

AD-A259 842



①

Research and Development Program 3.2
FY 1993
Research-Based Personnel
and Training Study and
Analysis Program

DTIC
ELECTE
JAN 15 1993
S C D



United States
Army
Research
Institute

DISTRIBUTION STATEMENT A

Approved for public release;
Distribution Unlimited

93-00821



38
pap

August 1992

93 1 13 064

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 August 1992	3. REPORT TYPE AND DATES COVERED Final Oct 92 - Sep 93
----------------------------------	-------------------------------	---

4. TITLE AND SUBTITLE FY93 Research-Based Personnel and Training Study and Analysis Program	5. FUNDING NUMBERS
--	--------------------

6. AUTHOR(S) ARI Corporate Authors	PE: 65803 PR: D730
---------------------------------------	-----------------------

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences 5001 Eisenhower Avenue Alexandria, Virginia 22333-5600	8. PERFORMING ORGANIZATION REPORT NUMBER R&D Program 3.2
--	---

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences 5001 Eisenhower Avenue Alexandria, Virginia 22333-5600	10. SPONSORING/MONITORING AGENCY REPORT NUMBER N/A
---	---

11. SUPPLEMENTARY NOTES
POC: Dr. James A. Bynum

12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited.	12b. DISTRIBUTION CODE
--	------------------------

13. ABSTRACT (Maximum 200 words)

This document describes the ARI FY1993 Research-Based Personnel and Training Study and Analysis program. Behavioral and social science expertise, knowledge and databases will be used to conduct short-term studies and analyses that directly support decision, policy or doctrine makers who make decisions affecting Army personnel.

14. SUBJECT TERMS Study, Analysis, Personnel, Manpower, Training	15. NUMBER OF PAGES 36
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 UL
---	--	---	----------------------------------

**US ARMY RESEARCH INSTITUTE
FY 1993 RESEARCH-BASED PERSONNEL AND TRAINING
STUDY AND ANALYSIS PROGRAM**

DTIC QUALITY INSPECTED 5

Introduction

Overview. This document presents The Army Research Institute (ARI) FY 1993 Research-based Personnel and Training Study and Analysis program. This will mark the second year of the ARI program, whose objective is to provide recommendations from studies and analyses using behavioral and social sciences data and information to support personnel and training decisions, policies and doctrine. To achieve this objective, ARI uses behavioral and social science expertise, knowledge and databases to conduct short-term studies and analyses that will directly aid decision/policy/doctrine makers in making more informed, more timely decisions on issue concerning the Army's most costly resource, personnel.

Characteristics of the Program. This program has the following characteristics.

- o Short term (0-2 years)
- o Low risk
- o Quick response to changing requirements
- o Planned and prioritized for the budget fiscal year
- o Uses existing data (e.g., combat training centers) where possible or generate new data where required
- o Provides answers to critical issues using available knowledge and/or tools of the behavioral and social sciences

Accession For	
NTIS	ORAI
DTIC	RAB
Unannounced Justification	
By	
Distribution/	
Availability Code	
Dist	Avail and/or Special
A-1	

Policy. ARI uses the following policy as general guidance in the application of these limited resources.

- o Each study or analysis request must be signed by a general officer (GO) or senior executive service (SES) member.
- o Each study or analysis in the approved program will be documented by a memorandum for record (MFR), signed by both ARI and the requester, that details ARI's approach and the sponsoring agency's resource commitment and intended use of the study or analysis product.
- o Requests for studies and analyses that are approved by the DCSPER will be funded by appropriated funds in order of priority and will become the core program.
- o Requests falling outside the core program will be considered if the requester provides the necessary funds and contract personnel with required expertise are available.
- o The DCSPER/ADCSPER will approve all major changes to the core program.

Program Development Procedures. ARI develops this program annually for the budget fiscal year (and beyond if required). Each February/March a memorandum that describes the program and the procedures for requesting a study or analysis is distributed to the ARSTAF, MACOMs and to OSD. Requests for program support sent to the DCSPER must be signed by a GO or SES, and preferably the GO or SES who is directly involved in the policy, doctrine or decision that the study or analysis supports. Each

request is screened by the ODCSPER and sent to ARI for disposition, as depicted in Figure 1.

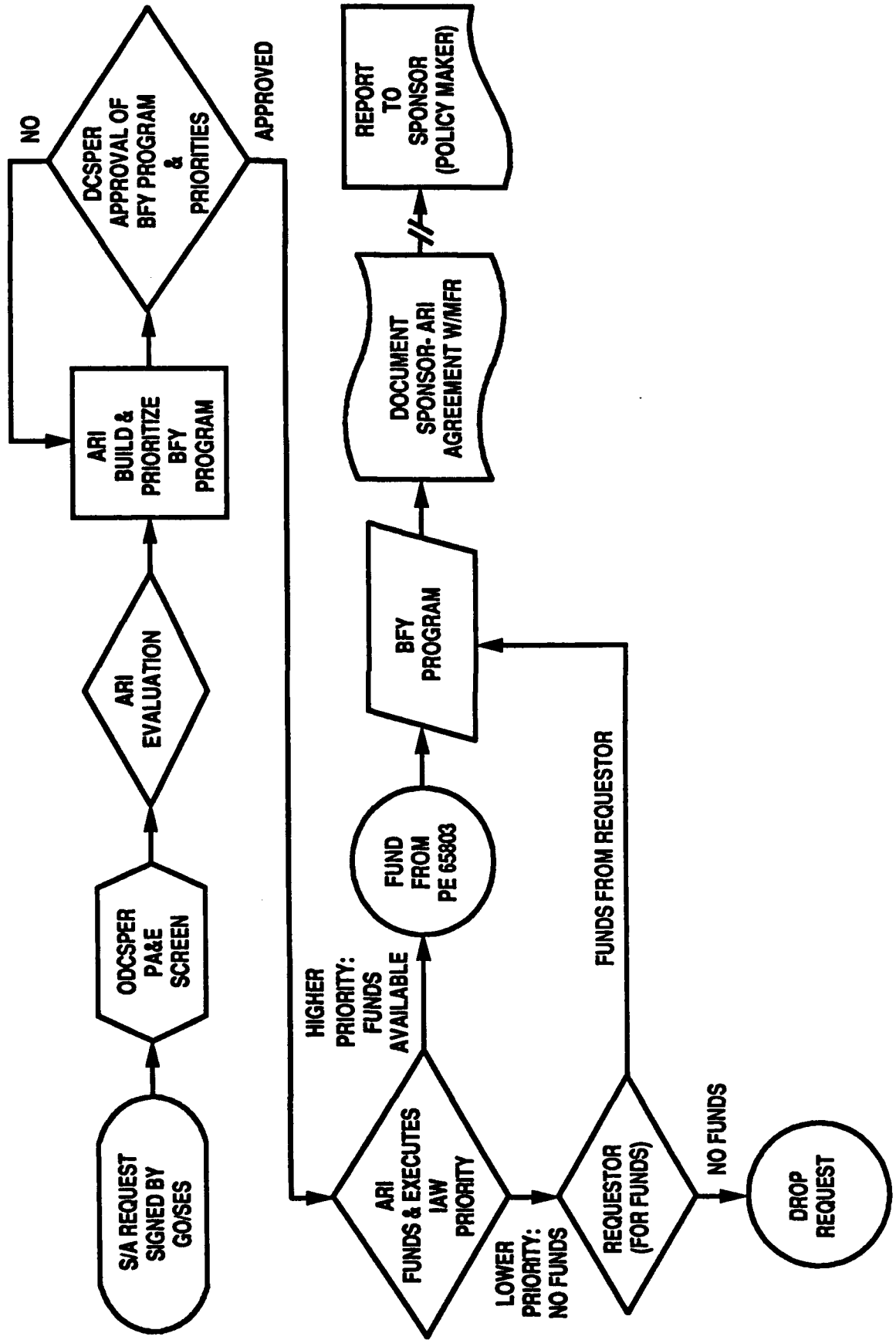
The ARI Command Group reviews each request to determine if it is a study or analysis issue within the area of ARI's competence and uses such additional factors as the importance of the issue and whether or not resources (dollars and personnel) are available to complete the effort in the time allotted. Based upon this review, ARI submits the proposed budget fiscal year program to the DCSPER for approval. The DCSPER-approved program becomes the core program.

Requests that fall outside the core program may be met if personnel with the required expertise are available and the requester can provide the necessary funds. In such cases, ARI Division Directors will negotiate directly with the requester.

Proposed studies and analyses that cannot be performed because of lack of resources are dropped from the final proposed program.

Unprogrammed, out-of-cycle studies or analyses may be requested during the calendar fiscal year. However, such requests can be met only if the request is approved by the DCSPER/ADCSPER, ARI funds and personnel are available to accomplish the task within the allotted time, and either the DCSPER prioritizes the request above the funding line or the requester provides the necessary funds.

FIGURE 1. RESEARCH-BASED PERSONNEL AND TRAINING STUDY AND ANALYSIS PROGRAM



The FY93 Program

The FY93 ARI Research-based Personnel and Training Study and Analysis Program comprises studies and analyses continued in their second year from FY92 and new studies and analyses accepted in the FY93 core program. The FY93 program tasks and work units are listed in Table 1. The tasks are executed by the Manpower and Personnel Research Division (MPRD) and the Training Systems Research Division (TSRD) of ARI. MPRD tasks are described in Section A and TSRD tasks are described in Section B, which follow. In the case of FY92 work units that are carried over into FY93, the descriptions also contains a brief statement of the current work unit status.

TABLE 1. ARI FY93 STUDY AND ANALYSIS WORK UNITS

	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
	(\$000)		
<u>TASK 1131: LEADERSHIP AND ORGANIZATIONAL ANALYSIS</u>	<u>372</u>	<u>45</u>	<u>---</u>
Work Unit: Leader Development Requirements Identified in Desert Storm	204	---	---
Work Unit: Effectiveness of Leadership Development Practices	175	20	---
Work Unit: Develop an OE Strategy on How to Change Culture	---	25	---
<u>TASK 1231: JOB SPECIFIC SELECTION AND CLASSIFICATION</u>	<u>90</u>	<u>63</u>	<u>---</u>
Work Unit: Improved Classification with Existing Tests	90	63	---
<u>TASK 1232: IMPLEMENTATION OF NEW PREDICTOR TESTS</u>	<u>142</u>	<u>222</u>	<u>---</u>
Work Unit: Recommendations for Improved Testing	65	129	---
Work Unit: Fairness Analysis	77	93	---
<u>TASK 1233: REENLISTMENT AND PROMOTION ISSUES</u>	<u>43</u>	<u>96</u>	<u>---</u>
Work Unit: Retaining High Performing Soldiers While Building Down	43	96	---

TABLE 1. ARI FY93 STUDY AND ANALYSIS WORK UNITS (CONT'D)

	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
<u>TASK 1331: PERSONNEL POLICY ANALYSIS</u>	<u>770</u>	<u>802</u>	<u>465</u>
Work Unit: Impact of Economic and Demographic Variables	499	215	---
Work Unit: Annual Updates Through FY93 For Analysis Databases	11	157	157
Work Unit: Development of Threshold Levels of Quality-Feasibility	---	39	---
Work Unit: Utilization of FAARRS-SHARE Methodology	260	90	---
Work Unit: Future Personnel Systems: PCS Model Developments	---	308	308
<u>TASK 1332: MARKETING AND ADVERTISING</u>	<u>194</u>	<u>512</u>	<u>306</u>
Work Unit: Marketing and Recruiting Strategies	165	128	---
Work Unit: Army Alumni Survey (Previous Title: Transitioning of Soldiers to Civilian Life)	13	226	218
Work Unit: Survey of Civilian Nurses	16	158	88
<u>TASK 1333: FAMILY PROGRAM ANALYSIS</u>	<u>---</u>	<u>120</u>	<u>---</u>
Work Unit: Translating Army Family Findings Into Specific Actions	---	120	---

TABLE 1. ARI FY93 STUDY AND ANALYSIS WORK UNITS (CONT'D)

		<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
			(\$000)	
TASK 2131: ANALYSIS OF COMBAT TRAINING CENTER (CTC) PERFORMANCE	986	995	120	
Work Unit: Recommendations for Improving CSS Data Collection	148	---	---	
Work Unit: Profiles of Unit Performance Strengths and Weaknesses in the Maneuver Battlefield Operating System (BOS) Across the Combat Training Centers (CTC)	254	130	---	
Work Unit: Lessons Learned by Observer Controllers at CTCs	270	100	---	
Work Unit: Combat Training Center (CTC) Data Requirements and Quality	---	257	---	
Work Unit: Tactical Commander Behavior and Unit Performance at the CTCs	---	95	---	
Work Unit: Strengths and Weaknesses in Indirect Fire, Air Defense and Mobility/Counter mobility Battlefield Operating Systems (BOS) Across the CTCs	314	413	120	

**SECTION
A**

**MANPOWER & PERSONNEL
RESEARCH DIVISION**

**FY 1993
STUDY & ANALYSIS PROGRAM**

**MPRD POC
Dr. Zita Simutis
DSN 284-8844
Com (703) 274-8844
FAX (703) 274-8861**

TASK 1131: LEADERSHIP AND ORGANIZATIONAL ANALYSIS

OBJECTIVE: To provide information for decisions about leader development programs for current and future leadership requirements.

FUNDING: FY92 FY93 FY94
 \$379K \$45K ----

Work Unit
(1131HO1):

Leader Development Requirements Identified in Desert Storm

Sponsor: TRADOC (CGSC/CAL) -- BG Steele, Deputy Commandant, Command and General Staff College (CGSC)

Issue: What do experiences in Operation Desert Storm indicate about the leadership factors important to leader and unit combat effectiveness?

Approach: Assemble questionnaire data from surveys conducted by various Army agencies about Operation Desert Storm. Augment with interviews of unit leaders deployed to Saudi Arabia. Analyze data to identify the leadership factors important to leader and unit effectiveness. Specify which leadership requirements to emphasize in developing leaders for effective combat performance.

Utilization: Improved specification and validation of combat critical leadership development requirements.

Est. Cost: FY92 FY93 FY94 TOTAL
 \$204K ---- ---- \$204K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY92

Status: Coverage of leadership in surveys on Operation Desert Shield/Storm (ODS/S) was ascertained. Questionnaires/Interviews were administered to ODS/S Veterans. Data analyses and report completed.

Work Unit
(1131H02): Effectiveness of Leadership Development Practices

Sponsor: TRADOC (CGSC/CAL) -- BG Steele, Deputy Commandant,
Command and General Staff College (CGSC)

Issue: How effective are current leadership assessment
and development programs?

Approach: Collect data on implementation of leadership
development programs by review of current
practices, analysis of trainees' performance
records, and interviews of program participants
(trainers and trainees). Evaluate program
consistency and adherence to doctrinal guidelines
and established principles for leader development.

Utilization: Empirical basis for improving and defending
leadership development programs.

Est. Cost:

	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$175K	\$20K	----	\$195K

Start Date: 1st Quarter FY92 **End Date:** 1st Quarter FY93

Status: Interviews on unit leader development practices
are 85% complete. Study report to be prepared 1st
Quarter FY93.

Work Unit (1131C99): Develop an OE Strategy on how to change culture

Sponsor: PERSCOM (TAPC-CPP), Mr. Joseph Galbraith

Issue: The Army has a large number of civilians supporting the military component. These two groups have different cultures and personnel rules which need to be understood for efficient and effective operations to take place.

Approach: Analyze data from the Army Civilian Biennial Survey and the Army Assessment 1992 to determine the reported climate that exists between Army soldiers and civilians. Conduct interviews and focus groups to collect critical incidents that will specify particular types of behavior that adversely impact on good working relationships. Develop recommendations on how these behaviors can be modified.

Utilization: The results of this effort will be incorporated into the Civilian Leader Development Action Plan. This plan will recommend developmental steps necessary to change behavior in accordance with the critical incident list related to the Army culture.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	----	\$25K	----	\$25K

Start Date: 1st Quarter FY93 **End Date:** 2nd Quarter FY93

Status: New Start

TASK 1231: JOB SPECIFIC SELECTION AND CLASSIFICATION

OBJECTIVE: To conduct studies which will provide recommendations leading to improvement of current procedures for enlisted selection and classification.

FUNDING: FY92 FY93 FY94
 \$90K \$63K ----

Work Unit
(1231H01): Improved Classification with Existing Tests

Sponsor: ODCSPER (DMPM, MG Vollrath)

Issue: Should there be a change in the current Mechanical Maintenance ASVAB Aptitude Area composite used to determine eligibility of soldiers for that job grouping?

Approach: One of the ASVAB Aptitude Area composites used in soldier classification is known as the Mechanical Maintenance (MM) composite. This effort will conduct analyses to determine if proposed changes to the Mechanical Maintenance composite will result in a better matching of soldiers to jobs.

Utilization: Improved classification of thousands of soldiers annually in critical maintenance MOS, with substantial performance benefits to the Army.

Est. Cost: FY92 FY93 FY94 TOTAL
 \$90K \$63K ---- \$153K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Status: Analyses were completed showing that the proposed changes were not advisable because of significant gender bias. Analyses examining alternative changes which will enhance validity without causing bias are now in progress.

TASK 1232: IMPLEMENTATION OF NEW PREDICTOR TESTS

OBJECTIVE: To resolve issues concerning the appropriate use of new temperament, psychomotor and spatial tests in the existing enlisted selection and classification system.

FUNDING:

<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
\$142K	\$222K	----

**Work Unit
(1232H01):**

Recommendations for Improved Testing

Sponsor: ODCSPER (DMPM, MG Vollrath)

Issue: What new predictor tests will provide the greatest benefit to the Army if added to the current selection and classification system?

Approach: The central component of the current selection and classification system is the Armed Services Vocational Aptitude Battery (ASVAB). By mid-1993, recommendations for new tests to be included in the ASVAB, if any, will be needed. The Army has conducted extensive analyses showing the validity of its tests for selection and classification purposes. The objective of this work unit is to conduct additional analyses and to formulate recommendations for ASVAB changes.

Utilization: Will be instrumental in ensuring that the new selection and classification system provides optimal performance benefits to the Army.

Est. Cost:

<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
\$65K	\$129K	----	\$194K

Start Date: 1st Quarter FY92 **End Date:** 2nd Quarter FY93

Status: The first set of analyses, comparing new tests with individual ASVAB tests for predicting job performance, has been completed. The remaining analyses, based on data collected in a joint service project, will be completed the second quarter of FY93.

**Work Unit
(1232C01):**

Fairness Analyses

Sponsor: ODCSPER (DMPM, MG Vollrath)

Issue: What impact will the new predictor tests have on different racial and gender subgroups?

Approach: The performance of selected racial and gender subgroups on composites formed from currently operational tests and new tests proposed for operational use will be determined. Subgroup scores on performance measures will also be computed as a basis for comparison. Analyses will be conducted to address the question: how fair are the new tests to each subgroup examined?

Utilization: Will ensure that issues of equity in application of test scores to different groups have been thoroughly evaluated before recommendations regarding implementation of new selection and classification test composites are generated.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$77K	\$93K	----	\$170K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Status: Preliminary test fairness analyses have been completed on components of the new composites. Analyses on the composites themselves will be completed in FY93.

TASK 1233: REENLISTMENT AND PROMOTION ISSUES

OBJECTIVE: To address issues associated with the improvement of reenlistment and promotion procedures.

FUNDING:

<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
\$43K	\$96K	----

Work Unit (1233C01): Retaining High Performing Soldiers while Building Down

Sponsor: ODCSPER (DMPM, MG Vollrath)

Issue: What personnel policies will ensure that high quality soldiers are retained during the projected "build down" of Army forces?

Approach: Selection, classification, reenlistment and promotion policies must be managed to insure that the Army does not lose its high quality soldiers during the projected build down. This effort will determine which current measures of first tour performance best predict second tour performance. Results will guide recommendations for use of these measures in making reenlistment and promotion decisions.

Utilization: Will help ensure that the performance of the junior NCO corps is maintained at a high level during the build down process.

Est. Cost:

<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
\$43K	\$96K	----	\$139K

Start Date: 1st Quarter FY92 **End Date:** 3rd Quarter FY93

Status: Preliminary analyses have been completed and recommendations for improved reenlistment and promotion decisions have been delivered to the sponsor. Refinements to these analyses will be made as needed during FY93.

TASK 1331: PERSONNEL POLICY ANALYSIS

OBJECTIVE: To determine the impact of economic/demographic and policy variables on enlistment, reenlistment, attrition, and separation; forecast future enlistments and reenlistments; determine efficient allocation of military pay and benefit resources; and determine costs of alternative force mixes.

FUNDING:

<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
\$770K	\$809K	\$465K

Work Unit (1331H01) Impact of Economic and Demographic Variables

Sponsor: ODCSPER (DMPM, MG Vollrath)

Issue: How to recruit, manage, and retain sufficient numbers of high quality soldiers at least cost.

Approach: To determine impacts of economic/demographic and policy variables on enlistment/reenlistment rates, and forecast future enlistments and race/ethnic composition of the force. Determine efficient allocation of resources (including PCS moves) to maintain force quality.

Utilization: Results will assist DMPM in determination and defense of the recruiting budget, defense of the race and ethnic composition of the force, and defense of the All Volunteer Force against the draft.

Est. Cost:

<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
\$499K	\$215K	----	\$714K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Status: Analyses of time to promotion in the enlisted force by racial groups were completed, finding no significant differences. Questionnaire items to determine discount rates and the attractiveness of alternative separation incentives were designed and results are being analyzed. Analyses are in progress on soldiers' attitudes toward women in combat roles. Analyses of exiting soldiers'

attitudes have been conducted quarterly since 3rd Quarter FY91 and a revised exit survey, including items on separation incentives, is currently being implemented. Feasibility assessment of designing a dynamic optimization model of the Army's personnel system to assist in evaluating PCS policy changes was begun 3rd quarter of FY92.

**Work Unit
(2106C1):**

Costs of Alternative Force Mixes

Sponsor:

ODCSPER (DMPM, MG Vollrath)

Issue:

How to efficiently downsize the active enlisted force.

Approach:

To build an operational active Enlisted Personnel Inventory, Cost, and Compensation (EPICC) model to "grow" and cost alternative forces of varying characteristics.

Utilization:

Will provide Army manpower analysts and decision-makers with an easy-to-use tool for projecting the long-run effects of manpower policies and resource decisions on the enlisted force. EPICC provides the ability to investigate links between compensation, retention, and manpower cost with a projection capability to capture the complex interactions between a variety of manpower policies.

Est. Cost:

<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
----	----	----	----

Start Date:

End Date:

Status:

The effort to develop an enhanced operational EPICC model was cancelled. The Director of Military Personnel Management (DMPM) recommended that further work on this model not proceed because the staff did not accept the model as adequately representing the policies or methodologies used within DMPM and that the necessary "fixes" would not be cost effective. (Work on this effort was done as part of monitoring a previous contract effort on EPICC.)

Work Unit
(1331C02): Annual Updates Through FY93 for Analysis Databases

Sponsor: ODCSPER (DMPM, MG Vollrath)

Issue: Manpower databases configured to support research-based studies and analysis need to be updated on a routine basis.

Approach: To build and update a database on Army College Fund usage combining VA, Army, and actuarial records for FY 92 and FY 93. To update the Enlisted Panel Research Database (EPRDB) of longitudinal records of enlisted personnel for FY 91 and FY 92. To update the Officer Longitudinal Research Data Base (OLRDB) and the Longitudinal Officer Administrative Data Base (LOADB) for officers for FY 92.

Utilization: Assist in determining and defending recruiting budget; monitor ACF program costs assessed by DOD actuary; estimate usage and costs of any enhancements to existing ACF program. Uses include analyses in support of TAS requests; determination of officer and enlisted characteristics and behavior; development of the Annualized Cost of Leaving (ACOL-2) models.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$11K	\$157K	\$157K	\$325K

Start Date: 1st Quarter FY93 **End Date:** 4th Quarter FY94

Status: The ACF usage databases have been updated to be current through the second quarter of FY 92; this work was initiated in FY92 under Work Unit 2106C2, "Army College Fund Database". The OLRDB has been updated to be current through FY 91. The LOADB has been developed and is being brought up to date through FY 91. The FY 90 update of the EPRDB was completed in June 1990; it is expected that the EPRDB will be updated through FY 92 during FY 93. During FY 92 the most important utilizations of these databases included: (1) development of a preliminary ACOL-2 model for officer retention; (2) TAS for congressional testimony on RA/OTRA commissions; (3) TAS for Chief of Staff of the Army Assessment project.

**Work Unit
(1331C03):**

Development of Threshold Levels of Quality-
Feasibility

Sponsor: ODCSPER (DMPM, MG Vollrath)

Issue: To determine the proper accession quality mix for
the Army.

Approach: To establish a relationship between quality, as
defined by educational status and scores on the
Armed Forces Qualification Test, and performance
in training, indiscipline rates, or other
performance indicators. Develop optimization
methodologies to determine minimum and maximum
quality goals given specific budget constraints.

Utilization: Results will assist the Army in justifying its
recruiting budget to Congress and in determining
the quality mix it should recruit.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	----	\$39K	----	\$39K

Start Date: 1st Quarter FY93 **End Date:** 4th Quarter FY93

Status: New start.

**Work Unit
(1331C04):**

Utilization of FAARRS-SHARE Methodology

Sponsor: ODCSPER (DMPM, MG Vollrath)

Issue: How to efficiently allocate recruiting resources to achieve accession targets.

Approach: To enhance the utilization of the Forecasting and Allocation of Army Recruiting Resource Study - Sequential Hierarchical Allocation of Resource Elements (FAARRS-SHARE) model in determining the efficient allocation of recruiting resources.

Utilization: Enhancements to the FAARRS-SHARE model are required to expand the model from its current operational use to support studies and analyses of possible policy changes. The enhanced model will provide the Army forecasts of contracts and accessions given recruiting resource levels, estimates of resources required to achieve given contract or accession targets, and the effects and interactions of management decisions with, for example, structure changes in the recruiting force. This model can also be used to evaluate the effects of suggested changes in a recruiting program or in resource availabilities.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$260K	\$90K	----	\$350K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Status: A validation study and a sensitivity analysis of the methodologies developed in FAARRS-SHARE were completed. A follow-on enhancement will be completed in FY93.

Work Unit
(1331C05): Future Personnel Systems: PCS Model Developments

Sponsor: ODCSPER (Dir, HRD, BG Jones)

Issue: The downsizing of the Army and the attendant reduction of its overseas stationing requirements will allow a greater degree of stability in the personnel system. This situation provides the Army with a unique opportunity to implement Permanent Change of Station (PCS) policies which can increase unit cohesion, readiness, and family well being. The Army needs a means of evaluating the impact of proposed PCS policy changes.

Approach: To develop a dynamic optimization model of the Army's personnel system to assist in evaluating PCS policy changes.

Utilization: Assist in determining the impact of changes to PCS policies on (1) the flows of manpower within the force, and (2) the degree of congruence between those flows and personnel requirements. Also assist in determining the budgetary, promotion and retention impacts and gross feasibility of policies.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	----	\$308K	\$308K	\$616K

Start Date: 2nd Quarter FY93 **End Date:** 4th Quarter FY94

Status: New start.

TASK 1332: MARKETING AND ADVERTISING

OBJECTIVE: Resolution of active and reserve recruit marketing issues for sustaining a quality force. Immediate issues include labor market competition and negative influences from Operation Desert Shield/Storm (ODS/S) and downsizing.

FUNDING:

<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
\$194K	\$512K	\$306K

Work Unit (1332H01): Marketing and Recruiting Strategies

Sponsor: CG USAREC (MG Wheeler)

Issue: How to best reach the recruiting market to enlist sufficient numbers of high quality soldiers (Active and Reserve).

Approach: Recruitment of women and minorities are currently important issues as are parental influences and the recruitment of reserves and medical personnel.

Utilization: More effective marketing strategies and advertising programs.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$165K	\$128K	----	\$293K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Status: Draft report completed on analysis of recruits' views on women in combat. Analyses of data from Army nurses on Active Duty and in the US Army Reserve and Army National Guard are in progress, on the subject of recruitment of nurses. Analyses of the impact of the information shock of Desert Storm on Delayed Entry Program attrition are in progress. Analyses were completed on the impact of ODS/S on the advice that soldiers leaving the Army in 1991 would give to potential recruits; analyses are planned for 4th quarter of FY92 on the impacts of ODS/S and downsizing on the advice that currently serving active and reserve soldiers would give to potential recruits.

Work Unit
(1332C01):

Army Alumni Survey (Previous title: Transitioning of Soldiers to Civilian Life)

Sponsor: CG USAREC (MG Wheeler)

Issue: Determine how to best transition soldiers to civilian life.

Approach: The Army is facing the first transition of large numbers of RIFed soldiers and combat veterans of an all recruited Army. Monitoring this transition is vital for future recruitment efforts. This survey is a longitudinal effort that will resurvey veterans who completed the New Recruit Survey (NRS) at accessioning.

Utilization: More effective transitioning programs resulting in more good will for the Army and increased propensity for enlistment.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$13K	\$226K	\$218K	\$457K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY94

Status: Contractual arrangements for executing the survey, expected to start in the 1st quarter of FY93, have been completed.

Work Unit
(1332C03): Survey of Civilian Nurses

Sponsor: CG USAREC (MG Wheeler)

Issue: The Army has not achieved its nurse recruiting objectives. The shortfall is extremely serious for both the active and reserve components.

Approach: To administer a survey to employed civilian nurses and nursing students.

Utilization: Provide the Army with least-cost incentives for recruiting nurses.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$16K	\$158K	\$88K	\$262K

Start Date: 2nd Quarter FY92 **End Date:** 2nd Quarter FY94

Status: This work unit was initiated in FY92 as 2106C3. Efforts to date have been preparation of the Request for Procurement package. The survey effort is expected to start in the 2nd quarter of FY93. A Statement of Task has been prepared and OMB approval is being sought.

**SECTION
B**

**TRAINING SYSTEMS
RESEARCH DIVISION**

**FY 1993
STUDY & ANALYSIS PROGRAM**

**TSRD POC
Dr. Jack Hiller
DSN 284-8622
Com (703) 274-8622
FAX (703) 274-5461
FAX (DSN) 284-5461**

**TASK 2131: ANALYSES OF COMBAT TRAINING
CENTER (CTC) PERFORMANCE**

OBJECTIVE: To provide answers to critical issues for the Combined Arms Training Strategy (CATS) and unit readiness assessment.

FUNDING:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>
	\$986K	\$995K	\$120K

Work Unit (2131H01): Recommendations for Improving CSS Data Collection

Sponsor: TRADOC (CAC-T), BG William L. Nash, DCG-TNG

Issue: What is the capability of the Logistics System to support combat forces in meeting operational needs?

Approach: The CTCs provide the opportunity to fully execute CSS activities in a realistic environment which is not available during home station training. Consequently, they can provide information not available elsewhere. Data currently being collected will be compared to information needs of the CSS community to identify adequacy of current data and recommendations for improvement will be made.

Utilization: Assist the Combined Arms Logistics Center in improving CSS doctrine and training using CTC data.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$148K	----	----	\$148K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY92

Status: Activities were coordinated with CALL, NTC, CASCOM schools (Quartermaster, Ordnance, Missile Munitions, Health Sciences, Transportation, and Soldier Support Center). Conducted workshop to identify data collection requirements. Developed data collection plan for CSS elements. Coordinated and revised data collection plan with NTC Operations Group. Based upon NTC findings, arrangements will be made for data collection at JRTC and CMTC. These data will be analyzed and a final study report completed by the end of FY92.

**Work Unit
(2131H02):**

Profiles of Unit Performance Strengths and Weaknesses in the Maneuver Battlefield Operating System (BOS) Across the Combat Training Centers (CTC)

Sponsor: TRADOC (CAC-T), BG William L. Nash, DCG-TNG

Issue: What are current performance strengths and weaknesses in the maneuver BOS demonstrated at the CTCs?

Approach: A series of analyses of existing data from the NTC, JRTC, and CMTC will be performed to determine major areas of common unit maneuver performance strengths and weaknesses, with an emphasis on weaknesses, for Active Components and Reserve Components.

Utilization: CAC-T will use this information for development of the Combined Arms Training Strategy (CATS) for the Active and Reserve components.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$254K	\$130K	----	\$384K

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Status: Completed Intelligence BOS detailed content analysis of Take Home Packages (THP) for 266 NTC missions from rotations. Scored performance on Intel and Scout activities based on O/C comments and assessments. Identified activities associated with successful assessments based on overall O/C comments. Prepared draft report which is undergoing review. In the second phase of this study on the Maneuver BOS, initiated analysis of THP for NTC missions, employing the same procedures used for analysis of the Intelligence BOS.

Work Unit
(2131H03): Lessons Learned by Observer/Controllers at CTCs

Sponsor: TRADOC (CAC-T), BG William L. Nash, DCG-TNG

Issue: What Doctrine, Training, Organizational, Materiel, and Leadership (DOTML) Lessons Learned can be obtained from the oral histories of experience observer/controllers at the National Training Center?

Approach: A database of O/C oral histories has been collected in routine O/C debriefings at the conclusion of their tour at the National Training Center. This database should provide a rich source of DOTML information from some of the most experienced trainers in the Army.

Utilization: CAC-T will incorporate the results of this study in their Army Lessons Learned Program.

Est. Cost:

	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$270K	\$100K	----	\$370K

Start Date: 1st Quarter FY92 **End Date:** 2nd Quarter FY93

Status: Preliminary database established for CTC oral histories. Content analysis completed on sample of O/C exit interviews at NTC. Presently have 30 NTC oral histories and are in the process of obtaining JRTC oral histories. Arrangements have been made for continuous acquisition of oral histories from both NTC and JRTC. Also, have obtained from both NTC and JRTC their last two quarterly reports which contain O/C evaluations of strengths and weaknesses observed during the quarter. Have initiated analysis to determine how best to utilize this data source for conduct of trend analysis. A study report has been submitted for publication based upon an analysis of this archival data. The issue topic was survival rate for commanders during battles at NTC. Analyses included whether commanders were "fighting" when "hit" and where they were located when they became casualties.

Work Unit
(2131H04): Combat Training Center (CTC) Data Requirements and Quality

Sponsor: TRADOC (CAC-T), BG William L. Nash, DCG-TNG

Issue: What are the data available at the CTCs and how should quality control be provided for them?

Approach: In order to ensure that all critical data are collected at the CTCs, the types of data available from the CTCs will be identified, collected as close to the source as accurately and efficiently as possible, and transmitted effectively to the archive. Three major tasks will be involved: 1) assess the data availability and quality control of the present system, 2) determine requirements for future systems, and 3) perform a discrepancy analysis in terms of requirements and the elements provided.

Utilization: The accuracy and thoroughness of the CTC data bases will be substantially increased, providing users of the archive the best possible data to develop Army Lessons Learned.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	----	\$257K	----	\$257K

Start Date: 1st Quarter FY93 **End Date:** 4th Quarter FY93

Status: New Start

Work Unit
(2131H05): Tactical Commander Behavior and Unit Performance
at the Combat Training Centers

Sponsor: TRADOC (CAC-T), BG William L. Nash, DCG-TNG

Issue: What is the survivability of commanders during the execution of battles and how is the practice of command succession implemented following commander loss?

Approach: Army doctrine calls for commanders to position themselves forward so as to be better able to "see the battlefield" and command and control their forces. Such positioning may, however, contribute to decreases in the survivability of commanders and to increases in the need for clear procedures regarding commander succession. Preliminary analysis of commander survivability performed in FY92 will be extended as part of Work Unit 2131H03. That data will be incorporated into this study. Additional analyses of commander survivability drawn from battles fought at the NTC will be conducted and the conditions underlying survivability will be identified. Data regarding the procedures developed by units for command succession at home station will be compared to the actual practices followed during battles fought at CTCs.

Utilization: CALL will be provided with material for Lessons Learned on commander survivability and command succession and practices.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	----	\$95K	----	\$95K

Start Date: 1st Quarter FY93 **End Date:** 4th Quarter FY93

Status: New Start

**Work Unit
(2131C01):**

Strengths and Weaknesses in Indirect Fire, Air Defense and Mobility/Counter-mobility Battlefield Operating Systems (BOS) Across the CTCs

Sponsor: TRADOC (CAC-T), BG William L. Nash, DCG-TNG

Issue: What are current major unit performance strengths and weaknesses in these BOSs as demonstrated at the CTCs?

Approach: A series of analyses of existing data from the NTC, JRTC, and CMTC will be performed to determine major areas of common unit performance strengths and weakness, with an emphasis on weaknesses, for Active Components and Reserve Components.

Utilization: CAC-T will use this information for development of the Combined Arms Training Strategy (CATS) for the Active and Reserve components.

Est. Cost:	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>TOTAL</u>
	\$314K	\$413K	\$120K	\$847K

Start Date: 2nd Quarter FY92 **End Date:** 2nd Quarter FY94

Status: Start-up was delayed for two quarters, and began in the 4th Qtr FY92, with the award of a delivery order contract to BDM. Analyses are being planned which will provide profiles of task force strengths and weaknesses related to Battlefield Operating Systems (BOS), Critical Combat Functions (CCF), and critical combat tasks. These analyses will utilize several databases and analytical tools, the latter of which will subsequently be incorporated into the CTC Archive users' program of instruction.