Abstract:
This paper presents a view of the necessary size and composition of the US national cyber security workforce, and considers some of the contributions that the government-designated Centers of Academic Excellence (CAE) might make to it. Over the last dozen years almost 200 million taxpayer dollars have gone into funding many of these CAEs, with millions explicitly targeted to help them build capacity. The most visible intended output has been in the form of about 125 Scholarship for Service (SFS) students per year going into the workforce of the federal government. Surely the output capacity of these 181 colleges and universities is greater than that, and should be helping to protect the rest of us citizens and taxpayers. We take a need-based look at what the nation’s workforce might have to look like, and then consider some possibilities of what the CAE schools could be doing to help to close the gaps between that perceived need and the supply and demand.

Bio:
Seymour (Sy) E. Goodman is Professor of International Affairs and Computing at the Sam Nunn School of International Affairs and the College of Computing, Georgia Institute of Technology. He also serves as Director of the Sam Nunn Security Program, Co-Director of the Center for International Strategy, Technology, and Policy since 2001 and was Co-Director of the Georgia Tech Information Security Center (2000-2013). Prof. Goodman studies international developments in the information technologies and related public policy issues. He has over 150 publications, has served on many academic, government, and industry advisory, study, and editorial committees, and has pursued computing on all seven continents and about 100 countries. More than a dozen funders have supported his work, including the NSF, the MacArthur Foundation, and the Departments of Energy, Homeland Security, and Defense. He recently served as Chair of the Committee on Improving Cybersecurity Research in the United States, Co-Chair of the Committee on Professionalizing the Nation’s Cybersecurity Workforce, and currently as a member of the Computer Science and Telecommunications Board of the National Research Council of the National Academies of Science and Engineering. He chaired the first major study of that Board in 1987-88. He has been the Georgia Tech principal with the Institute for Information Infrastructure Protection, a consortium of about 25 universities, national labs, and FFRDCs, for the last dozen years. Prof. Goodman also studies technological innovation and its effective, often policy-driven, implementation and deployment in large-scale conflicts. The latter include the American Civil War, World War I, World War II, the Cold War, and conflict in cyberspace. Immediately before coming to Georgia Tech in 2000, Prof. Goodman was the director of the Consortium for Research in Information Security and Policy (CRISP), with the Center for International Security and Cooperation at Stanford University. He has held a variety of appointments at the University of Virginia (Applied Mathematics, Computer Science, Soviet and East European Studies), The University of Chicago (Economics), Princeton University (The Woodrow Wilson School of Public and International Affairs, Mathematics), and the University of Arizona (MIS in the College of Business and Public Administration, Soviet and Russian Studies, Middle Eastern Studies). Prof. Goodman was an undergraduate at Columbia University, and obtained his Ph.D. from the California Institute of Technology in 1970 where he worked on problems of applied mathematics and mathematical physics.