

#### RUSSELL BELAND

Dr. Beland became the deputy assistant secretary of the Navy (military personnel policy) in November 2011. His responsibilities are primarily in the area of establishment and oversight of policies related to Navy and Marine Corps active-duty service members and their families. This includes topics such as recruiting and retention, compensation, quality of life, healthcare, and training and education. Dr. Beland previously served as the deputy assistant secretary (manpower analysis and assessment). Before joining the Office of the Secretary of the Navy, he served as a senior national security analyst at the Congressional Budget Office and, prior to that, as the director of economic and manpower analysis in the Office of the Secretary of Defense.

Earlier in his career, Dr. Beland held positions with the Center for Naval Analyses, the Pacific Fleet Training Command, and the Office of the Secretary of Defense (Force Management and Personnel). During that time, he devised a system to quantify the effectiveness of F/A-18 pilot training, developed the fleet portion of the first annual Navy Training Appraisal, and devised the Department of Defense's Voluntary Separation Incentive program.

Dr. Beland holds both a master's degree and a PhD in economics from the University of California, Los Angeles, and earned a bachelor's degree from Arizona State University. He has taught a variety of university-level economics courses at institutions including the University of California, San Diego, and Santa Monica College. He has published numerous journal articles and professional papers on a wide range of defense topics.

#### LINDA CAVALLUZZO

Dr. Linda C. Cavalluzzo is the vice president and director of CNA Corporation's Resource Analysis Division (RAD). She is a senior economist with extensive experience in the design, execution, and management of research studies in a variety of public policy areas. Her training and experience cut across a range of methodological areas, including applied econometrics, randomized controlled trials, survey design and implementation, and focus group and case study research.

Before her appointment as vice president of RAD, Cavalluzzo was the managing director of CNA's Education Division, where she led studies and program evaluations on teacher quality and workforce management, school reform, online and blended instruction, dual high school/college and middle college programs, and pre-K participation and program growth.

She has won several awards for her analysis, including CNA's Phil E. DePoy Award for Analytic Excellence (2009), CNA's Resource Analysis Division Outstanding Performance Award (2000), the Military Operations Research Society's Richard H. Barchi Prize for General and Specific Contributions to Military Operations Research (1983), and Best Presentation, B-3 Working Group, 49th Military Operations Research Symposium (1982).

Cavalluzzo has a PhD and a master's degree in economics from the State University of New York (SUNY) at Buffalo. She has a bachelor's degree in economics and political science, also from SUNY Buffalo.



#### **DAVID S.C. CHU**

David Chu serves as president of the Institute for Defense Analyses, a non-profit corporation operating in the public interest. Its three federally funded research and development centers provide objective analyses of national security issues and related national challenges, particularly those requiring extraordinary scientific and technical expertise. As president, Dr. Chu directs the activities of more than 1,000 scientists and technologists. Together, they conduct and support research requested by federal agencies involved in advancing national security and advising on science and technology issues.

Dr. Chu served in the Department of Defense as under secretary of defense for personnel and readiness from 2001 to 2009, and as assistant secretary of defense and director for program analysis and evaluation from 1981 to 1993. From 1978 to 1981, he was the assistant director for national security and international affairs, Congressional Budget Office.

Dr. Chu served in the U.S. Army from 1968 to 1970. He was an economist with the RAND Corporation from 1970 to 1978, director of RAND's Washington Office from 1994 to 1998, and vice president for its Army Research Division from 1998 to 2001. He earned a bachelor of arts in economics and mathematics, and a doctorate in economics, from Yale University.

Dr. Chu is a member of the Defense Science Board and a fellow of the National Academy of Public Administration. He is a recipient of the Department of Defense Medal for Distinguished Public Service with Gold Palm, the Department of Veterans Affairs Meritorious Service Award, the Department of the Army Distinguished Civilian Service Award, the Department of the Navy Distinguished Public Service Award, and the National Academy of Public Administration's National Public Service Award.

### CHRISTINE H. FOX

The Honorable Christine H. Fox became the assistant director for policy and analysis at the Johns Hopkins University Applied Physics Laboratory on May 12, 2014. As the nation's largest university-affiliated research center, APL performs research and development on behalf of the Department of Defense, the intelligence community, the National Aeronautics and Space Administration, and other federal agencies. The laboratory has more than 5,000 staff members, of whom more than two-thirds are engineers and scientists.

Previously, Ms. Fox served as acting deputy secretary of defense between December 2013 and May 2014. With her appointment, she became the highest-ranking female official in history to serve in the Department of Defense. Until August 2013, she was the director, cost assessment and program evaluation, in the Office of the Secretary of Defense. She was appointed to that position in November 2009. A presidential appointee confirmed by the U.S. Senate, Ms. Fox served as the principal staff assistant to the secretary of defense for analyzing and evaluating plans, programs, and budgets in relation to U.S. defense objectives and resource constraints.

Ms. Fox has three decades of experience as an analyst and research manager focusing on defense issues, with a special emphasis on operations. She formerly served as the president of the Center for Naval Analyses (CNA), a federally funded research and development center, and as the



## CHRISTINE H. FOX (Cont'd)

scientific analyst to the chief of naval operations. Prior to her appointment as president of CNA, Ms. Fox was the vice president and director of CNA's Operations Evaluation Group, responsible for approximately 85 field representatives focused on helping operational commanders execute their missions. She oversaw CNA's analysis of real-world operations, including the operations in Bosnia and Kosovo in the 1990s, operations in Afghanistan immediately following the September 11th attacks, and the operation in Iraq in early 2003.

Ms. Fox served as a member of NASA's Return to Flight Task Group, chartered by the NASA administrator to certify the recommendations made by the Columbia Accident Investigation Board. She was also a member of the advisory board of the Applied Physics Laboratory, University of Washington, from 2007 until 2009.

Ms. Fox received a bachelor of science degree in mathematics and a master of science degree in applied mathematics from George Mason University.

#### **CURTIS GILROY**

Dr. Curtis Gilroy retired as director of accession policy, Office of the Secretary of Defense (OSD) in 2012. Prior to that appointment, he directed the 9th Quadrennial Review of Military Compensation, and held other directorships within OSD. Previously, he directed interdisciplinary research at the Army Research Institute in support of the Army G-1. He was a senior economist with the Bureau of Labor Statistics as well as several government commissions, and taught at the college level. Dr. Gilroy is an economist with over 30 years of experience applying economic analyses to military personnel and force management issues, and 10 years of experience studying the civilian labor market. He holds a PhD in economics and is widely published. Among his awards is the Presidential Rank Award for Meritorious Senior Executive Service.

### ROBERT F. HALE

The Honorable Robert F. Hale served as under secretary of defense (comptroller) and defense chief financial officer from 2009 until 2014. During that time, he oversaw the creation and defense of budgets that met the needs of a department of defense at war. He also led the department's efforts to tackle tough issues, including sequestration, government shutdown, audit readiness, financial management training, and compensation changes. From 1994 until 2001, Mr. Hale was the head financial manager for the Air Force. During this period, he oversaw creation of numerous budgets while also spearheading efforts to create a new certification program for defense financial managers that remains in place today. Earlier in his career Mr. Hale managed the defense analysis group at the Congressional Budget Office for 12 years. In that role, he was frequently asked to testify before Congress on defense manpower and many other issues. At other points in his career, he was the executive director of the largest professional association serving financial managers, an analyst and manager at the Center for Naval Analyses and LMI, and a Navy officer who served in both active and reserve status. Mr. Hale holds BS and MS degrees from Stanford and an MBA from the George Washington University. He is a fellow of the National Academy of Public Administration and a former member of the Defense Business Board. Mr. Hale is a certified defense financial manager (CDFM) and holds DOD's Level 3 Financial Management certification.



#### PAUL F. HOGAN

Paul F. Hogan is an economist, senior vice president, and practice director at the Lewin Group. His research interests include health policy analysis and defense manpower. Mr. Hogan served as economist on President Reagan's Military Manpower Task Force (1982) and was study director for Secretary Rumsfeld's Defense Advisory Committee on Military Compensation (2006). He has published numerous articles on the topics of defense manpower economics, the health workforce, and the economic cost of illness. Mr. Hogan received his undergraduate degree in economics from the University of Virginia, and did his graduate work in applied economics and finance at the Simon Business School of the University of Rochester.

### JAMES HOSEK

James Hosek, senior economist, RAND Corporation, has published studies on recruiting, retention, compensation, deployment, and personnel quality, and his recent research has focused on military retirement reform, special and incentive pays for selected officer communities, economic conditions of military families, deployment and divorce, and U.S. competitiveness in science and technology. Mr. Hosek is editor-in-chief of the *RAND Journal of Economics*, a leading peer-reviewed journal publishing theoretical and empirical research on industrial organization, regulation, and contracts. He is professor of economics at the Pardee RAND Graduate School and has directed RAND's Forces and Resources Policy Center, chaired the Economics and Statistics Department, and served as corporate research manager in human capital. He chaired the Economic Advisory Council of the California Institute, a nonprofit organization informing California's congressional delegation on policy matters, and served on the 7th, 9th, 10th, and 11th Quadrennial Reviews of Military Compensation. He holds a PhD in economics from the University of Chicago.

#### CHRISTOPHER JEHN

Christopher Jehn was assistant secretary of defense (force management and personnel) from 1989 to 1993, responsible for policy and oversight of the recruiting, training, compensation, support, and management of the then more than 3 million military and civilian personnel in the department. Most recently, he was vice president, government programs, of Cray Inc., until his retirement in 2008. He has also been an executive with the Congressional Budget Office; the Institute for Defense Analyses; ICF Kaiser International, Inc.; and the Center for Naval Analyses, where for 10 years he directed all CNA's work for the U.S. Marine Corps. In 1997 he served as the executive director of the National Defense Panel, and in 1997 through 1998 he was a member of the Commission on Servicemembers and Veterans Transition Assistance.

Mr. Jehn is listed in Who's Who in America. Among his other awards and honors are the Benjamin Hooks Distinguished Service Award from the NAACP, the Distinguished Public Service Medal from the Department of Defense, and the Meritorious Police Cross from the government of Spain. An economist, Mr. Jehn was a National Merit scholar and was educated at Beloit College and the University of Chicago, where he was a university fellow.



### **DAVE KASSING**

Dave Kassing was an analyst and manager of defense policy analyses for over 40 years, split just about evenly between RAND and CNA. His main research subjects were sea-based deterrent forces, antisubmarine warfare, DOD management, Army deployments, ground operations, and future budget trends. As a manager, Dave headed RAND's System Sciences Department and was an assistant manager of its Defense and Technology Planning Department. At CNA, he directed the Institute of Naval Studies and served as CNA's president between 1973 and 1983. In 1969-1970, he was one of the four research directors for the Gates AVF Commission.

### SAMUEL D. KLEINMAN

Dr. Kleinman was the deputy under secretary of defense (readiness) from 2008 to 2010 and deputy assistant secretary of defense (readiness) in 2011. In those positions, he reviewed deployment orders and global force allocation plans, oversaw joint training budgets and training range sustainment, and managed programs for accident reduction, suicide prevention, diversity, and language policy. From 1999 to 2008, he was the director of the Resource Analysis Division at the CNA Corporation. The division provided analytical support that evaluated policies and management practices regarding the workforce, logistics, facilities, acquisition, environment, and health services. From 1992 to 1999, he was the research team leader of CNA's Infrastructure and Readiness Team, which provided analytical support to improve efficiency and maintain readiness in DOD. He has received the Secretary of Defense Award for Outstanding Public Service, the Navy Superior Civilian Award, and the CNA Distinguished Service Award. He holds a PhD and MS in business administration from the University of Rochester and a BA in sociology and economics from Herbert Lehman College.

### CARLA TIGHE MURRAY

Carla Tighe Murray is a senior analyst at the Congressional Budget Office, where she conducts research on defense manpower, personnel, and health care issues. Dr. Murray was appointed to the Senior Executive Service in 1999, when she served as the director of the Economic and Manpower Analysis Division in the Office of Program Analysis and Evaluation (PA&E) of the Office of the Secretary of Defense. Prior to that position, she was a senior analyst and the special assistant to the director of PA&E. Before joining the Office of the Secretary of Defense, Dr. Murray was an analyst and project director at the Center for Naval Analyses, part of the CNA Corporation.

Dr. Murray received her PhD in economics from the University of Illinois-Urbana/Champaign and held teaching positions at Illinois State University, the University of Virginia, and the George Washington University. She has published papers on insider trading and highway safety measures, as well as many topics in defense economics. Dr. Murray has been awarded both the Defense Exceptional Civilian Service Award and the Defense Meritorious Civilian Service Award, as well as a director's team award at the Congressional Budget Office.



### **ROBERT J. MURRAY**

Robert J. Murray is president and CEO of the CNA Corporation, a non-profit research and analysis organization devoted to independent and objective analysis of public issues. Prior to joining CNA, Murray was a teacher—first at the Naval War College in Newport, RI, where he was dean and director of the college's Advanced Research Center and creator/director of the Strategic Studies Group, and then, from 1983 to 1990, at the John F. Kennedy School of Government, Harvard University, where he was director of the school's national security program.

Murray served in government in various capacities before his stint at teaching. He was appointed by the President and confirmed by the Senate as under secretary of the Navy in President Jimmy Carter's administration. He previously held an appointment as deputy assistant secretary of defense (international security affairs), where he participated in the Camp David negotiations that resulted in the peace treaty between Israel and Egypt. Earlier, Murray was the special assistant to the secretary and deputy secretary of defense, first under Elliot Richardson and then under James Schlesinger. Following this assignment, Murray was appointed deputy assistant secretary of defense (manpower and reserve affairs). In these two assignments, Murray was particularly involved in the redesign and implementation of a new NATO strategy, the transition of the armed forces following Vietnam, and the implementation of the All-Volunteer Force. Murray had several prior assignments in government—in the Defense and State Departments. He served in the U.S. Marine Corps before entering civilian government service.

Murray is a graduate of Suffolk College (1961) and Harvard University (1967). He is a principal of the Council for Excellence in Government, a member of the Council on Foreign Relations, a fellow of the National Institute for Public Affairs, a member of the International Institute for Strategic Studies (London), and a fellow of the National Academy of Public Administration.

### **MARJORIE OI**

Marjorie Robbins met Walter Oi in August 1968 in Rochester, New York, when Genie, his first guide dog, growled at her. Walter explained that Genie was not about to bite. Thus, Walter and Marjorie's life began with dogs and very quickly also with an opposition to the draft. Shortly before they married in January 1969, they traveled to Los Angeles so that Marjorie could meet Walter's parents. After less than 24 hours in Los Angeles, Walter received a call from Bill Meckling, the dean of the Business School at the University of Rochester. Meckling ordered Walter to return immediately to Rochester, saying that if they could write a position paper, he thought they could get it to President-elect Nixon and then, maybe, a commission could be set up to study an all-volunteer force. Indeed, the Gates Commission began its work in March 1969, with Walter commuting back and forth from D.C. to Rochester, and Marjorie coming to D.C. for weekends.

It is not clear whether Marjorie realized, in 1969, how much time she would spend reading economic articles to Walter and going to economic conferences with him. Their two children, Eleanor and Jessica, also spent many dinner hours discussing economics.

Marjorie has a BA in biology from Temple University, did graduate work at University of Rochester, and has an MFA in photography from the State University of New York (SUNY), Buffalo.



### **ALINE O. QUESTER**

Aline Quester is an applied microeconomist whose professional work has concentrated on labor market analyses, both for the Navy and the Marine Corps and for the civilian sector. On the civilian side, she served on the Council of Economic Advisors in 1986 and 1987. As a senior staff economist on that council, she reviewed administrative initiatives in health, education, welfare, and labor-market areas and wrote a chapter in the 1987 Economic Report of the President on the postwar experiences of American working women.

During her 30 years with CNA, Dr. Quester has worked as an analyst, project director, scientific analyst, vice president, department director, and team leader. She is a specialist in military manpower and personnel issues—from recruiting and placement to retention. She strives to make manpower and personnel decisions and policies as cost-effective as possible.

Dr. Quester received a BA in political science from Wellesley College in 1965. She did her graduate work at Tufts University, earning master's and doctoral degrees in economics in 1968 and 1976, respectively. She is a member of Phi Beta Kappa and served on the Advisory Board of Women in International Security.

### **BERNARD ROSTKER**

Dr. Bernard Rostker rejoined RAND as a senior fellow in January 2001, after serving as the under secretary of defense for personnel and readiness (2000-2001). Prior to that, he was under secretary of the Army (1998-2000), assistant secretary of the Navy for manpower and reserve affairs (1994-1998), special assistant to the deputy secretary of defense for Gulf War illnesses (1996-2001), and director of the Selective Service (1979-1981). He received the Distinguished Service Award five times for his service to the U.S. government. He is also a fellow of the National Academy of Public Administration. Since returning to RAND, his research has focused on personnel issues for the DOD and several local police departments. He is the author of the critically acclaimed book, *I Want You: The Evolution of the All-Volunteer Force*.

#### WILLIAM SIMS

Dr. Sims is a research analyst and project director with over 40 years of experience in analysis, project direction, and management at the CNA Corporation. Prior to his time at CNA, he worked at Vanderbilt University and Brookhaven National Laboratory as a researcher in high-energy nuclear physics. His work at CNA has focused on manpower policy analysis, aptitude testing, and workforce and training management models, Navy budget forecasting, ship maintenance program evaluation, and high-frequency radio communications. He has extensive experience as both participant and chair of DOD joint service working groups. He is familiar with the operation of Navy surface combatants. He also has two years of experience in Marine Corps operations in a field environment.



#### FREDERICK E. VOLLRATH

The Honorable Lieutenant General Frederick E. Vollrath, U.S. Army (Retired) is a senior-level human resource consultant with over 40 years of executive leadership experience in areas including information technology management, organizational development, business development, and strategic planning. Most recently he served as assistant secretary of defense for readiness and force management. He was responsible for all matters related to civilian and military personnel policy, and oversight of the readiness of the force. He also served as president, Vollrath Consulting, providing human resource consulting to business and government organizations with emphasis on strategic level efficiencies and growth. Prior to that, he was corporate vice president of human resources for Computer Sciences Corporation—a Fortune 150 global information technology services company with a \$16 billion revenue and 90,000 employees. General Vollrath retired from the U.S. Army in 1998, having served as the deputy chief of staff for personnel (G1), directing all aspects of human resource management and administration for the total Army. He is a professional member of the Society of Human Resource Management; a member of the Senior Executives Human Resources Round Table, UCLA; and a past member of the advisory board, California State University Dominguez Hills. General Vollrath holds a BBA in management from the University of Miami, and a masters of arts in personnel management from Central Michigan University. Additionally, General Vollrath has served as co-chairman of the Army Chief of Staff Retiree Council, and as president of the Maude Foundation.

### JOHN T. WARNER

John T. Warner, PhD, is a vice president and economist at the Lewin Group. He has 40 years of academic teaching and research experience in the fields of labor economics and econometrics. His academic teaching experience includes teaching stints at North Carolina State University (1973-74), the University of North Carolina (1974-75), and the U.S. Naval Academy (1986-87). From 1980 until his retirement in 2010, Dr. Warner was a faculty member at Clemson University, where he had held the position of professor of economics since 1986. He was a staff economist at the Center for Naval Analyses from 1975 to 1980 and a visiting scholar in the Office of the Secretary of Defense in 1991-92. He is a recognized expert on the subject of military manpower economics, and has conducted numerous studies relating to the recruiting, retention, and compensation of military personnel. Dr. Warner received his undergraduate degree from Wake Forest University, and his master of arts and PhD degrees in economics from North Carolina State University.