

# RESOURCES AND FORCE READINESS DIVISION

CNA's Resources and Force Readiness Division provides insightful, data-driven analysis for critical resource allocation problems facing the Navy, Marine Corps, and other Department of Defense components and agencies. Our study teams use a wide range of state-of-the-art quantitative and qualitative methods and vast data repositories to help military and civilian leaders make critical decisions on human resources, population health, infrastructure, environment, energy, and budget-related challenges.

We recruit our staff of approximately 60 analysts from many of the finest universities in the United States. About 70 percent of our researchers hold PhDs—in economics, operations research, data science, public health, statistics, psychology, and mathematics. Study directors organize their teams with the right combination of education, experience, and analytical skills to provide high-quality analysis to support decision-making by key leaders in a variety of organizations, including:

- Office of the Chief of Naval Operations
- Office of the Commandant of the Marine Corps
- Office of the Secretary of Defense
- Office of the Secretary of the Navy
- Bureau of Medicine and Surgery
- US Pacific Fleet
- US Fleet Forces Command
- Other field commands across the globe.

The Resources and Force Readiness Division is comprised of four research programs:

### **ENERGY, INFRASTRUCTURE, AND ENVIRONMENT**

The Energy, Infrastructure, and Environment Program focuses on operational energy requirements and technologies, installation management, and environmental challenges that affect training and exercise opportunities for military forces. Recently our analysts completed a study of the power and energy requirements of the Large Future Surface Combatant, which is expected to host advanced, high-power electric weapons and sensors. This research will inform decisions concerning the electrical architecture of the ship, including whether it should have an Integrated Power System. The program's installation research has recently focused on understanding the shore support required in forward locations to support current operational plans.

### **NAVY HUMAN RESOURCES**

The Navy Human Resources Program focuses on the recruitment and retention of active duty, reserve, and civilian personnel to support the Navy's readiness goals. The program also examines the development and distribution of skilled sailors to Navy commands to maintain personnel readiness levels, and on training and education issues that affect sailor technical and general skill competencies. The program's work includes analyses of compensation structures, monetary and non-monetary incentives, promotion and advancement, and sea/shore rotation policies. Recently analysts from this program performed dynamic decision modeling of servicemember retention in an effort to help service leadership understand the effectiveness and long-term consequences of different types of compensation.

Program analysts also have been conducting analyses to improve the Navy's ability to use emerging technologies and data systems to better measure training efficacy. And the program's sophisticated big-data analyses help the Navy to better understand factors related to various destructive behaviors, such as sexual assault, harassment, drug and alcohol abuse, domestic violence, and suicide.

#### MARINE CORPS AND DEFENSE WORKFORCE

The Marine Corps and Defense Workforce Program provides a broad range of sophisticated analytical support to the Marine Corps on critical issues related to the service's manpower requirements, personnel management, and training. The program also conducts analyses and modeling for the Office of the Secretary of Defense, the Joint Staff, the Army, and the Air Force. The Marine Corps and Defense Workforce Program recently provided the Marine Corps with assessments of recruit training and the service's Force Fitness Instructor program, a report on the social media spread of disinformation related to the extremism standdown,



and modeling to examine the effects of different promotion models on force diversity. Other analyses advised the Office of the Secretary of Defense on the risks of waivered recruits and on the feasibility of offering servicemembers more flexible maternity leave.

#### HEALTH ANALYTICS AND MEDICAL READINESS

As longtime partners of the Defense Health Agency (DHA) and the Navy's Bureau of Medicine and Surgery (BUMED), the Health Analytics and Medical Readiness Program provides analytical support to the military medical enterprise. Much of the analysts' work focuses on how to track and improve population health, including the use of telehealth and other services provided outside of hospital settings. Other work focuses on the medical workforce, addressing their manpower, personnel, training, and education issues. Recent studies have included a primary data collection effort in response to the National Defense Authorization Act requirement to understand barriers to accessing care among reservists, a quantitative analysis of the adequacy of the DOD blood program, and the development of courses of action to reduce redundancy and increase efficiency across the services' Global Health Engagement initiatives.

#### **WORK WITH OTHER DIVISIONS**

Resources and Force Readiness analysts work cooperatively with analysts from other divisions within CNA's federally funded research and development center (FFRDC), the Center for Naval Analyses. This ensures that CNA brings the right mix of skills to address the military's pressing issues. We routinely work with analysts from the following divisions of the Center for Naval Analyses:

- Operational Warfighting
- Data Science
- China and Indo-Pacific Security Affairs
- Strategy, Policy, Plans, and Programs
- Systems, Tactics, and Force Development

#### **CROSS-CUTTING PROGRAMS**

In addition to working cooperatively with other CNA divisions, Resources and Force Readiness personnel are leveraged to provide expertise to a variety of cross-cutting CNA programs.

### **Marine Corps Program**

The Marine Corps Program oversees and manages all aspects of CNA's support to the Marine Corps. The program provides analytic support on a wide range of issues critical to Marine Corps leadership. This work is executed within the research divisions of the Center for Naval Analyses. In addition to Marine Corps studies conducted at CNA headquarters, CNA analysts in the Field Program provide full-time, on-site support to key Marine Corps operating force commands. The Marine Corps program also includes analytic support to major exercises and deployed support for all major real-world operations and contingencies involving Marine Corps forces. This on-site approach is rounded out by the six CNA Scientific Analysts who are assigned to the offices of individual deputy commandants in Headquarters Marine Corps.

### **Special Operations Research Program**

CNA's Special Operations Research Program brings our full spectrum of research and analysis capabilities to bear on the most complex and challenging issues facing special operations forces—today and in the future. This program helps the Center for Naval Analyses to develop and maintain special operations competencies in the following areas: operations, exercises, and training (including on-site support to deployed forces); manpower policy, workforce management, and preservation of the force; concept development, experimentation, and program evaluation; plans, policy, and regional security analysis; acquisition, resource, and cost analysis; and logistics, infrastructure, and support activities.

## Cyber Research Program

CNA's Cyber Research Program facilitates CNA support to leaders and warfighters charged with cyber-related responsibilities. We supply objective analysis informed by a diverse array of technical competencies and grounded in a deep understanding of military operations. These issues include cyberspace operations; cybersecurity principles and implementation; cyber strategy, policy, deterrence, and escalation; cyber workforce management and manpower requirements; and cyber acquisition, resource, and gap analysis.

### Center for Autonomy and Artificial Intelligence

CNA's Center for Autonomy and Artificial Intelligence promotes the effective incorporation of autonomy, artificial intelligence, and related technologies in military operations. The center has four lines of effort: connect key stakeholders; conduct multidisciplinary research; provide insightful recommendations to advance the effectiveness of US military operations; and develop and refine creative approaches to the development and use of autonomy and AI.

### OPNAV CNA ANALYST/SCIENTIFIC ANALYST PROGRAM

Many Resources and Force Readiness analysts participate in the OPNAV CNA Analyst/Scientific Analyst Program, which provides direct analytical support to senior Navy and Marine Corps leadership in the office of the Chief of Naval Operations (OPNAV), the office of the Secretary of the Navy, and Headquarters Marine Corps. For example, our analysts support the Deputy Chief of Naval Operations for Manpower and Personnel and the Deputy Commandant for Manpower and Reserve Affairs. The Scientific Analyst Program also helps to ensure the relevance of our analytical program to those organizations. Scientific analysts perform many functions:

- Conduct short-term analyses in response to informal requests from the office to which he or she is assigned
- Maintain liaison between CNA and the office
  - Communicate the results of CNA analyses to the staff
  - Help ensure that CNA receives timely information about Navy and Marine Corps activities and problems
- Help frame approaches to large-scale problems that can be addressed by study efforts in CNA or elsewhere.

#### **FIELD PROGRAM**

CNA's Field Program assigns analysts to Navy, Marine Corps, and joint commands on a full-time basis. A typical assignment is for two to three years. Assignments range from aircraft carrier strike groups to Marine expeditionary forces. They include the highest levels of operational commands, such as US Pacific Command. Field representatives provide real-time analytical support on operational problems of immediate concern to the command.

In times of crisis or conflict, CNA augments its field staff, sending additional analysts to on-scene posts. During these deployments CNA field representatives help commanders conduct operations more effectively and safely. They are also responsible for identifying issues requiring post-conflict analyses and for collecting data to support those efforts. CNA has supported every conflict involving the Navy or Marine Corps since World War II.

### **ABOUT CNA**

CNA is a not-for-profit research and analysis organization with almost 80 years of experience providing government agencies with data-driven insights and real-world, actionable solutions grounded in our direct experience with the operational environments where these solutions are applied. CNA developed the foundational techniques for operational analysis to address complex challenges facing government programs. We have applied these techniques successfully in areas ranging from defense to aviation, education, justice, and homeland security.

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