

Cybersecurity Workforce of the Federal Aviation Administration

Committee

Diana L. Burley

Co-Chair

DIANA L. BURLEY is vice provost for research at American University (AU) where she is also professor of public administration and policy in the School of Public Affairs and professor of information technology and analytics in the Kogod School of Business. Burley is an expert on cybersecurity, information sharing, and digital transformation who advises members of Congress, corporate executives, academic institutions, and government agencies around the world on building workforce capacity, managing enterprise risk, and strengthening cybersecurity posture. Prior to AU, she was professor of human and organizational learning at the George Washington University and director of its Institute for Information Infrastructure Protection (I3P); previously, she was a program officer the National Science Foundation, where she led the CyberCorps program. In 2018, she led the Joint Task Force on Cybersecurity Education that published the first set of global cybersecurity curricular guidelines for post-secondary academic institutions. Burley is a member of the U.S. National Academies Board on Human-Systems Integration and on the research staffs of the Idaho National Laboratory, and the John Hopkins University Applied Physics Laboratory. She has been honored by the U.S. Federal CIO Council and the Colloquium for Information Systems Security Education (as the sole recipient of both educator of the year and government leader of the year awards). She holds a B.A. in economics from the Catholic University of America, and an M.S. in public management and policy, an M.S. in organization science, and a Ph.D. in organization science and information technology from Carnegie Mellon University, where she was a Woodrow Wilson Foundation Fellow.

Tonya L. Smith-Jackson

Co-Chair

Tonya L. Smith-Jackson is senior vice provost for academic affairs and professor of industrial and systems engineering at North Carolina A&T State University. She is the founder and director of the Human Factors Analytics Laboratory, founder and co-director of the Cyber-Human Analytics Research for the Internet-of-Things (CHARIoT) Laboratory, and former program director in the Computer and Information Science and Engineering Directorate (CISE) of the National Science Foundation. She is a Fellow of the Human Factors and Ergonomics Society and the Institute of Industrial and Systems Engineers, American Society of Engineering Education. She is certified by the Board of Certification in professional ergonomics and by NSF for personnel security and suitability. Her work has focused on ensuring processes, analytic methods, and technologies are equitable and inclusive across cultures, genders, abilities, and generations. Smith-Jackson has a B.A. in psychology from the University of North Carolina at Chapel Hill, an interdisciplinary M.S. in industrial engineering and psychology, and a Ph.D. in psychology/ergonomics from North Carolina State University.

Rodney C. Adkins

Member

Rodney C. Adkins (NAE) is chairman of Avnet, Inc., a Fortune 500 company and one of the world's largest distributors of electronic components and embedded solutions. In addition, he is president of 3RAM Group LLC, a privately held company specializing in capital investments, business consulting services and property management. Formerly, Mr. Adkins was senior vice president of IBM, having served in that position from 2007 until 2014. In his more than 33-year career, Mr. Adkins has held a number of operational and executive management roles spanning across strategy, technology, systems and supply chain. Mr. Adkins was inducted into the National Academy of Engineering (NAE) in 2005. He serves on the board of directors for United Parcel Service (UPS), PayPal, Grainger, and Avnet. He is a member of the Executive Leadership Council (ELC), a trustee of the Georgia Institute of Technology (Georgia Tech) and Rollins College. Mr. Adkins also serves on the UMBC Board of Visitors and the Adrienne Arsht Center Trust Board. He previously served on the boards of PPL Corporation, Pitney Bowes, PeopleClick Inc., the National Action Council for Minorities in Engineering (NACME), the Kappa Alpha Psi Foundation, the Harlem School of the Arts and the Smithsonian National Board. Mr. Adkins holds a B.S. and M.S. in electrical engineering from Georgia Tech as well, as a B.A. with an emphasis in physics from Rollins College.

Jandria S. Alexander

Member

Jandria S. Alexander is a vice president at Booz Allen Hamilton where she leads cybersecurity, research and development, and serves as Chief Technology Officer. She is a subject matter expert on cybersecurity, resilient platform, operational technology, and multidomain mission systems with over twenty years in the field. A nationally recognized cybersecurity expert, Jandria has participated in National Academy of Sciences studies related to cybersecurity research and new aviation technologies. In 2014, she was appointed by former Virginia Governor Terry McAuliffe to serve on the bipartisan Virginia Cyber Security Commission to expand the state's economic footprint in cyber technology and protect critical infrastructure from cyber threats. She led the effort's unmanned systems cybersecurity industry, government, and academia consortium. Over the length of her career, Jandria has provided cybersecurity and digital transformation leadership, market strategy, and solution development for the Department of Defense and the intelligence community as well as many civil and commercial organizations. Before joining Booz Allen in 2017, she was a cybersecurity leader in engineering and technology at a federally funded research and development corporation. She served as the chair of the American Association of Aeronautics and Astronautics' Diversity and Inclusion Working Group from 2017-2021. She has a B.S. in computer science from Brandeis University and an M.S. in technology management from American University.

Marilyn Barrios

Member

Marilyn Barrios is the Head of Application Security at Motorola Solutions, where she works on creating, implementing and driving security strategies relevant to secure software development lifecycle (SDLC), secure coding best practices, cybersecurity testing, tooling and automation across all products and development groups. Her previous roles at Motorola included Global Cybersecurity Manager where she worked on HR strategies for Motorola's cyber workforce as well as integrating new employees and developing cyber strategies for personnel across the organization. Prior positions at Motorola Solutions included leading their Cybersecurity Training & Awareness program. She brings relevant experience in safety from working within Motorola's law enforcement and first responder communities as well as experience in understanding labor and cyber projections. She has also served as an adjunct faculty member at the College of DuPage, where she teaches courses for the STEM program in the department of youth education. In addition, Barrios serves as a coach and mentor for the United States Air Force (USAF) CyberPatriot program. Barrios holds a Master's degree in computer and information security from the Illinois Institute of Technology and has more than ten years of IT sales management experience.

Charles Blauner

Member

Charles Blauner is a partner and chief information security officer (CISO) in residence at Team8 Ventures and a venture advisor at the Cyber Mentors Fund. Mr. Blauner is also the president of Cyber Aegis, a boutique cyber risk management consultancy. Previously, he enjoyed a distinguished career working on information security for over 30 years, 25 of which were in financial services, including being the CISO at JP Morgan and Deutsche Bank, and most recently the global head of information security at Citi. During this time, Mr. Blauner held numerous industry leadership roles including chair of the Financial Services Sector Coordinating Council (FSSCC), founding director of the Financial Services Information Sharing and Analysis Center (FS-ISAC), and the chair of the OpenGroup's Security Program. He has worked closely with banking regulators around the world (OCC, FRB, BoE, MAS, and HKMA) to help reduce the risk posed by cyber threats to the financial sector at large. Mr. Blauner is a regular conference speaker and has had the honor of appearing in front of US House and Senate committees. In 2015, he was awarded the Wasserman Award, which recognizes outstanding career achievement and contribution to the information systems audit, control, security, risk management, and/or governance professions. Mr. Blauner has an M.S. in computer science from the University of Southern California (USC) and a B.S. in computer science from Rensselaer Polytechnic Institute (RPI).

Michael D. Covert

Member

Michael D. Covert, is Professor Emeritus of industrial-organizational psychology at the University of South Florida (USF). Covert's research includes the impact of technology on individuals and organizations to job analysis, human-robot interaction, and quantitative analysis. Through his consulting firm (MDC & Associates), he has focused on performance of individuals in cyber occupations, particularly on cognitive and non-cognitive predictors of performance for cyber occupations (enlisted and officer) in the United States Air Force. Covert was also the founding director of The Institute for Human Performance, Decision Making, and Cybernetics at USF from 1992-2013. His research has been supported by the Department of Defense, the U.S. Army, U.S. Navy, and U.S. Air Force. Honors include the Illinois State University Department of Psychology's Award for Lifetime Career Achievement; the University of South Florida Presidential Award; and elected Fellow of The Society for Industrial and Organizational Psychology (SIOP), American Psychological Association (APA), and Association for Psychological Science (APS). He is a Federal Aviation Administration certified pilot for single engine land aircraft and holds an instrument rating. Covert received his Ph.D. in psychology from The Ohio State University with an emphasis in industrial and organizational with doctoral minor work in computer science.

Barbara Endicott-Popovsky

Member

Dr. Barbara Endicott-Popovsky is executive director of the Center for Information Assurance, an NSA/DHS Center of Academic Excellence in Cyber Defense Education and Research, and principal research scientist; affiliate professor at UW Bothell's department of computer science and systems and UW Seattle's department of urban planning and management; and faculty appointment at University of Hawaii Manoa's department of information and computer science. She was named department fellow at Aberyswyth University Wales in 2012. Her academic career follows a 20-year career at The Boeing Company marked by executive and consulting positions in IT architecture and project management. Her research interests include information assurance, enterprise-wide information systems security and compliance management, forensic-readiness, cybersecurity education secure coding practices and addressing the worldwide talent gap in cybersecurity professionals. For her work in the relevance of archival sciences to digital forensics, she was named a Fellow of the American Academy of Forensic Scientists. She holds a Ph.D. in computer science/computer security from University of Idaho's Center for Secure and Dependable Systems and an M.S. in information systems engineering from Seattle Pacific University, an M.B.A. from the University of Washington, and a B.A. from the University of Pittsburgh.

Eric Grosse

Member

Eric Grosse retired from Google as vice president of security and privacy engineering, where his team achieved improved and wider use of SSL, stronger consumer authentication technology, detection and blocking of espionage, transparency on legal requests for data, and sophisticated malware analysis and built tools and frameworks for safer web applications. Before Google, Dr. Grosse was a research director and fellow at Lucent Bell Labs where he worked on security, networking, algorithms for approximation and visualization, software distribution, and scientific computing. Currently, he builds open systems and advises companies on security. He has a Ph.D. in computer science from Stanford University and is also an instrument-rated private pilot.

Robert S. Gutzwiller

Member

Robert S. Gutzwiller is an assistant professor at Arizona State University where he studies the critical role of the human in complex systems. His work scientifically applies cognitive engineering to healthcare, cyberspace, transportation, and defense. His recent research focuses on studying and engineering attention (How do humans select what task to do when they are multitasking and overwhelmed, and can models predict this behavior?), human-automation interaction (How do humans learn to interact with complex systems, particularly those which use automation, artificial intelligence and machine learning?), and defensive cyberspace operations (How does a cyber analyst protecting networks develop awareness? Could properties of attention be used against would-be attackers to make defenses more robust?). Dr. Gutzwiller has been funded and worked on projects for the Army Research Office, Assistant Secretary of Defense, The Defense Advanced Research Projects Agency (DARPA), The National Aeronautics and Space Administration (NASA), and the Office of Naval Research, among others. He is the author of more than 35 peer-reviewed papers, and recently received the Human Factors Society's Jerome H. Ely Award for the most outstanding journal article in 2016 and the Marc Resnick best paper award in 2018. Dr. Gutzwiller has been recognized for exceptional leadership and mentoring across several multi-disciplinary engineering projects in cyberspace and ship defense systems, receiving leadership and exemplary achievement awards from the United States Navy in 2017 and 2018. Dr. Gutzwiller holds a Ph.D. in Cognitive Psychology from Colorado State University.

Katya Le Blanc

Member

Katya Le Blanc is a senior human factors scientist who has been conducting research in the energy sector at Idaho National Laboratory for 10 years. Her research in nuclear power plant modernization has led transformational change in the way field operators conduct procedures and has improved operator interfaces for control of nuclear power plant equipment in the field and in the control room. She has led design of human-system interfaces for transmission system technologies and cyber security for electric grid operation. She leads research in several complex, multidisciplinary subjects including nuclear power plant modernization and cyber security risk characterization in nuclear power and critical infrastructure, and is the deputy national technical director of the cyber security program for the Department of Energy's office of Nuclear Energy. She has also conducted research investigating the characteristics of highly skilled cyber security professionals to develop insights for cyber security workforce development and education. Katya has over 100 technical publications in the subject of human factors in the energy sector. She is a senior member of IEEE, and holds a Ph.D. and Master's degree in cognitive psychology from New Mexico State and a B.S. in Psychology from New Mexico Institute of Mining and Technology.

Nan Shellabarger

Member

Nan Shellabarger is the previous acting deputy assistant administrator for policy, international affairs, and environment for the Federal Aviation Administration (FAA). In this role, she led the agency's efforts to increase the safety and capacity of the global aerospace system in an environmentally sound manner. This includes leading the FAA strategic policy and planning efforts; coordinating the agency's reauthorization before Congress; overseeing the national and international aviation policies, strategies, and research efforts in the environment and energy arenas; managing the FAA's aviation activity forecasts, economic analyses, and regulatory evaluations. Prior to that assignment, Ms. Shellabarger had been the executive director for policy and plans at the FAA. In this role, she was responsible for setting direction and overseeing operations for FAA's policy organization. That office is responsible for providing economic and policy analysis and planning services for issues that cover the entire FAA. She holds an M.B.A. and a B.S. from the University of Michigan, as well as a private pilot certificate with an instrument rating.