

ADA 041194

12
p. 5



DDC
JUL 5 1977
D

CENTER FOR MANAGEMENT AND
ORGANIZATIONAL RESEARCH
RESEARCH DIVISION
COLLEGE OF BUSINESS ADMINISTRATION

UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA 29208

DISTRIBUTION STATEMENT

Approved for public release
Distribution Unlimited

Best Available Copy

AD No. _____
DDC FILE COPY

PRE-RECRUIT TRAINING VALUES, EXPECTATIONS,
AND INTENTIONS OF MARINE CORPS RECRUITS

William H. Mobley
Herbert H. Hand
John E. Logan
Robert Baker

Center for Management and Organizational Research ✓
College of Business Administration
University of South Carolina
Columbia, S. C. 29208

This report was prepared under the Navy All Volunteer
Force Manpower R & D Program of The Office of Naval
Research under Contract N000 14-76-C-0938. *New*

Reproduction in whole or in part is permitted for any
purpose of the United States Government.

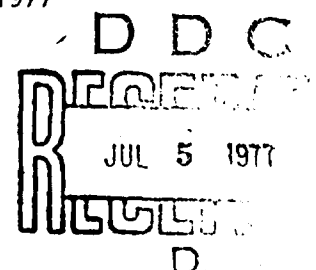
Approved for public release; distributed unlimited.

May, 1977

Rest Available Copy

DESIGNATION	White Section	☒
DESIGNATION	Black Section	☐
DESIGNATION	Other Section	☐
JUSTIFICATION		
DISTRIBUTION/AVAILABILITY GROUPS		
DTIC	ANAL. AND/OR SPECIAL	

A



ACKNOWLEDGEMENTS

The authors gratefully acknowledge the contribution and assistance of a large number of individuals to this research effort. Although those deserving mention are too numerous to list, we do single out the following for their outstanding assistance: Colonel William Osgood, MPI-20; Captain Hockaday, MPI-20; Mr. Steve Gorman, MPI-20; Major Rod Kempf, Parris Island; Major A.R. Rideout; Millington; Lt. Colonel D.E. Davies, Camp Lejeune; Commander Richard Curley, BuPers; Dr. Richard Elster, BuPers; Dr. Bert King, ONR; and the many Marine Corps enlisted personnel who are participating in this study. We acknowledge the valuable contribution of our Research Assistants, John Cathcart, Roger Griffeth, and Alan Curtis.

Best Available Copy

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER (14) TR-2	2. GOVT ACCESSION NO.	3. REPORT'S CATALOG NUMBER (9)
4. TITLE (and Subtitle) (6) Pre-Recruit Training Values, Expectations, and Intentions of Marine Corps Recruits		5. TYPE OF REPORT & PERIOD COVERED Technical Report
6. AUTHOR(s) (15) William H. Mobley, Herbert H. Hand, John E. Logan and Robert Baker		7. PERFORMING ORG. REPORT NUMBER
8. PERFORMING ORGANIZATION NAME AND ADDRESS Center for Management and Organizational Research College of Business Administration University of South Carolina, Columbia, S.C. 29208		9. CONTRACT OR GRANT NUMBER(s) N00014-76-C-0938
10. CONTROLLING OFFICE NAME AND ADDRESS Organizational Effectiveness Research Programs Office of Naval Research (Code 452) Arlington, VA 22217		11. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR 170-819
12. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) (11) 10 May 77 (12) 54p		13. REPORT DATE May 10, 1977
		14. NUMBER OF PAGES 50
		15. SECURITY CLASS. (of this report) Unclassified
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		17. DECLASSIFICATION/DOWNGRADING SCHEDULE
18. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
19. SUPPLEMENTARY NOTES		
20. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
Expectations	Job Content	Roles
Attrition	Leadership	Values
Attitudes	Group Climate	Education
Recruit Training	Longitudinal	Race
		Behavioral Intentions
21. ABSTRACT (Continue on reverse side if necessary and identify by block number)		
Report summarizes the first phase of a longitudinal study of individual and organizational causes and correlates of attrition among first term enlisted personnel in the U.S. Marine Corps: Pre-recruit training values, reward expectations, expected leadership, job content, and group climate are described. Behavioral intentions and the correlates of these intentions are analyzed. The attraction of Marine and Civilian Roles are compared.		

DD FORM 1473

EDITION OF 1 NOV 65 IS OBSOLETE

S/N 0102-014-6001

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

420266

1

PRE-RECRUIT TRAINING VALUES, EXPECTATIONS, AND
INTENTIONS OF MARINE CORPS RECRUITS

Introduction

This report summarizes the first phase of a longitudinal study of individual and organizational causes and correlates of attrition among first term enlisted personnel in the U.S. Marine Corps. The overall design of the study is described and the measures and sample composition are discussed. Data describing the pre-recruit training values, expectations, and intentions of Marine Corps Recruits are presented and discussed. Finally, analyses to be reported in subsequent technical reports are outlined.

The conceptual models, measures, and results of this longitudinal study are of potential interest to both the manpower and basic research communities. However, it is difficult to address the needs and interests of both communities in the same report while maintaining a reasonable length. Since the present research is being supported by developmental rather than basic research funds, this report is written with the interests of the manpower community as the primary concern. Several of the subsequent technical reports will deal with conceptual, theoretical and methodological issues of primary interest to the basic research community.

Problem

Attrition among first term enlisted military personnel is a problem of justifiable concern. Declining numbers of citizens

in the primary recruiting age groups, an improving economy providing alternative employment opportunities, and increasingly technologically sophisticated manpower requirements serve to under-score the nature of the problem. (See e.g. Matthews, 1977). Pre-end of active obligated service (EAOS) attrition places additional burden on the recruiting function which is already dealing with a tightening labor market. Pre-EAOS attrition represents a significant cost to the military (see e.g. Huck and Midlam, 1977) and a potentially significant cost to individuals who attrite. (This does not imply that all attrition is bad. Attrition of certain individuals at certain times may be desirable from cost-effectiveness, unit-effectiveness, and individual perspectives. This issue will be explored in a subsequent paper).

Research on military attrition has been reviewed elsewhere (Logan, Cathcart, Hand and Mobley, 1977). That review indicated that the military research on attrition: has placed relatively more emphasis on re-enlistment than pre-EAOS attrition; has placed relatively more emphasis on individual variables (e.g. education, mental grade, etc.) than on organizational variables; has infrequently analyzed the possible joint or interactive contribution to attrition of individual and organizational variables; has infrequently utilized longitudinal designs; and has infrequently used experimental designs. Also, it should be noted that the shift to the all volunteer concept raises issues of generalizability of pre-1973 research.

The present research program seeks to assess the contribution to pre-EAOS attrition of both individual and organizational variables using multivariate analyses, a longitudinal design, and subjects

who enlisted after the shift to the all volunteer military.

General Model

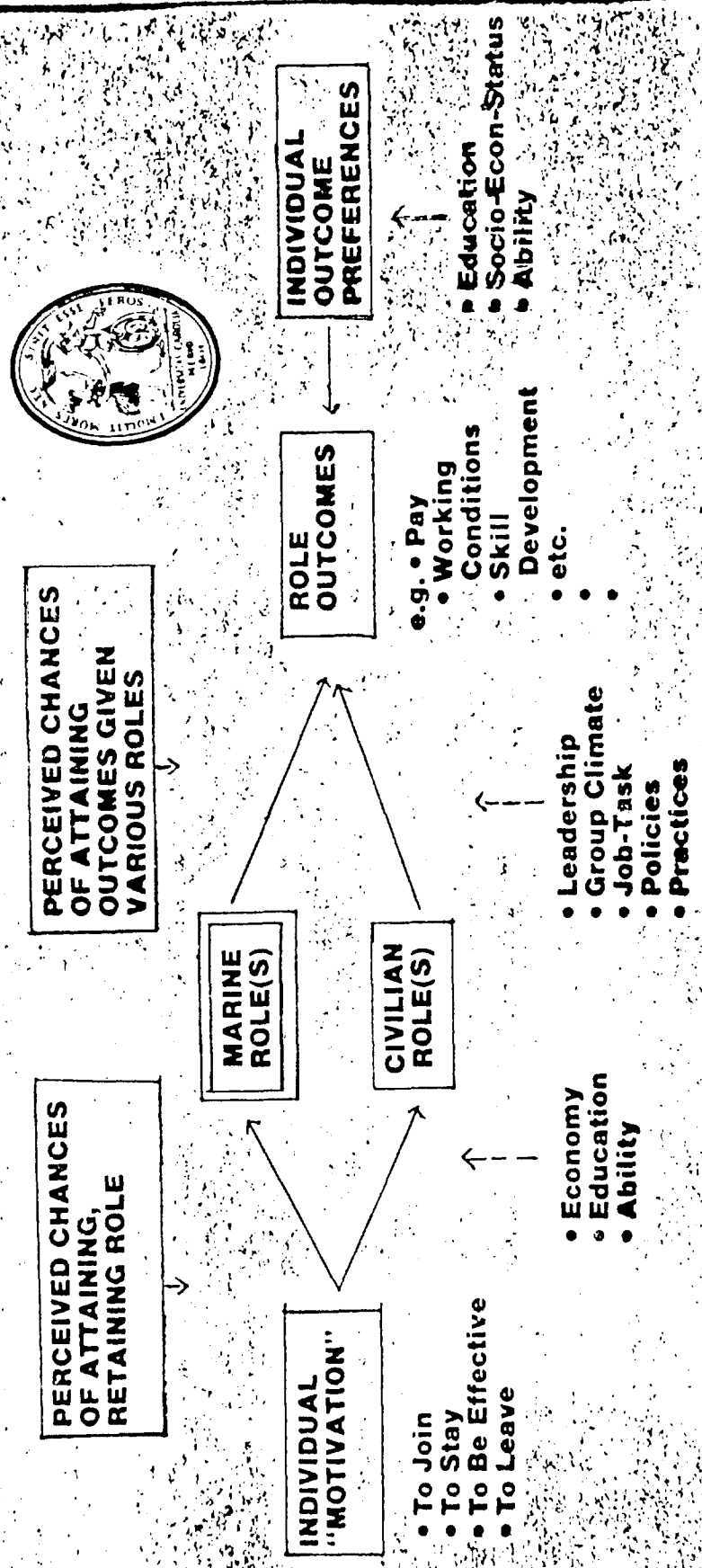
The general model serving as a basis for this study is a role choice model. (See Figure 1). This model is a variant of the generalized expectancy model of organizational behavior (Vroom, 1964; Campell, Dunnette, Lawler, and Weick, 1970; Dachler and Mobley, 1973; Lawler, 1973). For reviews of the expectancy model, see Locke (1975) and Mitchell (1974). See Wiskoff (1977) for a multinational review of military career expectation research.

The role choice model being used here addresses the following kinds of questions. Why do individuals choose a military role, in the present case an enlisted Marine Corps role, as opposed to a civilian role? Why do individuals choose to engage in effective role behavior, in the present case behavior which will not lead to pre-EAOS discharge? Why do individuals choose to reenlist or nor reenlist?

The model suggests that role choice can, in part, be understood and predicted by knowledge of:

- a) The value individuals place on various role outcomes or consequences, e.g. pay, learning new skills, travel, etc.;
- b) The individuals perceived expectancy that a given role will or will not lead to various outcomes or consequences; i.e. role-outcome expectancy;
- c) The individual's expectancy regarding being able to attain the role, i.e. role expectancy, e.g. perceived

FIGURE 1



A GENERALIZED MODEL OF MARINE ROLE ATTRACTION

chances of finding an acceptable civilian role or perceived chances of being a "successful" Marine.

As will be described in the measures section of this report these variables can be combined in various ways to generate, for each individual, role attraction indices for both civilian and Marine roles. The individual variables and the various composite role attraction indices are then evaluated in terms of their relation to attrition.

Since the model is a choice model, it is important to assess the individual's perceptions of both the Marine role and alternative (civilian) roles. (See Schneider, 1976 for a discussion of this important point.) An individual's withdrawal from the Marine Corps may be related to more than simply his perception and evaluation of the Marine Corps. It also may be related to his perception and evaluation of the desirability and availability of alternatives.

Individual level variables such as education, age, mental grade, etc., have been shown to be related to pre-EAOS attrition (Matthews, 1977; Lockman, 1975; Sands, 1976). In the present research program, such individual level variables as age, education, mental grade, and marital status will be analyzed in terms of their relation to; values, expectancies, and role attraction; changes in values, expectancies, and role attraction; perceived organizational variables; and to attrition either directly or in combination with other individual and organizational variables.

Based in part on the Porter and Steers (1973) review of variables related to withdrawal (attrition) behavior, the study

includes measures of leadership, job content, and group climate. These organization variables, as perceived by the individual, are assessed in terms of their direct relationship to attrition and as they are related to the various components of the role choice model.

It is assumed that outcome values, role-outcome expectancies, and role expectancies are learned and are modified by experience. One advantage of the longitudinal design is that it affords the opportunity to track the learning-socialization process as it affects these and other variables and as this process relates to attrition.

Summarizing the basic role model:

- a) It is a choice model which considers perceptions and evaluations of both Marine roles and alternative civilian roles;
- b) It considers both individual and organizational variables;
- c) Combined with a longitudinal design, it permits assessment of the learning-socialization process.

It is believed that use of this conceptual model will contribute not only to prediction of attrition from individual and organizational variables, but also to the understanding of the attrition process.

The Present Report

Following a description of the measures, sample, and procedures, the present report focuses on pre-recruit training

values, expectancies, and behavioral intentions of new Marine recruits. The following questions are of primary concern in this report:

- 1) What work role outcomes do new recruits value?
What rewards, conditions, consequences do new recruits consider desirable or undesirable?
- 2) What are new recruits' role-outcome expectancies?
 - a) What are new recruits' expectancies of attaining the various outcomes by being in a Marine role?
 - b) What are new recruits' expectancies of attaining the various outcomes if they were in a civilian role?
- 3) What are new recruits' role expectancies?
 - a) What are new recruits' perceived chances of being a "successful" Marine, e.g. completing their enlistment?
 - b) What are new recruits' perceived chances of finding an acceptable civilian job right now if that were their goal?
- 4) What are new recruit's expectations regarding
 - a) Leadership;
 - b) Job content;
 - c) Group climate?
- 5) How do individual variables such as education, race, age, etc. relate to questions one for five?
- 6) What are new recruits' intentions with respect to:
 - a) Completing their enlistment;
 - b) Reenlistment?

- 7) What are the correlates of the new recruits intentions to complete and to reenlist?

METHOD

Basic Design

The basic longitudinal design is summarized in Figure 2. Survey measures are administered at the beginning of basic recruit training, again at the end of recruit training, near the end of advanced training, on subsequent duty station, or at the time of attrition.

The portion of the longitudinal study reported here deals with the Phase I, or pre-recruit training, measure administered at the beginning of recruit training.

Sample

The longitudinal (tracking) sample is composed of Parris Island male first-term enlisted accessions. The pre-recruit training measure was administered to new recruits from August 7 to August 28, 1976. Of the 2,006 who took the measure, 1,960 provided useable responses. The use of a single month's accessions from one recruit training depot raises potential constraints on generalizability. This issue will be discussed in the results and discussion sections of this paper.

Measures

The measures being used in this study are summarized in Figure 3. The individual level variables of age, mental, education, race, marital status, and number of dependents were collected from the RAMS computer file.

The component measures of the role choice model were collected via survey. These components include the following:

- (a) Enlisted personnel were presented a list of 50 role outcomes and asked to rate them on a +2 to -2 scale of desirability-undesirability. The role outcomes, generated from previous research, interviews, and pilot tests, include such things as

FIGURE 2

BASIC LONGITUDINAL DESIGN

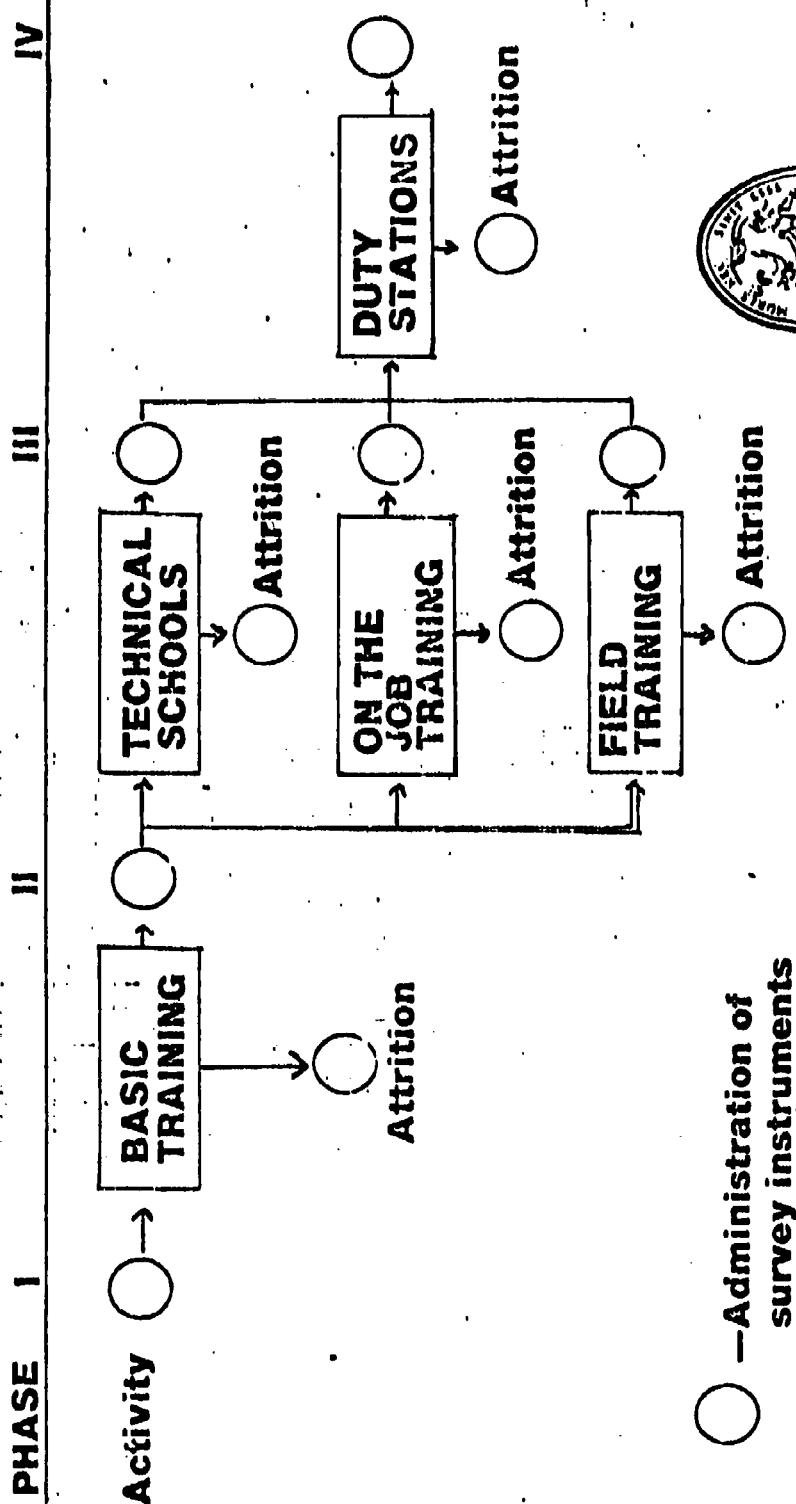
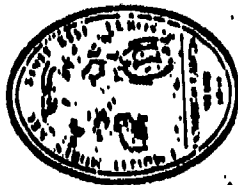


FIGURE 3

MEASURES



<u>INDIVIDUAL</u>	<u>ORGANIZATIONAL</u>	<u>CRITERIA</u>
• AGE • MENTAL GRADE • EDUCATION • RACE • DEPENDENTS • ROLE ATTRACTION—MARINE • ROLE ATTRACTION—CIVILIAN	• LEADERSHIP (LBDQ) - CONSIDERATION - STRUCTURE • GROUP (GDDQ) - HOMOGENEITY - PERMEABILITY - STABILITY - HEDONIC TONE - PLUS 9 OTHER DIMENSIONS • JOB (JDS) - SKILL VARIETY - TASK SIGNIFICANCE - FEEDBACK - PLUS 7 OTHER DIMENSIONS	• INTENTIONS - EAOS - RE-ENLISTMENT • PRE-EAOS ATTRITION - ADMINISTRATIVE REASONS - SELF-REPORT REASONS • PERFORMANCE - SELF-REPORT - MASTER FILE - Individual Recruit Training Performance

"learning career skills," "separation from family," "responsibility," etc. The term "outcome" refers to rewards, costs, and conditions possibly associated with a job or role.

- (b) Role-outcome expectancies: Marine: for each of the 50 role outcomes, enlisted personnel were asked to rate, on a scale of 0 to 1.0, their chances of attaining that outcome by being a Marine.

Role-outcome expectancies: Civilian: for each of the 50 role outcomes, enlisted personnel were asked to rate, on a scale of 0 to 1.0, their chances of attaining that outcome by being in a civilian job.

- (d) Role-expectancy: Marine: enlisted personnel were asked to rate their chances of successfully completing their first term enlistment, on a scale of 0 to 1.0.
- (e) Role-expectancy: Civilian: enlisted personnel were asked to rate their chances of finding an acceptable civilian job right now if that were their goal, on a scale of 0 to 1.0.

Based on these component ratings, several composite index variables were generated for each individual.

- (f) Role attraction: Marine: is the sum of the cross-products of the 50 role outcome and Marine role-outcome expectancy ratings.
- (g) Role attraction: Civilian: is the sum of the cross products of the 50 role outcome and civilian role-outcome expectancy ratings.
- (h) Role Force: Marine: is the Marine role attraction index weighted by expectancy of successfully completing the first term enlistment.
- (i) Role Force: Civilian: is the civilian role attraction index weighted by expectancy of finding an acceptable civilian job.

(A number of other summation, discrepancy, and/or multiplicative composite indices may be generated. The utility of alternative indices will be evaluated in subsequent methodological and conceptual reports.)

The organizational level variables, as perceived by enlisted personnel, were assessed with standardized survey measures. The Leader Behavior Description Questionnaire (Stogdill and Coons, 1957) assesses perceived leader "Consideration" and "Initiating Structure." The Group Dimension Description Questionnaire (Hemphill, 1956) assesses 13 dimensions of groups including such things as homogeneity, stability, and hedonic tone. Two

group sociometric measures, attraction and proficiency (Libo, 1953), also were included. The short version of Job Diagnostic Survey (Hackman and Oldham, 1974, 1975) assesses various dimensions of job content, e.g. skill variety, task significance, feedback, etc. This measure also includes job satisfaction scales and individual level measures of internal motivation and growth need. A complete list and definitions of the dimensions of the organizational measures are given in Appendix I.

For the pre-recruit training administration of the survey measures, personnel were instructed to respond to the leadership, group, and job content measures in terms of what they expected. Subsequent administrations called for a descriptive rather than expected response set.

Criteria data collected via survey included behavioral intentions to complete first term enlistment, behavioral intentions to reenlist, performance goals, and in the case of attrites, self-report ratings of reasons for their attrition. Criteria data being collected from the HMC master file include administrative reasons for attrition and re-cycle information.

Procedure

The measures were given two pilot tests: the first using enlisted personnel assigned to the University NROTC unit; the second using a platoon of July, 1976 Parris Island recruits. Based on the pilot tests, the instructions were clarified, ambiguous items were clarified or deleted, minimal variance items were deleted, and several new questions were added based on suggestions of pilot study subjects.

The pre-recruit training measures were administered as a part of administrative processing during the first few days after arrival at the recruit depot. The survey was administered by the University researchers

to groups of three platoons at a time. Recruits were read the appropriate freedom of information passage (which was also included in the survey booklet); informed that participation was voluntary; and that individual responses were confidential. Survey responses were made on machine readable answer sheets. ID numbers were requested for the purpose of matching subsequent administrations of the survey and matching with the RAMS and master file. All officers, NCO's and DI's remained out of the room during administration of the survey.

RESULTS

Sample Composition

Table 1 presents a summary of the demographic characteristics of the August, 1976 Parris Island accessions serving as the longitudinal sample. The sample means were compared with the means for the previous year's Marine Corps accessions. Due to the very large sample sizes, several relatively small mean differences were statistically significant. As can be seen in Table 1, the longitudinal sample was slightly younger, and was more likely to have completed high school. There were non-significant differences in AFQT, number of dependents and percentage minority.

The fact that the tracking sample had a substantially higher percentage of high school graduates than the previous year's accessions could pose generalizability problems. However, the Marine Corps has a current recruiting goal of 75% high school graduates. Thus, the 74% high school graduate representation in the sample could be more representative of the coming year than the past year.

TABLE I
DEMOGRAPHIC COMPARISONS BETWEEN PARRIS ISLAND TRACKING
SAMPLE AND PREVIOUS YEAR MARINE CORPS ACCESSIONS

Variable	(a) Tracking Sample Parris Island		(b) Marine Corps Accessions, Previous Year		(a vs b)
	Mean	SD	Mean	SD	
Age	18.89	1.45	19.00	1.81	t = 2.21*
Dependents	0.06	0.27	0.08	0.32	t = 1.30
Mental (AFQT)	60.28	19.12	59.98	18.19	t = 0.61
% High School Graduate	74%		63%		z = 8.39**
% Minority	23%		21%		z = 1.80
N	1,396		41,248		

* p < .05 two tailed
** p < .01 two tailed

Source: RAMS File
Printout A-10

Reliability of the Organizational Measures

The internal consistency reliability estimates for the various organizational variables are summarized in Table 2. The estimates are based on the Spearman-Brown reliability formula (Guilford, 1965). While the leadership dimensions exhibited fairly high internal consistency, a number of the job content and group dimensions exhibited low internal consistency. This may be due, in part, to the low variance in some items and to the fact that the new recruits were responding from an "expected" rather than descriptive response set.

To the extent the internal consistency reliability estimates are low due to heterogeneous item content, the sub-score dimension labels may be misleading. Comparison of the reliability estimates from this phase of the study and subsequent phases of the study should help clarify interpretation of the internal consistency results.

The role attraction measures are based on a list of 50 outcomes (rewards, costs, conditions, etc). The outcomes were selected on the basis of previous research (e.g. Goodstadt and Glickman, 1975), interviews with recruits, and two pilot tests. Although the outcomes will be analyzed individually and in overall summary variables, it is useful to know the factors or dimensions represented in the 50 outcomes. Table 3 summarizes a factor analysis of the outcomes as rated for desirability-undesirability by the new recruits. Eight factors, accounting for 51% of the total variance, were identified. The factors were: self-control; structure; benefits; learning-rewards; travel; job content; physical danger; and leader. In subsequent reports, the stability of this factor structure over time and experience in the Marine Corps will be assessed.

TABLE 2
RELIABILITY ESTIMATES FOR THE PRE-RECRUIT TRAINING
ADMINISTRATION OF THE ORGANIZATIONAL MEASURES¹

Measure	Reliability Estimate	Measure	Reliability Estimate
Leadership (LBDQ)		<u>Group</u> (GDDQ)	
Consideration	.83	Control	.48
Initiating Structure	.80	Stability	.35
		Intimacy	.31
Job Content (JDS)		Stratification	.23
Skill Variety	.39	Hedonic Tone	.37
Task Identity	.35	Autonomy	.23
Task Significance	.49	Potency	.51
Autonomy	.50	Viscidity	.48
Feedback from Job	.45	Permeability	.05
Feedback from Others	.56	Participation	.07
Dealing with Others	.43	Polarization	.35
Internal Motivation ²	.61	Flexibility	.47
Growth Need ²	.73	Homogeneity	.59
		<u>Sociometric</u>	
		Attraction	.53
		Proficiency	.55

¹For the pre-recruit training administration, the organizational measures were completed with a "what do you expect it to be like" response set.

²Individual difference measures from the JDS.

Table 3

SUMMARY OF FACTOR ANALYSIS OF PRE-RECRUIT
TRAINING OUTCOME DESIRABILITY RATINGS*

<u>FACTOR I: SELF-CONTROL-EQUITY</u>		<u>FACTOR II: STRUCTURE</u>		<u>FACTOR III: BENEFITS</u>	
Fair treatment from supv.	.44	Discipline enforced	.47	Financial benefits	.49
Sufficient leisure time	.56	Job important to country	.53	Job Security	.47
Superior concerned about me	.45	Duties clearly defined	.43	Insurance, medical	
Control of own activities	.72	Doing real man's job	.54	benefits	.61
Freedom to make own decisions	.77	Well disciplined organi-			
Control of own life	.65	zation	.60		
Flexible organization meets		Part of efficient organi-			
my needs	.48	zation	.43		
Personal freedom	.72	Physically demanding work	.45		
Organization keeps promises	.46	Good leadership	.43		
Promotional opportunities	.41	Working with people of			
		other race	.44		
		Job where I can become a man	.49		
<u>FACTOR IV: LEARNING-REWARDS</u>		<u>FACTOR V: TRAVEL</u>		<u>FACTOR VI: JOB CONTENT</u>	
Part of effective team	.50	Extensive travel	.66	Little responsi-	
Respect from friends,		See country and world	.65	bility	-.50
relatives	.44			Repetitive job	-.64
Learning new skills	.59				
Exciting job	.61				
Job pays well	.46				
Learning career skills	.40				
<u>FACTOR VII: PHYSICAL DANGER</u>		<u>FACTOR VIII: LEADER</u>			
Dangerous job	.55	Consistent leader	.48		
Potential violence	.62	Qualified leader	.43		

*Varimax rotated factor loadings (.xx)

Source: August, 1976 Parris Island Accessions, N=1960, Printout A-5.

Pre-Recruit Training Role Outcome Desirability and Role Outcome
Expectancy Ratings

The attraction of a work role, be it military or civilian, is thought to be a function of the extent to which the work role is seen by incumbents, or possible incumbents, as associated with the attainment of desired outcomes and not undesirable outcomes. If this is so, it is necessary to ask several questions of incumbents or possible incumbents, in this case new recruits. Specifically, what outcomes (rewards, costs, conditions) do new recruits consider desirable or undesirable in a work role? What are new recruits perceived changes (role-outcome expectancies) of attaining the outcomes by being a Marine or by being in a civilian work role. Data bearing on these questions are presented in Table 4.

It is instructive to look at the outcomes which have the highest and lowest average desirability ratings. Among the work role outcomes with the highest (most desirable) mean ratings were:

Learning skills that will help me later in life

Insurance and medical benefits

Job which gives me pride in myself

Job which pays well

Good financial benefits

Organization that fulfills its promises

An exciting job

Job where good performance is recognized

MEAN ROLE OUTCOME AND ROLE EXPECTANCY RATINGS
FOR PRE-RECRUIT TRAINING MARINE RECRUITS

Phase I

Outcomes	Outcome Desirability (1)			Chances of Attainment Marine (2)		Chances of Attainment Civilian (2)	
	Rank	Mean	SD.	Mean	SD	Mean	SD
1. Being part of an effective team	12	1.40	.84	.87	.21	.58	.30
2. Respect from friends and relatives	11	1.41	.81	.86	.21	.68	.27
3. Learning new skills	7	1.44	.77	.86	.20	.63	.28
4. Having an exciting job	8	1.44	.84	.75	.23	.57	.30
5. Having a dangerous job	43	- 0.03	1.10	.60	.30	.44	.31
6. Being in a job where discipline is strictly enforced	42	0.03	1.08	.78	.28	.47	.31
7. A job that pays well	4	1.55	.81	.72	.26	.61	.29
8. Long separations from home and family	49	- 0.93	1.00	.61	.32	.28	.32
9. A job that is important to the country	37	0.92	.90	.79	.26	.46	.34
10. Fair treatment from superiors	16	1.32	.93	.63	.29	.60	.30
11. Working with people I like	15	1.35	.86	.67	.25	.63	.27
12. A job where good performance is recognized	9	1.42	.82	.74	.26	.63	.28
13. A job that includes extensive travel	40	.53	1.14	.66	.27	.37	.31
14. A job where duties and orders are clearly defined	35	.98	.88	.81	.23	.62	.28
15. A job which gives me pride in myself	3	1.59	.78	.84	.23	.62	.31
16. A job where poor performance is penalized	41	.27	1.08	.75	.31	.53	.31
17. Sufficient leisure time to pursue your own interests	22	1.26	1.03	.54	.30	.68	.29
18. A job with little responsibility	46	- 0.59	1.03	.31	.29	.46	.29
19. Superiors who are concerned about me as an individual	25	1.21	.92	.60	.31	.53	.30
20. Learning skills that will help me in later life	1	1.67	0.71	.80	.24	.59	.31
21. Good financial benefits	5	1.55	.79	.77	.23	.58	.30
22. Being in control of your own activities	29	1.14	0.91	.50	.31	.63	.30
23. Freedom to make your own decisions	28	1.14	0.96	.48	.32	.62	.31

Phase I (Con't)	Outcome Desirability			Chances of Attainment		Chances of Attainment	
	Rank	Mean	SD	Marine		Civilian	
				Mean	SD	Mean	SD
24. Doing a real man's job	19	1.27	.80	.79	.24	.62	.28
25. Being part of a well-disciplined organization	34	1.07	.94	.87	.21	.52	.32
26. Being part of an efficient organization	24	1.23	.86	.85	.23	.60	.29
27. Physically demanding work	39	0.96	.93	.74	.25	.59	.28
28. Specific kinds of training I want	26	1.18	.84	.66	.27	.51	.31
29. Work under good leadership	14	1.35	.79	.79	.23	.62	.28
30. Working closely with people of another race	38	.58	.90	.78	.24	.59	.29
31. Being in control of your own life	10	1.41	.91	.55	.34	.72	.30
32. A high degree of job security	21	1.26	.89	.76	.25	.54	.30
33. Good insurance and medical benefits	2	1.57	.77	.87	.21	.56	.32
34. Interferes with marriage/family plans	50	-1.02	1.51	.54	.33	.33	.31
35. An organization flexible enough to meet my changing needs	36	.95	.92	.50	.31	.51	.30
36. Having clear work goals	33	1.09	.82	.73	.25	.61	.28
37. A high degree of personal freedom	30	1.12	.93	.48	.32	.65	.29
38. A job where you can "get your head together"	20	1.26	.90	.69	.28	.58	.29
39. A job where I can become a real man	23	1.24	.87	.80	.24	.58	.30
40. Getting away from a bad home situation	44	-0.11	1.23	.53	.37	.38	.31
41. A job involving potential physical violence	45	-0.20	1.18	.61	.32	.37	.31
42. Training opportunities that will contribute to my long term career plans	17	1.28	.86	.74	.26	.54	.31
43. A chance to see different parts of the country or the world	27	1.16	.98	.74	.26	.40	.34
44. Making a lot of new friends	32	1.12	.86	.80	.24	.61	.29
45. An organization that fulfills its promises to you	6	1.47	.85	.69	.28	.58	.29
46. Having a leader who is consistent	31	1.12	.91	.77	.24	.60	.28

Phase I (Con't)	Outcome Desirability			Chances of Attainment		Chances of Attainment	
				Marine		Civilian	
	Rank	Mean	SD	Mean	SD	Mean	SD
47. Working closely with people who use drugs	48	-.93	1.14	.29	.29	.45	.32
48. Having a leader who is well qualified	13	1.39	.82	.82	.23	.65	.27
49. A repetitive job with little responsibility	47	-.65	1.10	.37	.30	.47	.29
50. Rapid promotional opportunities	18	1.27	.87	.59	.28	.49	.29

CODING NOTE:

- (1) Outcome Desirability Scale: -2.0 = very undesirable to 2.0 = very desirable .
- (2) Outcome Expectancy Scale: 0=No chance of attainment to 1.0 = 100% chance of attainment. .

Max N = 1,960 New Recruits

Source: O.N.R./U.S.C. Phase I Data

August 1976 Parris Island Accessions

Printout A - 1

Being part of an effective team.

Being in control of own life.

Respect from friends and relatives.

The lowest (least desirable) mean outcome desirability ratings included:

Job interferes with marriage-family plans

Long separations from home and family

Having co-workers who use drugs

Job with little responsibility

Among the outcomes with more neutral mean desirability ratings were:

A job that includes extensive travel

A dangerous job

A job that is important to the country

When the outcome desirability ratings were subdivided by high school graduates versus non-graduates a number of significant differences were observed. Table 5 summarizes these differences. As can be seen, high school graduates placed significantly more value on having a concerned and consistent leader, personal freedom, flexible organization, career training, and rapid promotional opportunities. They placed less value on (considered more undesirable) working with people who use drugs and repetitive jobs with little responsibility.

The statistically significant differences in outcome desirability ratings subdivided by race are given in Table 6. Among the findings evident in that Table are: minorities placed more value than did whites on learning new skills, being part of a well disciplined organization, seeing different parts of the country and world, and working with people of another race. The whites, when contrasted to the minorities, placed more value on fair treatment from supervisor, working with people I

TABLE 5
Differences In Outcome Desirability Ratings As A
Function of Education

Outcome	Mean ¹		t
	H.S. Grad	Non-Grad	
Supervisor concerned about me as an individual	1.27	1.09	3.12**
Physically demanding work	.60	.47	2.10*
Organization flexible enough to meet my changing needs	1.00	.88	2.11*
High degree of personal freedom	1.16	1.03	2.63**
Getting away from a bad home situation	-.18	-.03	-1.97*
Training that will contribute to my long term career plan	1.38	1.24	2.54*
A leader who is consistent	1.22	1.07	2.75**
Working closely with people who use drugs	-1.05	-0.79	-3.65**
Repetitive job with little responsibility	-0.77	-0.52	-3.59**
Rapid promotional opportunities	1.34	1.23	2.06*

*P < .05

**P < .01

¹Scale goes from -2.0 (very undesirable) to +1.0 (very desirable).

Source: August, 1976 Parris Island Accessions Printout A-39

TABLE 6
Differences in Outcome Desirability Ratings As A
Function of Race

Outcome	Mean		t
	Minority	White	
Respect from friends and relatives	1.34	1.46	-2.38*
Learning New skills	1.55	1.46	1.98*
Dangerous job	-0.36	0.09	-6.43**
Discipline strictly enforced	0.27	0.00	3.85**
Long separations from home and family	-0.82	-1.04	3.54**
Job that is important to country	0.83	0.95	-2.08*
Fair treatment from supervisors	1.25	1.41	-2.68**
Working with people I like	1.20	1.42	-4.12**
Extensive travel	0.74	1.14	3.78**
Control of own activities	1.02	1.20	-3.02**
Freedom to make own decisions	1.03	1.20	-2.68**
Part of well disciplined organization	1.23	1.08	2.40*
Physically demanding work	0.43	0.60	-2.88**
Specific training I want	1.07	1.22	-2.69
Working with people of another race	0.90	0.50	6.84**
Interferes with marriage/ family plans	-0.83	-1.17	4.63**
Physical violence	-0.37	-0.17	-2.56**
See country and world	1.32	1.14	2.75**
Organization keeps its promises	1.42	1.55	-2.41*
Rapid promotional opportunities	1.20	1.34	-2.45*

* P < .05

** P < .01

1. Scale goes from -2.0 (very undesirable) to +2.0 (very desirable)

Source: August, 1976 Parris Island Accessions Printout A-34

like, freedom to make own decisions, control of own activities, and rapid promotional opportunities.

Knowledge of what outcomes recruits (and possible recruits) consider desirable and undesirable should be of value in recruiting, counseling, and selection (Schneider, 1976). However, it is also necessary to know the individuals' perceived chances of attaining the various outcomes in military or civilian roles. Such role-outcome expectancies for the total pre-recruit training sample are included in Table 4. For each of the outcomes having the highest mean desirability ratings, the new recruits saw a higher chance of attainment by being in a Marine role rather than in a civilian role. However, for several of the outcomes considered undersirable (e.g. interferes with marriage and family plans, long separations from home and family) the new recruits saw a higher chance of occurrence by being in a Marine role rather than in a civilian role. This, of course, detracts from the relative attraction of the Marine role.

The role-outcome expectancies which were significantly different for high school graduates versus non-graduates are summarized in Table 7. In the Marine role, the high school graduates saw a higher chance than did the non-graduates of: being part of an effective team, long separations from home and family, and potential physical violence. The graduates saw a lower chance than did the non-graduates of: having a job that pays well, freedom to make own decisions, being part of a flexible organization and having a high degree of personal freedom. Differences in expectancies regarding the civilian role also are included in Table 7.

When the role-outcome expectancies were subdivided by race, a great many statistically significant differences were observed. Table 8 summarizes these results. Among the larger differences for the Marine role were:

TABLE 7
MARINE AND CIVILIAN ROLE OUTCOME EXPECTANCIES
SUBDIVIDED BY EDUCATION

Outcome	Marine Role			Civilian Role		
	H.S. Grad	Non-Grad	t	H.S. Grad	Non-Grad	t
Part of an effective team	.89	.85	2.54*	.56	.60	ns
Respect from friends and relatives	.87	.88	ns	.67	.70	-1.97*
Dangerous job	.60	.60	ns	.42	.50	-3.81**
Discipline strictly enforced	.80	.77	ns	.45	.50	-2.49*
Job that pays well	.71	.75	-2.30*	.60	.62	ns
Long separation from home & family	.63	.58	2.19*	.24	.31	-3.20**
Extensive travel	.66	.66	ns	.33	.39	-3.41**
Freedom to make own decisions	.46	.50	-2.17*	.62	.60	ns
Interferes with marriage/ family plans	.53	.55	ns	.29	.35	-3.42**
Flexible organization	.49	.54	-2.38*	.51	.51	ns
High degree of personal freedom	.47	.51	-2.19*	.65	.65	ns
Physical violence	.63	.57	2.74*	.36	.39	ns
See different parts of country & world	.75	.74	ns	.36	.41	2.35*
Working closely with people who use drugs	.27	.30	ns	.44	.48	1.96*

* $p < .05$

** $p < .01$

Scale goes from 0 (no change) to 1.0 (certain)

SOURCE: August, 1976 Parris Island Accessions. Printout A-39.

TABLE 8
MARINE AND CIVILIAN ROLE-OUTCOME EXPECTANCIES SUBDIVIDED
BY RACE

Outcomes	Marine Role			Civilian Role		
	Minority	White	t	Minority	White	t
Being part of an effective team	.84	.89	-3.41**	.62	.86	3.07**
Respect from friends and relatives	.84	.88	-2.70**	.73	.66	3.61**
Learning new skills	.88	.86	ns	.67	.61	3.13**
Having an exciting job	.77	.76	ns	.62	.85	3.82**
Having a dangerous job	.67	.61	-2.05**	.42	.44	ns
Being in a job where discipline is strictly enforced	.76	.80	-2.63**	.60	.48	2.67**
A job that pays well	.75	.71	2.38*	.65	.69	2.95**
Long separations from home and family	.67	.63	-2.75**	.33	.24	4.47**
A job that is important to the country	.77	.81	-2.21*	.49	.43	2.61**
Fair treatment from superiors	.68	.64	1.96*	.59	.61	ns
A job where good performance is recognized	.78	.73	2.57**	.66	.65	ns
A job that includes extensive travel	.69	.65	2.61*	.44	.31	6.48**
A job where duties and orders are clearly defined	.81	.82	ns	.68	.61	2.36*
A job which gives me pride in myself	.83	.86	ns	.68	.61	2.28*
A job where poor performance is penalized	.66	.78	-5.77**	.53	.63	ns
Sufficient leisure time to pursue your own interests	.86	.84	ns	.65	.69	-2.41*
A job with little responsibility	.32	.30	ns	.42	.47	-2.25*
Learning skills that will help me in later life	.84	.81	2.16*	.64	.57	3.42**
Good financial benefits	.80	.78	ns	.62	.86	2.97**
Being in control of your own activities	.55	.49	3.13**	.62	.63	ns
Freedom to make your own decisions	.64	.45	4.33**	.60	.62	ns

Table 8 (Con't)

	Marine Role			Civilian Role		
	Minority	White	t	Minority	White	t
Doing a real man's job	.82	.80	ns	.65	.61	2.23*
Being part of a well-disciplined organization	.87	.90	-2.14*	.58	.50	4.18**
Being part of an efficient organization	.84	.87	-2.32*	.63	.59	1.99*
Physically demanding work	.71	.76	-2.84**	.59	.60	ns
Specific kinds of training I want	.67	.67	ns	.58	.49	3.52**
Work under good leadership	.81	.80	ns	.67	.62	2.70**
Working closely with people of another race	.81	.78	ns	.68	.67	4.92**
Being in control of your own life	.62	.62	4.19**	.71	.73	ns
A high degree of job security	.75	.77	ns	.58	.53	2.55**
Good insurance and medical benefits	.87	.89	ns	.62	.53	3.99**
Interferes with marriage/family plans	.50	.55	-2.29*	.32	.30	ns
An organization flexible enough to meet my changing needs.	.59	.47	5.88**	.53	.50	ns
A high degree of personal freedom	.54	.46	3.98**	.65	.65	ns
A job where you can "get your head together"	.74	.69	2.43**	.62	.57	2.61**
A job where I can become a real man	.82	.81	ns	.63	.57	3.13**
Getting away from a bad home situation	.50	.54	ns	.41	.36	2.58**
A job involving potential physical violence	.55	.63	-3.87**	.39	.36	ns
Training opportunities that will contribute to my long term career plans	.77	.76	ns	.59	.53	3.18**
A chance to see different parts of the country or the world	.77	.74	ns	.47	.35	5.71**
An organization that fulfills its promises to you	.73	.69	2.06*	.59	.58	ns
Working closely with people who use drugs	.24	.29	-2.46*	.39	.46	-3.12**
A repetitive job with little responsibility	.35	.36	ns	.41	.48	-3.28**

* p<.05

** p<.01

Scale goes from 0 (no chance) to 1.0 (certain)

Source: August 1976 Parris Island
Accessions, Printout A-34

whites, compared to minorities, saw a higher chance of being part of an effective team, of having poor performance penalized, and having a job involving potential physical violence. Compared to minorities, the whites show a lower chance of being in control of their own activities, freedom to make their own decisions, the organization being flexible enough to meet their changing needs.

It is important to note that the role-outcome expectancies for the Marine Role are based on other than experience. In subsequent reports, the "accuracy" of these pre-recruit training expectations and changes in these expectations will be analyzed and related to attrition.

Role Expectancies and Behavioral Intentions

To this point, the analysis has focused on the desirability of various outcomes and the role-outcome expectancies, i.e. the perceived chances of attaining the various outcomes by being in a Marine Role or in a civilian role. Attention is now turned to: role expectancies, i.e. perceived chances of successfully completing the first term and chances of finding an acceptable civilian job. Also analyzed are new recruits behavioral intentions regarding completing their enlistment and reenlisting.

Table 9 summarizes pre-recruit training expectations regarding chances of successfully completing the first term enlistment and chances of finding an acceptable civilian job. Some 83% of the new recruits see a greater than 50-50 chance of being able to successfully complete their first term enlistment. Only 42% saw a greater than 50-50 chance of being able to find an acceptable civilian job. Later we will want to assess the extent to which these two role expectancy variables are related to behavioral intentions and actual withdrawal behavior.

Also included in Table 9 are summaries of the pre-recruit training

TABLE 9
PRE-RECRUIT TRAINING ROLE EXPECTANCIES
AND BEHAVIORAL INTENTIONS

Variable	%	Mean	SD
Marine Role Expectancy (Perceived chances of successfully completing first term enlistment) ¹		.85	.23
Less than 50-50 chance	5%		
50-50 chance	12%		
Greater than 50-50 chance	83%		
Civilian Role Expectancy (Perceived chances of finding an acceptable civilian job) ¹		.54	.33
Less than 50-50 chance	35%		
50-50 chance	23%		
Greater than 50-50 chance	42%		
Behavioral Intention to Complete First Term Enlistment ²		4.30	1.02
No	8%		
Uncertain	12%		
Yes	80%		
Behavioral Intention To Reenlist ²		2.99	1.07
No	25%		
Uncertain	47%		
Yes	28%		

¹Scale goes from 0 (no chance) to 1.0 (certain)

²Scale goes from 1 (definitely not) to 5.0 (definitely yes)

Source: August, 1976 Parris Island Accessions, Max N = 1,960, Printout A-1

behavioral intentions to complete the first term enlistment and intentions to reenlist. It is well to note that 80% of the new recruits say they intend to complete their first term enlistment. Some eight percent do not intend to complete and 12% are uncertain. Turning to intentions to reenlist, 28% of the new recruits say they intend to reenlist.

Subsequently, we will be analyzing the correlates of both types of intentions, how these intentions change as a function of time and experience in the Marine Corps, and how these intentions relate to actual withdrawal behavior. There is evidence in the literature (see e.g. Kraut, 1975; Locke, 1975; Mobley, 1977) that intentions are predictors of subsequent behavior.

Role Attraction Indices

Based on the outcome desirability, role-outcome expectancy, and role expectancy ratings, it is possible to generate various composite indices for each individual. Role attraction is the sum of the 50 cross products of outcome desirability and role-outcome expectancy. A role attraction index is computed for both the Marine and civilian roles. Role force is the role attraction index weighted by role expectancy.

Table 10 summarizes the means for these indices.

Table 10
Marine and Civilian Role Attraction Indices for
Pre-Recruit Training Enlistees

	Marine Role		Civilian Role		t
	Mean	SD	Mean	SD	
Role Attraction	37.26	18.36	29.16	16.97	**
Role Force	32.46	19.35	16.51	15.88	**

**p < .01

Source: August, 1976 Parris Island Accessions.
Printout A-1.

As might be expected from new recruits, the Marine role had a significantly higher attraction and role force index than did the civilian role. Later in this report, these variables will be related to behavioral intentions. In subsequent reports, these variables and changes in these variables will be related to actual attrition.

Education and Race Differences in Intentions, Individual and Organizational Variables

Differences in outcome desirability and role-outcome expectancies as a function of race and education were presented earlier. Table 11 summarizes the statistically significant differences in demographic, intention, role attraction, and organizational variables by education and race. As can be seen, minorities compared to whites were significantly older, had lower AFQT scores but did not differ on education, had a higher intention reenlist, a lower expectancy of completing and a lower expectancy of finding a civilian job. The minorities expected higher leader consideration, lower leader structure, and expected more autonomy than did the whites.

Turning to education, significantly more of the non-high school graduates were married, the non-graduates had a lower intention to complete, expected less leader structure, and were lower on internal motivation when compared to the high school graduates.

Individual and Organizational Correlates of Pre-Recruit Training Intentions to Complete First Term Enlistment

The analysis now turns to the relations between behavioral intentions and the individual and organizational variables. As noted earlier, previous research has shown these intentions can be a good predictor of subsequent withdrawal behavior (Kraut, 1975; Locke, 1975). Thus, it is important to analyze the correlates of intentions. Table 12 summarizes the correlations

PRE-RECRUIT TRAINING MEASURES SUBDIVIDED
BY RACE AND EDUCATION

Variable	Minority	White	t	Non HS Grad	HS Grad	t
Education	11.76	11.69	ns	10.62	12.06	*
HS Grad	76%	75%	ns			
Age	19.32	18.88	**	18.80	19.04	**
Mental	51.11	63.81	**	60.11	61.27	ns
% Married	4%	4%	ns	6%	3%	**
% White				79%	77%	ns
Intend to complete	4.34	4.36	ns	4.24	4.39	**
Intend to reenlist	3.18	2.94	**	3.04	2.98	ns
Expectancy of completing Enlistment	.82	.86	*	.83	.85	ns
Expectancy of Finding Civilian Job	.49	.56	**	.54	.54	ns
Role Attraction: Marine	38.41	37.93	ns	37.57	38.18	ns
Role Attraction: Civilian	30.10	29.59	ns	29.35	29.81	ns
Role Force: Marine	32.62	33.47	ns	32.30	33.60	ns
Role Force: Civilian	14.76	17.74	**	16.67	17.22	ns
Leader Consideration	46.66	42.36	**	42.92	43.34	ns
Leader Structure	62.39	65.01	**	63.22	64.86	**
Autonomy	2.70	2.48	**	2.52	2.53	ns
Internal Motivation	3.84	3.93	ns	3.79	3.95	**
Growth Need	3.81	3.85	ns	3.80	3.86	ns

Source: Parris Island August 1976 Accessions. Printouts A-34, A-39.

* $p < .05$

** $p < .01$

PRE-RECRUIT TRAINING CORRELATES OF
INTENTION TO COMPLETE FIRST TERM ENLISTMENT

Variable	Correlation	Variable	Correlation
<u>Demographic</u>		<u>Job Content</u>	
Marital Status	.01	Skill Variety	.11**
Number Dependents	-.02	Task Identity	.10**
Age	.01	Task Significance	.17**
Education	.08**	Autonomy	.09**
Mental	.13**	Feedback From Job	.18**
		Feedback From Others	.10**
		Dealing With Others	.14**
		Internal Motivation	.28**
		Growth Need	.16**
<u>Role Attraction</u>		<u>Group</u>	
Sum Outcome Desirability Rating	.27**	Control	-.05*
Sum Outcome Expectancies: Marine	.32**	Stability	-.10**
Sum Positive Outcome Expectancies-Negative: Marine	.29**	Intimacy	.07**
Sum Outcome Expectancies: Civilian	-.08**	Stratification	-.03
Sum Positive Outcome Expectancies-Negative: Civilian	-.01	Hedonic Tone	.10**
Role Attraction: Marine	.30**	Autonomy	.07**
Role Attraction: Civilian	.07**	Potency	.13**
Expectancy of Completing First Term	.43**	Viscosity	.12**
Expectancy of Finding Civilian Job	-.17**	Permeability	-.11**
Force: Marine Role	.38**	Participation	.09**
Force: Civilian Role	-.04	Polarization	.07**
Difference in Force: Marine-Civilian	.36**	Flexibility	-.08**
Difference in Attraction: Marine-Civilian	.28**	Homogeneity	-.05*
Difference in Expectancy: Marine-Civilian	.20**		
		<u>Sociometric</u>	
<u>Leadership</u>		Attraction	.15**
Consideration	.13**	Proficiency	.12**
Initiating Structure	.21**		

Source: August 1976 Parris Island Accessions,
Max N=1960, Printout A-11.

* $p < .05$

** $p < .01$

between the various pre-recruit training measures and behavioral intentions to complete the first term enlistment. Of the demographic variables, only education and mental scores were significant.

A number of the role attraction indexes were significantly and fairly strongly related to intention to complete the first term enlistment. Perceived chances of successfully completing the enlistment (Marine role expectancy) was the strongest single correlate of intention to complete ($r = .43$). Marine role attraction ($r = .30$); Marine role force, role attraction weighted by role expectancy ($r = .38$); and the difference in Marine role force and civilian role force ($r = .36$), also were among the stronger correlations.

Both dimensions of the expected leader behavior measure were significantly related to intention to complete. Expected leader structure was the stronger correlate ($r = .21$).

On the job content scale, expected task significance and feedback from the job were the highest correlates. The individual level dimensions from this scale, growth need ($r = .16$) and particularly internal motivation ($r = .28$) exhibited moderate correlations with intention to complete.

Most of the "expected" group and sociometric dimensions were significantly correlated with intentions but at rather modest levels.

How do the various variables combine in the prediction of behavioral intention to complete the first term enlistment? Table 13 summarizes the stepwise multiple regression. The multiple correlation is .51 with four variables and increases very slowly to .54 with the addition of the thirteenth variable, education. Expectancy of completing the first term enlistment, expected satisfaction, sum of the role outcome desirability ratings, and expectancy of finding an acceptable civilian job (negative

TABLE 13
 STEPWISE MULTIPLE REGRESSION OF INTENTION TO COMPLETE FIRST
 TERM ENLISTMENT ON PRE-RECRUIT TRAINING MEASURES

VARIABLE	r	R	R ²
Expectancy of completing first term enlistment	.43	.43	.181
Expected overall general satisfaction	.32	.48	.228
Sum outcome desirability ratings	.27	.50	.246
- Expectancy of finding acceptable civilian	-.17	.51	.256
Sum role outcome expectancies: Marine	.32	.51	.263
- Expected group stability	-.10	.52	.268
Role force: Marine	.38	.52	.272
Internal motivation	.28	.53	.276
Difference role attraction: Marine-Civilian	.27	.53	.280
Difference role force: Marine - Civilian	.36	.53	.283
- Expected group permeability	-.11	.53	.285
Expected leader structure	.21	.54	.287
Education	.08	.54	.289

Source: August 1976 Parris Island Accessions, N=1143, Printout A-17.

weight) were the first four variables to enter the prediction equation and accounted for 26% of the variance in intentions to complete the first term enlistment.

Correlates of Intentions to Reenlist

The previous section dealt with intentions to complete the first term enlistment. This section deals with correlates of intentions to reenlist. Table 14 summarizes the various individual and organizational correlates of intention to reenlist. Among the demographic variables, minority status, higher education, and higher mental grade were associated with intentions to reenlist. Of the role attraction indices, Marine role attraction and role force, and the difference in role force (Marine-Civilian) were among the strongest correlate. Many of the "expected" job content, leadership, and group dimensions were significantly correlated with intention to reenlist. Expected leader consideration, autonomy, task significance, and feedback from job were among the stronger correlates.

Table 15 summarizes the multiple regression analysis. The first 11 variables account for 37% of the variance in intentions to reenlist.

Subsequent reports will deal with changes in intentions, changes in the correlates of intentions, and relations between intentions and actual behavior.

DISCUSSION AND SUMMARY

This report has described: the outcomes new recruits consider desirable and undesirable; the role-outcome expectancies for both Marine and civilian roles; expectancies regarding chances of completing the first term enlistment, and chances of finding an acceptable civilian job; expected leadership, job content, and group characteristics; and behavioral

PRE-RECRUIT TRAINING CORRELATES OF INTENTION TO REENLIST

Variable	Correlation	Variable	Correlation
<u>Demographic</u>		<u>Job Content</u>	
Race	-.09**	Skill Variety	.17**
Marital Status	.01	Task Identity	.17**
Number Dependents	-.02	Task Significance	.20**
Age	.01	Autonomy	.24**
Education	.08**	Feedback from Job	.20**
Mental	.13**	Feedback from Others	.16**
<u>Role Attraction</u>		Dealing with Others	.03
Sum Outcome Desirability Ratings	.21**	Internal Motivation	.23**
Sum Outcome Expectancies: Marine	.37**	Growth Need	.16**
Sum Positive-Negative Outcome Expectancies: Marine	.33**	<u>Group</u>	
Sum Outcome Expectancies: Civilian	-.03	Control	-.03
Sum Positive-Negative Outcome Expectancies: Civilian	-.04	Stability	.02
Role Attraction: Marine	.33**	Intimacy	.11**
Role Attraction: Civilian	.04	Stratification	-.06*
Expectancy of Completing First Term	.24**	Hedonic Tone	.10**
Expectancy of Finding Civilian Job	-.13**	Autonomy	.03
Force: Marine Role	.34**	Potency	.17**
Force: Civilian Role	-.07**	Viscosity	.08**
Difference in Force: Marine-Civilian	.36**	Permeability	-.06*
Difference in Attraction: Marine-Civilian	.34**	Participation	.13**
Difference in Expectancy: Marine-Civilian	.14**	Polarization	-.02
<u>Leadership</u>		Flexibility	-.08**
Consideration	.30**	Homogeneity	-.12**
Initiating Structure	.06*		
<u>Sociometric</u>			
Attraction	-.07**		
Proficiency	.16**		

Source: August Parris Island
Accessions, Max N=1960
Printout A-22

* $p < .05$
** $p < .01$

Table 15
STEPWISE MULTIPLE REGRESSION OF
INTENTION TO REENLIST ON PRE-RECRUIT
TRAINING MEASURES

Variable	r	R	R ²
Sum Role Outcome Expectancies: Marine	.37	.37	.136
Expected Overall Satisfaction	.36	.44	.191
Difference in Role Force: (Marine-Civilian)	.36	.46	.214
Leader Consideration	.30	.48	.230
Difference in Role Expectancy (Marine-Civilian)	.14	.49	.243
Expectancy of Finding Civilian Job	-.13	.50	.253
Role Force: Marine	.34	.54	.299
Race (0=Minority/1=Caucasian)	-.09	.56	.316
Expectancy of Completing Enlistment	.24	.58	.331
Sum Outcome Desirabilities	.21	.60	.356
Feedback From Job	.20	.61	.366

Source: August Parris Island Accessions, Max N=1143, Printout A-22

intentions to complete the first term enlistment and to reenlist.

Based on the results presented in the present study, several generalizations are offered. New recruits, on the average, place the highest value on learning new skills, extrinsic rewards such as pay and benefits, and working for an organization that keeps its promises and rewards good performance. Somewhat surprising was the more neutral average desirability associated with extensive travel, danger, and a job that is important to the country. Least desirable were long separations from home and family, disruption of marriage and family plans and a job with little responsibility.

Potential implications of outcome desirability values include the following. The Marine Corps advertising and recruiting efforts should emphasize those outcomes which are both desirable from the potential recruits perspective and potentially attainable in the Marine Corps. To the extent feasible, reward contingencies should be designed to enhance the attainability of desired outcomes and minimize undesired outcomes.

It was evident that the new recruits had high Marine role-outcome expectancies for many of the desired outcomes. It remains to be seen if these expectancies are realized in the Marine role. As Porter and Steers (1973) and others have noted, unmet expectations may be a primary contributor to withdrawal behavior. This will be evaluated over the course of this longitudinal research.

With respect to role expectancies, it was interesting to observe that 17% of the new recruits saw a 50-50 or less chance of completing their enlistment. Previous research has demonstrated this type of expectancy is a useful predictor of behavior. If this variable subsequently turns out to be a significant predictor of attrition, strategies for enhancing

this expectancy should be evaluated. While only 42% of the new recruits saw a greater than 50-50 chance of finding an acceptable civilian job, it will be interesting to see if this increases as the economy improves, and/or with experience in the Marine Corps, and whether this expectancy is predictive of actual attrition.

The role attraction indices revealed that the Marine role was significantly more attractive than the civilian role for the new recruits. This comes as no surprise. However, to the extent this attraction is based on unrealistically high expectations, it could have negative consequences later. This will be a primary focus of the continuing longitudinal study.

Previous research (Kraut, 1975; Locke, 1975; Mobley, 1977) has suggested that behavioral intentions are among the better predictors of subsequent behavior. In the present study, 20% of the new recruits indicated they were, at best, uncertain about intending to complete their enlistment and only 28% indicated they intend to reenlist. These intentions may be early warning signs for withdrawal behavior. Although this hypothesis cannot be tested until later in the study, it was possible to analyze the concurrent correlates of pre-recruit training intentions.

The single strongest correlate of intention to complete was role expectancy, i.e. perceived chances of completing. Expected overall satisfaction, expectancy of finding a civilian job, and sum of the Marine role-outcome expectancies added to the prediction of this intention. Those who do not intend to complete, even before recruit training, are less confident they can complete, expect to be less satisfied, have lower outcome expectancies, and see a higher chance of finding a civilian job. If these variables hold up in the prediction of actual attrition, they clearly have recruiting, selection, and/or early counseling implications.

When the pre-recruit training measures were subdivided by race and education, a number of significant differences were observed. To the extent these differences are related to job attitudes and behavior, they are worthy of note by recruiters, leaders, and planners.

While the descriptive information provided in the present report is interesting and of potential diagnostic value, it is the relationship between these variables and actual attrition that must serve as the basis for action implications. The prediction of actual recruit training attrition will be the subject of the next report in this series.

APPENDIX 1
LIST OF MEASURES AND DIMENSION DEFINITIONS

APPENDIX I
MEASURES AND DIMENSION DEFINITIONS

A. Job Content Dimensions (Job Diagnostic Survey, Hackman and Oldham)

1. Skill Variety: The degree to which a job requires a variety of different activities in carrying out the work, which involve the use of a number of different skills and talents of the employee.
2. Task Identity: The degree to which the job requires the completion of a "whole and identifiable piece of work - i.e. doing a job from beginning to end with a visible outcome.
3. Task Significance: The degree to which the job has a substantial impact on the lives or work of other people - - whether in the immediate organization or in the external environment.
4. Autonomy: The degree to which the job provides substantial freedom, independence, and discretion to the employee in scheduling his work and in determining the procedures to be used in carrying it out.
5. Feedback From The Job Itself: The degree to which carrying out the work activities required by the job results in the employee obtaining information about the effectiveness of his or her performance.
6. Feedback From Agents: The degree to which the employee receives information about his or her performance and effectiveness from supervisors or from co-workers.

7. Dealing With Others: The degree to which the job requires the employee to work closely with other people (whether other organization members or organizational "clients").
 8. Affective Responses to the Job: The private, affective reactions or feelings an employee get from working on his job.
 - a) General Satisfaction: degree to which employee is satisfied and happy in his work.
 - b) Internal Work Motivation: degree to which the employee is self motivated to perform effectively on the job.
 - c) Specific Satisfaction: pay, security, social, supervisory, growth.
 9. Individual Growth Need: The degree to which an employee has a strong vs. weak desire to obtain "growth" satisfaction from his or her work.
 10. Motivating Potential Score: Reflects the potential of a job from eliciting positive internal work motivation on the part of employee, especially those with high desire for growth need satisfaction. Score is: Average of skill variety, task identity, and task significance; times autonomy; times feedback from job.
- B. Leadership (Leader Behavior Description Questionnaire, Stogdill and Coons)
1. Consideration: extent to which leader - subordinate relations

are characterized by mutual trust, respect,
consideration

2. Initiating Structure: leader defines roles and goals, leader active in planning, scheduling, and criticizing, etc..

C. Group (Group Dimensions Description Questionnaire, Hemphill)

1. Autonomy: group functions independently of other groups
2. Control: group regulates behavior of individuals in the group
3. Flexibility: informal rather than formal rules, procedures
4. Hedonic Tone: group membership leads to pleasant feelings, little griping, complaining
5. Homogeneity: similarity of group in social characteristics, age, sex, race, social-economic status
6. Intimacy: members familiar with others and their needs
7. Participation: degree to which members apply time and effort to groups formal and informal activities.
8. Permeability: ease of access to group
9. Polarization: degree to which group is oriented toward clear and specific goal
10. Potency: degree to which group has primary significance to its members
11. Stability: degree to which group remains in tact over time
12. Stratification: degree to which group orders its members into status hierarchies
13. Viscosity: degree to which group functions as a unit, absence of dissention, personal conflict.

D. Sociometric

1. Attraction: attractiveness of a group and its members
2. Proficiency: evaluation and confidence in groups performance

E. Role Attraction

1. Role Attraction: Marine: extent to which Marine Role is seen as leading to attainment of desirable outcomes and not to undesirable outcomes; sum of the cross products of 50 role outcome desirability ratings and marine role outcome expectancy ratings.
2. Role Attraction: Civilian: extent to which civilian role is seen as leading to attainment of desirable outcomes and not to undesirable outcomes. Sum of the cross products of 50 role outcome desirability ratings and civilian role outcome expectancy ratings.
3. Role Force: Marine: Marine Role Attraction weighted by expected chance of successfully completing first term enlistment.
4. Role Force: Civilian: Civilian Role Attraction weighted by expected chance of finding an acceptable civilian job.

REFERENCES

- Dachler, H. P. and Mobley, W. H. Construct validation of an instrumentality-expectancy-task-goal model of work motivation: Some theoretical boundary conditions. Journal of Applied Psychology Monograph, 1973, 58, 397-418.
- Fleishman, E. A. and Harper, E. F. Leadership behavior related to employee grievances and turnover. Personnel Psychology, 1962, 15, 43-56.
- Goodstadt, B. E. and Glickman, A. C. The Current Status of Enlisted Attrition in the U. S. Navy and in the U. S. Marine Corps and the Search for Remedies. Final Report. Washington, D. C.: American Institutes for Research, AIR 54500, November, 1975.
- Guilford, J. P. Fundamental Statistics in Psychology and Education. New York: McGraw-Hill, 1965.
- Hackman, J. R. and Oldham, G. R. Development of the job diagnostic survey. Journal of Applied Psychology, 1975, 60, 159-170.
- Hackman, J. R. and Oldham, G. R. The Job Diagnostic Survey. Technical Report No. 4, New Haven, Yale University Department of Administrative Sciences (ONR, N0014-67A-0097-0026), May, 1974.
- Huck, D. F., and Midlam, K.O., A Model to Analyze the Cost Impact of First Term Attrition in the Navy and Marine Corps. DOD/ONR Conference on First Term Attrition, Leesburg, Virginia, April, 1977.
- Kraut, A. I. Predicting turnover of employees from measured job attitudes. Organizational Behavior and Human Performance, 1975, 13, 233-243.
- Lawler, E. E. Motivation in Work Organizations. Monterey Brooks/Cole, 1973.
- Libo, L. M. Measuring Group Cohesion. Ann Arbor: Research Center for Group Dynamics, Univ. of Michigan, 1953.
- Locke, E. A. Personnel Attitudes and Motivation. Annual Review of Psychology, 1975, 26, 457-480.
- Lockman, R. F. Forecasting Enlisted Attrition: The First Year of Service. Center for Naval Analysis, 1975.
- Logan, J. E., Cathcart, J., Hand, H. H., and Mobley, W. H. Review of the Literature Related to Withdrawal Behavior in the Military Services. TR 77-1, Office of Naval Research, ONR: N0014-76-C-0938, April 1, 1977.
- Mattews, W. T. Quality of Marines: Test Scores Personal Data, and Performance. DOD/ONR Conference on First Term Attrition, Leesburg, Virginia, April, 1977.
- Mitchell, T. R. Expectancy models of job satisfaction, occupational preference, and effort: A theoretical, Methodological, and empirical appraisal: Psychological Bulletin, 1974, 81, 1053-1097.

- Mobley, W. H. Intermediate linkages in the relationship between job satisfaction and employee turnover. Journal of Applied Psychology, 1977, 62, 237-240.
- Porter, L. W. and Steers, R. W. Organizational, work and personal factors in employee turnover and absenteeism. Psychological Bulletin, 1973, 80, 151-176.
- Sands, W. A. Prediction of Enlisted Attrition - (Two Years): The POET - 2 Model. Conference of the Military Testing Association Pensacola, October, 1976. (NPRDC).
- Schacter, S. The Psychology of Affiliation. Stanford: Stanford University Press, 1959.
- Seashore, S. Group Cohesiveness in the Industrial Work Group. Ann Arbor: Institute for Social Research, 1954.
- Stogdill, R. M. and Coons, A. E. Leader Behavior: Description and Measurement. Columbus, Ohio State University, Bureau of Business Research Monograph No. 88, 1957.
- Schneider, B. Staffing Organizations. Pacific Palisades, Goodyear, 1976.
- Schneider, J. The "Greener Grass" Phenomenon: differential effects of a work context alternative on organizational participation and withdrawal intentions. Organizational Behavior and Human Performance, 1976, 16, 308-333.
- Schneider, J. and Katz, A. Personnel Reactions to Incentives, Naval Conditions and Experience: A Longitudinal Research Study, Report No. 3, Navy Personnel Research and Development Center, San Diego, 1972.
- Vroom, V. H. Work and Motivation, New York: Wiley, 1964.
- Wiskoff, M. E. Review of Career Expectations Research: Australia, Canada, United Kingdom, and United States. NPRDC TN 77-9, Navy Personnel Research and Development Center, San Diego, March 1977.

Distribution List

LIST 1

MANDATORY

Office of Naval Research (3 copies)
(Code 452)
800 N. Quincy St.
Arlington, VA 22217

Director
U.S. Naval Research Laboratory (6 copies)
Washington, DC 20390
ATTN: Technical Information Division

Defense Documentation Center (12 copies)
Building 5
Cameron Station
Alexandria, VA 22314

Deputy and Chief Scientist (Code 102)
Office of Naval Research
Arlington, VA 22217

Assistant Chief for Technology (Code 200)
Office of Naval Research
Arlington, VA 22217

Director of Technology (Code 201)
Office of Naval Research
Arlington, VA 22217

Assistant Chief for Research (Code 400)
Office of Naval Research
Arlington, VA 22217

Director of Research (Code 401)
Office of Naval Research
Arlington, VA 22217

Manager, Program in Manpower R&D (Code 450) - 12 copies
Office of Naval Research
Arlington, VA 22217

Research Psychologist
Office of Naval Research Branch Office
536 South Clark Street
Chicago, IL 60605

Psychologist
Office of Naval Research Branch Office
495 Summer Street
Boston, MA 02210

Psychologist
Office of Naval Research Branch Office
1030 East Green Street
Pasadena, CA 91106

Library, Code 2029 (6 copies)
U. S. Naval Research Laboratory
Washington, DC 20390

Science & Technology Division
Library of Congress
Washington, DC 20540

Head, Manpower Training and Reserve Group (Op-964D)
Room 4A538, The Pentagon
Washington, DC 20350

Manpower Analysis and Systems Development Branch (Op-121)
Room 1606, Arlington Annex
Washington, DC 20370

Human Resources Program Manager
Naval Material Command (0344)
Room 1044, Crystal Plaza #3
2221 Jefferson Davis Highway
Arlington, VA 20360

Technical Director - 5 copies
Navy Personnel Research and Development Center
San Diego, CA 92152

Scientific Advisor to the Chief of Naval Personnel (Pers Or)
Naval Bureau of Personnel
Room 1416, Arlington Annex
Washington, DC 20370

Special Assistant for Enlisted Force Analysis
Naval Bureau of Personnel (Pers-2x)
Room 2628, Arlington Annex
Washington, DC 20370

Assistant Deputy Chief of Naval Personnel for
Retention Analysis and Coordination (Pers-12)
Room 2403, Arlington Annex
Washington, DC 20370

Military Assistant for Human Resources
Office of the Director of Defense Research & Engineering
Room 3D129, The Pentagon
Washington, DC 20301

Personnel Analysis Division
AF/DPXA, Headquarters USAF
Room 5C360, The Pentagon
Washington, DC 20330

Technical Director
U. S. Army Research Institute for the
Behavioral and Social Sciences
1300 Wilson Boulevard
Arlington, VA 22209

Director, Management Information Systems Office
OSD (M&RA)
3B917, The Pentagon
Washington, DC 20301

Program Director
Manpower Research and Advisory Services
Smithsonian Institution
801 North Pitt Street
Alexandria, VA 22314

LIST 2

ONR FIELD

Director ONR Branch Office
495 Summer St.
Boston, MA 02210

Director
ONR Branch Office
536 S. Clark St.
Chicago, IL 60605

Director
ONR Branch Office
1030 E. Green St.
Pasadena, CA 91106

LIST 3

PRINCIPAL INVESTIGATORS

Dr. Earl A. Alluisi
Old Dominion University Res. Foundation
Norfolk, Virginia 23508

Dr. Judith Daly
Decisions & Designs, Inc.
Suite 100
8400 Westpark Dr.
McLean, Virginia 22101

Dr. James A. Bayton
Department of Psychology
Howard University
Washington, D. C. 20001

Dr. H. Russell Bernard
Department of Sociology & Anthropology
West Virginia University
Morgantown, West Virginia 26506

Dr. Arthur Blaiwas
Naval Training Equipment Center
Orlando, Florida 32813

Dr. Milton R. Blood
School of Business
Georgia Institute of Technology
Atlanta, Georgia 30332

Dr. Davis B. Bobrow
University of Maryland
Department of Government & Politics
College Park, Maryland 20742

Dr. David G. Bowers
Institute for Social Research
University of Michigan
Ann Arbor, Michigan 48106

Dr. John J. Collins
Vice President
Essex Corporation
6305 Caminito Estrellado
San Diego, California 92120

Dr. Harry R. Day
University City Science Center
Center for Social Development
3624 Science Center
Philadelphia, Pennsylvania 19104

Dr. C. Brooklyn Derr
Associate Professor, Code 55
Naval Post Graduate School
Monterey, California 93940

Dr. George T. Duncan
Carnegie-Mellon University
5000 Forbes Ave.
Pittsburg, Pennsylvania 15213

Dr. Samuel L. Gaertner
Department of Psychology
University of Delaware
220 Wolf Hall
Newark, Delaware 19711

Dr. William E. Gaymon
Suite 200
1055 Thomas Jefferson St., NW
Washington, D.C. 20007

Dr. Paul S. Goodman
Graduate School of Industrial Admin.
Carnegie-Mellon University
Pittsburgh, Pennsylvania 15213

Dr. J. Richard Hackman
Administrative Sciences
Yale University
56 Hillhouse Ave.
New Haven, Connecticut 06520

Dr. Leo A. Hazlewood
CACI, Inc.
1815 Fort Myer Dr.
Arlington, VA 22209

Dr. Edwin Hollander
Department of Psychology
State University of New York
at Buffalo
4230 Ridge Lea Rd.
Buffalo, New York 14226

Mr. Daniel F. Huck
General Research Corp.
Westgate Research Park
McLean, Virginia 22101

Dr. Charles L. Hulin
Department of Psychology
University of Illinois
Champaign, Illinois 61820

Dr. Rudi Klaus
Syracuse University
Public Administration Dept.
Maxwell School
Syracuse, New York 13210

Dr. Edward E. Lawler
Battelle Human Affairs Research Centers
4000 N.E. 41st St.
P.O. Box 5395
Seattle, Washington 98105

Dr. Arie Y. Lewin
Duke University
Duke Station
Durham, North Carolina 27706

Dr. Morgan W. McCall, Jr.
Center for Creative Leadership
5000 Laurinda Dr.
P.O. Box P-1
Greensboro, North Carolina 27402

Dr. Terence R. Mitchell
School of Business Administration
University of Washington
Seattle, Washington 98195

Dr. William H. Mobley
College of Business Administration
University of South Carolina
Columbia, South Carolina 29208

Dr. Thomas D. Morris
The Brookings Institution
1775 Massachusetts Ave., NW
Washington, D.C. 20036

Dr. James P. Murphy
National Analysts
A Division of Booz-Allen & Hamilton, Inc.
400 Market St.
Philadelphia, Pennsylvania 19106

Dr. Peter G. Nordlie
Human Sciences Research, Inc.
7710 Old Springhouse Rd.
McLean, Virginia 22101

Dr. Herbert R. Northrup
Industrial Research Unit
University of Pennsylvania
Philadelphia, Pennsylvania 19174

Dr. A.F.K. Organski
3068 Institute for Social Research
University of Michigan
Ann Arbor, Michigan 48104

Dr. Paul Pedersen
Society for Intercultural Education
Training and Research
107 MIB, University of Pittsburgh
Pittsburgh, Pennsylvania 15260

Dr. Manuel Ramirez
Systems and Evaluations
232 Swanton Blvd.
Santa Cruz, California 95060

Dr. Irwin Sarason
Department of Psychology
University of Washington
Seattle, Washington 98195

Dr. S.B. Sells
Texas Christian University
Fort Worth, Texas 76129

Dr. H. Wallace Sinaiko
Program Director
Manpower Research & Advisory Services
Smithsonian Institution
801 N. Pitt St. - Suite 120
Alexandria, Virginia 22314

Mrs. Alice I. Snyder
Mental Health Clinic
Naval Regional Medical Center
Pearl Harbor
FPO San Francisco 96610

Dr. Richard Steers
Graduate School of Management & Business
University of Oregon
Eugene, Oregon 97403

Dr. Victor H. Vroom
School of Organizational Management
Yale University
56 Hillhouse Aven.
New Haven, Connecticut 06520

Dr. Abraham R. Wagner
Analytical Assessments Corp.
357 South Robertson Blvd.
Beverly Hills, California 90211

Dr. J. Wilkenfeld
Department of Government & Politics
College Park, Maryland 20742

Best Available Copy

LIST 4

MISCELLANEOUS

Air Force

AFOSR/NL
Bldg., 410
Bolling AFB
Washington, DC 20332

Military Assistant for Human Resources
OAD (E&LS) ODDR&E
Pentagon 3D129
Washington, DC 20301

HQ, USAF
AFMPC/DPMYP
Randolph AFB, TX 78148

Air University Library/LSE-8110
Maxwell AFB, AL 36112

Army

Office of the Deputy Chief of Staff
for Personnel, Research Office
ATTN: DAPE-PBR
Washington, DC 20310

Chief, Plans & Operations Office
USA Research Institute for the
Behavioral & Social Sciences
Room 278
1300 Wilson Blvd.
Arlington, VA 22209

Army Research Institute (2 cys)
Commonwealth Bldg.
1300 Wilson Blvd.
Rosslyn, VA 22209

ARI Field Unit - Leavenworth
P.O. Box 3122
Fort Leavenworth, KS 66027

Headquarters, Forces Command
AFPE-HR
Ft. McPherson
Atlanta, GA 30330

Marine Corps

Dr. A. L. Slafkosky
Code RD-1
HQ US Marine Corps
Washington, DC 20380

Marine Corps Cont'd

Commandant of the Marine Corps
(Code MPI - 20)
Washington, DC 20380

Coast Guard

Chief, Psychological Research Branch
US Coast Guard (G-P-1/62)
400 7th St. SW
Washington, DC 20590

Navy

Chief of Naval Personnel
Assistant for Research Liaison (Pers-Or)
Washington, DC 20370

Bureau of Naval Personnel (Pers 6)
Assistant Chief of Naval Personnel for
Human Resource Management
Washington, DC 20370

Bureau of Naval Personnel (Pers-6a3)
Human Resource Management Financial Office
Washington, DC 20370

CDR P 1 D. Nelson, MSC, USN
Head, Human Performance Division (Code 44)
Navy Medical R & D Command
Bethesda, MD 20014

Assistant Officer in Charge
Naval Internal Relations Activity
Pentagon, Room 2E329
Washington, DC 20350

Naval Postgraduate School
Monterey, CA 93940
ATTN: Library (Code 2124)

Professor John Senger
Operations Research & Administration
Sciences
Naval Postgraduate School
Monterey, CA 93940

Best Available Copy

Navy Cont'd

Training Officer
Human Resource Management Center
San Diego, CA 92133 NTC

Scientific Director
Naval Health Research Center
San Diego, CA 92152

Navy Personnel R&D Center (5 cys)
Code 01
San Diego, CA 92152

Commanding Officer
Naval Submarine Medical Research Lab.
Naval Submarine Base New London, Box 900
Groton, CT 06340

Commanding Officer
Naval Training Equipment Center
Technical Library
Orlando, FL 32813

Naval Aerospace Medical Research Lab.
(Code L5)
Naval Aerospace Medical Center
Pensacola, FL 32512

Lt. Rebecca G. Vinson, U.S.N.
Navy Recruiting District, Boston
575 Technology Square
Cambridge, MA 02139

Chief, Naval Technical Training
NAS Memphis (75)
Millington, TN 38054
ATTN: Mr. Tom Warrick, N622

Dr. C. Brooklyn Derr
Associate Professor, Code 55
Naval Postgraduate School
Monterey, CA 93940

Human Resource Management Center
Box 23,
FPO New York 09510

Human Resource Management Center, Norfolk
5621-23 Tidewater Drive
Norfolk, VA 23511

Human Resource Management Center
Bldg., 304
Naval Training Center
San Diego, CA 92133

Office of Naval Research (Code 200)
Arlington, VA 22217

ACOS Research & Program Development
Chief of Naval Education & Training (N-5)
Naval Air Station
Pensacola, FL 32508

Human Resource Management Center
Pearl Harbor
FPO San Francisco, CA 96601

Human Resource Management School
Naval Air Station Memphis (96)
Millington, TN 38054

Capt. Charles Baldwin
Bureau of Naval Personnel
Pers 65
Washington, DC 20370

Director, Human Resource Training Department
Naval Amphibious School
Little Creek
Naval Amphibious Base
Norfolk, VA 23521

Navy Materiel Command
Employee Development Office (Code SA-65)
Room 150 Jefferson Plaza, Bldg., #2
1429 Jeff Davis Highway
Arlington, VA 20360

Human Resource Management Center, Washington
Washington, DC 20370

Not Available Copy