

The National Academies of **SCIENCES • ENGINEERING • MEDICINE**

POLICY AND GLOBAL AFFAIRS DIVISION

Board on Higher Education and Workforce

SPEAKER BIOS (in alphabetical order by last name) **VIRTUAL TOWN HALL**

Advancing STEM Workforce Preparation and Research Capacity at Tribal Colleges and Universities

Webcast Live Here: <https://www.nationalacademies.org/event/05-13-2021/town-hall-advancing-stem-workforce-preparation-and-research-capacity-at-tribal-colleges-and-universities>

May 13, 2021 | 12:30-3:00 pm ET

Carrie L. Billy, J.D., *President and CEO, American Indian Higher Education Consortium (AIHEC)*

Ms. Billy is an enrolled member of the Navajo Nation and attorney from Arizona, and is the President and CEO of the American Indian Higher Education Consortium (AIHEC). Through AIHEC, the nation's 37 Tribal Colleges and Universities (TCU's) share a common vision: Strong Sovereign Nations Through Excellence in TRIBAL Higher Education. Ms. Billy has undergraduate degrees from the University of Arizona and Salish Kootenai College (a tribal college) and she earned a Juris Doctorate from Georgetown University Law Center. Ms. Billy was appointed by former President William J. Clinton as the inaugural Executive Director of the White House Initiative on Tribal Colleges and Universities, and she worked in the U.S. Senate for 10 years. Ms. Billy has been the principal investigator on numerous federal and private sector grants, including research and programmatic awards from the National Science Foundation, the National Institutes of Health, NASA, the U.S. Departments of Education and Agriculture, Bill and Melinda Gates Foundation, the Lumina Foundation and more. Ms. Billy's accomplishments include designing and implementing strategic initiatives and developing innovative policies and programs and tribally-directed research initiatives, including AIHEC AIMS, a comprehensive data collection system for TCU's, and the Indigenous Evaluation Framework, which incorporates Indigenous epistemology and core tribal values into a framework that integrates place, community, individual gifts and sovereignty with Western evaluation practice. She has worked to forge partnerships and coalitions and drafted legislation to designate TCU's as 1994 Land-grant institutions and to create a federal designation for Hispanic Serving Institutions. Her career reflects a commitment to public service -- to protecting and promoting the cultures, rights and well-being of American Indians and Alaska Natives and improving the quality of life and educational status of all Americans.

Sandra Boham, *President, Salish Kootenai College* (biography requested)

Mandy Guinn, *Environmental Science & Research Chair, United Tribes Technical College*

Mandy Guinn earned her B.S. in Biology and B.A. Degree in German from Concordia College in Moorhead, MN. In 2006, she completed her M.S. in Biology from the University of Nebraska. She is currently working on her Ph.D. in Molecular and Evolutionary Biology at the University of North Dakota. She joined United Tribes Technical College (UTTC) faculty in 2008 and serves as Chair of the Environmental Science (ES) Department. Over the past 12 years, she taught a variety of courses including Biology, Chemistry, Research Ethics, Genetics, and Genomics. As a dynamic member of the UTTC community, she participates in numerous committees across campus and serves as Chair of the

Curriculum Committee. She played an integral role in the development and sustainability of UTTC's undergraduate STEM research program and ES B.S. degree. Her primary research focus is on North Dakota bat populations. She utilizes molecular techniques to investigate foraging patterns, social structures, economic impact on North Dakota agriculture, and fungal host-pathogen interactions. Ms. Guinn currently serves as the principal investigator for the USDA-NIFA BATS III award, which provides undergraduate research opportunities for underserved and underrepresented minority students. Her greatest passion is mentoring STEM students of all ages and helping them grow as scientists and as communicators of STEM. She resides in Bismarck, ND with her husband and four children.

Elmer J. Guy, Ph.D., *President, Navajo Technical University*

Since 2006, Dr. Elmer Guy has served as the president of Navajo Technical University (NTU), which is a member of the American Indian Higher Education Consortium (AIHEC), a community of 37 tribally and federally chartered institutions of higher education. Navajo Technical University offers certificate to master's degree programs. Prior to becoming president, Dr. Guy also served NTU as its vice president of academics and student services and its dean of instruction. In 2011 and 2012, under Dr. Guy's leadership, NTU was named one of the top 120 community colleges in the United States by the Aspen Institute's College Excellence Program. Before joining NTU, Dr. Guy was appointed by the Navajo Nation president to serve as both the executive director and deputy director of the Navajo Nation Department of Education. During his tenure with the Navajo Nation Department of Education, several needed programs were successfully developed and implemented, including two trusts for the handicapped (\$7 million) and for vocational education programs (\$6 million); the Navajo Medicine Man Apprentice School; and a comprehensive teacher education program, all of which have been institutionalized and remain in full operation. Dr. Guy earned his undergraduate and doctorate degrees from the University of Arizona, and in between, a graduate degree from the University of San Francisco. Dr. Guy serves on the board of the American Indian Higher Education Consortium, the American Indian College Fund board, the College Board's Community Colleges Advisory Panel, as well as other regional and national associations.

Al Kuslikis, *Senior Associate for Strategic Initiatives, AIHEC*

Al Kuslikis is Senior Associate for Strategic Initiatives at the American Indian Higher Education Consortium, the association of the nation's Tribal Colleges and Universities. An important focus of Mr. Kuslikis' work involves identifying strategies for supporting research, education, technology transfer, and community development programming at the nation's TCUs particularly through partnerships among the Tribal Colleges and the larger stakeholder community – including federal, tribal and state agencies, higher education institutions, organizations, and businesses. Mr. Kuslikis has accumulated over twenty years of experience in American Indian higher education, beginning with his work at Diné College on the Navajo Nation.

Adrian Leighton, Ph.D., *Div. Head, Natural Resources, Salish Kootenai College*

Adrian was born and raised in upstate New York. He received a Masters of Forestry from Yale School of Forestry and Environmental Science in 1996, and received his PhD in forestry (with a focus on silviculture) from the University of Massachusetts in 2005. Adrian began teaching forestry at Salish Kootenai College in 2003 and teaches a variety of classes as well as directing the Center for Tribal Research and Education in Ecosystem Sciences. In 2005 Salish Kootenai College became the only Tribal College in the nation to offer a Bachelor's degree in Forestry. Adrian was a member of the 3rd Indian Forest Management Assessment Team, and is a co-chair of IFMAT IV. He is a former co-chair of the Intertribal Timber Council Research Sub-Committee, serves on the executive committee of the National

Association of University Forest Resource Programs (NAUFRP) and served on the Forest Research Advisory Council (FRAC) to the Secretary of Agriculture from 2013-2016. He lives in Ronan, MT with his wife Constanza and daughter Sofia.

Richard Littlebear, *President of Chief Dull Knife College of the Northern Cheyenne Nation* (biography requested)

Leander R. McDonald, Ph.D., *President of United Tribes Technical College*

Dr. Leander McDonald is an enrolled member of the Spirit Lake Dakota Nation and a proud descendant of the Sahnish, Hidatsa, and Hunkpapa Nations. Dr. McDonald has served as the President of United Tribes Technical College for over six years. He previously served as Chairman for the Spirit Lake Nation, Vice President of Academic Affairs for Cankdeska Cikana Community College, and Assistant Professor at the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences. Russ's higher education training began at his tribe's tribal college and university, Cankdeska Cikana Community College, with an Associate of Arts in Liberal Arts in 1993. He earned another associate degree in Business Administration from the University of North Dakota (UND) Lake Region in 1997, followed by bachelors and master's degrees in Sociology from UND in 1998 and 2000. His PhD in Educational Foundations and Research, also from UND, was conferred in 2003. Much of his published research is focused on Native elders' health risk and disparities, American Indian veterans' access to healthcare, and American Indians behavior risk factors. During his tenure as the Spirit Lake Chairman, he provided three national testimonies in support of child protection legislation, disparities, and the resources necessary to bring parity to tribal systems. McDonald is a U.S. Army veteran and resides in Bismarck, ND with his wife Francine.

Peter L. Romine, Ph.D., *Associate Professor & Head, Electrical Engineering & Computer Engineering, Navajo Technical University*

Peter Romine is Head of the Electrical Engineering program at Navajo Technical University (NTU), a Tribal College/University (TCU) of the Navajo Nation in Crownpoint, New Mexico. NTU is the First and Only TCU with ABET accreditation for Engineering. A distinction that allows NTU Engineering Graduates to compete for the same jobs and opportunities that graduates of other accredited institutions have long taken for granted. Graduates of the NTU Electrical Engineering program have become engineers with federal research institutions, robotics engineers, agencies across the Navajo Nation, and are pursuing graduate programs in Electrical Engineering and Computer Science. Several of his students are also serving as Instructors in the 2-year Energy Systems and Pre-Engineering programs. He emphasizes early adoption of hands-on project-based learning with multidisciplinary teams in this program. Peter believes in using National Engineering Competitions as one method of preparing his students for their careers. His students have competed in NASA Swarmathon, NASA MITTIC, and the ASPE Student Design Competition. He was an early adopter of the Maker Philosophy of Education. His students participated in the 2015 and 2016 DC Maker Faires, the 2016, 2017 and 2019 Capitol Hill Maker Faires, the 2016 NASA Innovation Challenge, and the 2018 and 2019 Nation Of Makers Conference (NOMCON). Peter is driven to expand career education access to underserved communities. He has developed dual-credit relationships with many of the high schools on the Navajo Nation and has led the development and operation of the NTU STEM & Skills Summer Dual-Credit Program. This program, first offered in 2018, offers a variety of entry level college courses in STEM like Math and Engineering, Skilled trades like Welding, Construction, and Culinary, and Business courses like Keyboarding and Entrepreneurship. In 2020, the program went online due to COVID and led to many unexpected benefits including access to a wider range of schools and students. For example, we went from 2 high schools in 2019 to 35 high schools served in 2020. Our intentions for 2021 is to

continue the online approach with an even greater number of schools served. The STEM & Skills program has concluded each year with a MakerFaire and led to the organization of the first annual Dine' Maker Nation – Maker Faire in 2019. The theme was “The Evolution of the Dine' Maker,” interweaving the modern Maker Movement with traditional Navajo Crafts & Trades, culture and language. The Dine' Maker Nation Faire on March 12, 2020 was the first World MakerFaire event to be hosted on a Tribal Nation. It was also the last of 2020 as the Navajo Nation, the states of Arizona and New Mexico, and much of the world began to shut-down in response to the COVID-19 Pandemic. He is expanding the inclusion of Coding across the Summer Program and has a new award from the National Science Foundation to provide Professional Development and year-long support to teachers at Navajo-serving high schools in his region to prepare students to take and pass the AP CS Exam.