



EDITORS AND CONTRIBUTORS

Editors

Barbara A. Bicksler has been a senior policy analyst with Strategic Analysis, Inc. since 1996. Her work is divided between Department of Defense manpower and personnel policy studies, and managing the Defense Science Board program at Strategic Analysis. In addition to contributing to dozens of studies for the Defense Science Board, Ms. Bicksler has served as the lead writer on the Commission to Assess United States National Security Space Management and Organization, chaired by Donald Rumsfeld (2000–2001); participated in the Secretary of Defense Review of Military Morale and Quality of Life (2001); and served as analyst and writer for the Ninth and Tenth Quadrennial Reviews of Military Compensation (2002 and 2008) and the Defense Advisory Committee on Military Compensation (2006). She has also participated in a variety of studies for the Office of the Assistant Secretary of Defense for Reserve Affairs. Prior to joining Strategic Analysis, Ms. Bicksler served for ten years as a research staff member at the Institute for Defense Analyses. She is co-editor, with Curtis L. Gilroy, of *The All Volunteer Force: Thirty Years of Service* (Brassey's 2004). She holds a bachelor of science in economics from James Madison University and a master in public policy from the John F. Kennedy School of Government at Harvard University.

John D. Winkler was named principal deputy assistant secretary of defense for reserve affairs on July 27, 2007. He serves as the principal staff adviser and assistant to the Assistant Secretary of Defense for Reserve Affairs in all functional areas and responsibilities assigned to the office, and when necessary, acts on his behalf. Prior to this appointment, Dr. Winkler served for six years as deputy assistant secretary of defense for reserve affairs, manpower and personnel. In that capacity, he served as the principal staff assistant and advisor to the Assistant Secretary of Defense for Reserve Affairs for all National Guard and reserve manpower, personnel, and compensation policies, including reserve component manpower requirements and utilization;

personnel programs and management; the official reserve component personnel database and system; reserve medical readiness and programs; and development of legislation affecting guard and reserve manpower, personnel, and compensation. Dr. Winkler also led the *Review of Reserve Component Contributions to National Defense*, which proposed new ideas for building force capabilities and creating flexibility in management to assist the Department of Defense in meeting its transformation goals, including establishment of a “continuum of service.” Dr. Winkler was previously a senior behavioral scientist at RAND and associate director of the Manpower and Training Program at the RAND Arroyo Center. He authored and coauthored numerous RAND publications. Dr. Winkler graduated with honors from the University of Pennsylvania with a bachelor of arts in psychology and anthropology, and received a doctorate in social psychology from Harvard University.

Contributors

Beth J. Asch joined RAND in 1986, where she is a senior economist specializing in defense manpower issues in the National Security Research Institute. At RAND, she has been involved in and led studies on recruitment, retention, compensation, retirement, and performance incentives of U.S. military and federal civil service personnel. Recent research includes analyzing retirement system alternatives for the active and reserve components, the recruitment of minorities in the military, the effect of deployment expectations on reserve recruiting, and increasing the supply of personnel with language capability in the intelligence community. Past research areas include military recruitment of college-bound youth; recruitment of Hispanics; analyses of enlisted supply; assessments of how the level and structure of military compensation affects military retirement, retention, and cost; and pay-for-performance incentives in the civil service. Her work includes numerous RAND reports, peer-reviewed journal articles and book chapters, and op-ed pieces. Dr. Asch served on a Naval Studies Board Committee on Manpower and Personnel Needs for a Transformed Naval Force. She also served on the staff of the Defense Advisory Committee on Military Compensation, was a member of the working groups of the Seventh, Ninth, and Tenth Quadrennial Reviews of Military Compensation, and has provided congressional testimony on military compensation issues and civil service reform. She is a former visiting faculty member at the University of California, Los Angeles, economics department and a current faculty member at the Pardee RAND Graduate School. Dr. Asch holds a master’s (1981) and doctorate (1984) in economics from the University of Chicago. Before joining RAND, she was an associate economist at the Center for Naval Analyses.

Jennifer C. Buck was named deputy assistant secretary of defense for reserve affairs (resources) in July 1994. Ms. Buck serves as the key advisor to the Assistant Secretary of Defense for Reserve Affairs in all financial management and resourcing matters relating to the reserve components. In this capacity, she oversees military

personnel, operations and maintenance, military construction, and procurement appropriations, which totaled more than \$47 billion in fiscal year 2009. She is also responsible for managing the National Guard Youth Challenge and Department of Defense STARBASE programs nationwide. Since 1985, Ms. Buck has been a member of the Reserve Affairs staff, serving as coordinator, guard and reserve programs, and as the program and budget director. Prior to her assignment to the Office of the Secretary of Defense, she served as the budget officer for both the Defense Contract Audit Agency and the Army National Guard. She was chief of the civilian manpower budget branch for the Naval Material Command, which coordinated manpower budgets of more than 200,000 Navy civilians. Ms. Buck began her federal career as a Management Intern (a precursor to the Presidential Management Intern Program) at the Naval Sea Systems Command in 1974. Ms. Buck graduated from the University of Virginia, and is currently a candidate for a master's degree in business administration at Auburn University. She is the 2004 recipient of the Roger W. Jones Award for Executive Excellence from American University, and was a Presidential Rank Award recipient, Meritorious Executive for 2000 and 2007.

Thomas L. Bush is the principal director for the manpower and personnel deputation within the Office of the Assistant Secretary of Defense for Reserve Affairs. Upon assuming his current post in January 2005, he was appointed to the Senior Executive Service. In this position, Mr. Bush is the principal adviser to the deputy assistant secretary of defense for manpower and personnel on all matters related to manpower and personnel—including compensation, medical issues, and quality of life—for the seven reserve components of the United States armed forces. He also served as the acting deputy assistant secretary of defense for manpower and personnel from August 2007 until March 2008. Mr. Bush entered federal civil service in June 1998, serving as the director for program integration and intergovernmental affairs in the Office of the Assistant Secretary of Defense for Reserve Affairs. Prior to that, Mr. Bush served in the United States Navy. During his 28-year military career, he was assigned to increasingly demanding staff, operational, and command positions, retiring in May 1998 at the rank of Captain. While serving in the Navy, Mr. Bush accumulated over 3,000 flight hours in tactical aircraft, including 150 combat missions during the Vietnam War. His military decorations include the Defense Superior Service Medal, Legion of Merit Medal, Air Medal, Joint and Service Commendation and Achievement Medals, and various service and campaign awards. He received a bachelor's degree in business administration from Western State College of Colorado and a master's degree in business administration from Marymount University.

Laura Werber Castaneda is a management scientist at RAND. Dr. Castaneda applies organizational theories and methods to a wide array of policy issues, including arts education, health promotion efforts, workforce management, military manpower and personnel, and military families. Her ongoing projects include emergency preparedness

in communities with a military presence, the role of urban congregations in HIV/AIDS health promotion efforts, and law enforcement recruiting in urban communities. She is currently leading or has recently led projects on the retention of special operations forces; supporting guard and reserve families; and barriers to promotion for minorities. Dr. Castaneda is also a faculty member at the Pardee RAND Graduate School, where she teaches a course on group processes in organizations. Dr. Castaneda received her doctorate in organizational behavior from Stanford University and a bachelor of science in economics, cum laude, from the Wharton School of Business at the University of Pennsylvania.

Michelle A. Dolfini-Reed is a senior research analyst and project director at the Center for Naval Analyses (CNA), where she specializes in Marine Corps and reserve manpower research. Dr. Dolfini-Reed's work on reserve issues includes exploring options for implementing the continuum of service paradigm; assessing the relative impact of the ongoing mobilization on reserve retention; expanding reserve officer accession programs and developing an understanding of why reservists choose to affiliate; streamlining barriers to service; and improving reserve manpower management. In addition, Dr. Dolfini-Reed serves as CNA's scientific analyst to the Director, Reserve Affairs, USMC Headquarters, Manpower and Reserve Affairs. Dr. Dolfini-Reed earned her doctorate in political science from the George Washington University, majoring in American politics with a minor in international relations. She holds a master of arts in political science from Virginia Polytechnic Institute and State University, and a bachelor of arts in political science from Hollins University.

Colin Doyle is a project leader with the Institute for Defense Analyses (IDA). During his tenure at IDA, Dr. Doyle has conducted research for sponsors in the Department of Defense and the Department of Homeland Security. His research focuses on manpower and labor supply, including studies of the income losses or gains of mobilized military reservists; the costs of activations to employers of military reservists; the effect of active duty demands on recruiting and retention in the reserve components; the capacity of the Army for further deployments; and the retention of special operations forces. Dr. Doyle received his doctorate in economics from the University of Maryland in 2003.

Major General Thomas A. Dyches retired from military service as assistant to the chairman of the joint chiefs of staff for reserve matters, serving as the principal adviser to the chairman on all matters affecting the reserve component of the Army, Navy, Air Force, Marine Corps and, where appropriate, the Coast Guard. He also acted as the personal liaison to the military services on reserve matters and participated in defense forums such as the Reserve Forces Policy Board and the Joint Capabilities Board. Major General Dyches was commissioned through the Air Force Officer Training School in 1969 and received pilot wings in 1970. He graduated from the United States Air Force Fighter Weapons School in 1975 and later

served there as an instructor pilot. When released from active duty in 1978, Major General Dyches became a commercial airline pilot and joined the Air Force Reserve as a traditional reservist. He became an air reserve technician in 1989 and has commanded a fighter squadron, fighter operations group, fighter wing, a seven-nation coalition air expeditionary wing, and the Standing Joint Force Headquarters. Major General Dyches is a command pilot with more than 4,200 flying hours, including combat in Southeast Asia, Bosnia, and Iraq.

Jeff Goldstein has been a senior analyst at the Office of Management and Budget (OMB) since 1994, where he specializes in military and civilian personnel policy and budgeting for the Department of Defense. In addition to his oversight duties, he is responsible for all aspects of policy and budgeting for active duty Army, Navy, Marine Corps, and Air Force military pay, personnel, and benefit issues; military retirement; and the personnel elements of contingency operations. Prior to joining OMB, Mr. Goldstein worked at the Defense Logistics Agency and the Senate Appropriations Committee's Subcommittee on Commerce, Justice, State, and the Judiciary. Mr. Goldstein holds a bachelor's degree in industrial and labor relations from Cornell University, a master of public administration from the Maxwell School at Syracuse University, and a master of national resource policy from the Industrial College of the Armed Forces.

David Gregory is a senior research programmer at the Center for Naval Analyses (CNA). He provides data management and analysis for the full range of CNA's defense workforce studies, including reserve manpower management and retention; as well as active duty enlisted and officer manpower retention, compensation, and training. He received his bachelor's degree in economics from the University of Virginia.

Thomas F. Hall was sworn in as the fourth assistant secretary of defense for reserve affairs on October 9, 2002. A Presidential appointee confirmed by the Senate, Secretary Hall serves as the principal staff assistant to the Secretary of Defense on all matters involving the 1.2 million members of the reserve components of the United States armed forces, and is also responsible for overall supervision of reserve component affairs in the Department of Defense. Secretary Hall is a retired two-star rear admiral, having served almost 34 years of continuous active duty in the United States Navy. He is a distinguished and decorated naval aviator who served a combat tour in Vietnam. His final military assignment was as the commander/director/chief of the Naval Reserve. Secretary Hall's military awards include the Distinguished Service Medal, Defense Superior Service Medal, Legion of Merit, and Air Medal. He has also received the National Service Award for Leadership from the Federal Law Enforcement Foundation and the Admiral Jackson Award from the Reserve Officers Association. He has been inducted into the Oklahoma Military Hall of Fame and the Reserve Officers Association's Minuteman Hall of Fame, and was also awarded the Department of Defense Medal for Distinguished Public Service. Secretary Hall has

a bachelor's degree in engineering from the United States Naval Academy—where he was named one of the top 25 leaders in his class—and a master's degree in public personnel management from The George Washington University. He graduated with highest distinction from the Naval War College, with distinction from the National War College, and from Harvard University's National Security Course. Prior to returning to government service, Secretary Hall served for six years as the executive director of the Naval Reserve Association.

Michael Hansen works as an economist at RAND. Before joining RAND, he worked as a research analyst and project director at the Center for Naval Analyses (CNA). Dr. Hansen's research focuses primarily on improving the flexibility of military compensation in order to effectively address both current and anticipated manning challenges. His recent studies include empirical analyses of the responsiveness of personnel to changes in compensation, the return on investment of various quality of life initiatives, and the efficacy of financial incentives for recruiting and retention. Dr. Hansen was a member of the principal research staff of the Ninth and Tenth Quadrennial Reviews of Military Compensation. He also served as CNA's field scientist to the Kentucky Department of Education, and as the scientific analyst to both the Navy's Director, Military Personnel Plans and Policy Division, and the Assistant Secretary of the Navy, Manpower and Reserve Affairs. Dr. Hansen holds a doctorate in economics from Boston College, where he received the Donald and Helene White Prize for the Outstanding Dissertation in the Field of Social Sciences.

Margaret C. Harrell is a senior social scientist at RAND, and the associate director of the Forces and Resources Policy Center in the RAND National Defense Research Institute. Dr. Harrell's research interests include military manpower and personnel, military families, and military quality of life. She is currently leading or has recently led projects addressing how best to support reserve component families; the management and assignment of reserve and active component general and flag officers; assignment policy for military women; joint officer management; future officer career management; and the retention of special operations forces. Dr. Harrell is a RAND expert in qualitative research methods, including conducting interviews and focus groups, and coding and analyzing the resulting data. Dr. Harrell received her doctorate in cultural anthropology from the University of Virginia. She also holds a master of science in systems analysis from The George Washington University, and a bachelor of arts, with distinction, from the University of Virginia.

Benjamin C. Horne is a doctoral candidate in economics with a focus on microeconomic theory at the University of California, San Diego. From 2003 to 2004, Mr. Horne was a member of the Peace Corps, assigned to Kyrgyzstan, where he taught business and economics. From 2005 to 2006, he worked at the Center for Naval Analyses researching reserve manpower issues. From 2006 to 2007, he worked at

the World Bank, and conducted analysis on the world business climate as part of the Doing Business Project. He received his bachelor's degree in mathematical economics from Rice University and a master's degree in applied economics from The Johns Hopkins University.

James R. Hosek directs the Forces and Resources Policy Center of the National Defense Research Institute at RAND. He has published studies on topics in recruiting, retention, compensation, personnel quality, information technology personnel, and military health benefits. His recent research includes analysis of proposals for military compensation reform, the effect of deployment on retention, the supply of prior-service personnel to the selected reserves, and an assessment of U.S. competitiveness in science and technology and in the science and engineering workforce. Dr. Hosek is editor-in-chief of the RAND Journal of Economics, a leading peer-reviewed journal on industrial organization, regulation, and contracts, and is professor of economics at the Pardee RAND Graduate School. He has served as RAND corporate research manager in human capital; chair of the Economics and Statistics Department; and chair of the Economic Advisory Council of the California Institute, a nonprofit organization informing California's congressional delegation on policy matters. Dr. Hosek was a member of the working groups of the Seventh, Ninth, and Tenth Quadrennial Reviews of Military Compensation and has given congressional testimony on compensation reform and deployment. He holds a bachelor of arts in English from Cornell University, and a master of arts and doctorate in economics from The University of Chicago.

Susan D. Hosek is a senior economist, group manager for economics and statistics, and co-director of the Center for Military Health Policy Research at the RAND Corporation. Her research has included evaluations of major public programs and projects that fielded large surveys and responded to congressional directives. Much of her research has focused on military health issues, including benefit design and the demand for health care, medical staff mix, and the organization and management of the military health care system. Other projects have addressed the personal use of pesticides in the Persian Gulf (a potential cause of subsequent health problems), gender differences in federal research grant awards, and the demand for military housing. From 1993 to 2000, she directed a research center within RAND's National Defense Research Institute that focuses on compensation, recruiting and retention; opportunities for minorities and women; health care, family programs, outsourcing and privatization; and the management of defense activities. She served as research director of the 2007 President's Commission on Caring for America's Returning Wounded Warriors and was a member of the 2001–2003 President's Task Force to Improve Health Care Delivery for Our Nation's Veterans. She has taught at the Pardee RAND Graduate School and Carnegie Mellon University. She holds a bachelor of arts in economics from Cornell University and a master of arts in economics from Northwestern University.

Christopher Jehn has been an executive with the Center for Naval Analyses, the Institute for Defense Analyses, and ICF Kaiser International, Inc. Most recently he was the vice president, government programs, of Cray Inc. From 1989 to 1993 Mr. Jehn served President George H. W. Bush as the assistant secretary of defense for force management and personnel. In that position, Mr. Jehn planned the substantial personnel reductions for the post–cold war Defense Department and managed their initial implementation. Before and during the Persian Gulf war he developed the policies and practices for the first large-scale activation and employment of reserve forces since the end of conscription. Mr. Jehn also served as the executive director of the National Defense Panel (1997) and the assistant director for national security at the Congressional Budget Office (1998–2001), and was a member of the Commission on Servicemembers and Veterans Transition Assistance. A National Merit Scholar, Mr. Jehn was a University Fellow at the University of Chicago. Among his other awards and honors are the Benjamin Hooks Distinguished Service Award from the National Association for the Advancement of Colored People, the Distinguished Public Service Medal from the Department of Defense, and the Meritorious Police Cross from the government of Spain.

Laura Junor has been conducting readiness analyses and developing readiness reporting systems for 15 years. She is currently an independent consultant for readiness and national preparedness issues working with the Federal Emergency Management Agency and the Department of Defense. Her long-term projects include developing and implementing a common capabilities language across the full range of potential domestic responders, a system to register national preparedness capabilities, and a system to register the ability of federal departments to maintain continuity of government should a disaster strike. Previously, Dr. Junor filled a four-year Intergovernmental Personnel Act assignment position in the Office of the Under Secretary of Defense for Personnel and Readiness, where she helped create the Defense Readiness Reporting System and develop underlying analytic tools to support force management, risk assessment, and adaptive planning. In this capacity, she was part of a small team that helped shape the Department of Homeland Security’s emerging National Preparedness System. Prior to that, Dr. Junor led the readiness research program at the Center for Naval Analyses, where—in addition to her Navy projects—she worked on aviation readiness issues for the Marine Corps and on developing and interpreting readiness metrics for the Coast Guard and the Office of the Secretary of Defense. She was also the scientific analyst for the Navy’s readiness assessment division. Dr. Junor has served as a visiting assistant professor of economics at Tulane University. She has a bachelor’s degree from Goucher College, and master of arts and doctorate in economics from George Mason University.

Jacob Alex Klerman is a principal associate and fellow at Abt Associates in Cambridge, Massachusetts. Mr. Klerman’s work at Abt focuses on military manpower

analysis, veterans' policy, random assignment evaluation of social programs, and survey data quality. The majority of the work reported on in the chapter coauthored by Mr. Klerman was performed while he was a senior economist with RAND.

Diana Lien is an economist with the Center for Naval Analyses, where she has analyzed the cost-effectiveness of military compensation policies and quality-of-service incentives to increase retention. Her project work has included designing surveys for the Department of the Navy and for the Office of the Assistant Secretary of Defense for Reserve Affairs. She recently worked with the Tenth Quadrennial Review of Military Compensation on analyzing the retention effects of different quality of life programs. Dr. Lien holds a doctorate in economics from the University of Maryland. Her publications include coauthored articles in *Tax Policy and the Economy*, the *Journal of Econometrics*, the *Journal of Human Resources*, and book chapters.

Nelson Lim is a senior social scientist at RAND. His research interests include military manpower analysis, diversity management, military family, immigration, and social demography. He has conducted studies of military recruiting and retention of active duty, as well as reserve components for the United States Army. In addition, he has examined the influence of military life conditions on the labor market situations of military spouses. He has examined the most effective diversity practices by Fortune 500 companies and barriers to promotion in various government agencies, including the National Security Agency, the Department of Defense, the United States Army, and the United States Air Force. Dr. Lim holds a doctorate in sociology from the University of California, Los Angeles.

David S. Loughran is a senior economist at RAND and professor at the Pardee RAND Graduate School. His research focuses on applied topics in labor economics and demography, including wage inequality, intrahousehold resource allocation, family formation, retirement, and military manpower. Dr. Loughran's current portfolio of research on military manpower includes a variety of studies investigating how activation impacts the lives of reservists and their family members. This research includes studies of the impact of activation on post-activation civilian earnings, the earnings of reserve spouses, and the receipt of unemployment insurance. Dr. Loughran is also investigating whether reservists who return from combat with symptoms of post-traumatic stress disorder suffer short- and long-term civilian earnings losses.

Karen I. McKenney is the acting deputy assistant secretary of defense for readiness, training, and mobilization deputate in the Office of the Assistant Secretary of Defense for Reserve Affairs. She was appointed principal director in September, 1996. Ms. McKenney previously served as the principal director of the materiel and facilities deputate. She has also served as director of acquisition in the Office of the Assistant Secretary of the Army for Research Development and Acquisition, and in a variety

of budget, program planning, and analysis positions in the Office of the Assistant Secretary of the Army (Financial Management), the Office of the Assistant Chief of Army Engineers, and the Office of the Director of the Army Staff. Ms. McKenney has a bachelor of science (cum laude) from the University of Connecticut and a master of public administration from The George Washington University, where she received the Public Administration Award for outstanding achievement. She is also a Distinguished Graduate of the Industrial College of the Armed Forces and has completed numerous government financial management and acquisition courses. Ms. McKenney was selected as a Presidential Management Intern, and has received the Presidential Rank Award of Meritorious Executive, the Secretary of Defense Medal for Meritorious Civilian Service, Special Act Awards, the Army Staff Identification Badge, and Commander's Awards for Civilian Service.

Colonel David B. Morey is the deputy director for integration in the Office of the Assistant Secretary of Defense for Reserve Affairs (Readiness, Training, and Mobilization Division). Colonel Morey was commissioned a second lieutenant in the United States Marine Corps and received his judge advocate certification in 1980. Over the course of his career, Colonel Morey has held various legal, command, and policy positions. He has worked as a legal assistance counsel, defense counsel, trial counsel, water law attorney, research attorney, and environmental law attorney. He has also served as a recruit training officer, administrative law officer, Article 32 investigations officer and as a force inspector. He was officer-in-charge of the Legal and Personnel Management Section, and inspector-instructor of the Marine Forces Reserve Legal Services Support Section. In June 2006 Colonel Morey was assigned to the 4th Civil Affairs Group and qualified as a Civil Affairs Officer. Prior to joining the Office of the Assistant Secretary, he was detailed as senior Marine liaison officer to the Iraq Reconstruction Management Office, International Zone, Baghdad, Iraq. Colonel Morey graduated cum laude from the University of Denver with a bachelor's degree in political science and economics. He received his *Juris Doctor* from the University of Denver College of Law, and a master of arts in economics from the University of Denver Graduate School. He holds a master of laws in taxation from the University of San Diego School of Law, as well as a master's degree in strategic studies from the Army War College, and a diploma from the Naval War College.

William A. Navas Jr. has been the executive director of the National Security Professional Development Integration Office since January 2008. In this capacity, he is responsible for implementation of a national strategy for the development of national security professionals. From July 2001 to January 2008, Mr. Navas was the assistant secretary of the Navy for manpower and reserve affairs. In that position, he acted on matters pertaining to manpower and personnel policy within the Department of the Navy affecting active duty and reserve sailors, Marines, and Department of Navy civilians. Mr. Navas retired from the Army as a Major General. His last active duty assignment was as the director, Army National Guard, where he was responsible

for over 362,000 citizen-soldiers. His previous positions include deputy director Army National Guard, vice chief of the National Guard Bureau, military executive of the Reserve Forces Policy Board, and deputy assistant secretary of defense/chief of staff for reserve affairs. Commissioned as a Regular Army officer in 1965, he served in both Germany and Vietnam. After leaving active duty in 1970, he joined the Puerto Rico Army National Guard. Mr. Navas' military decorations include the Defense Distinguished Service Medal, Army Distinguished Service Medal, Defense Superior Service Medal, Legion of Merit (two awards), Bronze Star Medal, Defense Meritorious Service Medal, Meritorious Service Medal (two awards), Air Medal, Army Commendation Medal (three awards), and numerous state awards. In addition to a bachelor's degree in civil engineering, Mr. Navas has a master of science in management engineering from the University of Bridgeport. He has also attended numerous military schools, as well as the program for Senior Managers in Government at Harvard University.

Bruce Orvis is a senior behavioral scientist at RAND and the director of the Arroyo Center's Manpower and Training Program. Since first joining RAND in 1976, Mr. Orvis has served in various capacities, including consultant, professional staff member, and associate director for the Manpower and Training Program. Dr. Orvis's research and publications cover a broad range of national defense issues, including the design, evaluation, and national testing of military recruiting and education initiatives; direction of national surveys on the recruiting market; the relationship among soldier characteristics, training, and performance; military personnel structures and costs; Reserve Officers' Training Corps production, staffing, and scholarship policy; peacetime military deployments; personnel stabilization to enhance job qualification rates in the Army reserve components; and substance abuse. His 1996 work on personnel stabilization was honored by the Army as one of 11 outstanding research studies in the nation. Dr. Orvis served as a consultant to the National Academy of Sciences' Committee on the Youth Population and Military Recruitment to collaborate on its book, *Evaluating Military Advertising and Recruiting: Theory and Methodology*. He was a member of the Scientific Review Panel for the Human Resources Research Organization's project on soldier requirements in the 21st century, as well as the Competitive Advantage Working Group and Senior Review Panel for the U.S. Army Accessions Command. Dr. Orvis received an AB with distinction from the University of Rochester, where he was selected to Phi Beta Kappa. He was awarded a Danforth Foundation Fellowship and received a master of arts and doctorate in psychology from the University of California, Los Angeles.

Ann D. Parcell is a research analyst and project director at the Center for Naval Analyses (CNA). She has been a member of the Defense Workforce Analyses team at CNA since January 2000, where she has focused on the Navy officer corps. Dr. Parcell's studies cover such topics as identifying attributes of officer candidates that help predict career success, exploring alternative officer career paths (including

lengthening the current officer career path), and analyzing early training patterns for officers. Other work includes analyses of officer retention, officer diversity, and community-specific career management issues. In addition, Dr. Parcell has participated in producing the CNA quarterly attrition report of enlisted personnel for Navy senior leadership. She has worked on reserve mobilization and retention issues for the Office of the Assistant Secretary of Defense for Reserve Affairs. Dr. Parcell earned a master's degree and doctorate in economics from the University of California, San Diego and a bachelor of science in economics from California Polytechnic State University, San Luis Obispo.

Ellen Pint is a senior economist at RAND and an associate director of the Arroyo Center's Manpower and Training Program. Her recent work includes an examination of the effects of changes in training and mobilization policies on Army Reserve soldiers, family members, and employers; an analysis of continuum of service initiatives to increase the level of active component experience in the Army reserve components; and an evaluation of an Army program allowing soldiers to transfer up to half of their Montgomery GI Bill and Army College Fund benefits to their dependents. Dr. Pint has also conducted research for the U.S. Army on infrastructure issues, logistics financial management policies, and outsourcing and privatization of support functions. Prior to joining RAND in 1991, she held a British Telecom Prize Research Fellowship in the Economics of Regulation at Nuffield College, Oxford. Dr. Pint received her doctorate in business (economic analysis and policy) from Stanford University in 1989.

Neil Singer retired in 1998 as deputy assistant director of the Congressional Budget Office (CBO), where he conducted and directed analyses of defense issues such as the military drawdown, health care, readiness, defense roles and missions, and military compensation. Prior to joining CBO he served in the Office of the Secretary of Defense and as professor of economics at the University of Maryland and Stanford University. Following his retirement, he served as a member of the Naval Personnel Task Force and as a consultant to the Center for Naval Analyses. He is currently a consultant to the Institute for Defense Analyses.

Major General The Duke of Westminster is currently the Foundation Chancellor at the University of Chester. Prior to that appointment, His Grace was the senior serving Territorial Army officer, serving as assistant chief of defence staff (reserves and cadets), an appointment he assumed in March 2004 in the rank of Major General. In doing so, he was the first Territorial Army (TA) officer to be promoted to this rank since before World War II. In 1970 he enlisted in C (Cheshire) Squadron of the Queen's Own Yeomanry, rising through the ranks until appointed Commanding Officer in April 1992 in the rank of Lieutenant Colonel. In 1994 he was awarded the Territorial Decoration, and in 1995 was promoted to Colonel and appointed Colonel Yeomanry. In the 1995 New Year's Honours List he was awarded the Order of the

British Empire for his services to his Regiment and to the Territorial Army. He held the office of Deputy Commander 143 (West Midlands) Brigade based in Shrewsbury from 1997 through 1999, and was promoted to Brigadier in January 2000 to take up the appointment of Brigadier TA at Headquarters Adjutant General. In December, 2002 he assumed the appointment of Director, Reserve Forces and Cadets in the Ministry of Defence. His Grace is Colonel-in-Chief of the Royal Westminster Regiment of Vancouver, Canada and is a member of the Honorary Officers Association of British Columbia. He is Honorary Colonel of 7th Regiment Army Air Corps, The Royal Mercian & Lancastrian Yeomanry, and the Northumbrian Universities Officer Training Corps. He is Chairman of the Board of Trustees of the Nuffield Trust for the Forces of the Crown; President of the Board of the British Limbless Ex-Servicemen's Association and of the Tank Museum; and Vice President of the Royal Engineers' Museum Foundation, Royal United Services Institute, the Ulysses Trust and the Royal British Legion. He was formerly Chairman of the Board of the Royal Armouries and was on the Council of the National Army Museum.

Cindy Williams is a principal research scientist of the Security Studies Program at the Massachusetts Institute of Technology. Formerly she was an assistant director of the Congressional Budget Office, where she led the National Security Division in studies of budgetary and policy choices related to defense and international security. Dr. Williams has served as a director and in other capacities at the MITRE Corporation, as a member of the Senior Executive Service in the Directorate of Program Analysis and Evaluation in the Office of the Secretary of Defense, and as a mathematician at RAND. Dr. Williams is the editor of *Holding the Line: U.S. Defense Alternatives for the Early 21st Century* (MIT Press 2001) and *Filling the Ranks: Transforming the U.S. Military Personnel System* (MIT Press 2004). She is co-editor, with Curtis Gilroy, of *Service to Country: Personnel Policy and the Transformation of Western Militaries* (MIT Press 2006). Dr. Williams is an elected fellow and a member of the board of directors of the National Academy of Public Administration and a member of the Naval Studies Board, the Council on Foreign Relations, and the International Institute for Strategic Studies. She serves on the editorial board of *International Security* and the advisory board of the Scowcroft Institute of International Affairs at the Bush School of Government and Public Service of Texas A&M University. Dr. Williams holds a doctorate in mathematics from the University of California, Irvine.