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ABSTRACT

The study was conducted to (1) determine the structure of reasons leading to the enlistment decision, (2) isolate factors leading some initial Army applicants to enlist in one of the other services instead of the Army, and (3) compare data collected in a draft-free environment (FY74) with data collected in FY 72. Based on a sample of 28,079 (11,502 Army), data were obtained from questionnaire responses at Armed Forces Examining and Entrance Stations. The questionnaire included items on endorsement of reasons for enlistment, selection of service, influences in selection of service, and various demographic characteristics. Frequency distributions and factor analysis were used and cross-tabulations were prepared. According to the surveys, the Army's main attraction has been its ability to provide some kind of skill or advanced training to enlistees. Other findings included: (a) the proportion of Army enlistees who initially preferred another service increased 8 percent; (b) the Army gained in educational quality and lost in mental quality of its applicants; (c) age, geographic region, and educational level were the most important characteristics associated with making the Army an enlistee's first choice of service. The questionnaire and intercorrelation matrices for reasons for enlistment are appended. (Author/BP)

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75-15

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A Further Examination of Enlistment Motivation and the Disposition of Army Applicants

Richard E. Kriner, Richard J. Orend,
and Leslie S. Rigg

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
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June 1975

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Army's main attraction has been its ability to provide some kind of training to enlistees. Other findings revealed: (a) an 8% increase in the proportion of Army enlistees who initially preferred another service; (b) the Army gained in educational quality and lost in mental quality of its applicants; (c) in 1974, the Army gained more non-white enlistees than it lost; (d) age, geographic region, and educational level were the most important characteristics associated with making the Army an enlistee's first choice of service.

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DEPARTMENT OF THE ARMY

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES
1300 WILSON BOULEVARD
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PERI-P

June 30, 1975

SUBJECT: A Further Examination of Enlistment Motivation and the
Disposition of Army Applicants (RECRUIT III-A)

TO:

1. This report presents the results of a study conducted to (a) determine the structure of reasons that lead to the enlistment decision, (b) isolate factors that lead some initial Army applicants to enlist in one of the other services instead of the Army, and (c) compare data collected in a draft-free environment (FY74) with data collected in FY72.
2. Data were obtained from questionnaire responses at Armed Forces Examining and Entrance Stations. The questionnaire included items on the endorsement of reasons for enlistment, the selection of service, influences in the selection of service, and various demographic characteristics. A total sample of 28,079 (11,502 Army) was used in the analysis. Frequency distributions were used to determine the extent of reason endorsement, factor analysis was used to examine the structure of reasons for enlistment, and cross-tabulations were prepared to determine the disposition of initial applicants. According to the surveys, the Army's main attraction has been its ability to provide some kind of skill or advanced training to enlistees. Other findings included: (a) the proportion of Army enlistees who initially preferred another service increased 8%; (b) the Army gained in educational quality and lost in mental quality of its applicants; (c) age, geographic region, and educational level were the most important characteristics associated with making the Army an enlistee's first choice of service.
3. This report will interest those concerned with enlistment motivation and recruiting.

Arthur J. Drucker
ARTHUR J. DRUCKER
Chief, Plans and Operations

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PROBLEM

The conversion from a draft to a draft-free environment created the need to examine differences in enlistment motivation and disposition of Army applicants for enlistment. An earlier study¹ described these general areas with data collected in a draft environment (FY 1972). The present study examines data collected in a draft-free environment and compares it to the earlier results in order to determine whether the changed environment has also precipitated changes in the endorsement of reasons for enlistment and/or the disposition of initial applicants to each service. Disposition refers to the entry service of applicants relative to the service to which they first applied.

APPROACH

Data for this study were collected at selected Armed Forces Examining and Entrance Stations (AFEES) during April through December, 1973 (called FY74 data). The questionnaire included items on the endorsement of reasons for enlistment, the selection of service, influences on the selection of service, and various demographic characteristics. A total sample of 28,079 (11,502 Army) was used in the analysis. Frequency distributions were used to determine the extent of reason endorsement. Factor analysis was used to examine the structure of reasons for enlistment, and cross-tabulations were prepared to determine the disposition of initial applicants. Direct comparisons to FY72 data are made in all applicable cases.

RESULTS

In both the FY72 and FY74 samples, the reasons most frequently cited as being a strong influence in the decision to enlist are concerned with learning a skill or getting advanced education. This pattern is reinforced by data from previous surveys as early as 1949. Thus, the primary and unchanging attraction of the Army—at least when enlistees are questioned in a post-enlistment survey—seems to be its ability to provide some kind of training to enlistees. There are some statistically significant differences between the FY72 and FY74 samples in the endorsement of reasons, but these were mostly minor in magnitude.

For the Army, the structure of reasons for enlistment in FY74 also exhibits a close approximation of the structure demonstrated in the FY72 data. "Career development," "individual development and change," and "military personnel benefits" all appear as factors in the FY72 and FY74 factor analysis of reason endorsement. Only the FY72 factor of "personal preference and dedication" does not appear in the FY74 data and this may be due as much to the changing of some of the items in the list of reasons as to a change in the preference patterns of enlistees. A comparison of the Army to the other services for the FY74 data yields a remarkable similarity in factor structure. For each service, the factor structure is exactly the same, with the four factors showing highest loadings on the same items in each service and even appearing in the same order.

¹ Allan H. Fisher, Jr., and Margi R. Harford. *Enlistment Motivation and the Disposition of Army Applicants*, HumRRO Technical Report 74-5, March 1974.

There was almost no change in the tendency for the Army to enlist "initial Army applicants" in FY74 and FY72 (89% and 91%), and the Army was by far the most successful service at enlisting its "initial applicants." The Army also had a positive "gain" ratio in both FY72 and FY74. That is, the Army enlisted more "initial applicants" to the other services (15% in FY72 and 23% in FY74) than it lost of its own initial applicants (9% in FY72 and 11% in FY74). The striking difference between FY72 and FY74 data is the 8% increase in the proportion of Army enlistees who had an initial preference for another service.

The Army gained in educational quality and lost in mental quality of its applicants. In FY74, the Army gained more high school graduates than it lost or "captured."¹ This is a reversal of the situation in FY72. However, it also gained more non-graduates than it captured.

The Army gained a lower percentage of mental category Is and IIs than it captured in both years. There was a relatively even exchange in category IIIs. In FY74 the Army gained more category IVs than it lost or captured. The result was a net loss of quality of enlistees when measured by mental category. Therefore, the overall exchange was mixed, with an increasing tendency to gain high school graduates and a tendency to lose higher mental category enlistees.

In FY74, the Army gained a significantly greater proportion of non-white enlistees than it lost and lost a greater proportion of white enlistees than it gained. This pattern is different from FY72 when non-white "losses" were somewhat greater than "gains" and white "gains" were somewhat greater than "losses."

The results of the Automatic Interaction Detection (AID) analyses also changed from FY72 to FY74. In FY72, education level and race were the primary factors "explaining" disposition to apply to the Army (whites and high school graduates were most likely to apply to the Army). In FY74 the most important reasons associated with making the Army first choice of service were: (a) age (the enlistment rate was higher for those 18 and over), (b) geographic region (for those 18 and over, there was a greater likelihood of coming from the Northeast and Southeast), and (c) education level (for those 17 and under, a higher proportion of the high school graduates made the Army their first choice than was true for the GED or non-graduates). In both years the sample included both draft-motivated and "true" volunteers.

Final additional analyses compared the sources, educational groups, mental groups, and races on the endorsement of reasons. The Army enlistees showed a somewhat lower endorsement of training reasons than the Navy and Air Force enlistees, although the relative endorsement of these reasons remained highest in all services. The Army and Marine Corps enlistees were also slightly more likely to be leaving personal problems behind.

Army enlistees with less education seemed somewhat more concerned with receiving skill or training and with the individual development and change items. Better educated Army enlistees were somewhat more concerned with the GI Bill and overall benefits than enlistees with less education. There was little difference in the endorsement rate of whites and non-whites.

¹ "Captured" refers to those applicants whose first choice was the Army and who actually enlisted in the Army.

PREFACE

This report describes activities performed by the Human Resources Research Organization under Work Unit RECRUIT/ENLIST, a project conducted for the U.S. Army Research Office of the Department of the Army. The principal objectives of the study were (a) to determine the structure of reasons that lead to the enlistment decision, (b) to isolate factors that lead some initial Army applicants to enlist in one of the other services instead of the Army, and (c) to compare results of the FY72 and FY74 surveys.

This study involved the analysis and interpretation of data from existing survey bases—data from samples of FY72 and FY74 enlisted accessions, that had been collected for the Department of Defense at regular intervals at selected Armed Forces Examining and Entrance Stations (AFEES). FY72 data were collected during the period from April 1971 through June 1972. Data analyzed in the present study were collected during the period from April 1973 through December 1973 and represent roughly the first half of FY74. Multivariate statistical analyses were performed on the data.

The research was performed by HumRRO Eastern Division, Alexandria, Virginia, formerly Division No. 7 and 1. Dr. Arthur J. Hoehn was Director of Division No. 7 when the study began. He was succeeded by Dr. Robert G. Smith, Jr. in 1973. Dr. J. Daniel Lyons is currently Director of Eastern Division. Dr. Richard Kriner was the Work Unit Leader. Data analyses were conducted by Dr. Richard J. Orend. Research assistance activities were performed by Ms. Leslie Rigg. The work was conducted under the sponsorship of the U.S. Army Research Institute for the Behavioral and Social Sciences, with Dr. Myron A. Fischl serving as the technical monitor.

HumRRO Research for the Department of the Army under Work Unit RECRUIT was performed under Army Contract DAHC19-73-C-0004. Army Training Research is conducted under Army Project 2Q062107A745.

Meredith P. Crawford
President
Human Resources Research Organization

CONTENTS

	Page
Summary	1
Preface	3
Introduction	11
Summary of the Literature on Enlistment Motivation	13
Description of the Report Format	16
Method	17
Description of the Sample	17
Questionnaire Content	18
Data Analysis	19
Missing Data	20
Results	21
Comparisons of FY72 and FY74 AFEES Data	21
Endorsement of the Reasons for Enlistment, FY72 and FY74	21
Total Sample	21
Army Enlistment Motivation	21
Structure of Reasons for Enlistment, FY72 and FY74	24
FY72 Data	25
FY74 Data	26
Factor Structure Comparison	27
Interservice Comparison of Factor Structures for FY74 Data	29
Disposition of Army Applicants	32
Factors Related to Disposition of Applicants	37
Disposition of Applicants Whose First Choice of Service Was the Army	39
Current Reasons for Enlistment: Detailed Findings	40
Endorsement of Reasons for Enlistment (All Services - FY74 Data)	40
Endorsement of Reasons for Enlistment, by Educational Level (Army Only - FY74 Data)	41
Endorsement of Reasons for Enlistment, by AFQT Mental Category (Army Only - FY74 Data)	43
Endorsement of Reasons for Enlistment, by Race (Army Only - FY74 Data)	44
Discussion	46
The Endorsement of Reasons for Enlistment	46
Pattern of Reason Endorsement (Factor Structure)	46
"Gains" and "Losses"	47
Disposition of Applicants Whose First Choice of Service Was the Army	47
References	51

Bibliography	Page 53
Appendices	
A Sample Sites for the Armed Forces Examining and Entrance Stations (AFEES) Study FY 1974	55
B AFEES Questionnaire	56
C Intercorrelation Matrices for Reasons for Enlistment	62

LIST OF FIGURES

1 Major Factors in the Enlistment Disposition of FY74 Applicants Whose First Choice of Service Was the Army	38
--	----

LIST OF TABLES

1 Summary of Reasons for Enlistment, Over Time	14
2 Sample Size by Month, 1973	18
3 Percent Attributing Strong Positive Influence to Each Reason for Enlistment	22
4 Extent of Strong Positive Influence Attributed to Each Reason for Enlistment: Army, FY72 and FY74	23
5 Factor Structure of Reasons for Enlistment: Army Enlistee Data for First Half of FY72	25
6 Factor Structure of Reasons for Enlistment: Army Enlistee Data for FY74	26
7 Comparison of FY72 and FY74 Factor Analyses of Reasons for Enlistment Common to Both Surveys	27
8 Coefficient of Congruence Matrix for FY72 and FY74 Factor Analyses	28
9 Factor Structure of Reasons for Enlistment: Navy Enlistee Data for FY74	29
10 Factor Structure of Reasons for Enlistment: USAF Enlistee Data for FY74	30
11 Factor Structure of Reasons for Enlistment: USMC Enlistee Data for FY74	30
12 Coefficients of Congruence for Army Compared to Other Service Factor Structure	31
13 Percent of Initial Applicants Enlisted by Each Service	32
14 Army "Gains" and "Losses"	33
15 Disposition of Initial Applicants for Enlistment, by Service	34
16 Army "Gains" and "Losses," by Educational Level	34
17 Army "Gains" and "Losses" of High School Graduates, by Service	35
18 Army "Gains" and "Losses," by Mental Category	36
19 Army "Gains" and "Losses," by Mental Group	36
20 Army "Gains" and "Losses," by Race	37
21 Percent of FY74 Applicants Attributing Strong Influence to Each Reason, by Service	40
22 Percent of Strong Positive Endorsement of Reasons for Enlistment, by Educational Level	42

011

LIST OF TABLES (Cont.)

	Page
23 Percent of Strong Positive Endorsement of Reasons for Enlistment, by Mental Category	43
24 Percent of Strong Positive Endorsement of Reasons for Enlistment, by Race	44
C-1 Intercorrelations of Reasons for Enlistment: Army	62
C-2 Intercorrelations of Reasons for Enlistment: Navy	63
C-3 Intercorrelations of Reasons for Enlistment: USAF	64
C-4 Intercorrelations of Reasons for Enlistment: USMC	65

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A Further Examination of
Enlistment Motivation and the
Disposition of Army Applicants

INTRODUCTION

In January 1973, the United States military services converted from a conscription (draft) system to a system which relies completely on the enlistment of volunteers. With the termination of the draft system and the incorporation of an all-volunteer system, the Army and other military services could suffer a loss from the resulting decrease in readily available, high quality manpower, and the resulting competition for accessions by the various services. The shortage will result from the general unavailability of a formerly drafted manpower supply. The Army's specific problem will be compounded because it relied more heavily on the draft than did the other services. In short, it has become critically important for the Army to maximize the effectiveness of its recruiting efforts.

In anticipation of this need, the U.S. Army Research Office authorized HumRRO to conduct a study¹ utilizing survey data from FY72 Army enlistees to accomplish the following objectives. (a) identify the classification of reasons given for enlisting in the Army, and (b) identify factors (positive and negative) that are involved in enlistment into the Army or in the selection of another service.

In that study using the FY72 data, a factor analysis and hierarchical cluster analysis techniques generated a four-way classification of reasons for enlistment: (a) enlistment for vocational development, (b) enlistment in the service of one's choice, (c) enlistment for individual development and change, and (d) enlistment to obtain personal benefits (including pay) and to qualify for the GI Bill. These same clusters were also identified in the analysis of factors influencing choice of service.

The conclusions of that study were:

(1) The major emphasis in Army advertising should be in the areas of training and educational opportunities. One or more of the four major clusters of specific reasons for enlistment could be used as a base for independent advertising appeals designed to motivate young men to enlist in the Army.

(2) Emphasis on the opportunity for advanced education and training might be used by the Army both to improve the rate of enlistment of qualified Army applicants now lost to the other services, and to attract men who were initial applicants to another service.

(3) Because the quality of initial Army applicants is superior to the quality of "gains" from the pool of initial applicants to the other services, an effort should be made to expand the pool of initial Army applicants.

In order to modify recruiting efforts and capitalize on existing motivations and incentive appeal among the youth population, an up-to-date assessment of enlistment motivation and incentive appeal must be made. The earlier HumRRO study by Fisher and Harford provided insights into the nature of enlistment motivation and the disposition of Army applicants. The present study also has objectives related to the change from a draft to a no-draft environment, and directed at a replication of the previous findings regarding the structure of enlistment motivation.

The objectives of the present study are:

(1) To determine the level of endorsement of each specific enlistment motivation for current Army enlistees in a zero-draft environment.

¹Allan H. Fisher, Jr., and Margi R. Harford. *Enlistment Motivation and the Disposition of Army Applicants*, HumRRO Technical Report 74-5, March 1974.

(2) To examine the factor structure of the endorsement of reasons for enlistment.

(3) To examine the extent to which the Army succeeds in enlisting a high percentage of those whose first choice of service is the Army.

(4) To examine the extent to which the Army "loses" qualified applicants to the other services and "gains" qualified applicants from the other services.

(5) To examine the disposition (i.e., which service they enlisted into) of applicants whose first choice of service is the Army.

(6) To make comparisons, where possible, between the findings based upon data collected in a zero-draft environment (the present study) and findings based upon data collected in a draft environment (Fisher and Harford). Together, the present study and the Fisher and Harford study provide a data base that creates the opportunity to examine motivation and enlistment disposition in a period of important change in the military services' method of obtaining accessions.

The data source for this study was a survey questionnaire implemented by the Department of Defense in October 1970 to be routinely administered every other week at approximately one-third of the Armed Forces Examining and Entrance Stations (AFEES) nationwide for purposes of collecting trend data on enlistment motivation. With some modifications in item content, this survey questionnaire administration procedure continued through December 1973. It provided data for both the FY72 study and the present comparative study (the FY74 study). Since the FY72 data were collected at a time when the draft system was still in effect, it was considered appropriate to conduct a replication study using the more recent data gathered in a zero-draft or all-volunteer environment.

SUMMARY OF THE LITERATURE ON ENLISTMENT MOTIVATION

Over the past 25 years an extensive amount of research has been conducted on the question of the motivation of individuals to enlist in the military service.¹ This research has led to the development of several different lists of reasons for enlistment.

Table 1 provides a summary of some of the basic reasons for enlistment and their relative endorsement in surveys conducted since 1949. The reasons fall into several general subject areas. Several are concerned with learning a trade or skill or qualifying for advanced education or financial aid. These include "learn a trade or skill valuable in civilian life," "opportunity for advanced education," "opportunity for training," and "to qualify for the GI Bill." Other reasons center around the draft, particularly increasing personal choice in the draft environment. These include "to avoid the draft," "to enlist in my choice of service," and "to serve at the time of my choice." A third area—general benefits—includes "the overall benefits," and "retirement benefits." Educational benefits could also be considered as related to this group. Personal change reasons are also used. They include "to leave personal problems behind," "for travel, excitement, and new experiences," and "increased maturity and self reliance." "Career opportunities" and "patriotism" are also reasons used for joining the military service.

The results of previous research have demonstrated the strong attraction of educationally oriented reasons for enlistment. For example, the "opportunity for advanced education" is strongly endorsed in all previous surveys cited. To "learn a trade or skill valuable in civilian life" and "opportunity for training" are also highly endorsed in the

¹R.W. Deimel, and E.H. Blakelock. *1968 Recruitment Survey. Motivational Factors Influencing Enlistment Decision*. Bureau of Naval Personnel, WSR 69-5, Washington, May 1969.

H.J. Dupuy, and R.W. Deimel. *Navy Recruitment Survey*, Bureau of Naval Personnel, Washington, September 1967.

Allan H. Fisher, Jr. *Attitudes of Youth Toward Military Service. Results of National Surveys Conducted in May 1971, November 1971, and June 1972*, HumRRO Consulting Report CR-D7-72-30, Office of the Assistant Secretary of Defense (M&RA)MR-72-2, Washington, August 1972.

Allan H. Fisher, Jr., and Martha R. DiSario. *Attitudes of Youth Toward Military Service in a Zero Draft Environment Results of a National Survey Conducted in November 1972*, HumRRO CR-D7-73-58, Office of the Assistant Secretary of Defense (M&RA) MR-74-8, Washington, May 1974.

Allan H. Fisher, Jr., and Leslie S. Rigg. *The Endorsement of Enlistment Incentives*, HumRRO Consulting Report CR-D7-74-131, January 1974.

A.S. Glickman, A.K. Korman, B.E. Goodstadt, R.L. Frey, Jr., and A.P. Romanczuk. *A Study of Experimental Incentives as an Influence on Enlistment Intention*, American Institutes for Research, AIR-32201-13/73-TM-2, Washington, December 1973 (A).

J. Johnston, and J.G. Bachman. *Youth in Transition. Young Men and Military Service, Volume 5*, University of Michigan, Institute for Social Research, Ann Arbor, Mich. 1972.

Office of the Secretary of Defense, Armed Forces Information and Education Division, Attitude Research Branch. *Reasons for Enlistment. Army Recruits Enlisting in January 1949*, Report No. 97-325A, Washington, July 1949.

Office of the Secretary of Defense, Armed Forces Information and Education Division, Attitude Research Branch. *Reasons for Enlistment. New Airmen Enlisting in February 1949*, Report No. 98-325AF, Washington, August 1949.

Table 1
Summary of Reasons for Enlistment, Over Time
(Percent)

Reason for Enlistment	Army			Navy			Air Force
	AF I&E ^a 1949 Survey (N=1,584)	RAC ^b E1-E-3 1972 Survey (N=992)	AFEES ^c 1971-72 Sur- vey (N=10,357)	BUPERS ^d 1967 Survey (N=2,618)	BUPERS ^d 1968 Survey (N=2,926)	NPRDL ^e 1972 Survey (N=6,795)	AF I&E ^f 1949 Survey (N=709)
Learn a trade or skill valuable in civilian life	NA	19	62.9	NA	NA	NA	NA
Opportunity for advanced education	31	18	59	94	85	39	47
Opportunity for training	NA	NA		NA	NA	58	NA
To enlist in my choice of service	NA	NA	54.5	NA	NA	NA	NA
For travel, excitement, and new experiences	12	11	44.0	91	81	40	12
To serve at the time of my choice	NA	NA	42.4	84	77	NA	NA
For increased maturity and self-reliance	3	13	41.8	70	58	NA	4
To serve my country (patriotism)	4	17	40.7	89	79	32	1
Military career opportunities	NA	5	40.2	51	41	16	NA
Navy career	NA	NA		60	48	27	NA
The overall benefits: pay, room and board, medi- cal care, and training	19	NA	29.6	NA	NA	NA	12
Retirement benefits	2	NA		NA	NA	NA	2
To qualify for the GI Bill	NA	NA	26.7	NA	NA	NA	NA
To avoid the draft	10	NA	21.3	57	29	30	7
To leave personal problems behind	8	NA	10.8	25	20	NA	10
All other reasons for enlistment	11	17					5
Total Percent	100	100					100

^a Criterion Question: Tell in your own words *all* reasons you had for enlisting in the Army. Which one was the most important reason why you enlisted? (10 categories of reasons for enlistment were developed from these open ended responses.) (25)

^b Criterion Question: Select the three most important items from the list which influenced your decision to enter the Army. (List of 10 reasons.) (28)

^c Criterion Question: Indicate to what extent each of the reasons (listed below) influenced your decision (to enlist). (7)

^d Criterion Question: What influence did each of the following (reasons) have on your decision to join the Navy? (List of 12 reasons.) (4, 5)

^e Criterion Question: Did (one of 11 reasons for joining the Navy) have anything to do with making up your mind to join the Navy? (Percent responding "Yes, a lot.") (22)

^f Criterion Question: Tell in your own words *all* reasons you had for enlisting in the Air Force. Which one was the most important reason why you enlisted? (10 categories of reasons for enlistment were developed from these open ended responses.) (26)

NA = not asked

SOURCE: Adapted from Fisher and Harford, 1974, p. 7.

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surveys in which they appear as reasons for enlistment. However, it is unclear just what level of education is being sought. In the 1972 AFEES survey only 26.7% of the respondents strongly endorsed the reason "to qualify for the GI Bill." This pattern may lead to the conclusion that in-service training is more important than the far removed post-service educational benefits.

Considerably less consistency is exhibited among other "reasons" common to several of the previous surveys. For example, "travel, excitement, and new experiences" ranks near the top in two surveys, in the middle in three, and near the bottom in two others. Part of this inconsistency may be explained by differences in additional choices available to the respondent when he answered and what kind of response he has been asked to give. Some reasons were judged independently, some were ranked, and other answers involved selecting several reasons of equal importance and eliminating others.

"Military career opportunities" (including "Navy career") is ranked in the middle or near the lower end of each scale in which it appears. Relative to other stated reasons for enlisting, a military career does not seem to be an important factor in drawing recruits into the service. "To avoid the draft" also varies considerably over time. Part of this variation is probably due to the pressure of the draft. During 1949 (when two of the surveys were conducted) there was little or no draft pressure and a consequent low influence for draft avoidance.¹ During the late 1960's and early 1970's, draft pressure was high and draft avoidance was more frequently cited as an important reason for enlisting.

"To serve my country (patriotism)" also receives mixed endorsement. In the late 1940's, it was very low, while in 1967, 1968, and in one 1972 survey it was relatively highly endorsed. In two 1972 surveys, it ranked near the middle. A partial explanation for these results may be the pressure of the military situation. In 1949, there was no war and, therefore, little reason to concern oneself about being a patriot. In the middle and late 1960's, war was developing and an increased concern with patriotism was evident. By 1972, the Vietnam war was unpopular and the enlistee again returned to more personal reasons for enlisting.

It should be emphasized that conclusions based on these data are tentative due to the nature of the data (sample construction, time between survey administration, question construction, other choices on the questionnaires, etc.). Thus, it is difficult to establish a trend on the endorsement of these or other reasons for enlistment. However, the FY72 AFEES survey was analyzed in a manner conducive to replication, particularly with regard to the structure for reasons for enlistment (an approach previously neglected in enlistment research). The present study is a replication of the 1972 study with some modification brought about by changes (outside the control of the analysis staff) in the survey questionnaire and on the basis of certain analyses performed on the earlier data.

¹Low draft pressure is determined by examining the number of inductees for the period just before questionnaires were administered. See *Selected Manpower Statistics*, Directorate of Information Operations, Office of the Secretary of Defense, 1970, p. 47.

DESCRIPTION OF THE REPORT FORMAT

Since a major purpose of this study is to describe the present findings as they compare with the findings from the previous HumRRO study, the format of the Results section of this report should be described. Many of the results of the present study are replications of those from the previous study. The data in both studies come from basically the same AFEES survey instrument and represent two large samples of military service enlistees assessed at two different time periods (roughly FY72 and FY74). Therefore, where possible, results from both studies will be presented "side by side" to allow comparisons and a view of trends over time in a single glance.

Although some changes occurred in the AFEES survey instrument from FY72 to FY74, much of the data allows for direct comparison. The results and analyses which are comparable and represent a replication are:

- (1) Frequency of strong positive endorsement of the reasons for enlistment.
- (2) Factor analyses of the reasons for enlistment.
- (3) "Captures," "gains," and "losses" of Army applicants.
- (4) Disposition of Army applicants.

Results and analyses concerning these topics which have a direct counterpart from the previous study will be presented with the previous findings.

Analyses which have no direct counterpart from the earlier study will be presented and discussed separately. In most instances, these additional findings represent extensions or elaborations of the basic analyses which are presented with their counterparts from the earlier study.

METHOD

Several different multivariate data processing procedures were used on the data gathered in the 1973 AFEES surveys. The examination of enlistment motivation was carried out by using frequency distribution to identify the relative endorsement of enlistment incentives. Correlation and factor analyses were used to determine the structure of incentives for the Army and the other services. The disposition of Army applicants was examined on two levels: (a) cross-tabular techniques were used to determine Army "gains" and "losses" in the recruiting process; and (b) Automatic Interaction Detection (AID) analyses were used to identify factors associated with the selection of the Army as a first choice for enlistment. The analyses coincide with those performed on the FY72 data and, therefore, allow for direct comparison of results. The additional analyses performed in this study used similar techniques, but involved questions not covered in the Fisher and Harford analysis.

DESCRIPTION OF THE SAMPLE

The sample used in this study includes all enlistees accepted into one of the armed services during the second and third weeks of each month (during the period when the survey was being given) at 32 selected AFEES processing centers.¹ The total sample for all services included 39,224 enlistees.

Approximately 10,000 respondents were dropped from the original sample. The difference is the result of an oversampling of the five largest AFEES which occurred during the months of June and July. Normally, these AFEES would have been sampled for only one week each month instead of the regular two (because of their size). In order to standardize the sampling procedure across months, approximately three-fourths of the enlistees from each of these five stations were eliminated.² In the remainder of the AFEES, the regular two weeks per month sampling procedure was used. Reduction of the sample was accomplished by allowing the computer to select every fourth subject after a random starting point was chosen. The results produced samples for June and July that were approximately one-half the size of the original samples for those months and which more accurately reflected the relative contribution of those months to the total number of enlistees. Table 2 reflects the final monthly distribution.

¹ See Appendix A for complete list.

² As one test of the representativeness of the sample, it was divided on a month-by-month basis into its four service components (see Table 2). The sample for each month was then compared, by service, to the total enlistments for that service using a Pearson Product Moment Correlation. The coefficients are shown as the last row in Table 2. The resultant coefficients would have been considerably higher were it not for the particularly large (and unexplained) discrepancy in the month of August for all services. In any case, they demonstrate a tendency for the samples to parallel the real enlistments in each of the months surveyed.

Table 2

Sample Size by Month, 1973

Month	Army	Navy	Marine Corps	Air Force	Unknown	Total
April	747	642	416	775	8	2,588
May	550	573	414	1,010	54	2,601
June	1,883	959	643	1,427	69	4,981
July	2,118	1,170	740	1,070	26	5,124
August ^c	702	614	318	392	9	2,035
September	2,036	1,033	582	841	19	4,511
October	1,555	512	338	640	3	3,048
November	1,080	262	179	344	4	1,869
December	831	164	139	187	1	1,322
Total	11,502	5,929	3,769	6,686	193	28,079
Correlation between monthly sample and actual monthly accessions	.67 ^a	.76 ^a	.57 ^b	.73 ^a		

^aSignificant at $p \leq .05$.

^bSignificant at $p \leq .07$.

^cThe data for August are reported as received. We have no explanation for the low N.

QUESTIONNAIRE CONTENT

The original AFEES survey questionnaire, designed in late 1970 by the Department of Defense, has undergone several revisions between its initiation in 1970 and the present study. The AFEES questionnaire used in the present study was a slight modification of that used in Fisher and Harford, 1974. The present AFEES survey questionnaire contained 57 multiple-choice items.¹ The Armed Forces Qualification Test (AFQT) mental ability category, date of administration, and AFEES location were coded by the questionnaire administrators. The present version of the questionnaire included 16 reasons for enlistment whereas the questionnaire used in FY72 probed only 12 such reasons.

Response procedures were also varied. In the FY72 survey, only positive or neutral responses were permitted in the endorsement of reasons for enlisting. In the FY74 survey a negative response was also permitted. However, only a small proportion of the enlistees used the negative categories (usually less than 5% for each reason) and the major comparisons to be made are with the positive responses. Therefore, this difference does not result in a significant problem in analysis or interpretation.

Several other item changes make comparisons somewhat more difficult. Most notably, the FY72 item asking which service the enlistee "initially applied to" was not included in the FY74 version. Instead, two items asking which service the enlistee chose first and which recruiter the enlistee first saw were included. These two items are comparable, if not identical, to the earlier item regarding the initial service application. It was decided that the item "first choice service" most clearly corresponded to "initially applied to" in the FY72 survey and it was used for comparison purposes. "First choice

¹ Appendix B contains a copy of the current questionnaire.

service" was chosen because it best represents the real "gains" and "losses" for the Army in their competition for enlistees with the other services. Determination of initial recruiter contact was tentative because of the range in availability of different recruiters at a given time or location.

Other differences in the questionnaire include the addition of several questions on the role of media and personal influences in the enlistee's decision to join the Army in the FY74 survey. These questions will be analyzed as part of the AID analysis to identify characteristics of Army enlistees.

DATA ANALYSIS

There were two data analysis phases in this project: (a) identify patterns of reasons that reportedly influenced an individual to enlist in the Army, and (b) identify factors associated with the phenomenon of "cross-elasticity," in which an applicant who prefers one service (has a "first choice" of one service) may ultimately enlist in another service. The latter phase involved an analysis of the degree to which the phenomenon occurs and the identification of characteristics associated with a particular choice.

In the first phase, initial consideration was given to reasons for enlistment. In this analysis the proportions of Army enlistees endorsing each reason for enlisting "a lot" were compared in the FY72 and FY74 samples. The objective was to learn which reasons seemed most important to enlistees and whether the endorsement of reasons had changed since the FY72 survey administration.

The second analysis in Phase I entailed a correlation and subsequent factor analysis of the endorsement of reasons. This was done to determine the underlying structure to their endorsement, and whether that structure was the same as that found in the FY72 data.

The second phase involved the examination of the degree of Army cross-elasticity. The first objective was to determine to what extent the Army "captures" enlistees whose first choice was the Army. The second objective was to examine the extent of "gains" (enlistees whose first choice was another service) and "losses" (other service enlistees whose first choice was the Army). This analysis was performed by using cross-tabular procedures comparing first choice in services with service finally selected. In addition to total service data, comparisons were made for several demographic characteristics as well (i.e., race, education, and mental category). This analysis was done to determine whether the quality of "gains" was comparable to the quality of "losses" incurred. These results were also compared to FY72 findings.

A detailed analysis of enlistees who selected the Army as their first choice was performed using the AID technique. This analysis provides a non-linear in-depth study of the effect of 39 demographic and attitude variables on the decision to enlist in the Army. The AID analysis determines which variable accounts for the greatest variance in the enlistment decision and examines the effects of each subsequent variable to determine its effects. It allows the specification of factors contributing most to the selection of the Army within the context of the questions asked in the AFEES survey.

All of these analyses were performed with the objectives of determining current patterns and changes since the FY72 data were collected. Additional detailed analyses not performed in the FY72 study examined such questions as the service-by-service endorsement of incentives, structure of incentives, and gains and losses. The procedures used in these analyses were of the same type as those described above.

MISSING DATA

A certain number of minor problems were created by missing data. These data discrepancies were created by the failure of subjects to respond to some of the questions and/or the failure of the AFEES test administrators to properly fill in information they were required to supply. The proportion of missing responses on each question varied to some extent, but was usually less than 10%.

There are two major ways of handling missing data. The first was used on the FY72 data by Fisher and Harford; it involved assigning a value to the missing response based on the most frequently expressed response or the availability of a neutral response. The second approach is to treat the missing response as a separate category. This approach was used in analyzing the FY74 data. This procedure offered an opportunity to examine whether nonresponse is indicative of other kinds of behavior or characteristics. It also leads to somewhat lower chances for classification error.¹ However, major discrepancies with the FY72 results were not expected as a result of using the different procedures.

¹It should be noted that the data analysis computer programs created certain problems in handling missing data. In cross tabulation programs, missing data are included (in the FY74 data) as a separate response category. Thus, all percentages calculated for the analysis include the missing data (even if they are not shown). In doing the correlational analyses, however, the computer program drops subjects whose response sets include missing individual observations.

RESULTS

COMPARISONS OF FY72 AND FY74 AFEES DATA

In this section, results from the present study which replicated analyses from the previous HumRRO study by Fisher and Harford are discussed. To distinguish between studies, results are referred to according to the approximate time period in which the data were collected. Results in the Fisher and Harford study were obtained from data collected from April 1971 through June 1972 and are referred to as "FY72" data. Data analyzed in the present study were collected from April 1973 through December 1973 and represent roughly the first half of fiscal year 1974. The present data are therefore referred to as "FY74" data.

For a more complete description and presentation of the FY72 data analyses, refer to the Fisher and Harford report.

ENDORSEMENT OF THE REASONS FOR ENLISTMENT, FY72 AND FY74

Total Sample

A general summary (total sample) of results from both surveys is presented in Table 3 for comparative purposes. It is evident in these data that the "opportunity for advanced education and training" still ranks as the single most important reason for enlistment. In the FY74 data this tendency is represented in the first three items on the list, while in the FY72 data it is contained in the first two items.

Two important differences are also shown in this table. The first is the drastic drop in the endorsement of draft avoidance as a reason for enlistment. This result was expected, because of the elimination of the draft. The second difference is the significant drop (from 27% to 18%) in the endorsement of the GI Bill as a factor in enlistment. It appears that among the total population of military enlistees the significance of future advanced education is substantially less than it once was. This change could reflect a concern with achieving a marketable vocation as early as possible and avoidance of delay in getting into the job force or the uncertainties of a possible academic education. Also, it may reflect the differences in populations for the two samples; the FY72 results included a substantial number of draft-motivated enlistees, while the FY74 data had only a small proportion of draft-motivated enlistees.

It should be kept in mind that these are general tendencies (because they include only two different data samplings) which do not represent a real trend in the choices expressed by enlistees. In addition, these are aggregated across all four services. Separate Army analyses follow.

Army Enlistment Motivation

The extent of endorsement of the reasons for enlistment by samples of Army enlistees at different times provides an excellent opportunity to examine changes in enlistment motivation. The extent of strong influence (FY72 survey) or a lot of positive influence (comparable category on the FY74 survey) attributed to each reason for

Table 3

**Percent Attributing Strong Positive Influence to
Each Reason for Enlistment**

(Comparison of 1971-72 and 1973 AFEES Data)

Total Sample	
AFEES Survey, April 1971-April 1972	AFEES Survey, April 1973-December 1973
Learn a trade or skill valuable in civilian life	62.9 56.2
Opportunity for advanced education and training	NA ^a 57.2
To enlist in my choice of service	59.0 62.6
For travel, excitement, and new experiences	NA 53.8
To serve at the time of my choice	54.5 NA
For increased maturity and self-reliance	44.0 45.8
To serve my country (patriotism)	42.4 NA
Military career opportunities	41.8 39.8
The overall benefits: pay, room and board, medical care, and training	NA 39.5
To qualify for the GI Bill	40.7 38.8
To avoid the draft	40.2 NA
To leave personal problems behind me	29.6 34.9
	26.7 17.8
	21.3 4.8
	10.8 12.2
	NA 29.9
	NA 22.6
	NA 32.9
	NA 9.4

^aNA = not asked

enlistment is shown in Table 4 for Army enlistees. The results are shown for both halves of the FY72 data and for the FY74 data (actually the first half of FY74).

In the FY74 data, the four reasons most frequently endorsed as having "a lot of positive influence" in the decision to enlist were:

- (1) For an opportunity for advanced education and training (60.9%).
- (2) To get the skill or training I wanted (55.4%).
- (3) To learn a trade or skill that would be valuable in civilian life (53.9%).
- (4) For career opportunities (51.2%).

025

Table 4

**Extent of Strong Positive Influence Attributed to Each Reason
For Enlistment: Army, FY72 and FY74^a**

Reason for Enlistment	Apr 71 to Sep 71	Oct 71 to Apr 72	Apr 73 to Dec 73
To learn a trade or skill that would be valuable in civilian life	56.7	58.7	53.9
To get the skill or training I wanted	NA ^b	NA	55.4
For an opportunity for advanced education and training	53.5	58.1	60.9
For career opportunities	NA	NA	51.2
To enlist in my choice of service	45.6	42.6	NA
For travel, excitement, and new experiences	44.4	44.3	45.9
To serve at the time of my choice	43.5	39.9	NA
For increased maturity and self-reliance	42.1	42.8	40.5
To become a better individual	NA	NA	41.4
To serve my country (patriotism)	41.3	41.8	41.1
Military career opportunities	36.2	41.4	NA
The overall benefits: pay, room and board, medical care, and training	28.0	36.3	34.4
To qualify for the GI Bill	30.1	31.8	20.6
To avoid the draft	22.5	16.1	6.2
To leave personal problems behind me	12.7	11.1	13.6
For military pay	NA	NA	26.4
For job security	NA	NA	34.4
To join the unit I wanted	NA	NA	27.8
To get a cash bonus for signing up	NA	NA	14.1

^aThe large N's in these samples make statistical significance highly likely. It requires a difference of only two percentage points to produce a probability of .01.

^bNA = not asked.

Two of these reasons which appeared on the FY72 AFEES survey were also the most frequently endorsed reasons in the earlier study—"to learn a trade or skill that would be valuable in civilian life" (56.7% and 58.7%, respectively, in the two halves of the year) and the "opportunity for advanced education and training" (53.5% and 58.1%, respectively). Conversely, the reasons least attributed strong influence in the decision to enlist by the FY74 Army sample were:

- (1) To avoid the draft (6.2%).
- (2) To leave personal problems behind me (13.6%).

These same two reasons were also least attributed strong influence in the enlistment decision by the FY72 Army sample. Avoidance of the draft as a reason for enlistment was endorsed as a strong influence by 22.5% and 16.1% respectively by the two halves of the FY72 Army sample, while to leave personal problems behind was endorsed by 12.7% and 11.1% respectively.

An additional reason in the FY74 Army sample which was least endorsed as having a lot of positive influence was "to get a cash bonus for signing up" (14.1%). This option was not available in FY72 and, therefore, did not appear on the FY72 AFEES survey.

Several trends in the endorsement of reasons for enlistment are worth noting. There were significant¹ increases in the endorsement of two reasons for enlistment ("an opportunity for advanced education and training," and "to leave personal problems behind") from the FY72 results to the FY74 results. The latter change, although significant, was small. Thus, only the opportunity for advanced education and training exhibits a steady increasing trend. On the other hand, significant decreases from FY72 results to FY74 results occur on three items: "to learn a trade or skill that would be valuable in civilian life," "to qualify for the GI Bill," and "avoiding the draft." The third reason, "avoiding the draft," drops from 22.5 to 6.2% endorsement and reflects the appearance of the All Volunteer Force.

"To learn a trade or skill that would be valuable in civilian life" shows only a 2.5% change and should probably not be viewed as a major development. However, "to qualify for the GI Bill" drops approximately 10% in the extent of strong endorsement and should be viewed as a major change. This decrease is somewhat puzzling in light of the accompanying increase which occurred in the endorsement of the opportunity for advanced education and training as a reason for enlistment. Perhaps this result reflects a general societal trend away from a college education.

The endorsement of three other reasons which were common to all of the surveys exhibited virtually no change from FY72 to FY74. They are: "for travel, excitement, and new experiences," "increased maturity and self reliance," and "to serve my country (patriotism)." All three remained at an approximately 40 to 45% endorsement level.

A review of these results indicates that the appeal of enlistment for an opportunity for advanced education and training which was fairly strong in early FY72 continues as a frequently endorsed reason at an increased level in FY74. Generally, the major reasons for enlistment continue to center on education and training, as they did in FY72, with some shifts from the more specific vocational skills to a more general educational training appeal in FY74.

The effect of terminating the draft system can be seen in a continued decrease in draft avoidance as a reason for enlistment from early FY72 to FY74.

A second major aspect of the comparison of FY72 and FY74 data centers on the structure or pattern of reasons for enlistment. The changes in endorsement could affect the underlying pattern of reason endorsement.

STRUCTURE OF REASONS FOR ENLISTMENT, FY72 AND FY74

The second part of the examination of enlistment motivation concerns the structure of reasons for enlistment. The reasons are divided into interrelated groups by means of a factor analysis of the reason correlation matrix. This analysis is performed in order to determine whether reasons form natural groupings based on the degree to which individuals who strongly endorse one reason also tend to endorse other reasons in a similar way. Such an analysis can be indicative of overlapping appeals in incentives offered by the Army and/or the strength of a combination of reasons producing sufficient influence to cause enlistment.

¹The extremely large N's in these samples make statistical significance highly likely. It takes a change of only about two percentage points to bring significance at the .01 level. Therefore, differences are sometimes less meaningful when the magnitude of the change is considered. This was also one reason for using the .01 significance level in tests on Table 4.

FY72 Data

In the FY72 study, Fisher and Harford found four basic factors (Table 5):

Factor I: Career Development Motivation. This factor consisted of reason 3, "enlisting to learn a trade or skill that would be useful in civilian life," reason 7, "opportunity for advanced education and training," and reason 1, because "career opportunities in the military looked better than in civilian life." Enlisting to avoid the draft had a high negative loading on this factor.

Factor II: Personal Preference and Dedication. Reason 11, "enlisting because I wanted my choice of service," reason 12, "to fulfill my military obligation at a time of my choice," and reason 5, "patriotism," were included in this factor.

Factor III: Military Personnel Benefits. Factor III included reason 8, "to qualify for the GI Bill," and reason 9, "to obtain overall benefits..." Draft avoidance also loaded highly on this factor.

Table 5

Factor Structure of Reasons for Enlistment: Army Enlistee Data for First Half of FY72^a

Variable	Factors			
	I	II	III	IV
1. Career opportunities in the military looked better than in civilian life.	.72	.08	-.05	.16
2. To become more mature and self-reliant.	.36	.29	-.02	.51
3. To learn a trade or skill that would be valuable in civilian life.	.75	.11	.08	.04
4. For travel, excitement, and new experiences.	.24	.26	.08	.59
5. To serve my country (patriotism).	.36	.49	-.14	.40
6. I wanted to leave some personal problems behind me.	-.15	-.15	.25	.69
7. I wanted an opportunity for advanced education and training.	.79	.10	.19	.04
8. I wanted to qualify for the GI Bill.	.05	.07	.81	.12
9. The overall benefits: pay, room and board, medical care, and training.	.38	.10	.55	.26
10. To avoid the draft.	-.41	.35	.42	-.35
11. I wanted my choice of service.	.17	.74	.16	-.02
12. To fulfill my military obligation at a time of my choice.	.00	.77	.07	.13

^aA separate table is used to describe data from the second half of FY 72 in Fisher and Harford. The factors in this analysis are identical to those described in the text. Coefficients of congruence were calculated to measure the degree of similarity of factors and it was found that the results of the two surveys corresponded in the following manner: Factor I, $\phi = .99$; Factor II, $\phi = .995$; Factor III, $\phi = .97$; Factor IV, $\phi = .94$. These results indicate almost total similarity in the two four-factor solutions. (See Harman, 1960, for a complete explanation of the coefficient of congruence.)

Factor IV: Individual Development and Change. This factor included reason 2, "enlisting to become more mature and self-reliant," reason 4, "for travel, excitement, and new experiences," reason 5, "to serve my country," and reason 6, "to leave some personal problem behind."

FY74 Data

The correlation matrix (Appendix C) for the 16 reasons for enlistment into the Army developed from data on Army enlistees was also factor-analyzed. Using a varimax rotation and a cut-off eigen-value of 1.0 again resulted in four factors. The reasons for enlistment were distributed across the four factors as follows (Table 6):

Factor I: Career Development Motivations. This factor contains reason 2, "for career opportunities," reason 3, "to learn a trade or skill . . .," reason 7, "opportunity for advanced education or training," and reason 15, "to get skill or training I wanted."

Factor II: Individual Development and Change. This factor, though somewhat weaker than Factor I, contains reasons concerned with personal development. It includes reason 4, "to become a better individual," reason 5, "for travel excitement, and new

Table 6
Factor Structure of Reasons for Enlistment:
Army Enlistee Data for FY74
(N=8110)^a

Reason for Enlistment	Factors			
	I	II	III	IV
1. For military pay	.29	.05	.38	.17
2. For career opportunities	.59	.23	.18	-.05
3. To learn a trade or skill useful in civilian life	.69	.22	.11	-.05
4. To become a better individual	.32	.63	.11	.08
5. For travel, excitement and new experiences	.25	.39	.24	.16
6. To serve my country	.34	.49	.08	.15
7. Opportunity for advanced education and training	.55	.32	.21	-.01
8. Leave personal problems	-.04	.20	.31	.19
9. Qualify for the GI Bill	.06	.11	.52	.14
10. Overall benefits—pay, room and board, medical care, and training	.28	.12	.65	.11
11. Job security	.30	.26	.43	.19
12. To become more mature and self-reliant	.22	.56	.24	.11
13. To avoid the draft	-.12	.10	.18	.32
14. To get a cash bonus	.02	.01	.18	.49
15. To get skill or training I wanted	.60	.20	.06	.13
16. To join the unit I wanted	.24	.18	.05	.40
Eigenvalues	4.63	1.63	1.11	1.02
Percent of variance accounted for	28.9	10.2	6.9	6.4
Cumulative percent of variance	28.9	39.1	46.1	52.4

^aThe smaller N results from computer programs which require complete data on all subjects. Thus, observations for all reasons were dropped if the subject failed to respond to one or more reasons. There were 8116 Army enlistees in the sample who responded to all 16 reason questions.

029

experiences," reason 6, "to serve my country," and reason 12, "to become more mature and self-reliant."

Factor III: Military Personnel Benefits. This factor has highest loadings on reason 9, "qualify for the GI Bill," reason 10, "overall benefits . . .," reason 11, "job security," and reason 1, "for military pay." It also contains the highest loading for reason 8, "leave personal problems."

Factor IV is a weak doublet containing the highest loading on reason 14, "get a cash bonus," and reason 16, "to join the unit I wanted." Neither loading is higher than .5 and the possible logical connection of these reasons is not immediately evident.

Factor Structure Comparison

The factors evidenced in the FY72 data are, for the most part, still present in the FY74 data (see Table 7). For example, it was possible to use the same factor titles for three of the four factors found. This is true despite the fact that only 10 of the reasons are common to both surveys. In addition, the factor which accounts for the greatest proportion of explained variance, Career Development Motivations, is also common to both analyses.

In a more formal comparison of factor solutions, a coefficient of congruence (ϕ) was calculated to measure the similarity of factor solutions for reasons common to both surveys. A ϕ compares the degree of similarity of pairs of independent factors.¹ Its range is from -1 to +1 and a high positive value indicates the factors are approaching congruence or are highly similar. Previous experience with the use of this measure

Table 7
Comparison of FY72 and FY74 Factor Analyses of
Reasons for Enlistment Common to Both Surveys

(Base: Army)

Reason for Enlistment	Factors							
	I		II		III		IV	
	FY72	FY74	FY72	FY74	FY72	FY74	FY72	FY74
For career opportunities	.72	.59	.08	.23	-.05	.18	.16	-.05
To learn a trade or skill useful in civilian life	.75	.69	.11	.22	.08	.11	.04	-.05
For travel, excitement, and new experiences	.24	.25	.26	.39	.08	.24	.59	.16
To serve my country	.36	.34	.49	.49	-.14	.08	.40	.15
Opportunity for advanced education and training	.79	.55	.10	.32	.19	.21	.04	-.01
Leave personal problems	-.15	-.04	-.15	.20	.25	.31	.69	.19
Qualify for the GI Bill	.05	.06	.07	.11	.81	.52	.12	.14
Overall benefits—pay, room and board, medical care, training	.38	.28	.10	.12	.55	.65	.26	.11
To become more mature and self-reliant	.36	.22	.29	.56	.02	.24	.51	.11
To avoid the draft	-.41	-.12	.35	.10	.42	.18	-.35	.32

¹H.H. Harman. *Modern Factor Analysis* (second edition), University of Chicago Press, Chicago, Ill., 1967.

indicates that as ϕ falls below .8, the degree of observable similarity rapidly declines.¹ Thus, values which may be considered strong when using a correlation coefficient (e.g., .5 to .7) should be considered with some skepticism when they occur in a ϕ matrix.

Table 8 depicts the degree of similarity of factors using the 10 reasons common to both surveys. The ϕ of .97 for the first factor in each survey indicates a very high similarity for these two factors.

Table 8
Coefficient of Congruence Matrix for
FY72 and FY74 Factor Analyses
(Base: Army)

FY72 Factors	FY74 Factors			
	I ϕ	II ϕ	III ϕ	IV ϕ
I	.97	.68	.45	-.08
II	.56	.80	.46	.65
III	.18	.22	.86	.33
IV	.52	.76	.58	.45

Factor II, Individual Development and Change, shows some similarity to the FY72 factor Personal Preference and Dedication ($\phi=.80$), but it is also similar to the FY72 Factor IV with the same name, Individual Development and Change ($\phi=.76$). This apparent overlap may be explained by differences in the secondary reason loadings in each factor. For the items with high loadings, FY72 Factor IV corresponds to FY74 Factor II, thus, the same factor names are used. For secondary items there is a somewhat greater similarity between FY72 Factor II and FY74 Factor II, thus the higher ϕ . A clearer picture may have been available if the items used in the two surveys had been the same.

Factor III, Military Personnel Benefits, is again very similar for both FY72 and FY74 data ($\phi=.86$). The weak structure of Factor IV in the FY74 data is demonstrated by its generally low relationship with any factor in the FY72 data.

In summary, it may be argued that there are only minor differences in the structure of reasons for enlistment between the FY72 and FY74 surveys. Career and vocational considerations form the major grouping of reasons in both analyses and, in both cases, they account for the greatest proportion of explained variance. Personal preference reasons and benefits make up the other significant contributions in both surveys, although they account for much less of the variance than does Factor I. It may be concluded that the vocational aspects of enlisting in the Army are still its primary attraction, while benefits and personal development are secondary (though still important) characteristics.

¹ Allan H. Fisher, Jr., Richard J. Orend, and Leslie S. Rigg. *The Structure of Enlistment Incentives*, HumRRO Technical Report 74-6, March 1974.

Interservice Comparison of Factor Structures for FY74 Data

An interservice comparison of the structure of reasons for enlistment shows that enlistees in each of the four services have a remarkably similar response pattern. The four factors solution for each service are presented in Table 6 for the Army and Tables 9-11 for the Navy, Air Force, and Marine Corps respectively. An inspection of these tables and comparisons among each of these tables reveals that in every instance the major reasons which define the factors (i.e., the highest loadings of the reasons on a particular factor) are the same in all services.

The conclusion that the services have similar factor structures is further supported in Table 12 which shows the ϕ coefficients for comparisons of the factors. The uniformly high ϕ values indicate very high similarity of factors both in terms of corresponding factors in each service and in the order in which factors appear and proportion of variance explained by each factor. It is as if the samples upon which the factor analyses are based were randomly selected from a population of enlistees. It is not possible, on the basis of these data, to differentiate basic appeals for each service. Whatever causes individuals to choose one service over another is not represented in the structuring of the 16 reasons for enlistment.

Table 9
Factor Structure of Reasons for Enlistment:
Navy Enlistee Data for FY74
(N=4224)

Reason for Enlistment	Factors			
	I	II	III	IV
For military pay	.19	.08	.45	.13
For career opportunities	.57	.20	.22	-.05
To learn a trade or skill useful in civilian life	.70	.20	.12	-.01
To become a better individual	.22	.70	.09	.07
For travel, excitement, and new experiences	.20	.42	.26	.05
To serve my country	.23	.53	.09	.09
Opportunity for advanced education and training	.56	.27	.23	-.06
Leave personal problems	-.02	.17	.21	.30
Qualify for the GI Bill	.05	.11	.41	.23
Overall benefits—pay, room and board, medical care, and training	.20	.16	.69	.07
Job security	.17	.29	.46	.17
To become more mature and self-reliant	.17	.62	.22	.07
To avoid the draft	-.03	.00	.04	.48
To get a cash bonus	.01	.01	.14	.23
To get skill or training I wanted	.63	.18	.07	.18
To join the unit I wanted	.15	.24	.06	.28
Eigenvalues	4.27	1.53	1.21	1.07
Percent of variance accounted for	26.7	9.6	7.5	6.7
Cumulative percent of variance	26.7	36.3	43.8	50.5

Table 10

**Factor Structure of Reasons for Enlistment:
USAF Enlistee Data for FY74
(N=4845)**

Reason for Enlistment	Factors			
	I	II	III	IV
For military pay	.16	.11	.39	.14
For career opportunities	.52	.24	.21	-.04
To learn a trade or skill useful in civilian life	.69	.16	.12	.01
To become a better individual	.23	.73	.08	.10
For travel, excitement, and new experiences	.21	.38	.21	.13
To serve my country	.18	.52	.11	.09
Opportunity for advanced education and training	.51	.28	.19	-.01
Leave personal problems	.04	.13	.08	.42
Qualify for the GI Bill	.04	.07	.28	.31
Overall benefits—pay, room and board, medical care, and training	.17	.13	.81	.09
Job security	.20	.27	.45	.14
To become more mature and self-reliant	.18	.60	.17	.99
To avoid the draft	-.04	.02	-.01	.53
To get a cash bonus	.01	.05	.10	.29
To get skill or training I wanted	.61	.19	.08	.06
To join the unit I wanted	.21	.27	.07	.18
Eigenvalues	4.07	1.54	1.21	1.05
Percent of variance accounted for	25.4	9.6	7.6	6.6
Cumulative percent of variance	25.4	35.0	42.6	49.2

Table 11

**Factor Structure of Reasons for Enlistment:
USMC Enlistee Data for FY74
(N=2589)**

Reason for Enlistment	Factors			
	I	II	III	IV
For military pay	.21	.10	.43	.15
For career opportunities	.56	.25	.27	-.07
To learn a trade or skill useful in civilian life	.73	.21	.18	-.02
To become a better individual	.29	.68	.15	-.03
For travel, excitement, and new experiences	.23	.47	.21	.10
To serve my country	.20	.55	.06	.12
Opportunity for advanced education and training	.54	.36	.19	-.01
Leave personal problems	.06	.12	.21	.31

(Continued)

Table 11 (Continued)

**Factor Structure of Reasons for Enlistment:
USMC Enlistee Data for FY74
(N=2589)**

Reason for Enlistment	Factors			
	I	II	III	IV
Qualify for the GI Bill	.03	.09	.38	.37
Overall benefits—pay, room and board, medical care, and training	.16	.24	.70	.18
Job security	.27	.24	.43	.28
To become more mature and self-reliant	.17	.56	.24	.09
To avoid the draft	-.04	-.03	.03	.55
To get a cash bonus	-.01	.06	.16	.36
To get skill or training I wanted	.61	.24	.04	.15
To join the unit I wanted	.20	.28	.02	.28
Eigenvalues	4.59	1.70	1.11	0.99
Percent of variance accounted for	28.7	10.6	6.9	6.2
Cumulative percent of variance	28.7	39.3	46.2	52.4

Table 12

**Coefficients of Congruence for
Army Compared to Other Service
Factor Structure**

(Base: AFEES Sample Survey Data for FY74)

Factor	Service ^a		
	Navy φ	Air Force φ	Marine Corps φ
I	.98	.98	.99
II	.99	.99	.98
III	.98	.93	.97
IV	.89	.84	.90

^aOnly corresponding factor comparisons are presented in this table. Figures are the diagonal values of a total 4x4 factor comparison for the Army compared to each of the other services. Thus, values in row 1 represent Army Factor I compared to Navy Factor I, Air Force Factor I, and Marine Corps Factor I. Values in row 2 are Army Factor II compared to Navy Factor II, and so on.

DISPOSITION OF ARMY APPLICANTS

Among the enlistees who finally selected the Army as their branch of service, there are many whose initial choice was one of the other three services. It is important to our understanding of the enlistment process, particularly how the Army meets its enlistment objectives, to increase our information on the "cross elasticity" of service entrance. In the FY72 study, Fisher and Harford found that 91% of the "initial Army applicants" eventually enlisted in the Army (i.e., there is a "capture rate" of 91%). However, 15% of the total Army enlistees had initially applied to other services. This gave the Army a substantial net gain in numbers of men in trade-offs with the other services.

Obviously these "gains" are an important part of the Army's attempt to fill quotas in an all-volunteer environment. Therefore, it is important to keep track of changes in the net gain (loss) rate and, also, to examine the quality of the individuals being picked up or lost in the exchange. This section is addressed to the question of "gains" and "losses" in terms of both the quantity and quality of new enlistees produced for the Army.

Before beginning the data analysis, certain methodological considerations must be re-emphasized. In the Fisher and Harford study, enlistees responded to a direct question about their initial service application. In the FY74 data, respondents answered questions about the first recruiter they saw and their first choice among the services. It was decided that the latter question best represented the essence of the FY72 initial application question used by Fisher and Harford, so comparisons will be made on that basis. It should be recognized that differences in the wording of the questions could result in differences in survey results which are not reflected in the real world or, conversely, that real world differences do not appear in the data analyzed here. For convenience, responses to both questions will be referred to in the manner established by Fisher and Harford—that is, "initial applicants."

Comparison of Army "Capture Rates." Table 13 shows the percent of initial Army applicants who subsequently enlisted in the Army in three different AFEEES surveys. The rate went from a high of 94% in 1970 to a low of 89% in the FY74 survey. This change is relatively small, especially when compared to the changes exhibited by the other services. In addition, the Army's "capture rate" is considerably higher than that of the other services, especially in FY74 when the Marine Corps rate of 70% is 16% below the

Table 13

Percent of Initial Applicants Enlisted by Each Service ("Capture Rates")

Service	Year		
	October- November ^a 1970	Combined FY72	FY74
Army	94	91	89
Navy	71	79	75
Marine Corps	74	86	70
Air Force	93	86	76

^a Data taken from Fisher and Harford, 1974, p. 13. Total N=6877 for FY70.

Army's rate. A possible explanation for these differences is the different quality standards of the Air Force and Navy and the physical standards for the Marine Corps.

Comparison of Army "Gains" and "Losses." Table 14 shows the Army "gains" and "losses" for the FY72 and FY74 surveys. A "gain" is defined as a person who was an initial applicant to another service but who eventually enlists in the Army, and a "loss" is an enlistee of another service who was an initial applicant to the Army. The overall impression from these data is that a substantial amount of service-switching takes place after the enlistee has decided to enlist and makes his initial choice of services. The Army should consider this group of individuals carefully.

Table 14

Army "Gains" and "Losses"

(Base: AFEES Sample Survey Data for FY72 and FY74)

Year	"Gains" (% of Army enlistees who initially applied to other services)	"Losses" (% of Army applicants who joined other services)
FY72	15	9
FY74	23	11

In both years, the Army "gained" a greater percentage of its total enlistees than it "lost" and this difference increased from FY72 to FY74. In the FY74 survey, a total of 23% of the Army enlistees had initially chosen another service. This is an increase of 8 percentage points over FY72. Thus, in FY74, almost one quarter of all Army enlistees were initially interested in another service. Two explanations may be offered. (a) These changes may result from a favorable re-evaluation by prospective enlistees, or (b) standards in the Army may be lower, thereby forcing service shifts by those who do not qualify for another service. Data pertaining to these alternatives will be discussed in the following material.

Sources of "Gains" and "Losses," FY74. The numbers of Table 15 provide an indication of where each service obtains its "gains." The Army gains enlistees somewhat more readily from those initially interested in the Air Force than from those interested in the other services (reading in column 1). However, Army "losses" are distributed relatively equally to the other services (reading in row 1). One explanation for this switching is standards—the Air Force and, to some extent, the Navy have higher entrance qualifications than the Army or Marine Corps. Thus, a potential enlistee interested in the Air Force or Navy may eventually enter the Army because he did not qualify for the other services.

Comparison of the Quality of "Gains" and "Losses." The overall educational quality of Army "gains" and "losses" for FY72 and FY74 enlistees is shown in Table 16. The Army showed a slight advantage in the FY72 trade-offs—55% of the Army "gains" were high school graduates while only 45% of the losses had received that much education. Similarly, in FY74, two-thirds of the Army "gains" had received at least a high school education, while 60% of the losses were so educated. There was little change between the two samples. Thus, the Army may be said to be gaining more qualified enlistees than it is losing.

The "captures" column provides additional information for use in evaluating the "gains" and "losses" of the Army. It shows that the educational quality of the

Table 15

Disposition of Initial Applicants for Enlistment, by Service
(Base: AFEES Sample Survey Data for FY74)

First Choice of Service	Service in Which Enlisted ^a				
	Army (%)	Navy (%)	Marine Corps (%)	Air Force (%)	Total Percent
Army	88.8 (8779)	3.74 (364)	4.2 (412)	3.4 (334)	100.1 N=9889
Navy	13.1 (850)	74.8 (4843)	6.0 (387)	6.1 (396)	100.0 N=6476
Marine Corps	16.4 (630)	6.5 (248)	70.0 (2683)	7.1 (273)	100.0 N=3834
Air Force	15.1 (1132)	5.7 (422)	3.8 (280)	75.5 (5629)	100.1 N=7453

^aDiagonal percentages are "capture" rates.

Table 16

Army "Gains" and "Losses," by Educational Level
(Base: AFEES Sample Survey Data for FY74)

Educational Level	Educational Attainment		
	"Gains" From Other Services (%)	"Losses" to Other Services (%)	"Captures" (%)
High School Graduate			
FY72	55	45	63
FY74	66	60	61
Non-High School Graduate			
FY72	45	55	37
FY74	33	40	38
Unknown			
FY74	1	0	1

"gains" was somewhat lower than for the "captured" enlistees in FY72 (i.e., initial Army applicants were better educated). The situation was reversed in FY74. The Army gained a somewhat higher proportion of high school graduates than it lost or captured. It also gained a somewhat lower proportion of non-graduates than it lost or captured. Thus, in FY74, the exchange between services was of overall benefit to the Army in terms of educational quality. It gained more high school graduates than it could capture.

A service-by-service breakdown of "gains" and "losses" shows an expected pattern with different service standards (Table 17). The Army loses approximately the same proportion of high school graduates to the Navy as it gains. However, it *loses* 12 percentage points more high school graduates to the Air Force than it gains (72% in the "gains" and 84% in the "losses"), and it gains 23 percentage points more high school graduates from the Marine Corps than it loses. When high-school-educated "gains" and "losses" are controlled on services, one obvious explanation for the exchange pattern between the Army and Air Force is the unequal admission standards used by the different services. The ability of the Army to draw initial Marine applicants cannot be explained in this manner. Some other factors are involved which are not immediately apparent in these data.

Table 17

Army "Gains" and "Losses" of High School Graduates, by Service
(Base: AFEES Sample Survey Data for FY74)

Applicants	Service		
	Navy (%)	Air Force (%)	Marine Corps (%)
High School Graduate "Gains"	61	72	60
High School Graduate "Losses"	62	84	37

A slightly different pattern of "gains" and "losses" emerges when mental category (AFQT group) is used as the base. FY72 "losses" in each mental group were about equal to "gains" (see Table 18). In the FY74 data, "losses" in the higher mental groups I-III exceeded "gains," while in mental group IV, "gains" exceeded "losses." The change in the direction of the Army gaining more poorer quality people than it loses in FY74 is found in the mental group analysis.

The differences between services as sources of "gains" and recipients of "losses" of high school graduates are generally less marked for mental categories. However, Table 19 shows that in FY74, the Army gained more category IV enlistees than it lost and lost a higher percentage of category I-III enlistees than it gained, although some of these differences are very small. The loss of category I-II enlistees is again greatest to the Air Force (a difference of 13 percentage points). In addition, the Army lost more category III enlistees from the Navy and Marine Corps than it gained. In all cases, the Army acquired substantially more category IV enlistees than it gave up.

In summary, the Army seems to have gained in its competition for higher quality enlistees, at least in attracting (for whatever reason) a substantial number of high school graduates away from the Marine Corps. However, although the Army gains substantially from this exchange in terms of quantity, and quality (measured by high school graduation), it loses in terms of quality as measured by mental category. Several questions are raised by these results. First, why does the Army lose so many of its higher quality potential enlistees to the Air Force after they have expressed an interest in the Army? Different entrance standards provide an obvious explanation for the opposite condition, but none of the available data as presently analyzed provide an answer to this

Table 18

Army "Gains" and "Losses," by Mental Category
(Base: AFEES Sample Survey Data for FY72 and FY74)

AFQT Mental Category	Tested Aptitude		
	"Gains" From Other Services (%)	"Losses" to Other Services (%)	"Captures" (%)
I and II			
FY72	23	21	30
FY74	29	35	35
III			
FY72	56	58	56
FY74	46	52	47
IV			
FY72	21	22	14
FY74	12	5	10
Unknown AFQT			
FY74	13	8	8

Table 19

Army "Gains" and "Losses," by Mental Group
(Base: AFEES Sample Survey Data for FY74)

AFQT Mental Category	Tested Aptitude						"Captures" (%)
	Navy		Air Force		Marine Corps		
	"Gains" (%)	"Losses" (%)	"Gains" (%)	"Losses" (%)	"Gains" (%)	"Losses" (%)	
I and II	31	33	29	42	28	31	35
III	44	53	48	49	45	54	47
IV	10	5	14	3	13	8	10
Unknown	15	9	10	7	14	8	8

question. Second, what attracts highly educated Marine Corps initial applicants into the Army? An answer to these questions could be very useful in helping the Army improve the quality of its enlistees.

Comparison of Sources of "Gains" and "Losses," by Race. Another way of breaking out the question of "gains" and "losses" is to examine the racial make-up of individuals who are willing to accept a second choice in military service. Table 20 shows the distribution for FY72 and FY74 data. In FY72, 73% of the Army "gains" were white and 27% were non-white. The pattern of "losses" was in the same direction but with a smaller difference (63%-37%). The FY74 pattern was different: Almost equal proportions

Table 20

Army "Gains" and "Losses," by Race
 (Base: AFEES Sample Survey Data for FY72 and FY74)

Racial Category	Gains, Losses, Captures		
	"Gains" From Other Services (%)	"Losses" to Other Services (%)	"Captures" (%)
White			
FY72	73	63	78
FY74	48	66	60
Non-White			
FY72	27	37	22
FY74	47	30	36
Unknown			
FY74	5	4	4

of whites and non-whites were gained, 48% white and 47% non-white. The "losses" were proportioned similarly to FY72, 66% white and 30% non-white. Thus, in FY74, there is a distinct increase in the proportion of non-white enlistees gained from the other services.

Further, the proportion of non-white captures in FY74 (36%) is much smaller than the proportion of "gains." It might be expected, by chance, that the proportion of non-white "captures," "gains," and "losses" would be approximately equal. The fact that they are not equal may be indicative of some other underlying factor. It is not immediately evident from our data analysis what this factor(s) is. Generally poor education among blacks could provide some of the change, particularly among those who initially apply to the Air Force. But this does not explain why the ratio should change so drastically from FY72 to FY74.

Further evidence on this question and on the general question of what distinguishes the Army enlistee from other service enlistees is examined in the next section. An Automatic Interaction Detector (AID) analysis is used to attempt to detect the characteristics of Army enlistees in terms of quality, demographic attributes, and attitudes.

FACTORS RELATED TO DISPOSITION OF APPLICANTS

In the study by Fisher and Harford, an Automatic Interaction Detection (AID) analysis was made of the factors related to the disposition of initial Army applicants. The objective of AID is to classify respondents into groups, so that the respondents in each of the groups are similar to one another, but different from respondents in the other groups. The outcome of the AID analysis is a "tree" (branching diagram) of the factors related to the criterion variable.

¹J.S. Armstrong and J.G. Andress. "Exploratory Analysis of Marketing Data: Trees vs. Regression," *Journal of Marketing Research*, vol. 7, November 1970, pp. 487-492.

Disposition refers to the service in which an individual enlisted relative to the service which he selected as his "first choice." Thus, in the AID analysis enlistees whose "first choice" of service was Army enlisted in the Army at the rates indicated in the following discussion and in Figure 1.

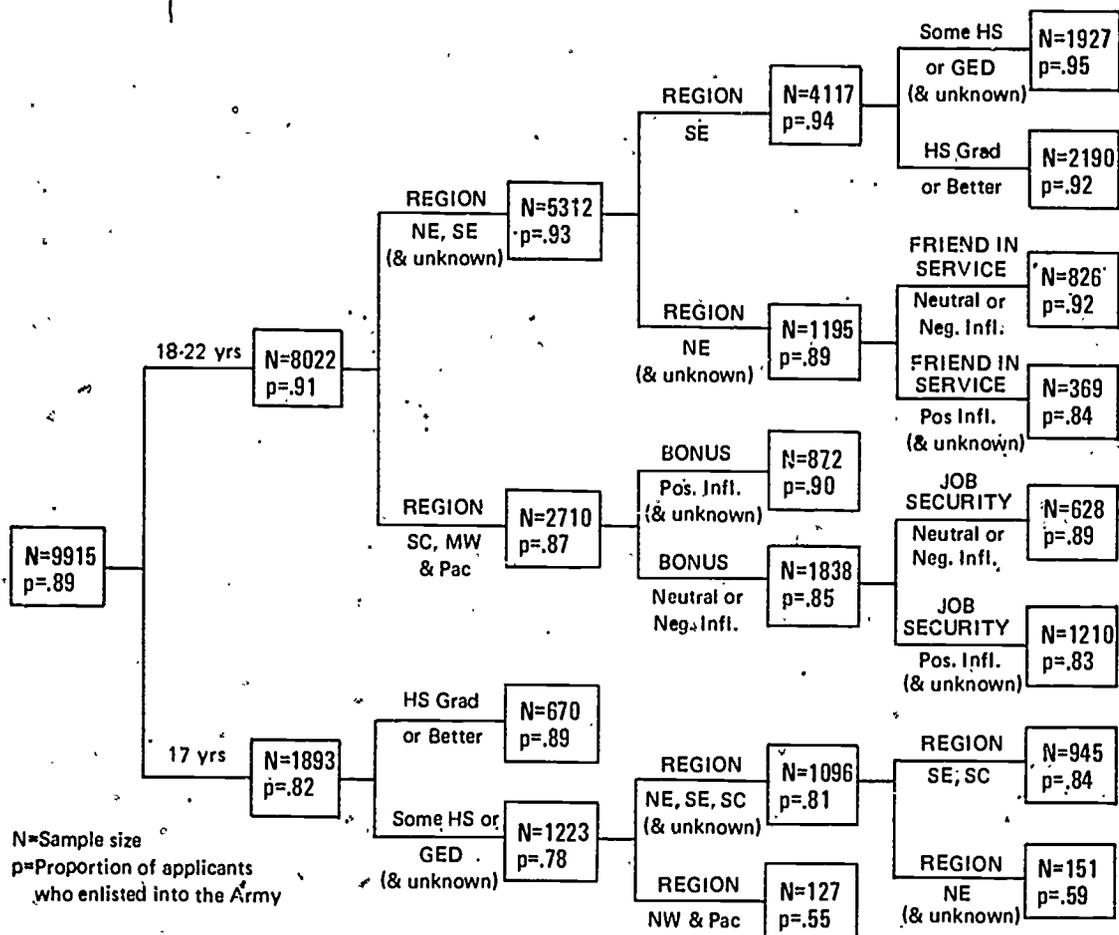


Figure 1. Major Factors in the Enlistment Disposition of FY74 Applicants Whose First Choice of Service Was the Army

An analysis similar to the Fisher and Harford AID analysis was performed on the present FY74 data in order to compare the disposition of Army applicants in FY72 with the disposition of comparable applicants in FY74. The results of such an analysis could point out changes which have occurred between FY72 and FY74 in the disposition of Army applicants.

In the FY72 AID analysis, the initial sample of applicants utilized were those applicants who indicated (on the AFEES survey) that they had initially applied to the Army for enlistment. The criterion used was the proportion of each subgroup who were actually enlisted in the Army. In the present study (FY74 data), the question regarding the service branch to which the applicant initially applied was *not* included in the FY74 AFEES survey. Instead, a comparable question, "What service was your *first choice*?" (Item 4), was used to select the initial sample of applicants to be analyzed. All enlistees who expressed that the Army was their first choice were used as the sample comparable to the FY72 sample of enlistees who applied to the Army first.

DISPOSITION OF APPLICANTS WHOSE FIRST CHOICE OF SERVICE WAS THE ARMY

In the FY74 data regarding applicants whose first choice of service branch was Army, the major factor related to their enlistment disposition was age. The Army enlisted men 18 years and older at a higher rate (91%) than they enrolled men 17 years of age (82%).¹ In contrast, education was the major factor in FY72. The Army was then enlisting men with high school diplomas (or above) at a higher rate (94%) than men who were non-high school graduates (87%). Of those men who were 18 years or older, the Army enlisted men from the Eastern United States (Northeast and Southeast region) at a higher rate (93%) than those from the other (Southcentral, Midwest, Pacific) regions of the United States (87%). Of those men who were 17-years-old (or whose age was not specified)¹ the Army enlisted high school graduates or above at a higher rate (89%) than those who had GED or less than a high school education (78%).

The second major factor in FY72 was race, which does not appear at all in the FY74 analysis (see Figure 1). In FY72 the Army enlisted more whites (90%) than blacks (82%) from among those who were initial Army applicants.

The details of the AID analysis of applicant disposition for FY74 are shown in Figure 1. As the results in this figure indicate, the relationships become somewhat complex beyond the initial factor of age. However, region and educational level are significant factors in those relationships with higher enlistment rates for applicants from the Eastern United States.

Essentially, the Army was more successful at enlisting older (18-22 years) initial applicants in FY74 than in FY72. However, in FY72 the Army had greater success at enlisting interested high school graduates and whites. Conversely, there were no important age differences in FY72, while there were fewer important education and racial differences in FY74. If the top boxes in Figure 1 are read in terms of their descriptive characteristics, we find that the 18- to 22-year-old Southerners who have not graduated from high school are the most likely Army enlistees in FY74. By contrast, those least likely to join are 17-year-old, non-high school graduates from the West and Northeast.

¹ Men who did not respond to the item regarding their age on the AFEES survey were also included in this lower enlistment rate group. However, they were only 14% (264) of this group of 1893 respondents. The remainder (1629) were men 17-years-old and, therefore, they represent the focus of the lower enlistment rate group of the age factor.

CURRENT REASONS FOR ENLISTMENT. DETAILED FINDINGS

Fisher and Harford's report does not include a detailed breakdown of the endorsement of reasons for enlisting. In this section endorsement will be examined in terms of service of entry, education level, AFQT category, and race. This analysis was undertaken to determine whether any of these variables is related to endorsement of particular reasons for enlisting. The results of the analyses could provide useful information to the Army in its attempts to compete with other services for quality enlistees, particularly in terms of the kinds of appeals necessary to attract different groups of individuals.

ENDORSEMENT OF REASONS FOR ENLISTMENT (ALL SERVICES - FY74 DATA)

A comparison of reasons endorsed in the FY74 data across the four service branches reveals several trends (see Table 21). The endorsement of reasons related to education and

Table 21

**Percent of FY74 Applicants Attributing Strong
Influence to Each Reason, by Service**

Reason for Enlistment	Service Branch Samples			
	Army (N=11480)	Navy (N=5932)	Air Force (N=6694)	Marine (N=3814)
For an opportunity for advanced education and training	60.9	64.0	67.6	58.7
To get the skill or training I wanted	55.4	60.4	60.0	53.9
To learn a trade or skill that would be valuable in civilian life	53.9	60.3	59.2	53.2
For career opportunities	51.2	56.5	60.2	47.8
For travel, excitement, and new experiences	45.9	52.2	42.3	43.3
To become a better individual	41.4	35.8	35.3	47.7
To serve my country (patriotism)	41.1	37.2	32.6	46.3
For increased maturity and self-reliance	40.5	37.9	37.3	45.9
The overall benefits: pay, room and board, medical care, and training	34.4	35.2	39.8	28.1
For job security	34.3	29.0	36.0	29.5
To join the unit I wanted	27.8	21.8	19.8	30.6
For military pay	26.4	20.2	21.0	18.4
To qualify for the GI Bill	20.6	16.9	15.0	16.1
To get a cash bonus for signing up	14.1	6.2	4.6	8.9
To leave personal problems behind me	13.6	11.7	9.4	13.6
To avoid the draft	6.2	3.9	3.0	5.5

training opportunities ("skill or trade valuable in civilian life," "skill or training I wanted," "opportunity for advanced education and training," and "career opportunities") is consistently high across all four service branches. However, the extent of endorsement of these reasons is higher among Navy and Air Force enlistees, somewhat less among Army enlistees, and lowest among Marine Corps enlistees. In spite of the variation in actual endorsement level of these reasons, the most frequently endorsed reason in each service branch is the "opportunity for advanced education and training" (Army - 60.9%, Navy - 64.0%, Air Force - 67.6%, Marine Corps - 58.7%).

The endorsement of reasons related to character development and patriotism ("increased maturity and self-reliance," "to become a better individual," "to serve my country") is highest for Marine Corps enlistees, somewhat less for Army enlistees, and least for Air Force and Navy enlistees. This relationship among services in reason endorsement seems to indicate that Navy and Air Force enlistees are more concerned about education and training incentives (career factors), while Army and Marine Corps enlistees demonstrate a greater concern with personal/character improvement reasons. In addition, a larger percentage of Army and Marine Corps enlistees endorsed leaving personal problems behind as a reason for enlistment than did Navy or Air Force enlistees (Army and Marine Corps - 13.6%, Navy - 11.7%, Air Force - 9.4%). Although factor analyses did not indicate a distinct pattern of endorsement of reasons in each service (see pages 27-29), there may be a slight difference in emphasis as indicated by the Air Force and Navy "one-factor" (education) endorsement and the Army and Marine Corps "two-factor" (education and personal/character improvement) endorsement pattern.

ENDORSEMENT OF REASONS FOR ENLISTMENT, BY EDUCATIONAL LEVEL (ARMY ONLY - FY74 DATA)

In order to further examine the endorsement of reasons for enlistment by Army enlistees, the extent of endorsement ("a lot" of positive influence) of reasons was examined for different educational levels. The percent of Army enlistees in each level of education who endorsed enlistment reasons in the most positive category is shown in Table 22.

Generally, the results of examining endorsement by educational level show the following relationships among Army enlistees in the FY74 data:

- (1) Lower education levels endorse vocational training/skill opportunities at a higher rate than the higher educational levels.
- (2) Lower education levels endorse individual improvement and change reasons at a higher level than the higher education levels.
- (3) Higher education levels endorse military personnel benefits reasons at a higher level than the lower education levels.

Endorsement of reasons concerning the acquiring of a skill or trade ("to learn a trade or skill valuable in civilian life," "to get the skill or training I wanted") was highest for those with less than a high school diploma (58.4% and 58.3%), next highest for those with high school diplomas or GED (53.5% and 54.8%), and lowest for those with at least some college (40.3% and 47.9%).

The endorsement of reasons related to individual development and change ("to become a better individual," "to serve my country," "to leave personal problems behind," and "to become more mature and self-reliant") was highest for those with less than a high school diploma (45.0%, 47.8%, 15.7%, 42.3%), next highest for those with high school diplomas or GED (40.3%, 38.6%, 12.6%, 39.9%), and lowest for enlistees with at least some college (34.8%, 28.7%, 10.8%, 37.3%).

Table 22

**Percent of Strong Positive Endorsement of Reasons for Enlistment,
By Educational Level**

(Base: AFES Sample Survey Data for FY74, N=11,480)

Reason for Enlistment	Educational Level				
	Less than High School Diploma	High School Grad or GED	At Least Some College	Educational Level Unknown	Total Army Sample FY74
For military pay	25.6	27.6	24.2	12.4	26.4
For career opportunities	51.1	51.6	51.7	21.0	51.2
To learn a trade or skill useful in civilian life	58.4	53.5	40.3	21.0	53.9
To become a better individual	45.0	40.3	34.8	23.8	41.4
For travel, excitement, and new experiences	44.8	46.7	45.7	37.1	45.9
To serve my country	47.8	38.6	28.7	29.5	41.1
Opportunity for advanced education and training	61.6	60.3	63.7	41.0	60.9
Leave personal problems	15.7	12.6	10.8	13.3	13.6
Qualify for the GI Bill	17.3	20.6	34.7	16.2	20.6
Overall benefits—pay, room and board, medical care, and training	29.7	37.0	39.3	17.1	34.4
Job security	35.1	34.1	34.0	24.8	34.4
To become more mature and self-reliant	42.3	39.9	37.3	28.6	40.5
To avoid the draft	7.6	5.3	5.7	2.9	6.2
To get a cash bonus	10.7	16.9	11.2	10.5	14.1
To get skill or training I wanted	58.3	54.8	47.9	39.0	55.4
To join the unit I wanted	31.0	26.6	21.8	23.8	27.8

The lowest education level (less than high school diploma) again had the highest level of endorsement of the reason "to join the unit they wanted" (31.0%), high school or GED level had the next highest (26.6%), and enlistees with at least some college endorsed this reason least (21.8%).

The relationship between education level and extent of endorsement was reversed (i.e., higher education level, higher endorsement) for GI Bill and "overall benefits" reasons. Those with less than a high school diploma endorsed these reasons least (17.3% and 29.7%); GED or high school graduates next least (20.6% and 37.0%); and enlistees with at least some college endorsed these reasons highest (34.7% and 39.3%).

It is also interesting to note that all education groups endorsed "career opportunities" about equally. Thus, although they may be entering the service for different reasons, they express the same level of interest in a career. Despite differences in relative endorsement, the general reason, "opportunity for advanced education and training," maintains its most favored status for all education groups. The ranking of other reasons is also similar for all groups.

045

ENDORSEMENT OF REASONS FOR ENLISTMENT BY AFQT MENTAL CATEGORY (ARMY ONLY, FY74 DATA)

In addition to the examination of endorsement by education level just discussed, an examination was also made of endorsement by AFQT mental category (I, II, III, and IV). The results of this analysis are presented in Table 23 with the percent of strongest endorsement ("a lot" of positive influence) of each reason by Army enlistees in the four AFQT mental categories.

The results of this examination reveal the following general relationship among AFQT mental category and reason endorsement:

- (1) Higher mental categories endorse vocational training reasons least while lower categories endorse them most.
- (2) Higher AFQT mental categories endorse individual improvement and change reasons least while lower categories endorse them most.
- (3) Higher mental categories endorse military personnel benefits most while lower categories endorse them least.

Table 23

Percent of Strong Positive Endorsement of Reasons for Enlistment, By Mental Category

(Base: AFEES Sample Survey Data for FY74)

Reason	AFQT Mental Category				
	I (%)	II (%)	III (%)	IV (%)	Category Unspecified (%)
For military pay	24.8	26.0	26.0	27.1	29.8
For career opportunities	50.4	52.5	50.6	48.7	53.0
To learn a trade or skill useful in civilian life	45.9	53.4	54.1	56.4	55.7
To become a better individual	38.6	40.4	41.4	44.9	42.1
For travel, excitement, and new experiences	43.6	45.4	46.1	47.0	45.6
To serve my country	36.8	39.7	43.0	44.9	33.3
Opportunity for advanced education and training	61.8	62.6	60.6	58.8	49.3
Leave personal problems	9.5	12.1	14.1	14.8	16.7
Qualify for the GI Bill	21.1	19.7	20.1	20.8	25.1
Overall benefits—pay, room and board, medical care, and training	38.0	34.5	34.1	30.6	38.0
Job security	30.8	33.4	34.9	36.1	34.7
To become more mature and self-reliant	37.6	39.9	41.0	41.6	59.3
To avoid the draft	3.9	4.7	6.1	8.5	10.0
To get a cash bonus	13.4	12.8	14.2	13.3	19.1
To get skill or training I wanted	51.7	55.1	56.3	54.7	54.4
To join the unit I wanted	24.2	26.9	28.6	28.0	28.1

Although mental category should be somewhat related to education level, the relationships among the levels of AFQT category in reason endorsement are not as clearly evident as those of education level and reason endorsement.

Endorsement of learning a trade or skill valuable in civilian life is in inverse order of mental category. Category I's endorsed it least—45.9%, category II's—53.4%, category III's—54.1%, and category IV's—56.4%. Endorsement of the other vocational training reasons ("to get the skill or training I wanted") was similar except that category III's endorsed the reason most (56.3%), rather than category IV's (54.7%).

Endorsement of reasons related to individual improvement and change followed a pattern similar to that of education level. Lower mental categories had the highest endorsement while higher mental categories endorsed the reasons less.

The endorsement of reasons dealing with military personnel benefits (GI Bill and "overall benefits") also followed a pattern similar to that of education levels. There were only minor variations in the trend. Generally speaking, the relationship is one of the highest endorsement of these two reasons by category I's and II's and lower endorsement by category III's and IV's.

ENDORSEMENT OF REASONS FOR ENLISTMENT, BY RACE (ARMY ONLY, FY74 DATA)

The extent of strong positive endorsement of the reasons for enlistment is shown for 1974 Army enlistees, by race, in Table 24. The greatest difference between endorsement

Table 24

Percent of Strong Positive Endorsement of Reasons for Enlistment, By Race

(Base: AFEES Sample Survey Data for FY74, N=11,480)

Reason for Enlistment	Race		
	White	Black	Other
For military pay	31.0	28.1	24.8
For career opportunities	61.9	57.6	43.9
To learn a trade or skill useful in civilian life	62.9	66.8	53.1
To become a better individual	47.7	52.3	38.7
For travel, excitement, and new experiences	46.1	47.7	39.2
To serve my country	42.9	40.5	35.4
Opportunity for advanced education and training	62.6	62.8	51.8
Leave personal problems	12.8	15.0	17.4
Qualify for the GI Bill	20.1	21.4	28.1
Overall benefits—pay, room, and board, medical care, and training	39.8	27.8	29.1
Job security	35.1	35.2	34.5
To become more mature and self-reliant	41.9	41.7	34.5
To avoid the draft	4.7	8.2	13.1
To get a cash bonus	13.8	15.6	16.7
To get skill or training I wanted	58.7	58.1	43.6
To join the unit I wanted	29.2	28.9	25.1

047

by white and by black enlistees occurred for the reason "overall benefits" (white, 39.8%; black, 27.8%; other, 29.1%). Since most other reasons were endorsed more comparably across the categories of race, the differences occurring for the reason of overall benefits may simply be a statistical artifact. Differences in extent of positive endorsement by whites and blacks were much smaller for the other reasons. The race category "Other" exhibited somewhat more sporadic differences in endorsement which may be due to the small size of the "Other" category (N = 380).¹

¹Since tabulation of endorsement by race did not include missing data, the sample size of each race category varies from one reason to another because of missing data on reason endorsement. The approximate sample sizes of each race category on endorsement of each reason are. White \approx 6000, Black \approx 3700, Other \approx 380.

DISCUSSION

THE ENDORSEMENT OF REASONS FOR ENLISTMENT

Generally, the endorsement of the various reasons for enlistment has not changed to any great extent from data in FY72 to the present. Opportunities for advanced education and training as well as the opportunity to learn preferred skills or trades still stand as major incentives to enlistment. In addition, the offer of military personnel benefits also remains as a major enlistment motivation.

Draft avoidance is the one reason which has declined considerably in the past several years as an incentive to enlistment. This was to be expected in light of the conversion to an all-volunteer force.

There are some basic differences between those Army enlistees who strongly endorse vocational training reasons and individual improvement and change reasons and those who endorse the military personnel benefits reasons. The differences are primarily in the education level of the enlistee. To the extent that the Army attempts to attract individuals of high educational achievement, the differences in endorsement of reasons among education levels are important considerations in decisions about recruiting emphasis. The benefits offered by the Army (GI Bill and Overall Benefits) should be emphasized to those of higher educational level (at least some college) since these individuals endorsed these reasons higher than any other groups. Training and skill acquisition opportunities as well as opportunities for individual improvement and change are major appeals to enlistees with less than a high school diploma and should be emphasized to potential enlistees with such educational backgrounds.

PATTERN OF REASON ENDORSEMENT (FACTOR STRUCTURE)

A major purpose of the present study was to examine the extent to which a consistent pattern exists in the endorsement of enlistment reasons. The results indicate quite clearly that such a consistent pattern exists. The factors in enlistment motivation found by Fisher and Harford in their study of FY72 enlistees were very clearly replicated in the present study. The conclusion from this replication is that enlistment motivation or the endorsement of reasons for enlistment can be described in terms of three factors: (a) career development motivations, (b) individual development and change, and (c) military personnel benefits. The fourth factors found in both studies were not highly similar, thus the personal preference and dedication factor found in FY72 was not replicated in FY74.

In addition to the replication of the factor structure of enlistment motivation, it was also found that the factor structure was consistent across all four service branches. With the knowledge of the basic factors of enlistment motivation, it is now possible to reduce the discussion of enlistment motivation to the basic framework of three or four factors rather than the discussion of endorsement level of each of 16 different reasons for enlistment. This considerably reduces the complexity of the enlistment motivation question.

GAINS AND LOSSES

The ability of the Army to enlist high school graduates who initially applied to another service appears considerably enhanced in FY74 over FY72—an increase from 55% of the “gains” in FY72 to 66% in FY74. (See Table 16). But a closer inspection of all the figures leaves room for doubt. For example, the proportion of “losses” of high school graduates increased from 45% to 60%. This means that the difference between “losses” and “gains” decreased from a 10 percentage points difference in FY72 to only 6% in FY74. Another interesting change is that the Army “gained” more high school graduates than it “captured” in FY74. This was not true in FY72. Non-high school graduate “gains” and “losses” complement the above. Thus, the Army gained a smaller proportion of non-high school graduates in FY74 than in FY72, but it also lost less.

The picture is complicated in the analysis of mental category “gains” and “losses.” Army “gains” of categories I and II increased slightly from FY72 to FY74 (6%), but “losses” increased by 14% (Table 18). “Gains” and “losses” of category III’s decreased. The proportion of mental category IV’s gained by the Army decreased in FY74, but the proportion of losses decreased even more. Only 5% of the “losses” were category IV in FY74 while 22% were thus classified in FY72. It seems that losses of the top three groups and gains of the bottom group do not operate in favor of the Army. In addition, the Army losses of categories I and II are equal in proportion to the “captures” in FY74, while in FY72 the Army was able to “capture” more of these high quality enlistees.

DISPOSITION OF APPLICANTS WHOSE FIRST CHOICE OF SERVICE WAS THE ARMY

In the study of FY72 data by Fisher and Harford, the AID analysis of initial Army applicants indicated two major variables which were related to the disposition of those applicants: educational level and race. In FY72, the Army was enlisting high school graduates and above at a higher rate than men without a high school diploma. Likewise, the Army was enlisting white applicants at a higher rate than non-whites.

In FY74, the AID analysis of applicants whose first choice of service was Army revealed that age and region were major variables related to Army enlistment of these applicants. In FY74, the Army was enlisting men 18 years and older at a higher rate than those under 18 years of age. Secondly, of those applicants 18 years or older, the Army enlisted men from the Eastern United States at a higher rate than men from other regions of the U.S.

Several conclusions may be drawn from these analyses. First, it appears that race of applicant is no longer a basis on which enlistment depends. White applicants are not being enlisted at a significantly greater rate than non-whites. Also, educational level of applicants is not playing as strong a role in enlistment disposition as was indicated in FY72. However, the age of the applicant is now acting as a basis of enlistment disposition in FY74. And among the age groups being differentiated in the analysis, region is a major factor in enlistment disposition. Enlistment disposition is definitely higher for applicants from the Eastern United States. For whatever the reason, the Army is having more success “capturing” applicants from the Eastern regions of the United States than from other regions. To the extent that the Army wants men from the Midwest and Pacific regions of the country, some change or increase in efforts to capture applicants from these regions will have to be made.

**REFERENCES, BIBLIOGRAPHY
AND
APPENDICES**

051

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Appendix A

**SAMPLE SITES FOR THE ARMED FORCES
EXAMINING AND ENTRANCE STATIONS (AFEEs) STUDY
FY. 1974**

Providence, Rhode Island
Springfield, Massachusetts
New Haven, Connecticut
Fort Hamilton, New York
New York City (Whitehall), New York
Buffalo, New York
Harrisburg, Pennsylvania
Baltimore, Maryland
Raleigh, North Carolina
Charlotte, North Carolina
Ashland, Kentucky
Louisville, Kentucky
Nashville, Tennessee
Montgomery, Alabama
Jackson, Mississippi
Detroit, Michigan
Cincinnati, Ohio
Memphis, Tennessee
Chicago, Illinois
Indianapolis, Indiana
Des Moines, Iowa
Kansas City, Missouri
Fargo, North Dakota
New Orleans, Louisiana
Houston, Texas
Dallas, Texas
Amarillo, Texas
Portland, Oregon
Fresno, California
Honolulu, Hawaii
Anchorage, Alaska
Los Angeles, California

Appendix B

AFES QUESTIONNAIRE

April 1973

DEPARTMENT OF DEFENSE SURVEY OF
MALE PERSONNEL ENTERING
ACTIVE SERVICE

REPORT CONTROL
SYMBOL
DD-M (AR) 1252

INTRODUCTION

Now that you have become a member of one of the military services we would like to ask you a few questions about the things which led you to enter the military service. Your answers will never be seen by anyone in the training centers but will be sent to Washington to be added to those of men entering service at other entrance stations. The summaries that are made in Washington will be helpful to all of the services in developing answers to questions about other men who will enter service in the future. This is not a test. Your answers will be treated in confidence and will not become part of your military record or commit you in any way.

GENERAL INSTRUCTIONS TO RESPONDENTS.

General instructions concerning this questionnaire:

- A. Answer all the survey questions. Read each question and all of its responses carefully before selecting your answer.
- B. Select only one response to each question. Mark your answer on the answer sheet only. Do not write on the questionnaire booklet.
- C. If any question is not clear, or you have any difficulty, ask for help from the supervisor. Just raise your hand and the supervisor will come to you.
- D. At the top right side of your answer sheet will be a group of numbers already shaded in. These numbers do not identify you in any way. They are used only in the computer processing of the answer sheet.

How to complete the Answer Sheet:

- A. Use only a #2 pencil when filling out the answer sheet. Do not use ink.
- B. Be sure that the item number on the answer sheet is the same as the number on the question you are answering.
- C. Mark on the answer sheet the box that has the same letter or number as the response you selected from the questionnaire.
- D. Fill in the box with a heavy mark, but do not go outside the line of the box. Look at the examples below:



RIGHT



WRONG



WRONG

- E. If you make a mistake, erase the mark completely before entering a new one.
- F. Do not tear, fold, or bend the answer sheet.

1. What service are you signing up for?

A. Army	C. Marine Corps	
B. Navy	D. Air Force	

2. How many years of active service did you sign up for?

A. Less than 1 year	C. 3 years	E. 5 years
B. 2 years	D. 4 years	F. 6 years

3. Do you plan to stay in the service at the end of your current enlistment?

A. No, I plan to leave the service.	C. Yes, I plan to stay for a while longer.
B. I am undecided	D. Yes, I plan to make the service my career.

4. What Service was your first choice?

A. Army	C. Marine Corps	
B. Navy	D. Air Force	

5. What is the highest level of education you have completed?
(Choose ONE answer only)

A. 8th grade or less
B. Some high school but I did not finish
C. High school graduate
D. Received GED Certificate
E. Completed 1 year of college or junior college
F. Associate degree
G. Completed 2 or more years but no degree
H. College degree (BA, BS or equivalent, except LL.B) or higher

6. What grades did you get while in high school?

A. Mostly A's	C. B's and C's	E. D's and below
B. A's and B's	D. C's and D's	F. Does not apply. I did not go to high school.

7. How long has it been since you have attended school full-time?

A. Less than 1 month	C. 6-12 months	E. Over 2 years
B. 1-5 months	D. 13-24 months	

8. How many full-time jobs have you held since you last attended school full-time?

A. NONE	C. 2 jobs	E. 4 or more jobs
B. 1 job	D. 3 jobs	

9. What is your Marital Status?

A. Single and plan to get married within a year.	D. Separated or Divorced.
B. Single but do not plan to get married within a year.	E. Widow/Widower.

10. How old are you?

A. 17 years	C. 19 years	E. 21 years
B. 18 years	D. 20 years	F. 22 years or older

11. What is your race?

A. White/Caucasian	B. Black/Negro	C. Neither
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There are many ways to get advice about signing up. Read each of the following items (12-22). What effect did each one have on your decision to sign up?

	HELPED ME MAKE-UP MY MIND TO SIGN UP		HAD NOTHING TO DO WITH MY SIGNING UP	MADE ME THINK ABOUT NOT SIGNING UP	
	<u>A Lot</u>	<u>Some</u>		<u>Some</u>	<u>A Lot</u>
12. Recruiter	A	B	C	D	E
13. Parent or relative or guardian	A	B	C	D	E
14. School Counselor, teacher or coach	A	B	C	D	E
15. Friend near my own age	A	B	C	D	E
16. A friend in the Service	A	B	C	D	E
17. Radio	A	B	C	D	E
18. Television	A	B	C	D	E
19. Newspapers	A	B	C	D	E
20. Magazines	A	B	C	D	E
21. Posters and Billboards	A	B	C	D	E
22. Movies	A	B	C	D	E

There are many reasons why men sign up for military service. Read each of the following items (23-35). What effect did each one have on your decision to sign up in the service?

	HELPED ME MAKE-UP MY MIND TO SIGN UP		HAD NOTHING TO DO WITH MY SIGNING UP	MADE ME THINK ABOUT NOT SIGNING UP	
	<u>A Lot</u>	<u>Some</u>		<u>Some</u>	<u>A Lot</u>
23. For military pay	A	B	C	D	E
24. For career opportunities	A	B	C	D	E
25. To learn a trade or skill that would be valuable in civilian life	A	B	C	D	E
26. To become a better individual	A	B	C	D	E
27. For travel, excitement and new experiences	A	B	C	D	E
28. To serve my country	A	B	C	D	E
29. For an opportunity for advanced education and training	A	B	C	D	E
30. To leave personal problems behind	A	B	C	D	E
31. To qualify for the GI Bill	A	B	C	D	E
32. For the over-all benefits-pay, room and board, medical care, and training	A	B	C	D	E
33. For job security	A	B	C	D	E
34. To become more mature and self-reliant	A	B	C	D	E
35. To avoid the draft	A	B	C	D	E

There are many reasons why men sign up in one particular program over another program. Read each of the following items (36-38). What effect did each one have on your choice of program?

	HELPED ME MAKE-UP MY MIND TO SIGN UP		HAD NOTHING TO DO WITH MY SIGNING UP	MADE ME THINK ABOUT NOT SIGNING UP	
	A Lot	Some		Some	A Lot
36. To get a cash bonus for signing up	A	B	C	D	E
37. To get the skill or training I wanted	A	B	C	D	E
38. To join the unit I wanted	A	B	C	D	E

You may have talked to different recruiters before signing up for military service. Read each of the following items. What effect did each one have on your decision to sign up?

	HELPED ME MAKE-UP MY MIND TO SIGN UP		MADE ME THINK ABOUT NOT SIGNING UP		I DID NOT TALK TO THIS RECRUITER
	A Lot	Some	Some	A Lot	
39. Army Recruiter	A	B	C	D	E
40. Navy Recruiter	A	B	C	D	E
41. Marine Corps Recruiter	A	B	C	D	E
42. Air Force Recruiter	A	B	C	D	E
43. Which recruiter did you talk to first?	A. Army B. Navy C. Marine Corps D. Air Force				
44. If the military was still using the draft, do you think you would have signed up?	A. Definitely Yes C. Probably No E. No, I would have waited to be drafted B. Probably Yes D. Definitely No F. I do not know				
45. How long ago did you begin to think seriously about entering military service?	A. Within the last 30 days C. 4-6 months ago E. 10-12 months ago B. 1-3 months ago D. 7-9 months ago F. More than 12 months ago				
46. When did you make your final decision to enter military service?	A. Within the last 30 days C. 4-6 months ago E. 10-12 months ago B. 1-3 months ago D. 7-9 months ago F. More than 12 months ago				
47. Which one of the following best describes your job status when you finally decided to sign up in an Armed Service?	A. Not working, but looking for work. G. Working full-time, non-student. B. Not working, and not looking for work. H. Working part-time, non-student. C. Working part-time, student full-time. I. Student full-time, not working. D. Working part-time, student part-time. J. Student part-time, not working. E. Working full-time, student full-time. F. Working full-time, student part-time.				
48. Are you signing up for active military service from the Delayed Entry Program (DEP) or Cache? (This means were you allowed to sign up but there was a delay in entry on active duty in order to qualify for a particular option, or school, or for personal reasons?)	A. Yes, I am entering under the DEP or Cache program. B. No, didn't know about it but wouldn't have been interested anyway. C. No, didn't know about it and probably would have entered that way. D. No, didn't know about it and definitely would have entered that way. E. No, knew about it but wasn't interested.				

Why did you sign up? Tell ALL your reasons on the BACK of your answer sheet. Do not identify yourself.

49. A cash enlistment bonus is paid for duty in certain jobs in the Army and in the Marine Corps. If you do not expect to get a cash enlistment bonus, which of the following best describes your reasons why not?
- Does not apply. I will get the cash enlistment bonus.
 - I didn't know about it.
 - I didn't qualify.
 - I had already committed myself to another program.
 - I tried but all the quotes were filled.
 - I couldn't get a cash enlistment bonus for the assignment I wanted.
 - I would have to serve an extra year.
 - I did not want duty in any of the jobs that pay the cash enlistment bonus.
50. If there were no cash enlistment bonus in the Army and in the Marine Corps, what would you have done?
- I would not have signed up at all.
 - I would have signed up for:
 - Army, in the same job that was giving the cash enlistment bonus.
 - Army, in a job other than the cash enlistment bonus job.
 - Navy.
 - Marine Corps, in the same job that was giving the cash enlistment bonus.
 - Marine Corps, in a job other than the cash enlistment bonus job.
 - Air Force.
51. If the four year cash bonus had been twice as much as it is, would you have taken it?
- Yes
 - No
 - I am undecided
 - It would have no effect on my signing up
52. If you could have had the cash bonus for your enlistment option but in another service, what would you have done?
- I would have taken it.
 - It depends on the service offering it.
 - I would not have changed.
 - It would have no effect on my signing up.
 - I am undecided.
53. If you could have had the cash bonus for a different job or training option in your game service, what would you have done?
- I would have taken it.
 - It depends on the job or training offered.
 - I would not have changed.
 - It would have no effect on my signing up.
 - I am undecided.
54. If you could have had the cash bonus for one or two extra years for your same service and same job or training option, what would you have done?
- I would have taken it for $\frac{1}{2}$ extra year at most.
 - I would have taken it for $\frac{2}{2}$ extra years.
 - I would have taken it for either $\frac{1}{2}$ or $\frac{2}{2}$ extra years.
 - I would not have changed.
 - It would have no effect on my signing up.
 - I am undecided.
55. What was the effect of the recruiting messages (or advertisements) you have read or heard on television, radio, in newspapers, magazines, etc.?
- I believed all of the recruiting messages.
 - I believed most of the recruiting messages.
 - There were some recruiting messages that I believed and some I did not believe.
 - I did not believe most of the recruiting messages.
 - I did not believe any of the recruiting messages.

56. If the GI Bill had ended before you signed up so that you could not get any of the GI Bill benefits, including college and vocational school training, do you think you would still have signed up?
- A. Definitely, yes C. Probably, no E. I do not know
B. Probably, yes D. Definitely, no
57. Are you signing up for the cash enlistment bonus for Combat Arms offered by the Army and Marine Corps?
- A. No.
B. Yes, Army Combat Arms enlistment bonus.
C. Yes, Marine Corps Combat Arms enlistment bonus.

Appendix C
INTERCORRELATION MATRICES FOR REASONS FOR ENLISTMENT

Table C-1
Intercorrelations of Reasons for Enlistment: Army
(N=8116)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 For military pay	---															
2 For career opportunities	.28	--														
3 To learn a trade or skill useful in civilian life	.26	.50	--													
4 To become a better individual	.21	.37	.39	--												
5 For travel, excitement, and new experiences	.23	.28	.27	.37	--											
6 To serve my country	.18	.33	.31	.43	.36	--										
7 Opportunity for advanced education and training	.22	.43	.48	.37	.34	.36	--									
8 Leave personal problems	.13	.07	.07	.15	.18	.12	.13	--								
9 Qualify for the GI Bill	.21	.13	.13	.15	.21	.11	.21	.25	--							
10 Overall benefits—pay, room and board, medical care, and training	.38	.30	.25	.23	.30	.24	.32	.19	.38	--						
11 Job security	.31	.30	.29	.30	.27	.30	.32	.20	.27	.44	--					
12 To become more mature and self-reliant	.20	.27	.28	.48	.32	.37	.35	.19	.19	.31	.39	--				
13 To avoid the draft	.05	.04	.00	.06	.09	.06	.01	.22	.19	.08	.13	.11	--			
14 To get a cash bonus	.22	.05	.01	.10	.14	.09	.03	.13	.14	.18	.16	.10	.21	--		
15 To get skill or training I wanted	.19	.37	.49	.30	.24	.31	.44	.06	.14	.24	.30	.30	.02	.06	--	
16 To join the unit I wanted	.15	.16	.14	.21	.21	.25	.19	.10	.11	.19	.23	.21	.10	.20	.27	--

Table C-2

Intercorrelations of Reasons for Enlistment: Navy
(N=4224)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 For military pay	--															
2 For career opportunities	.26	--														
3 To learn a trade or skill useful in civilian life	.22	.49	--													
4 To become a better individual	.16	.29	.31	--												
5 For travel, excitement, and new experiences	.20	.26	.27	.36	--											
6 To serve my country	.14	.25	.26	.42	.34	--										
7 Opportunity for advanced education and training	.19	.42	.47	.32	.30	.30	--									
8 Leave personal problems	.12	.05	.05	.17	.16	.10	.08	--								
9 Qualify for the GI Bill	.21	.10	.12	.14	.20	.11	.18	.23	--							
10 Overall benefits—pay, room and board, medical care, and training	.37	.28	.23	.22	.29	.20	.31	.16	.34	--						
11 Job security	.30	.25	.22	.28	.25	.25	.26	.20	.24	.42	--					
12 To become more mature and self-reliant	.19	.25	.27	.52	.33	.37	.31	.17	.17	.30	.36	--				
13 To avoid the draft	.08	.03	.01	.04	.02	.04	.04	.17	.13	.05	.08	.04	--			
14 To get a cash bonus	.14	.04	.04	.05	.04	.05	.00	.06	.09	.11	.12	.04	.12	--		
15 To get skill or training I wanted	.16	.38	.48	.27	.20	.26	.43	.08	.11	.24	.23	.26	.07	.04	--	
16 To join the unit I wanted	.11	.14	.12	.21	.17	.23	.13	.11	.11	.14	.19	.20	.11	.12	.24	--

Table C-3

Intercorrelations of Reasons for Enlistment: USAF
(N=4845)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 For military pay	--															
2 For career opportunities	.23	--														
3 To learn a trade or skill useful in civilian life	.18	.44	--													
4 To become a better individual	.17	.32	.32	--												
5 For travel, excitement, and new experiences	.18	.25	.23	.35	--											
6 To serve my country	.14	.26	.19	.43	.33	--										
7 Opportunity for advanced education and training	.15	.37	.41	.31	.27	.24	--									
8 Leave personal problems	.10	.04	.07	.15	.14	.09	.07	--								
9 Qualify for the GI Bill	.13	.05	.10	.13	.16	.10	.14	.19	--							
10 Overall benefits-pay, room and board, medical care, and training	.37	.26	.23	.21	.27	.19	.28	.12	.31	--						
11 Job security	.29	.28	.22	.26	.23	.24	.23	.13	.16	.44	--					
12 To become more mature and self-reliant	.16	.24	.24	.54	.28	.34	.29	.16	.13	.25	.34	--				
13 To avoid the draft	.09	-.03	-.03	.05	.04	.06	-.03	.22	.17	.03	.07	.05	--			
14 To get a cash bonus	.11	.05	.04	.08	.09	.07	.04	.12	.11	.10	.13	.04	.15	--		
15 To get skill or training I wanted	.15	.35	.46	.26	.21	.23	.39	.08	.07	.21	.23	.26	.02	.00	--	
16 To join the unit I wanted	.12	.18	.16	.25	.19	.24	.16	.11	.07	.14	.19	.21	.08	.12	.24	--

064

Table C-4

Intercorrelations of Reasons for Enlistment: USMC
(N=2589)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 For military pay	..															
2 For career opportunities	.25	..														
3 To learn a trade or skill useful in civilian life	.25	.52	..													
4 To become a better individual	.18	.40	.39	..												
5 For travel, excitement, and new experiences	.21	.29	.29	.40	..											
6 To serve my country	.14	.25	.27	.41	.38	..										
7 Opportunity for advanced education and training	.19	.45	.50	.42	.37	.31	..									
8 Leave personal problems	.13	.10	.11	.14	.18	.08	.14	..								
9 Qualify for the GI Bill	.21	.10	.11	.11	.16	.12	.15	.22	..							
10 Overall benefits—pay, room and board, medical care, and training	.38	.32	.27	.28	.32	.24	.31	.22	.37	..						
11 Job security	.30	.32	.32	.28	.26	.25	.31	.22	.27	.46	..					
12 To become more mature and self-reliant	.20	.28	.29	.51	.31	.35	.33	.16	.19	.34	.34	..				
13 To avoid the draft	.06	-.04	-.03	-.04	.02	.06	-.05	.20	.22	.10	.15	.04	..			
14 To get a cash bonus	.17	.04	.03	.08	.11	.05	.04	.15	.19	.16	.18	.09	.21	..		
15 To get skill or training I wanted	.19	.37	.49	.33	.27	.27	.43	.08	.11	.22	.29	.26	.05	.05	..	
16 To join the unit I wanted	.14	.15	.18	.22	.21	.26	.20	.11	.13	.17	.23	.22	.11	.14	.28	..