

Workplace Barriers, Solutions, and Policies for STEM and STEM Education Professionals and Postsecondary Students with Disabilities

Committee

Rory A. Cooper

Co-Chair

Rory A. Cooper, PhD, PLY is the founding director of the Human Engineering Research Laboratories, a joint center of the University of Pittsburgh (Pitt) and US Department of Veterans Affairs (VA). He is a VA Senior Research Career Scientist and the FISA Foundation – Paralyzed Veterans of America Distinguished Professor at Pitt. Cooper has authored or co-authored over 400 peer-reviewed journal publications. He has 30 patents awarded or pending. He is the author of two books: "Rehabilitation Engineering Applied to Mobility and Manipulation" and "Wheelchair Selection and Configuration", and co-editor of "An Introduction to Rehabilitation Engineering", "Warrior Transition Leader: Medical Rehabilitation Handbook" and the award-winning book "Care of the Combat Amputee". Cooper is an elected member of the National Academy of Engineering, Fellow of the National Academy of Inventors, as well as RESNA, IEEE, AIMBE and BMES. In October 2023, he was awarded the National Medal of Technology and Innovation by the President of the USA, and he was inducted into the 50th class of the National Inventors Hall of Fame. His students have won numerous awards and are leaders throughout the world. Cooper earned BS and MEng degrees in electrical engineering from California Polytechnic State University, San Luis Obispo. He earned a PhD degree in electrical & computer engineering with a concentration in bioengineering from University of California at Santa Barbara.

Bonnielin Swenor

Co-Chair

Bonnielin Swenor, PhD, MPH, is the Endowed Associate Professor of Disability Justice and Health at The Johns Hopkins School of Nursing and holds joint appointments at the Johns Hopkins School of Medicine and the Johns Hopkins Bloomberg School of Public Health. She is the founding director of the Johns Hopkins Disability Health Research Center, which aims to shift the paradigm from 'living with a disability' to 'thriving with a disability'. Motivated by her personal experience with a visual disability, her work takes a data-driven approach to advancing equity for people with disabilities and promoting disability inclusion and anti-ableism in higher education, STEMM (science, technology, engineering, mathematics, and medicine), public health, and research. Swenor has provided advice and expertise on disability data, equity, and inclusion to multiple organizations and agencies. She served as chair of the National Academy of Science, Engineering, and Medicine (NASEM) planning committee for the Disrupting Ableism and Advancing STEM series and Enhancing Public Access to the Results of Research Supported by the Department of Health and Human Services workshops. She also co-chaired the NIH Advisory Committee to the Director (ACD) Subgroup on Individuals with Disabilities and is a member of the Centers for Disease Control and Prevention (CDC) ACD Health Equity Workgroup. She received her PhD and Master of Public Health degrees in epidemiology from the Johns Hopkins Bloomberg School of Public Health and completed a postdoctoral research fellowship at the National Institutes on Aging.

Thomas Dawson

Member

Thomas C. Dawson is president of Strada Collaborative, a nonprofit group of education-focused organizations — CAEL, Education at Work, InsideTrack, and Roadtrip Nation — for which he is responsible for ensuring they meet their growth, sustainability, and impact goals. He serves on the board of SmartJob, a global company dedicated to closing the disability wealth gap by making jobs “smarter,” through expanded investment, access to financial services, and better public policy. In 2021, Dawson served as Strada Education Foundation’s interim president and chief executive officer following four years as Strada’s executive vice president and chief operating officer. Before joining Strada, Dawson was vice president of product management for Laureate Education, where he established partnerships with non-profit universities to run online and global education programs. While at Laureate, Dawson also was a senior fellow with Education Sector, a national think tank. He also served for several years as a senior policy officer with the Bill & Melinda Gates Foundation, helping to launch the foundation’s postsecondary education grantmaking portfolio, and overseeing grants dedicated to helping low-income students complete postsecondary programs. Earlier in his career, Dawson worked in several capacities at the U.S. Department of Education, including as deputy assistant secretary for postsecondary education. Dawson received his bachelor's degree with honors in government and economics from Claremont McKenna College.

Rachel Figard

Member

Rachel Figard, PhD is an assistant professor jointly appointed to the Engineering Education Transformations Institute and the School of Environmental, Civil, Agricultural, and Mechanical Engineering in the University of Georgia's College of Engineering. Her research primarily explores the experiences of students with disabilities in STEM higher education, focusing on intersectionality within disability identity, the influence of institutional policy and practice on student experience, universal design for learning, and lived experiences. Figard also conducts research related to design justice and accessible user experience design. Figard received a BS in Industrial Engineering from North Carolina State University, an MS in User Experience from Arizona State University, and a PhD in Engineering Education Systems and Design.

David J. Heeger

Member

David J. Heeger, PhD is a professor of Neuroscience and Psychology at New York University. His fields of study have included visual perception and visual neuroscience, cognitive neuroscience, computational neuroscience, computer vision, image processing, computer graphics, AI, artificial neural networks, and data science. His current research is focused on understanding the computations performed by neural circuits in the brain. He has written over 130 journal papers and holds 6 US patents. He was awarded the David Marr Prize in computer vision (1987), Alfred P. Sloan Research Fellowship (1994), the Troland Award in psychology from the National Academy of Sciences (2002), Margaret and Herman Sokol Faculty Award in the Sciences, New York University (2006), and was elected as a member of the National Academy of Sciences (2013). As a result of his personal experience with long COVID (which is recognized as a disability under ADA), he has worked to promote awareness and to advocate for accommodations. Heeger holds a B.A. in Mathematics from the University of Pennsylvania and a Ph.D. in Computer Science from the University of Pennsylvania.

KR Liu

Member

KR Liu is the Global Head of Disability Innovation at Google. Her leadership at Google has led to the development and launch of groundbreaking AI technologies like Expressive Captions, Live Caption, Guided Frame, and Look to Speak. These innovations are transforming how people interact with technology by developing innovative solutions at the intersection of accessibility and human centric design. Beyond her work at Google, Liu is a known thought leader in technology that seamlessly integrates with our senses, empowering all individuals to thrive in an increasingly digital world with a 25+ year career driving marketing and product strategy initiatives across hardware and software companies. Her successful lobbying efforts on Capitol Hill contributed to the passage of the Over-The-Counter Hearing Aid Act of 2017, legislation that has opened up access to affordable hearing aids for millions. Liu's impact extends further through her service on various board member positions, including her appointment to the United States Access Board by the President in 2022 highlight her significant contributions to the field. She is a nationally awarded executive, with a strong reputation in inclusive design, brand marketing, and policy. Liu received her associate's degree in electrical engineering from Heald Institute of Technology.

Oluwaferanmi Okanlami

Member

Oluwaferanmi Okanlami, MD is the Director of Student Accessibility and Accommodation Services at the University of Michigan, where he oversees the office of Services for Students with Disabilities, two Testing Accommodation Centers, Academic Support and Access Partnerships, and is the founding director of the Adaptive Sports & Fitness Program. He is also an Assistant Professor of Family Medicine, Physical Medicine & Rehabilitation, Urology, and Orthopaedic Surgery and the Associate Director of the Health Policy and Economics Path of Excellence at Michigan Medicine; and holds an Adjunct Assistant Professor of Orthopaedic Surgery appointment at the David Geffen School of Medicine at UCLA. Nationally, he served as the Disability Issues representative on the Steering Committee for the Group on Diversity and Inclusion at the Association of American Medical Colleges, sits on the National Medical Association's Council on Medical Legislation, and was selected by the White House Office of Public Engagement to participate in the Health Equity Leaders Roundtable Series. He was appointed to the America250 Foundation Health and Wellness Advisory Council and President Biden's Council on Sports, Fitness and Nutrition. Okanlami received his bachelor's degree from Stanford University, and his MD from the University of Michigan. He also holds a master's in engineering, science, and technology entrepreneurship from the University of Notre Dame.

Luis Perez

Member

Luis Pérez, PhD is the Disability & Digital Inclusion Lead for CAST, and he is embedded with the Postsecondary and Workforce Development group at CAST that works to increase access to middle- and high-income careers for populations underrepresented in the workforce, including people with disabilities. In this role, he promotes the creation, delivery and use of high quality accessible educational materials and technologies to support equitable learning opportunities for all learners across the lifespan. He currently serves as a Transition and Workplace Accessibility strand advisor for the Assistive Technology Industry Association (ATIA). Pérez's perspective is informed by his own lived experience as a person with a disability and multilingual learner. Pérez was recognized with an International Society for Technology in Education (ISTE) Making It Happen! Award in 2020. Other recognitions include Apple Distinguished Educator (2009) and Google Certified Innovator (2014). He has published three books on accessibility, mobile learning, and UDL: *Mobile Learning for All* (Corwin Press), *Dive into UDL* (ISTE) and *Learning on the Go* (CAST Publishing). He received his PhD in Special Education from the University of South Florida.

Dan Raker

Member

Dan Raker, JD is Argonne's acting senior director, Human Resource Services, and chief human resources officer, and the laboratory's deputy general counsel. As acting chief human resources officer, Raker oversees the laboratory's talent strategy, seeking to attract, retain, and develop the people the lab needs to excel, and sustains a welcoming and respectful culture that helps the lab succeed and thrive. Since joining Argonne in 2008, Raker has provided legal support and leadership on a variety of governance, policy and risk issues in support of Argonne's mission. Prior to joining Argonne, Raker worked at a large multi-national law firm headquartered in Chicago in the labor and employment practice group and represented Argonne as outside counsel. He is a certified compliance and ethics professional and a member of the Association of Corporate Counsel and the Society of Corporate Compliance and Ethics. Raker has a bachelor's degree from Marquette University and a Juris Doctor degree from the University of Illinois College of Law, where he was a member of the Illinois Law Review and was selected for the Order of the Coif.

Patricia (Pati) Ruiz

Member

Pati Ruiz, PhD is the senior director of edtech and emerging technologies at Digital Promise, where she leads efforts to shape the future of education through technology innovation. Most recently, Ruiz has focused on initiatives that leverage artificial intelligence (AI) and emerging technologies to enhance learning opportunities, working closely with school communities, researchers, and policymakers to close digital divides and ensure equitable access to educational technologies. Ruiz previously spent four years as a senior research scientist on Digital Promise's Learning Sciences Research team, where she explored topics including computer science education, public interest technology, culturally sustaining pedagogy, and professional learning. Prior to that, she taught middle and high school Spanish and computer science for 16 years, also serving as a school administrator. Dr. Ruiz was a 2022 Brilliant Woman in AI Ethics, a 2023 EdSAFE AI Fellow, and serves as Vice Chair on her local Privacy Protection and Technology Advisory Commission. Ruiz received her master's degree in education from Santa Clara University and her PhD in Learning Technologies from Pepperdine University.

Keivan G. Stassun

Member

Keivan G. Stassun, PhD is the Stevenson Professor of Physics and Astronomy at Vanderbilt University. He is also the founding director of the Frist Center for Autism & Innovation at Vanderbilt's School of Engineering. His astrophysics research focuses on the formation of stars and planetary systems, and he currently serves as a member of the leadership team for NASA's Ultraviolet Explorer (UVEX) space telescope mission. Stassun is known for his leadership and distinction as a scientist and as an innovator in broadening the participation of underrepresented minorities and persons with disabilities, including autistic individuals and those with other forms of neurodiversity, in STEM fields. For this work, Stassun has been recognized with the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring; the American Association for the Advancement of Science Mentor of Year award; the MacArthur "Genius" Fellowship; and the National Medal of Science. An elected member of the American Academy of Arts & Sciences, he currently serves on the National Science Board, and his current NAS service includes the Space Studies Board and the Divisional Committee for Engineering and Physical Sciences. He previously served on the NAS Astro2020 Decadal Steering Committee. He earned a PhD in astronomy from the University of Wisconsin at Madison.

Rupa Valdez

Member

Rupa Valdez, PhD is a Professor at the University of Virginia with joint appointments in the School of Engineering and Applied Science and in the School of Medicine. She is also a core faculty member of Global Studies and the Disability Studies Initiative. Valdez merges the disciplines of human factors engineering, health informatics, and cultural anthropology to understand and support the ways in which people manage health at home and in the community. Her research and teaching focus on health disparity populations, including communities of color, rural communities, and the disability community. Her work draws heavily on community engagement and has been supported by the NIH, AHRQ, NSF, PCORI, and USDA, among others. She has testified before Congress on the topic of health equity for the disability community and received the Jack A. Kraft Innovator Award from the Human Factors and Ergonomics Society (HFES) for her pioneering work in creating and developing the subdiscipline of patient ergonomics. Among other appointments, Valdez serves as Associate Editor for JAMIA Open and Ergonomics as well as on the Board of Directors for the American Association of People with Disabilities. She additionally serves in an advisory capacity for NCQA, AHRQ, PCORI, and NASEM among other organizations. Valdez received her PhD at the University of Wisconsin-Madison.

Melissa Wynn

Staff Officer