

Additional Speaker Biographies

Karen Marrongelle

Karen Marrongelle currently serves as the chief operating officer at the National Science Foundation. Prior to that she led the NSF Directorate for Education and Human Resources, or EHR, which supports research that enhances learning and teaching, and broad efforts to achieve excellence in STEM education at all levels and in all settings.

Marrongelle is a leader in the STEM education research community, and her career has been marked by a deep commitment to diversity, equity and inclusion. In her time as EHR assistant director, she has focused on understanding the causes of disparities in educational opportunities and establishing strategic visions for addressing those issues. She has led the funding of several STEM education research centers focused on broadening participation and initiatives to address equity and inclusion in STEM. Marrongelle has been instrumental in expanding NSF's portfolio of future-oriented educational research topics, including training a diverse workforce equipped to handle the industries of tomorrow. As the co-chair of the Federal Coordination in STEM Education Subcommittee, she provided leadership in the development and implementation of the five-year [federal strategy for STEM education](#).

Prior to joining NSF, Marrongelle served as dean of the College of Liberal Arts and Sciences at Portland State University, overseeing 24 departments and programs. In this position, she worked to implement student inclusivity measures, establish public-private partnerships to support research, and optimize the school's use of grants from NSF and other funding organizations.

Marrongelle has a bachelor's degree in mathematics and philosophy from Albright College, master's degree in mathematics from Lehigh University and a doctoral degree in mathematics education from the University of New Hampshire

Diane Elder

Dr. Diana Elder began her academic career at Northern Arizona University (NAU), where she earned a B.S. in Geology, a B.S. in Physical Sciences, and an M.S. in Quaternary Studies. While completing her graduate studies, Dr. Elder worked for the United States Geological Survey Branches of Astrogeology and Western Regional Geology, Los Alamos National Laboratory, and the Desert Research Institute. Dr. Elder earned her Ph.D. in Geological Sciences at the University of California – Riverside in 1998. After completing her Ph.D. Dr. Elder returned to NAU where she holds the rank of Associate Professor in the School of Earth and Sustainability. Her most recent academic appointment was as Associate Dean for Academic Affairs for NAU's College of the Environment, Forestry, and Natural Sciences. From 2010-2012, Dr. Elder served as a Program Director for the Division of Biological Infrastructure in the Directorate for Biological Sciences at the National Science Foundation (NSF). She returned to the NSF in January 2020 to serve as Division Director for the Division of Human Resource Development in the Directorate for Education and Human Resources.

Javier Inclan

Mr. Inclán currently serves as the Deputy Office Head, Office of Equity and Civil Rights at the National Science Foundation. Responsibilities under his purview are complaints processing, Alternative Dispute

Resolution (ADR), reasonable accommodation, workforce training and development in the areas of EEO and diversity, workforce analysis, and diversity/special emphasis initiatives. He previously served as the Assistant Director for the United States Marshals Service (USMS), Management Support Division (MSD). His division included the Office of Construction Management, the Office of Environmental, Occupational Safety, and Health, the Office of Program Services, the Office of Support Management, and the Business Integration Center.

Mr. Inclán joined the Senior Executive Service ranks in November 2016 when he was hired as the Deputy Division Director for Administrative Services at the National Science Foundation. In this role he was responsible for facilities and property management, physical security, safety and occupational health, meeting and events, travel, records management, and NSF's internet and intranet sites. He subsequently served as the Acting Division Director for Administrative Services, Acting Division Director for Human Resource Management, and Deputy Office Head for the Office of Information and Resource Management.

Prior to joining NSF in 2016, Mr. Inclán served as the Associate Director, Property and Space Management within the Office of the Secretary of Transportation, where he was responsible for providing technical leadership and national real and personal property programs, space management, reporting, and policy development and implementation. Mr. Inclán has also worked for the U.S. Department of Agriculture, Food, Nutrition, and Consumer Services as the Director of the Operations and Facilities Division, and for the U.S. Army Communications-Electronics Research, Development, and Engineering Center (CERDEC) where he was the Chief of the Mission Support Branch.

Mr. Inclán received his B.A. degree in History from William Paterson College in 1995 and earned his master's degree in Administrative Science from Fairleigh Dickinson University in 2007. He is also a graduate of the Federal Executive Institute's Leadership for a Democratic Society program, and is currently working towards a Doctorate of Education in Interdisciplinary Leadership from Creighton University.

Sylvia Butterfield

Dr. Sylvia Butterfield was appointed the Acting Assistant Director of NSF for Education and Human Resources on August 1, 2021—following the appointment of Dr. Karen Marrongelle as Chief Operating Officer of NSF.

Dr. Butterfield was the NSF Deputy Assistant Directorate for Education and Human Resources since 2019.

Dr. Butterfield joined NSF in January 2000 as a Program Director in the Division of Elementary, Secondary, and Informal Education (now the Division of Research on Learning). Her areas of expertise are in science education and broadening participation program management, research, and policy. Since receiving a permanent appointment in June 2004, she has served in multiple program and leadership positions including Acting Division Director and Acting Deputy Division Director of the Division of Research on Learning, and Lifelong Learning Cluster Coordinator. Dr. James most recently served as the Director of the Division of Human Resource Development where she previously held an appointment as the Acting Division Director. Externally, she has served as Co-Chair of the FC-STEM Broadening Participation Interagency Working Group and the Acting Co-Chair of the FC-STEM Committee.

Prior to joining NSF, Dr. Butterfield was the Director of Conservation Education at the National Aquarium in Baltimore and an Associate at the Quality Education for Minorities Network. Dr. Butterfield received a Bachelor of Science in Biology from Loyola University, Master of Science in Interdisciplinary Science Studies from the Johns Hopkins University, and a Doctorate in Science Education from Morgan State University.

Rosalyn Hargraves

Currently serves as the Division Director for Undergraduate Education. She is professor of electrical and computer engineering and holds faculty appointments in the VCU College of Engineering and the VCU School of Education. After joining VCU in 1996, served as associate Vice President in the Division for Inclusive Excellence (2016-2020), Interim Department Co-Chair in the School of Education Department of Teaching and Learning (2015-2016), as the Associate Dean of Graduate Studies in the College of Engineering (2007-2012), as the Director of the Virginia Commonwealth University - University of KwaZulu Natal International Partnership (2007-2011), as an American Council on Education Fellow at the College of William & Mary (2019-2020), and as an American Association for the Advancement of Science Diplomacy Fellow at the U.S. Agency for International Development (2003-2004). She received her B.S., M.S., and Ph.D. degrees in Electrical Engineering from the University of Virginia. Her research interests are in diversity, equity, and inclusion in higher education, STEM-H education, and biomedical signal/image processing. Dr. Hargraves has been awarded over \$21M sponsored research grants as principal investigator, co- principal investigator, or senior personnel from federal, state, and industrial sources, published over sixty peer reviewed conference and journal articles, has two patents, and presented lectures and keynote speeches around the world. She is the recipient of numerous awards including the National Association for Ethnic Studies 2018 Robert L. Perry Mentoring Award, 2015 VCU Presidential Award for Community Multicultural Enrichment, the 2015 VCU Reise-Melton Award, the 2008 Dominion Strong Men & Women Excellence in Leadership Award, the Richmond Joint Engineers Council 2006 Engineer of the Year, and the National Society of Black Engineers 2001 Janice A. Lumpkin Educator of the Year Award.

Sandra Cruz-Pols

Dr. Sandra Cruz-Pol is the Chair of the Los Amigos, an affinity group at the NSF which facilitates community for Latino/Hispanic staff at the NSF. Dr. Cruz-Pol received a Ph.D. degree in Electrical Engineering from Penn State University working with passive and active satellite sensors studying atmospheric gases and the sea surface emissivity. She worked in active remote sensing at UMass for her master's degree. Her bachelor's degree is from the University of Puerto Rico at Mayagüez (UPRM). All three degrees were obtained with the Suma Cum Laude distinction. She joined the Electrical and Computer Engineering Department at UPRM in 1991.

She was a member of U.S. National Academies (NAS) Committee on Radio Frequencies (CORF) from 2010 until 2019. She was also an appointed member of the NAS Active Spectrum Study. She was the Program Director for the EARS (Enhancing Access to the Radio Spectrum) program at NSF, where she was also a Spectrum Manager. She is a member of the IEEE FARS (Frequency Allocations for Remote Sensing) Technical Committee. She was appointed by NSF as member of the U.S. Delegation for Spectrum Management to the ITU in Geneva and was the NSF Representative for the Inter-department

Radio Advisory Committee (IRAC) at the U.S. National Telecommunications and Information Administration (NTIA) and for several subcommittees including the one that deals with Frequency Allocations, FAS. During her stay at NSF she was selected as the Federal Liaison for the U.S. National Committee for the International Union for Radio Science (URSI). At NSF she's a Program Director for the Engineering Research Center (ERC) program and the ERC International Center-to-Centre (C2C) Liaison.

Her interests include microwave sensors, weather radars, atmospheric attenuation, and climate monitoring. She received the NASA Faculty Award for Research in 2002. Dr. Cruz-Pol is a Senior member of the IEEE. She was the Associate Editor for University Affairs for the IEEE GRSS Newsletter for 5 years.

Jermelina Tupas is the Deputy Division Director for Human Resource Development (HRD) at the Education and Human Resources (EHR) Directorate of National Science Foundation (NSF). She served as Acting Division Director for HRD from 2017 to 2019 and as acting Deputy Assistant Director for EHR from June-December 2014. From 2004-2006, Dr. Tupas served as a Program Officer for more than 2 years, at the NSF Division of Molecular and Cellular Biosciences, Biological Science Directorate.

Dr. Tupas has worked at two other federal agencies, including the National Institute of General Medical Sciences-National Institutes of Health (NIGMS-NIH) from August 2006 to September 2009 where she served as a Program Director in the Division of Minority Opportunities in Research. This was followed by a move to the National Institute of Food and Agriculture (NIFA) at the U.S. Department of Agriculture from October 2009 to August 2012 as Division Director for Community and Education.

Her experiences in these various federal positions range from management of student training portfolios, fellowships, and faculty research portfolios to management, administration, and leadership. Dr. Tupas was a faculty member at the University of Hawaii at Manoa (UHM) for about 10 years, where she taught graduate courses and carried out her research in hormone signaling and transcription regulation, while managing two undergraduate student research training and student development programs focused on increasing diversity in biomedical sciences. Her work has always focused on broadening participation of underrepresented groups in STEM. Jermelina Tupas holds a bachelor's degree in Zoology and a master's degree in Microbiology from the University of the Philippines, and a Ph.D. in Molecular Biology from the Institute of Medical Sciences, University of Tokyo, Japan.