

13

THE U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

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The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) has been and continues to be an important national resource for behavioral and social science research in support of the national defense. This chapter begins with a brief history of the organization emphasizing its development since World War II. Although the organization known as ARI was established in 1972, its predecessors with various names have been operational since 1940. For details on the various incarnations in ARI's historical development, we refer the reader to the ARI history by Zeidner and Drucker (1988).

During World War II, the major national security concerns that ARI focused on were selecting people for military service and developing new methods for differentially assigning soldiers to Army jobs. Toward the end of World War II and during the Korean War, research at ARI began to focus on

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other behavioral science issues, especially training, human factors, and ergonomics, in addition to its continuing research on soldier selection, classification, and assignment. Social psychology and sociological issues began to be part of ARI's research mission with the launching of Project 100,000 in 1966. Project 100,000, implemented by Defense Secretary Robert McNamara, was a program devised to provide low-aptitude youths with an opportunity to improve their lives through military training and service. In the 1970s, ARI's mission expanded to include social issues in race relations and the acceptance and inclusion of women in the Army. ARI also began major efforts in leader development research in the 1970s. Toward the end of the 1970s, ARI's mission was further expanded to include issues of recruiting, attrition, and retention brought on by the advent of the all-volunteer force.

In discussing the contributions of ARI to national security, we focus on three broad concerns affecting the U.S. Army: (a) selecting, assigning, and recruiting soldiers; (b) training soldiers and developing leaders; and (c) enhancing soldier performance. Within this broad framework, we discuss some of the major research projects that ARI has undertaken through the years and how these have had an impact on the Army and on psychology and other behavioral sciences. A word of caution before we begin: The three categories in this framework are not necessarily orthogonal, and our discussions within them will be necessarily brief. Furthermore, because of limited space, our discussion of topics is selective and not comprehensive. We apologize in advance for the many significant ARI accomplishments we have omitted; however, we have striven to discuss those topic areas that we felt had the biggest impact on the Army, on other military services, and on the behavioral sciences.

SELECTING, ASSIGNING, AND RECRUITING SOLDIERS

Selecting soldiers and assigning them to Army jobs has been a major research theme since ARI's inception. With the advent of the all-volunteer force, recruiting has become a continuing research theme as well.

Selection and Assignment

When World War II started, the military services desperately needed good classification procedures. As Street points out in chapter 2 of this volume, ARI's early ancestor, the Personnel Research Section, developed the Army General Classification Test (AGCT) in response to this need. The AGCT was the testing workhorse of World War II, as the Army Alpha and Beta tests had been in World War I.

In the early 1940s, specific mental tests, such as the general Mechanical Aptitude Test and the Clerical Speed, Radio Learning, and Automotive

Information tests, were often used to supplement the AGCT to assist in classification (Zeidner & Drucker, 1987). By 1947, 10 of these specific aptitude tests, which later formed the Army Classification Battery, had been used. The organization of the specific aptitude tests into the Army Aptitude Area System for differential classification was a major innovation for the military personnel system. This multiple aptitude area system markedly increased differential classification precision and efficiency over that provided by the AGCT during World War II (Zeidner & Drucker, 1987).

With the passage of the Selective Service Act in 1948 (see Uhlaner, 1967a), Congress mandated that the Department of Defense develop a selection and classification test to be used by all of the services. Between 1948 and 1950, with substantial contributions from the Navy, Marines, and Air Force, ARI developed the Armed Forces Qualification Test (AFQT), modeled after the AGCT. The AFQT was the first selection instrument to be used for the uniform mental screening of recruits and inductees across the services. In addition to determining the mental qualifications of recruits during the Korean and Vietnam Wars, the AFQT was used to help achieve an equitable distribution of abilities across the services (Maier, 1993).

After the end of the Vietnam War in 1973, the Army transitioned from a drafted Army to the all-volunteer force (Shields, Hanser, & Campbell, 2001), and using the joint AFQT became optional for the services. Each of the services used its own batteries for selection and classification between 1973 and 1976, with the Army using a version of the Army Classification Battery (Maier, 1993).

In 1976, all services began using the Armed Services Vocational Aptitude Battery (ASVAB) in lieu of their own classification batteries (Maier, 1993; Walker & Rumsey, 2001; Zook, 1996). Updated several times, the ASVAB still serves as an essential military screening and classification tool, and the AFQT score is still used as a general screening tool by the Army and the other services (Zook, 1996).

In the wake of the ASVAB misnorming in 1976 and congressional skepticism about the validity of entry test scores in predicting future performance in the military (Shields et al., 2001), the congressional mandate to show that ASVAB was a valid predictor of job performance resulted in the Army's Project A (see chap. 7, this volume). Project A went well beyond the mandate to validate the ASVAB and included research to validate and expand Army personnel selection and classification techniques. This expansion was made possible by Major General Maxwell Thurman, then the head of the U.S. Army Recruiting Command (USAREC), who pushed for a broader concept of soldier quality. Together with Joyce Shields, then head of the Manpower and Personnel Resource Laboratory at ARI, General Thurman pressed the concept of the whole person evaluation, which incorporated all the diverse characteristics that could influence performance in addition to mental abilities, including psychomotor, spatial, interests, and temperament charac-

teristics. Project A (1982–1989) was to require the measurement of more than 50,000 soldiers in 21 military occupational specialties and, along with its follow-up project, Career Force (1989–1995), became one of the most influential projects in the history of selection, classification, and performance research.

Project A and Career Force provided key answers to the question, “What exactly is job performance?” Intensive analysis of the huge soldier sample yielded five core common dimensions of performance. Two were proficiency dimensions—core technical proficiency and general soldiering proficiency (termed “can do” dimensions)—and three were motivational dimensions—effort and leadership, personal discipline, and physical fitness and bearing (termed “will do” dimensions). Conceptualizing performance this way led to the task versus contextual performance distinction; these components are still seen as key dimensions of job performance (Borman & Motowidlo, 1993). With Project A, the “classic prediction model was born” (Shields et al., 2001, p. 21), and it continues to serve as the dominant prediction model in personnel research in both the military and civilian worlds (J. P. Campbell, 1990).

Recruiting

The all-volunteer force fast became known as the “all-recruited force” in the late 1970s and early 1980s. To meet the recruiting challenge, the Army needed to find out what influenced young Americans’ propensity to enlist. ARI first began recruiting research in 1980 with the arrival of General Thurman as the commanding general of USAREC. ARI’s recruiting research fell into three broad categories: market analysis and segmentation, recruiter selection and training, and sales aids. The highlights of work in each of these areas are described in the subsections that follow.

Market Analysis and Segmentation

One of the first ARI research efforts for USAREC was the 1981 New Recruit Survey, which was administered at reception stations (now called *battalions*) and was designed to segment new recruits by the reasons they had enlisted. Results from the survey were used to corroborate the theory of a dual recruiting market—those recruits interested in a college education versus those interested in job training—and to structure advertising and enlistment incentives accordingly. ARI continued to refine and administer the New Recruit Survey until 1987, when USAREC made it an annual operational survey.

Perhaps the most important ARI survey of this sort was the 1984 Army Experience Survey to determine what veteran one-term soldiers thought about their Army experience. Commissioned by the Secretary of the Army, John Marsh, and reported to President Reagan, results from this survey showed that veterans overwhelmingly found their Army experience to be a positive,

worthwhile life experience. Other ARI research efforts identified the key influencers and the roles they played in the enlistment decision processes of new recruits. Results showed that when making their enlistment decision, potential recruits looked to their parents for emotional support but to teachers and high school counselors for information. ARI research also showed that interviewers administering the Department of Defense Youth Attitude Tracking Survey could generate an accurate predictor of AFQT category using a telephone version of the verbal component of the Computerized Adaptive Screening Test (CAST; Legree, Fischl, Gade, & Wilson, 1998). This interview provided recruiting advertisers with an accurate way to assess the effectiveness of recruiting advising targeted to high-AFQT high school prospects.

Recruiter Selection, Training, and Utilization

Recruiter research in the 1970s and 1980s examined the use of the *realistic job preview*, a recruitment procedure organizations use to present realistic work information, both favorable and unfavorable, to potential employees (Meglino, Ravlin, & DeNisi, 2001). The purpose of the preview is to give potential recruits a taste of what their work requirements are likely to be, thereby allowing them to self-select out of the job or self-adjust to the challenges they are likely to face. ARI also created the Recruiter Development Center (RDC) to help new recruiters adjust to the job and to maximize training benefits in the Army Recruiter Course. As it turned out, the RDC was probably the first use of an assessment center as a training diagnostic. Originally, the RDC was to be an assessment center for selecting recruiters (Borman, 1982; Borman & Fischl, 1980). However, the RDC as an assessment center proved impractical when it became clear that soldiers did not volunteer but rather were selected for recruiter duty. ARI was still able to make use of the RDC by turning it into a realistic job preview and training diagnostic system for the U.S. Army Recruiter School (Borman, Rosse, & Rose, 1982). For this application, ARI scientists received one of the Army's prestigious Army Research and Development awards in 1983. In addition to the research already cited, see Penney, Horgen, and Borman (1999) for more information on ARI recruiter research.

Sales Aids

The development and implementation of the CAST as part of Army's Joint Optical Information Network semiautomated recruiting system was one of ARI's major accomplishments in this area. This test, which takes about 5 to 10 minutes to administer, provides recruiters with a highly accurate predicted AFQT score range so they can determine the prospective recruit's likelihood of earning a passing score on the ASVAB early in the recruiting interview at the recruiting station. The test saves recruiters time by allowing them to focus on the most desirable potential recruits, and recruiters stated

that it was symbolic of the new, high-tech Army they were trying to sell. CAST was an important precursor of the computerized adaptive version of the ASVAB, providing the first test of the large-scale application of computerized adaptive testing (Sands, Gade, & Knapp, 1997).

TRAINING SOLDIERS

ARI expanded its research mission into training research when the Motivation and Training Research Laboratory, the U.S. Army Manpower Research and Development Center, and the Behavioral Systems and Research laboratory merged to form what is now known as ARI. Below is a sampling of the major training research issues that ARI has undertaken since that merger.

Computer-Based Training

ARI has been a leader in the use of computers in training, starting with computer-aided instruction, through computer-based training, to intelligent tutors. Arguably the most advanced of these systems was the Military Language Tutor (MILT). MILT began as an ARI research program and test bed to determine the effectiveness of including a natural language processing engine in a language tutor for Arabic, Spanish, and English.

Together with a commercial version of MILT (Multimedia Instructional Tutor Authoring System), MILT is in use at the U.S. Military Academy to both author and deliver foreign language instruction. In 2003, the U.S. Military Academy began using MILT to create and deliver Arabic lessons for the U.S. Army Intelligence School and the Special Operations Forces Language Office. Holland, Kaplan, and Sabol (1999) and J. D. Kaplan and Holland (1995) discussed the development of MILT in more detail.

Distance Learning

ARI has been a pioneer in the use of distance learning techniques for Army training. A prime example of this is Critical Thinking Skills Training. Like technical skills, critical thinking skills are developed over time with appropriate training, practice, and experience. Recently, ARI has successfully transitioned this training from the classroom to open Web architecture so that soldiers can benefit from training and practice in a self-paced program that is always available when they are free to participate (see Katz & Grubb, 2003, and Reidel, 2003, for details on this and other ARI research efforts).

Realistic Battlefield Training

How to practice combat in an environment resembling realistic conditions without endangering trainees poses difficult problems. More than 30

years ago, ARI developed the first practical, realistic field training system for Army tactical units and has continued this training research program to the present. Begun as a simple method for assessing simulated casualties during collective training, the Squad Combat Operations Exercise Simulation (SCOPES) became an essential feature of the Tactical Engagement Simulation (TES; Gorman, 1992). In SCOPES, telescopes are attached to rifles, allowing soldiers to claim hits on opposing soldiers by identifying a number painted on their helmets. In this way TES exercises achieved a close parallel to combat.

SCOPES was extended to mounted forces in Realistic Training (REALTRAIN; Gorman, 1992). REALTRAIN used scopes mounted on tanks and antitank weapons to allow observers to assess target hits, and the effects of simulated mortar and artillery fire were soon added. Although REALTRAIN gave soldiers a much more accurate simulation of actual combat, it was labor intensive, requiring many people to do target assessment. The Multiple Integrated Laser Engagement System (MILES) was the answer to this problem. MILES provided a realistic battlefield training environment for soldiers by simulating direct fire in force-on-force training using eye-safe laser "bullets" from lasers mounted on rifles and guns. Each individual and vehicle in the training exercise had a detection system to sense laser hits and perform casualty assessments. MILES training has proved to dramatically increase the combat readiness and fighting effectiveness of military forces (U.S. Army Research Institute for the Behavioral and Social Sciences, 1995). To this day, MILES is the key training technology of the National Training Center, the Army's premier battle training location.

An important part of this training is the after action review (AAR). The AAR is the Army's technique for feeding back important information following collective training. This review process was developed by ARI in the mid-1970s as part of its TES training program and was influenced by Marshall's World War II oral history techniques (Marshall, 2000). ARI modified the AAR approach in its development of the MILES training system for the Army's National Training Center. Further ARI research led to an improved generation of AAR techniques as part of the Simulation Networking (SIMNET) computer-networked simulation system in the mid-1980s (see Meliza & Tan, 1996, for an example of ARI training research using SIMNET). The AAR technique is now standard in the Army and is widely used internationally (Morrison & Meliza, 1999).

LEADERSHIP AND LEADER DEVELOPMENT

In addition to its work on selection and classification and the conceptualization and measurement of individual and team performance, ARI has conducted and funded leadership research since the early 1970s. Owen

Jacobs, then chief of ARI's Leadership and Motivation Technical Area, together with his colleague Elliot Jaques, conducted an extensive leadership research program based on Stratified Systems Theory (SST; Jacobs & Jaques, 1987). SST specifies "how leader performance requirements change at different organizational levels" and thus "how leader attributes, particularly conceptual capacities, change in corresponding ways" (Zaccaro & Horn, 2003, p. 795).

ARI research based on SST concepts developed both qualitative and quantitative assessment instruments designed to measure cognitive attributes associated with effective executive leadership (Zaccaro & Horn, 2003, p. 798). In particular, SST has informed numerous training products and tools that have been used in military leader development programs and schools such as the Army War College, the National War College, and the Industrial College of the Armed Forces. Furthermore, SST conceptual principles, as elaborated by ARI research, have been adopted as part of the Army's training doctrine (Zaccaro & Horn, 2003). An ARI-sponsored research effort by Zaccaro (2001) provided an excellent overview and state-of-the-art look at executive leadership.

Recently, ARI has turned to Sternberg's theory of successful intelligence to provide a fresh, if somewhat more controversial, approach for gaining insights into leadership processes and leader development in particular (Sternberg et al., 2000). In this pursuit, Sternberg and his associates developed and validated the Tacit Knowledge of Military Leaders Inventory to measure leadership tacit knowledge (i.e., practical, largely unarticulated, procedural knowledge about leadership). They have shown this test to be a measure of practical intelligence that is different from psychometric *g*, experience, and personality but that, like SST, differs by the individual's level of organizational responsibility. In collaboration with Yale University, ARI researchers have demonstrated early success using this encapsulated tacit knowledge in training programs to accelerate the leader development processes.

ENHANCING HUMAN PERFORMANCE

The Army continuously seeks new ways to improve soldier performance through a variety of means, including new training technologies, selection and assignment procedures, engineering human—machine interactions, and even social programs. This section describes some of the key issues the Army has dealt with since World War II and the research ARI has conducted to address them.

New Age Techniques

The dictionary defines *new age* as "of or relating to a complex of spiritual and consciousness-raising movements originating in the 1980s and cov-

ering a range of themes from a belief in spiritualism and reincarnation to advocacy of holistic approaches to health and ecology" (Houghton Mifflin, 2000). In the late 1970s and into the 1980s, a variety of popular and new age human performance enhancement and assessment techniques that were called *human technologies*, such as neurolinguistic programming, parapsychology techniques, and super learning programs, captivated the attention of a group of influential Army officers. In 1984, General Thurman and other concerned Army generals turned to ARI for guidance in evaluating the scientific bases of these human technologies. Because of the often pseudoscientific nature of these technologies, the task was broad and rife with potential credibility issues. As a result, ARI contracted the National Research Council to help with these evaluations. Between 1985 and 1999, the National Research Council Committee on Techniques for the Enhancement of Human Performance published the results of its investigations in five books. Space does not permit a full description of the committee's findings; E. Salas, DeRouin, and Gade (in press) provided a good summary of the most important of these findings.

These results had far-reaching implications for the military services, for the general population, and for psychology in demystifying many popular, but unsubstantiated, programs and practices for enhancing human performance. They saved the Army millions of dollars that might have been wasted implementing practices that would have had little or no positive impact on performance. These studies also provided psychology and the military with solid recommendations for closing the gap between appealing but unsubstantiated organizational practices and theory-based research (Swets & Bjork, 1990). They also indicated how to deal effectively with similar situations in the future.

Human Factors and Ergonomics

Manpower, personnel, training, and human engineering integration (MANPRINT) is the behavioral sciences' successful response to decades of ineffective attempts to influence the development of manned systems in the Army. The concept and method of implementing MANPRINT originated at ARI in reaction to the comparability analysis approach of the Navy's Hardware/Manpower Integration (HARDMAN) I and ARI's HARDMAN II (see J. Kaplan, 1985; J. Kaplan & Hartel, 1988). Comparability analysis assumes that predecessor systems' manpower, personnel, and training by definition predict equivalent requirements for new systems. MANPRINT, in the form of HARDMAN III, was based on the concept of using simulation modeling that incorporates manpower, personnel, training, and human factors data to predict manned system performance. The object of this approach is to identify the levels of these four MANPRINT component areas that result in successful manned system performance, as defined by speed and accuracy.

ARI researchers believed that the MANPRINT concept would become particularly meaningful if it could be implemented as a fully integrated suite of simulation modeling tools that ran on a personal computer and was designed for use by analysts in these fields rather than by professional modelers. These characteristics would both reduce the cost and time of using such tools and remove the problem of specialized modelers not fully understanding the models they were creating.

HARDMAN III's software and initial data and models were completed through close cooperation between the contractors, Micro-Analysis & Design and Dynamics Research Corporation, and ARI personnel and delivered to ARI in 1992. Key data for its personnel prediction module were personnel performance data that were analyzed from the objective portion of ARI's Project A. This enabled HARDMAN III to predict performance based on ASVAB scores or AFQT category. In that same year, the Systems Laboratory of ARI, developers of HARDMAN III, was separated from ARI and became part of the Human Research and Engineering Directorate of the U.S. Army Research Laboratory. Its models were verified and validated in 1994 (see Allender et al., 1994).

A new version of HARDMAN III, the Improved Performance Research Integration Tool (IMPRINT), a Microsoft Windows application, was developed by the Human Research and Engineering Directorate in accordance with the original ARI plans. Over time, the directorate developed new versions with greater enhancements, including the ability to predict goal-oriented behavior and to model at the cognitive level by adding connections to the ACT-R theory of cognitive architecture (alternatively spelled out as Atomic Components of Thought—Rational or Adaptive Control of Thought—Rational). The current version of IMPRINT is in use at 189 locations: 75 Army, 13 Navy, 8 Air Force, 2 government non-Department of Defense locations, 10 universities, and 81 contractors (Lockett, 2000).

The Army selected IMPRINT as the modeling implementation for the Multi-University Research Initiative basic research program at Central Florida University in Orlando. This research program is attempting to understand and predict the effects of various sorts of stress and stress alleviators on human performance. HARDMAN III and its IMPRINT successor have been used to predict the following: task allocation and maintenance, level of automation, mental workload and function allocation, task allocation, maintenance manpower, level of automation, decision making, goal-oriented behavior, workload and information demands, performance degradation, job restructuring and consolidation, and information flow (Lockett, 2000).

Minorities and Women

There was a great deal of tension in race relations in the Army during the 1960s. ARI survey research helped identify the perceived sources of that

tension and provided information to the Army leadership on how effective the Army's race relations programs were in reducing those tensions. ARI conducted large-scale surveys in 1972 and 1974 to see what changes in Black and White perceptions of race relations had taken place as a result of equal opportunity interventions administered during the time between surveys. Although they found many positive changes in attitudes and opinions, race relations were still perceived as a problem by both Black and White soldiers. J. A. Thomas (1988) provided an excellent account of the details and impact of that research.

Issues concerning the number of women in the Army and their utilization arose in the mid-1970s. The Army asked ARI to develop a "Test of Women Content in Units" (U.S. Army Research Institute for the Behavioral and Social Sciences, 1977). The results of this test showed that when women constituted as much as 35% of a unit, the highest percentage in the experiment, there was no significant effect on performance. Gender-integrated training became a related issue during the same time period. Research then and again in the 1990s showed that women benefited from training with men and that men did as well as they usually did. *Women in the U.S. Army: An Annotated Bibliography* (U.S. Army Research Institute for the Behavioral and Social Sciences, 2002) provided an excellent summary of this research.

Army Family Research Program

Beginning in 1989, ARI conducted the Army Family Research Program (AFRP) in response to requirements from the chief of staff of the Army, John Wickham Jr., and subsequent Army Family Action Plans. The AFRP, sponsored by the U.S. Army Community and Family Support Center, explored the demographic characteristics of Army families and assessed the impact of family on soldier readiness and retention. The results of the AFRP research had far-reaching effects on Army family policies and programs and on similar research conducted for the other services by the Department of Defense. M. W. Segal and Harris's (1993) *What We Know About Army Families* is a highly useful, readable summary of the program findings (for additional details, see also chap. 16, this volume).

Special Forces

In 1991, ARI developed a comprehensive needs assessment for the John F. Kennedy Special Warfare Center and School and for the U.S. Army Special Operations Command that detailed the behavioral science research requirements for Special Forces and was the guiding document for the ARI's Special Forces research program during the subsequent 7 years (Brooks, 1992). L. Morgan Banks, in chapter 6 of this book, details the research this gener-

ated and the impact it had on Army Special Forces. As the U.S. Army transforms to smaller units of operation and expands its missions to include those traditionally in the purview of Special Forces, such as stability operations, ARI's Special Forces behavioral research will become more relevant and useful for the conventional Army.

CONCLUSION

The Army is undergoing a major transformation in how it organizes itself, equips its soldiers, and conducts operations in the aftermath of the terrorist attacks of September 11, 2001. The transformation of the human component of these changes is essential to the Army's overall success in meeting the challenges of a rapidly changing world. ARI is charged with the responsibility of applying new behavioral and social science approaches, methods, and technologies in its research agendas to address the human issues in this transformation. For example, to meet the Army's need for enhanced team performance, cognitive psychology research programs are under way at ARI to identify and understand the input-output cues that lead to effective collective skill development. ARI researchers are exploring the cognitive factors that facilitate and impair team formation and contribute to a sense of trust among team members. Identifying principles for developing shared mental models that influence soldiers' understanding of their commanders' intent and team performance is part of this research as well.

Recruiting and retention continue to be critical issues for the all-volunteer Army. To further address these issues, current ARI research is identifying factors that affect enlistment decision making, including demographics and motivation, and modeling how these decisions develop. Research is currently under way to identify the factors that influence retention decision making, productive behavior, and good citizenship and to model how these behaviors are acquired. Understanding the role of mediators such as personal motivation, job satisfaction, organizational commitment, values, and ethics in recruiting and retention processes is a critical part of this research. This research will enable the Army to more effectively tailor recruiting and retention practices to its changing needs.

Training in complex situations is another critical element in the Army's transformation. Today's soldiers must deal with increased cognitive demands resulting from the technology requirements of digital, semiautomated, and robotic systems. ARI's training research seeks to reduce the effects of information overload through training; to determine how individuals assign meaning and relevance to large amounts of rapidly received, ambiguous data; and to determine how to improve this ability through training. Understanding and modeling the role of feedback and feedback systems in the acquisition, retention, and transfer of individual and collective training and in motivat-

ing learned task performance are important aspects of ARI's training research. ARI research is also investigating methods for compressing training time that maximize retention and transfer of training.

In other critical research, ARI is beginning to address the adaptive value of human emotions in calibrating psychological systems in its research programs, as well as self-control and self-awareness, both of which are critical to the success of any military operation. Psychological science does not understand well how emotions, as positive and negative evaluative processes, operate together or in opposition to influence actions and cognitions. Researchers need better measures of affective processes, such as functional neuroimaging, measures of changes in brain chemistry, and more traditional psychological measures. Understanding how emotions can help people calibrate their behaviors and thoughts to achieve internal stability in difficult situations is critical to achieving effective performance on the battlefield and in other difficult military operations.

This has been but a brief overview highlighting a few of the contributions of ARI to national security through its research programs in the past, present, and future. Through its research, ARI continues to be a critical contributor to the national defense by helping the U.S. Army manage its precious human capital effectively.

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