The National Academies of
SCIENCES · ENGINEERING · MEDICINE

COMMITTEE ON ADDRESSING THE UNDERREPRESENTATION OF WOMEN OF COLOR IN TECH
June 3-4, 2020
Workshop #4 | Virtual Meeting

Day 1: https://bit.ly/2M06AVD | Day 2: https://bit.ly/3eiSwCQ

<u>Speaker Biographies</u>

Twyla Baker, Ph.D., is an enrolled citizen of the Three Affiliated Tribes (Mandan Hidatsa & Arikara Nation) of North Dakota. She lives and works on her ancestral homelands on the Fort Berthold Indian reservation in northwest North Dakota. She is the President of Nueta Hidatsa Sahnish College, the Tribally chartered college of the Three Affiliated Tribes. Twyla's work touches a broad swath of her home reservation, and serves a number of stakeholders, including students, Tribal members, community members, and the state and region. Born and raised on the Fort Berthold Indian Reservation, Twyla left home for several years and built a life away from the reservation, though she maintained strong ties to her home community. Viewing life through an Indigenous lens, her world view informs nearly everything she does professionally and personally, and she is raising her children to know, see, and carry on their Tribal life ways as they were taught to her by her parents. Given her strong grounding in her culture and identity, and the social capital that brings, Twyla is particularly suited to carrying out her work within her community. She has spent a lifetime establishing her credibility among her Tribal people and with external constituencies.

Sandra Begay is Principal Member of the Technical Staff at Sandia National Laboratories. She is the daughter of a Navajo tribal leader and a public health nurse, is a member of the Navajo Nation and she has been an engineer for 32 years. Sandra earned an Associates of Science degree in Pre-Engineering, a Bachelor of Science degree in Civil Engineering from the University of New Mexico (UNM) and a Master of Science from Stanford University in Structural Engineering with an emphasis in Earthquake Engineering. Sandra has worked at Sandia National Laboratories (Sandia) for 27+ years, where she is a research and development engineer. Sandra has enjoyed 16 years of unique work focused on providing technical assistance to U.S. tribes. Sandra is featured in the American Society of Civil Engineers book "Changing Our World: True Stories of Women Engineers." Included in the chapter "Women in Power," Sandra's efforts were described as providing electricity through solar panels to hundreds of Navajo members.

Jennifer Carlson is Co-Founder and Executive Director of WTIA Workforce Institute & Apprenti.

Nizhoni Chow-Garcia, Ph.D., is Diné (Navajo), born to the Tódích'íi'nii (Bitter Water People) and Totsohnii (Big Water People) clans. Nizhoni earned her undergraduate degree from the University of California, Los Angeles. She taught middle school social studies in Connecticut for a number of years prior to moving to Rochester, New York and transitioning to higher education at the Rochester Institute of Technology (RIT). At RIT she served as the Director of the Native American Future Stewards Program, the Collegiate Science Technology Entry Program and the Multicultural Center for Academic Success. She completed her Ph.D. in Higher Education from the University of Rochester and now resides in Monterey, California where she is the Associate Director of Inclusive Excellence at California State University, Monterey Bay. Her academic and professional areas of interest are broadly in the field of diversity and inclusion, and more specifically in working to increase the success of Native Americans in higher education, supporting women and Students of Color in STEM, and engaging in critical Indigenous frameworks and methodologies. Her work has most recently been recognized as the 2017 NASPA Melvene D. Hardee Dissertation of the Year Award and the 2017 ACPA Marylu McEwen Dissertation of the Year Award. For the most part, Nizhoni can be found running after her two young boys and dreaming of future free time.

Kathy DeerInWater, Ph.D., is a citizen of the Cherokee Nation of Oklahoma. Dr. Deerinwater is Chief Program Officer of the American Indian Science and Engineering Society (AISES). She joined AISES in October 2014 and completed her Doctoral degree in Population Biology at the University of California, Davis in September 2015. As a long-time member of the AISES family, Dr. DeerInWater brings first-hand experience and passion to AISES' mission of increasing the representation of Native people in STEM studies and careers. Dr. DeerInWater oversees program development, implementation, evaluation, and reporting for all AISES programs, serving our youngest students to senior-level professionals. In addition, Dr. DeerInWater represents AISES on all research projects such as the National Science Foundation funded "Lighting the Pathway to Faculty Careers for Natives in STEM" project. Dr. DeerInWater strives to support tribal communities and strengthen tribal sovereignty through education and workforce development in STEM. In the field of computer science, Dr. DeerInWater has developed and led multiple new initiatives for AISES. Dr. DeerInWater and her team have developed a year long applied computer science course, incorporating college and career readiness and Native culture, to engage Native students and prepare them for higher education and careers in CS. AISES has worked with over 20 Native-serving schools in tribal communities and urban areas across the country, implementing a robotics and coding program designed to build the capacity of teachers and schools to incorporate CS into their STEM curricula. Dr. DeerInWater is also a co-PI Native American Women and Two-Spirit Individuals in Computing Higher Education: A Photo Elicitation Study of Persistence (NAWC2) in collaboration with researchers at TERC.

Andrea Delgado-Olson is the Founder and Chair of Native American Women in Computing. She is also the Program Manager for Systems and GHC Communities at the AnitaB.org. Andrea is a member of the Ione Band of Miwok Indians of the Northern Sierra region of California. She is a Computer Science Graduate Student with a background in Education with seventeen years of experience as a teacher. Her focus has shifted from teaching to working on outreach in

Native Communities to teach various levels of Computer Science education and Gaming. While working on preserving her language within her family, Andrea collaborated with Google and Udacity to create a course under the Android Basics Nanodegree for Multiscreen Apps using her native language, Miwok. She is working to expand those efforts and gather teaching material to use as resources for other tribes to create curriculum to preserve language and culture for a multitude of indigenous tribes, not just from the Americas, but worldwide.

Sarah EchoHawk, a citizen of the Pawnee Nation of Oklahoma, has been working for Native people for over 20 years. She has been the CEO at AISES since 2013. Ms. EchoHawk previously worked for First Nations Development Institute and the American Indian College Fund. Currently, she serves as Vice Chair for Native Americans in Philanthropy, Chair for the Native Ways Federation, and Chair for Red Feather Development Group. She also serves on the Champions Board for the National Girls Collaborative, and the Collaborative Advisory Board for Women of Color in Computing Research. She is Co-PI on three National Science Foundation grant projects and served as an Ambassador for the U.S. Department of Energy's Minorities in Energy Initiative. Ms. EchoHawk has a Master of Nonprofit Management (MNM) degree from Regis University and an undergraduate degree in Political Science and Native American Studies from Metro State University of Denver.

Evelynn M. Hammonds, Ph.D., is the Barbara Gutmann Rosenkrantz Professor of the History of Science and of African and African American Studies.Professor Hammonds joined the Faculty of Arts and Sciences in 2002 after teaching at the Massachusetts Institute of Technology (MIT), where she was the founding director of the Center for the Study of Diversity in Science, Technology and Medicine. Her scholarly interests include the history of scientific, medical, and sociopolitical concepts of race, the history of disease and public health, gender in science and medicine, and African-American history. She is the author of "Childhood's Deadly Scourge: The Campaign to Control Diphtheria in New York City, 1880-1930" and many scholarly articles. Professor Hammonds received her B.S. in physics from Spelman College. She earned a bachelor's in electrical engineering from Georgia Institute of Technology, a master's degree in physics from MIT, and a Ph.D. in the history of science from Harvard. She was a postdoctoral fellow in the School of Social Science at the Institute for Advanced Study in Princeton, N.J. and also served as a Sigma Xi Distinguished Lecturer from 2003 to 2005. Currently she is an associate member of the Broad Institute of Harvard and MIT. Professor Hammonds serves on a number of boards including the Board of Overseers of the Museum of Science in Boston, and the Association of American Colleges and Universities. She holds an honorary doctorate of humane letters from her alma mater, Spelman College where she also serves on the Board of Trustees. In February 2008, she was named a fellow of the Association of Women in Science (AWIS). She serves on the Committee on Equal Opportunities in Science and Engineering (CEOSE), the congressionally mandated advising committee to the National Science Foundation.

Marisela Martinez-Cola, J.D., Ph.D., joined the faculty at USU in the Fall of 2018 after receiving her Ph.D. from Emory University. She is also an alumna of the University of Michigan where she majored in African American Studies and earned her law degree at Loyola University

Chicago School of Law. She credits her varied educational experiences for contributing to her interdisciplinary approach to research and teaching. Her research largely focuses on the critical comparative study of race, class, and gender as it relates to culture, social movements, and comparative/historical sociology. Her current book project is entitled, The Bricks Before Brown, and is a comparative historical case study of the construction of race, class, and gender in Mexican American, Chinese American, and Native American school desegregation cases that came before Brown v. Board of Education. She has published in the Journal of Law & Society, The Sociology of Race and Ethnicity, Teaching Sociology, Understanding and Dismantling Privilege, and Humanity and Society.

Maria (Mia) Ong, Ph.D., is a Senior Research Scientist and Evaluator at TERC. She is also the Founder and Director of Project SEED (Science and Engineering Equity and Diversity), a social justice collaborative affiliated with The Civil Rights Project/Proyecto Derechos Civiles at UCLA. For over twenty years, she has conducted empirical research focusing on women of color in higher education and careers in STEM and has led evaluation of several STEM diversity/inclusion programs. Dr. Ong's work has appeared in reports to U.S. Congress and to the U.S. Supreme Court and in journals such as Social Problems and Harvard Educational Review, and she was an invited speaker at the 2016 White House meeting on inclusive education in STEM. Between 1996 and 2000, she directed an undergraduate physics program for students of color and women at the University of California at Berkeley; for this work, she was a co-recipient of a U.S. Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. Mia is former Chair of the Social Science Advisory Board at the National Center for Women and Information Technology (NCWIT) and a former member of the NSF Committee on Equal Opportunities in Science and Engineering, the NSF Advisory Committee for the GPRA Performance Assessment, and the NSF Advisory Committee to the Social, Behavioral, and Economic Sciences. She holds a Ph.D. in Social and Cultural Studies in Education from U.C. Berkeley.

Alice Pawley, Ph.D., M.S., (she, her) is an Associate Professor in the School of Engineering Education and an affiliate faculty member with Environmental and Ecological Engineering, the Gender, Women's and Sexuality Studies Program, and the Purdue Climate Change Research Center at Purdue University. She was co-PI of Purdue's ADVANCE program from 2008-2014, focusing on the underrepresentation of women in STEM faculty positions. She runs the Feminist Research in Engineering Education Group, whose diverse projects and group members are described at pawleyresearch.org. She was a National Academy of Engineering CASEE Fellow in 2007, received a CAREER award in 2010 and a PECASE award in 2012 for her project researching the stories of undergraduate engineering women and men of color and white women, and received the Denice Denton Emerging Leader Award from the Anita Borg Institute in 2013. She has been author or co-author on papers receiving ASEE-ERM's best paper award, the AAEE Best Paper Award, the Benjamin Dasher award, and co-authored the paper nominated by the ASEE Committee on Diversity, Equity, and Inclusion for ASEE Best PIC Paper for 2018. She helped found, fund, and grow the PEER Collaborative, a peer mentoring group of early career and recently tenured faculty and research staff primarily evaluated based

on their engineering education research productivity. She can be contacted by email at apawley@purdue.edu.

Fay Cobb Payton, Ph.D., is a Program Director at the National Science Foundation (NSF) in the Division of Computer and Network Systems. At the NSF, she is working with a group of leaders on programs involving Computer Science for All, Broadening Participation in Tech/STEM, Smart and Connected Health, Ethics in Computing and others. She is also a Full Professor (with Tenure) of Information Technology/Systems at North Carolina State University and was named a University Faculty Scholar for her leadership in turning research into solutions to society's most pressing issues. She is a workshop facilitator, speaker and consultant. She received the 2017 PhD Project Hall of Fame and 2013 National Coalition of Women in Information Technology (NCWIT) Undergraduate Mentoring Awards. As an American Council on Education Fellow, she worked on issues of academic review, interdisciplinary graduate research and education, and institutional economic and community impact. She serves as a member of the NC State University Women in Science & Engineering Advisory Committee and was a consultant evaluating STEM living and learning models across U.S. institutions. The National Science Foundation, National Institutes of Health, AT&T, Kenan Institute and others have supported Dr. Payton's research and teaching. She was a National Institute of Environmental Health Sciences Fellow where she worked on data management, technology and communications strategies for a health disparities study. She was awarded a SAS Institute Fellow for her work in analytics and teaching in the IS/IT classroom, and as received two NC State University Alumni Extension Awards. She is a former member of the IEEE Medical Technology Policy Committee. Dr. Payton has worked in an advisory and/or volunteer capacity with the Information Systems Doctoral Student Association, Wake County Public School Systems and the City of Raleigh. She is often the speaker or panelist for corporate career development and leadership programs, and serves as a consultant for leadership development programs for current mid-level corporate African Americans in IT careers. She has appeared on CBS Radio Network, Sunrise America, Financial Review and others to discuss tech inclusion and under-representation. She earned a Ph.D. in Information & Decision Systems (with a specialty in Health Care Systems) from Case Western Reserve University. Prior to joining academe, she worked in corporate IT and consulting at IBM, Ernst & Young/Cap Gemini and Time, Inc. Dr. Payton was featured and/or cited in several media outlets (Ageism, Hidden Figures, MyHealthImpact, HealthCare IT, etc.) for her mentoring work and inclusion in the tech.

Valerie E. Taylor, Ph.D., is the director of the Mathematics and Computer Science Division. She received her Ph.D. in electrical engineering and computer science from the University of California, Berkeley, in 1991. She then joined the faculty in the Electrical Engineering and Computer Science Department at Northwestern University, where she was a member of the faculty for 11 years. In 2003, she joined Texas A&M, where she served as head of the computer science and engineering department and senior associate dean of academic affairs in the College of Engineering and a Regents Professor and the Royce E. Wisenbaker Professor in the Department of Computer Science. Her research is in the area of performance analysis and modeling of parallel, scientific applications. Currently, she is focused on the areas of

performance analysis, power analysis and resiliency. Valerie Taylor is a fellow of IEEE and ACM.

Kenneth Walker is the Senior Vice President of Core Mission Support for Per Scholas, a national nonprofit that drives positive and proven social change in communities across the country. He leads Per Scholas' growing operations nationally, providing thought leadership across communications, technology, development, marketing, people, human resources, and finance to help Per Scholas advance as an agile, innovative provider of needed IT skills and expertise to national employer partners. Ken also provides real estate development expertise as a part of the national expansion team and would have grown Per Scholas sites from one to fifteen across thirteen cities by the end of 2020. Ken is a diversity and inclusion champion, helping to lead Per Scholas' Diverse by Design and Inclusion by Intention efforts. Our staff at Per Scholas believes in sharing best practices and working collaboratively across sectors to ensure that America's workforce represents the diversity of our nation. To that end, Ken helped launch Diverse by Design in partnership with the Information Technology Senior Management Forum, the nation's largest association of African American senior technology executives. The campaign's goal is to discover and unleash a wealth of new ideas and best practices that companies can use today to increase tech workforce diversity and inclusion. He also helped to launch Inclusion by Intention, an internal platform to discuss staff experiences relevant to equity and inclusion in the workplace, and to identify and seek improvements with "patient urgency." Ken is an IT sector veteran, with 25+ years of sales, business development, and nonprofit executive experience across the media and entertainment, government, and telecommunications sector. Before Per Scholas, Ken spent three years in business development at start-up organizations in Silicon Valley and ended his 18-year career in the for-profit industry at IBM as a Client Executive. Ken's transition to the nonprofit sector, and focus on mission-based work, keeps him excited and jazzed about the work he feels blessed to lead. He is particularly happy to be a change agent for the people who live in urban communities across the United States, similar to the one that he grew up as a teenager in Harlem. Ken currently lives in Manhattan with his spouse and enjoys running, theatre, travel, and real estate development.

Bridgette Wallace is Founder of G|Code House. "When you teach a young woman to code, there is nothing she can't do. When you give that young women a home, there's no one she can't be." Bridgette Wallace is an out-of-the-box thinker who pushes hard for equity and inclusion for those that are undervalued and overlooked. A creative innovator, advocate and urban planner with more than 20 years of expertise creating and managing impactful community development solutions within the public and non-profit sectors. She pairs a broad range of creative leadership experience in public health, public policy and planning, economic development strategy with social entrepreneurship. With a deep understanding of how to better serve black and brown communities by improving avenues to wealth attainment, she set out to create spaces where diversity, equity and inclusion could grow and thrive. Additionally, with mounting concerns regarding the impact of gentrification on residents of Roxbury particularly millennials of color who are often invisible in plan site, she founded G|Code House. Given the critical linkages between stable housing and success for young people, G|Code offers

black and brown young women 18-25 a safe co-living, learning, and working community where they will learn cutting-edge technology skills, gain employment experience and connect with our world renown network of mentors, advisers and enterprise partners. Prior to developing the initial plans for G|Code House, Ms. Wallace worked in youth advocacy and the field of public health for a number of years as a Program Manager for Boston Public Health Commission and the Department of Public Health. She received her Master's in Urban and Environmental Planning with a concentration in Economic Development from Tufts University. She is the proud mother to her daughter, a graduate of Northeastern's D'Amore Kim School of Business, who works in tech sector in New York City. She is a member of the Tufts University Urban and Environmental Policy Advisory Board

Gregory M. Walton, Ph.D., is an Associate Professor of Psychology at Stanford University. Much of his research investigates psychological processes that contribute to major social problems and how "wise" interventions that target these processes can address such problems and help people flourish, even over long periods of time. One intervention he developed with Geoff Cohen to bolster students' feelings of social belonging in the transition to college raised the academic achievement of ethnic-minority students over 3 years, and cut by half the achievement gap with white students (for more, see below) Another developed with Jason Okonofua and Dave Paunesku helped middle school teachers adapt an empathic mindset toward misbehaving students, and cut by half student suspension rates over an academic year. Other interventions aim to reduce intergroup prejudice, to promote environmental behaviors, to increase voter turnout, and to improve marriages. In all these cases, Dr. Walton focuses on fundamental ways in which people make sense of themselves, other people, and social situations, how meanings people draw can be counterproductive and self-reinforcing (e.g., "People like me don't belong here") and how they can be altered to cause lasting benefits to individuals and to society. Dr. Walton's research has been covered in major media outlets including the New York Times, Harvard Business Review, The Wall Street Journal, Huffington Post, NPR, The Chronicle of Higher Education, The Washington Post, The San Francisco Chronicle, The Los Angeles Times, and The Onion. He has received awards from numerous organizations including the American Education Research Association, American Psychological Association, Society for Experimental Social Psychology, and the Society for the Psychological Study of Social Issues, and was identified as a "Rising Star" by the American Psychological Society in 2011. He has presented at major universities and to educators and policymakers including at the White House. His research has been supported by the Institute for Education Sciences, the National Institute of Health, the Bill and Melinda Gates Foundation, the Robert Wood Johnson Foundation, the Jeff and Tricia Raikes Foundation, the William and Flora Hewlett Foundation, the Spencer Foundation, the Joyce Foundation, and Character Lab. In addition to his scholarship, Dr. Walton is a committed teacher and mentor. At Stanford, he teaches courses on psychology and social problems, including one entitled "Wise Interventions." Dr. Walton earned his A.B. in Philosophy from Stanford in 2000 and a PhD in Psychology from Yale University in 2005. After graduate school, he worked for a year as a fellow in the Office of Senator Hillary Rodham Clinton and then completed a postdoctoral fellowship at the University of Waterloo before joining the Stanford faculty in 2008.