation Partner Service Award
Alfred P. Sloan Foundation

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2017 ANNUAL REPORT

AISES Circle Partners

The following outstanding organizations are recognized for their commitment to supporting the educational and professional development of American Indians, Alaska Natives, Native Hawaiians, First Nations, and other Indigenous peoples of North America in the STEM fields. AISES' Circle Partners diversify their involvement over at least two national events or programs. For more information on how to become a Circle Partner, please contact Kellie Jewett-Fernandez at kjfernandez@aises.org.

Full Circle of Support



Circle of Support



Excellence Partners



Success Partners





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