



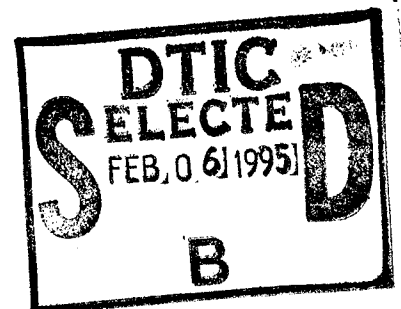
**U.S. Army Research Institute
for the Behavioral and Social Sciences**

Study Note 95-01

**Contract for Manpower and Personnel
Research and Studies for the
U.S. Army Research Institute for the
Behavioral and Social Sciences**

Annual Report

Human Resources Research Organization



19950202 018

November 1994

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

**A Field Operating Agency Under the Jurisdiction
of the Deputy Chief of Staff for Personnel**

**EDGAR M. JOHNSON
Director**

Research accomplished under contract
for the Department of the Army

Human Resources Research Organization

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REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 1994, November	3. REPORT TYPE AND DATES COVERED Interim Jun 93 - Jun 94		
4. TITLE AND SUBTITLE Contract for Manpower and Personnel Research and Studies for the U.S. Army Research Institute for the Behavioral and Social Sciences--Annual Report		5. FUNDING NUMBERS 65803D 730 1331 C1		
6. AUTHOR(S) Human Resources Research Organization				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Human Resources Research Organization 66 Canal Center Plaza, Suite 400 Alexandria, VA 22314		8. PERFORMING ORGANIZATION REPORT NUMBER --		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences ATTN: PERI-R 5001 Eisenhower Avenue Alexandria, VA 22333-5600		10. SPONSORING / MONITORING AGENCY REPORT NUMBER ARI Study Note 95-01		
11. SUPPLEMENTARY NOTES This is the first annual report in the basic Contract for Manpower and Personnel Research and Studies (COMPRS) contract.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.		12b. DISTRIBUTION CODE --		
13. ABSTRACT (Maximum 200 words) This report documents the first year of a 5-year project to provide the U.S. Army Research Institute for the Behavioral and Social Sciences short- and medium-term scientific and technical support in solving problems related to manpower and personnel. The three Contract for Manpower and Personnel Research and Studies (COMPRS) programs are (1) quick reaction; (2) attitude and opinion surveys; and (3) medium term. During the first year of the contract, 27 delivery orders were initiated. This report includes examples of problem and objective statements and summaries for each delivery order (including problem, objectives, status, results, bibliography, products, and planned documents and products). The intent is to give a very brief overview of each effort.				
14. SUBJECT TERMS Manpower Personnel		15. NUMBER OF PAGES 39		
		16. PRICE CODE --		
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited	

CONTRACT FOR MANPOWER AND PERSONNEL RESEARCH AND STUDIES FOR THE U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES—ANNUAL REPORT

EXECUTIVE SUMMARY

Requirement:

A delivery-order-type contract was needed to provide ARI non-personal short- and medium-term scientific and technical support services in solving problems related to manpower and personnel. The intent of this report is to provide an overview of the contract and of each delivery order initiated in the first year.

Procedure:

The contract was let for a 5-year performance period, 2 base years and 3 option years. It provides three programs: (1) quick reaction; (2) attitude and opinion surveys; and (3) medium term.

Results:

Twenty-two delivery orders were initiated in the first year of the contract. This report includes examples of problem and objective statements and summaries for each delivery order (including problem, objectives, status, results, bibliography, products, and planned documents and products).

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CONTRACT FOR MANPOWER AND PERSONNEL RESEARCH AND STUDIES FOR
THE U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL
SCIENCES—ANNUAL REPORT

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**Contract for Manpower Personnel Research and Studies for the
U.S. Army Research Institute for the Behavioral and Social Sciences—
Annual Report**

Introduction

This report documents the first year of a 5-year (2 base years and 3 option years) project to provide the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) non-personal, short- and medium-term scientific and technical support services in the solution of problems related to manpower and personnel. The program is referred to as the Contract for Manpower and Personnel Research and Studies (COMPRS). HumRRO's primary responsibilities are to administer the COMPRS for ARI under firm fixed-priced contracts by managing three interrelated tasks: (1) managing the COMPRS program in accordance with established operating procedures, (2) receiving and processing individual Statements of Tasks from ARI, and (3) managing, reporting project progress, and documenting delivery order completion.

There are three programs under COMPRS. They are summarized below and are presented in detail in Appendix A:

- **Quick Reaction (QR) Program** - Intended to provide ARI responsive, short-term research or studies and analysis dealing with manpower and personnel issues for which ARI in-house capability is not available. Each of the QR Program delivery orders (DOs) shall be completed within a period of time specified in the DO, with the maximum allowable completion normally being within 12 months of the date of the DO.
- **Attitude and Opinion Survey (AOS) Program** - Intended to give ARI the ability to conduct surveys to provide information for accession and force management decision making. Each of the AOS Program DOs shall be completed within a period of time specified in the DO, with the maximum allowable completion normally being within 12 months of the date of the DO or 18 months if OMB approval is required.
- **Medium-Term (MT) Program** - Intended to give ARI the ability to conduct a limited number of research efforts or studies and analyses whose duration would not normally exceed 24 months after the contractor receives the DO.

Summary of First-Year Activities

During the first year of the contract, 22 delivery orders were initiated, to include DO# 0001, which provides for the overall management of the COMPRS. The remaining 21 delivery orders were divided among the three program areas as follows: QR Program, 12 DOs; AOS Program, 7 DOs; and MT Program, 2 DOs. Examples of the problem and objective statements for several delivery orders under each program area are shown in Figures 1-3, respectively.

DO# 0002

Title: Evaluation of the Effectiveness of Job Assistance Centers in the Army Career and Alumni Program (ACAP)

Problem: The Army required a proposal to evaluate the effectiveness of Job Assistance Centers that are part of the Army Career and Alumni Program (ACAP). The proposal was needed to determine the level of resources required to carry out a full-scale evaluation and to allocate funding and data sources.

Objectives: The objective of this project was to provide the Army Career and Alumni Program with a comprehensive evaluation plan that reflects the value to the Army and to the civilian sector of the efforts of Job Assistance staff members to prepare individuals to look for jobs.

DO# 0004

Title: Gender Integration of Basic Training

Problem: The U.S. Army wanted to study the attitudes of trainees and cadre toward gender-integrated and same gender basic entry training. Prior research has evaluated the performance of basic entry trainees in gender-integrated and same gender squads. However, the research did not measure the attitudes and opinions of either the trainees or training cadre of gender-integrated and same gender basic training squads.

Objectives: The proposed effort aimed at complementing earlier work. This effort had the following objectives: (1) To collect information on the attitudes and opinions of soldiers and training cadre about basic entry training in same gender and gender-integrated squads; (2) to describe training activities in the squads; (3) to assess performance by females and males in the squads; and (4) to identify changes--if any--in attitudes towards training and the performances of females and males. The results will be used to determine Army policy on gender integration of basic training.

Figure 1. Example delivery orders for QR program.

DO# 0003

Title: Surveys of Nurses and Nursing Students

Problem: The Army needs to obtain attitudes and perceptions of employed civilian nurses and nursing students toward serving in the Army Nurse Corps. The effects of Operation Desert Shield/Storm and military downsizing on attitudes are of particular concern. This effort involves collecting survey data, analyzing data, and developing the database and supporting documentation.

Objectives: The objective of this project is to provide the Army with information on the nurse prospect market, by assessing attitudes and perceptions of nursing students and civilian nurses toward Army service. Comparative information about nurses' perceptions of military nursing and civilian nursing is needed to support Army advertising policy and enlistment incentive strategies in the post-Operation Desert Storm era.

DO# 0015

Title: Revision of the Army Career Transition Survey (ACTS)

Problem: ARI developed an exit survey instrument, the Army Career Transitions Survey (ACTS), which is designed to be administered to soldiers who are separating from the Army. In a recent evaluation of the ACTS, a number of concerns were raised about the content of the ACTS and the procedures currently being used to administer the survey. Questions about the usefulness to sponsoring organizations within the Army of the data collected were also raised as were issues concerning the representativeness of the survey respondents.

The Office of the Deputy Chief of Staff of Personnel (ODCSPER, HRD) subsequently has asked ARI to revise the ACTS to insure that it addresses the specific areas of interest to Army planners and policy makers. To accomplish this task, the appropriate Army Commands will be interviewed to identify the topics of interests, the items on the current version will be reviewed and revised, and standardized administrative procedures will be developed for all administration sites.

Objectives: The objective of this project is to provide the Army with a revised exit survey that contains items that address the most important issues of interest to the Army. In addition, to help insure data consistency, completeness, and usefulness, administration procedures for ACTS will be revised.

This effort is designed to provide retention planners with better information about the reasons that made soldiers think about leaving the Army, and will provide improvements in the methods of monitoring trends and cycles. It will provide recruiting and marketing planners with enhanced indicators of the advice returning veterans are giving the Army's youth market.

Figure 2. Example delivery orders for AOS program.

DO# 0020

Title: Development of Measures for Sinai Peacekeeping

Problem: The purpose of this effort is to develop peacekeeping performance measures as part of a larger program to select candidates for peacekeeping operations. Behaviorally-based rating scales and job knowledge tests are to be developed to be used as performance criteria against which to validate selection measures currently being developed at ARI.

Objectives: The objective of this work is to develop measures of individual peacekeeping performance in the Sinai.

DO# 0022

Title: Impact of Battalion Peacekeeping Requirements on the Sponsoring Army National Guard Division

Problem: The ARI Field Unit at Boise, Idaho, is currently engaged in research on the personnel, training, and family support issues affecting the deployment of a battalion-sized unit composed of both Active Component (AC) and Reserve Component (RC) units for a peacekeeping mission in the Sinai desert. Historically, this battalion has been drawn from the 82nd and 101st Airborne Divisions. However, now the battalion will consist of 400 volunteers from the 29th Infantry Division (ID) (Light), Army National Guard (ARNG), 113 AC soldiers, and 41 U.S. Army Reserve (USAR) soldiers (primarily Individual Ready Reserve (IRR) volunteers from around the nation).

Objectives: The objectives of this effort are to identify and document the personnel and training impact of peacekeeping battalion requirements on the ARNG's 29th ID during and after its period of peacekeeping mission sponsorship.

Figure 3. Example delivery orders for MT program.

Summaries for each delivery order follow. Each summary provides the following information:

- The delivery order number and title.
- The program area.
- The delivery order contracting officer's representative (DO-COR), assistant DO-COR, if one is assigned, and the contractor's project director.
- A statement of the problem.
- The objectives of the delivery order effort.

- The delivery order status (either ongoing or completed), to include the dates.
- The results (if completed) or the results to date (if ongoing).
- Three sections describing documents and products--a bibliography section, a products section, and a section on planned documents and products. These final sections include only the most significant documents and products, not the standard requirements of each delivery order, such as a management plan, or data collection instruments, and the like. Each delivery order has a final report associated with it. That document is identified as [Final Delivery Order Report] and is either in the Bibliography for completed efforts or in the Planned Documents and Products for ongoing efforts.

These summaries make no attempt to provide significant detail about a particular delivery order; that information can be provided by the DO-COR upon request. The summaries are intended to give a very brief overview of each effort as well as to provide a snapshot of the year's activities.

DO# 0001	Title: Contract Administration/Reports/Other Deliverables
Program Area QR _____ AOS _____ MT _____	DO-COR: Dr. David Witter DO-ACOR: Project Director: Mr. James H. Harris
DO Summary	
Problem: Providing information on manpower and personnel issues to Army decision-and policy-makers is often a complex, dynamic, multi-stage, iterative process. The accuracy and timeliness of information provided to decision makers are of paramount importance in affecting the quality of decisions and policies. Over the next decade, the U.S. Army will experience an increasing requirement to bring individuals into the Army who are trainable in a wide variety of skill areas. To meet and maintain its high quality manpower needs of the 1990's, the Army will have to develop and implement programs that allow it to locate, assess, assign, and use human resources more efficiently and effectively than it ever has before. As new Army policies are being developed to enhance the Army's ability to man the force, the Army needs programs of research and studies that will provide a quick response mechanism to gather and analyze data on the expected or actual short-term effectiveness of those policies. Scientific and technical support services are being used that lead to the development and implementation of programs of research and studies on the expected or actual effectiveness of Manpower, Personnel, and Training (MPT) programs. These efforts are part of ARI's MPT program to man the force by conducting research and studies to improve the Army's ability to recruit, identify, assess, classify, assign, lead, train, and maintain the personnel required for the Army.	
Objectives: The objectives of this delivery order are to administer the Contract for Manpower and Personnel Research and Studies (COMPRS) for ARI under firm fixed-priced contracts by managing three inter-related tasks: (1) managing the COMPRs program in accordance with established operating procedures, (2) receiving and processing individual Statements of Tasks from ARI, and (3) managing, reporting project progress, and documenting delivery order completion.	
Status: Ongoing (July 1, 1993-June 30, 1995)	
Results: Described further under each Delivery Order Summary	
Bibliography: See Delivery Order Summary	
Products: The following Delivery Orders were issued during this report year: ● DO 0001 Contract Administration/Reports/Other Deliverables ● DO 0002 Evaluation of the Effectiveness of Job Assistance Centers in the Army Career and Alumni Program (ACAP) ● DO 0003 Survey of Nurses and Nursing Students ● DO 0004 Gender Integration of Basic Training ● DO 0005 Design and Develop Prototype Army Officer Personnel Inventory, Cost and Compensation (OPICC) Model ● DO 0006 Evaluation of Job Assistance Centers in the Army Career and Alumni Program (ACAP) ● DO 0007 Army Tests, Evaluations, and Experimentation with Army Combat Division Structure ● DO 0008 1991 Guard/Reserve Survey of Officers and Enlisted Personnel: File Weighting ● DO 0009 Sampling Plan for the 1994 Health Care Survey of DoD Beneficiaries ● DO 0010 Economic and Occupational Analyses of 1992 DoD Reserve Surveys ● DO 0011 Methods for the Evaluation of C2 Systems ● DO 0012 Improving Family Adaptation to the Stresses of Family Life ● DO 0013 Support for Review of Army Occupational Survey Program ● DO 0014 1993 Population Representation in the Military Services Report (POPREP93) ● DO 0015 Revision of the Army Career Transition Survey (ACTS) ● DO 0016 Update of Army Research Institute's Officer and Enlisted Personnel Research Data Bases for 1993 and 1994 ● DO 0017 Preparing a Book on Computerized Adaptive Testing Version of the Armed Services Vocational Aptitude Test Battery (CAT-ASVAB) ● DO 0018 Exploring Human Dimensions of Battle Command ● DO 0019 Phase 1: Promotion and Professional Development in a Smaller, CONUS-based Army ● DO 0020 Development of Measures for Sinai Peacekeeping ● DO 0021 Longitudinal Research on Officer Careers (LROC) ● DO 0022 Impact of Battalion Peacekeeping Requirements on the Sponsoring Army National Guard Division	
Planned Documents and Products: See Delivery Order Summary	

DO# 0002	Title: Evaluation of the Effectiveness of Job Assistance Centers in the Army Career and Alumni Program (ACAP)
Program Area QR ☒ AOS ☐ MT ☐	DO-COR: Dr. Joan Harman DO-ACOR: Project Director: Dr. Robert Sadacca DO Summary
Problem: The Army required a proposal to evaluate the effectiveness of Job Assistance Centers that are part of the Army Career and Alumni Program (ACAP). The proposal was needed to determine the level of resources required to carry out a full-scale evaluation and to allocate funding and data sources.	
Objectives: The objective of this project was to provide the Army Career and Alumni Program with a comprehensive evaluation plan that reflects the value to the Army and to the civilian sector of the efforts of Job Assistance staff members to prepare individuals to look for jobs.	
Status: Completed (July 21, 1993-August 13, 1993)	
Results: Job assistance centers (JAC) provide assistance to Army service personnel, civilian employees, and their family members who are transitioning from military jobs to employment in the civilian sector. Services provided by the JAC are designed to prepare individuals for a successful job search. The centers run under auspices of the Army Career and Alumni Program (ACAP) which is part of the DoD Transition Assistance Program. The National Defense Authorization Act of 1991 requires that the Departments of Defense, Labor, and Veterans Affairs provide job transition assistance to military and civilian personnel who would lose their jobs due to installation closures and the downsizing and consolidation of military units. The JAC program is the Army's response to that mandate. The Department of Labor (DoL), also in response to the Congressional mandate, has established Transition Assistance Offices (TAO) near DoD installations nationwide. The JAC and TAO often serve the same Army and other DoD installations. The programs of assistance provided by the JAC and TAO, however, are designed to complement each other. The DoL program provides group seminars or classes designed to increase the general job search skills of the separating service personnel. The JAC, on the other hand, provide more individualized counseling services geared to the particular vocational experience and plans of the transitioning soldiers, Army civilians, and their family members. Questions have been raised about the cost effectiveness of maintaining the JAC program at locations where the DoL program is also available (the DoL program is not available overseas). Specifically, the added value of the JAC program to transitioning Army personnel and their family members has been questioned by the DoD Inspector General. Essentially, this evaluation of the JAC is being conducted to determine the answer to three basic questions: 1. How do JAC clients compare with non-JAC clients in regard to post-separation employment? 2. Which JAC services have the most impact on success in achieving employment? 3. Considering the additional costs of providing JAC services, are the added benefits derived from the program cost effective? The first question can be answered in a number of ways depending upon the aspect of employment/unemployment examined. Several types of program criterion or outcome measures could be obtained on separate samples; these measures would constitute the dependent variables in the planned multivariate analyses. The analyses would focus on differences in post-separation employment of recipients and non-recipients of JAC services while controlling for personal and family factors and the military job experience of the sampled individuals. The answer to the second question would also be answered through multivariate analyses. Whether or not individuals received given JAC services can be ascertained from the JAC database and confirmed in follow-up interviews. Variables measuring receipt/nonreceipt of particular services can be created. The effects (direct, indirect, and total) of these measures on the outcome measures can then be ascertained within the context of model(s) that attempt to capture the interrelationships among all the variables of interest. The third question may be the most difficult to answer. Assuming that the multivariate analyses indicate that individuals who received JAC services are more successful in obtaining post-separation employment, the employment differential or program benefits obtained must be evaluated in terms of the monetary costs of providing the job assistance services.	
Bibliography: Sadacca, R., Harris, D.A., & Laurence, J.H. (1993). <u>Plan for the evaluation of Job Assistance Centers</u> . HumRRO Final Report FR-PRD-93-25. Alexandria, VA: Human Resources Research Organization (HumRRO). [Final Delivery Order Report]	
Products:	
Planned Documents and Products:	

DO# 0003	Title: Surveys of Nurses and Nursing Students
Program Area QR _____ AOS <u> X </u> MT _____	DO-COR: Dr. Ronald B. Tiggie DO-ACOR: CPT Mike Stehlik Project Director: Dr. Peter F. Ramsberger DO Summary
Problem: The Army needs to obtain attitudes and perceptions of employed civilian nurses and nursing students toward serving in the Army Nurse Corps. The effects of Operation Desert Shield/Storm and military downsizing on attitudes are of particular concern. This effort involves collecting survey data, analyzing data, and developing the database and supporting documentation.	
Objectives: The objective of this project is to provide the Army with information on the nurse prospect market, by assessing attitudes and perceptions of nursing students and civilian nurses toward Army service. Comparative information about nurses' perceptions of military nursing and civilian nursing is needed to support Army advertising policy and enlistment incentive strategies in the post-Operation Desert Storm era.	
Status: Ongoing (July 29, 1993-July 25, 1994)	
Results: The Army Nurse Corps (ANC) is made of some 4,000 Registered Nurses (RNs). To maintain readiness, approximately 500 new recruits must be enlisted each year. Data regarding the field of nursing and perceptions of the ANC among current and future RNs are required to accomplish this objective. Therefore, the 1993 U.S. Army Survey of Registered Nurses and Survey of Nursing Students is being conducted to collect information on such issues as reasons for entering the profession, satisfaction with various aspects of nursing, future plans, and perceptions of Army nursing. A report was prepared to supplement the survey data by providing an overview of the profession at a time of rapid and far-reaching change. Among the major findings are the following: ● For many years, discussions regarding the field of nursing were dominated by concern over an on-going shortage of RNs. This shortage was attributed to a number of factors, including: a smaller number of well-prepared, college-bound youth; a failure to attract sufficient numbers of individuals to the field, and; a decrease in job satisfaction due to relatively low pay and prestige, as well as working hours and conditions. ● Beginning around 1991, hiring freezes and hospital staff cutbacks led to a reversal of the nurse shortage. The national vacancy rate for hospital RN positions fell to 5 percent in 1992, as compared to 11 percent just two years earlier. The military also saw recruiting problems diminish; in 1993 the Army Nurse Corps actually surpassed its mission for active duty RNs. This sudden reversal of fortunes is not attributable to a decrease in demand, but rather to changing health care practices (e.g., shorter hospital stays, more out-patient and alternative setting care), as well as a trend within the health care profession to hold down costs by doing more with less. ● An examination of the demographics of the nursing profession reveals that, although the field is still predominately female (96.5 percent), there has been an upward shift in age among both new and established RNs. The majority of working RNs are now in their thirties and forties. As might be expected, the percentage of male nurses is higher in the military, representing 28 percent of the Army Nurse Corps (ANC). Minority participation in the field is rising in both the civilian and military arenas. ● The number of Associate, Bachelor, and graduate degree programs is increasing in response to an expanded demand for nursing education. This demand is reflected in the greater numbers of applications denied, and an increase in the incidence of waiting lists for admission to nursing programs. In 1991 there were increases in the number of graduations from associate degree (10.6 percent), diploma (18.7 percent), bachelors (8.8 percent), and graduate (6-8 percent) programs. In the ANC, some 20 years after instituting a Bachelor of Science in Nursing (BSN) requirement for acceptance, 100 percent of Army nurses now have BSNs, while some 35 percent hold advanced degrees. ● In recent years, efforts have been made to establish higher starting salaries and a greater link between educational attainment and earnings. However, concerns still exist that the upper limits on RN salaries results in wage compression, with relatively smaller differences (as compared to other fields) between the earnings of those with varying levels of tenure. ● Among the incentives that have been used to recruit and retain nurses are educational benefits, career advancement and development opportunities, participatory management, flexible working hours, on-site child care, and cash incentives/bonuses. To be effective, the type of benefits offered must correspond to the needs of those being sought. Given the upward shift in the ages of both incumbent and new RNs, an emphasis on the concerns of the more mature employee is warranted.	

Both military and civilian nursing are going through a time of great change. On the civilian side, the move towards "rightsizing" and other forms of increasing profits through greater efficiency has led to a tightening of the RN market, particularly for newly-graduated nurses. How long this situation will continue is uncertain. Factors that could well lead to another nursing shortage include the aging population, the AIDS epidemic, and national health care proposals that include an increased role for nurses in health care administration. Military nursing is also in a state of flux, as the drawdown is resulting in a reduction in the number of RNs that will be recruited and/or retained. Further, there is evidence that the downsizing is having a negative impact on the propensity of youth to consider serving.

The 1993 U.S. Army Survey of Registered Nurses and Survey of Nursing Students is being conducted at a time of real change in the profession. The opinions and experiences of current and future RNs should provide insight into how these changes are effecting the perceptions of Army nursing, as well as the profession as a whole.

Bibliography:

Lerro, P., Ramsberger, P., DiFazio, A., & Barnes, J. (1993). Final survey administration plan. Alexandria, VA: Human Resources Research Organization (HumRRO).

Schultz, S.R., & Brown, K.M. (1994). Nursing in the nineties: Profile of a profession at the crossroad. Alexandria, VA: Human Resources Research Organization (HumRRO).

Products:

Survey of Nurses and Nursing Students. Delivery Order 0003, CLIN No. 0002AA.

Planned Documents and Products:

Survey of Total Army Military Personnel (STAMP) Report.

Code Book for Survey of U.S. Army Registered Nurses.

Code Book for Survey of Student Nurses.

Final Report: Survey of Nurses and Nursing Students. [Final Delivery Order Report]

DO# 0004	Title: Gender Integration of Basic Training
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. Jacqueline A. Mottern DO-ACOR: Dr. Morris P. Peterson Project Director: Dr. Shelley Perry
DO Summary	
Problem: The U.S. Army wanted to study the attitudes of trainees and cadre toward gender-integrated and same gender basic entry training. Prior research has evaluated the performance of basic entry trainees in gender-integrated and same gender squads. However, the research did not measure the attitudes and opinions of either the trainees or training cadre of gender-integrated and same gender basic training squads.	
Objectives: The proposed effort aimed at complementing earlier work. This effort had the following objectives: (1) To collect information on the attitudes and opinions of soldiers and training cadre about basic entry training in same gender and gender-integrated squads; (2) to describe training activities in the squads; (3) to assess performance by females and males in the squads; and (4) to identify changes—if any—in attitudes towards training and the performances of females and males. The results will be used to determine Army policy on gender integration of basic training.	
Status: Completed (August 2, 1993-March 31, 1994)	
Results: Male and female soldiers entered basic training centers (BCT) with a strong sense of pride and commitment to the Army and a positive opinion about Army career opportunities and values. Although, overall, males seemed a bit more confident, both genders expressed a high degree of confidence in their ability to accomplish specific BCT events successfully, as well as cope with the demands of a military environment. BCT appears to have been a very positive event for the soldiers in the sample. Most (between 50 and 80 percent), regardless of their self-reported entry-level ability, reported some type of improvement as a result of the training. Response differences across the eight postsurvey composites appeared to be associated more with the gender of the soldier than the type of training (i.e., single-gender or gender-integrated) received. Female responses were significantly more positive than males in the areas of men and women in combat and leadership, affirmative pressure from drill sergeants, perceptions of gender differences, and impact of gender integration. Male responses were significantly more positive than females in the areas of Army career opportunities and values, and platoon teamwork/cohesion. No overall gender differences were noted for responses to pride and commitment to the Army, and confidence in drill sergeants. Comparisons of soldiers receiving the single-gender BCT to soldiers receiving the gender-integrated BCT revealed significant differences only in the following four areas: men and women in combat and leadership, confidence in drill sergeants, affirmative pressure from drill sergeants, and perceptions of gender differences. The responses of the single-gender trained group were more positive in all four of these areas. Single-gender males, compared to males trained in the gender-integrated environment, were consistently more positive in the areas of platoon teamwork/cohesion, confidence in drill sergeants, affirmative pressure from drill sergeants, and perceptions of gender differences. These were the only significant differences noted when comparing the two groups. Females trained in the gender-integrated units were significantly more positive than females trained in single-gender units in their response to items addressing platoon teamwork/cohesion, confidence in drill sergeants, and perceptions of gender differences. Single-gender trained females were more positive about affirmative pressure from drill sergeants. Changes in soldier attitudes/opinions, as a result of BCT, were measured in the following areas: Army career opportunities and values, pride and commitment to the Army, and men and women in combat and leadership. Significant changes in soldier attitudes/opinions were observed across all three of these areas. Overall, except for females who did not record a change in attitude/opinions, shifts were positive with regard to Army career opportunities and values. All changes were in a negative direction for pride and commitment to the Army, and men and women in combat and leadership. No changes in soldier career plans were noted. Training cadre were much more positive toward the conduct of BCT in a single-gender environment than a gender-integrated environment. They recommended that gender integration of the soldier's initial entry training be initiated at the time of advanced individual training, not during BCT.	
Bibliography: Perry, M.S., Helmick, J.C., Hintze, D.W., & Marshall-Mies, J.C. (1994). <u>Gender integration of basic entry training: A study of soldier attitudes toward single-gender and gender-integrated training</u>. Final Study Report Volume I. Rockville, MD: Westat, Inc. [Final Delivery Order Report] Marshall-Mies, J.C., Perry, M.S., Helmick, J.C., & Hintze, D.W. (1994). <u>Gender integration of basic entry training study, focus group results</u>. Final Study Report Volume II. Rockville, MD: Westat, Inc. [Final Delivery Order Report] Helmick, J.C., Hintze, D.W., & Perry, M.S. (1994). <u>Gender integration of Basic entry training study, technical manual</u>. Rockville, MD: Westat, Inc.	

Products:

Final Analysis Plan. Delivery Order 0004, CLIN No. 0002AQ.

Final Focus Group Procedures and Protocols. Delivery Order 0004, CLIN No. 0002AN.

Final Questionnaires. Delivery Order 0004, CLIN No. 0002AK.

Final Survey Materials. Delivery Order 0004, CLIN No. 0002AL.

Planned Documents and Products:

DO# 0005	Title: Design and Develop Prototype Army Officer Personnel Inventory, Cost and Compensation (OPICC) Model
Program Area QR <u>X</u> AOS _____ MT _____	DO-COR: Dr. Peter M. Greenston DO-ACOR: LTC Brad Loo Project Director: Dr. Patrick C. Mackin
DO Summary	
Problem: In the present downsizing environment, brought on by diminished external threats and lower defense budgets, there is a pressing (and on-going) need for an improved analysis capability within the Army for personnel and manpower policy and officer management. The 7th QRMCC has proposed changes in compensation policy. The implications of these changes need to be addressed. For example, the impact upon officer quality and experience distributions of a 15 year retirement program should be assessed. In moving toward a smaller force structure, the potential impacts of various proposals have to be understood, such as early separation incentives, changes in promotion rules and practices, and signing bonuses following completion of initial service obligation. There is a continuing need to ascertain the impact of various military compensation proposal changes, taking into account projected labor market conditions and civilian wage growth. To meet this need the Army requires a PC-based policy analysis model in which compensation and other personnel policy changes can be expressed in model variables and/or parameters, the effects upon retention determined, consequent impact upon inventories projected, and the impact upon personnel costs estimated.	
Objectives: The objective of this project is to design, code, test, and implement a PC-based policy analysis model suitable for examining the effects of compensation and other personnel policy changes upon the inventory of Army officers, and for predicting these effects over a seven-year projection horizon.	
Status: Ongoing (August 27, 1993-July 1, 1994)	
Results: The retention model to be developed and estimated as a part of the Officer Personnel Inventory, Cost and Compensation (OPICC) system model will be similar to the ACOL-2 (panel probit) model described in Mackin, Hogan, and Mairs (1993).¹ The ACOL-2 model of retention, as described in Mackin, et. al. (1993) captures annual voluntary officer retention (stay/leave) decisions for officers from the end of the initial service commitment until year of service 11. It requires panel data—observations on an individual's retention decision as the officer progresses through a career—in order to account for the effects of officers systematically selecting themselves out of the Army. Explicit modeling of this process is necessary in order to obtain unbiased estimates of the effects of other variables, such as the measure of the financial incentive to stay, in the model. Econometric estimation of the retention model is not an end in itself. Rather, the resulting retention equation will serve as a component of the overall OPICC model. The model will be used to predict changes in aggregated retention rates, along the dimensions of the OPICC inventory projection model, as a function of changes in projected military and civilian pay, and the state of the civilian economy. The model will be an "all-Army" model in that it will incorporate all officer branches in the OPMD Army population. Several key specification issues that arise in the all-Army model include: Cross-branch effects in the specification; decisions points beyond year of service 11; civilian earnings equation; and link between retention and promotion/performance.	
Bibliography: <u>Specification of the OPICC retention model.</u> (1993). Delivery Order 0005, CLIN No. 0002AD. Falls Church, VA: SAG Corporation. Author. <u>Officer personnel inventory, cost and compensation model.</u> (1994). Delivery Order 0005, CLIN No. 0002AE. Falls Church, VA: SAG Corporation. Author.	
Products:	
Planned Documents and Products: Final Study Report. Delivery Order 0005, CLIN No. 0002AL. [Final Delivery Order Report]	

¹ Mackin, P.C. Hoagn, P.F. & Mairs, L.S. (1993). A multiperiod model of U.S. Army officer retention decisions. (ARI Technical Report, forthcoming). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

DO# 0006	Title: Evaluation of Job Assistance Centers in the Army Career and Alumni Program.
Program Area QR _____ AOS <u> X </u> MT _____	DO-COR: Dr. Joan Harman DO-ACOR: _____ Project Director: Dr. Janice Laurence DO Summary
Problem: The Army needs to evaluate the effectiveness of Job Assistance Centers (JAC) that are part of the Army Career and Alumni Program (ACAP). This work entails interviewing DoD individuals who have been separated from their military or civilian jobs about their employment status. Job assistance centers provide assistance to Army service personnel, civilian employees, and their family members who are transitioning from military jobs to employment in the civilian sector. Services provided by the JAC are designed to prepare individuals for a successful job search. The centers run under auspices of the ACAP which is part of the DoD Transition Assistance Program. The National Defense Authorization Act of 1991 requires that the Departments of Defense, Labor, and Veterans Affairs provide job transition assistance to military and civilian personnel who would lose their jobs due to installation closures and the downsizing and consolidation of military units. The JAC program is the Army's response to that mandate. The Department of Labor (DoL), also in response to the Congressional mandate, has established Transition Assistance Offices (TAO) near DoD installations nationwide. The JAC and TAO often serve the same Army and other DoD installations. The programs of assistance provided by the JAC and TAO, however, are designed to complement each other. The DoL program provides group seminars or classes designed to increase the general job search skills of the separating service personnel. The JAC, on the other hand, provide more individualized counseling services geared to the particular vocational experience and plans of the transitioning soldiers, Army civilians, and their family members. Questions have been raised about the cost effectiveness of maintaining the JAC program at locations where the DoL program is also available (the DoL program is not available overseas). Specifically, the added value of the JAC program to transitioning Army personnel and their family members has been questioned by the DoD Inspector General. Essentially, this evaluation of the JAC is being conducted to determine the answer to three basic questions: 1. How do JAC clients compare with non-JAC clients in regard to post-separation employment? 2. Which JAC services have the most impact on success in achieving employment? 3. Considering the additional costs of providing JAC services, are the added benefits derived from the program cost effective?	
Objectives: The objective of this project is to provide ACAP managers with data that will reflect the value to the Army and to the civilian sector of the efforts of JAC staff members to prepare individuals to look for jobs outside of DoD. The data will permit ACAP to project program requirements and allocate appropriate resources to meet future needs.	
Status: Ongoing (September 14, 1993-January 13, 1995)	
Results: A sampling plan for the evaluation was prepared. The objective of the sampling plan is to ensure that specific sample sizes are achieved in subdomains of ex-military and ex-Army civilian personnel which are critical to the evaluation of JAC. To evaluate the performance of the JAC in the wake of installation closures, downsizing, and the consolidation of military units, multivariate analyses will be used to (1) compare the post-separation employment of recipients and nonrecipients of services provided by JAC; (2) measure the impact of the various job assistance services on achieving employment; (3) assess whether the program benefits are worth the cost of providing the job assistance services. How the sample is allocated to these subdomains will affect the power of the multivariate analyses. The sample should be allocated to the subdomains of interest so that significant differences in outcome measures can be detected by the multivariate analyses with a high likelihood.	
Bibliography: <u>Final sampling plan.</u> (1993). Delivery Order 0006, CLIN No. 0002AF. Alexandria, VA: Human Resources Research Organization. Author.	
Products: The Transition Assistance Survey. Delivery Order 0006, CLIN No. 0002AG. Supporting Statement for Request for OMB Approval. Delivery Order 0006, CLIN No. 0002AH.	
Planned Documents and Products: Final Report. Delivery Order 0006, CLIN No. 0002AR. [Final Delivery Order Report]	

DO# 0007	Title: Army Tests, Evaluations, and Experimentation with Army Combat Division Structure
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. T. Owen Jacobs DO-ACOR: Dr. Carlos K. Rigby Project Director: Mr. James H. Harris DO Summary
Problem: The U.S. Army is in a period of transition unmatched by any other period in history. Military history records many examples of "build-up to meet threat/build-down when threat no longer exists." But nowhere is there any record of a transition period that had to deal with a geo-political situation in which the U.S. constituted the single, dominant global military force with known future requirements across a spectrum of possible conflicts, but with much higher focus on the lower end of the conflict spectrum. The Army's operations doctrine reflects the philosophies and procedures for fighting at the high end of the conventional portion of the war spectrum; however, that doctrine is being revised to reflect the expanded requirement to operate effectively in the new threat environment. Previous military doctrinal transitions have usually followed a cycle of: threat elimination, downsizing, emergence of new threat, emergence of new doctrine to meet that threat, and development of new military structures to execute the new doctrine in the new operational environment. These steps are not always sequential; when able to anticipate events, the Army can pursue some of these steps in parallel. That is the current case. Efforts toward developing new doctrine began nearly simultaneously with the first downsizing steps, and it seems probable that work toward developing new divisional structures will follow the publication of new operational doctrine, prior to completing downsizing. In that sense, the current downsizing presents an opportunity to restructure the force. Before presenting restructuring plans, however, a systematic compilation of previous restructuring test, evaluation, and experimentation literature needs to be made. Such a compilation, done systematically and interpreted in light of threats and operational doctrine then-existent, would appreciably aid in the anticipated restructuring work.	
Objectives: The objective of this research effort is to locate, collect, catalogue, and abstract the available test, evaluation, and experimentation literature in the arena of military restructuring.	
Status: Completed (September 15, 1993-June 15, 1994)	
Results: The U.S. Army faces unprecedented changes as the 21st Century approaches. While specific aspects of this change vary depending on the source and date, projections share a common view of future trends: Declining resources in the face of more demanding challenges. As part of the response to the challenge, the Chief of Staff, Army (CSA) has directed study into reshaping the Army's combat organizations to be more versatile (U.S. Army, June 1993). A likely question for this redesign is "How have divisions evolved to their current status?" The project reported here is a response to a request from senior Army leadership, through the Deputy Chief of Staff Personnel (DCSPER), to collect documents which help answer that question. The scope of the initiatives to be considered was determined through interviews with experts on division design. The principal expert was Mr. Robert Keller of Combat Developments, Force Design Directorate, Combined Arms Center at Fort Leavenworth, KS. Based largely on his recommendations, the focus was set on post-Vietnam initiatives in general and the following in particular: ● Division Restructuring Study/Evaluation (DRS/DRE) ● Army 86: Division 86 (Heavy) and Infantry Division (Light) ● High Technology Light Division (HTLD) ● Army of Excellence (AOE): Light Infantry Division (LID) and Heavy Division ● Future Design: Trends and Recommendations As documents were collected, the pertinence of the Triple Capabilities (TRICAP) study became apparent and it was added to the list. The initial sources of documents were searches of the Defense Technical Information Center (DTIC) and interviews of design experts. One of the major results of the interviews was a very useful history by Major Glen Hawkins. Most of the documents were ultimately collected from four sites: ● The Force Design Directorate (FDD). Mr. Keller has developed a detailed reference section that was especially valuable for documenting AOE and Army 86 and for concepts for the other initiatives. The reference section is an excellent source for briefings and memoranda of results of the briefings, including the Force Design Up-dates (FDU) to CSA. ● Office of the TRADOC Historian. Mr. John Romjue has compiled a very detailed and well organized archive related to DRS/DRE and Army 86. The references form the structure of his excellent histories on the evolution of the Mobile Defense and AirLand Battle doctrines and the procedures for Army 86.	

- Army Development and Employment Agency (ADEA). LTC Reynolds provided a list of publications related to the HTLD. Most of those publications were available through the Defense Technical Information Center. LTC Reynolds sent copies of documents that were not in DTIC. Mr. Joseph Huddleston also provided a draft copy of his history of the HTLD.

- Test and Experimentation Command (TEXCOM) Technical Library. Mrs. Rives, the technical librarian, coordinated access to documents related to TRICAP and DRS/DRE. The TRICAP documents are classified SECRET.

Two hundred documents were reviewed. A copy of each document (except for 12 Secret documents) has been delivered to the Army Research Institute, Alexandria VA. The documents are organized by initiative and are filed by code number that is indicated on the summary prepared for each document. Those summaries are found in the appendixes to be described next.

During the planning phase of the project, one of the authors--General (Retired) Edwin H. Burba, Jr.--outlined insights on the characteristics that define Army organizations. These characteristics were used as a framework in selecting documents for inclusion. The characteristics, along with an example of applying the characteristics to current divisions, are included as Appendix A.

During the review of the first draft of the abstracts, the need for an overview of each initiative became apparent. GEN (R) Burba recommended that the initiatives be summarized in a format that would be suitable for a briefing to senior Army leadership. The resulting summaries are included in Appendices B through H. The summaries include:

- Chronology of design initiatives in the 20th Century
- Summary of each initiative, including overview, conceptual features, and organizational features
- Trends and recommendations: Lessons learned that appear to be applicable for future design efforts.

Summaries of the interviews are enclosed as Appendix I. Project staff also surveyed civilian literature on force design. Documents identified through that phase were also delivered to ARI. These documents mainly address the geo-political environment. While this may be useful for understanding the context of force design initiatives, these documents were considered too peripheral to justify devoting contract resources to develop abstracts.

All the references cited in the report, as well as the summaries prepared, are contained in a separate database system that identifies all references by using relevant subject area terms. We used a database system called "askSam Systems" to compile the bibliographic information. The system combines features of a text retrieval system with those of a database management system and manages the information whether it is fielded, textual, or a combination of the two. Interested readers may contact ARI for information regarding the database.

Bibliography:

Ford, P., Burba, E.H., Jr., & Zugel, R.J. (1994). Review of division structure initiative. HumRRO Final Report FR-PRD-94-15. Alexandria, VA: Human Resources Research Organization. [Final Delivery Order Report]

Products:

Planned Documents and Products:

DO# 0008	Title: 1991 Guard/Reserve Survey of Officers and Enlisted Personnel: File Weighting
Program Area QR _____ AOS <u> X </u> MT _____	DO-COR: Dr. Ronald B. Tiggie DO-ACOR: Ms. Dianne J. Murphy Project Director: Dr. Michael Wilson DO Summary
Problem: Administration of the 1991 Guard/Reserve Survey of Officers and Enlisted Personnel has provided the Defense Manpower Data Center (DMDC) and the Office of the Assistant Secretary of Defense for Reserve Affairs (OASD(RA)) the only DoD-wide survey examining the attitudes and opinions of National Guard and Reserve component personnel regarding mobilization for Desert Shield/Storm. It is important that drawdown and Force restructuring planning personnel receive the results of this survey as these data provide insight into the effects of mobilization upon members and their families. Delivery of survey results is dependent upon the performance of survey adjustment weighting of survey responses. This project is structured to provide the accomplishment of appropriate survey weighting and the production of reports documenting the production and use of survey adjustment weights.	
Objectives: The objective of this project is to provide data and basic reports for policy planning by the full range of DoD offices concerned with military mobilization and its effect upon the families, as well as those concerned with related and general manpower policies.	
Status: Ongoing (September 22, 1993-May 23, 1994)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Weighting Plan. Delivery Order 0008, CLIN No. 0002AG. Final Report. Delivery Order 0008, CLIN No. 0002AK. [Final Delivery Order Report]	

DO# 0009	Title: Sampling Plan for the 1994 Health Care Survey of DoD Beneficiaries
Program Area QR _____ AOS <u> X </u> MT _____	DO-COR: Dr. Ronald B. Tiggle DO-ACOR: Dr. Tanya Guthrie Project Director: Dr. David Morganstein DO Summary
Problem: The Department of Defense is mandated by Congress to conduct an annual survey to evaluate its health care services. The overall purpose of the survey is to measure satisfaction in the range of competing health care services, and general health status and use of health care. There is interest in overall measures of satisfaction across the populations of active duty service members, dependents of active duty service members, retirees, and survivors, as well as interest in measures within particular catchment areas which can be used by individual military hospitals for quality assessment. The sampling frame for the study was based on the Defense Enrollment Eligibility Reporting System (DEERS) file. The information in this complete and extensive frame can be used to generate highly efficient sampling designs. This file does change over time as the status of individuals changes, and new persons enter in. We view our sample as a 'snapshot' of the population at one particular point in time.	
Objectives: The objective of this effort was to produce several sampling designs for the Survey of Beneficiaries study and to draft the supporting statement for the request for OMB approval of the data collection for dependents and survivors of retirees.	
Status: Completed (September 28, 1993-January 24, 1994)	
Results: The primary deliverables from the project are an analysis of alternative designs including EXCEL software which could be used to determine the most optimal sample design given a known set of inputs and desired design properties. Given a selected sampling plan with options chosen for a stratification system and a fully independent or partially dependent strata sampling plan, sample sizes were selected for the stratum. This was done using the EXCEL spreadsheets. The spreadsheets provide base weights, which then need to be adjusted for nonresponse after the sample is collected.	
Bibliography: Chu, A. & Flores, I. (1994). <u>Sampling plan for the 1994 health care survey of DoD beneficiaries</u>. Study Report 94-0002. Rockville, MD: Westat, Inc. [Final Delivery Order Report]	
Products:	
Planned Documents and Products:	

DO# 0010	Title: Economic and Occupational Analyses of 1992 DoD Reserve Surveys
Program Area QR _____ AOS <u> X </u> MT _____	DO-COR: Dr. Ronald B. Tiggie DO-ACOR: Ms. Dianne J. Murphy Project Director: Dr. Michael Wilson DO Summary
Problem: The 1992 Reserve Components DoD Survey of Officers and Enlisted Personnel and Their Spouses is part of a multi-year effort to collect important attitude and opinion data from men and women in each of the seven reserve components and all of their spouses. The results of this survey effort are used by the Office of the Secretary of Defense and each of the military services, including the Army Guard and Reserve, to formulate policies affecting the reserve force and their families. In addition to attitude and opinion data, this survey is an important and unique data source for civilian occupational information on the reservist. However, the data are provided on the survey in open-ended format and must be converted to the standard industry and occupational codes so they may be compared to other populations.	
Objectives: The objective of this delivery order is to provide data and basic reports for policy planning by the full range of DoD offices concerned with military families, as well as those staff agencies concerned with related and general manpower policies. To address this need, the contractor will conduct two primary tasks: (1) specialized coding of reservists' civilian labor experience, and, (2) targeted analysis of the 1992 Reserve Component Surveys in several content areas.	
Status: Ongoing (September 28, 1993-January 15, 1995)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Report. Delivery Order 0010, CLIN No. 0002AV [Final Delivery Order Report]	

DO# 0011	Title: Methods for the Evaluation of C2 Systems
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. Sharon L. Riedel DO-ACOR: Mr. Robert S. Solick Project Director: Mr. Gene Jones
DO Summary	
Problem: The challenges for successful wartime performance, and even the prevention of war, require careful examination of the human element in planning, decision making, and C2 systems. The ARI Fort Leavenworth Field Unit has been engaged in research on the behavioral aspects of corps through battalion-level C2 and is a key participant and contributor to the Battle Command Integration Program (BCIP). A primary role of ARI is to look at future C2 requirements, from the human perspective, by identifying and assessing better procedures, system capabilities, and training requirements. BCIP activities frequently seek research support on the behavioral aspects of C2 requirements, including development and assessment of user interface prototypes, requirements definition, and assessments of C2 system prototypes during development. In order to fulfill the requests to assess human performance in automated C2 systems, ARI is engaged in research to develop improved methods for assessment of C2 systems during development.	
Objectives: The objectives of this effort were to support the validation of methods for life cycle evaluation of knowledge-based C2 systems and to document the "lessons learned" from conducting evaluations of the AirLand Battle Management (ALBM) Advanced Technology Demonstration (ATD) prototype.	
Status: Completed (November 13, 1993-March 11, 1994)	
Results: The following lessons learned were experienced during the conduct of knowledge base and interface evaluations of an expert system under development for the Army. <u>Knowledge Base Evaluations.</u> The development of an expert system based decision aid required the design and creation of a large collection of facts, algorithms, rules, and interfaces into an entity referred to as the Knowledge Base. Completed over time by interviewing experienced personnel and researching available reference material, the developer produced prototype software. At the direction of the Battle Command Battle Laboratory, an independent systematic review of the Knowledge Base was conducted to validate the underlying rules in order to provide feedback to the developers. This process involved learning the system in great detail and then presenting the entire process to a new group of experts to insure that the design and the products of the aid were valid. The experts were exposed to a detailed presentation of the workings of the decision aid and were queried on their reactions to both the process and the product in deliberate evaluation sessions. As a result of these evaluations, significant feedback was generated and provided to the developer with positive recommendations to correct perceived deficiencies. The following lessons are addressed: (1) problems encountered in becoming experienced with the system; (2) the impact of software development and its current status on conducting evaluations; (3) the solicitation and use of SME; (4) the design and conduct of the Knowledge Base Evaluation; (5) presenting the findings of the evaluation; (6) general comments. <u>Soldier-Machine Interface (SMI).</u> An important part of expert system development is the design of the SMI. A poorly designed interface decreases productivity, increases errors, increases confusion and boredom, increases cost and development time, and may even lead to users' refusing to use the system at all. The following lessons were learned from the SMI assessment: (1) inadequate documentation made learning the system difficult; (2) software development and its current status made learning the system difficult; (3) interface problems were identified after the interface design was implemented; (4) human factors input was not integrated into system development, resulting in a system that was poorly designed; (5) the state of software development and lack of interface design standards affected the SMI assessment; (6) the assessment results should be conveyed in a constructive manner to ensure that deficiencies are corrected.	
Bibliography: Flanagan, J.P. & Rappold, V. (1994). <u>Lessons learned from the knowledge based and soldier-machine interface evaluations.</u> Final Research Report. Delivery Order 0011, CLIN No. 0002AC. Falls Church, VA: CAE-Link Corporation. [Final Delivery Order Report]	
Products:	
Planned Documents and Products:	

DO# 0012	Title: Improving Family Adaptation to the Stresses of Family Life
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. D. Bruce Bell DO-ACOR: Project Director: Dr. Dennis K. Orthner
DO Summary	
Problem: Research on the ability of families to cope with the stresses of Army life has demonstrated that there are two types of adaptation: (1) adaptation to the marriage (called internal adaptation) and (2) family adaptation to Army events (called external adaptation). High internal adaptation is characterized by soldiers (and their spouses) who say they are happily married, have good marital communication, and that the family is coping well. High external adaptation is characterized by soldiers (and their spouses) saying that they are satisfied with Army life, agree with Army values, and that they, as a couple, support making the Army a career. Analysis of data from both soldiers and their spouses show that these two dimensions exist. In fact, this same pattern had been found in male soldiers married to civilian females, female soldiers married to male civilians, and in dual military couples. The importance of these findings for the Army is that they can be used to guide the development and modification of family programs. Soldier ratings of internal adaptation are related to soldier ratings of work stress whereas soldier ratings of external adaptation is more related to soldier morale and willingness to remain in service. Research has shown that the most potent method of increasing external adaptation is by increasing the perceived level of support for families within the soldier's unit. Also, research has shown the Army already has some innovative family support programs functioning at the unit level which should have a positive impact upon not only family functioning, in general, but also the levels of family violence/abuse in particular. Research has also shown how proper marketing and service integration can improve all family services whether they are delivered at the unit level or within a family services center. The purpose of this effort is to see if a pilot program can be designed which will enable the Army Community Service (ACS) agency to focus more resources on external family adaptation through unit based programs. A second purpose is to gather the information necessary to test the effects of such unit based programs on family functioning, in general, and upon levels of family stress and social isolation which are associated with rates of family violence and abuse.	
Objectives: The effort has four objectives: (1) design a pilot program that can be used by ACS center personnel to increase the adaptation of families to the stresses of Army life; (2) teach the ACS professionals how to use it; (3) evaluate whether the program is being used; and (4) collect baseline data which can be used in a subsequent effort to test program effectiveness. An area of particular interest here is how these proposed changes will affect levels of family violence and neglect.	
Status: Ongoing (December 22, 1993-December 21, 1994)	
Results: Lessons learned about the ACS unit program from the pilot tests: (1) the role of the unit services coordinator (USC) needs to be clearly stated and discussed; (2) the ACS director and the USCs must be clear about what the unit program can and cannot do for the unit; (3) spending a great deal of time in the unit is not necessary; (4) there are management difficulties when trying to establish a mini-ACS out in the unit; (5) the unit program changes how Commanders think of ACS; (6) soldiers and families have an increased awareness and understanding of ACS. Lessons learned about cross-training from the pilots: (7) the unit program manual should be used to identify key cross-training points; (8) training on the USC role and its responsibilities needs to be done prior to cross-training; (9) ACS staff are often surprised about how much there is to know about the various programs; (10) being well-informed about ACS helps in gaining the confidence of the unit; (11) training and cross-training must be ongoing; (12) some cross-training should also be given to ACS staff who are not in the USC roles. Lessons learned about unit orientation from the pilots: (13) talking Army language is key to building confidence in the units; (14) mission support means understanding their mission; (15) time spent in unit orientation is valued by ACS staff; (16) ACS Directors often overestimate staff knowledge of the Army system. Lessons learned about team-building from the pilots: (17) teamwork is improved when time is set aside for USCs to share their experiences with one another; (18) teamwork helps reduce the stress of added job responsibilities; (19) an effective referral system requires teamwork; (20) failing to consider how problems will be solved as the Unit Program is established works against ACS staff morale; (21) being informed about the unit and its mission is important for gaining unit confidence. Lessons learned about monitoring from the pilots: (22) staff review of forms increases acceptance; (23) forms should be kept simple; (24) referrals and unit services must be tracked. Key implementation lessons learned from the pilots: (25) involve all ACS staff in planning; (26) get senior leadership support; (27) take time to prepare; (28) know your units; (29) phase-in unit consultation; (30) meet regularly to share experiences.	
Bibliography:	
Products:	
Planned Documents and Products: Final Report. Delivery Order 0012, CLIN No. 0002AH. [Final Delivery Order Report]	

DO# 0013	Title: Support for Review of Army Occupational Survey Program
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. Michael G. Rumsey DO-ACOR: Project Director: LTG (R) John S. Crosby DO Summary
Problem: The Army Occupational Survey Program (AOSP) "is a system of collection and computer-assisted processing, storage, retrieval, and analysis of detailed training and occupational information. This information is used for officer and enlisted specialties and military occupational specialties and is collected by administering questionnaires to specialty or MOS job incumbents and supervisors or subject matter experts throughout the world" (Army Regulation 611-3, p.1-1). "The AOSP is designed to support and evaluate Army programs in the following areas: 1) classification 2) specialty or MOS development and modification 3) quality training requirements 4) assignment policies and use of personnel 5) evaluation tests or systems 6) personnel retention" (Army Regulation 611-3, p.1-1). ARI is to make recommendations concerning the future organization, missions, and functions of the AOSP.	
Objectives: The objective of this work is to provide ARI with information and suggestions that it can use as a basis for developing recommendations regarding the most appropriate organization, missions, and functions of the AOSP.	
Status: Ongoing (January 7, 1994-July 6, 1994)	
Results: Up-front preliminary recommendations: (1) Retain the current AOSP organization in the near-term. Reorganize staffing and modify focus to concentrate on active users. Change methodology to provide more responsive and timely services; (2) Expand focus as success is achieved with active users. Use contractor support for data collection and analysis as necessary to sustain responsiveness; (3) Make AOSP a mandatory requirement, possibly as an element of PCS in-processing, or as an in-processing requirement at all leader development courses (PLDC, BNCOC, ANCOC, WOC, SWOC, OBC, OAC, CAS3); (4) Explore integration of AOSP into ASAT, SBIS (AIMS-R) and RCAS for the Reserve Components. Preliminary long-term recommendations: (1) Phase 1: Retain current AOSP organization, focus and improve program management and execution; (2) Phase 2: Reorganize, resource, and institutionalize the AOSP to provide service to entire spectrum of personnel manning life cycle.	
Bibliography:	
Products:	
Planned Documents and Products: Final Study Report. Delivery Order 0013, CLIN No. 0002AG. [Final Delivery Order Report]	

DO# 0014	Title: FY 1993 Population Representation in the Military Services Report (POPREP93)
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. Ronald B. Tiggie DO-ACOR: Dr. Jane Arabian Project Director: Ms. Monica Gribben DO Summary
Problem: Each year, the Office of the Assistant Secretary of Defense (Personnel & Readiness) [OASD/P&R] publishes a congressionally-mandated report, <u>Population Representation in the Military Services (POPREP)</u>. The <u>POPREP</u> provides detailed data on enlisted and officer recruiting and retention. These data include demographic, educational, aptitude, and socioeconomic characteristics of applicants, new recruits, and enlisted and officer members of the Active and Reserve Components. The <u>POPREP</u> is distributed to a diverse audience within the Department of Defense and the Executive and Legislative branches (including members of the Congress, high-level DoD policymakers, the Services, and the military manpower community) as well as military manpower researchers. Prominent uses of the data are: A source of information to members/committees of Congress; a foundation for addressing congressional committee actions; a basis for budget/legislative changes; a resource for Service research communities and the general public; and, an element for military readiness estimates. The intended audiences need the report to locate specific population representation information such as marital status by Service, by gender, and by age. Readers also use the report to find clearly stated analyses of military manpower and personnel issues with supporting data as documentation of the analyses. The <u>POPREP</u> will provide FY 1993 data for military manpower analysts and policymakers.	
Objectives: The objectives of this effort are to (1) assist in meeting the requirements for collecting, analyzing, and presenting information on characteristics of the enlisted and officer forces; and (2) develop, produce, and distribute the FY 1993 report on <u>Population Representation in the Military Services</u>.	
Status: Ongoing (February 25, 1994-November 25, 1994)	
Results: The data requirements for the FY 1993 PopRep have changed slightly from last year, but most requirements are the same. As was the case last year, DMDC-East will provide the data for the SES analysis, and DMDC-West will provide all other data. The data files have changed little from last year; most requirements are identical.	
Bibliography:	
Products:	
Planned Documents and Products: Final Report. Delivery Order 0014, CLIN No. 0002AK. [Final Delivery order Report]	

DO# 0015	Title: Revision of the Army Career Transition Survey (ACTS)
Program Area QR _____ AOS <u> X </u> MT _____	DO-COR: Dr. Ronald B. Tiggie DO-ACOR: _____ Project Director: Dr. Janice Laurence DO Summary
Problem: ARI developed an exit survey instrument, the Army Career Transitions Survey (ACTS), which is designed to be administered to soldiers who are separating from the Army. In a recent evaluation of the ACTS, Giacalone² (1993) raised a number of concerns about the content of the ACTS and the procedures currently being used to administer the survey. Questions about the usefulness to sponsoring organizations within the Army of the data collected were also raised by Giacalone as were issues concerning the representativeness of the survey respondents. The Office of the Deputy Chief of Staff of Personnel (ODCSPER, HRD) subsequently has asked ARI to revise the ACTS to insure that it addresses the specific areas of interest to Army planners and policy makers. To accomplish this task, the appropriate Army Commands will be interviewed to identify the topics of interests, the items on the current version will be reviewed and revised, and standardized administrative procedures will be developed for all administration sites.	
Objectives: The objective of this project is to provide the Army with a revised exit survey that contains items that address the most important issues of interest to the Army. In addition, to help insure data consistency, completeness, and usefulness, administration procedures for ACTS will be revised. This effort is designed to provide retention planners with better information about the reasons that made soldiers think about leaving the Army, and will provide improvements in the methods of monitoring trends and cycles. It will provide recruiting and marketing planners with enhanced indicators of the advice returning veterans are giving the Army's youth market.	
Status: Ongoing (April 6, 1994-April 5, 1995)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Study Report. Delivery Order 0015, CLIN No. 0002AN. [Final Delivery Order Report]	

² Giacalone, Robert A. (1993). A critical evaluation of the Army career transitions survey: A suggested approach for reformulation. Alexandria, VA: U.S. Army Research Institute.

DO# 0016	Title: Update of U.S. Army Research Institute's Officer and Enlisted Personnel Research Data Bases for 1993 and 1994
Program Area QR ☒ AOS ☐ MT ☐	DO-COR: Dr. Peter M. Greenston DO-ACOR: Project Director: Ms. Laurie Ramsey DO Summary
Problem: ARI requires an update to a group of data bases that can be used to perform policy and behavioral research and analyses of manpower and personnel issues. These data bases are constructed primarily of annual personnel and training data maintained by various offices within the U.S. Army and the Defense Manpower Data Center (DMDC). In order to satisfy these research requirements, it is necessary to add current data to the Officer Administrative Data Base (OADB), the Officer Longitudinal Research Data Base (OLRDB), the Officer Standardized Educational Testing Data Base (OSETDB), and the Enlisted Panel Research Data Base (EPRDB).	
Objectives: The objective of this effort is to collect source data files and to update the OADB, the OLRDB, the OSETB, and the EPRDB. The procedures used will conform to or be improvements upon those described in the existing database documentation.	
Status: Ongoing (April 8, 1994-April 7, 1995)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Study Report. Delivery Order 0016, CLIN No. 0002AH. [Final Delivery Order Report]	

DO# 0017	Title: Preparing a Book on Computerized Adaptive Testing Version of the Armed Services Vocational Aptitude Test Battery (CAT-ASVAB)
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. Ronald B. Tiggie DO-ACOR: Dr. Jane Arabian Project Director: Dr. James R. McBride DO Summary
Problem: The Department of Defense undertook a limited implementation of CAT-ASVAB in 1993, and a decision has recently been made to implement it in all of the Military Entrance Processing Stations nationwide. This implementation of computerized adaptive testing (CAT) is the culmination of a long-range research and development program. The lessons learned in the course of that research program would be invaluable to other organizations, military and civilian alike, that contemplate the use of computerized testing. However, no consolidated documentation of the CAT-ASVAB R&D program exists.	
Objectives: The purpose of this effort is to: (1) coordinate preparation of a document that brings together important results from the CAT-ASVAB research and development program in a single volume; (2) edit chapters of the document that are to be contributed by DoD civilian researchers and policymakers; and (3) prepare and edit those chapters of the document that are best contributed by individual researchers from the private sector. The overall objective of this effort will be to produce a camera-ready version of a book on the CAT-ASVAB research and development program, for publication.	
Status: Ongoing (April 18, 1994-March 13, 1995)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Camera-Ready Book. Delivery Order 0017, CLIN No. 0002AJ. [Final Delivery order Report]	

DO# 0018	Title: Exploring Human Dimensions of Battle Command
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. Stanley M. Halpin DO-ACOR: Project Director: Dr. Joan Markessini
DO Summary	
Problem: The Army and the TRADOC Battle Command Battle Laboratory (BCBL) will sponsor and convene a workshop on the human dimension of battle command, to be held in mid June 1994. It will include participants from not only TRADOC but also from the Army War College (AWC) and the United States Military Academy (USMA) as well. The workshop will address the range of U. S. Army training and education in the area of battle command. The workshop will also consider the implications of battle command for research and research planning.	
Objectives: This workshop will have three principal objectives: (1) Characterization of the development of requisite skills for field commanders; (2) education and socialization of the participants with respect to battle command, its requisite skills, and battle commander development; and, (3) agreement on the actions that TRADOC can take and research directions for ARI to pursue in support of the Battle Command concept. Thus, the principal purpose of this project and delivery order is for ARI to assist the BCBL and TRADOC in formulating the implications of battle command for training and education, research, and research planning.	
Status: Ongoing (May 3, 1994-September 30, 1994)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Report on Workshop. Delivery Order 0018, CLIN No. 0002AG. [Final Delivery order Report]	

DO# 0019	Title: Promotion and Professional Development in a Smaller, CONUS-based Army (Phase 1)
Program Area QR <u> X </u> AOS <u> </u> MT <u> </u>	DO-COR: Dr. Abraham Nelson DO-ACOR: LTC John Schwarz Project Director: Dr. Dickie A. Harris DO Summary
Problem: The Army is in a period of transition unmatched by any other period in history. Military history records many examples of "build-up to meet threat/build-down when threat no longer exists." The particular concern of this study is the viability of the enlisted promotion and professional development systems in the smaller, CONUS-based Army of the 1990's. These two systems are supported by PCS (permanent change of station) operations and policy. The movement to a smaller, CONUS-based Army will reduce PCS moves. This reduction in PCS may adversely affect both professional development and promotion opportunities.	
Objectives: This is Phase 1 of a two phase study effort. The objectives of this study effort are: (1) discern the impact of a smaller, primarily CONUS-based force on professional development (PD) and promotion opportunities, (2) document policy changes required to sustain PD and promotion opportunities at current rates, and (3) evaluate the effectiveness and efficiency of current promotion and professional development systems.	
Status: Ongoing (May 13, 1994-January 12, 1995)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Interim Study Report (Final Phase 1 Report). DO 0019, CLIN No. 0002AE. [Final Delivery Order Report]	

DO# 0020	Title: Development of Measures for Sinai Peacekeeping
Program Area QR _____ AOS _____ MT <u> X </u>	DO-COR: Dr. Michael G. Rumsey DO-ACOR: Dr. Dale Palmer Project Director: Dr. Douglas H. Reynolds DO Summary
Problem: The purpose of this effort is to develop peacekeeping performance measures as part of a larger program to select candidates for peacekeeping operations. Behaviorally-based rating scales and job knowledge tests are to be developed to be used as performance criteria against which to validate selection measures currently being developed at ARI.	
Objectives: The objective of this work is to develop measures of individual peacekeeping performance in the Sinai.	
Status: Ongoing (May 26, 1994-September 25, 1995)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Study Report. Delivery Order 0020, CLIN No. 0002AD. [Final Delivery Order Report]	

DO# 0021	Title: Longitudinal Research on Officer Careers (LROC)
Program Area OR _____ AOS <u> X </u> MT _____	DO-COR: Dr. Guy Siebold DO-ACOR: Project Director: Dr. Rodney A. McCloy DO Summary
Problem: The purpose of this effort is to address long-term and related short-term longitudinal research on officer careers via the LROC data base. Relevant issues will be identified through interviews with leaders in the personnel and leader development community. At least one of the long-term and related short-term issues will be addressed through analysis, and the potential for the LROC data base will be demonstrated through sample analyses.	
Objectives: The objectives of this work are to (1) demonstrate the usefulness of the LROC data base, (2) identify long-term and related short-term longitudinal research issues, and (3) specify the design and structure of future research related to the issues raised by the personnel and leader development community.	
Status: Ongoing (June 28, 1994-June 27, 1995)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Technical Report. Delivery Order 0021, CLIN No. 0002AF. [Final Delivery Order Report]	

DO# 0022	Title: Impact of Battalion Peacekeeping Requirements on the Sponsoring Army National Guard Division
Program Area QR _____ AOS _____ MT <u> X </u>	DO-COR: Dr. Joseph Hagman DO-ACOR: _____ Project Director: Mr. Gene Jones DO Summary
Problem: The ARI Field Unit at Boise, Idaho, is currently engaged in research on the personnel, training, and family support issues affecting the deployment of a battalion-sized unit composed of both Active Component (AC) and Reserve Component (RC) units for a peacekeeping mission in the Sinai desert. Historically, this battalion has been drawn from the 82nd and 101st Airborne Divisions. However, now the battalion will consist of 400 volunteers from the 29th Infantry Division (ID) (Light), Army National Guard (ARNG), 113 AC soldiers, and 41 U.S. Army Reserve (USAR) soldiers (primarily Individual Ready Reserve (IRR) volunteers from around the nation).	
Objectives: The objectives of this effort are to identify and document the personnel and training impact of peacekeeping battalion requirements on the ARNG's 29th ID during and after its period of peacekeeping mission sponsorship.	
Status: Ongoing (June 28, 1994-June 28, 1996)	
Results:	
Bibliography:	
Products:	
Planned Documents and Products: Final Report. Delivery Order 0022, CLIN No. 0002AG. [Final Delivery Order Report]	

Appendix A
ARI COMPRS Program Descriptions

Quick Reaction (QR) Program

Applicable Areas. The QR program is intended to give ARI a quick-response capability to perform short-term research or studies and analysis dealing with manpower and personnel issues for which the necessary in-house capability is not available. The QR Program may only be used for the procurement of non-personal services to perform the tasks specified in the DO, subject to the limitations set forth below.

Conditions. Because this program is intended to resolve manpower and personnel issues that can be studied in a short time, the following conditions will normally apply:

- Each of the QR Program DOs shall be completed within the period of time specified in the DO, with the maximum allowable completion normally being within a 12-month period from the date of the DO.
- Each task of the DO shall be completed by HumRRO or its subcontractor within the total time allocated and a final report prepared and delivered.
- Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI at Alexandria, Virginia or at an ARI Field Unit at the start of, and at the completion of, each of the QR Program DOs.

Attitude and Opinion Survey (AOS) Program

Applicable Areas. The AOS program is intended to give ARI the ability to conduct surveys to provide information for accession and force management decision-making. This information can only be obtained through surveys of the target populations and may require updating due to changing population dynamics and attitudes in the various population segments.

Conditions. Because this program is intended to provide information quickly to resolve manpower and personnel issues, the following conditions shall normally apply:

- Each of the AOS efforts shall be completed within the period of time specified in the DO, with the maximum allowable completion normally being within a 12-month period of the date of the DO or an 18-month period if Office of Management and Budget (OMB) approval is required. Each AOS survey shall be performed using standard random sampling procedures or other appropriate sampling techniques.
- The tasks written by the Government in each AOS Program SOT shall include a statement of the target group for the survey. A target group may be defined as, for example, all males, age 16-21 years old, in high school or graduated, and having positive propensity to enlist in any military service. The Contractor shall prepare as part of its response to the SOT, the necessary screening and sampling methodologies to assure that the target group requirements are met.

- If specified in the SOT and subsequent DO, the Contractor shall prepare a survey instrument. The Government may, at its discretion, construct a proposed survey instrument and submit it to the Contractor for review and recommended changes. The approved survey instrument shall be administered by the Contractor to the target population, or a sample thereof. All reproduction, survey administration, analysis, and report generation costs shall be included in the Contractor's RFDO for an AOS survey.

- The ability to conduct surveys under the AOS program may depend on ARI obtaining OMB approval to collect the information from the public. If OMB approval is required, and if such approval is not obtained, the survey shall not be conducted. The Contractor will be notified by the Government of the status of OMB approval. Surveys involving military personnel do not require OMB approval. ARI will make the determination of approval authority prior to an SOT being issued and will clearly state in the SOT if survey administration is contingent upon any other approval authority.

- When the final survey instrument is received by the Government, it may be necessary for the DO COR to submit the survey instrument to OMB for approval. The approval process may require from four to six months. Part of the OMB submission is a detailed description of the sampling plan, including burden hours, sampling methodology, non-response analysis, etc. The Contractor shall prepare the necessary documentation in accordance with the SOT and DO requirements and submit it to the DO COR who will submit it through agency channels.

- Each DO task shall be completed by the Contractor within the time allocated and a final report delivered. The final report shall contain copies of any appropriate verbatim responses of survey participants. Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI in Alexandria, Virginia or other ARI Field Unit locations at the start of, and at the completion of, each AOS DO.

- At all times the contractor will protect the confidentiality of the survey responses.

- If OMB approval is not received, the Contractor will be paid only for those tasks in the DO which are completed, and which do not require an approved survey instrument. Each AOS DO will usually contain at least two phases as follows:

Phase I. Preparation. The tasks under Phase I will be the review or development of survey instruments, sampling methodology, preparation of approval packet (if required in the DO), and other items necessary for preparation of the survey administration.

Phase II. Survey Administration, Analyses, and Reporting. Upon receipt of survey approval, Phase II will involve the tasks necessary to conduct the survey, compile and analyze the data, prepare reports, and conduct in-

person presentation of results (if required in the DO). Phase II shall always be contingent upon receipt of proper approval. If such approval for the survey is not obtained, Phase II will not be authorized and no payment for any tasks under Phase II will be made to the Contractor.

Medium-Term (MT) Program

Applicable Areas. The MT Program is intended to give ARI the ability to conduct a limited number of research or studies and analysis efforts whose duration would not normally exceed 24 months after HumRRO receives a DO. The MT program may only be used for the procurement of non-personal services to perform the tasks specified in the DO, subject to the limitations set forth below.

Conditions of MT Program. This program is intended to resolve problems associated with manpower and personnel issues which require a somewhat longer period of performance than the QR program. The following conditions shall normally apply:

- Each of the MT efforts shall be completed within the period of time specified in the DO, with the maximum period normally being 24 months from the date of the DO.
- Each task of the DO shall be completed by the Contractor within the total time allocated and a final report delivered. Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI, in Alexandria, Virginia or at ARI Field Units, at the start of, and at the completion of, each MT Program DO.