# ARI Working Papers

## Personnel Utilization Technical Area

## 1981-1989

These working papers are published in order to archive material that was not included in other ARI publications. The material contained herein may not meet ARI's usual scientific or professional standards for publication.

**July 2001**

**United States Army Research Institute for the Behavioral and Social Sciences**

Approved for public release; distribution is unlimited.

20011018 035

# REPORT DOCUMENTATION PAGE

| 1. REPORT DATE (dd-mm-yy) | 2. REPORT TYPE | 3. DATES COVERED (from. . . to) |
|---|---|---|
| July 2001 | Final | 1981-1989 |

| 4. TITLE AND SUBTITLE | 5a. CONTRACT OR GRANT NUMBER |
|---|---|
| ARI Working Papers: Personnel Utilization Technical Area, 1981-1989 | 5b. PROGRAM ELEMENT NUMBER |

| 6. AUTHOR(S) | 5c. PROJECT NUMBER |
|---|---|
| Bowen, G.L., Elig, T.W., Pliske, R.M., Gade, P.A., Benedict, M.E., Nogami, G.Y., Hertzbach, A., Shields, J.L., Kimmel, M.J., Hanser, L.M., Williams, E.W., Popelka, B.A., Kass, R.A., Horey, J.D. Knapp, B.G., Carter, F.L., Lakhani, H., Grissmer, D.W., Smith, A.L. Jr., Teplitzky, M.L., Tinney, R.W., Wilson, L.B., Gilbert, A.C.F., and Hicks, J.A. | 5d. TASK NUMBER |
| | 5e. WORK UNIT NUMBER |

| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) | 8. PERFORMING ORGANIZATION REPORT NUMBER |
|---|---|
| U.S. Army Research Institute for the Behavioral and Social Sciences<br>ATTN: TAPC-ARI-PO<br>5001 Eisenhower Avenue<br>Alexandria, VA 22333-5600 | |

| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) | 10. MONITOR ACRONYM |
|---|---|
| U.S. Army Research Institute for the Behavioral and Social Sciences<br>5001 Eisenhower Avenue<br>Alexandria, VA 22333-5600 | ARI |
| | 11. MONITOR REPORT NUMBER<br>WP PUTA |

12. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

13. SUPPLEMENTARY NOTES

ARI working papers were originally unofficial documents intended for limited distribution to obtain comments. These working papers are being archived in order to preserve material that was not included in other ARI publications. The material contained herein may not meet ARI's usual scientific or professional standards for publication.

14. ABSTRACT *(Maximum 200 words)*:

Seventeen working papers dealing with Army families, recruits, advertising, enlistment, reenlistment, attrition, ASVAB, junior officers, veterans, retention, National Guard, National Training Center, Army spouses, ROTC, and career attitudes.

15. SUBJECT TERMS

Army families, recruits, advertising, enlistment, reenlistment, attrition, ASVAB, junior officers, veterans, retention, National Guard, National Training Center, Army spouses, ROTC, career attitudes, New Recruit Surveys, Team Spirit Exercises

| SECURITY CLASSIFICATION OF | | | 19. LIMITATION OF ABSTRACT | 20. NUMBER OF PAGES | 21. RESPONSIBLE PERSON (Name and Telephone Number) |
|---|---|---|---|---|---|
| 16. REPORT | 17. ABSTRACT | 18. THIS PAGE | | | |
| Unclassified | Unclassified | Unclassified | Unlimited | 744 | David W. Witter<br>(703) 617-0324 |

## Personnel Utilization Technical Area Working Papers


Bowen, G.L. (1988). The relationship of satisfaction with the environment for families to satisfaction with the military way of life among Army members: A secondary analysis. WP PU 88-03.

Elig, T.W., Pliske, R.M., Gade, P.A., & Benedict, M.E. (1986). Topline results of the 1985 recruit surveys (NRS-85): Advertising recall and TV program viewing habits. WP PU 86-10.*

Gade, P.A., & Elig, T.W. (1986). Enlisting in the U.S. Army: The citizen soldier in an all-volunteer force. WP PU 86-18.

Gade, P.A., Elig, T.W., Nogami, G.Y., & Hertzbach, A. (1984). Motives, incentives, and key influencers for enlistment, reenlistment, and attrition in the U.S. Army. WP PU 84-19.

Gade, P.A., Elig, T.W., & Shields, J.L. (1982). The effects of Army recruiting initiatives on armed services' recruiting. WP PU 83-01.

Gade, P.A., Nogami, G.Y., Elig, T.W., & Kimmel, M.J. (1986). The Army experience. WP PU 86-05.

Hanser, L.M., Williams, E.W., Popelka, B.A., Shields, J.L., & Kass, R.A. (1981). Pilot research for validation of ASVAB and enlistment standards against performance on the job. (unnumbered)

Horey, J.D. (1986). Researcher's views: Observing Junior officer performance during Team Spirit Exercises 1986. WP PU 86-23.

Kimmel, M.J., Gade, P.A., & Nogami, G.Y. (1987). The Army experience of male and female veterans. WP PU 87-12.

Kimmel, M.J., Knapp, B.G., & Carter, F.L. (1987). Retention problems in Military Intelligence MOS 98G and 33T: Summary of existing data. WP PU 87-06.

Lakhani, H. (1988). Analysis of Junior officers attrition rates by race and sex. WP PU 88-10.

Nogami, G.Y., & Grissmer, D.W. (1988). Analyzing attrition from National Guard units attending the National Training Center. WP PU 88-01.

Smith, A.L. Jr. (1987). Incentives and disincentives to reenlistment: An examination of need fulfillment in the Army. WP PU 87-07.

Smith, A.L. Jr. (1987). A Preliminary investigation into some aspects of spousal satisfaction with the Army: The soldier's career decision. WP PU 87-10.

Teplitzky, M.L. (1989). Married Junior Army officers: Determinants of career decisions and spouse quality of life perceptions. WP PU 89-01.

Tinney, R.W. (1988). Descriptive analysis of the database for estimation of reenlistment supply equations by MOS. 1979-1985. WP PU 88-08.

Wilson, L.B., Gilbert, A.C.F., & Hicks, J.A. (1983). ROTC/Army Career Attitudes Survey: An update. WP PU 83-28.

# Personnel Utilization Technical Area Working Paper 88-3

THE RELATIONSHIP OF SATISFACTION WITH THE ENVIRONMENT FOR FAMILIES TO SATISFACTION WITH THE MILITARY WAY OF LIFE AMONG ARMY MEMBERS: A SECONDARY ANALYSIS

Gary L. Bowen

February 1988

Approved for Distribution to Sponsor or Proponent

REVIEWED BY:

M. C. DEVILBISS
Research Sociologist

APPROVED BY:

PAUL A. GADE
Chief, Personnel Utilization Technical Area

## Manpower and Personnel Research Laboratory

**U. S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333-5600

This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

# The Relationship of Satisfaction with the Environment for Families to Satisfaction with the Military Way of Life Among Army Members: A Secondary Analysis

Gary L. Bowen

The University of North Carolina at Chapel Hill

January, 1988

Running head: Family Factors

AUTHOR'S NOTE: This article was prepared under Contract No. MDA903-87-C-0540 for the Army Research Institute for the Behavioral and Social Sciences. The views and opinions contained in this article are those of the author and should not be construed as an official Department of Army position, policy, or decision, unless so designated by other documentation. Grateful appreciation is expressed to Dr. Bruce Bell of the Army Research Institute for his valuable comments in planning and interpreting the data analysis. Special thanks also go to Jeanne R. Brooks, research assistant, who both conducted the data analysis and completed a first draft of the results section.

# THE RELATIONSHIP OF SATISFACTION WITH THE ENVIRONMENT FOR FAMILIES TO SATISFACTION WITH THE MILITARY WAY OF LIFE AMONG ARMY MEMBERS: A SECONDARY ANALYSIS

## BRIEF

**Requirement:**

The Army Family Research Program is a five-year program of integrated research activities designed to address major research issues in the Army Family Action Plan and to assist Army policy and program personnel in designing policies and programs that both strengthen families and contribute to retention and readiness. A key activity in the first-year research plan has been to conduct secondary analysis of existing surveys of active-duty Army families to examine the relationship between family concerns and overall satisfaction with the military way of life.

**Purpose:**

Using the 1985 DoD Worldwide Survey of Officer and Enlisted Personnel, the importance of satisfaction with the environment for families on over-all satisfaction with the military way of life was examined separately for officers and enlisted members across six household patterns: (a) single, (b) single parent, (c) married to a military spouse with no children, (d) married to a military spouse with children, (e) married to a civilian spouse with no children, and (f) married to a civilian spouse with children. It was predicted that the influence of satisfaction with the environment for families on satisfaction with the over-all military way of life would be positive and significant. It was also predicted that the direction and magnitude of this relationship would be similar for each of the above segments of the Army population. Seventeen additional subdomains of satisfaction concerning issues particular to the military way of life were used as control variables in the examining this relationship, as well as the gender and pay grade of the member.

**Rationale:**

Despite the new steps that the Army has taken to intensify its efforts in support of family life, there has been a lack of systematic attention to testing the host of assumptions that provide the basis for policy and program development. An overriding assumption has been the perceived importance of members' satisfaction with the environment for families as one of the key determinants of their satisfaction with the military way of life. It is often assumed by policy

and program designers that satisfaction with the environment for families indirectly influences retention and readiness through its positive impact of satisfaction with the military way of life. A key objective of the Army Family Research Program is to critically examine the assumptions that provide the basis for policies and programs that are targeted to improve the quality of life for members and their families. Only then can the development, continuation, and expansion of these policies and programs be based on facts, rather than assumptions, as well as be targeted to members and families for whom their impacts will yield the greatest return on Army investments.

**Results:**

The results suggested that satisfaction with the environment for families in the Army was a significant predictor of over-all satisfaction for four of the 12 sample subgroups: (a) enlisted members married to other military members with no children, (b) enlisted members married to other military members with children, (c) enlisted members married to civilian spouses with children, and (d) officers married to civilian spouses with children. Given that 50 percent of the Army's total force is comprised of members with one of these four demographic profiles, these findings provide empirical support for the importance of family-oriented policies and practices that help create a positive context in the Army for family life. In each case, the results supported the major prediction of the study: the more satisfaction that members have with the environment for families in the Army, the greater their satisfaction with the military way of life.

However, the prediction was not supported that this relationship would be positive and significant for each Army member subgroup. Satisfaction with the environment for families in the Army was not a significant predictor of overall satisfaction with military way for eight of the twelve subgroups: (a) neither single enlisted members nor single officers; (b) neither single parent enlisted members nor single parent officers; (c) officers who were married to other military members with or without children; and (d) neither enlisted members nor officers who were married to civilian spouses without children.

**Implications:**

These findings suggest the critical importance of policy and program efforts on behalf of married members, especially those directed toward members married to civilian spouses with children. If these policies and programs positively impact upon the feelings of members toward the environment

for families in the Army, they are likely to significantly influence their overall satisfaction with the military way of life. Given the link between satisfaction with the military way of life and retention and readiness issues, policies and programs which enhance the quality of life satisfaction for married members are likely to translate into desired mission-related outcomes.

These findings also suggest that policies and programs designed to support families and to increase their satisfaction with the environment for families in the Army may not have uniform affects across Army member subgroups. Policy and program developers need to be sensitive to the diversity of lifestyles in the Army community, and to understand that policies and programs must be tailored to specific target groups to maximize their cost-effectiveness.

# The Relationship of Satisfaction with the Environment for Families to Satisfaction with the Military Way of Life Among Army Personnel: A Secondary Analysis

Service in the Armed Forces involves more than just an occupational choice; it is the selection of a lifestyle which permeates almost every aspect of a person's life. Few civilian occupations require the high level of commitment and dedication from their employees that the military services require (e.g., to be available and ready to defend the constitution of the United States anywhere in the world; to accept the possibility of hazardous duty assignments, including the possibility of injury, captivity, or even death). Even fewer ask their employees, much less members of the employee's family to make the range of personal and family sacrifices to accommodate the work mission (e.g., frequent relocations, extended family separations, and the general subservience of family needs to military objectives and requirements).

On the other hand, few civilian employers offer their employees the encompassing range of benefits that tie their employees as well as members of their families to the organization both economically and socially (e.g., job security, housing and housing allowances, medical and dental care, retirement after 20 years of service). In addition, the military services today include a number of agencies and organizations that provide an impressive range of support services and programs for military members and their families (e.g., family service and support centers, recreational services, child care, spouse employment centers).

This unique combination of occupational demands and occupational supports underscores Goffman's (1961) description of various military situations as examples of a "total institution," institutions that have an encompassing impact on the lives of its members. In a more recent analysis, Segal (1986b) used Coser's (1974) notion of the "greedy" institution to describe the great demands that the military organization places on the commitment, time and energy of its servicemembers and their families.

Over the last decade, the military services have given increased attention to quality of life issues for servicemembers and their families. This interest has been stimulated by demographic shifts from a single to a predominantly married force (Defense Manpower Data Center (DMDC), 1986), increased competition with the civilian

economy for the declining number of 18-22 year olds available for military service (Bowen, 1986a), and expanded recognition by military leadership of the interdependence among quality of life issues, family well-being and satisfaction, job productivity, and mission readiness and member retention (Bowen, 1987; Bowen & Scheirer, 1986; Orthner & Pittman, 1986; Segal, 1986b). This heightened interest has provided the impetus for the increasing incorporation of support programs and services for military personnel and their families (American Family, 1985).

Despite the new steps that the military services have taken to intensify their efforts on behalf on service members and their families, there has been a lack of systematic attention to testing the host of assumptions that provide the basis for policy and program development. An overriding assumption has been the perceived importance of members' satisfaction with the environment for families as one of the key determinants of their satisfaction with the military way of life. Given the established linkage between satisfaction with the military way of life and important military-related outcomes (e.g., spouse support of the member's career, retention intentions, mission readiness) (Bowen, 1986b; Moybray & Scheirer, 1984; Orthner & Bowen, 1982; Orthner & Pittman, 1986; Szoc, 1982), it is often assumed that policies and programs which enhance the quality of the military environment for families will increase indirectly these important military related outcomes.

While the link between member satisfaction with the environment for families and over-all satisfaction with the military way of life seems intuitively obvious, it has not received sufficient empirical testing. Although research does exist that suggests the importance of family factors to over-all satisfaction with the military way of life (e.g., Bowen, 1986b; Orthner & Bowen, 1982; Orthner & Pittman, 1986; Szoc, 1982), past studies have not explored this relationship in the context of additional satisfiers that may mitigate or enhance this relationship, such as job and community factors. In addition, past studies have not adequately explored how this relationship may vary across population subgroups, varying by such factors as marital status, household composition, military status of the spouse, and rank. Last, there has been a (imbalance between the services) in exploring this relationship. Much of this research has been restricted to Air Force and Navy populations.

In the context of greater emphasis on program accountability in the military services today as well as recent budget cutbacks in defense spending, it becomes increasingly important to quantify the assumptions that provide the foundation for policies and programs that are intended to increase the quality of life for members and their families. Only then can the development, continuation, and expansion of these policies and programs be based on facts, rather than assumptions, as well as be targeted to members and families for whom their impacts will yield the greatest return on Army investments.

Drawing on secondary analysis of the 1985 DoD Survey of Officer and Enlisted Personnel, this investigation examines the relationship of satisfaction with the environment for families to the satisfaction with the military way of life among Army personnel. This relationship is examined not only in the context of a range of other quality-of-military-life satisfiers, but also separately for officers and enlisted members across six household patterns: (a) single, (b) single parent, (c) married to a military spouse with no children, (d) married to a military spouse with children, (e) married to a civilian spouse with no children, and (f) married to a civilian spouse with children.

Based on prior research in the military services (Bowen, 1986b; Orthner & Bowen, 1982; Orthner & Pittman, 1986; Szoc, 1982) as well as on current family-oriented policy and program assumptions espoused by senior Army leadership (e.g., Wickham, 1983), it was hypothesized that the more satisfaction that members have with the environment for families in the Army, the greater their over-all satisfaction with the military way of life. Additional support for this hypothesis is found in research with civilian samples which suggests that satisfaction with the over-all quality of life is determined by additive satisfaction across multiple subdomains, including family-related variables (Campbell, Converse & Rogers, 1976). Given the lack of comparative research regarding this hypothesis across population subgroups in the military, it was also predicted that the relative influence of satisfaction with the environment for families on the level of overall satisfaction would be equally strong across population subgroups.

Given the exploratory nature of the investigation, all 18 quality-of-military-life indicators included on the 1985 DoD Survey of Officer and Enlisted Personnel, including satisfaction with the environment for families, were

specified in a single equation analysis strategy and estimated via multiple regression techniques across rank and household patterns. Given the preliminary nature of work in the area, there was a lack of strong empirical or theoretical basis for including or excluding any of these specific independent variables as control variables in the model. Within rank and household pattern groups, two additional control variables were entered into the equation: rank as a linear variable and gender of the member. This analysis strategy made it possible to examine the unique contribution that members' satisfaction with the environment for families in the Army has on their over-all satisfaction with the military as a way of life relative to other quality of life indicators, as well as to examine this relationship within household and rank groups.

## Method

### Source of Data

The data for this analysis are based on a stratified random sample of 24,217 active-duty officer and enlisted personnel serving in the U.S. Army in the United States or overseas on September 30, 1984. These men and women were surveyed as part of the 1985 DoD Worldwide Survey of Officer and Enlisted Personnel which also included members from the Navy, Air Force and Marines. This survey was conducted for the Office of the Assistant Secretary of Defense (Force Management and Personnel) by the Defense Manpower Data Center, and was designed to collect information in ten major areas: (a) military demographics, (b) present and past locations, (c) personnel reaction to recent changes in military compensation and benefits, (d) factors affecting readiness and retention, (e) projected reactions to changes in personnel management, (f) career attitudes and experiences of women and minorities, (g) family characteristics, (h) the impact of military policies on family life, (i) family economic well-being, and (j) adequacy of family services.

The over-all sample design was stratified first by service. Within each service, enlisted samples were stratified by length of service and gender, and officer samples were stratified by gender. Both officers and female members were sampled at a higher rate to ensure adequate sample sizes for analysis. Within each stratification cell, members were randomly selected for survey participation. Since members with less than four months of service were excluded from the sample frame, and since there was a period

of several months between sample selection and survey administration, members who completed the survey had at least ten months of service.

Within the Army, the survey was coordinated through the Soldier and Family Policy Division of the Human Resources Development Directorate, Office of the Deputy Chief of Staff for Personnel (DAPE-HRP/E). Survey administration was handled through the commanding officers of units containing individuals selected for survey participation.

Based on detailed survey protocols, each commanding officer was responsible for distributing and collecting sealed survey packets from survey respondents. Any member who had separated from the service since sample selection was not included in the final sample. However, attempts were made to survey members who were selected for participation but who were on temporary duty assignments or who had been transferred to a new duty station.

The over-all Army response rate was 65.2 percent for officers (n=4,997) and 59.1 percent from enlisted members (n=19,220)--respectible survey response rates given the voluntary nature of the survey and the logistics of data collection. However, the response rate from the Army was somewhat lower than the over-all service response rate of 76.8 percent for officers and 70.1 percent for enlisted members. The Defense Manpower Data Center (1986) thought that the greater mobility of Army personnel compared to the other services might account for the lower Army response rate compared to the other services. (For a more comprehensive description of the design and implementation of the 1985 DoD Survey, the reader should consult the Description of Officers and Enlisted Personnel in the U.S. Armed Forces: 1985 (Volume 1) by the Defense Manpower Data Center (1986)).

## Measurement of Variables

The dependent variable, satisfaction with the military way of life, was assessed by a single item. Respondents rated their level of satisfaction from one to seven with one being "very dissatisfied" and seven being "very satisfied."

The independent variable, satisfaction with the environment for families, was also assessed by a single item which was included in a list of 18 items associated with different issues particular to the military way of life. Respondents were asked to evaluate their level of

satisfaction with the environment for families in the military considering current policies. Response choices ranged from one to five with one being "very satisfied" and five being "very dissatisfied."

Nineteen control variables were also included in the analysis in an attempt to better isolate the unique relationship between the independent and dependent variables. Seventeen of these variables were measures of satisfaction with issues particular to the military way of life other than the environment for families: personal freedom, acquaintances/friendships, work group/co-workers, assignment stability, pay and allowances, frequency of moves, retirement benefits, opportunity to serve one's country, satisfaction with current job, promotion opportunities, job training/in-service education, job security, working/environmental conditions, post service educational benefits (VEAP), medical care, dental care, and commissary services. Identical to the instructions and response categories for the independent variable, respondents were asked to evaluate their level of satisfaction with each of these issues considering current policies on a scale from one to five with one being very satisfied and five being very dissatisfied (see Appendix 1 for a review of these items as well as the independent and dependent variables as they appeared on the survey instrument).

Two additional control variables were also included in the analysis based on their association with the independent and dependent variables in prior research: gender and pay grade of the member (Bowen, 1986; Orthner & Bowen, 1982; Szoc, 1984). On the survey, each respondent was asked to specify their gender (i.e, male or female), as well as to indicate their specific pay grade. Enlisted members reported their pay grades from E1 to E9, and officers reported their pay grades from O1 to O6.

## Data Analysis

For purposes of analysis, respondents were divided into six subgroups based upon a combination of the respondent's marital status, the presence or absence of children in the household, and whether the respondent was married to a military or a civilian spouse: (1) single, (2) single parent, (3) married to a military spouse with no children, (4) married to a military spouse with children, (5) married to a civilian spouse with no children, and (6) married to a civilian spouse with children. Data files for these six

subgroups were constructed by dividing the Army data into six nonoverlapping files based on subgroup parameters. For small files, such as single parents, all cases within the data file were retained for analysis. For large files, such as single members and members married to civilians with and without children, subfiles of 2000 random cases were created to make the size of files more comparable across groups for purposes of cross comparison as well as to reduce the cost of data analysis. The six files were subsequently divided into enlisted and officer subfiles, creating twelve subgroups for purposes of analysis. Because of their unique status in the military services as well as their small numbers within the sample, warrant officers were excluded from the officer subsamples. Sample sizes as well as selected demographic characteristics of the twelve subgroups are given in Table 1.

Assuming a linear and recursive system, the SYSREG procedure in SAS was used to run twelve separate models using ordinary least squares. A listwise deletion of cases with missing data was in effect. As a consequence, the actual number of sample cases available for analysis by subgroup are fewer than the number of sample cases indicated by subgroup in Table 1.

The analysis was designed to estimate the unique contribution of the independent variable as well as each control variable on the level of member satisfaction with the military way of life. Thus, the estimated parameters are the unique effect of each variable controlling for all other variables in the model. A .05 level of probability was used to determine the over-all statistical significance of the model as well as to examine the effect of each independent and control variable in the equation on the dependent variable.

In the analysis, gender was coded as a dummy variable with female as the reference category. The pay grade of the member within rank breakdowns was entered as a linear variable. Because of opposite coding directions of the dependent variable with the list of 18 issues particular to the military way of life, including the independent variable, the list of 18 issues were recoded to parallel the coding of the dependent variable: very dissatisfied to very satisfied.

TABLE 1. Demographic Profile of Sample Members

| Characteristics | Respondent Group | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Single No Children | | Single Parent | | Military Spouse No Children | | Military Spouse With Children | | Civilian Spouse No Children | | Civilian Spouse With Children | |
| | E[a] (n=1650) | O[b] (n=331) | E (n=1181) | O (n=117) | E (n=1157) | O (n=256) | E (n=1638) | O (n=184) | E (n=1514) | O (n=447) | E (n=1505) | O (n=416) |
| Male | 59.8% | 45.9% | 35.8% | 52.1% | 17.4% | 18.8% | 16.8% | 24.5% | 71.5% | 84.1% | 88.8% | 94.2% |
| Mean Age | 24.5 | 29.3 | 28.4 | 35.9 | 25.9 | 29.8 | 27.6 | 32.5 | 27.9 | 32.0 | 30.9 | 36.3 |
| Race/Ethnic Group: | | | | | | | | | | | | |
| Black | 31.9% | 13.0% | 51.9% | 20.5% | 38.5% | 5.5% | 48.3% | 14.7% | 30.3% | 8.7% | 29.6% | 7.5% |
| Hispanic | 7.6% | 3.9% | 6.4% | 4.3% | 7.4% | 3.9% | 8.2% | 6.0% | 9.1% | 3.6% | 9.6% | 3.8% |
| White | 56.7% | 78.9% | 38.1% | 72.6% | 49.0% | 86.7% | 38.3% | 75.5% | 55.5% | 84.6% | 56.1% | 87.3% |
| Other | 3.9% | 4.2% | 3.6% | 2.6% | 5.0% | 3.9% | 5.1% | 3.8% | 5.0% | 3.1% | 4.6% | 1.4% |
| Rank/Pay Grade | | | | | | | | | | | | |
| E-2 to E-4 | 61.8% | -- | 31.2% | -- | 41.1% | -- | 25.3% | -- | 35.9% | -- | 17.0% | -- |
| E-5 to E-6 | 32.6% | -- | 56.5% | -- | 52.2% | -- | 66.9% | -- | 51.4% | -- | 54.9% | -- |
| E-7 to E-9 | 5.6% | -- | 12.3% | -- | 6.7% | -- | 7.9% | -- | 12.9% | -- | 28.1% | -- |
| O-1 to O-2 | -- | 43.5% | -- | 16.3% | -- | 28.1% | -- | 14.7% | -- | 27.1% | -- | 7.9% |
| O-3 | -- | 41.1% | -- | 35.0% | -- | 56.3% | -- | 57.6% | -- | 42.7% | -- | 34.9% |
| O-4 to O-6 | -- | 15.4% | -- | 48.8% | -- | 15.6% | -- | 27.7% | -- | 30.2% | -- | 57.3% |
| Marital Status | | | | | | | | | | | | |
| Never Married | 91.2% | 90.0% | 44.8% | 17.9% | -- | -- | -- | -- | -- | -- | -- | -- |
| Married | -- | -- | -- | -- | 81.7% | 86.0% | 68.5% | 75.5% | 84.0% | 89.7% | 78.9% | 87.3% |
| Remarried | -- | -- | -- | -- | 18.2% | 14.1% | 31.5% | 24.5% | 16.1% | 10.3% | 21.1% | 12.7% |
| Divorced | 8.4% | 10.0% | 53.8% | 76.0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Widowed | .4% | -- | 1.4% | 6.0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Mean Years Married | -- | -- | -- | -- | 3.5 | 4.3 | 4.4 | 6.3 | 5.4 | 7.3 | 8.1 | 12.1 |
| Mean Age of Spouse | -- | -- | -- | -- | 27.5 | 31.2 | 28.7 | 33.5 | 28.5 | 31.9 | 29.7 | 35.0 |
| Mean Number of Children in Household | -- | -- | 1.4 | 1.7 | -- | -- | 1.6 | 1.6 | -- | -- | 2.0 | 2.1 |

a Note: E = Enlisted
b Note: O = Officer

## Results

The findings, which are presented in Table 2, demonstrated significant variation by subgroup in the relationship between the level of satisfaction of members with the environment for families in the Army and their level of satisfaction with the military way of life. Although there was no empirical basis for predicting variation in the strength of this relationship by subgroup, satisfaction with the environment for families was found to be significantly associated ($p < .05$) with the over-all level of member satisfaction for only four of the twelve subgroups after control variables were entered into the equations: (a) enlisted members married to military spouses with no children (b=.126), (b) enlisted members married to military spouses with children (b=.112), (c) enlisted members married to civilian spouses with children (b=.146), and (d) officers married to civilian spouses with children (b=.190). In each case, the results supported the major prediction of the study: the more satisfaction that members have with the environment for families in the Army, the greater their satisfaction with the military way of life.

A major result to note in these analyses is the strength of the R-square coefficients for each subgroup analysis, which indicates the percentage of variance in the dependent variable accounted for by the independent variable and control variables in the equation. Although the ratio of independent and control variables in the equation to the number of sample cases varied across subgroups, the R-square coefficients ranged from low of .37 for enlisted members married to military spouses with children to a high .65 for officers married to military spouses with no children. Ten of the twelve coefficients were greater than .40. Over-all, these coefficients are well above the R-square of .20 to .30 considered meaningful for this type of cross-sectional analysis.

Given the exploratory nature of the current investigation, the results of the analyses are briefly summarized for each of the twelve subgroups below. Because of the number of variables in the respective equations, after summarizing the strength of the relationship between the independent and dependent variable, only significant effects are highlighted between the control variables and the dependent variable in the respective analyses.

TABLE 2. The Relative Influence of Satisfaction with the Environment for Families on Satisfaction with the Army Way of Life.

| Independent/Control Variables | Respondent Group | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Single No Children | | Single Parent | | Military Spouse No Children | | Military Spouse With Children | |
| | E[a] | O[b] | E | O | E | O | E | O |
| PERSONAL FREEDOM | .321**[c] | .346** | .164** | .206 | .368** | .469** | .215** | .457** |
| ACQUAINTANCES/FRIENDSHIPS | .039 | .076 | .058 | -.075 | .032 | .152 | .070 | -.129 |
| WORK GROUP/CO-WORKERS | .018 | .006 | -.056 | -.203 | .023 | -.056 | .051 | .327* |
| ASSIGNMENT STABILITY | .021 | .044 | .040 | -.021 | -.002 | .090 | .065 | .101 |
| PAY AND ALLOWANCES | .204** | .160 | .167** | .084 | .206** | .167* | .102* | .270* |
| ENVIRONMENT FOR FAMILIES | .042 | .179 | .068 | .144 | .126* | .163 | .112* | .104 |
| FREQUENCY OF MOVES | .019 | .073 | .094* | .251 | .063 | .038 | .105* | .085 |
| RETIREMENT BENEFITS | -.036 | .131 | .024 | .341* | .095 | .087 | -.004 | .070 |
| OPPORTUNITY TO SERVE ONE'S COUNTRY | .325** | -.017 | .282** | .194 | .281** | .404** | .228** | .100 |
| SATISFACTION WITH CURRENT JOB | .145** | .399** | .234** | .211 | .153** | .196* | .109** | .154 |
| PROMOTION OPPORTUNITIES | .035 | .104 | .098* | -.079 | .048 | .135* | .096* | .130 |
| JOB TRAINING/IN-SERVICE EDUCATION | .056 | .070 | .114* | .118 | .063 | .136 | .072 | .089 |
| JOB SECURITY | .111* | .110 | .012 | .158 | .012 | -.023 | .086* | .073 |
| WORKING/ENVIRONMENTAL CONDITIONS | .124* | .025 | .039 | .279* | .112* | .234* | .101* | .033 |
| POST SERVICE EDUCATIONAL BENEFITS (VEAP) | .029 | -.125 | -.022 | -.010 | .008 | -.125 | -.011 | -.130 |
| MEDICAL CARE | .018 | .127 | .092 | .071 | .045 | .151* | .016 | .131 |
| DENTAL CARE | .064 | -.017 | .065 | -.184 | .051 | -.284** | .089* | -.029 |
| COMMISSARY SERVICES | -.024 | -.058 | .008 | .144 | .032 | .102 | .037 | .142 |
| GENDER[d] | -.132 | -.047 | -.271* | .600* | .130 | -.165 | -.069 | -.079 |
| PAY GRADE | .189** | -.022 | .193** | -.015 | .114* | .110 | .160** | -.032 |
| $R^2$ | .4324** | .4686** | .3938** | .5241** | .4370** | .6580** | .3755** | .6602** |
| N | 1426 | 311 | 1033 | 109 | 1008 | 214 | 1436 | 170 |

| Independent/Control Variables | Respondent Group | | | |
|---|---|---|---|---|
| | Civilian Spouse No Children | | Civilian Spouse With Children | |
| | E | O | E | O |
| PERSONAL FREEDOM | .237** | .225* | .248** | .305** |
| ACQUAINTANCES/FRIENDSHIPS | .076 | .209* | .063 | .019 |
| WORK GROUP/CO-WORKERS | .053 | .048 | -.044 | -.049 |
| ASSIGNMENT STABILITY | .032 | -.052 | .113* | .242* |
| PAY AND ALLOWANCES | .154** | .271** | .179** | .187* |
| ENVIRONMENT FOR FAMILIES | .058 | .046 | .146** | .190* |
| FREQUENCY OF MOVES | .098* | .159* | .078* | -.067 |
| RETIREMENT BENEFITS | .049 | .110 | .013 | .113 |
| OPPORTUNITY TO SERVE ONE'S COUNTRY | .262** | .415** | .183** | .206* |
| SATISFACTION WITH CURRENT JOB | .076 | .247** | .096* | .051 |
| PROMOTION OPPORTUNITIES | .033 | .170* | .068* | .147* |
| JOB TRAINING/IN-SERVICE EDUCATION | .133* | .005 | .033 | -.013 |
| JOB SECURITY | .130* | -.037 | .160** | .117 |
| WORKING/ENVIRONMENTAL CONDITIONS | .111* | .008 | .012 | .111 |
| POST SERVICE EDUCATIONAL BENEFITS (VEAP) | -.033 | .070 | -.039 | -.032 |
| MEDICAL CARE | .156** | .079 | .116* | .102 |
| DENTAL CARE | -.076 | -.009 | -.026 | -.066 |
| COMMISSARY SERVICES | .107* | .089 | .036 | .160* |
| GENDER[d] | -.161* | -.148 | -.007 | -.463 |
| PAY GRADE | .158** | .099* | .113** | .064 |
| $R^2$ | .4034** | .4668** | .4156** | .5014** |
| N | 1320 | 419 | 1327 | 398 |

SIGNIFICANT .05*

SIGNIFICANT .001**

Note: With the exception of gender and pay grade, the independent and control variables were recoded to parallel the coding of the dependent variable: very dissatisfied to very satisfied.

a Enlisted
b Officer
c Unstandardized regression coefficient (b)
d Female is reference category.

For the specific magnitude of the relationship of each variable in the analysis on the dependent variable, the reader should consult Table 2. Since the 18 issues particular to the military way of life were responded to on the same five-point satisfaction scale, their respective unstandarized regression coefficients (b), which reflect the magnitude of their association with the dependent variable, are directly comparable both within subgroup as well as between subgroups. Unless otherwise indicated, in all cases where significant effects are noted between these indicators and the dependent variable, the higher the satisfaction with the specific indicator, the higher the over-all satisfaction with the military way of life.

Single enlisted members. Although satisfaction with the environment for families was not found to be a significant correlate of satisfaction with the military as a way of life, six of the remaining 17 quality of life indicators were significant predictors. For single enlisted, opportunity to serve one's country was the best relative predictor of over-all satisfaction, following by satisfaction with personal freedom, pay and allowances, current job, working/environmental conditions, and job security. The pay grade of single enlisted members was also found to be significantly associated with over-all satisfaction: the higher the pay grade, the higher the satisfaction.

Single officers. Parallel to the finding for single enlisted members, the satisfaction of single officers with the environment for families in the Army was not a significant correlate of their over-all satisfaction. In addition, only two of the other quality of life indicators were significant predictors of the dependent variable: satisfaction with current job followed closely by satisfaction with personal freedom.

Enlisted single parents. For enlisted singles with children, satisfaction with family environment was not a significant predictor of over-all satisfaction. However, seven of the remaining quality-of-military-life indicators were significant predictors. Paralleling the findings for single enlisted members, satisfaction with the opportunity to serve one's country was the best predictor, followed by satisfaction with current job, pay and allowances, personal freedom, job training/inservice education, and frequency of moves. Both gender and pay grade were also significantly associated with over-all satisfaction with this subgroup. Male single parents were less satisfied with the military way

of life than female single parents, and pay grade was positively associated with over-all satisfaction: the higher the pay grade of the single parent, the higher the over-all satisfaction.

Officer single parents. Even though the size of the coefficient was more than twice the size for officer single parents than for enlisted single parents, satisfaction with the environment for families was not a significant correlate of over-all satisfaction with the military way of life. Interestingly, compared to other subgroups, gender of the officer single parent had a strong and significant association with over-all satisfaction. Male officers were significantly more satisfied with the military way of life than were female officers. For this group, the only other significant predictors of over-all satisfaction were satisfaction with retirement and satisfaction with work conditions, respectively.

Enlisted members married to military spouses with no children. For this subgroup, satisfaction with the environment for families proved to be a significant predictor of over-all satisfaction with the military way of life. However, when compared to the other quality-of-military-life indicators, its magnitude of effect was lower than satisfaction with personal freedom, opportunity to serve one's country, pay and allowances, current job, and frequency of moving. Only the effect of satisfaction with working/environmental conditions was lower than the effect due to satisfaction with the environment for families. Pay grade was also a significant predictor of over-all satisfaction for this subgroup: the higher the pay grade, the higher the over-all satisfaction.

Officer members married to military spouses with no children. Although satisfaction with family environment approached significance in predicting over-all satisfaction with the military way of life, it did not meet the .05 probability level ($p=.06$). However, seven of the remaining quality of life indicators were statistically significant at the .05 level in predicting over-all satisfaction. Listed in order of their relative magnitude of effect, these included satisfaction with personal freedom, opportunity to serve one's country, dental care, working/environmental conditions, current job, pay and allowances, medical care, and promotion opportunities. Interestingly, satisfaction with dental care negatively affected the level of satisfaction that members of this subgroup had with the military way of life. Although

not statistically significant for any of the other subgroups in the analysis, the negative effect of satisfaction with dental care on over-all satisfaction was paralleled across all officer subgroups as well as across three of the six enlisted subgroups.

In all other cases where significant effects were found, the higher the satisfaction with the particular quality-of-military-life indicator, the higher the over-all satisfaction.

Enlisted members married to military spouses with children. Paralleling the finding for enlisted members married to military spouses with no children, satisfaction with the environment for families was a significant predictor of over-all satisfaction with the military way of life. However, its over-all effect on the dependent was smaller than the effect due to two of the other quality of life indicators: satisfaction with the opportunity to serve one's country and satisfaction with personal freedom. Other significant predictors of over-all satisfaction for this subgroup included satisfaction with current job, pay and allowances, working/environmental conditions, frequency of moving, promotion opportunities, dental care, and job security. Pay grade was also a significant predictor of over-all satisfaction: the higher the pay grade, the higher the over-all satisfaction.

Officers married to military spouses with children. For this subgroup, satisfaction with the environment for families was not found to be a significant correlate of over-all satisfaction with the military way of life. Satisfactions which were important to the over-all satisfaction of officers with military spouses and children included satisfaction with personal freedom, work group/co-workers, and pay and allowances, respectively.

Enlisted members married to civilian spouses without children. This subgroup was not significantly influenced by satisfaction with the environment for families when they rated their over-all satisfaction with the military way of life. Of the other quality-of-military-life indicators, nine were significantly correlated with over-all satisfaction for this subgroup. Of these, satisfaction with the opportunity to serve one's country was the best predictor, followed closely by satisfaction with personal freedom. Satisfaction with medical care, pay and allowances, job training/in-service education, job security, working/environmental

conditions, commissary services, and frequency of moving were also significant predictors, respectively. In addition, both gender and pay grade were found to be significant correlates of over-all satisfaction for this subgroup. Interestingly, although they are demographically few in number compared to other household types in the Army community, enlisted women married to civilian men have higher over-all satisfaction with the military way of life than enlisted men married to civilian women. Pay grade also was significantly correlated with the dependent variable: the higher the pay grade, the higher the over-all satisfaction.

Officers married to civilian spouses with no children. As for the enlisted subgroup above, satisfaction with the environment for families was not a significant correlate of over-all satisfaction with the military way of life for this subgroup. However, seven of the remaining quality-of-military-life indicators were significant predictors of variation in the dependent variable. Satisfaction with the opportunity to serve one's country was the best of these predictors, followed by satisfaction with current job, pay and allowances, personal freedom, acquaintances/friendships, promotion opportunities, and frequency of moving. Pay grade was also correlated with the dependent variable for this subgroup: the higher the pay grade, the higher the satisfaction with the military way of life.

Enlisted members married to civilian spouses with children. For this subgroup, the level of satisfaction with the environment for families was a significant predictor of over-all satisfaction with the military way of life. However, four other satisfiers were actually better predictors of the dependent variable than satisfaction with the environment for families: satisfaction with personal freedom, opportunity to serve one's country, pay and allowances, and job security. Four additional satisfiers were also significant predictors of the dependent variable, but had less relative effect on the dependent variable than the independent variable: satisfaction with medical care, assignment stability, current job, frequency of moving, and promotion opportunities. The analysis also suggested the importance of pay grade to the over-all satisfaction of this subgroup: the higher the pay grade, the greater the satisfaction with the military way of life.

Officers married to civilian spouses with children. Paralleling the finding for enlisted members above, the level of satisfaction with the environment for families was also a

significant predictor of over-all satisfaction for this subgroup. However, its effect on the dependent variable as a predictor was comparatively less than three of the other satisfiers included in the list of quality-of-military-life indicators: satisfaction with personal freedom, assignment stability, and opportunity to serve one's country. Other satisfiers that had less effect on the dependent variable than satisfaction with the environment for families, but which were statistically significant predictors included satisfaction with pay and allowances, commissary services, and promotion opportunities.

## Conclusions and Discussion

In recent years, the military services have developed and revised a number of policies and practices to reduce the stressful affects of the military lifestyle on families as well as to provide additional support services to families in meeting their respective demands. This response has been largely predicated on the assumption that the level of satisfaction that members have with the environment for families in the military is directed related to their level of satisfaction with the military way of life. Despite the importance of this assumption to policy and program efforts, little empirical research has been directed to critically examining this assumption, especially across different subgroups of the military population as well as in the context of additional variables that may mitigate or enhance the nature of this relationship.

Restricted to an Army subsample, the results of this investigation clearly suggest the differential effect that satisfaction with the environment for families has on the over-all satisfaction of members with the military way of life across population subgroups. Although little empirical basis existed for predicting subgroup variations in the nature of this relationship, the affect of satisfaction with the environment for families on over-all satisfaction with the military way of life was limited to four subgroups: enlisted members married to military spouses both with and without children in the household, as well as for enlisted members and officers married to civilian wives with children.

It is concluded from these findings that the development of family-oriented policies and practices in the U.S. Army may have a differential affect on these four population subgroups, either positive or negative. It is especially

important to underscore that each of these subgroups involved a married member, and that three out four subgroups involved married enlisted members, as well as children in the household. Given that approximately 50 percent of the total force in the Army is comprised of members with these household characteristics (47% of enlisted members; 60% of officers) (DMDC, 1986), these findings suggest the critical importance of policy and program efforts on behalf of married military members with family responsibilities, especially those directed toward married enlisted families and married couples with children.

It is interesting to note that in the context of current policies, satisfaction with the environment for families had no significant effect on the level of satisfaction that single parents reported with the military way of life. Past research in the Air Force (Bowen & Orthner, 1986; Orthner & Bowen, 1982) has suggested that single parent families might be particularly sensitive to family-oriented policies and practices.

The results from the present analysis suggest that satisfaction with the environment for families is of less relative importance than other factors in explaining variation in the level of single parent satisfaction with the military way of life. For both enlisted and officer single parents, the gender of the single parent was a critical predictor in determining over-all satisfaction. Interestingly, gender had an opposite effect on the over-all level of satisfaction for officer and enlisted single parents. While enlisted female single parents reported greater over-all satisfaction than enlisted male single parents, officer male single parents reported greater over-all satisfaction than officer female single parents. It may be that it is more normative for females to be single parents in the enlisted as compared to the officer ranks. Demographically, it is much less typical for female officers than female enlisted members to have family responsibilities, and much more typical for officer men than officer women to have family responsibilities (DMDC, 1986).

In general, this investigation indicates the differential effect of quality of life indicators across population subgroups. A particularly interesting finding is the effect of satisfaction with personal freedom on over-all satisfaction across all subgroups, except one: single officers with children. This finding parallels an earlier finding by Orthner and Bowen (1982) of the importance of

satisfaction with rules and regulations on over-all satisfaction with military life.

It is critical to underscore that members who were more satisfied with the level of personal freedom considering current policies reported more over-all satisfaction than those who were more dissatisfied with the level of personal freedom. This finding suggests that members may prefer more of an "occupational" link to military service (i.e., where military service is seen more as a "job" than a "calling") as compared to a more "institutional" model of service (i.e., where the interest of the military organization is seen to transcend individual self interest) (Moskos, 1986; Segal, 1986a). It also suggest that family-oriented policies and practices which are viewed by members as restrictive of or interfering with their personal and family-related autonomy and privacy may actually lower the level of member satisfaction with the military way of life.

Although the present investigation was largely exploratory, its findings should help guide further research into better understanding how satisfaction with the environment for families impacts upon the level of over-all satisfaction that members report with the military way of life. The results of the analysis certainly suggest that policies for families may have a differential effect on the level of member satisfaction with the military way of life across different population subgroups. As a consequence, policies and practices directed toward family issues may need to be tailored to specific population subgroups to maximize their chances for a positive impact on Army-related outcome variables. In some population subgroups, intervention efforts might be better prioritized and directed toward satisfiers in other areas of life besides family life to achieve desired Army-related outcomes.

Further research should extend the present analysis to include civilian spouses as the unit of analysis. It should also move to examine the indirect as well as the direct effects of satisfaction with the environment for families on the dependent variable. For instance, it is recommended that the current list of quality-of-military-life indicators be factor analyzed for purposes of scale construction and the underlying conceptual domains modeled based on a comprehensive literature review. The relationship between these factors could then be examined through a more sophisticated model, using statistical techniques such as path analysis and LISREL. It is also suggested that the

present analysis be duplicated across the other service branches included in the 1985 DoD Survey of Officer and Enlisted Personnel..

## References

American Family (1985, April). Military family services and research on the rise. American Family, pp. 2-7.

Bowen, G.L. (1986a). Intergenerational occupational inheritance in the military: A reexamination. Adolescence, 21, 623-629.

Bowen, G.L. (1986b). Spouse support and the retention intentions of Air Force members: A basis for program development. Evaluation and Program Planning, 9, 209-220.

Bowen, G.L. (1987). An ecosystem model of work and family in the U.S. military. In H.G. Lingren, L. Kimmons, P. Lee, G. Rowe, L. Rottman, L. Schwab & R. Williams (Eds.), Family Strength 8-9: Pathways to well-being (pp. 15-26). Lincoln: University of Nebraska Press.

Bowen, G.L., & Orthner, D.K. (1986). Single parents in the U.S. Air Force. Family Relations, 35, 45-52.

Campbell, A., Converse, P.E., & Rodgers, W.L. (1976). The quality of American life. New York: Russell Sage Foundation.

Defense Manpower Data Center (DMDC) (1986). Description of officers and enlisted personnel in the U.S. Armed Forces (Vol. 1). Arlington, VA: Defense Manpower Data Center.

Goffman, E. (1961). Asylums (1st ed.). Chicago: Aldine Publishing Co.

Hunter, E.J. (1982). Families under the flag. New York: Praeger.

Moskos, C.C. (1986). Institutional/occupational trends in the armed forces: An update. Armed Forces and Society, 12(3), 377-382.

Moybray, E., & Scheirer, M.A. (1984). The influence of location on the reenlistment of Army enlisted personnel. Rockville, MD: Westat, Inc.

Orthner, D.K., & Bowen, G.L. (1982). Families in blue: Insights from Air Force families in the Pacific. Greensboro, NC: Family Development Press.

Orthner, D.K., & Pittman, J. (1986). Family contributions to work commitment. Journal of Marriage and the Family, 48, 573-581.

Segal, D.R. (1986a). Measuring the institutional/occupational change thesis. Armed Forces and Society, 12(3), 351-376.

Segal, M.S. (1986b). The military and the family as greedy institutions. Armed Forces and Society, 13(1), 9-38.

Szoc, R. (1982). Family factors critical to retention. San Diego: Naval Personnel Research and Development Center.

Wickham, J.A., Jr. (1983). The Army white paper. The Chief of Staff, United States Army.

# Appendix

## Survey Items: Quality-of-Military-Life Indicators and Satisfaction with the Military Way of Life

**Below is a list of issues particular to a military way of life. Considering current policies, please indicate your level of satisfaction/dissatisfaction with each issue.**

| For each item, mark if you are: | Very satisfied | Satisfied | Neither satisfied nor dissatisfied | Dissatisfied | Very dissatisfied |
|---|---|---|---|---|---|
| Personal Freedom | O | O | O | O | O |
| Acquaintances/friendships | O | O | O | O | O |
| Work group/co-workers | O | O | O | O | O |
| Assignment stability | O | O | O | O | O |
| Pay and allowances | O | O | O | O | O |
| Environment for families | O | O | O | O | O |
| Frequency of moves | O | O | O | O | O |
| Retirement benefits | O | O | O | O | O |
| Opportunity to serve one's country | O | O | O | O | O |
| Satisfaction with current job | O | O | O | O | O |
| Promotion opportunities | O | O | O | O | O |
| Job training/in-service education | O | O | O | O | O |
| Job security | O | O | O | O | O |
| Working/environmental conditions | O | O | O | O | O |
| Post service educational benefits (VEAP) | O | O | O | O | O |
| Medical care | O | O | O | O | O |
| Dental care | O | O | O | O | O |
| Commissary services | O | O | O | O | O |

**Now, taking all things together, how satisfied are you with the military as a way of life?**

- O Very Dissatisfied
- O Dissatisfied
- O Somewhat Dissatisfied
- O Neither Dissatisfied nor Satisfied
- O Somewhat Satisfied
- O Satisfied
- O Very Satisfied

# Personnel Utilization Technical Area Working Paper 86-10

Topline Results of the 1985 New Recruit Surveys (NRS-85): Advertising Recall and TV Program Viewing Habits

Timothy W. Elig, Rebecca M. Pliske, Paul A. Gade, Michael E. Benedict, Allyn Hertzbach and Deirdre J. Knapp

May 1986

TIMOTHY W. ELIG
Personnel Utilization
Technical Area

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

**U.S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333

**This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.**

# TOPLINE RESULTS OF THE 1985 NEW RECRUIT SURVEYS (NRS-85):

# ADVERTISING RECALL AND TV PROGRAM VIEWING HABITS

ARI has surveyed samples of Army recruits at US Army Reception Stations each year since 1982. Results of these surveys have become an important source of information for Army policy makers and planners. In addition to the ability to track changes in recruits from year to year, this series of surveys offers the Army an opportunity to gather new information in each year of the survey. The 1982 and 1983 NRS were directly commissioned by the Deputy Chief of Staff for Personnel. Since 1984 NRS has been sponsored by the Commander, US Army Recruiting Command.

The objectives of the surveys program have remained constant from year to year despite changes in sponsorship, specific questions and interests. This charter is to determine:

- who is enlisting in the Army and why.
- how to target recruiting resources to attract high quality recruits.
- why recent recruits joined and their propensity to remain in the service.
- which recruiting and advertising practices are proving the most successful and why.

The ARI approach to these projects has involved three weeks of data collection at each US Army Reception station during June through August. Supplemental data collections have also been conducted on selected recruit samples during other periods of the year. See Table 1. During data collection periods all incoming recruits (RA, USAR, ARNG) are surveyed.

Data collection from Reception Stations has been completed for 1984 and 1985. See Tables 2 & 3 for descriptions of the 82-85 NRS summer samples of non prior service (NPS) Active component (RA) recruits.

Initial topline results are presented in this paper for recall of advertising and promotional events, TV viewing habits, and circumstances surrounding first recruiter contact. Effects of the two-year enlistment option are also included because of the recent advertising weight given to this incentive. Two tables are presented for each item:

- Results are presented in the first table on each page for all Active Component recruits who completed the Summer 85 survey.
- Results are then presented for the non-prior-service (NPS) recruits by AFQT category (1980 Youth Norms).

Results for some items are also presented by other demographic variables. Further analyses of these data are planned after the full data base and tabular descriptions of all survey items are completed.

# NEW RECRUIT SURVEY DATA COLLECTION

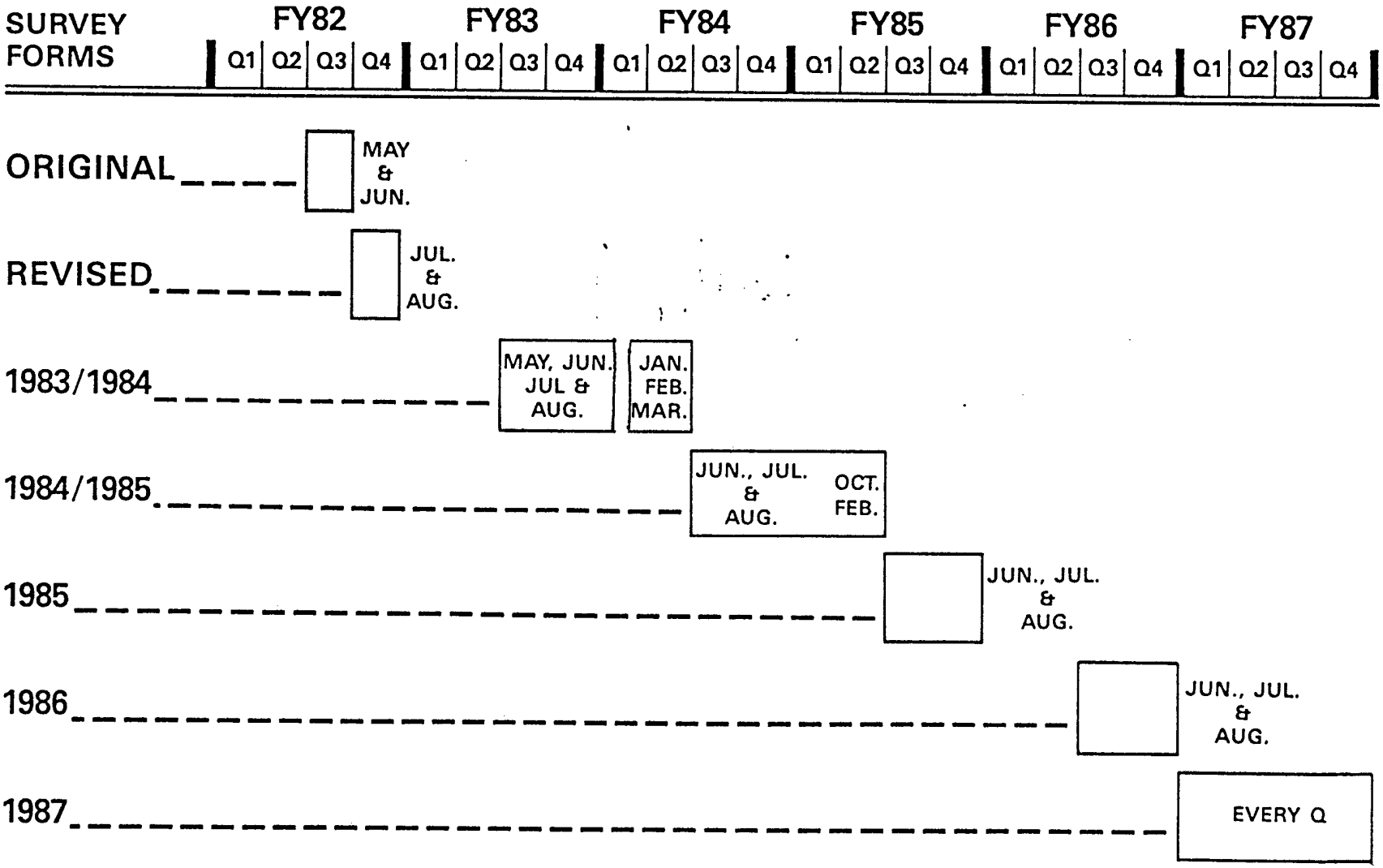



TABLE 1

# SURVEY DEMOGRAPHICS (NPS RA RECRUITS)

**N (1982) = 6318** **N (1983) = 8605**

## AFQT

| | 82 | 83 |
|---|---|---|
| I & II | 31.0 | 36.0 |
| IIIA | 18.9 | 27.8 |
| IIIB | 26.6 | 30.4 |
| IV | 23.5 | 5.8 |
| | 100% | 100% |

## REGION

| | 82 | 83 |
|---|---|---|
| NE | 20.9 | 20.1 |
| SE | 25.1 | 21.0 |
| SW | 15.2 | 16.4 |
| MW | 26.3 | 27.4 |
| WEST | 12.5 | 15.1 |
| | 100% | 100% |

## ETHNIC GROUP

| | 82 | 83 |
|---|---|---|
| WHITE (NOT HISPANIC) | 65.9 | 73.8 |
| BLACK (NOT HISPANIC) | 26.4 | 19.6 |
| HISPANIC | 4.7 | 3.6 |
| OTHER | 3.0 | 3.0 |
| | 100% | 100% |

## EDUCATION

| | 82 | 83 |
|---|---|---|
| HSDG | 91.9 | 83.9 |
| NHSG | 8.1 | 16.1 |
| | 100% | 100% |

## TERM OF ENLISTMENT

| | 82 | 83 |
|---|---|---|
| 2 | 8.5 | 7.7 |
| 3 | 51.0 | 56.2 |
| 4 | 40.5 | 36.1 |
| | 100% | 100% |

## AGE AT CONTRACTING

| | 82 | 83 |
|---|---|---|
| 17 | 33.1 | 39.9 |
| 18 | 25.4 | 22.4 |
| 19 | 13.0 | 12.4 |
| 20 | 8.8 | 7.4 |
| 21-23 | 12.4 | 11.0 |
| 24 OR MORE | 7.3 | 6.9 |
| | 100% | 100% |

## GENDER

| | 82 | 83 |
|---|---|---|
| MALE | 91.1 | 90.4 |
| FEMALE | 8.9 | 9.6 |
| | 100% | 100% |

SOURCE: MEPS REPORTING SYSTEM DATA FOR NPS RA RECRUITS IN 1982 AND 1983
ARI SURVEYS OF NEW RECRUITS

TABLE 2

# SURVEY DEMOGRAPHICS (NPS RA RECRUITS)
## N (1984) = 5,918 N (1985) = 6,992

### AFQT

| | 84 | 85 |
|---|---|---|
| I & II | 31.2 | 37.8 |
| IIIA | 21.4 | 27.6 |
| IIIB | 35.8 | 33.2 |
| IV | 11.6 | 1.3 |
| | 100% | 100% |

### REGION

| | 84 | 85 |
|---|---|---|
| NE | 20.2 | 20.9 |
| SE | 22.2 | 20.2 |
| SW | 14.7 | 14.4 |
| MW | 27.9 | 28.2 |
| WEST | 15.0 | 14.3 |
| | 100% | 100% |

### ETHNIC GROUP

| | 84 | 85 |
|---|---|---|
| WHITE (NOT HISPANIC) | 71.9 | 74.3 |
| BLACK (NOT HISPANIC) | 22.2 | 19.5 |
| HISPANIC | 2.7 | 2.8 |
| OTHER | 3.2 | 3.4 |
| | 100% | 100% |

### EDUCATION

| | 84 | 85 |
|---|---|---|
| HSDG | 11.7 | 8.6 |
| NHSG | 86.9 | 87.8 |
| POST | 1.4 | 3.6 |
| | 100% | 100% |

### TERM OF ENLISTMENT

| | 84 | 85 |
|---|---|---|
| 2 | 9.2 | 10.8 |
| 3 | 58.0 | 50.1 |
| 4 | 32.8 | 39.1 |
| | 100% | 100% |

### AGE AT CONTRACTING

| | 84 | 85 |
|---|---|---|
| 17 | 48.7 | 49.1 |
| 18 | 27.7 | 24.7 |
| 19 | 9.6 | 9.3 |
| 20-24 | 11.6 | 13.0 |
| OVER 24 | 2.4 | 3.9 |
| | 100% | 100% |

### GENDER

| | 84 | 85 |
|---|---|---|
| MALE | 89.1 | 84.0 |
| FEMALE | 10.9 | 16.0 |
| | 100% | 100% |

SOURCE: ORMF DATA FOR NPS RA RECRUITS IN 1984 AND 1985 ARI SURVEYS OF NEW RECRUITS

PREPARED BY:
U.S. ARMY RESEARCH INSTITUTE

TABLE 3

# RECALL OF ADVERTISING AND PROMOTIONAL EVENTS:

# NRS-85 TOPLINE RESULTS

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099A - AN ARMY POST TOUR ACCOMPANIED BY A US ARMY RECRUITER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2192 | 93.3 | 0 | NOT CHECKED |
| 97 | 4.1 | 1 | CHECKED - AN ARMY TOUR ACCOMPANIED BY A US ARMY RECRUITER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 25 | 683 | 601 | 809 | 2118 |
| 1. | 0 | 48 | 25 | 21 | 94 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS --

| T099A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 93.4 | 96.0 | 97.5 | 95.8 |
| 1. | 0.0 | 6.6 | 4.0 | 2.5 | 4.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.06

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 16.884 | 3 | 0.0007 |

Source: NPS RA Recruits,

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099B - A US ARMY SPONSORED OR PRESENTED PROGRAM AT SCHOOL WHERE SOLDIERS DESCRIBE THEIR ARMY EXPERIENCES AND DUTIES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 1983 | 84.4 | 0 | NOT CHECKED |
| 306 | 13.0 | 1 | CHECKED - A US ARMY SPONSORED OR PRESENTED PROGRAM AT SCHOOL WHERE SOLDIERS DESCRIBE THEIR ARMY EXPERIENCES AND DUTIES |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 24 | 618 | 544 | 732 | 1918 |
| 1. | 1 | 113 | 82 | 98 | 294 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 96.0 | 84.5 | 86.9 | 88.2 | 86.7 |
| 1. | 4.0 | 15.5 | 13.1 | 11.8 | 13.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.32

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 6.458 | 3 | 0.0914 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099C - A US ARMY SPONSORED OR PRESENTED HIGH SCHOOL ASSEMBLY PROGRAM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 1799 | 76.6 | 0 | NOT CHECKED |
| 490 | 20.9 | 1 | CHECKED - A US ARMY SPONSORED OR PRESENTED HIGH SCHOOL ASSEMBLY PROGRAM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 19 | 562 | 496 | 661 | 1738 |
| 1. | 6 | 169 | 130 | 169 | 474 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 76.0 | 76.9 | 79.2 | 79.6 | 78.6 |
| 1. | 24.0 | 23.1 | 20.8 | 20.4 | 21.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.36

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.063 | 3 | 0.5594 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099D - A US ARMY PRESENTED OR SPONSORED SPORTS CLINIC

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | . |
| 2249 | 95.7 | 0 | NOT CHECKED |
| 40 | 1.7 | 1 | CHECKED - A US ARMY PRESENTED OR SPONSORED SPORTS CLINIC |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 24 | 711 | 619 | 820 | 2174 |
| 1. | 1 | 20 | 7 | 10 | 38 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 96.0 | 97.3 | 98.9 | 98.8 | 98.3 |
| 1. | 4.0 | 2.7 | 1.1 | 1.2 | 1.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.43

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 7.886 | 3 | 0.0484 |

Source: NPS kA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099E - A US ARMY SPONSORED AWARD OR CERTIFICATE PRESENTED TO A SELECTED HIGH SCHOOL STUDENT

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2125 | 90.4 | 0 | NOT CHECKED |
| 164 | 7.0 | 1 | CHECKED - A US ARMY SPONSORED AWARD OR CERTIFICATE PRESENTED TO A SELECTED HIGH SCHOOL STUDENT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 24 | 672 | 580 | 776 | 2052 |
| 1. | 1 | 59 | 46 | 54 | 160 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 96.0 | 91.9 | 92.7 | 93.5 | 92.8 |
| 1. | 4.0 | 8.1 | 7.3 | 6.5 | 7.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.81

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 1.821 | 3 | 0.6104 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099F - A US ARMY CEREMONIAL UNIT/BAND PARTICIPATING IN A PARADE

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2174 | 92.5 | 0 | NOT CHECKED |
| 115 | 4.9 | 1 | CHECKED - A US ARMY CEREMONIAL UNIT/BAND PARTICIPATING IN A PARADE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 25 | 708 | 589 | 780 | 2102 |
| 1. | 0 | 23 | 37 | 50 | 110 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 96.9 | 94.1 | 94.0 | 95.0 |
| 1. | 0.0 | 3.1 | 5.9 | 6.0 | 5.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.24

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.575 | 3 | 0.0226 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099G - A US ARMY PARACHUTE TEAM JUMP

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2149 | 91.4 | 0 | NOT CHECKED |
| 140 | 6.0 | 1 | CHECKED - A US ARMY PARACHUTE TEAM JUMP |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 24 | 695 | 587 | 773 | 2079 |
| 1. | 1 | 36 | 39 | 57 | 133 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 96.0 | 95.1 | 93.8 | 93.1 | 94.0 |
| 1. | 4.0 | 4.9 | 6.2 | 6.9 | 6.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.50

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.836 | 3 | 0.4177 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099H - AN ARMY INFORMATION BOOTH AT A JOBS FAIR

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2088 | 88.9 | 0 | NOT CHECKED |
| 201 | 8.6 | 1 | CHECKED - AN ARMY INFORMATION BOOTH AT A JOBS FAIR |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 22 | 687 | 563 | 745 | 2017 |
| 1. | 3 | 44 | 63 | 85 | 195 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 88.0 | 94.0 | 89.9 | 89.8 | 91.2 |
| 1. | 12.0 | 6.0 | 10.1 | 10.2 | 8.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.20

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 10.738 | 3 | 0.0132 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099I - AN ARMY INFORMATION BOOTH AT A SHOPPING MALL OR IN A BUSINESS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2127 | 90.5 | 0 | NOT CHECKED |
| 162 | 6.9 | 1 | CHECKED - AN ARMY INFORMATION BOOTH AT A SHOPPING MALL OR IN A BUSINESS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 24 | 681 | 580 | 768 | 2053 |
| 1. | 1 | 50 | 46 | 62 | 159 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 96.0 | 93.2 | 92.7 | 92.5 | 92.8 |
| 1. | 4.0 | 6.8 | 7.3 | 7.5 | 7.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 1.80

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 0.637 | 3 | 0.8880 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE REGULAR ACTIVE ARMY (NOT THE US ARMY RESERVE)?
T099J - NONE OF THE ABOVE

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 956 | 40.7 | 0 | NOT CHECKED |
| 1333 | 56.7 | 1 | CHECKED - NONE OF THE ABOVE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T099J | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 9 | 339 | 255 | 326 | 929 |
| 1. | 16 | 392 | 371 | 504 | 1283 |
| TOTAL | 25 | 731 | 626 | 830 | 2212 |

***** PERCENTS OF COLUMN TOTALS

| T099J | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 36.0 | 46.4 | 40.7 | 39.3 | 42.0 |
| 1. | 64.0 | 53.6 | 59.3 | 60.7 | 58.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 10.50

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.050 | 3 | 0.0286 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T100A - SENT A CARD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 70 | 3.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 2110 | 89.8 | 0 | NOT CHECKED |
| 170 | 7.2 | 1 | CHECKED - SENT A CARD |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T100A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 22 | 656 | 586 | 776 | 2040 |
| 1. | 2 | 71 | 41 | 49 | 163 |
| TOTAL | 24 | 727 | 627 | 825 | 2203 |

***** PERCENTS OF COLUMN TOTALS

| T100A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 91.7 | 90.2 | 93.5 | 94.1 | 92.6 |
| 1. | 8.3 | 9.8 | 6.5 | 5.9 | 7.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.78

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.218 | 3 | 0.0265 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T100B - CALLED A TOLL FREE NUMBER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 70 | 3.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 2233 | 95.0 | 0 | NOT CHECKED |
| 47 | 2.0 | 1 | CHECKED - CALLED A TOLL FREE NUMBER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T100B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 23 | 703 | 613 | 818 | 2157 |
| 1. | 1 | 24 | 14 | 7 | 46 |
| TOTAL | 24 | 727 | 627 | 825 | 2203 |

***** PERCENTS OF COLUMN TOTALS -

| T100B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 95.8 | 96.7 | 97.8 | 99.2 | 97.9 |
| 1. | 4.2 | 3.3 | 2.2 | 0.8 | 2.1 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.50

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 12.006 | 3 | 0.0074 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T100C - CONTACTED A US ARMY RECRUITER AT THE EVENT

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 70 | 3.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 2036 | 86.6 | 0 | NOT CHECKED |
| 244 | 10.4 | 1 | CHECKED - CONTACTED A US ARMY RECRUITER AT THE EVENT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T100C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 622 | 565 | 762 | 1970 |
| 1. | 3 | 105 | 62 | 63 | 233 |
| TOTAL | 24 | 727 | 627 | 825 | 2203 |

***** PERCENTS OF COLUMN TOTALS -

| T100C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 87.5 | 85.6 | 90.1 | 92.4 | 89.4 |
| 1. | 12.5 | 14.4 | 9.9 | 7.6 | 10.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 2.54

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 19.439 | 3 | 0.0002 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T100D - CONTACTED A US ARMY RECRUITER AFTER THE EVENT

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 70 | 3.0 | . | NO RESPONSE |
| 4873 | . | D | NOT CHECKED |
| 1947 | 82.9 | 0 | CHECKED - CONTACTED A US ARMY RECRUITER AFTER THE EVENT |
| 333 | 14.2 | 1 | |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T100D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 22 | 594 | 531 | 734 | 1881 |
| 1. | 2 | 133 | 96 | 91 | 322 |
| TOTAL | 24 | 727 | 627 | 825 | 2203 |

***** PERCENTS OF COLUMN TOTALS -

| T100D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 91.7 | 81.7 | 84.7 | 89.0 | 85.4 |
| 1. | 8.3 | 18.3 | 15.3 | 11.0 | 14.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.51

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 17.383 | 3 | 0.0006 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T100E - SOUGHT OUT A FRIEND WHO HAD ENLISTED OR WAS ABOUT TO ENLIST

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 71 | 3.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 1977 | 84.1 | 0 | NOT CHECKED |
| 302 | 12.9 | 1 | CHECKED - SOUGHT OUT A FRIEND WHO HAD ENLISTED OR WAS ABOUT TO ENLIST |
| 7223 | 100.0 | TOTALS | |

***** OBSERVED FREQUENCY

| T100E | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 22 | 605 | 544 | 738 | 1909 |
| 1. | 2 | 121 | 83 | 87 | 293 |
| TOTAL | 24 | 726 | 627 | 825 | 2202 |

***** PERCENTS OF COLUMN TOTALS -

| T100E | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 91.7 | 83.3 | 86.8 | 89.5 | 86.7 |
| 1. | 8.3 | 16.7 | 13.2 | 10.5 | 13.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 3.19

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 13.075 | 3 | 0.0045 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T100F - NONE OF THE ABOVE/DOES NOT APPLY

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 70 | 3.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 776 | 33.0 | 0 | NOT CHECKED |
| 1504 | 64.0 | 1 | CHECKED - NONE OF THE ABOVE/DOES NOT APPLY |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T100F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 10 | 318 | 208 | 215 | 751 |
| 1. | 14 | 409 | 419 | 610 | 1452 |
| TOTAL | 24 | 727 | 627 | 825 | 2203 |

***** PERCENTS OF COLUMN TOTALS -

| T100F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 41.7 | 43.7 | 33.2 | 26.1 | 34.1 |
| 1. | 58.3 | 56.3 | 66.8 | 73.9 | 65.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 8.18

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 54.659 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101A - AN ARMY POST TOUR ACCOMPANIED BY A US ARMY RECRUITER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2096 | 89.2 | 0 | NOT CHECKED |
| 29 | 1.2 | 1 | CHECKED - AN ARMY POST TOUR ACCOMPANIED BY A US ARMY RECRUITER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 644 | 573 | 786 | 2024 |
| 1. | 0 | 16 | 7 | 4 | 27 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS -

| T101A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 97.6 | 98.8 | 99.5 | 98.7 |
| 1. | 0.0 | 2.4 | 1.2 | 0.5 | 1.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.28

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 10.559 | 3 | 0.0144 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101B - A US ARMY RESERVE SPONSORED OR PRESENTED PROGRAM AT SCHOOL WHERE SOLDIERS DESCRIBE THEIR ARMY EXPERIENCE AND DUTIES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2049 | 87.2 | 0 | NOT CHECKED |
| 76 | 3.2 | 1 | CHECKED - A US ARMY RESERVE SPONSORED OR PRESENTED PROGRAM AT SCHOOL WHERE SOLDIERS DESCRIBE THEIR ARMY EXPERIENCE AND DUTIES |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 625 | 561 | 772 | 1979 |
| 1. | 0 | 35 | 19 | 18 | 72 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS -

| T101B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 94.7 | 96.7 | 97.7 | 96.5 |
| 1. | 0.0 | 5.3 | 3.3 | 2.3 | 3.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.74

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 10.659 | 3 | 0.0137 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101C - A US ARMY RESERVE SPONSORED OR PRESENTED HIGH SCHOOL ASSEMBLY PROGRAM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2000 | 85.1 | 0 | NOT CHECKED |
| 125 | 5.3 | 1 | CHECKED - A US ARMY RESERVE SPONSORED OR PRESENTED HIGH SCHOOL ASSEMBLY PROGRAM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101C / AFQTCAT | 4A4B | 3B | 3A | 1&2 | TOTAL |
|---|---|---|---|---|---|
| 0. | 19 | 606 | 546 | 762 | 1933 |
| 1. | 2 | 54 | 34 | 28 | 118 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS -

| T101C / AFQTCAT | 4A4B | 3B | 3A | 1&2 | TOTAL |
|---|---|---|---|---|---|
| 0. | 90.5 | 91.8 | 94.1 | 96.5 | 94.2 |
| 1. | 9.5 | 8.2 | 5.9 | 3.5 | 5.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 1.21

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 14.851 | 3 | 0.0019 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101D - A US ARMY RESERVE PRESENTED OR SPONSORED SPORTS CLINIC

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2108 | 89.7 | 0 | NOT CHECKED |
| 17 | 0.7 | 1 | CHECKED - A US ARMY RESERVE PRESENTED OR SPONSORED SPORTS CLINIC |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 20 | 650 | 580 | 785 | 2035 |
| 1. | 1 | 10 | 0 | 5 | 16 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS --

| T101D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 95.2 | 98.5 | 100.0 | 99.4 | 99.2 |
| 1. | 4.8 | 1.5 | 0.0 | 0.6 | 0.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.16

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 13.690 | 3 | 0.0034 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101E - A US ARMY RESERVE SPONSORED AWARD OR CERTIFICATE PRESENTED TO A SELECTED HIGH SCHOOL STUDENT

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2079 | 88.5 | 0 | NOT CHECKED |
| 46 | 2.0 | 1 | CHECKED - A US ARMY RESERVE SPONSORED AWARD OR CERTIFICATE PRESENTED TO A SELECTED HIGH SCHOOL STUDENT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 639 | 566 | 781 | 2007 |
| 1. | 0 | 21 | 14 | 9 | 44 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS -

| T101E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 96.8 | 97.6 | 98.9 | 97.9 |
| 1. | 0.0 | 3.2 | 2.4 | 1.1 | 2.1 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.45

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 7.846 | 3 | 0.0493 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101F - A US ARMY RESERVE CEREMONIAL UNIT/BAND PARTICIPATING IN A PARADE

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2092 | 89.0 | 0 | NOT CHECKED |
| 33 | 1.4 | 1 | CHECKED - A US ARMY RESERVE CEREMONIAL UNIT/BAND PARTICIPATING IN A PARADE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 655 | 564 | 778 | 2018 |
| 1. | 0 | 5 | 16 | 12 | 33 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS -

| T101F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 99.2 | 97.2 | 98.5 | 98.4 |
| 1. | 0.0 | 0.8 | 2.8 | 1.5 | 1.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.34

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 8.248 | 3 | 0.0412 |

Source: NPS RA Recruits, New Recruit Survey 1985

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101G - US ARMY RESERVE PARACHUTE TEAM JUMP SPONSORED BY THE RESERVES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2103 | 89.5 | 0 | NOT CHECKED |
| 22 | 0.9 | 1 | CHECKED - US ARMY RESERVE PARACHUTE TEAM JUMP SPONSORED BY THE RESERVES |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 20 | 654 | 574 | 782 | 2030 |
| 1. | 1 | 6 | 6 | 8 | 21 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS --

| T101G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 95.2 | 99.1 | 99.0 | 99.0 | 99.0 |
| 1. | 4.8 | 0.9 | 1.0 | 1.0 | 1.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.22

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.983 | 3 | 0.3943 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101H - AN ARMY RESERVE INFORMATION BOOTH AT A JOBS FAIR

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2070 | 88.1 | 0 | NOT CHECKED |
| 55 | 2.3 | 1 | CHECKED - AN ARMY RESERVE INFORMATION BOOTH AT A JOBS FAIR |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 647 | 562 | 769 | 1999 |
| 1. | 0 | 13 | 18 | 21 | 52 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS -

| T101H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 98.0 | 96.9 | 97.3 | 97.5 |
| 1. | 0.0 | 2.0 | 3.1 | 2.7 | 2.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.53

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.207 | 3 | 0.5306 |

Source: NPS RA Recruits,

Prepared by:
US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101I - AN ARMY RESERVE INFORMATION BOOTH AT A SHOPPING MALL OR IN A BUSINESS DISTRICT

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 2084 | 88.7 | 0 | NOT CHECKED |
| 41 | 1.7 | 1 | CHECKED - AN ARMY RESERVE INFORMATION BOOTH AT A SHOPPING MALL OR IN A BUSINESS DISTRICT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 648 | 568 | 773 | 2010 |
| 1. | 0 | 12 | 12 | 17 | 41 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS --

| T101I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 98.2 | 97.9 | 97.8 | 98.0 |
| 1. | 0.0 | 1.8 | 2.1 | 2.2 | 2.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.42

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 0.647 | 3 | 0.8855 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

BEFORE YOU ENLISTED DID YOU SEE OR PARTICIPATE IN ANY OF THESE EVENTS SPONSORED BY THE US ARMY RESERVE (NOT THE REGULAR ACTIVE ARMY)?
T101J - NONE OF THE ABOVE

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 225 | 9.6 | . | NO RESPONSE |
| 4873 | . | D | |
| 305 | 13.0 | 0 | NOT CHECKED |
| 1820 | 77.4 | 1 | CHECKED - NONE OF THE ABOVE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T101J | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 4 | 126 | 78 | 84 | 292 |
| 1. | 17 | 534 | 502 | 706 | 1759 |
| TOTAL | 21 | 660 | 580 | 790 | 2051 |

***** PERCENTS OF COLUMN TOTALS --

| T101J | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 19.0 | 19.1 | 13.4 | 10.6 | 14.2 |
| 1. | 81.0 | 80.9 | 86.6 | 89.4 | 85.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.99

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 21.833 | 3 | 0.0001 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T102A - SENT A CARD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 188 | 8.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 2082 | 88.6 | 0 | NOT CHECKED |
| 80 | 3.4 | 1 | CHECKED - SENT A CARD |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T102A / AFQTCAT | 4A4B | 3B | 3A | 1&2 | TOTAL |
|---|---|---|---|---|---|
| 0. | 21 | 630 | 573 | 785 | 2009 |
| 1. | 1 | 45 | 19 | 13 | 78 |
| TOTAL | 22 | 675 | 592 | 798 | 2087 |

***** PERCENTS OF COLUMN TOTALS --

| T102A / AFQTCAT | 4A4B | 3B | 3A | 1&2 | TOTAL |
|---|---|---|---|---|---|
| 0. | 95.5 | 93.3 | 96.8 | 98.4 | 96.3 |
| 1. | 4.5 | 6.7 | 3.2 | 1.6 | 3.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.82

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 26.457 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?

T102B - CALLED A TOLL FREE NUMBER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 188 | 8.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 2130 | 90.6 | 0 | NOT CHECKED |
| 32 | 1.4 | 1 | CHECKED - CALLED A TOLL FREE NUMBER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T102B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 22 | 657 | 585 | 793 | 2057 |
| 1. | 0 | 18 | 7 | 5 | 30 |
| TOTAL | 22 | 675 | 592 | 798 | 2087 |

***** PERCENTS OF COLUMN TOTALS --

| T102B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 97.3 | 98.8 | 99.4 | 98.6 |
| 1. | 0.0 | 2.7 | 1.2 | 0.6 | 1.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.32

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 11.495 | 3 | 0.0093 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T102C - CONTACTED A US ARMY RECRUITER AT THE EVENT

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 188 | 8.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 2055 | 87.4 | 0 | NOT CHECKED |
| 107 | 4.6 | 1 | CHECKED - CONTACTED A US ARMY RECRUITER AT THE EVENT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T102C / AFQTCAT | 4A4B | 3B | 3A | 1&2 | TOTAL |
|---|---|---|---|---|---|
| 0. | 21 | 620 | 575 | 769 | 1985 |
| 1. | 1 | 55 | 17 | 29 | 102 |
| TOTAL | 22 | 675 | 592 | 798 | 2087 |

***** PERCENTS OF COLUMN TOTALS --

| T102C / AFQTCAT | 4A4B | 3B | 3A | 1&2 | TOTAL |
|---|---|---|---|---|---|
| 0. | 95.5 | 91.9 | 97.1 | 96.4 | 95.1 |
| 1. | 4.5 | 8.1 | 2.9 | 3.6 | 4.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.08

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 23.316 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T102D - CONTACTED A US ARMY RECRUITER AFTER THE EVENT

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 188 | 8.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 2002 | 85.2 | 0 | NOT CHECKED |
| 160 | 6.8 | 1 | CHECKED - CONTACTED A US ARMY RECRUITER AFTER THE EVENT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T102D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 19 | 590 | 556 | 770 | 1935 |
| 1. | 3 | 85 | 36 | 28 | 152 |
| TOTAL | 22 | 675 | 592 | 798 | 2087 |

***** PERCENTS OF COLUMN TOTALS --

| T102D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| . | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 86.4 | 87.4 | 93.9 | 96.5 | 92.7 |
| 1. | 13.6 | 12.6 | 6.1 | 3.5 | 7.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.60

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 47.596 | 3 | 0.0000 |

Source: NPS RA Recruits,

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T102E - SOUGHT OUT A FRIEND WHO HAD ENLISTED OR WAS ABOUT TO ENLIST

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 188 | 8.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 2038 | 86.7 | 0 | NOT CHECKED |
| 124 | 5.3 | 1 | CHECKED - SOUGHT OUT A FRIEND WHO HAD ENLISTED OR WAS ABOUT TO ENLIST |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T102E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 22 | 618 | 564 | 768 | 1972 |
| 1. | 0 | 57 | 28 | 30 | 115 |
| TOTAL | 22 | 675 | 592 | 798 | 2087 |

***** PERCENTS OF COLUMN TOTALS --

| T102E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 91.6 | 95.3 | 96.2 | 94.5 |
| 1. | 0.0 | 8.4 | 4.7 | 3.8 | 5.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.21

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 17.835 | 3 | 0.0005 |

Source: NPS RA Recruits,

Prepared by:
US Army Research Institute

AS A RESULT OF THE EXPOSURE TO THE EVENTS ABOVE, DID YOU SEEK FURTHER INFORMATION ON THE ARMY?
T102F - NONE OF THE ABOVE/DOES NOT APPLY

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 188 | 8.0 | . | NO RESPONSE |
| 4873 | . | D | |
| 374 | 15.9 | 0 | NOT CHECKED |
| 1788 | 76.1 | 1 | CHECKED - NONE OF THE ABOVE/DOES NOT APPLY |
| 7223 | 100.0 | TOTALS | |

***** OBSERVED FREQUENCY

| T102F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 5 | 188 | 85 | 79 | 357 |
| 1. | 17 | 487 | 507 | 719 | 1730 |
| TOTAL | 22 | 675 | 592 | 798 | 2087 |

***** PERCENTS OF COLUMN TOTALS --

| T102F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 22.7 | 27.9 | 14.4 | 9.9 | 17.1 |
| 1. | 77.3 | 72.1 | 85.6 | 90.1 | 82.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.76

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 87.836 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985

Prepared by: US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114A - ON TELEVISION

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 716 | 14.9 | 0 | NOT CHECKED |
| 3570 | 74.1 | 1 | CHECKED - ON TELEVISION |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 16 | 345 | 175 | 158 | 694 |
| 1. | 39 | 1011 | 935 | 1475 | 3460 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 29.1 | 25.4 | 15.8 | 9.7 | 16.7 |
| 1. | 70.9 | 74.6 | 84.2 | 90.3 | 83.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 9.19

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 139.148 | 3 | 0.0000 |

Source: NPS RA Recruits,

Prepared by:
US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114B - IN MAGAZINES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 1244 | 25.8 | 0 | NOT CHECKED |
| 3042 | 63.2 | 1 | CHECKED - IN MAGAZINES |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 22 | 518 | 323 | 335 | 1198 |
| 1. | 33 | 838 | 787 | 1298 | 2956 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 40.0 | 38.2 | 29.1 | 20.5 | 28.8 |
| 1. | 60.0 | 61.8 | 70.9 | 79.5 | 71.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 15.86

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 116.424 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116G - BOOKLET ABOUT ARMY COLLEGE FUND

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 1682 | 34.9 | 0 | NOT CHECKED |
| 1367 | 28.4 | 1 | CHECKED - BOOKLET ABOUT ARMY COLLEGE FUND |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 26 | 574 | 423 | 607 | 1630 |
| 1. | 14 | 473 | 357 | 489 | 1333 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 65.0 | 54.8 | 54.2 | 55.4 | 55.0 |
| 1. | 35.0 | 45.2 | 45.8 | 44.6 | 45.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 18.00

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 1.881 | 3 | 0.5975 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114C - ON THE RADIO

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 1809 | 37.6 | 0 | NOT CHECKED |
| 2477 | 51.4 | 1 | CHECKED - ON THE RADIO |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 29 | 711 | 482 | 531 | 1753 |
| 1. | 26 | 645 | 628 | 1102 | 2401 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 52.7 | 52.4 | 43.4 | 32.5 | 42.2 |
| 1. | 47.3 | 47.6 | 56.6 | 67.5 | 57.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 23.21

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 124.175 | 3 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114D - IN THE HELP WANTED SECTION OF THE NEWSPAPER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 3807 | 79.0 | 0 | NOT CHECKED |
| 479 | 9.9 | 1 | CHECKED - IN THE HELP WANTED SECTION OF THE NEWSPAPER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 51 | 1237 | 1001 | 1400 | 3689 |
| 1. | 4 | 119 | 109 | 233 | 465 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 92.7 | 91.2 | 90.2 | 85.7 | 88.8 |
| 1. | 7.3 | 8.8 | 9.8 | 14.3 | 11.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 6.16

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 26.461 | 3 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114E - IN OTHER PARTS OF THE NEWSPAPER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 3812 | 79.2 | 0 | NOT CHECKED |
| 474 | 9.8 | 1 | CHECKED - IN OTHER PARTS OF THE NEWSPAPER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 50 | 1237 | 995 | 1412 | 3694 |
| 1. | 5 | 119 | 115 | 221 | 460 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 90.9 | 91.2 | 89.6 | 86.5 | 88.9 |
| 1. | 9.1 | 8.8 | 10.4 | 13.5 | 11.1 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 6.09

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 18.097 | 3 | 0.0004 |

Source: NPS RA Recruits,

Prepared by:
US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114F - IN THE MAIL

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 1454 | 30.2 | 0 | NOT CHECKED |
| 2832 | 58.8 | 1 | CHECKED - IN THE MAIL |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 17 | 494 | 385 | 505 | 1401 |
| 1. | 38 | 862 | 725 | 1128 | 2753 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 30.9 | 36.4 | 34.7 | 30.9 | 33.7 |
| 1. | 69.1 | 63.6 | 65.3 | 69.1 | 66.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 18.55

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 10.823 | 3 | 0.0127 |

Source: NPS RA Recruits,
New Recruit Survey 1985

Prepared by:
US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114G - IN AN ARMY RECRUITING STATION

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 1541 | 32.0 | 0 | NOT CHECKED |
| 2745 | 57.0 | 1 | CHECKED - IN AN ARMY RECRUITING STATION |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 26 | 529 | 410 | 529 | 1494 |
| 1. | 29 | 827 | 700 | 1104 | 2660 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 47.3 | 39.0 | 36.9 | 32.4 | 36.0 |
| 1. | 52.7 | 61.0 | 63.1 | 67.6 | 64.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 19.78

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 18.015 | 3 | 0.0004 |

Source: NPS RA Recruits,

Prepared by:

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114H - AT SCHOOL

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 1458 | 30.3 | 0 | NOT CHECKED |
| 2828 | 58.7 | 1 | CHECKED - AT SCHOOL |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 18 | 474 | 380 | 533 | 1405 |
| 1. | 37 | 882 | 730 | 1100 | 2749 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 32.7 | 35.0 | 34.2 | 32.6 | 33.8 |
| 1. | 67.3 | 65.0 | 65.8 | 67.4 | 66.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 18.60

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 1.913 | 3 | 0.5907 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114I - FROM A FRIEND

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 130 | 2.7 | . | NO RESPONSE |
| 400 | 8.3 | C | VALID SKIP |
| 2407 | . | D | |
| 2671 | 55.5 | 0 | NOT CHECKED |
| 1615 | 33.5 | 1 | CHECKED - FROM A FRIEND |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 38 | 860 | 685 | 1006 | 2589 |
| 1. | 17 | 496 | 425 | 627 | 1565 |
| TOTAL | 55 | 1356 | 1110 | 1633 | 4154 |

***** PERCENTS OF COLUMN TOTALS --

| T114I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 69.1 | 63.4 | 61.7 | 61.6 | 62.3 |
| 1. | 30.9 | 36.6 | 38.3 | 38.4 | 37.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 20.72

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.306 | 3 | 0.5114 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHERE DID YOU SEE OR HEAR THIS MATERIAL? (CIRCLE ALL THAT APPLY)
T114J - DO YOU REMEMBER SEEING, HEARING, OR RECEIVING ANY ARMY ADVERTISING OR PROMOTIONAL MATERIAL BEFORE YOU ENLISTED?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 31 | 0.6 | . | NO RESPONSE |
| 2407 | . | D | |
| 4385 | 91.1 | 1 | YES |
| 400 | 8.3 | 2 | NO |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114J | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 55 | 1402 | 1145 | 1650 | 4252 |
| 2. | 6 | 140 | 116 | 122 | 384 |
| TOTAL | 61 | 1542 | 1261 | 1772 | 4636 |

***** PERCENTS OF COLUMN TOTALS --

| T114J | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 90.2 | 90.9 | 90.8 | 93.1 | 91.7 |
| 2. | 9.8 | 9.1 | 9.2 | 6.9 | 8.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.05

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 7.433 | 3 | 0.0593 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T114K1 -- RESPONSE #1 - WHERE DID YOU SEE OR HEAR THIS MATERIAL?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 132 | 2.7 | . | NO RESPONSE |
| 4386 | 91.1 | C | VALID SKIP |
| 2407 | . | D | |
| 141 | 2.9 | 1 | FROM A RELATIVE |
| 8 | 0.2 | 2 | BOOKS |
| 61 | 1.3 | 3 | BILLBOARDS AND OTHER SIGNS |
| 77 | 1.6 | 4 | CONTACTED BY A RECRUITER (BY PHONE) |
| 1 | 0.0 | 10 | NOT VALID |
| 10 | 0.2 | 95 | OTHER RESPONSE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T114K1 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1.0 | 2 | 38 | 53 | 45 | 138 |
| 2.0 | 0 | 1 | 2 | 5 | 8 |
| 3.0 | 1 | 14 | 18 | 27 | 60 |
| 4.0 | 0 | 17 | 24 | 32 | 73 |
| 10. | 0 | 0. | 0 | 1 | 1 |
| 95. | 0 | 4 | 3 | 3 | 10 |
| TOTAL | 3 | 74 | 100 | 113 | 290 |

***** PERCENTS OF COLUMN TOTALS --

| T114K1 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1.0 | 66.7 | 51.4 | 53.0 | 39.8 | 47.6 |
| 2.0 | 0.0 | 1.4 | 2.0 | 4.4 | 2.8 |
| 3.0 | 33.3 | 18.9 | 18.0 | 23.9 | 20.7 |
| 4.0 | 0.0 | 23.0 | 24.0 | 28.3 | 25.2 |
| 10. | 0.0 | 0.0 | 0.0 | 0.9 | 0.3 |
| 95. | 0.0 | 5.4 | 3.0 | 2.7 | 3.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.01

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.864 | 15 | 0.8282 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

HOW DID YOU RESPOND TO THESE ADVERTISEMENTS?
T115A - BY SENDING IN A CARD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 167 | 3.5 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 1509 | 31.3 | 0 | NOT CHECKED |
| 1667 | 34.6 | 1 | CHECKED - BY SENDING IN A CARD |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T115A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 524 | 416 | 498 | 1459 |
| 1. | 20 | 561 | 409 | 635 | 1625 |
| TOTAL | 41 | 1085 | 825 | 1133 | 3084 |

***** PERCENTS OF COLUMN TOTALS --

| T115A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 51.2 | 48.3 | 50.4 | 44.0 | 47.3 |
| 1. | 48.8 | 51.7 | 49.6 | 56.0 | 52.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 19.40

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.002 | 3 | 0.0293 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

HOW DID YOU RESPOND TO THESE ADVERTISEMENTS?
T115B - BY CALLING A TOLL FREE NUMBER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 167 | 3.5 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2984 | 62.0 | 0 | NOT CHECKED |
| 192 | 4.0 | 1 | CHECKED - BY CALLING A TOLL FREE NUMBER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T115B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 37 | 1018 | 769 | 1072 | 2896 |
| 1. | 4 | 67 | 56 | 61 | 188 |
| TOTAL | 41 | 1085 | 825 | 1133 | 3084 |

***** PERCENTS OF COLUMN TOTALS --

| T115B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 90.2 | 93.8 | 93.2 | 94.6 | 93.9 |
| 1. | 9.8 | 6.2 | 6.8 | 5.4 | 6.1 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.50

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.665 | 3 | 0.4462 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

HOW DID YOU RESPOND TO THESE ADVERTISEMENTS?
T115C - BY CONTACTING AN ARMY RECRUITER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 167 | 3.5 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 815 | 16.9 | 0 | NOT CHECKED |
| 2361 | 49.0 | 1 | CHECKED - BY CONTACTING AN ARMY RECRUITER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T115C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 12 | 284 | 199 | 300 | 795 |
| 1. | 29 | 801 | 626 | 833 | 2289 |
| TOTAL | 41 | 1085 | 825 | 1133 | 3084 |

***** PERCENTS OF COLUMN TOTALS --

| T115C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 29.3 | 26.2 | 24.1 | 26.5 | 25.8 |
| 1. | 70.7 | 73.8 | 75.9 | 73.5 | 74.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 10.57

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 1.825 | 3 | 0.6096 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

HOW DID YOU RESPOND TO THESE ADVERTISEMENTS?
T115D - DID YOU EVER RESPOND TO ANY OF THESE ARMY ADVERTISEMENTS?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 125 | 2.6 | . | NO RESPONSE |
| 370 | 7.7 | C | VALID SKIP |
| 2407 | . | D | |
| 3217 | 66.8 | 1 | YES |
| 1104 | 22.9 | 2 | NO |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T115D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 43 | 1098 | 835 | 1148 | 3124 |
| 2. | 14 | 270 | 285 | 493 | 1062 |
| TOTAL | 57 | 1368 | 1120 | 1641 | 4186 |

***** PERCENTS OF COLUMN TOTALS --

| T115D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 75.4 | 80.3 | 74.6 | 70.0 | 74.6 |
| 2. | 24.6 | 19.7 | 25.4 | 30.0 | 25.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 14.46

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 41.874 | 3 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116A - I NEVER SENT A CARD IN RESPONSE TO AN ARMY AD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2096 | 43.5 | 0 | NOT CHECKED |
| 953 | 19.8 | 1 | CHECKED - I NEVER SENT A CARD IN RESPONSE TO AN ARMY AD |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 28 | 769 | 518 | 725 | 2040 |
| 1. | 12 | 278 | 262 | 371 | 923 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 70.0 | 73.4 | 66.4 | 66.1 | 68.8 |
| 1. | 30.0 | 26.6 | 33.6 | 33.9 | 31.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 12.46

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 16.236 | 3 | 0.0010 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116B - I NEVER RECEIVED A RESPONSE IN THE MAIL FROM THE CARD I SENT IN

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2949 | 61.2 | 0 | NOT CHECKED |
| 100 | 2.1 | 1 | CHECKED - I NEVER RECEIVED A RESPONSE IN THE MAIL FROM THE CARD I SENT IN |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 40 | 1020 | 751 | 1056 | 2867 |
| 1. | 0 | 27 | 29 | 40 | 96 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 100.0 | 97.4 | 96.3 | 96.4 | 96.8 |
| 1. | 0.0 | 2.6 | 3.7 | 3.6 | 3.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.30

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 3.954 | 3 | 0.2664 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116C - LETTER TELLING ME LOCATION OF ARMY RECRUITING STATION

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2388 | 49.6 | 0 | NOT CHECKED |
| 661 | 13.7 | 1 | CHECKED - LETTER TELLING ME LOCATION OF ARMY RECRUITING STATION |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 28 | 778 | 638 | 876 | 2320 |
| 1. | 12 | 269 | 142 | 220 | 643 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 70.0 | 74.3 | 81.8 | 79.9 | 78.3 |
| 1. | 30.0 | 25.7 | 18.2 | 20.1 | 21.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 8.68

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 18.758 | 3 | 0.0003 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116D - A GIFT LIKE TUBE SOCKS OR WRIST BANDS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 1966 | 40.8 | 0 | NOT CHECKED |
| 1083 | 22.5 | 1 | CHECKED - A GIFT LIKE TUBE SOCKS OR WRIST BANDS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 19 | 645 | 531 | 709 | 1904 |
| 1. | 21 | 402 | 249 | 387 | 1059 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS ---

| T116D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 47.5 | 61.6 | 68.1 | 64.7 | 64.3 |
| 1. | 52.5 | 38.4 | 31.9 | 35.3 | 35.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 14.30

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 13.143 | 3 | 0.0043 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116E - A POSTER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2701 | 56.1 | 0 | NOT CHECKED |
| 348 | 7.2 | 1 | CHECKED - A POSTER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116E | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 35 | 901 | 694 | 990 | 2620 |
| 1. | 5 | 146 | 86 | 106 | 343 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116E | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 87.5 | 86.1 | 89.0 | 90.3 | 88.4 |
| 1. | 12.5 | 13.9 | 11.0 | 9.7 | 11.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.63

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.886 | 3 | 0.0196 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116F - BOOKLET ABOUT ARMY SERVICE

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 1584 | 32.9 | 0 | NOT CHECKED |
| 1465 | 30.4 | 1 | CHECKED - BOOKLET ABOUT ARMY SERVICE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 21 | 528 | 401 | 592 | 1542 |
| 1. | 19 | 519 | 379 | 504 | 1421 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 52.5 | 50.4 | 51.4 | 54.0 | 52.0 |
| 1. | 47.5 | 49.6 | 48.6 | 46.0 | 48.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 19.18

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.927 | 3 | 0.4030 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116G - BOOKLET ABOUT ARMY COLLEGE FUND

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 1682 | 34.9 | 0 | NOT CHECKED |
| 1367 | 28.4 | 1 | CHECKED - BOOKLET ABOUT ARMY COLLEGE FUND |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 26 | 574 | 423 | 607 | 1630 |
| 1. | 14 | 473 | 357 | 489 | 1333 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 65.0 | 54.8 | 54.2 | 55.4 | 55.0 |
| 1. | 35.0 | 45.2 | 45.8 | 44.6 | 45.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 18.00

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 1.881 | 3 | 0.5975 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116H - A BUMPER STICKER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2720 | 56.5 | 0 | NOT CHECKED |
| 329 | 6.8 | 1 | CHECKED - A BUMPER STICKER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T116H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 35 | 914 | 701 | 992 | 2642 |
| 1. | 5 | 133 | 79 | 104 | 321 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 87.5 | 87.3 | 89.9 | 90.5 | 89.2 |
| 1. | 12.5 | 12.7 | 10.1 | 9.5 | 10.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.33

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 6.355 | 3 | 0.0955 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU SENT A CARD IN RESPONSE TO AN ARMY AD?
T116I - ARMY BOOKCOVERS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 294 | 6.1 | . | NO RESPONSE |
| 1473 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2825 | 58.7 | 0 | NOT CHECKED |
| 224 | 4.7 | 1 | CHECKED - ARMY BOOKCOVERS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY .

| T116I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 33 | 955 | 721 | 1033 | 2742 |
| 1. | 7 | 92 | 59 | 63 | 221 |
| TOTAL | 40 | 1047 | 780 | 1096 | 2963 |

***** PERCENTS OF COLUMN TOTALS --

| T116I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 82.5 | 91.2 | 92.4 | 94.3 | 92.5 |
| 1. | 17.5 | 8.8 | 7.6 | 5.7 | 7.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.98

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 13.178 | 3 | 0.0043 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?

T117A - I NEVER CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 475 | 9.9 | 0 | NOT CHECKED |
| 2376 | 49.3 | 1 | CHECKED - I NEVER CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T117A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 13 | 219 | 118 | 113 | 463 |
| 1. | 28 | 763 | 602 | 910 | 2303 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS --

| T117A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 31.7 | 22.3 | 16.4 | 11.0 | 16.7 |
| 1. | 68.3 | 77.7 | 83.6 | 89.0 | 83.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 6.86

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 52.245 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?
T117B - I NEVER RECEIVED A RESPONSE IN THE MAIL TO MY TOLL FREE CALL

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2753 | 57.2 | 0 | NOT CHECKED |
| 98 | 2.0 | 1 | CHECKED - I NEVER RECEIVED A RESPONSE IN THE MAIL TO MY TOLL FREE CALL |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T117B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 37 | 940 | 692 | 1000 | 2669 |
| 1. | 4 | 42 | 28 | 23 | 97 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS --

| T117B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 90.2 | 95.7 | 96.1 | 97.8 | 96.5 |
| 1. | 9.8 | 4.3 | 3.9 | 2.2 | 3.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.44

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 11.552 | 3 | 0.0091 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?
T117C - LETTER TELLING ME LOCATION OF ARMY RECRUITING STATION

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2663 | 55.3 | 0 | NOT CHECKED |
| 188 | 3.9 | 1 | CHECKED - LETTER TELLING ME LOCATION OF ARMY RECRUITING STATION |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY .

| T117C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 37 | 891 | 677 | 977 | 2582 |
| 1. | 4 | 91 | 43 | 46 | 184 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS --

| T117C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 90.2 | 90.7 | 94.0 | 95.5 | 93.3 |
| 1. | 9.8 | 9.3 | 6.0 | 4.5 | 6.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.73

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 19.638 | 3 | 0.0002 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?
T117D - A GIFT LIKE TUBE SOCKS OR WRIST BANDS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2781 | 57.7 | 0 | NOT CHECKED |
| 70 | 1.5 | 1 | CHECKED - A GIFT LIKE TUBE SOCKS OR WRIST BANDS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T117D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 39 | 940 | 706 | 1013 | 2698 |
| 1. | 2 | 42 | 14 | 10 | 68 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS --

| T117D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 95.1 | 95.7 | 98.1 | 99.0 | 97.5 |
| 1. | 4.9 | 4.3 | 1.9 | 1.0 | 2.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.01

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 24.693 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?
T117E - A POSTER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2815 | 58.5 | 0 | NOT CHECKED |
| 36 | 0.7 | 1 | CHECKED - A POSTER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T117E | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 38 | 963 | 711 | 1020 | 2732 |
| 1. | 3 | 19 | 9 | 3 | 34 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS --

| T117E | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 92.7 | 98.1 | 98.8 | 99.7 | 98.8 |
| 1. | 7.3 | 1.9 | 1.3 | 0.3 | 1.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.50

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 23.927 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?
T117F - BOOKLET ABOUT ARMY SERVICE

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2648 | 55.0 | 0 | NOT CHECKED |
| 203 | 4.2 | 1 | CHECKED - BOOKLET ABOUT ARMY SERVICE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T117F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 35 | 888 | 671 | 978 | 2572 |
| 1. | 6 | 94 | 49 | 45 | 194 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS --

| T117F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 85.4 | 90.4 | 93.2 | 95.6 | 93.0 |
| 1. | 14.6 | 9.6 | 6.8 | 4.4 | 7.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.88

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 24.281 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?
T117G - BOOKLET ABOUT ARMY COLLEGE FUND

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2672 | 55.5 | 0 | NOT CHECKED |
| 179 | 3.7 | 1 | CHECKED - BOOKLET ABOUT ARMY COLLEGE FUND |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T117G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 37 | 910 | 675 | 973 | 2595 |
| 1. | 4 | 72 | 45 | 50 | 171 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS ---

| T117G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 90.2 | 92.7 | 93.8 | 95.1 | 93.8 |
| 1. | 9.8 | 7.3 | 6.3 | 4.9 | 6.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.53

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 6.103 | 3 | 0.107 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?
T117H - A BUMPER STICKER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2798 | 58.1 | 0 | NOT CHECKED |
| 53 | 1.1 | 1 | CHECKED - A BUMPER STICKER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T117H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 39 | 956 | 707 | 1014 | 2716 |
| 1. | 2 | 26 | 13 | 9 | 50 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS --

| T117H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 95.1 | 97.4 | 98.2 | 99.1 | 98.2 |
| 1. | 4.9 | 2.6 | 1.8 | 0.9 | 1.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.74

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 11.044 | 3 | 0.0115 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

WHAT DID YOU RECEIVE WHEN YOU CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD?
T117I - ARMY BOOKCOVERS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 493 | 10.2 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2815 | 58.5 | 0 | NOT CHECKED |
| 36 | 0.7 | 1 | CHECKED - ARMY BOOKCOVERS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T117I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 39 | 971 | 708 | 1013 | 2731 |
| 1. | 2 | 11 | 12 | 10 | 35 |
| TOTAL | 41 | 982 | 720 | 1023 | 2766 |

***** PERCENTS OF COLUMN TOTALS --

| T117I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 95.1 | 98.9 | 98.3 | 99.0 | 98.7 |
| 1. | 4.9 | 1.1 | 1.7 | 1.0 | 1.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.52

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 6.055 | 3 | 0.1089 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118A - I NEVER RECEIVED ANY OF THIS MATERIAL IN RESPONSE TO A TOLL FREE CALL OR CARD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2501 | 51.9 | 0 | NOT CHECKED |
| 597 | 12.4 | 1 | CHECKED - I NEVER RECEIVED ANY OF THIS MATERIAL IN RESPONSE TO A TOLL FREE CALL OR CARD |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T118A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 37 | 912 | 644 | 840 | 2433 |
| 1. | 5 | 156 | 158 | 258 | 577 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

PERCENTS OF COLUMN TOTALS

| T118A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 88.1 | 85.4 | 80.3 | 76.5 | 80.8 |
| 1. | 11.9 | 14.6 | 19.7 | 23.5 | 19.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 8.05

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 29.199 | 3 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118B - LETTER TELLING ME LOCATION OF ARMY RECRUITING STATION

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2734 | 56.8 | 0 | NOT CHECKED |
| 364 | 7.6 | 1 | CHECKED - LETTER TELLING ME LOCATION OF ARMY RECRUITING STATION |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY TABLE

| T118B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 34 | 922 | 718 | 981 | 2655 |
| 1. | 8 | 146 | 84 | 117 | 355 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

PERCENTS OF COLUMN TOTALS

| T118B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 81.0 | 86.3 | 89.5 | 89.3 | 88.2 |
| 1. | 19.0 | 13.7 | 10.5 | 10.7 | 11.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.95

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 8.450 | 3 | 0.0376 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118C - A GIFT LIKE TUBE SOCKS OR WRIST BANDS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2341 | 48.6 | 0 | NOT CHECKED |
| 757 | 15.7 | 1 | CHECKED - A GIFT LIKE TUBE SOCKS OR WRIST BANDS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T118C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 27 | 769 | 624 | 849 | 2269 |
| 1. | 15 | 299 | 178 | 249 | 741 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

***** PERCENTS OF COLUMN TOTALS --

| T118C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 64.3 | 72.0 | 77.8 | 77.3 | 75.4 |
| 1. | 35.7 | 28.0 | 22.2 | 22.7 | 24.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 10.34

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 14.121 | 3 | 0.0027 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118D - A POSTER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2881 | 59.8 | 0 | NOT CHECKED |
| 217 | 4.5 | 1 | CHECKED - A POSTER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T118D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 38 | 979 | 751 | 1030 | 2798 |
| 1. | 4 | 89 | 51 | 68 | 212 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

PERCENTS OF COLUMN TOTALS

| T118D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 90.5 | 91.7 | 93.6 | 93.8 | 93.0 |
| 1. | 9.5 | 8.3 | 6.4 | 6.2 | 7.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.96

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 4.895 | 3 | 0.1796 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118E - BOOKLET ABOUT ARMY SERVICE

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 1827 | 37.9 | 0 | NOT CHECKED |
| 1271 | 26.4 | 1 | CHECKED - BOOKLET ABOUT ARMY SERVICE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T118E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 26 | 607 | 471 | 672 | 1776 |
| 1. | 16 | 461 | 331 | 426 | 1234 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

PERCENTS OF COLUMN TOTALS

| T118E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 61.9 | 56.8 | 58.7 | 61.2 | 59.0 |
| 1. | 38.1 | 43.2 | 41.3 | 38.8 | 41.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 17.22

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 4.441 | 3 | 0.2176 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118F - BOOKLET ABOUT ARMY COLLEGE FUND

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2013 | 41.8 | 0 | NOT CHECKED |
| 1085 | 22.5 | 1 | CHECKED - BOOKLET ABOUT ARMY COLLEGE FUND |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T118F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 35 | 769 | 509 | 644 | 1957 |
| 1. | 7 | 299 | 293 | 454 | 1053 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

PERCENTS OF COLUMN TOTALS

| T118F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 83.3 | 72.0 | 63.5 | 58.7 | 65.0 |
| 1. | 16.7 | 28.0 | 36.5 | 41.3 | 35.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 14.69

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 49.521 | 3 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118G - A BUMPER STICKER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2867 | 59.5 | 0 | NOT CHECKED |
| 231 | 4.8 | 1 | CHECKED - A BUMPER STICKER |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T118G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 36 | 978 | 743 | 1026 | 2783 |
| 1. | 6 | 90 | 59 | 72 | 227 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

PERCENTS OF COLUMN TOTALS

| T118G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 85.7 | 91.6 | 92.6 | 93.4 | 92.5 |
| 1. | 14.3 | 8.4 | 7.4 | 6.6 | 7.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.17

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 5.505 | 3 | 0.1383 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118H - ARMY BOOKCOVERS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2894 | 60.1 | 0 | NOT CHECKED |
| 204 | 4.2 | 1 | CHECKED - ARMY BOOKCOVERS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T118H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 34 | 999 | 749 | 1027 | 2809 |
| 1. | 8 | 69 | 53 | 71 | 201 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

PERCENTS OF COLUMN TOTALS

| T118H | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 81.0 | 93.5 | 93.4 | 93.5 | 93.3 |
| 1. | 19.0 | 6.5 | 6.6 | 6.5 | 6.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.80

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 10.478 | 3 | 0.0149 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHICH OF THESE ITEMS DID YOU USE OR APPRECIATE HAVING?
T118I - NONE OF THESE ITEMS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 246 | 5.1 | . | NO RESPONSE |
| 1472 | 30.6 | C | VALID SKIP |
| 2407 | . | D | |
| 2720 | 56.5 | 0 | NOT CHECKED |
| 378 | 7.8 | 1 | CHECKED - NONE OF THESE ITEMS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T118I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 37 | 942 | 691 | 972 | 2642 |
| 1. | 5 | 126 | 111 | 126 | 368 |
| TOTAL | 42 | 1068 | 802 | 1098 | 3010 |

PERCENTS OF COLUMN TOTALS

| T118I | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 88.1 | 88.2 | 86.2 | 88.5 | 87.8 |
| 1. | 11.9 | 11.8 | 13.8 | 11.5 | 12.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.13

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.711 | 3 | 0.4384 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

DID EITHER OF THESE ITEMS HELP YOU DECIDE TO ENLIST IN THE ARMY?
T119A - I NEVER RECEIVED ANY OF THIS MATERIAL IN RESPONSE TO A TOLL FREE CALL OR CARD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 88 | 3.7 | . | NO RESPONSE |
| 746 | 31.7 | C | VALID SKIP |
| 4873 | . | D | |
| 1296 | 55.1 | 0 | NOT CHECKED |
| 220 | 9.4 | 1 | CHECKED - I NEVER RECEIVED ANY OF THIS MATERIAL IN RESPONSE TO A TOLL FREE CALL OR CARD |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T119A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 14 | 457 | 358 | 427 | 1256 |
| 1. | 3 | 64 | 61 | 88 | 216 |
| TOTAL | 17 | 521 | 419 | 515 | 1472 |

PERCENTS OF COLUMN TOTALS

| T119A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 82.4 | 87.7 | 85.4 | 82.9 | 85.3 |
| 1. | 17.6 | 12.3 | 14.6 | 17.1 | 14.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.49

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 4.897 | 3 | 0.1795 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

DID EITHER OF THESE ITEMS HELP YOU DECIDE TO ENLIST IN THE ARMY?
T119B - BOOKLET ABOUT ARMY SERVICE

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 88 | 3.7 | . | NO RESPONSE |
| 746 | 31.7 | C | VALID SKIP |
| 4873 | . | D | |
| 867 | 36.9 | 0 | NOT CHECKED |
| 649 | 27.6 | 1 | CHECKED - BOOKLET ABOUT ARMY SERVICE |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T119B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0 | 10 | 271 | 253 | 309 | 843 |
| 1 | 7 | 250 | 166 | 206 | 629 |
| TOTAL | 17 | 521 | 419 | 515 | 1472 |

PERCENTS OF COLUMN TOTALS

| T119B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0 | 58.8 | 52.0 | 60.4 | 60.0 | 57.3 |
| 1 | 41.2 | 48.0 | 39.6 | 40.0 | 42.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 7.26

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.122 | 3 | 0.0277 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

DID EITHER OF THESE ITEMS HELP YOU DECIDE TO ENLIST IN THE ARMY?
T119C - BOOKLET ABOUT ARMY COLLEGE FUND

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 88 | 3.7 | . | NO RESPONSE |
| 746 | 31.7 | C | VALID SKIP |
| 4873 | . | D | |
| 911 | 38.8 | 0 | NOT CHECKED |
| 605 | 25.7 | 1 | CHECKED - BOOKLET ABOUT ARMY COLLEGE FUND |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY TABLE 12

| T119C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 12 | 374 | 240 | 258 | 884 |
| 1. | 5 | 147 | 179 | 257 | 588 |
| TOTAL | 17 | 521 | 419 | 515 | 1472 |

PERCENTS OF COLUMN TOTALS

| T119C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 70.6 | 71.8 | 57.3 | 50.1 | 60.1 |
| 1. | 29.4 | 28.2 | 42.7 | 49.9 | 39.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 6.79

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 53.303 | 3 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

DID EITHER OF THESE ITEMS HELP YOU DECIDE TO ENLIST IN THE ARMY?
T119D - NEITHER OF THESE ITEMS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 88 | 3.7 | . | NO RESPONSE |
| 746 | 31.7 | C | VALID SKIP |
| 4873 | . | D | |
| 1104 | 47.0 | 0 | NOT CHECKED |
| 412 | 17.5 | 1 | CHECKED - NEITHER OF THESE ITEMS |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T119D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 12 | 363 | 301 | 396 | 1072 |
| 1. | 5 | 158 | 118 | 119 | 400 |
| TOTAL | 17 | 521 | 419 | 515 | 1472 |

PERCENTS OF COLUMN TOTALS

| T119D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 70.6 | 69.7 | 71.8 | 76.9 | 72.8 |
| 1. | 29.4 | 30.3 | 28.2 | 23.1 | 27.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.62

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 7.171 | 3 | 0.0666 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

A RECENT ARMY COMMERCIAL ON TV SHOWS A YOUNG MAN DIVING INTO A SWIMMING POOL AND SAYING HE CAN ENJOY HIGH SCHOOL BECAUSE HE DOESN'T HAVE TO WORRY ABOUT HIS COLLEGE TUITION.

T651A - HAVE YOU SEEN THIS COMMERCIAL ON TV?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 110 | 1.5 | . | NO RESPONSE |
| 4152 | 57.5 | 1 | YES |
| 2961 | 41.0 | 2 | NO |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T651A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 55 | 1292 | 1078 | 1594 | 4019 |
| 2. | 35 | 985 | 815 | 1031 | 2866 |
| TOTAL | 90 | 2277 | 1893 | 2625 | 6885 |

***** PERCENTS OF COLUMN TOTALS --

| T651A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 61.1 | 56.7 | 56.9 | 60.7 | 58.4 |
| 2. | 38.9 | 43.3 | 43.1 | 39.3 | 41.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 37.46

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 10.328 | 3 | 0.0160 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

A RECENT ARMY COMMERCIAL ON TV SHOWS A YOUNG MAN DIVING INTO A SWIMMING POOL AND SAYING HE CAN ENJOY HIGH SCHOOL BECAUSE HE DOESN'T HAVE TO WORRY ABOUT HIS COLLEGE TUITION.

T651B - PLEASE USE THE FOLLOWING SCALE TO TELL US HOW THIS COMMERCIAL IMPRESSED YOU

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 274 | 3.8 | . | NO RESPONSE |
| 4 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 2961 | 41.0 | C | VALID SKIP |
| 27 | 0.4 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 157 | 2.2 | 1 | I DISLIKED IT OR IT GAVE ME A BAD IMPRESSION OF THE ARMY |
| 2429 | 33.6 | 2 | IT DIDN'T IMPRESS ME MUCH |
| 1371 | 19.0 | 3 | I LIKED IT AND IT GAVE ME A GOOD IMPRESSION OF THE ARMY |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T651B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 2 | 53 | 38 | 52 | 145 |
| 2. | 29 | 707 | 624 | 1005 | 2365 |
| 3. | 17 | 448 | 368 | 489 | 1322 |
| TOTAL | 48 | 1208 | 1030 | 1546 | 3832 |

***** PERCENTS OF COLUMN TOTALS --

| T651B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 4.2 | 4.4 | 3.7 | 3.4 | 3.8 |
| 2. | 60.4 | 58.5 | 60.6 | 65.0 | 61.7 |
| 3. | 35.4 | 37.1 | 35.7 | 31.6 | 34.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.82

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 13.354 | 6 | 0.0378 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

A RECENT ARMY COMMERCIAL ON TV SHOWS A YOUNG MAN DIVING INTO A SWIMMING POOL AND SAYING HE CAN ENJOY HIGH SCHOOL BECAUSE HE DOESN'T HAVE TO WORRY ABOUT HIS COLLEGE TUITION.

T651C - DID THIS COMMERCIAL AFFECT YOUR DECISION TO ENLIST?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 261 | 3.6 | . | NO RESPONSE |
| 4 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 1 | 0.0 | B | OUT OF RANGE |
| 2961 | 41.0 | C | VALID SKIP |
| 131 | 1.8 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 2668 | 36.9 | 1 | NO, I HAD ALREADY ENLISTED OR DECIDED TO ENLIST BEFORE I SAW THIS COMMERCIAL |
| 1053 | 14.6 | 2 | NO, I SAW IT BEFORE DECIDING TO ENLIST BUT IT WAS NOT IMPORTANT IN MY DECISION TO CONTACT A RECRUITER OR TO ENLIST |
| 102 | 1.4 | 3 | IT WAS IMPORTANT IN MY DECISION TO CONTACT A RECRUITER OR ENLIST |
| 42 | 0.6 | 4 | I WOULD NOT HAVE CONTACTED AN ARMY RECRUITER OR ENLISTED HAD I NOT SEEN THIS COMMERCIAL |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T651C / AFQTCAT | 4A4B | 3B | 3A | 1&2 | TOTAL |
|---|---|---|---|---|---|
| 1. | 32 | 836 | 704 | 1006 | 2578 |
| 2. | 7 | 260 | 276 | 481 | 1024 |
| 3. | 5 | 50 | 27 | 18 | 100 |
| 4. | 1 | 25 | 9 | 4 | 39 |
| TOTAL | 45 | 1171 | 1016 | 1509 | 3741 |

***** PERCENTS OF COLUMN TOTALS --

| T651C / AFQTCAT | 4A4B | 3B | 3A | 1&2 | TOTAL |
|---|---|---|---|---|---|
| 1. | 71.1 | 71.4 | 69.3 | 66.7 | 68.9 |
| 2. | 15.6 | 22.2 | 27.2 | 31.9 | 27.4 |
| 3. | 11.1 | 4.3 | 2.7 | 1.2 | 2.7 |
| 4. | 2.2 | 2.1 | 0.9 | 0.3 | 1.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.47

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 85.642 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

A RECENT ARMY COMMERCIAL ON TV SHOWS A YOUNG MAN DIVING INTO A SWIMMING POOL AND SAYING HE CAN ENJOY HIGH SCHOOL BECAUSE HE DOESN'T HAVE TO WORRY ABOUT HIS COLLEGE TUITION.

T651E - DID YOU BELIEVE THE INFORMATION IN THE COMMERCIAL WAS ACCURATE?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 352 | 4.9 | . | NO RESPONSE |
| 16 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 3 | 0.0 | B | OUT OF RANGE |
| 2961 | 41.0 | C | VALID SKIP |
| 3230 | 44.7 | 1 | YES |
| 654 | 9.1 | 2 | NO |
| 7 | 0.1 | 8 | DON'T KNOW |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T651E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 39 | 947 | 835 | 1312 | 3133 |
| 2. | 11 | 254 | 173 | 194 | 632 |
| 8. | 1 | 1 | 1 | 4 | 7 |
| TOTAL | 51 | 1202 | 1009 | 1510 | 3772 |

***** PERCENTS OF COLUMN TOTALS --

| T651E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 76.5 | 78.8 | 82.8 | 86.9 | 83.1 |
| 2. | 21.6 | 21.1 | 17.1 | 12.8 | 16.8 |
| 8. | 2.0 | 0.1 | 0.1 | 0.3 | 0.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.09

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 44.140 | 6 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

# TV VIEWING HABITS:

# NRS-85 TOPLINE RESULTS

T173 - IS THERE CABLE TV IN THE HOUSEHOLD WHERE YOU WERE LIVING BEFORE YOU ENTERED THE ARMY?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 120 | 2.5 | . | NO RESPONSE |
| 2 | 0.0 | A | MULTIPLE RESPONSE ERROR |
| 2407 | . | D | |
| 2849 | 59.2 | 1 | YES |
| 1845 | 38.3 | 2 | NO |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T173 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 42 | 908 | 733 | 1066 | 2749 |
| 2. | 18 | 601 | 505 | 676 | 1800 |
| TOTAL | 60 | 1509 | 1238 | 1742 | 4549 |

PERCENTS OF COLUMN TOTALS

| T173 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 70.0 | 60.2 | 59.2 | 61.2 | 60.4 |
| 2. | 30.0 | 39.8 | 40.8 | 38.8 | 39.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 23.74

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 3.538 | 3 | 0.3159 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T690 - WHAT IS THE AVERAGE NUMBER OF HOURS PER WEEK THAT YOU SPEND WATCHING TELEVISION?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 21 | 0.9 | . | NO RESPONSE |
| 8 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4816 | . | D | |
| 287 | 11.9 | 1 | 1 TO 2 HOURS PER WEEK |
| 595 | 24.7 | 2 | 3 TO 5 HOURS PER WEEK |
| 564 | 23.4 | 3 | 6 TO 10 HOURS PER WEEK |
| 316 | 13.1 | 4 | 11 TO 15 HOURS PER WEEK |
| 193 | 8.0 | 5 | 16 TO 20 HOURS PER WEEK |
| 286 | 11.9 | 6 | MORE THAN 20 HOURS PER WEEK |
| 137 | 5.7 | 7 | I DON'T WATCH ANY TELEVISION |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T690 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 3 | 85 | 72 | 115 | 275 |
| 2. | 7 | 196 | 157 | 218 | 578 |
| 3. | 8 | 167 | 162 | 210 | 547 |
| 4. | 2 | 91 | 87 | 125 | 305 |
| 5. | 1 | 67 | 56 | 63 | 187 |
| 6. | 5 | 91 | 87 | 91 | 274 |
| 7. | 3 | 55 | 36 | 41 | 135 |
| TOTAL | 29 | 752 | 657 | 863 | 2301 |

PERCENTS OF COLUMN TOTALS

| T690 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 10.3 | 11.3 | 11.0 | 13.3 | 12.0 |
| 2. | 24.1 | 26.1 | 23.9 | 25.3 | 25.1 |
| 3. | 27.6 | 22.2 | 24.7 | 24.3 | 23.8 |
| 4. | 6.9 | 12.1 | 13.2 | 14.5 | 13.3 |
| 5. | 3.4 | 8.9 | 8.5 | 7.3 | 8.1 |
| 6. | 17.2 | 12.1 | 13.2 | 10.5 | 11.9 |
| 7. | 10.3 | 7.3 | 5.5 | 4.8 | 5.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.70

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 17.737 | 18 | 0.4731 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEK-MONDAYS THROUGH FRIDAYS?
T232A - MORNINGS --- 6AM TO 9AM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 54 | 1.1 | . | NO RESPONSE |
| 2350 | . | D | |
| 4482 | 92.0 | 0 | NOT CHECKED |
| 337 | 6.9 | 1 | CHECKED - MORNINGS --- 6AM TO 9AM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T232A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 62 | 1406 | 1188 | 1691 | 4347 |
| 1. | 3 | 140 | 82 | 99 | 324 |
| TOTAL | 65 | 1546 | 1270 | 1790 | 4671 |

PERCENTS OF COLUMN TOTALS

| T232A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 95.4 | 90.9 | 93.5 | 94.5 | 93.1 |
| 1. | 4.6 | 9.1 | 6.5 | 5.5 | 6.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.51

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 17.230 | 3 | 0.0006 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEK-MONDAYS THROUGH FRIDAYS?
T232B - DAYTIME --- 9AM TO 4PM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 54 | 1.1 | . | NO RESPONSE |
| 2350 | . | D | |
| 3851 | 79.0 | 0 | NOT CHECKED |
| 968 | 19.9 | 1 | CHECKED - DAYTIME --- 9AM TO 4PM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T232B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 50 | 1190 | 1013 | 1483 | 3736 |
| 1. | 15 | 356 | 257 | 307 | 935 |
| TOTAL | 65 | 1546 | 1270 | 1790 | 4671 |

PERCENTS OF COLUMN TOTALS

| T232B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 76.9 | 77.0 | 79.8 | 82.8 | 80.0 |
| 1. | 23.1 | 23.0 | 20.2 | 17.2 | 20.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 13.01

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 18.352 | 3 | 0.0004 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEK-MONDAYS THROUGH FRIDAYS?
T232C - LATE AFTERNOON --- 4PM TO 8PM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 54 | 1.1 | . | NO RESPONSE |
| 2350 | . | D | |
| 3469 | 71.2 | 0 | NOT CHECKED |
| 1350 | 27.7 | 1 | CHECKED - LATE AFTERNOON --- 4PM TO 8PM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T232C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 51 | 1095 | 920 | 1294 | 3360 |
| 1. | 14 | 451 | 350 | 496 | 1311 |
| TOTAL | 65 | 1546 | 1270 | 1790 | 4671 |

PERCENTS OF COLUMN TOTALS

| T232C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 78.5 | 70.8 | 72.4 | 72.3 | 71.9 |
| 1. | 21.5 | 29.2 | 27.6 | 27.7 | 28.1 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 18.24

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.583 | 3 | 0.4605 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEK-MONDAYS THROUGH FRIDAYS?
T232D - PRIME TIME --- 8PM TO 11PM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 54 | 1.1 | . | NO RESPONSE |
| 2350 | . | D | |
| 2260 | 46.4 | 0 | NOT CHECKED |
| 2559 | 52.5 | 1 | CHECKED - PRIME TIME --- 8PM TO 11PM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T232D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 34 | 769 | 564 | 818 | 2185 |
| 1. | 31 | 777 | 706 | 972 | 2486 |
| TOTAL | 65 | 1546 | 1270 | 1790 | 4671 |

PERCENTS OF COLUMN TOTALS

| T232D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 52.3 | 49.7 | 44.4 | 45.7 | 46.8 |
| 1. | 47.7 | 50.3 | 55.6 | 54.3 | 53.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 30.41

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.951 | 3 | 0.0190 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEK-MONDAYS THROUGH FRIDAYS?
T232E - LATE NIGHT --- 11PM TO 1AM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 54 | 1.1 | . | NO RESPONSE |
| 2350 | . | D | |
| 3400 | 69.8 | 0 | NOT CHECKED |
| 1419 | 29.1 | 1 | CHECKED - LATE NIGHT --- 11PM TO 1AM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T232E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 47 | 1094 | 910 | 1247 | 3298 |
| 1. | 18 | 452 | 360 | 543 | 1373 |
| TOTAL | 65 | 1546 | 1270 | 1790 | 4671 |

PERCENTS OF COLUMN TOTALS

| T232E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 72.3 | 70.8 | 71.7 | 69.7 | 70.6 |
| 1. | 27.7 | 29.2 | 28.3 | 30.3 | 29.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 19.11

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 1.545 | 3 | 0.6720 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEK-MONDAYS THROUGH FRIDAYS?
T232F - OVERNIGHT --- 1AM TO 6AM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 54 | 1.1 | . | NO RESPONSE |
| 2350 | . | D | |
| 4441 | 91.1 | 0 | NOT CHECKED |
| 378 | 7.8 | 1 | CHECKED - OVERNIGHT --- 1AM TO 6AM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T232F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 59 | 1409 | 1173 | 1665 | 4306 |
| 1. | 6 | 137 | 97 | 125 | 365 |
| TOTAL | 65 | 1546 | 1270 | 1790 | 4671 |

PERCENTS OF COLUMN TOTALS

| T232F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 90.8 | 91.1 | 92.4 | 93.0 | 92.2 |
| 1. | 9.2 | 8.9 | 7.6 | 7.0 | 7.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 5.08

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 4.306 | 3 | 0.2303 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEK-MONDAYS THROUGH FRIDAYS?
T232G - I DON'T REGULARLY WATCH TV DURING THE WEEK

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 54 | 1.1 | . | NO RESPONSE |
| 2350 | . | D | |
| 3901 | 80.1 | 0 | NOT CHECKED |
| 918 | 18.8 | 1 | CHECKED - I DON'T REGULARLY WATCH TV DURING THE WEEK |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T2328 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 49 | 1265 | 1047 | 1423 | 3784 |
| 1. | 16 | 281 | 223 | 367 | 887 |
| TOTAL | 65 | 1546 | 1270 | 1790 | 4671 |

PERCENTS OF COLUMN TOTALS

| T2328 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 75.4 | 81.8 | 82.4 | 79.5 | 81.0 |
| 1. | 24.6 | 18.2 | 17.6 | 20.5 | 19.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 12.34

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 6.356 | 3 | 0.0955 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEKEND -- SATURDAYS AND SUNDAYS?
T233A - MORNINGS --- 6AM TO NOON

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 1.4 | . | NO RESPONSE |
| 2350 | . | D | |
| 3947 | 81.0 | 0 | NOT CHECKED |
| 859 | 17.6 | 1 | CHECKED - MORNINGS --- 6AM TO NOON |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T233A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 55 | 1239 | 1011 | 1518 | 3823 |
| 1. | 10 | 302 | 255 | 269 | 836 |
| TOTAL | 65 | 1541 | 1266 | 1787 | 4659 |

PERCENTS OF COLUMN TOTALS

| T233A | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 84.6 | 80.4 | 79.9 | 84.9 | 82.1 |
| 1. | 15.4 | 19.6 | 20.1 | 15.1 | 17.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 11.66

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 17.448 | 3 | 0.0006 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEKEND -- SATURDAYS AND SUNDAYS?
T233B - DAYTIME --- NOON TO 6PM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 1.4 | . | NO RESPONSE |
| 2350 | . | D | |
| 3606 | 74.0 | 0 | NOT CHECKED |
| 1200 | 24.6 | 1 | CHECKED - DAYTIME --- NOON TO 6PM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T233B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 49 | 1155 | 951 | 1340 | 3495 |
| 1. | 16 | 386 | 315 | 447 | 1164 |
| TOTAL | 65 | 1541 | 1266 | 1787 | 4659 |

PERCENTS OF COLUMN TOTALS

| T233B | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 75.4 | 75.0 | 75.1 | 75.0 | 75.0 |
| 1. | 24.6 | 25.0 | 24.9 | 25.0 | 25.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 16.24

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 0.016 | 3 | 0.9995 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEKEND -- SATURDAYS AND SUNDAYS?
T233C - EARLY EVENING --- 6PM TO 7PM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 1.4 | . | NO RESPONSE |
| 2350 | . | D | |
| 4017 | 82.4 | 0 | NOT CHECKED |
| 789 | 16.2 | 1 | CHECKED - EARLY EVENING --- 6PM TO 7PM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T233C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 58 | 1275 | 1066 | 1494 | 3893 |
| 1. | 7 | 266 | 200 | 293 | 766 |
| TOTAL | 65 | 1541 | 1266 | 1787 | 4659 |

PERCENTS OF COLUMN TOTALS

| T233C | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 89.2 | 82.7 | 84.2 | 83.6 | 83.6 |
| 1. | 10.8 | 17.3 | 15.8 | 16.4 | 16.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 10.69

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.661 | 3 | 0.4469 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEKEND -- SATURDAYS AND SUNDAYS?
T233D - EVENINGS --- 7PM TO 11PM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 1.4 | . | NO RESPONSE |
| 2350 | . | D | |
| 2963 | 60.8 | 0 | NOT CHECKED |
| 1843 | 37.8 | 1 | CHECKED - EVENINGS --- 7PM TO 11PM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T233D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 43 | 947 | 766 | 1114 | 2870 |
| 1. | 22 | 594 | 500 | 673 | 1789 |
| TOTAL | 65 | 1541 | 1266 | 1787 | 4659 |

PERCENTS OF COLUMN TOTALS

| T233D | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 66.2 | 61.5 | 60.5 | 62.3 | 61.6 |
| 1. | 33.8 | 38.5 | 39.5 | 37.7 | 38.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 24.96

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 1.638 | 3 | 0.6509 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEKEND -- SATURDAYS AND SUNDAYS?
T233E - LATE NIGHT --- 11PM TO 1AM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 1.4 | . | NO RESPONSE |
| 2350 | . | D | |
| 3359 | 68.9 | 0 | NOT CHECKED |
| 1447 | 29.7 | 1 | CHECKED - LATE NIGHT --- 11PM TO 1AM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T233E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 52 | 1081 | 888 | 1240 | 3261 |
| 1. | 13 | 460 | 378 | 547 | 1398 |
| TOTAL | 65 | 1541 | 1266 | 1787 | 4659 |

PERCENTS OF COLUMN TOTALS

| T233E | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 80.0 | 70.1 | 70.1 | 69.4 | 70.0 |
| 1. | 20.0 | 29.9 | 29.9 | 30.6 | 30.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 19.50

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 3.440 | 3 | 0.3286 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEKEND -- SATURDAYS AND SUNDAYS?
T233F - OVERNIGHT --- 1AM TO 6AM

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 1.4 | . | NO RESPONSE |
| 2350 | . | D | |
| 4242 | 87.1 | 0 | NOT CHECKED |
| 564 | 11.6 | 1 | CHECKED - OVERNIGHT --- 1AM TO 6AM |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T233F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 60 | 1359 | 1114 | 1578 | 4111 |
| 1. | 5 | 182 | 152 | 209 | 548 |
| TOTAL | 65 | 1541 | 1266 | 1787 | 4659 |

PERCENTS OF COLUMN TOTALS

| T233F | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 92.3 | 88.2 | 88.0 | 88.3 | 88.2 |
| 1. | 7.7 | 11.8 | 12.0 | 11.7 | 11.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 7.65

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 1.121 | 3 | 0.7720 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

WHEN DO YOU REGULARLY WATCH TV DURING THE WEEKEND -- SATURDAYS AND SUNDAYS?
T233G - I DON'T REGULARLY WATCH TV DURING THE WEEKEND

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 1.4 | . | NO RESPONSE |
| 2350 | . | D | |
| 3542 | 72.7 | 0 | NOT CHECKED |
| 1264 | 25.9 | 1 | CHECKED - I DON'T REGULARLY WATCH TV DURING THE WEEKEND |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T233G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 43 | 1171 | 959 | 1262 | 3435 |
| 1. | 22 | 370 | 307 | 525 | 1224 |
| TOTAL | 65 | 1541 | 1266 | 1787 | 4659 |

PERCENTS OF COLUMN TOTALS

| T233G | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 0. | 66.2 | 76.0 | 75.8 | 70.6 | 73.7 |
| 1. | 33.8 | 24.0 | 24.2 | 29.4 | 26.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 17.08

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 17.573 | 3 | 0.0005 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T240 - SOLID GOLD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 25 | 1.1 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 295 | 12.6 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 836 | 35.6 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 967 | 41.1 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 224 | 9.5 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T240 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 6 | 136 | 87 | 62 | 291 |
| 2. | 11 | 293 | 231 | 273 | 808 |
| 3. | 4 | 265 | 257 | 403 | 929 |
| 4. | 4 | 56 | 58 | 98 | 216 |
| TOTAL | 25 | 750 | 633 | 836 | 2244 |

***** PERCENTS OF COLUMN TOTALS --

| T240 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 24.0 | 18.1 | 13.7 | 7.4 | 13.0 |
| 2. | 44.0 | 39.1 | 36.5 | 32.7 | 36.0 |
| 3. | 16.0 | 35.3 | 40.6 | 48.2 | 41.4 |
| 4. | 16.0 | 7.5 | 9.2 | 11.7 | 9.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.41

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 71.645 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T241 - SOUL TRAIN

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 26 | 1.1 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 253 | 10.8 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 315 | 13.4 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 720 | 30.6 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 1033 | 44.0 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T241 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 6 | 141 | 63 | 33 | 243 |
| 2. | 5 | 125 | 87 | 89 | 306 |
| 3. | 6 | 209 | 207 | 275 | 697 |
| 4. | 9 | 273 | 275 | 440 | 997 |
| TOTAL | 26 | 748 | 632 | 837 | 2243 |

***** PERCENTS OF COLUMN TOTALS --

| T241 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 23.1 | 18.9 | 10.0 | 3.9 | 10.8 |
| 2. | 19.2 | 16.7 | 13.8 | 10.6 | 13.6 |
| 3. | 23.1 | 27.9 | 32.8 | 32.9 | 31.1 |
| 4. | 34.6 | 36.5 | 43.5 | 52.6 | 44.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.82

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 124.486 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T242 - AMERICAN BANDSTAND

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 29 | 1.2 | . | NO RESPONSE |
| 6 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 188 | 8.0 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 639 | 27.2 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 991 | 42.2 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 497 | 21.1 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T242 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 5 | 77 | 56 | 47 | 185 |
| 2. | 7 | 215 | 190 | 208 | 620 |
| 3. | 8 | 299 | 246 | 394 | 947 |
| 4. | 5 | 155 | 137 | 188 | 485 |
| TOTAL | 25 | 746 | 629 | 837 | 2237 |

***** PERCENTS OF COLUMN TOTALS --

| T242 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 20.0 | 10.3 | 8.9 | 5.6 | 8.3 |
| 2. | 28.0 | 28.8 | 30.2 | 24.9 | 27.7 |
| 3. | 32.0 | 40.1 | 39.1 | 47.1 | 42.3 |
| 4. | 20.0 | 20.8 | 21.8 | 22.5 | 21.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.07

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 27.672 | 9 | 0.0011 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T243 - DANCE FEVER

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 47 | 2.0 | . | NO RESPONSE |
| 5 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 146 | 6.2 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 457 | 19.4 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 983 | 41.8 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 712 | 30.3 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T243 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 4 | 78 | 35 | 26 | 143 |
| 2. | 5 | 197 | 122 | 122 | 446 |
| 3. | 5 | 278 | 266 | 396 | 945 |
| 4. | 11 | 184 | 201 | 291 | 687 |
| TOTAL | 25 | 737 | 624 | 835 | 2221 |

***** PERCENTS OF COLUMN TOTALS --

| T243 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 16.0 | 10.6 | 5.6 | 3.1 | 6.4 |
| 2. | 20.0 | 26.7 | 19.6 | 14.6 | 20.1 |
| 3. | 20.0 | 37.7 | 42.6 | 47.4 | 42.5 |
| 4. | 44.0 | 25.0 | 32.2 | 34.9 | 30.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.61

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 93.002 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T244 - MOVIES ON NETWORK TV

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 42 | 1.8 | . | NO RESPONSE |
| 8 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 791 | 33.7 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 1045 | 44.5 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 281 | 12.0 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 183 | 7.8 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T244 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 9 | 237 | 231 | 293 | 770 |
| 2. | 10 | 294 | 272 | 428 | 1004 |
| 3. | 5 | 119 | 75 | 70 | 269 |
| 4. | 1 | 89 | 50 | 38 | 178 |
| TOTAL | 25 | 739 | 628 | 829 | 2221 |

***** PERCENTS OF COLUMN TOTALS --

| T244 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 36.0 | 32.1 | 36.8 | 35.3 | 34.7 |
| 2. | 40.0 | 39.8 | 43.3 | 51.6 | 45.2 |
| 3. | 20.0 | 16.1 | 11.9 | 8.4 | 12.1 |
| 4. | 4.0 | 12.0 | 8.0 | 4.6 | 8.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUN ESTIMATED EXPECTED VALUE IS 2.00

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 63.263 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T248 - SOAP OPERAS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 36 | 1.5 | . | NO RESPONSE |
| 10 | 0.4 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 462 | 19.7 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 504 | 21.4 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 677 | 28.8 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 661 | 28.1 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T248 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 3 | 170 | 128 | 147 | 448 |
| 2. | 10 | 177 | 129 | 174 | 490 |
| 3. | 4 | 192 | 193 | 260 | 649 |
| 4. | 7 | 201 | 181 | 251 | 640 |
| TOTAL | 24 | 740 | 631 | 832 | 2227 |

***** PERCENTS OF COLUMN TOTALS --

| T248 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 12.5 | 23.0 | 20.3 | 17.7 | 20.1 |
| 2. | 41.7 | 23.9 | 20.4 | 20.9 | 22.0 |
| 3. | 16.7 | 25.9 | 30.6 | 31.3 | 29.1 |
| 4. | 29.2 | 27.2 | 28.7 | 30.2 | 28.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.83

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 19.609 | 9 | 0.0205 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T249 - PROFESSIONAL BOWLING

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 47 | 2.0 | . | NO RESPONSE |
| 12 | 0.5 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 120 | 5.1 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 311 | 13.2 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 818 | 34.8 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 1042 | 44.3 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T249 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 2 | 39 | 28 | 44 | 113 |
| 2. | 3 | 103 | 80 | 119 | 305 |
| 3. | 8 | 256 | 223 | 299 | 786 |
| 4. | 13 | 336 | 295 | 368 | 1012 |
| TOTAL | 26 | 734 | 626 | 830 | 2216 |

***** PERCENTS OF COLUMN TOTALS --

| T249 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 7.7 | 5.3 | 4.5 | 5.3 | 5.1 |
| 2. | 11.5 | 14.0 | 12.8 | 14.3 | 13.8 |
| 3. | 30.8 | 34.9 | 35.6 | 36.0 | 35.5 |
| 4. | 50.0 | 45.8 | 47.1 | 44.3 | 45.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.33

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 2.760 | 9 | 0.9731 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T250 - NFL FOOTBALL -- REGULAR SEASON WEEKEND GAMES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 27 | 1.1 | . | NO RESPONSE |
| 2 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 1163 | 49.5 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 549 | 23.4 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 388 | 16.5 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 221 | 9.4 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T250 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 14 | 394 | 325 | 387 | 1120 |
| 2. | 4 | 161 | 142 | 223 | 530 |
| 3. | 5 | 123 | 108 | 144 | 380 |
| 4. | 2 | 67 | 62 | 81 | 212 |
| TOTAL | 25 | 745 | 637 | 835 | 2242 |

***** PERCENTS OF COLUMN TOTALS --

| T250 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 56.0 | 52.9 | 51.0 | 46.3 | 50.0 |
| 2. | 16.0 | 21.6 | 22.3 | 26.7 | 23.6 |
| 3. | 20.0 | 16.5 | 17.0 | 17.2 | 16.9 |
| 4. | 8.0 | 9.0 | 9.7 | 9.7 | 9.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.36

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 10.105 | 9 | 0.3420 |

Source: NPS RA Recruits,

Prepared by:
US Army Research Institute

T251 -- NFL FOOTBALL -- REGULAR SEASON MONDAY NIGHT (OR PRIME-TIME EVENING)

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 26 | 1.1 | . | NO RESPONSE |
| 1 | 0.0 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 1101 | 46.9 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 509 | 21.7 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 449 | 19.1 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 264 | 11.2 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T251 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 12 | 376 | 300 | 371 | 1059 |
| 2. | 6 | 156 | 130 | 200 | 492 |
| 3. | 5 | 139 | 126 | 171 | 441 |
| 4. | 2 | 77 | 78 | 95 | 252 |
| TOTAL | 25 | 748 | 634 | 837 | 2244 |

***** PERCENTS OF COLUMN TOTALS --

| T251 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 48.0 | 50.3 | 47.3 | 44.3 | 47.2 |
| 2. | 24.0 | 20.9 | 20.5 | 23.9 | 21.9 |
| 3. | 20.0 | 18.6 | 19.9 | 20.4 | 19.7 |
| 4. | 8.0 | 10.3 | 12.3 | 11.4 | 11.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.81

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 7.653 | 9 | 0.5695 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T252 - NFL PLAYOFFS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 31 | 1.3 | . | NO RESPONSE |
| 4873 | . | D | |
| 1342 | 57.1 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 391 | 16.6 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 341 | 14.5 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 245 | 10.4 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T252 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 15 | 442 | 371 | 463 | 1291 |
| 2. | 4 | 122 | 96 | 159 | 381 |
| 3. | 3 | 108 | 99 | 125 | 335 |
| 4. | 3 | 72 | 68 | 90 | 233 |
| TOTAL | 25 | 744 | 634 | 837 | 2240 |

***** PERCENTS OF COLUMN TOTALS --

| T252 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 60.0 | 59.4 | 58.5 | 55.3 | 57.6 |
| 2. | 16.0 | 16.4 | 15.1 | 19.0 | 17.0 |
| 3. | 12.0 | 14.5 | 15.6 | 14.9 | 15.0 |
| 4. | 12.0 | 9.7 | 10.7 | 10.8 | 10.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.60

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 5.744 | 9 | 0.7652 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T253 - SUPERBOWL

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 27 | 1.1 | . | NO RESPONSE |
| 5 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 1619 | 68.9 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 245 | 10.4 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 285 | 12.1 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 169 | 7.2 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T253 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 18 | 520 | 435 | 588 | 1561 |
| 2. | 2 | 87 | 65 | 85 | 239 |
| 3. | 4 | 85 | 85 | 103 | 277 |
| 4. | 1 | 52 | 49 | 60 | 162 |
| TOTAL | 25 | 744 | 634 | 836 | 2239 |

***** PERCENTS OF COLUMN TOTALS --

| T253 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 72.0 | 69.9 | 68.6 | 70.3 | 69.7 |
| 2. | 8.0 | 11.7 | 10.3 | 10.2 | 10.7 |
| 3. | 16.0 | 11.4 | 13.4 | 12.3 | 12.4 |
| 4. | 4.0 | 7.0 | 7.7 | 7.2 | 7.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.81

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 3.375 | 9 | 0.9476 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T254 - USFL FOOTBALL-SPRING SEASON WEEKEND GAMES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 37 | 1.6 | . | NO RESPONSE |
| 2 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| | | D | |
| 4873 | . | | |
| 319 | 13.6 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 577 | 24.6 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 741 | 31.5 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 674 | 28.7 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY 1

| T254 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 5 | 138 | 84 | 83 | 310 |
| 2. | 9 | 185 | 163 | 200 | 557 |
| 3. | 7 | 223 | 201 | 284 | 715 |
| 4. | 4 | 192 | 186 | 270 | 652 |
| TOTAL | 25 | 738 | 634 | 837 | 2234 |

***** PERCENTS OF COLUMN TOTALS --

| T254 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 20.0 | 18.7 | 13.2 | 9.9 | 13.9 |
| 2. | 36.0 | 25.1 | 25.7 | 23.9 | 24.9 |
| 3. | 28.0 | 30.2 | 31.7 | 33.9 | 32.0 |
| 4. | 16.0 | 26.0 | 29.3 | 32.3 | 29.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.47

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 33.025 | 9 | 0.0001 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T255 - USFL FOOTBALL-SPRING SEASON MONDAY NIGHT FOOTBALL

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 79 | 3.2 | . | NO RESPONSE |
| 4 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 87 | 3.5 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 600 | 24.3 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 481 | 19.5 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 661 | 26.8 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 554 | 22.5 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T255 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 15 | 225 | 167 | 174 | 581 |
| 2. | 6 | 150 | 129 | 180 | 465 |
| 3. | 4 | 196 | 161 | 284 | 645 |
| 4. | 5 | 161 | 124 | 248 | 538 |
| TOTAL | 30 | 732 | 581 | 886 | 2229 |

***** PERCENTS OF COLUMN TOTALS --

| T255 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 50.0 | 30.7 | 28.7 | 19.6 | 26.1 |
| 2. | 20.0 | 20.5 | 22.2 | 20.3 | 20.9 |
| 3. | 13.3 | 26.8 | 27.7 | 32.1 | 28.9 |
| 4. | 16.7 | 22.0 | 21.3 | 28.0 | 24.1 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 6.26

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 45.448 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T256 - COLLEGE FOOTBALL-REGULAR SEASON

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 89 | 3.6 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 696 | 28.2 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 563 | 22.8 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 558 | 22.6 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 468 | 19.0 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T256 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 12 | 233 | 173 | 252 | 670 |
| 2. | 4 | 162 | 171 | 214 | 551 |
| 3. | 5 | 173 | 125 | 240 | 543 |
| 4. | 8 | 162 | 105 | 180 | 455 |
| TOTAL | 29 | 730 | 574 | 886 | 2219 |

***** PERCENTS OF COLUMN TOTALS --

| T256 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 41.4 | 31.9 | 30.1 | 28.4 | 30.2 |
| 2. | 13.8 | 22.2 | 29.8 | 24.2 | 24.8 |
| 3. | 17.2 | 23.7 | 21.8 | 27.1 | 24.5 |
| 4. | 27.6 | 22.2 | 18.3 | 20.3 | 20.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.95

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 20.229 | 9 | 0.0165 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T257 - COLLEGE FOOTBALL BOWL GAMES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 103 | 4.2 | . | NO RESPONSE |
| 6 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 89 | 3.6 | E | |
| 903 | 36.6 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 459 | 18.6 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 480 | 19.5 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 426 | 17.3 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T257 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 13 | 285 | 233 | 343 | 874 |
| 2. | 4 | 133 | 132 | 179 | 448 |
| 3. | 4 | 152 | 122 | 187 | 465 |
| 4. | 8 | 151 | 89 | 167 | 415 |
| TOTAL | 29 | 721 | 576 | 876 | 2202 |

***** PERCENTS OF COLUMN TOTALS --

| T257 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 44.8 | 39.5 | 40.5 | 39.2 | 39.7 |
| 2. | 13.8 | 18.4 | 22.9 | 20.4 | 20.3 |
| 3. | 13.8 | 21.1 | 21.2 | 21.3 | 21.1 |
| 4. | 27.6 | 20.9 | 15.5 | 19.1 | 18.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.47

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 11.272 | 9 | 0.2575 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T258 - MAJOR LEAGUE BASEBALL -- REGULAR SEASON GAMES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 89 | 3.6 | . | NO RESPONSE |
| 8 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 555 | 22.5 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 641 | 26.0 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 621 | 25.2 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 463 | 18.8 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T258 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 9 | 191 | 136 | 205 | 541 |
| 2. | 8 | 186 | 171 | 264 | 629 |
| 3. | 8 | 187 | 153 | 249 | 597 |
| 4. | 5 | 163 | 113 | 167 | 448 |
| TOTAL | 30 | 727 | 573 | 885 | 2215 |

***** PERCENTS OF COLUMN TOTALS --

| T258 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 30.0 | 26.3 | 23.7 | 23.2 | 24.4 |
| 2. | 26.7 | 25.6 | 29.8 | 29.8 | 28.4 |
| 3. | 26.7 | 25.7 | 26.7 | 28.1 | 27.0 |
| 4. | 16.7 | 22.4 | 19.7 | 18.9 | 20.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 6.07

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 8.883 | 9 | 0.4481 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T259 - MAJOR LEAGUE BASEBALL PLAYOFFS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 93 | 3.8 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 750 | 30.4 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 543 | 22.0 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 540 | 21.9 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 448 | 18.2 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T259 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 11 | 252 | 181 | 287 | 731 |
| 2. | 6 | 152 | 148 | 226 | 532 |
| 3. | 8 | 160 | 136 | 213 | 517 |
| 4. | 5 | 165 | 109 | 156 | 435 |
| TOTAL | 30 | 729 | 574 | 882 | 2215 |

***** PERCENTS OF COLUMN TOTALS --

| T259 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 36.7 | 34.6 | 31.5 | 32.5 | 33.0 |
| 2. | 20.0 | 20.9 | 25.8 | 25.6 | 24.0 |
| 3. | 26.7 | 21.9 | 23.7 | 24.1 | 23.3 |
| 4. | 16.7 | 22.6 | 19.0 | 17.7 | 19.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.89

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 12.359 | 9 | 0.1938 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T260 -- WORLD SERIES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 76 | 3.1 | . | NO RESPONSE |
| 6 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 1075 | 43.6 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 399 | 16.2 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 435 | 17.6 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 386 | 15.7 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T260 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 13 | 341 | 282 | 413 | 1049 |
| 2. | 7 | 121 | 100 | 163 | 391 |
| 3. | 4 | 128 | 108 | 173 | 413 |
| 4. | 6 | 144 | 88 | 137 | 375 |
| TOTAL | 30 | 734 | 578 | 886 | 2228 |

***** PERCENTS OF COLUMN TOTALS --

| T260 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 43.3 | 46.5 | 48.8 | 46.6 | 47.1 |
| 2. | 23.3 | 16.5 | 17.3 | 18.4 | 17.5 |
| 3. | 13.3 | 17.4 | 18.7 | 19.5 | 18.5 |
| 4. | 20.0 | 19.6 | 15.2 | 15.5 | 16.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.05

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 8.807 | 9 | 0.4553 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T261 - NBA BASKETBALL

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 83 | 3.4 | . | NO RESPONSE |
| 8 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 766 | 31.1 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 505 | 20.5 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 552 | 22.4 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 463 | 18.8 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T261 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 19 | 288 | 191 | 242 | 740 |
| 2. | 3 | 146 | 140 | 203 | 492 |
| 3. | 3 | 151 | 138 | 246 | 538 |
| 4. | 5 | 146 | 106 | 192 | 449 |
| TOTAL | 30 | 731 | 575 | 883 | 2219 |

***** PERCENTS OF COLUMN TOTALS --

| T261 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 63.3 | 39.4 | 33.2 | 27.4 | 33.3 |
| 2. | 10.0 | 20.0 | 24.3 | 23.0 | 22.2 |
| 3. | 10.0 | 20.7 | 24.0 | 27.9 | 24.2 |
| 4. | 16.7 | 20.0 | 18.4 | 21.7 | 20.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 6.07

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 43.849 | 9 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T262 - COLLEGE BASKETBALL

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 95 | 3.9 | . | NO RESPONSE |
| 9 | 0.4 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 705 | 28.6 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 448 | 18.2 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 583 | 23.6 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 537 | 21.8 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T262 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 16 | 259 | 170 | 239 | 684 |
| 2. | 4 | 131 | 131 | 170 | 436 |
| 3. | 4 | 165 | 147 | 250 | 566 |
| 4. | 6 | 172 | 126 | 217 | 521 |
| TOTAL | 30 | 727 | 574 | 876 | 2207 |

***** PERCENTS OF COLUMN TOTALS --

| T262 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 53.3 | 35.6 | 29.6 | 27.3 | 31.0 |
| 2. | 13.3 | 18.0 | 22.8 | 19.4 | 19.8 |
| 3. | 13.3 | 22.7 | 25.6 | 28.5 | 25.6 |
| 4. | 20.0 | 23.7 | 22.0 | 24.8 | 23.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.93

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 27.065 | 9 | 0.0014 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T263 - NHL HOCKEY

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 109 | 4.4 | . | NO RESPONSE |
| 6 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 273 | 11.1 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 356 | 14.4 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 737 | 29.9 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 896 | 36.3 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T263 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 6 | 89 | 65 | 105 | 265 |
| 2. | 3 | 101 | 90 | 148 | 342 |
| 3. | 5 | 215 | 192 | 310 | 722 |
| 4. | 16 | 317 | 218 | 316 | 867 |
| TOTAL | 30 | 722 | 565 | 879 | 2196 |

***** PERCENTS OF COLUMN TOTALS --

| T263 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 20.0 | 12.3 | 11.5 | 11.9 | 12.1 |
| 2. | 10.0 | 14.0 | 15.9 | 16.8 | 15.6 |
| 3. | 16.7 | 29.8 | 34.0 | 35.3 | 32.9 |
| 4. | 53.3 | 43.9 | 38.6 | 35.9 | 39.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.62

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 18.647 | 9 | 0.0284 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T264 - PROFESSIONAL WRESTLING

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 80 | 3.2 | . | NO RESPONSE |
| 7 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 747 | 30.3 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 584 | 23.7 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 536 | 21.7 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 423 | 17.2 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T264 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 14 | 306 | 191 | 214 | 725 |
| 2. | 6 | 191 | 153 | 215 | 565 |
| 3. | 5 | 125 | 143 | 253 | 526 |
| 4. | 5 | 111 | 94 | 196 | 406 |
| TOTAL | 30 | 733 | 581 | 878 | 2222 |

***** PERCENTS OF COLUMN TOTALS --

| T264 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 46.7 | 41.7 | 32.9 | 24.4 | 32.6 |
| 2. | 20.0 | 26.1 | 26.3 | 24.5 | 25.4 |
| 3. | 16.7 | 17.1 | 24.6 | 28.8 | 23.7 |
| 4. | 16.7 | 15.1 | 16.2 | 22.3 | 18.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.48

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 77.256 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T265 - CAR RACES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 88 | 3.6 | . | NO RESPONSE |
| 10 | 0.4 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 516 | 20.9 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 733 | 29.7 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 643 | 26.1 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 387 | 15.7 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T265 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 7 | 192 | 144 | 156 | 499 |
| 2. | 6 | 198 | 193 | 311 | 708 |
| 3. | 9 | 204 | 148 | 271 | 632 |
| 4. | 8 | 128 | 93 | 144 | 373 |
| TOTAL | 30 | 722 | 578 | 882 | 2212 |

***** PERCENTS OF COLUMN TOTALS --

| T265 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 23.3 | 26.6 | 24.9 | 17.7 | 22.6 |
| 2. | 20.0 | 27.4 | 33.4 | 35.3 | 32.0 |
| 3. | 30.0 | 28.3 | 25.6 | 30.7 | 28.6 |
| 4. | 26.7 | 17.7 | 16.1 | 16.3 | 16.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 5.06

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 30.914 | 9 | 0.0003 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T266 - GOLF TOURNAMENTS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 103 | 4.2 | . | NO RESPONSE |
| 6 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 153 | 6.2 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 321 | 13.0 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 759 | 30.8 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 1035 | 42.0 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T266 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 2 | 53 | 33 | 61 | 149 |
| 2. | 2 | 85 | 75 | 147 | 309 |
| 3. | 5 | 215 | 186 | 339 | 745 |
| 4. | 21 | 369 | 277 | 332 | 999 |
| TOTAL | 30 | 722 | 571 | 879 | 2202 |

***** PERCENTS OF COLUMN TOTALS --

| T266 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 6.7 | 7.3 | 5.8 | 6.9 | 6.8 |
| 2. | 6.7 | 11.8 | 13.1 | 16.7 | 14.0 |
| 3. | 16.7 | 29.8 | 32.6 | 38.6 | 33.8 |
| 4. | 70.0 | 51.1 | 48.5 | 37.8 | 45.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.03

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 43.758 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T267 - TENNIS TOURNAMENTS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 107 | 4.3 | . | NO RESPONSE |
| 6 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 234 | 9.5 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 454 | 18.4 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 771 | 31.3 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 805 | 32.6 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T267 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 3 | 78 | 47 | 99 | 227 |
| 2. | 4 | 119 | 109 | 205 | 437 |
| 3. | 7 | 235 | 199 | 315 | 756 |
| 4. | 16 | 288 | 216 | 259 | 779 |
| TOTAL | 30 | 720 | 571 | 878 | 2199 |

***** PERCENTS OF COLUMN TOTALS --

| T267 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 10.0 | 10.8 | 8.2 | 11.3 | 10.3 |
| 2. | 13.3 | 16.5 | 19.1 | 23.3 | 19.9 |
| 3. | 23.3 | 32.6 | 34.9 | 35.9 | 34.4 |
| 4. | 53.3 | 40.0 | 37.8 | 29.5 | 35.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.10

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 32.504 | 9 | 0.0002 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T268 - WEEKEND SPORTS SHOWS LIKE WIDE WORLD OF SPORTS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 80 | 3.2 | . | NO RESPONSE |
| 4 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 89 | 3.6 | E | QUESTION DOES NOT EXIST IN THIS RESPONDENT'S SURVEY |
| 653 | 26.5 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 911 | 36.9 | 2 | SOMETIMES WATCH IT -- YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 448 | 18.2 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 281 | 11.4 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T268 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 13 | 249 | 167 | 202 | 631 |
| 2. | 12 | 256 | 235 | 380 | 883 |
| 3. | 2 | 126 | 108 | 201 | 437 |
| 4. | 3 | 98 | 70 | 103 | 274 |
| TOTAL | 30 | 729 | 580 | 886 | 2225 |

***** PERCENTS OF COLUMN TOTALS --

| T268 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 43.3 | 34.2 | 28.8 | 22.8 | 28.4 |
| 2. | 40.0 | 35.1 | 40.5 | 42.9 | 39.7 |
| 3. | 6.7 | 17.3 | 18.6 | 22.7 | 19.6 |
| 4. | 10.0 | 13.4 | 12.1 | 11.6 | 12.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.69

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 37.314 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T682 - SPORTS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 61 | 2.5 | . | NO RESPONSE |
| 5 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 1111 | 45.1 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 826 | 33.5 | 2 | SOMETIMES WATCH IT--YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 373 | 15.1 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 90 | 3.6 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T682 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 24 | 384 | 278 | 387 | 1073 |
| 2. | 9 | 244 | 212 | 343 | 808 |
| 3. | 3 | 113 | 94 | 153 | 363 |
| 4. | 0 | 39 | 18 | 31 | 88 |
| TOTAL | 36 | 780 | 602 | 914 | 2332 |

***** PERCENTS OF COLUMN TOTALS -----

| T682 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 66.7 | 49.2 | 46.2 | 42.3 | 46.0 |
| 2. | 25.0 | 31.3 | 35.2 | 37.5 | 34.6 |
| 3. | 8.3 | 14.5 | 15.6 | 16.7 | 15.6 |
| 4. | 0.0 | 5.0 | 3.0 | 3.4 | 3.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.36

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 21.938 | 9 | 0.0091 |

Source: NPS RA Recruits, New Recruit Survey 1985

Prepared by: US Army Research Institute

T683 - GENERAL DRAMA

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 115 | 4.7 | . | NO RESPONSE |
| 6 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 308 | 12.5 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 834 | 33.8 | 2 | SOMETIMES WATCH IT--YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 722 | 29.3 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 481 | 19.5 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T683 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 5 | 114 | 81 | 100 | 300 |
| 2. | 4 | 223 | 212 | 373 | 812 |
| 3. | 10 | 228 | 178 | 286 | 702 |
| 4. | 15 | 189 | 122 | 137 | 463 |
| TOTAL | 34 | 754 | 593 | 896 | 2277 |

***** PERCENTS OF COLUMN TOTALS --

| T683 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 14.7 | 15.1 | 13.7 | 11.2 | 13.2 |
| 2. | 11.8 | 29.6 | 35.8 | 41.6 | 35.7 |
| 3. | 29.4 | 30.2 | 30.0 | 31.9 | 30.8 |
| 4. | 44.1 | 25.1 | 20.6 | 15.3 | 20.3 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.48

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 56.884 | 9 | 0.0000 |

Source: NPS RA Recruits,

Prepared by:

T684 - SUSPENSE/MYSTERY DRAMA

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 93 | 3.8 | . | NO RESPONSE |
| 8 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 541 | 21.9 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 1106 | 44.8 | 2 | SOMETIMES WATCH IT--YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 524 | 21.2 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 194 | 7.9 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T684 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 10 | 202 | 142 | 177 | 531 |
| 2. | 13 | 311 | 292 | 457 | 1073 |
| 3. | 9 | 163 | 125 | 209 | 506 |
| 4. | 4 | 87 | 36 | 61 | 188 |
| TOTAL | 36 | 763 | 595 | 904 | 2298 |

***** PERCENTS OF COLUMN TOTALS --

| T684 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 27.8 | 26.5 | 23.9 | 19.6 | 23.1 |
| 2. | 36.1 | 40.8 | 49.1 | 50.6 | 46.7 |
| 3. | 25.0 | 21.4 | 21.0 | 23.1 | 22.0 |
| 4. | 11.1 | 11.4 | 6.1 | 6.7 | 8.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.95

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 36.018 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T685 - SITUATION COMEDIES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 72 | 2.9 | . | NO RESPONSE |
| 10 | 0.4 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 1014 | 41.1 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 980 | 39.7 | 2 | SOMETIMES WATCH IT--YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 271 | 11.0 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 119 | 4.8 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T685 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 16 | 338 | 269 | 368 | 991 |
| 2. | 13 | 280 | 253 | 405 | 951 |
| 3. | 4 | 88 | 58 | 111 | 261 |
| 4. | 2 | 64. | 23 | 25 | 114 |
| TOTAL | 35 | 770 | 603 | 909 | 2317 |

***** PERCENTS OF COLUMN TOTALS --

| T685 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 45.7 | 43.9 | 44.6 | 40.5 | 42.8 |
| 2. | 37.1 | 36.4 | 42.0 | 44.6 | 41.0 |
| 3. | 11.4 | 11.4 | 9.6 | 12.2 | 11.3 |
| 4. | 5.7 | 8.3 | 3.8 | 2.8 | 4.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.72

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 39.415 | 9 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T686 - QUIZ AND GAME SHOWS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 98 | 4.0 | . | NO RESPONSE |
| 4 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 442 | 17.9 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 963 | 39.1 | 2 | SOMETIMES WATCH IT--YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 683 | 27.7 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 276 | 11.2 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T686 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 7 | 158 | 129 | 136 | 430 |
| 2. | 14 | 327 | 227 | 369 | 937 |
| 3. | 8 | 188 | 170 | 299 | 665 |
| 4. | 6 | 92 | 69 | 99 | 266 |
| TOTAL | 35 | 765 | 595 | 903 | 2298 |

***** PERCENTS OF COLUMN TOTALS --

| T686 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 20.0 | 20.7 | 21.7 | 15.1 | 18.7 |
| 2. | 40.0 | 42.7 | 38.2 | 40.9 | 40.8 |
| 3. | 22.9 | 24.6 | 28.6 | 33.1 | 28.9 |
| 4. | 17.1 | 12.0 | 11.6 | 11.0 | 11.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.05

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 24.854 | 9 | 0.0031 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T687 - VARIETY OR TALK SHOWS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 125 | 5.1 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 259 | 10.5 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 726 | 29.4 | 2 | SOMETIMES WATCH IT--YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 879 | 35.6 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 474 | 19.2 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T687 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 4 | 91 | 74 | 88 | 257 |
| 2. | 8 | 211 | 171 | 311 | 701 |
| 3. | 9 | 267 | 213 | 367 | 856 |
| 4. | 14 | 185 | 130 | 129 | 458 |
| TOTAL | 35 | 754 | 588 | 895 | 2272 |

***** PERCENTS OF COLUMN TOTALS --

| T687 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 11.4 | 12.1 | 12.6 | 9.8 | 11.3 |
| 2. | 22.9 | 28.0 | 29.1 | 34.7 | 30.9 |
| 3. | 25.7 | 35.4 | 36.2 | 41.0 | 37.7 |
| 4. | 40.0 | 24.5 | 22.1 | 14.4 | 20.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.96

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 45.778 | 9 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T688 - MOVIES

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 53 | 2.1 | . | NO RESPONSE |
| 10 | 0.4 | A | MULTIPLE RESPONSE ERROR |
| 4757 | . | D | |
| 3 | 0.1 | E | |
| 1534 | 62.2 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 700 | 28.4 | 2 | SOMETIMES WATCH IT--YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 128 | 5.2 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 38 | 1.5 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T688 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 22 | 503 | 424 | 546 | 1495 |
| 2. | 6 | 206 | 147 | 318 | 677 |
| 3. | 6 | 44 | 32 | 40 | 122 |
| 4. | 0 | 18 | 7 | 12 | 37 |
| TOTAL | 34 | 771 | 610 | 916 | 2331 |

***** PERCENTS OF COLUMN TOTALS --

| T688 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 64.7 | 65.2 | 69.5 | 59.6 | 64.1 |
| 2. | 17.6 | 26.7 | 24.1 | 34.7 | 29.0 |
| 3. | 17.6 | 5.7 | 5.2 | 4.4 | 5.2 |
| 4. | 0.0 | 2.3 | 1.1 | 1.3 | 1.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.54

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 40.158 | 9 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T747 - SPORTS PROGRAMMING ON CABLE ONLY CHANNELS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 2.9 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 592 | 25.2 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 726 | 30.9 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 650 | 27.7 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 312 | 13.3 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T747 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 9 | 212 | 159 | 186 | 566 |
| 2. | 7 | 239 | 195 | 267 | 708 |
| 3. | 8 | 186 | 175 | 259 | 628 |
| 4. | 2 | 103 | 87 | 109 | 301 |
| TOTAL | 26 | 740 | 616 | 821 | 2203 |

***** PERCENTS OF COLUMN TOTALS --

| T747 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 34.6 | 28.6 | 25.8 | 22.7 | 25.7 |
| 2. | 26.9 | 32.3 | 31.7 | 32.5 | 32.1 |
| 3. | 30.8 | 25.1 | 28.4 | 31.5 | 28.5 |
| 4. | 7.7 | 13.9 | 14.1 | 13.3 | 13.7 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.55

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 13.143 | 9 | 0.1563 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T748 - MOVIES WITHOUT COMMERCIALS ON CABLE ONLY CHANNELS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 63 | 2.7 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 1107 | 47.1 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 677 | 28.8 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 370 | 15.7 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 130 | 5.5 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T748 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 13 | 366 | 313 | 379 | 1071 |
| 2. | 5 | 212 | 174 | 262 | 653 |
| 3. | 6 | 117 | 94 | 142 | 359 |
| 4. | 2 | 47 | 37 | 38 | 124 |
| TOTAL | 26 | 742 | 618 | 821 | 2207 |

***** PERCENTS OF COLUMN TOTALS --

| T748 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 50.0 | 49.3 | 50.6 | 46.2 | 48.5 |
| 2. | 19.2 | 28.6 | 28.2 | 31.9 | 29.6 |
| 3. | 23.1 | 15.8 | 15.2 | 17.3 | 16.3 |
| 4. | 7.7 | 6.3 | 6.0 | 4.6 | 5.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.46

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 9.027 | 9 | 0.4348 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T749 - MOVIES WITH COMMERCIALS ON CABLE ONLY CHANNELS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 73 | 3.1 | . | NO RESPONSE |
| 2 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 468 | 19.9 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 979 | 41.7 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 492 | 20.9 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 336 | 14.3 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T749 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 6 | 156 | 155 | 139 | 456 |
| 2. | 5 | 307 | 259 | 369 | 940 |
| 3. | 11 | 158 | 119 | 188 | 476 |
| 4. | 3 | 119 | 82 | 121 | 325 |
| TOTAL | 25 | 740 | 615 | 817 | 2197 |

***** PERCENTS OF COLUMN TOTALS --

| T749 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 24.0 | 21.1 | 25.2 | 17.0 | 20.8 |
| 2. | 20.0 | 41.5 | 42.1 | 45.2 | 42.8 |
| 3. | 44.0 | 21.4 | 19.3 | 23.0 | 21.7 |
| 4. | 12.0 | 16.1 | 13.3 | 14.8 | 14.8 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.70

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 25.852 | 9 | 0.0022 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T750 - RERUNS OF OLD PROGRAMS ON CABLE ONLY CHANNELS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 72 | 3.1 | . | NO RESPONSE |
| 2 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 504 | 21.4 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 793 | 33.7 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 659 | 28.0 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 320 | 13.6 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T750 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 3 | 170 | 134 | 181 | 488 |
| 2. | 10 | 263 | 217 | 274 | 764 |
| 3. | 8 | 204 | 180 | 247 | 639 |
| 4. | 5 | 99 | 88 | 116 | 308 |
| TOTAL | 26 | 736 | 619 | 818 | 2199 |

***** PERCENTS OF COLUMN TOTALS --

| T750 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 11.5 | 23.1 | 21.6 | 22.1 | 22.2 |
| 2. | 38.5 | 35.7 | 35.1 | 33.5 | 34.7 |
| 3. | 30.8 | 27.7 | 29.1 | 30.2 | 29.1 |
| 4. | 19.2 | 13.5 | 14.2 | 14.2 | 14.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.64

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 3.933 | 9 | 0.9158 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T751 - MUSIC VIDEOS (NOT INCLUDING MTV) ON CABLE ONLY CHANNELS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 67 | 2.9 | . | NO RESPONSE |
| 1 | 0.0 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 662 | 28.2 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 766 | 32.6 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 556 | 23.7 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 298 | 12.7 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T751 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 11 | 255 | 206 | 179 | 651 |
| 2. | 4 | 240 | 197 | 296 | 737 |
| 3. | 10 | 166 | 130 | 223 | 529 |
| 4. | 1 | 79 | 82 | 124 | 286 |
| TOTAL | 26 | 740 | 615 | 822 | 2203 |

***** PERCENTS OF COLUMN TOTALS --

| T751 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 42.3 | 34.5 | 33.5 | 21.8 | 29.6 |
| 2. | 15.4 | 32.4 | 32.0 | 36.0 | 33.5 |
| 3. | 38.5 | 22.4 | 21.1 | 27.1 | 24.0 |
| 4. | 3.8 | 10.7 | 13.3 | 15.1 | 13.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.38

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 48.296 | 9 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T752 - MTV - ON CABLE ONLY CHANNELS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 71 | 3.0 | . | NO RESPONSE |
| 4 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 891 | 37.9 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 592 | 25.2 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 503 | 21.4 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 289 | 12.3 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T752 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 10 | 293 | 265 | 301 | 869 |
| 2. | 8 | 194 | 147 | 221 | 570 |
| 3. | 5 | 156 | 122 | 202 | 485 |
| 4. | 3 | 95 | 83 | 95 | 276 |
| TOTAL | 26 | 738 | 617 | 819 | 2200 |

***** PERCENTS OF COLUMN TOTALS --

| T752 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 38.5 | 39.7 | 42.9 | 36.8 | 39.5 |
| 2. | 30.8 | 26.3 | 23.8 | 27.0 | 25.9 |
| 3. | 19.2 | 21.1 | 19.8 | 24.7 | 22.0 |
| 4. | 11.5 | 12.9 | 13.5 | 11.6 | 12.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 3.26

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 10.551 | 9 | 0.3077 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T753 -- NEWS ON CABLE ONLY CHANNELS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 71 | 3.0 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 417 | 17.7 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 723 | 30.8 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 647 | 27.5 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 489 | 20.8 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T753 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 6 | 119 | 108 | 155 | 388 |
| 2. | 6 | 241 | 191 | 271 | 709 |
| 3. | 5 | 206 | 163 | 255 | 629 |
| 4. | 8 | 175 | 154 | 136 | 473 |
| TOTAL | 25 | 741 | 616 | 817 | 2199 |

***** PERCENTS OF COLUMN TOTALS --

| T753 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 24.0 | 16.1 | 17.5 | 19.0 | 17.6 |
| 2. | 24.0 | 32.5 | 31.0 | 33.2 | 32.2 |
| 3. | 20.0 | 27.8 | 26.5 | 31.2 | 28.6 |
| 4. | 32.0 | 23.6 | 25.0 | 16.6 | 21.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.41

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 22.529 | 9 | 0.0073 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T754 - OTHER PROGRAMS ON CABLE ONLY CHANNELS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 79 | 3.4 | . | NO RESPONSE |
| 4873 | . | D | |
| 516 | 22.0 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 992 | 42.2 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 543 | 23.1 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 220 | 9.4 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T754 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 7 | 211 | 140 | 147 | 505 |
| 2. | 8 | 298 | 277 | 373 | 956 |
| 3. | 8 | 159 | 133 | 222 | 522 |
| 4. | 2 | 70 | 62 | 77 | 211 |
| TOTAL | 25 | 738 | 612 | 819 | 2194 |

***** PERCENTS OF COLUMN TOTALS --

| T754 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 28.0 | 28.6 | 22.9 | 17.9 | 23.0 |
| 2. | 32.0 | 40.4 | 45.3 | 45.5 | 43.6 |
| 3. | 32.0 | 21.5 | 21.7 | 27.1 | 23.8 |
| 4. | 8.0 | 9.5 | 10.1 | 9.4 | 9.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.40

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 30.438 | 9 | 0.0004 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T755 - MUSIC VIDEOS (NOT INCLUDING CABLE TV)

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 33 | 1.4 | . | NO RESPONSE |
| 6 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 702 | 29.9 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 855 | 36.4 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 551 | 23.4 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 203 | 8.6 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T755 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 13 | 272 | 207 | 189 | 681 |
| 2. | 4 | 265 | 229 | 328 | 826 |
| 3. | 7 | 145 | 142 | 234 | 528 |
| 4. | 1 | 64 | 49 | 84 | 198 |
| TOTAL | 25 | 746 | 627 | 835 | 2233 |

***** PERCENTS OF COLUMN TOTALS --

| T755 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 52.0 | 36.5 | 33.0 | 22.6 | 30.5 |
| 2. | 16.0 | 35.5 | 36.5 | 39.3 | 37.0 |
| 3. | 28.0 | 19.4 | 22.6 | 28.0 | 23.6 |
| 4. | 4.0 | 8.6 | 7.8 | 10.1 | 8.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.22

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 51.036 | 9 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T756 - EARLY/LATE NEWS

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 39 | 1.7 | . | NO RESPONSE |
| 10 | 0.4 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 736 | 31.3 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 909 | 38.7 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 494 | 21.0 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 162 | 6.9 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T756 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 8 | 194 | 208 | 299 | 709 |
| 2. | 8 | 290 | 244 | 343 | 885 |
| 3. | 5 | 185 | 133 | 151 | 474 |
| 4. | 2 | .75 | 39 | 39 | 155 |
| TOTAL | 23 | 744 | 624 | 832 | 2223 |

***** PERCENTS OF COLUMN TOTALS --

| T756 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 34.8 | 26.1 | 33.3 | 35.9 | 31.9 |
| 2. | 34.8 | 39.0 | 39.1 | 41.2 | 39.8 |
| 3. | 21.7 | 24.9 | 21.3 | 18.1 | 21.3 |
| 4. | 8.7 | 10.1 | 6.3 | 4.7 | 7.0 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 1.60

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 38.817 | 9 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T757 - DAVID LETTERMAN SHOW

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 30 | 1.3 | . | NO RESPONSE |
| 11 | 0.5 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 462 | 19.7 | 1 | REGULARLY TURN ON THE TV TO WATCH IT |
| 426 | 18.1 | 2 | SOMETIMES WATCH IT - YOU WATCH IT IF IT HAPPENS TO BE ON WHEN YOU TURN ON THE TV |
| 700 | 29.8 | 3 | HAVE WATCHED IT ONCE OR TWICE |
| 721 | 30.7 | 4 | HAVE NEVER WATCHED IT |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T757 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 3 | 103 | 127 | 209 | 442 |
| 2. | 6 | 138 | 100 | 173 | 417 |
| 3. | 7 | 213 | 202 | 250 | 672 |
| 4. | 9 | 290 | 204 | 197 | 700 |
| TOTAL | 25 | 744 | 633 | 829 | 2231 |

***** PERCENTS OF COLUMN TOTALS --

| T757 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 12.0 | 13.8 | 20.1 | 25.2 | 19.8 |
| 2. | 24.0 | 18.5 | 15.8 | 20.9 | 18.7 |
| 3. | 28.0 | 28.6 | 31.9 | 30.2 | 30.1 |
| 4. | 36.0 | 39.0 | 32.2 | 23.8 | 31.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 4.67

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 62.280 | 9 | 0.0000 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

# RECRUITER CONTACT:

# NRS-85 TOPLINE RESULTS

# FIRST CONTACT WITH ARMY RECRUITER NPS RA RECRUITS

## HOW DID YOU HAVE YOUR FIRST CONTACT WITH AN ARMY RECRUITER?

| | 1983 | 1985 |
|---|---|---|
| I CONTACTED AN ARMY RECRUITER ON THE ADVICE OF ANOTHER SERVICE RECRUITER | 7 | 4 |
| I CONTACTED AN ARMY RECRUITER FIRST | 55 | 43 |
| AN ARMY RECRUITER CONTACTED ME FIRST | 23 | 37 |
| I WAS WITH A FRIEND WITH WHOM A RECRUITER WAS MEETING | 13 | 14 |
| I CONTACTED AN ARMY RECRUITER THROUGH A U.S. ARMY RESERVE UNIT OR MEMBER | 2 | 2 |
| | 100% | 100% |

SOURCE: NEW RECRUIT SURVEYS, 1983 & 1985 NPS RA

PREPARED BY:
U.S. ARMY RESEARCH INSTITUTE

# FIRST CONTACT WITH ARMY RECRUITER

## HOW DID YOU HAVE YOUR FIRST CONTACT WITH AN ARMY RECRUITER?

| | GMA RECRUITS | | GFA RECRUITS | |
|---|---|---|---|---|
| | 83 | 85 | 83 | 85 |
| I CONTACTED AN ARMY RECRUITER ON THE ADVICE OF ANOTHER SERVICE RECRUITER | 5 | 3 | 5 | 4 |
| I CONTACTED AN ARMY RECRUITER FIRST | 53 | 44 | 60 | 50 |
| AN ARMY RECRUITER CONTACTED ME FIRST | 27 | 38 | 24 | 31 |
| I WAS WITH A FRIEND WITH WHOM A RECRUITER WAS MEETING | 13 | 13 | 8 | 13 |
| I CONTACTED AN ARMY RECRUITER THROUGH A U.S. ARMY RESERVE UNIT OR MEMBER | 2 | 2 | 3 | 2 |
| | 100% | 100% | 100% | 100% |

SOURCE: NEW RECRUIT SURVEYS, 1983 & 1985 NPS RA

PREPARED BY:
U.S. ARMY RESEARCH INSTITUTE

# CIRCUMSTANCES OF FIRST RECRUITER CONTACT NPS RA RECRUITS

## UNDER WHAT CIRCUMSTANCES DID YOU FIRST TALK WITH AN ARMY RECRUITER?

| | 1983 | 1985 |
|---|---|---|
| BY PHONE | 37 | 40 |
| AT A RECRUITING STATION | 42 | 32 |
| AT A JOB FAIR | 1 | 0 |
| AT SCHOOL | 15 | 22 |
| AT AN ARMY RESERVE UNIT | 1 | 1 |
| OTHER | 4 | 5 |
| | 100% | 100% |

SOURCE: NEW RECRUIT SURVEYS, 1983 & 1985 NPS RA

PREPARED BY:
U.S. ARMY RESEARCH INSTITUTE

# CIRCUMSTANCES OF FIRST RECRUITER CONTACT

## UNDER WHAT CIRCUMSTANCES DID YOU FIRST TALK WITH AN ARMY RECRUITER?

| | GMA RECRUITS | | GFA RECRUITS | |
|---|---|---|---|---|
| | 83 | 85 | 83 | 85 |
| BY PHONE | 37 | 41 | 42 | 39 |
| AT A RECRUITING STATION | 42 | 34 | 40 | 36 |
| AT A JOB FAIR | 1 | 1 | 1 | 1 |
| AT SCHOOL | 15 | 19 | 12 | 20 |
| AT AN ARMY RESERVE UNIT | 1 | 0 | 1 | 0 |
| OTHER | 4 | 5 | 4 | 4 |
| | 100% | 100% | 100% | 100% |

SOURCE: NEW RECRUIT SURVEYS, 1983 & 1985 NPS RA

PREPARED BY:
U.S. ARMY RESEARCH INSTITUTE

T004 - INFORMATION FROM A RECRUITER AIDE. A RECRUITER AIDE IS AN ARMY SOLDIER WHO RETURNS TO HIS HOMETOWN AND SCHOOL AFTER TRAINING TO HELP THE ARMY RECRUITER CONTACT PEOPLE WHO MIGHT WANT TO ENLIST.

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 87 | 3.7 | . | NO RESPONSE |
| 6 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 1399 | 59.5 | 1 | NOT APPLICABLE; EVENT DID NOT OCCUR |
| 230 | 9.8 | 2 | IT OCCURRED BUT WAS NOT AT ALL IMPORTANT |
| 280 | 11.9 | 3 | SOMEWHAT IMPORTANT |
| 255 | 10.9 | 4 | VERY IMPORTANT |
| 93 | 4.0 | 5 | I WOULD NOT HAVE TALKED TO AN ARMY RECRUITER EXCEPT FOR THIS REASON |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T004 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 9 | 399 | 381 | 564 | 1353 |
| 2. | 4 | 67 | 72 | 82 | 225 |
| 3. | 6 | 114 | 64 | 90 | 274 |
| 4. | 3 | 114 | 64 | 62 | 243 |
| 5. | 2 | 31 | 28 | 25 | 86 |
| TOTAL | 24 | 725 | 609 | 823 | 2181 |

***** PERCENTS OF COLUMN TOTALS --

| T004 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 37.5 | 55.0 | 62.6 | 68.5 | 62.0 |
| 2. | 16.7 | 9.2 | 11.8 | 10.0 | 10.3 |
| 3. | 25.0 | 15.7 | 10.5 | 10.9 | 12.6 |
| 4. | 12.5 | 15.7 | 10.5 | 7.5 | 11.1 |
| 5. | 8.3 | 4.3 | 4.6 | 3.0 | 3.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.95

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 56.660 | 12 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T014 - INFORMATION I RECEIVED IN THE MAIL AFTER I SENT A CARD OR CALLED A TOLL FREE NUMBER IN RESPONSE TO AN ARMY AD

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 76 | 3.2 | . | NO RESPONSE |
| 3 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 1207 | 51.4 | 1 | NOT APPLICABLE; EVENT DID NOT OCCUR |
| 436 | 18.6 | 2 | IT OCCURRED BUT WAS NOT AT ALL IMPORTANT |
| 411 | 17.5 | 3 | SOMEWHAT IMPORTANT |
| 140 | 6.0 | 4 | VERY IMPORTANT |
| 77 | 3.3 | 5 | I WOULD NOT HAVE TALKED TO AN ARMY RECRUITER EXCEPT FOR THIS REASON |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| TO14 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 6 | 326 | 343 | 492 | 1167 |
| 2. | 6 | 130 | 126 | 162 | 424 |
| 3. | 7 | 169 | 99 | 120 | 395 |
| 4. | 1 | 63 | 32 | 41 | 137 |
| 5. | 3 | 38 | 17 | 16 | 74 |
| TOTAL | 23 | 726 | 617 | 831 | 2197 |

***** PERCENTS OF COLUMN TOTALS --

| TO14 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 26.1 | 44.9 | 55.6 | 59.2 | 53.1 |
| 2. | 26.1 | 17.9 | 20.4 | 19.5 | 19.3 |
| 3. | 30.4 | 23.3 | 16.0 | 14.4 | 18.0 |
| 4. | 4.3 | 8.7 | 5.2 | 4.9 | 6.2 |
| 5 | 13.0 | 5.2 | 2.8 | 1.9 | 3.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.77

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 71.131 | 12 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T015 - INFORMATION I RECEIVED IN THE MAIL FROM THE ARMY (WHICH I HAD NOT REQUESTED)

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 77 | 3.3 | . | NO RESPONSE |
| 7 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 893 | 38.0 | 1 | NOT APPLICABLE; EVENT DID NOT OCCUR |
| 730 | 31.1 | 2 | IT OCCURRED BUT WAS NOT AT ALL IMPORTANT |
| 505 | 21.5 | 3 | SOMEWHAT IMPORTANT |
| 96 | 4.1 | 4 | VERY IMPORTANT |
| 42 | 1.8 | 5 | I WOULD NOT HAVE TALKED TO AN ARMY RECRUITER EXCEPT FOR THIS REASON |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T015 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 6 | 256 | 259 | 342 | 863 |
| 2. | 9 | 203 | 193 | 298 | 703 |
| 3. | 7 | 200 | 121 | 164 | 492 |
| 4. | 2 | 49 | 24 | 18 | 93 |
| 5. | 0 | 21 | 14 | 6 | 41 |
| TOTAL | 24 | 729 | 611 | 828 | 2192 |

***** PERCENTS OF COLUMN TOTALS --

| T015 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 25.0 | 35.1 | 42.4 | 41.3 | 39.4 |
| 2. | 37.5 | 27.8 | 31.6 | 36.0 | 32.1 |
| 3. | 29.2 | 27.4 | 19.8 | 19.8 | 22.4 |
| 4. | 8.3 | 6.7 | 3.9 | 2.2 | 4.2 |
| 5. | 0.0 | 2.9 | 2.3 | 0.7 | 1.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.45

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 58.952 | 12 | 0.0000 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T016 - RECRUITER CONTACTED ME AND SOLD ME ON THE IDEA

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 77 | 3.3 | . | NO RESPONSE |
| 6 | 0.3 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 670 | 28.5 | 1 | NOT APPLICABLE; EVENT DID NOT OCCUR |
| 263 | 11.2 | 2 | IT OCCURRED BUT WAS NOT AT ALL IMPORTANT |
| 459 | 19.5 | 3 | SOMEWHAT IMPORTANT |
| 590 | 25.1 | 4 | VERY IMPORTANT |
| 285 | 12.1 | 5 | I WOULD NOT HAVE TALKED TO AN ARMY RECRUITER EXCEPT FOR THIS REASON |
| 7223 | 100.0 | TOTALS | |

OBSERVED FREQUENCY

| T016 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 2 | 170 | 197 | 271 | 640 |
| 2. | 2 | 81 | 72 | 98 | 253 |
| 3. | 8 | 162 | 121 | 153 | 444 |
| 4. | 9 | 210 | 150 | 209 | 578 |
| 5. | 3 | 95 | 80 | 97 | 275 |
| TOTAL | 24 | 718 | 620 | 828 | 2190 |

***** PERCENTS OF COLUMN TOTALS --

| T016 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 8.3 | 23.7 | 31.8 | 32.7 | 29.2 |
| 2. | 8.3 | 11.3 | 11.6 | 11.8 | 11.6 |
| 3. | 33.3 | 22.6 | 19.5 | 18.5 | 20.3 |
| 4. | 37.5 | 29.2 | 24.2 | 25.2 | 26.4 |
| 5. | 12.5 | 13.2 | 12.9 | 11.7 | 12.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 2.77

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 27.371 | 12 | 0.0068 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by: US Army Research Institute

T020 - MY FATHER (STEPFATHER) SUGGESTED/WANTED IT.

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 87 | 3.7 | . | NO RESPONSE |
| 4 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 1439 | 61.2 | 1 | NOT APPLICABLE; EVENT DID NOT OCCUR |
| 231 | 9.8 | 2 | IT OCCURRED BUT WAS NOT AT ALL IMPORTANT |
| 300 | 12.8 | 3 | SOMEWHAT IMPORTANT |
| 207 | 8.8 | 4 | VERY IMPORTANT |
| 82 | 3.5 | 5 | I WOULD NOT HAVE TALKED TO AN ARMY RECRUITER EXCEPT FOR THIS REASON |
| 7223 | 100.0 | TOTALS | |

| T020 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 12 | 433 | 391 | 507 | 1343 |
| 2. | 3 | 74 | 68 | 80 | 223 |
| 3. | 7 | 105 | 80 | 100 | 292 |
| 4. | 2 | 82 | 49 | 64 | 197 |
| 5. | 0 | 28 | 27 | 24 | 79 |
| TOTAL | 27 | 722 | 615 | 825 | 2134 |

***** PERCENTS OF COLUMN TOTALS --

| T020 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 54.5 | 60.0 | 63.6 | 67.5 | 63.8 |
| 2. | 4.5 | 10.2 | 11.1 | 9.7 | 10.2 |
| 3. | 31.8 | 14.5 | 13.0 | 12.1 | 13.4 |
| 4. | 9.1 | 11.4 | 8.0 | 7.8 | 9.0 |
| 5. | 0.0 | 3.9 | 4.4 | 2.9 | 3.6 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.80

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 22.124 | 12 | 0.0362 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T021 - MY MOTHER (STEPMOTHER) SUGGESTED/WANTED IT.

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 97 | 4.1 | . | NO RESPONSE |
| 2 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 4873 | . | D | |
| 1519 | 64.6 | 1 | NOT APPLICABLE; EVENT DID NOT OCCUR |
| 218 | 9.3 | 2 | IT OCCURRED BUT WAS NOT AT ALL IMPORTANT |
| 272 | 11.6 | 3 | SOMEWHAT IMPORTANT |
| 170 | 7.2 | 4 | VERY IMPORTANT |
| 72 | 3.1 | 5 | I WOULD NOT HAVE TALKED TO AN ARMY RECRUITER EXCEPT FOR THIS REASON |
| 7223 | 100.0 | TOTALS | |

***** OBSERVED FREQUENCY

| T021 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 14 | 424 | 422 | 607 | 1467 |
| 2. | 3 | 88 | 53 | 68 | 210 |
| 3. | 5 | 94 | 77 | 89 | 265 |
| 4. | 3 | 84 | 37 | 41 | 165 |
| 5. | 0 | 28. | 25 | 17 | 70 |
| TOTAL | 25 | 718 | 614 | 822 | 2177 |

***** PERCENTS OF COLUMN TOTALS --

| T021 | AFQTCAT | | | |
|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 60.9 | 59.1 | 68.7 | 73.8 | 67.4 |
| 2. | 4.3 | 12.3 | 8.6 | 8.3 | 9.6 |
| 3. | 21.7 | 13.1 | 12.5 | 10.8 | 12.2 |
| 4. | 13.0 | 11.7 | 6.0 | 5.0 | 7.6 |
| 5. | 0.0 | 3.9 | 4.1 | 2.1 | 3.2 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.74

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 57.090 | 12 | 0.0000 |

Source: NPS RA Recruits,

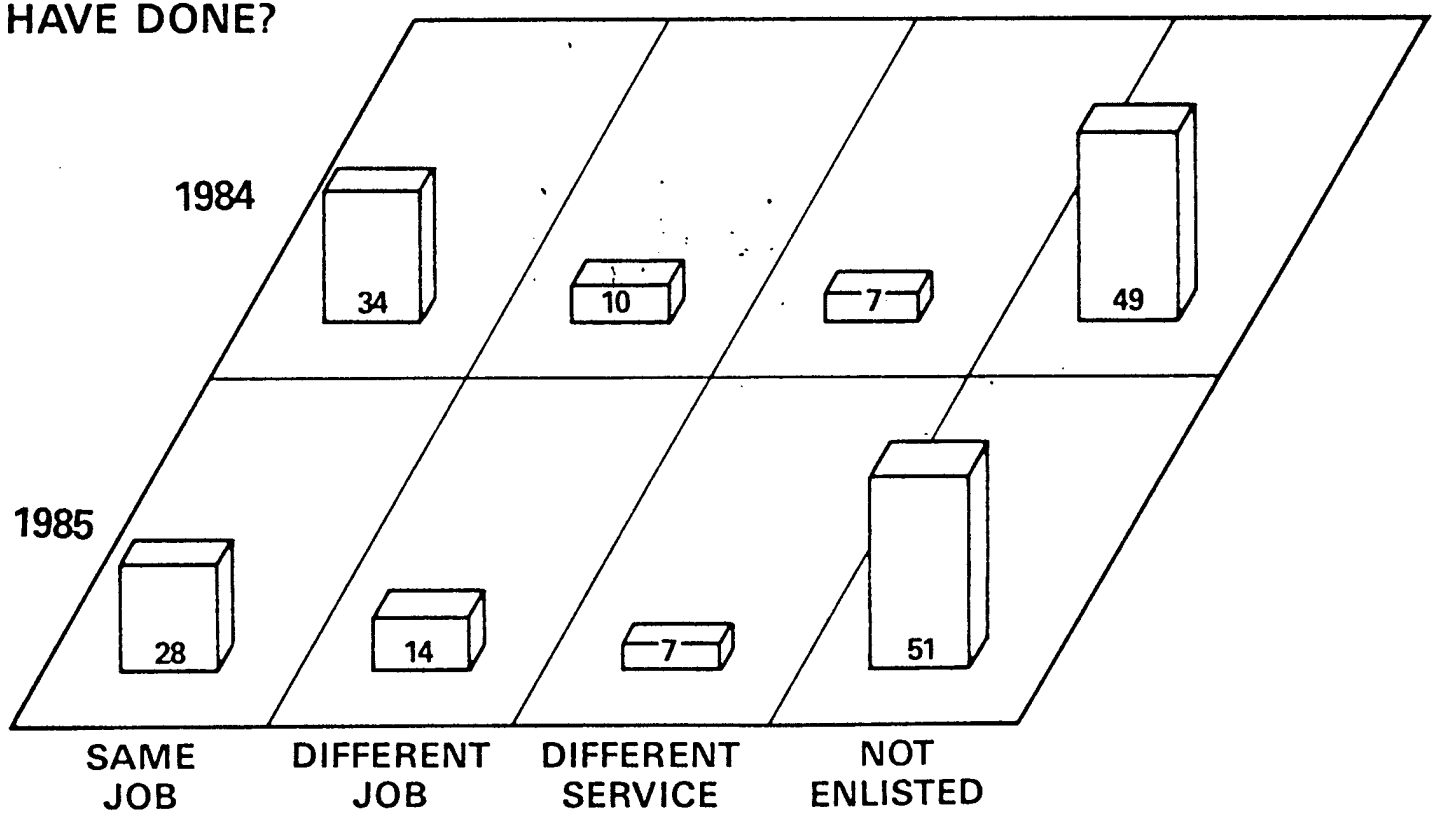
Prepared by:
US Army Research Institute

# TWO-YEAR ENLISTMENT OPTION:

# NRS-85 TOPLINE RESULTS

# EFFECT OF NO SERVICE HAVING TWO YEAR OPTION GMA TWO YEAR ENLISTEES

SUPPOSE NO MILITARY SERVICE HAD A 2-YEAR OPTION. WHAT WOULD YOU HAVE DONE?

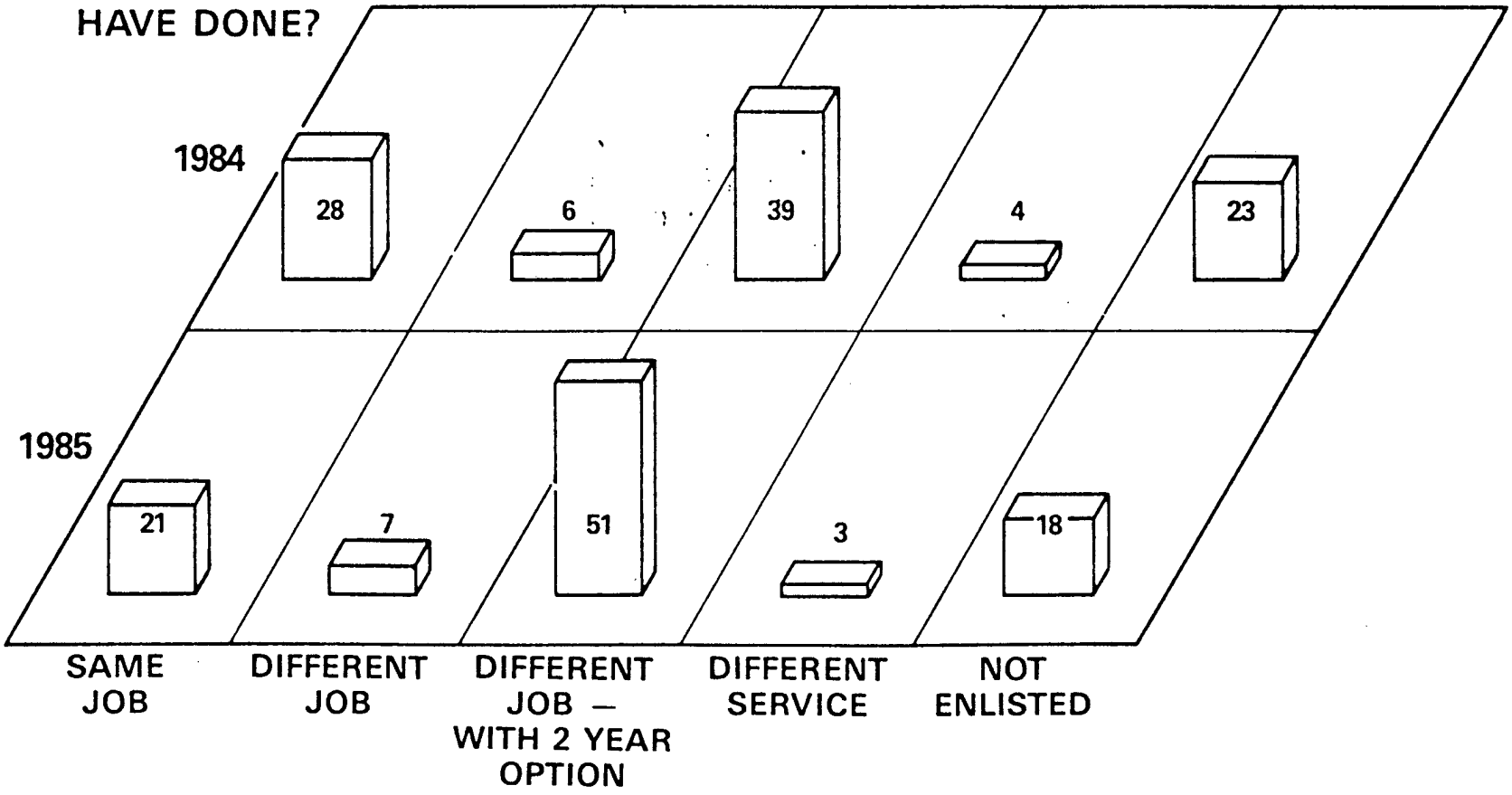



SOURCE: NPS RA RECRUITS, 1984 AND 1985
ARI RECRUIT SURVEYS

PREPARED BY:
U.S. ARMY RESEARCH INSTITUTE

# EFFECT OF ARMY JOB NOT HAVING TWO YEAR OPTION — GMA TWO YEAR ENLISTEES

SUPPOSE THE JOB YOU SIGNED UP FOR DID NOT OFFER A 2 YEAR OPTION. WHAT WOULD YOU HAVE DONE?




SOURCE: NPS RA RECRUITS, 1984 AND 1985
ARI RECRUIT SURVEYS

PREPARED BY:
U.S. ARMY RESEARCH INSTITUTE

T064 - SUPPOSE THE JOB YOU SIGNED UP FOR DID NOT OFFER A 2-YEAR OPTION. WHAT WOULD YOU HAVE DONE?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 161 | 2.2 | . | NO RESPONSE |
| 7 | 0.1 | A | MULTIPLE RESPONSE ERROR |
| 5400 | 74.8 | C | VALID SKIP |
| 699 | 9.7 | 1 | SIGNED UP FOR THE SAME JOB ANYWAY |
| 195 | 2.7 | 2 | SIGNED UP FOR A DIFFERENT JOB IN THE ARMY WHETHER OR NOT IT HAD A 2 YEAR OPTION |
| 470 | 6.5 | 3 | SIGNED UP FOR A DIFFERENT JOB IN THE ARMY ONLY IF IT HAD A 2 YEAR OPTION |
| 72 | 1.0 | 4 | TRIED TO JOIN A DIFFERENT SERVICE |
| 218 | 3.0 | 5 | NOT ENLISTED AT ALL |
| 1 | 0.0 | 8 | *NOT A VALID RESPONSE* |
| 7223 | 100.0 | TOTALS | |

ONLY RECRUITS WITH
2-YR ENLISTMENTS: OBSERVED FREQUENCY

(1980 Youth Norms)

| T064 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 0 | 11 | 62 | 83 | 156 |
| 2. | 0 | 4 | 28 | 23 | 55 |
| 3. | 0 | 15 | 123 | 220 | 358 |
| 4. | 0 | 3 | 9 | 18 | 30 |
| 5. | 0 | 13 | 51 | 65 | 129 |
| 8. | 0 | 0 | 0 | 1 | 1 |
| TOTAL | 0 | 46 | 273 | 410 | 729 |

***** PERCENTS OF COLUMN TOTALS --

| T064 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 0.0 | 23.9 | 22.7 | 20.2 | 21.4 |
| 2. | 0.0 | 8.7 | 10.3 | 5.6 | 7.5 |
| 3. | 0.0 | 32.6 | 45.1 | 53.7 | 49.1 |
| 4. | 0.0 | 6.5 | 3.3 | 4.4 | 4.1 |
| 5. | 0.0 | 28.3 | 18.7 | 15.9 | 17.7 |
| 8. | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.06

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 16.362 | 10 | 0.0897 |

Source: NPS RA Recruits,
New Recruit Survey 1985.

Prepared by:
US Army Research Institute

T065 - SUPPOSE NO MILITARY SERVICE HAD A 2-YEAR OPTION. WHAT WOULD YOU HAVE DONE?

| FREQ | PERCENT | VALUE | MEANING |
|---|---|---|---|
| 155 | 2.1 | . | NO RESPONSE |
| 12 | 0.2 | A | MULTIPLE RESPONSE ERROR |
| 5362 | 74.2 | C | VALID SKIP |
| 806 | 11.2 | 1 | SIGNED UP FOR THE SAME JOB ANYWAY |
| 254 | 3.5 | 2 | SIGNED UP FOR A DIFFERENT JOB IN THE ARMY |
| 108 | 1.5 | 3 | TRIED TO JOIN A DIFFERENT SERVICE |
| 523 | 7.2 | 4 | NOT ENLISTED AT ALL |
| 3 | 0.0 | 8 | NOT A VALID RESPONSE |
| 7223 | 100.0 | TOTALS | |

ONLY RECRUITS WITH 2-YR ENLISTMENTS: OBSERVED FREQUENCY

| T065 | AFQTCAT (1980 Youth Norms) | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 0 | 16 | 79 | 115 | 210 |
| 2. | 0 | 3 | 32 | 60 | 95 |
| 3. | 0 | 3 | 19 | 29 | 51 |
| 4. | 0 | 24 | 141 | 205 | 370 |
| 8. | 0 | 0 | 1 | 2 | 3 |
| TOTAL | 0 | 46 | 272 | 411 | 729 |

***** PERCENTS OF COLUMN TOTALS

| T065 | AFQTCAT | | | | |
|---|---|---|---|---|---|
| | 4A4B | 3B | 3A | 1&2 | TOTAL |
| 1. | 0.0 | 34.8 | 29.0 | 28.0 | 28.8 |
| 2. | 0.0 | 6.5 | 11.8 | 14.6 | 13.0 |
| 3. | 0.0 | 6.5 | 7.0 | 7.1 | 7.0 |
| 4. | 0.0 | 52.2 | 51.8 | 49.9 | 50.8 |
| 8. | 0.0 | 0.0 | 0.4 | 0.5 | 0.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

MINIMUM ESTIMATED EXPECTED VALUE IS 0.19

| STATISTIC | VALUE | D.F. | PROB. |
|---|---|---|---|
| PEARSON CHISQUARE | 3.697 | 8 | 0.8834 |

Source: NPS RA Recruits, New Recruit Survey 1985.

Prepared by:
US Army Research Institute

# Personnel Utilization Technical Area Working Paper 86-18

Enlisting in the U. S. Army: The Citizen Soldier in an All Volunteer Force

Paul A. Gade and Timothy W. Elig

Paper presented at the Eleventh World Congress of Sociology, New Delhi, India

August 1986

ALLYN HERTZBACH
Personnel Utilization
Technical Area

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

**U.S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333

**This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.**

# ENLISTING IN THE U.S. ARMY: THE CITIZEN SOLDIER IN AN ALL VOLUNTEER FORCE

Paul A. Gade and Timothy W. Elig

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

Alexandria, Virginia, USA

Understanding the enlistment decision making processes of America's young men and women has become crucial to the success of the all volunteer Army in the United States. Since 1982, the Army Research Institute (ARI) has been actively engaged in a program to model the enlistment decision making processes of those young men and women. Our initial effort has focussed on describing the motives for enlisting or not enlisting, the key influencers (people and advertising) of the decision making process, and how various incentives offered by the Army interact with those motives and the key influencers to affect the enlistment decision. The purpose for modeling this decision process is to provide Army leaders with information they can use to effectively and efficiently manage recruiting and retention resources and practices. Our research in modeling enlistment decision making began with a series of surveys designed to identify the motives, incentives, and key influencers in the enlistment decision process. These surveys began with a 1982 survey of new recruits as they processed into the Army prior to beginning their basic military training. In 1983, we expanded our knowledge base of the enlistment decision process by conducting an additional 1983 version of the new recruit survey and a survey of high school seniors that used many of the same items and concepts developed in the new recruit surveys of 1982 and 1983. This effort provided us with a look at the pre-enlistment decision making motives and processes of young men and women. We also surveyed new recruits in 1984 and 1985 using instruments similar to those used in 1983, and are currently continuing that effort in 1986.

In the course of developing our conceptualization of the enlistment process, we found Moskos's *citizen soldier in the all volunteer force* to be a useful concept in examining the motives and incentives for Army enlistment [1]. According to this concept, potential members of the armed forces of the U.S. fall into two major categories: citizen soldiers for whom a tour of military duty represents a temporary hiatus in their lives and is merely a stepping stone or stopping place on their way to the roles they will eventually play as career civilians, and career soldiers who are at least seriously contemplating serving in the military as a career [2].

Moskos equates the citizen soldier to the draftee who was inducted into the service, primarily the Army, during the most recent period of conscription in the U.S. Briefly, Moskos hypothsesizes that a short term of enlistment (i.e., two years) combined with lower active duty pay and high educational benefits upon leaving the service, will attract the sort of person that served in the combat arms of the armed forces during the latest draft era [3 & 4]. A recent survey of high school seniors reported by Bachman tends to support Moskos's hypothesis [5]. The results of this survey showed that a large majority of high school seniors felt that a paid college education in return for military service would be a worthwhile program for the U.S. to engage in. Furthermore, a substantial minority, 18 to 21 percent of those who indicated that they did not expect to serve in the military, said that they would consider doing so in return for a paid college education.

The U.S. Army currently offers a two-year enlistment option combined with extra educational benefits to "high quality" recruits who opt to enlist in one of the combat arms specialties or in designated shortage military occupational specialties (MOS). Neither the two year tour nor extra educational benefits were available from any other branch of military service in the U.S. during the period 1982 through 1985 when the surveys reported here were conducted. Thus we have a natural experiment in which only the Army has the incentives that are most likely to attract citizen soldiers as conceptualized by Moskos. It should be noted, however, that Horn and Weltin have operationalized the citizen soldier concept differently [6]. Using the results from our 1983 new recruit survey, they defined the citizen soldier according to the reenlistment intentions of survey respondents at the completion of their first term of service; those who plan to exit the service being classified as citizen soldiers. We have chosen to define citizen soldiers as those who are interested in or who are currently serving in a two year term of service. We believe that the two year tour operationalizes the short term, temporary nature of the citizen soldier in the all volunteer force concept better than do reenlistment plans, and is a more valid measure to use with those who are only considering enlistment in the military. Furthermore, as we shall see, many recruits are unable or unwilling to tell us what they will do at the end of their first enlistment.

Encouraged by Bachman's high school survey, and based on the concept of the citizen soldier in the all volunteer force, we hypothesized that high school seniors would fall into two broad categories: those for whom a two year enlistment would be appealing and those for whom it would not. Further, we felt that these two groups would differ in their interest in enlisting in the military, and in their interest in educational benefits as an enlistment incentive. Specifically, we expected that those interested in the two year citizen soldier type of enlistment option would be more likely to consider as important those reasons for enlisting in the military that are oriented more toward civilian life than toward the military. For example, we expected that those who were more interested in the two year option would be more interested in getting money for college as an enlistment reason.

With respect to our new recruit survey, we expected to find large differences between those who enlisted for the Army's two year option and those who enlisted for three or four year tours. Specifically, we expected that two year recruits would be more likely to enlist for reasons related to improving themselves in relation to the civilian world (e.g., money for college and skill training). As a result, we felt that they would also be more interested in the Army's college fund incentive program, and less likely to have enlisted in the Army if the two year option had not been available.

The remainder of this paper provides a description of the methods we used to collect our data and a summary of the results of our survey efforts. Because they make up about 90 percent of the U.S. Army and exclusively occupy the combat specialties, male respondents were the primary focus of this report. For each of our different survey efforts, we begin with an overview of reasons why American young people said they would or would not like to serve in the U.S. military depending on their interest in a two-year tour. We then provide a preliminary assessment of the effectiveness of Army enlistment incentives in meeting the needs of those who might not otherwise choose to serve. Finally, we examine who the key influencers in the enlistment decision process might be and what roles they seem to be playing in this process.

## 1983 SURVEY OF HIGH SCHOOL SENIORS

The first step in the enlistment decision process usually occurs when a high school senior makes his or her first career choice. By surveying students at about the time they were making these choices, we hoped to find out why seniors choose to enlist or not enlist in the U.S. Army.

## Method

A sample of 1329 male and female high school seniors was surveyed between November, 1983 and February, 1984. High schools that had participated in a similar Army survey in 1982 were asked to participate in our survey. These high schools were representative of the national high school population geographically, across all nine census divisions, and in population density (urban, suburban, and rural) [7&8]. Of the sample, 56.7% were male, 84.4% were white, 10.3% were black, and 4.2% were Hispanic.

Students were selected by their high school officials to be as representative as possible of their senior classes in terms of gender, ethnic group, and academic ability. To insure representative academic abilities, high school officials were asked to select five seniors from the upper quarter of their class academic standings, ten from the middle two quarters, and five from the bottom quarter. Students who agreed to participate were administered a 107 item questionnaire during a single 45 minute class period at their respective high schools. The questionnaire was designed to elicit responses in five major categories: demographic characteristics of the students, their reasons for considering enlisting, their reasons for not considering enlisting, their memory for Army advertising and promotional activities, and their preferences for particular Army occupations. In order to estimate the general cognitive aptitude of the students, the Enlistment Screening Test (EST) was also administered to the students after they had completed the questionnaire [9]. The survey and the EST were administered by U.S. Army Recruiting Command officials who wore civilian clothes and did not identify themselves as Army personnel. Only the responses for the male seniors ( n = 705 ) are reported here

## Results

### Motives for Enlistment

Table 1 shows the most important overall reasons for enlistment given by high school senior males. The four major reasons our high school seniors thought were the most important of all were: chance to better myself, to get trained in a skill, to serve my country, and to get money for a college education.

The Youth Attitude Tracking Survey (YATS) quality index is a measure of aptitude based on school grades and number of math and science courses taken [10]. We had planned to use the EST scores of participants to estimate cognitive ability; however, many seniors were unable to complete both our questionnaire and the EST in the time alloted. Therefore, we were forced to rely on the YATS quality index to provide us with this cognitive ability estimate. As can be seen in Table 1, the higher quality seniors, as measured by the YATS index, were more likely to say that they would consider enlisting to get money for college, and less likely to say they would enlist to get away from a personal problem, prove they can make it, be away from home, because they have a family tradition to serve, or because they were unemployed. For the high YATS quality index seniors, money for a college education was the second most important enlistment reason given, followed closely by patriotism, and just slightly behind a chance to better myself. For low YATS index seniors, chance to better myself, skill training, patriotism, and unemployment were more frequently given as enlistment reasons than was money for a college education.

Table 1.

Most Important Overall Reasons for Enlistment
for High School Senior Males by YATS Quality Index

| Enlistment Reason | Overall | Quality Index High | Low |
|---|---|---|---|
| CHANCE TO BETTER MYSELF | 62% | 58% | 64% |
| TO GET TRAINED IN A SKILL | 59 | 54 | 62 |
| MONEY FOR COLLEGE EDUCATION* | 47 | 56 | 41 |
| TO SERVE MY COUNTRY | 58 | 55 | 57 |
| BEING UNEMPLOYED* | 38 | 26 | 46 |
| TO PROVE I CAN MAKE IT* | 34 | 26 | 39 |
| TO BE AWAY FROM HOME* | 12 | 9 | 14 |
| EARN MORE MONEY | 33 | 29 | 36 |
| TRAVEL | 29 | 25 | 32 |
| ESCAPE PERSONAL PROBLEM* | 11 | 5 | 16 |
| FAMILY TRADITION TO SERVE* | 4 | 2 | 7 |

*** p<.05 for YATS Index**

A factor analysis of the high school senior males' potential reasons for enlisting was performed using a principal components solution and a varimax, orthogonal rotation. This analysis yielded four principal factors. The first factor, which we call Self Improvement, contains the items: chance to better myself, proving I can make it, earning the respect of others, physical training and challenge, and getting time to figure out what I really want to do. Factor two, Education, contains the items: getting money for college, getting money for vocational-technical or business training, getting trained in a skill that will help get a civilian job, and making more money than as a civilian. The third factor, Escaping Civilian Life, contains the items: being unemployed, to be away from home on my own, and getting away from a personal problem. The final factor, Patriotism, contains only two items: serving my country and being a soldier.

Enlistment Incentives

The major enlistment incentives available only to the Army are a two year enlistment option and the Army College Fund (ACF), an additional educational benefit above those benefits that are available to all recruits regardless of service. The Army uses these incentives to attract prospects who probably would not otherwise enlist. We asked our high school senior males to indicate their ratings of various incentives that are available to the military in general. We also included the two year option, available only to the Army, in this list of seven items. Table 2 shows the percentage of these senior males who said the incentives were either very important or they would not consider enlisting without them.

Table 2.

Ratings of Enlistment Incentives
by High School Senior Males

| Enlistment Incentive | Percent Rating As Very Important |
|---|---|
| Retirement Benefits | 68.7 |
| Free Medical/Dental Care | 68.4 |
| **Financial Aid for Education** | **56.3** |
| Guaranteed US Location of Choice | 54.9 |
| Guaranteed Overseas Location of Choice | 49.9 |
| Starting Salary of $550 | 49.1 |
| **Two-Year Tour Option** | **41.6** |

**Boldface incentives are those where the Army had exclusive benefits during the survey period.**

It seems somewhat surprising that retirement benefits would receive such a high ranking among such a young group of people; however, the military is well known for its attractive retirement benefits, and we suspect the public has come to expect this feature as one of the major benefits of pursuing a military career. All the incentives received a large percentage of very positive responses, the lowest being the two year option at 41.6%. When one considers that these ratings were only for those who said these incentives were at least very important, the high ratings are even more remarkable. It should be noted that the two year option is fairly new, especially compared to the other incentives in the list, and has not been widely advertised by the Army.

As Table 3 shows, seniors who considered the two year enlistment option very important or would not consider enlisting without it, say that getting away from a personal problem, making more money than as a civilian, getting trained in a skill that will lead to a civilian job, and getting money for college are their essential reasons for enlistment. Those interested in the two year option are also less likely to say that they definitely will not serve in the Army than are those for whom the two year option is less important or not important. Curiously, those interested in the two year option are less likely to have considered joining the Army than are their less interested counterparts. A Chi Square analysis showed these differences to be statistically significant ($p < .05$).

Table 3.

Overall Enlistment Reasons and by
Interest in Two Year Tour for High School Senior Males

| | Tour Length | | |
|---|---|---|---|
| **Enlistment Reason** | Overall | 2 Year | Other |
| CHANCE TO BETTER MYSELF | 62% | 60% | 64% |
| TO GET TRAINED IN A SKILL* | 59 | 67 | 54 |
| MONEY FOR COLLEGE EDUCATION* | 47 | 55 | 41 |
| TO SERVE MY COUNTRY | 58 | 55 | 57 |
| BEING UNEMPLOYED | 38 | 37 | 39 |
| TO PROVE I CAN MAKE IT | 34 | 34 | 34 |
| BE AWAY FROM HOME ON MY OWN | 12 | 14 | 11 |
| EARN MORE MONEY* | 33 | 41 | 27 |
| TRAVEL | 29 | 34 | 25 |
| ESCAPE FROM PERSONAL PROBLEM* | 11 | 14 | 10 |
| FAMILY TRADITION TO SERVE | 4 | 4 | 5 |

***p<.05 for those interested in the two year tour vs. those not interested in it.**

To get some idea of who seniors rely on for job or career advice, we asked our seniors to identify who they rely on for help in making career decisions, who are their information sources about jobs/careers, and who they are most interested in pleasing in their job/career choices. Table 4 shows how important various influencers were to our high school senior males.

Table 4.

Percent of High School Senior Males Selecting
Influencer as Important by Type of Aid Sought

| Influencer | Decision Help | Information | To Please |
|---|---|---|---|
| Father | 57.6% | 44.7% | 66.9% |
| Mother | 51.4 | 32.2 | 65.7 |
| School Guidance Counselor | 30.5 | 53.1 | 6.1 |
| Brother/Sister | 20.6 | 13.8 | 19.6 |
| Teacher | 17.9 | 17.2 | 7.1 |
| Friends | 17.5 | 15.6 | 15.4 |
| Girl/Boy Friend | 13.3 | 6.7 | 18.4 |
| Military Recruiter | 11.9 | 14.0 | 4.4 |
| Others (not specified) | 19.1 | 17.6 | 18.9 |

Interestingly enough, fathers and mothers are ranked very high on all three areas of influence, and they rank especially high on the like to please dimension. Siblings, girl/boy friends, and other friends also rank high as influencers. However, girl/boy friends are not seen as valuable

information sources for career decisions. These results are especially interesting in light of a recent DoD sponsored survey which showed that fathers and mothers perceive that they have very little influence over a son or daughter's decision to enlist or not enlist in the military service [11]. Our results indicate that mothers and especially fathers have a much bigger influence on the enlistment decision process than they believe.

## NEW RECRUIT SURVEYS

Our survey of new recruits includes both Active, Reserve, and National Guard components; however only results from the Active force are included in this report. As with the results from our high school senior survey, the results for new recruits reported here will focus on male recruits.

### Method

#### 1982 Survey

Our 1982 survey of new recruits was based largely on the 1979 Department of Defense survey of people entering the military service [12]. Although we have preserved many of the same items that appeared in the 1979 survey, we have modified many others and added new items that are more suited to our purposes. Our questionnaire began evolving even in 1982, and we used three different forms during that year.

The 1982 survey was administered to new recruits in group settings during initial entry processing in all seven U.S. Army Reception Stations. The original form of the survey was administered during two one-week periods in May and one one-week period in June of 1982. During the first survey period in May, only five of the reception stations were surveyed, because of prior commitments on the part of two of the stations. A revised form was administered during July and August of 1982. The population sampled was all non-prior service accessions into the Regular Army, Army Reserve, and National Guard who were processing through the Reception Stations on the dates that the survey was given. The details of the survey sampling and administration procedures can be found in Elig, Johnson, Gade, & Hertzbach [13]. The survey yielded 6,318 usable questionnaires from Regular Army, non-prior service recruits.

Individual questionnaires were matched with accessioning records taken from the Military Entrance Processing Station Reporting System (MEPRS). This allowed us to match questionnaire responses with demographic information, such as Armed Services Vocational Aptitude Battery (ASVAB) test scores. Matching MEPRS records could be found for 97.7% of the questionnaires, yielding a sample of 6,175 respondents for whom MEPRS records were available.

#### 1983 Survey

The 1983 survey was a replication and extension of the 1982 survey and as such contains many of the same items found in the 1982 survey. For a detailed accounting of the 1983 survey development and administration, see Elig, Hertzbach and Johnson [14].

As with the 1982 survey, the questionnaires were administered to all new recruits in group settings during their initial entry processing in all seven U.S. Army Reception Stations. Questionnaires were administered to Regular Army, Reserve, and National Guard recruits. Again, only the results for the Regular or Active Army are reported here. The surveys were administered during five, one week periods between May and August of 1983. Three different forms of the survey were used with the Regular Army recruits. A total of 8,605 Regular Army, non-prior service recruits completed usable surveys. As with the 1982 sample, we were very successful in matching MEPRS data to questionnaire data. Matching records were found for 96.9% of the respondents,

thus yielding a sample of 8,341 recruits with matching MEPRS records. Details on the differences among the the three forms can be found in Elig, Hertzbach and Johnson [14].

### 1984 Survey

The 1984 survey of new recruits was an extention of the 1983 survey. Several new items were added to this survey, particularly in the advertising area. Like the 1983 survey, the 1984 survey was administered at all reception stations during the summer. As with previous surveys, the questionnaires were administered to all new recruits in group settings during their initial entry processing in all eight U.S. Army Reception Stations. Questionnaires were administered to Regular Army, Reserve, and National Guard recruits. Again, only the results for the Regular or Active Army are reported here. A total of 10,495 surveys were administered during the period June, 1984 through August,1985. The majority of the questionnaires completed, 6,184, were from those serving on active duty. For a detailed accounting of the 1984 survey development and administration, see Westst, Inc. [15].

### 1985 Survey

The 1985 survey of new recruits was administered at all reception stations during June, July, August, and September 1985. As with previous surveys, the questionnaires were administered to all new recruits in group settings during their initial entry processing in all eight U.S. Army Reception Stations. Previous surveys (1982 through 1984) had been administered by reception station personnel. The 1985 survey data were collected by contract personnel from Westat, Inc. Questionnaires were administered to Regular Army, Reserve, and National Guard recruits. Again, only the results for the Regular or Active Army are reported here. A total of 12,536 surveys were administered. The majority of these surveys (7,220) were from those serving on active duty. For a detailed accounting of the 1985 survey development and administration, see Westst, Inc. [16].

## Results

Before discussing the results to our recruit surveys, a brief discussion of these samples in relation to their respective populations is in order. Except for the 1983 and 1984 survey forms that were used for brief periods in the following years, surveys were administered only in the summer months. Thus our only consistent sample is one period of the year, and we have not yet explored weighting our samples to reflect the entire year. The impact of regular seasonal variations in recruit characteristics or other shifts in motivational patterns between the routine survey periods precludes a straightforward generalization of survey results to entire years. Rather, our summer samples should be considered as trend indicators for the most important segment of recruits for the US Army, recent high school graduates. By enlisting under the Delayed Entry Program, high school seniors can contract for enlistment throughout the school year for entry into the Army in the summer months right after high school graduation in May or early June. The potential for seasonal bias in our sample is attenuated by the fact that the Regular Army recruits in our samples signed enlistment contracts under the Delayed Entry Program (and made the decision to enlist) at various times of the year, not just in the summer months.

We have noted some minor variations in the mix of recruits in our samples compared to what might be expected from simple random samples of recruits from entire year cohorts. These variations were small in 1982 through 1983, and became almost non-existent in 1985 [15, 16 & 17].

### Motives for Enlistment

In attempting to understand the enlistment decision processes from our survey results, it is useful to begin by comparing the results of our efforts with those of the Rand survey at enlistment

processing stations conducted in 1979. Many of the items used in our new recruit surveys were identical or at least similar to those used in this 1979 survey.

Table 5 shows the five important reasons for enlisting as they were given by the respondents to these five survey efforts. One is immediately struck by several things when looking at this table. First, the top reported reason for enlistment, "a chance to better myself," is the same across all five time frames. There has been a dramitic rise in "money for a college education" as an enlistment reason. "Skill training" as enlistment reasons has declined since 1979. 1979 was a very poor recruiting year for the Army, while 1982 through 1985 were very good years for recruiting. At least part of the reason for this can be attributed to the dramatic increase in unemployment as a reason for enlisting between 1979 and 1982. This is consistent with findings of Dale and Gilroy who have shown that unemployment is a key factor in the ability of the Army to enlist male, non-prior service, high school graduates [18]. The drop in unemployment as an enlistment reason between 1983 and 1985 is offset by a dramatic rise in money for college as an enlistment reason.

It is interesting to note that patriotism is fairly high up on the list of reasons for enlistment, and that it remains a remarkably stable reason across good and bad recruiting years. This is in agreement with Burk and Faris who found patriotism to be very stable across a variety of cognitive and socio-economic characteristics [19].

Table 6 shows the results of the 1983 through 1985 surveys for high AFQT category male high school graduates. Unlike the general population of recruits, they most frequently say they enlisted to get money for a college education. Lower AFQT males, on the other hand, are more likely to say they enlisted to get skill training or because they were unemployed. Patriotism, as for the general population, remains fairly high up on the list of enlistment reasons and is stable across all three years.

Table 5.

Comparison of 1982 Through 1985
Survey Responses to Most Important Reason
for Enlistment with those from the 1979 DoD Survey

| Enlistment Reason | 1979 DoD | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|
| CHANCE TO BETTER MYSELF | 39% | 30% | 25% | 27% | 24% |
| TO GET TRAINED IN A SKILL | 26 | 22 | 19 | 18 | 18 |
| MONEY FOR COLLEGE EDUCATION | 7 | 15 | 16 | 16 | 22 |
| TO SERVE MY COUNTRY | 10 | 9 | 9 | 10 | 9 |
| I WAS UNEMPLOYED | 4 | 10 | 9 | 6 | 3 |
| TO PROVE I CAN MAKE IT | 4 | 6 | 7 | 7 | 8 |
| BE AWAY FROM HOME | 5 | 4 | 5 | 5 | 4 |
| EARN MORE MONEY | 1 | 2 | 7 | 7 | 8 |
| TRAVEL | 4 | * | * | * | * |
| ESCAPE A PERSONAL PROBLEM | 1 | 1 | 2 | 2 | 2 |
| FAMILY TRADITION TO SERVE | 1 | 1 | 1 | 2 | 2 |

* Not measured on these surveys

Table 6.

Comparison of 1983 Through 1985
Survey Responses to Most Important Reason
for Enlistment for Male AFQT I-IIIA High School Graduates

| Enlistment Reason | 1983 | 1984 | 1985 |
|---|---|---|---|
| CHANCE TO BETTER MYSELF | 21% | 23% | 20% |
| TO GET TRAINED IN A SKILL | 18 | 17 | 18 |
| MONEY FOR COLLEGE EDUCATION | 24 | 24 | 30 |
| TO SERVE MY COUNTRY | 9 | 10 | 10 |
| I WAS UNEMPLOYED | 7 | 4 | 2 |
| TO PROVE I CAN MAKE IT | 6 | 6 | 7 |
| BE AWAY FROM HOME | 5 | 5 | 3 |
| EARN MORE MONEY | 7 | 7 | 7 |
| TRAVEL | * | * | * |
| ESCAPE A PERSONAL PROBLEM | 2 | 2 | 2 |
| FAMILY TRADITION TO SERVE | 1 | 2 | 1 |

* Not measured on these surveys

Table 7, shows the top five reasons for enlisting by enlistment tour length for high AFQT male high school graduates. As expected, money for college is far and away the most important reason for enlisting for two year recruits. It is also the most important reason for three year recruits as well but not nearly as dramatically so. On the other hand, a chance to better themselves is the dominant enlistment motive of four year recruits. Skill training is the most important enlistment reason for three year recruits, being second only to money for education as an enlistment reason. Patriotism as an enlistment motive is highest for those enlisting under four year tours; however, it is ranked fourth as it is for two and three year recruits. Unemployment seems to have been less important as an enlistment motive for two year recruits in 1983 and 1984. In 1985, unemployment seems to have little effect on the enlistment decision process.

Table 7.
Top Five Most Important Reasons for Enlisting
for AFQT Category I-IIIA Male High School Graduates

| Enlistment Reason | Enlistment Tour Length 2 year | 3 year | 4 Year |
|---|---|---|---|
| **1983** | | | |
| CHANCE TO BETTER MYSELF | 15.2% | 18.1% | 24.3% |
| MONEY FOR COLLEGE EDUCATION | 42.8 | 26.8 | 16.1 |
| TO GET TRAINED IN A SKILL | 11.9 | 21.3 | 16.9 |
| TO SERVE MY COUNTRY | 8.7 | 6.7 | 11.9 |
| I WAS UNEMPLOYED | 4.3 | 8.0 | 7.1 |
| **1984** | | | |
| CHANCE TO BETTER MYSELF | 17.5 | 19.7 | 25.9 |
| MONEY FOR COLLEGE EDUCATION | 39.1 | 27.3 | 17.2 |
| TO GET TRAINED IN A SKILL | 10.8 | 21.2 | 16.4 |
| TO SERVE MY COUNTRY | 11.1 | 8.3 | 11.1 |
| I WAS UNEMPLOYED | 2.3 | 3.4 | 6.0 |
| **1985** | | | |
| CHANCE TO BETTER MYSELF | 13.9 | 17.5 | 22.0 |
| MONEY FOR COLLEGE EDUCATION | 48.3 | 32.2 | 23.2 |
| TO GET TRAINED IN A SKILL | 11.4 | 22.0 | 17.3 |
| TO SERVE MY COUNTRY | 6.9 | 8.2 | 12.0 |
| I WAS UNEMPLOYED | 2.4 | 2.1 | 2.1 |

A separate factor analysis of the new recruits' reasons for enlisting was performed for the 1982 and 1983 survey results. As with the high school data, a principal components solution and a varimax rotation was used in each of these analyses. The analysis for the 1982 survey data yielded four principal factors. The first factor, which we call Self-Improvement by Being a Soldier, contains the items: being a soldier, serving my country, physical training and challenge, earning the respect of others, chance to better myself, family tradition to serve, and proving I can make it. Factor two, Education, contains the items: to be away from home on my own, getting time to figure out what I really want to do, and getting money for college. getting away from a personal problem and having an opportunity to travel. The third factor, Economics, contains three items: being unemployed, making more money than a civilian, and getting trained in a skill that will help get a civilian job. The final factor, Escaping Civilian Life, contains two positively related items and two negatively related item each of which is a positive component on two of the other factors. The positively related factors uniquely related to this factor are: getting away from a personal problem, and family tradition to serve. chance to better myself is negatively related to this factor, while being positively related to self-improvement. Money for college is also negatively related to this factor, while being positively related to the education factor.

The analysis for the 1983 survey data also yielded four principal factors. The first factor, which we call Self-Improvement by Being a Soldier, contains the items: being a soldier, serving my country, physical training and challenge, earning the respect of others, chance to better myself,

proving I can make it, and family tradition to serve. Factor two, Escaping Civilian Life, contains the items: getting time to figure out what I really want to do, to be away from home on my own, getting away from a personal problem and having an opportunity to travel. The third factor, Economics, contains only two items: being unemployed, and making more money than a civilian. The final factor, Education, contains two positively related items and two negatively related item each of which is a positive component on two of the other factors. The positively related factors uniquely related to this factor are: getting money for college, and getting trained in a skill that will help get a civilian job. Family tradition to serve is negatively related to this factor, but positively related to the self-improvement factor. Escaping a personal problem is also negatively related to this factor while being positively related to the escaping civilian life factor.

Clearly, the results for the 1982 and 1983 data are very similar thus indicating that these four factors are valid and reliable. It is interesting to compare the factors derived from the survey of high school seniors with those derived from the surveys of new recruits. The most noticable difference is the blending of patriotism with self-improvement, which are distinctly different and separate factors for male high school seniors, into a single factor, self-improvement by being a soldier, for those who have made and carried out their enlistment decision. For new recruits, education is clearly separated from other types of economic factors; for high school seniors, education and economics seem to be interrelated.

Similar factor analytic work remains to be done for the 1984 and 1985 surveys. Horn and Weltin have successfuly used factor scores from the 1983 data to develop a structural equation describing the relationship between enlistment motives and reenlistment intent at the end of the first tour [6]. We hope to extend their early work with data from the 1984 and 1985 survey results.

Table 8.
Top Five Most Important Reasons for Enlisting
for AFQT Category I-IIIA Male High School Graduates

| Post Enlistment Plans | Enlistment Tour Length 2 year | 3 year | 4 Year |
|---|---|---|---|
| **1983** | | | |
| LEAVE THE ARMY (for any reason) | 65.3% | 45.1% | 32.9% |
| LEAVE THE ARMY (**To Go To College**) | 78.0 | 63.2 | 57.5 |
| REENLIST (for at least one term) | 12.5 | 21.1 | 26.9 |
| DON'T KNOW | 22.2 | 33.9 | 40.2 |
| **1984** | | | |
| LEAVE THE ARMY (for any reason) | 69.2% | 51.2% | 41.7% |
| LEAVE THE ARMY (**To Go To College**) | 77.3 | 70.9 | 63.5 |
| REENLIST (for at least one term) | 10.5 | 19.1 | 24.4 |
| DON'T KNOW | 20.3 | 29.6 | 34.0 |
| **1985** | | | |
| LEAVE THE ARMY (for any reason) | 73.6% | 57.9% | 44.0% |
| LEAVE THE ARMY (**To Go To College**) | 77.9 | 70.5 | 66.4 |
| REENLIST (for at least one term) | 10.7 | 16.6 | 25.5 |
| DON'T KNOW | 15.7 | 25.6 | 30.5 |

Table 8 shows post enlistment plans by term of service for AFQT category I-IIIA male high school graduates on each of the survey years 1983 through 1985. As expected, the two year recruits are more likely to say that they will leave the service at the end of their first tour than are the three or four year recruits. The relationship between term of service and plans to leave the Army at the end of the first tour is a decreasing monotonic function. Of those who say they will leave the service, the percentage who say they will do so to attend college is also a decreasing monotonic function of enlistment term. Planing to reenlist at the end of the first tour is an increasing monotonic function of enlistment tour length. Two year recruits are also more likely to know what they intend to do at the end of their first tour than are three or four year recruits, who are more likely to be uncertain about their likelyhood of reenlisting. These relationships suggest that the two year enlistment is, as hypothesized, a good operational definition of the *citizen soldier*.

Enlistment Incentives

Table 9 shows the responses of male two year recruits who were asked what they would have done if they could not have enlisted for this short tour. The results for 1983 through 1985 are very similar in that the majority of these recruits say that they would not have enlisted in the Army; furthermore, the overwhelming majority of those who said they would not have enlisted in the Army also said that they would not have enlisted in any service. Clearly, the short tour is attracting young men to the Army who would not otherwise have served in any military service.

Table 9.

Effect of No Two Year Enlistment
Option for Male Two Year Recruits

| Survey Year | Not Enlisted | Different Service | Different Job | Same Job |
|---|---|---|---|---|
| 1982 | 46.9% | 15.7% | 13.9% | 23.6% |
| 1983 | 45.8% | 11.2% | 13.2% | 29.8% |
| 1984 | 48.8% | 6.9% | 10.6% | 33.7% |
| 1985 | 51.4% | 7.1% | 13.9% | 27.5% |

The two year tour seems to be accomplishing what the draft used to accomplish: attracting the citizen soldier. The two year tour also seems to be a very cost-effective program for the Army. For example, our 1985 survey results show that 59 of every 100 recruits who enlisted for the two year option reported that they would not have enlisted in the Army if this option had not been available. On the other hand, about 41 recruits said they would have enlisted anyway. The Army gets 118 years of active duty service time it would not otherwise get (59 x 2 years), while giving up 41 to 82 service years (41 x 1 or 2 years of additional time under alternative enlistment tours) it would otherwise have had. This means that the Army probably gains between 36 and 77 active duty service years for each 100 recruits it brings into the service under this enlistment option. In addition, the Army probably saves money in recruiting costs, since it seems likely that the two year enlistment is easier to "sell" to the most highly qualified prospects. But these and other costs, such as attrition losses and reenlistment rates, need to be assessed before the cost effectiveness of this enlistment incentive can be determined. Some recent work in our laboratory has shown that the two year enlistment option is a very cost effective enlistment incentive [20].

What about the Army College Fund as an enlistment incentive? Table 10 shows the responses of "high quality" male high school graduates who were asked what they would have done if they couldn't get the ACF. In all years, respondents most frequently said that they would have enlisted in the same job even without the ACF. The numbers of those who said they would not have enlisted first dropped in 1983, then rose in 1984 and 1985. As we saw earlier, unemployment as an enlistment motive has dropped and money for college as an enlistment reason has risen during the 1984-1985 time frame. This may account for the fall then rise in the number of recruits who say they would not have enlisted if the the ACF had not been available.

Table 10.

Effect of No ACF Option
for Male Recruits Receiving the ACF

| Survey Year | Not Enlisted | Different Service | Different Job | Same Job |
|---|---|---|---|---|
| 1982 | 39.9% | 4.1% | 14.2% | 41.8% |
| 1983 | 29.2% | 8.0% | 11.5% | 51.4% |
| 1984 | 31.9% | 6.0% | 12.5% | 49.6% |
| 1985 | 36.5% | 6.7% | 13.3% | 43.4% |

Some further insights into the ACF as an enlistment incentive are gained by examining the interaction of the ACF with enlistment term as shown in table 11. Beginning in 1983, two year recruits were most likely to say they would not have enlisted if the ACF had not been available. By 1985, 54% of the two year recruits said that they would not have enlisted in the Army if the ACF had not been available. On the other hand, 64% of the 1985 four year recruits said they would have enlisted in the Army whether the ACF had been available or not. Three year recruits show a pattern somewhere in-between that of the two year recruits ant the four year recruits.

Table 11

Effect of No ACF Option for Male
Recruits Receiving the ACF by Enlistment Term

| Survey Year | Enlistment Term | Not Enlisted | Different Service | Different Job | Same Job |
|---|---|---|---|---|---|
| 1982 | 2 Years | 24.7% | 15.0% | 28.8% | 32.0% |
| | 3 Years | 10.4% | 3.6% | 30.8% | 55.2% |
| | 4 Years | 9.2% | 5.6% | 31.9% | 53.2% |
| 1983 | 2 Years | 41.2% | 7.1% | 14.8% | 36.8% |
| | 3 Years | 25.9% | 8.6% | 11.5% | 54.0% |
| | 4 Years | 18.0% | 5.7% | 11.2% | 65.1% |
| 1984 | 2 Years | 43.8% | 8.1% | 10.8% | 37.3% |
| | 3 Years | 37.3% | 7.3% | 9.2% | 46.1% |
| | 4 Years | 23.5% | 4.3% | 15.1% | 57.0% |
| 1985 | 2 Years | 49.4% | 5.4% | 12.5% | 32.7% |
| | 3 Years | 41.9% | 11.0% | 8.8% | 38.3% |
| | 4 Years | 30.3% | 5.9% | 15.0% | 48.8% |

Influencers of the Enlistment Decision Process

The results of the 1983 through 1985 surveys, shown in Table 12, look very similar with respect to friends as influencers of the enlistment decision process. Recruits reported that friends with Army experience were most positive about their enlistments and friends with no military experience were the least positive. Friends with military experience in military services other than the Army were in-between those with no experience and those with Army experience. For high AFQT category recruits, friends without military experience were reported to be more positive in 1983 than they were in 1982. This positive increase leveled off somewhat in 1984 and 1985 but still remained higher than in 1982. For low AFQT recruits the positive attitude of non-military friends showed a steady decline between 1982 and 1985. This is probably due, in part, to the increasing tendency for the Army to recruit higher aptitude recruits during these years. Lower aptitude recruits now have to work harder at enlisting and are more likely to experience difficult competition in training courses and for promotions than they they did in earlier years.

Table 12.

Friends' Reported Favorable Reactions
to Army Enlistment in 1982 Through 1985
for Male, AFQT I-IIIA, High School Graduates

| | | Friends' Military Experience | | |
|---|---|---|---|---|
| | AFQT Category | None | Other Services | Army |
| 1982 | | | | |
| | I&II | 33.3% | 47.6% | 58.9% |
| | IIIA | 38.0 | 58.9 | 60.8 |
| | IIIB | 40.2 | 58.5 | 65.6 |
| | IV | 50.6 | 63.7 | 69.8 |
| 1983 | | | | |
| | I&II | 41.7% | 50.5% | 52.9% |
| | IIIA | 45.7 | 55.0 | 60.4 |
| | IIIB | 49.5 | 58.9 | 66.0 |
| | IV | 45.2 | 51.0 | 57.3 |
| 1984 | | | | |
| | I&II | 37.8% | 51.3% | 61.7% |
| | IIIA | 35.3 | 54.4 | 65.9 |
| | IIIB | 43.6 | 57.2 | 65.9 |
| | IV | 42.3 | 58.7 | 60.8 |
| 1985 | | | | |
| | I&II | 36.8% | 62.8% | 66.8% |
| | IIIA | 36.7 | 65.5 | 71.4 |
| | IIIB | 40.6 | 70.3 | 70.8 |
| | IV | * | * | * |

* AFQT Category IV not analyzed for this year

Table 13 shows parents' reactions to their enlistment as reported by our new recruits on the 1982 through 1985 surveys. In all years, fathers were reported to be slightly more positive about a son's enlistment than they were about a daughter's enlistment. For mothers, the opposite was true; they were reported to have more favorable reactions to a daughter's enlistment than to a son's enlistment. It was also true that fathers were more positive about their son's enlistment than were mothers and, of course, mothers were far more more positive about a daughter's enlistment than were fathers.

Table 13.

Parents' Reaction to Enlistment Reported by
1982 Through 1985 Male and Female Recruits

| Father's Reported Reaction | Good Idea | Bad Idea | Don't Know |
|---|---|---|---|
| **Son's Enlistment** | | | |
| 1982 | 75.6% | 10.4% | 14.0% |
| 1983 | 73.4 | 8.8 | 17.8 |
| 1984 | 73.2 | 9.0 | 17.7 |
| 1985 | 78.2 | 9.5 | 12.0 |
| **Daughter's Enlistment** | | | |
| 1982 | 68.2 | 14.6 | 17.2 |
| 1983 | 69.2 | 11.2 | 19.6 |
| 1984 | 68.9 | 11.3 | 19.6 |
| 1985 | 76.6 | 10.1 | 13.3 |
| **Mother's Reported Reaction** | **Good Idea** | **Bad Idea** | **Don't Know** |
| **Son's Enlistment** | | | |
| 1982 | 73.3% | 19.4% | 7.3% |
| 1983 | 73.2 | 16.6 | 10.2 |
| 1984 | 70.8 | 17.2 | 11.9 |
| 1985 | 77.1 | 17.6 | 4.3 |
| **Daughter's Enlistment** | | | |
| 1982 | 79.4 | 15.4 | 5.2 |
| 1983 | 77.8 | 16.4 | 5.8 |
| 1984 | 75.1 | 17.3 | 7.5 |
| 1985 | 80.2 | 13.2 | 5.5 |

Table 14.

Percent of AFQT I-IIIA, Male, High School Graduates
Selecting Influencer as Important by Type of Aid Sought

| Influencer | Decision Help | Information | To Please |
|---|---|---|---|
| **1984** | | | |
| Father | 36.6% | 36.7% | 36.3% |
| Mother | 30.2 | 23.8 | 35.6 |
| School Guidance Counselor | 5.8 | 19.7 | 2.5 |
| Brother/Sister | 13.4 | 9.0 | 12.5 |
| Teacher | 5.8 | 8.0 | 3.9 |
| Friends | 9.0 | 7.3 | 6.9 |
| Girl/Boy Friend | 20.1 | 9.4 | 23.0 |
| Military Recruiter | 6.5 | 11.4 | 2.4 |
| Others (not specified) | 9.7 | 20.9 | 4.2 |
| Only Myself | 33.4 | 14.7 | 33.1 |
| **1985** | | | |
| Father | 44.3% | 41.0% | * |
| Mother | 38.9 | 29.3 | * |
| School Guidance Counselor | 12.5 | 27.9 | * |
| Brother/Sister | 14.0 | 11.2 | * |
| Teacher | 9.6 | 12.2 | * |
| Friends | 14.2 | 12.3 | * |
| Girl/Boy Friend | 28.7 | 16.9 | * |
| Military Recruiter | 10.8 | 17.2 | * |
| Others (not specified) | 9.0 | 16.6 | * |
| Only Myself | 24.9 | 12.5 | * |

*** Not Asked in 1985**

Table 14 shows the responses for 1984 and 1985 respondents who were asked to describe the roles parents and other "people" influencers had on their decisions to enlist in the Army. These questions were similar to those we asked of high school students in our 1983 survey of high school seniors. As with high school students considering enlistment, new recruits report that parents are very important in all aspects of the decision making process -- providing information, help in the decision making process, and supporting them emotionally. They also look to their boy friends or girl friends for help in making their decisions and for emotional support, but not for information. Next to parents, they rely on high school guidance counselors and teachers for information, but not for help in the decision making process or for emotional support. Recruiters are viewed as useful sources of information, but are not looked to help with decisions or for emotional support. Brothers and sisiters also seemed to play a fairly major role in helping with them with their decision and supporting them but not in providing information

## GENERAL DISCUSSION

Based on our surveys of high school seniors and new Army recruits, enlistment motives seem to fall into four major categories: those directed toward self-improvement, those oriented toward education and training, those centered around patriotism, and those clustering around getting away

from problems in civilian life. For new recruits, education as an enlistment motive seems to be more clearly separated from other economic motivators, and the boundries between self-improvement and patriotism as motivators seem to be less clear than they are for high school seniors. New recruits seem to have incorporated the opportunity to improve ones self with patriotism as a single motive for having enlisted. It would be interesting to find out if these changes take place before or after the enlistment decision is made Young Americans may enlist for one or more of these major motives, and most people probably enlist for several. Not surprisingly, higher AFQT young people were more likely to have enlisted in order to further their education and training than were lower AFQT people, who were more likely to have enlisted to escape problems in civilian life such as unemployment.

Our results tend to agree with those of Burk and Faris in that we found patriotism to be an ever-present motive for enlistment that seemed to be relatively high and stable across a variety of demographic, cognitive, and socio-economic variables. In general, young Americans seemed to see military service as a way to improve themselves as well as a way to serve their country. Results from a recent survey of Army veterans indicates that these expectations are, for the most part, realized through Army service [19].

The enlistment incentives that the Army is currently offering, seem to be right on target in providing the benefits that are appealing to the citizen soldiers of the all volunteer force who would not otherwise choose military service. Although these benefits, the two year enlistment and the ACF, also encourage soldiers to leave at the end of their first enlistment, they attract young people who are more likely to complete that first enlistment. The enlistment incentives for the more career-minded young person seem to be already in place in all the U.S. military services in the form of retirement and other military fringe benefits.

Our results indicate that parents (especially fathers), school guidance counselors, and friends were the people who were key influencers in the enlistment decision process of young American people. Parents, in general, were seen by their children as being important sources for help in making career decisions, and as the people, other than themselves, whom they wished to please most with their career decisions. Young Americans also sought information from their school guidance counselors and teachers about career decisions to include enlisting in the Army. Boy friends and girl friends also play a significant role in the decision making process and in providing emotional support for the decision.

Fathers were seen by their children, who have enlisted, as being more positive about a son's enlistment than they were about a daughter's enlistment. For mothers, the reverse was true. Perhaps mothers saw an Army enlistment as a way for their daughters to make their way in what has traditionally been a male dominated domain.

Friends with military experience, especially those who have been in the Army, were reported by new recruits to have been very positive about their decision to enlist. This is somewhat puzzling in that so many of the soldiers in an exit survey we conducted in 1983 expressed disenchantment with their Army experience at the end of their first enlistment [21]. It may be that the friends with Army experience who were referenced by the new recruits in our survey, were contemporaries who were themselves relatively new to the Army and had not as yet had the negative experiences reported by the exiting soldiers. However, a survey of Army veterans that we recently completed shows that veterans -- even those who did not successfully complete their first tour of duty -- are very positive about the experiences they had in the Army. Many of them said that they would be willing to help recruiters enlist their friends in the Army[22].

Our hypotheses with respect to the citizen soldier concept were largely borne out in our survey results. Those high school seniors who were interested in the two year option, and those new recruits who enlisted under the Army's two year enlistment option were decidedly different from

their counterparts who were not interested in this option. High school seniors interested in the two year option were more likely to say they would enlist to get money for education or to get skill training. The major reason why soldiers actually serving two year tours said they enlisted was to get money for a college education. Furthermore, when leaving the Army, these citizen soldiers were more likely to say they were leaving to attend school than were their longer tour counterparts. We think that continuing development of the citizen soldier concept will provide the Army with some very important information about a pool of potential recruits that as yet has been largely untapped

## REFERENCES


1. C. C. Moskos, Jr., "The Enlisted Ranks in the All-Volunteer Army," in The All-Volunteer Force and American Society, ed. J. B. Keeley (Charlottesville, Va.: University of Virginia Press, 1978), pp. 39-80.

2. C. C. Moskos, "Social Considerations of the All-Volunteer Force," in Miltary Service in the he United States, ed. B. Scowcroft (Englewood Cliffs, NJ: Prentice-Hall, 1982), pp. 129-150.

3. C. C. Moskos, "Citizen Soldier and an AVF GI Bill: Alternative to the Draft," Unpublished manuscript, October 1982.

4. C. C. Moskos, "A Sociologist Looks at Recruiting," Presentation given at the U.S. Army Recruiting Command, October 12, 1983.

5. J. G. Bachman, "American High School Seniors View the Military: 1976-1982," Armed Forces and Society, (Fall 1983): pp. 86-104.

6. D. K. Horne, and M. M. Weltin, "Enlistment Motivation of Army Recruits," (Unpublished Manuscript).

7. M. M. Weltin, T. W. Elig, R. M. Johnson, and A. Hertzbach, "Attitudes of High School Seniors Toward Military Enlistment," (US Army Research Institute for the Behavioral and Social Sciences, Personnel Utilization Technical Area Working Paper 86-24, Alexandria, VA, 1984).

8. R.L. Kaplan and P.T. Harris, "The Measurement of High School Students' Attitudes Toward Recruiting Incentives," (U.S. Army Recruiting Command Report USAREC SR 82-3-1, Fort Sheridan, IL, May, 1983).

9. J. J. Mathews, and M. J. Ree, "Enlistment Screening Test Forms 81a and 81b: Development and Calibration," (U.S. Air Force Human Resources Laboratory Technical Report 81-54, Brooks Air Force Base, TX, March 1982).

10. Market Facts, Inc., "Youth Attitude Tracking Study Fall 1982," (Market Facts Inc., Arlington, VA, May 1983).

11. Orkand Corporation, "Parent's Perceptions of their Influence on Youths' Enlistment Decisions," (The Orkand Corporation Final Report, Silver Spring, MD, March, 1983).

12. Z. D. Doering, D. W. Grissmer, and J. S. Morse, "1979 DoD Survey of Personnel Entering Military Service: Wave 1 (2) User's Manual and Codebook," (Rand Corporation Notes N-MRAL & N-1606-MRAL, Santa Monica, CA, 1980).

13. T. W. Elig, R. M. Johnson, P. A. Gade, and A. Hertzbach, "The 1982 DA Survey of Personnel Entering the Army: Tabular description of 1982 (active) Army Accessions, Volumes 1 & 2," (U.S. Army Research Institute for the Behavioral and Social Sciences Research Products 84-1 and 84-2, Alexandria, VA, 1984).

14. T. W. Elig, A. Hertzbach, and R. M. Johnson, "The 1983 ARI Survey of Army Recruits: Tabular description of 1983 (active) Army Accessions, Volumes 1 & 2," (U.S. Army Research Institute for the Behavioral and Social Sciences Research Products 84-9 and 84-10, Alexandria, VA, 1984).

15. Westat, Inc., "The 1984 ARI Survey of Army Recruits: User's Manual," (Research Note 86-46). (US Army Research Institute for the Behavioral and Social Sciences Research Note 86-46, Alexandria, VA, 1986).

16. Westat, Inc., "The 1985 ARI Survey of Army Recruits: User's Manual," (Research Note 86-50). (US Army Research Institute for the Behavioral and Social Sciences Research Note 86-50, Alexandria, VA, 1986).

17. J. F. Celeste, M. J. Wilson, V. F. Ramsey, T. W. Elig, and R. M. Pliske, "The 1984 and 1985 ARI Survey of Army Recruits: Methodology and Recommendations for Future Administrations," (US Army Research Institute for the Behavioral and Social Sciences Technical Report 706, Alexandria, VA, 1986).

18. C. Dale, and C. Gilroy, "Determinants of Enlistments: A Macroeconomic Time-Series View," Armed Forces and Society (Winter 1984): pp. 192-210.

19. J. S. Burk, and J. H. Faris, "The Persistence and Importance of Patriotism in the All-Volunteer Force," (U.S. Army Recruiting Command Report USAREC SR 82-6, Fort Sheridan, IL, December, 1982).

20. D. K. Horn, "The Army Two-year Enlistment Option: Estimating its Effectiveness," (US Army Research Institute for the Behavioral and Social Sciences Working Paper, Alexandria, VA, February, 1986).

21. P. A. Gade, T. W. Elig, G. Y. Nogami, A. Hertzbach, M. Weltin, and R. Johnson, "Enlistment and Attrition in the U.S. Army: Motives, Incentives, and Key Influencers," (Paper presented at the biennual meeting of the Inter-University Seminar on Armed Forces and Society, October, 1985).

22. P. A. Gade, "The U.S. Army: Black Veterans Review the Experience," (US Army Research Institute for the Behavioral and Social Sciences Personnnel Utilization Technical Area Working Paper 86-12, Alexandria, VA, June, 1986).

# Personnel Utilization Technical Area Working Paper 84-19

MOTIVES, INCENTIVES, AND KEY INFLUENCERS FOR ENLISTMENT, REENLISTMENT, AND ATTRITION IN THE U.S. ARMY

Paul A. Gade, Timothy W. Elig, Glenda Y. Nogami, Allyn Hertzbach, Mary Weltin, and Richard Johnson

**U.S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333

**This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.**

## ABSTRACT

# MOTIVES, INCENTIVES, AND KEY INFLUENCERS FOR ENLISTMENT, REENLISTMENT, AND ATTRITION IN THE U.S. ARMY

Paul A. Gade, Timothy W. Elig, Glenda Y. Nogami, Allyn Hertzbach, Mary Weltin, and Richard Johnson

The purpose of this paper is to describe our current efforts to develop models of the processes that underly the decisions to enlist, reenlist, and to leave the U.S. Army. Our conceptual as well as empirical efforts in this regard began in the Spring of 1982, when we surveyed new U.S. Army Active Duty, Reserve, and National Guard recruits to determine their reasons for enlisting. This survey was replicated and extended in 1983.

In 1983 we also attempted to extend our knowledge to an earlier stage of the enlistment decision process by surveying high school seniors with a questionnaire that contained many of the same items that were used on the new recruit surveys of 1982 and 1983. At the same time, we attempted to increase our knowledge of the attrition/reenlistment decision process by surveying soldiers who were leaving the Army. This exit survey was designed to help us achieve a better understanding of the reasons why soldiers choose to extend their tours of duty or leave the Army at or before the end of their first enlistment contract.

In the course of developing our conceptualization of the enlistment-attrition-reenlistment process, we found Moskos's citizen soldier to be a useful concept in our examination of motives and incentives for Army enlistment and retention. Moskos equates the citizen soldier to the draftee who was inducted into the service, primarily the Army, during the most recent period of conscription in the U.S. He hypothsesizes that a short term of enlistment (i.e., two years) combined with lower active duty pay and high educational benefits upon leaving the service, will attract the sort of person that temporarily served in the combat arms of the armed forces during the latest draft era.

A factor analysis of the results from our high school survey showed that enlistment reasons fall into four major categories: Self-Improvement, Education and Training, Patriotism, and Avoiding Problems in Civilian Life. Results from this survey also showed that those interested in a two year enlistment were more likely to consider enlisting to get money for college; while those not interested in this short tour, were more likely to consider enlisting to get skill training. This high school survey also showed that parents and high school guidance counselors are more important influencers of the enlistment decision than previous research has indicated. The results from the new recruit surveys of 1982 and 1983 showed that higher AFQT people enlisted primarily to further their education and training. Lower AFQT people were more likely to enlist to escape from civilian problems such as unemployment. Results from these surveys also showed that the majority of those who enlisted for two years would not have enlisted in any serviced if there had been no two year enlistment option. Results from the survey

of people leaving the Army shows that most are leaving primarily because they want to resume their civilian lives. Those leaving at the end of a two year tour are most likely to be leaving to return to school; while those leaving at the end of longer tours are likely to be leaving to take a civilian job. Among the top reasons for leaving are some negative factors as well, such as: not getting respect, perceived poor NCO leadership, perceived unfair treatment and sexual harassment for females.

# MOTIVES, INCENTIVES, AND KEY INFLUENCERS FOR ENLISTMENT, REENLISTMENT, AND ATTRITION IN THE U.S. ARMY

Paul A. Gade, Timothy W. Elig, Glenda Y. Nogami, Allyn Hertzbach, Mary Weltin, and Richard M. Johnson*

1.0 INTRODUCTION ..... 2

2.0 1983 SURVEY OF HIGH SCHOOL SENIORS ..... 4

2.1. Method ..... 5

2.2. Results ..... 6
2.2.1. Motives for Enlistment ..... 6
2.2.2. Enlistment Incentives ..... 7
2.2.3. Influencers of the Enlistment Decision Process ... 10

3.0 1982 AND 1983 NEW RECRUIT SURVEYS ..... 11

3.1. Method ..... 12
3.1.1. 1982 Survey ..... 12
3.1.2. 1983 Survey ..... 12

3.2. Results ..... 13
3.2.1. Motives for Enlistment ..... 13
3.2.2. Enlistment Incentives ..... 16
3.2.3. Influencers of the Enlistment Decision Process ... 18

4.0 1983 EXIT SURVEY ..... 20

4.1. Method ..... 21

4.2. Results ..... 21
4.2.1. Motives for Leaving the Army ..... 21
4.2.2. Reenlistment Incentives and Disincentives ..... 26

5.0 GENERAL DISCUSSION ..... 27

6.0 REFERENCES ..... 29

* U.S. Army Research Institute for the Behavioral and Social Sciences Alexandria, Virginia USA.

**The views, opinions, and/or findings contained in this document are those of the authors, and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.**

# MOTIVES, INCENTIVES, AND KEY INFLUENCERS FOR ENLISTMENT, REENLISTMENT, AND ATTRITION IN THE U.S. ARMY

Paul A. Gade

Timothy W. Elig

Glenda Y. Nogami

Allyn Hertzbach

Mary Weltin

Richard M. Johnson

U.S. Army Research Institute

for the Behavioral and Social Sciences

## 1.0 INTRODUCTION

The purpose of this paper is to describe our current efforts to develop models of the processes that underlie the decisions to enlist, reenlist, and to leave the U.S. Army. Our conceptual as well as empirical efforts in this regard began in the Spring of 1982, when we surveyed new U.S. Army Active Duty, Reserve, and National Guard recruits to determine their reasons for enlisting. This survey was initiated at the request of the Deputy Chief of Staff for Personnel for the U.S. Army to find out the reasons for recent recruiting successes and to assess the effectiveness of current Army enlistment incentive programs. The survey of new recruits was replicated and extended in 1983.

In 1983 we also attempted to extend our knowledge to an earlier stage of the enlistment decision process by surveying high school seniors with a questionnaire that contained many of the same items that were used on the new recruit surveys of 1982 and 1983. At the same time, we attempted to increase our knowledge of the attrition/reenlistment decision process by surveying soldiers who were leaving the Army. This exit survey was designed to help us achieve a better understanding of the reasons why soldiers choose to extend their tours of duty or leave the Army at or before the end of their first enlistment contract.

In the course of developing our conceptualization of the enlistment-attrition -reenlistment process, we found Moskos's citizen soldier to be a useful concept in our examination of motives and incentives for Army enlistment [1]. According to this concept, potential members of the armed forces of the U.S. fall into two major categories: citizen soldiers for whom a tour of military duty represents a temporary hiatus in their lives and is merely a stepping stone or stopping place on their way to the roles they will eventually play as career civilians, and career soldiers who are at least seriously contemplating serving in the military as a career [2].

Moskos equates the citizen soldier to the draftee who was inducted into the service, primarily the Army, during the most recent period of conscription in the U.S. In a nut shell, Moskos hypothsesizes that a short term of enlistment (i.e., two years) combined with lower active duty pay and high educational benefits upon leaving the service, will attract the sort of person that served in the combat arms of the armed forces during the latest draft era [3 & 4]. A recent survey of high school seniors reported by Bachman tends to support Moskos's hypothesis [5]. The results of this survey showed that a large majority of high school seniors felt that a paid college education in return for military service would be a worthwhile program for the U.S. to engage in. Furthermore, a substantial minority, 18 to 21 percent of those who indicated that they did not expect to serve in the military, said that they would consider doing so in return for a paid college education.

Currently, the U.S. Army offers a two-year enlistment option combined with extra educational benefits to "high quality" recruits who opt to enlist in one of the combat arms specialties or in designated shortage military occupational specialties (MOS). Neither the two year tour nor extra educational benefits are currently available from any other branch of military service in the U.S. Thus we have a natural experiment in which only the Army has the incentives that are likely to attract the citizen soldier a la Moskos. Encouraged by Bachman's high school survey, and based on the concept of the citizen soldier, we hypothesized that high school seniors would fall into two broad categories: those for whom a two year enlistment would be appealing and those for whom it would not. Further, we felt that these two groups would differ in their interest in enlisting in the military, and in their interest in educational benefits as an enlistment incentive.

Specifically, we expected that those interested in the two year citizen soldier type of enlistment option would be more likely to consider as important those reasons for enlisting in the military that are oriented more toward civilian life than toward the military. For example, we expected that those who were more interested in the two year option would be more interested in getting money for college as an enlistment reason.

With respect to our new recruit survey, we expected to find large differences between those who enlisted for the Army's two year citizen soldier option and those who enlisted for three or four year tours. Specifically, we expected that two year recruits would be more interested in the Army's college fund incentive program, and less likely to have enlisted in the Army if the two year option had not been available.

In our survey of soldiers leaving the Army, we expected that the two year citizen soldiers would be less likely to be leaving the service prior to completing their first enlistment tour and would be more likely to leave the service at the completion of their first tour. Further, we hypothesized that two year soldiers, at the completion of their first tour, would be more likely to say that they were leaving the Army to attend college than would those who had enlisted for more than two years.

The remainder of this paper provides a description of the methods we used to collect our data and an overview of the results of our survey efforts. For each of our different survey efforts, we begin with an overview of reasons why American young people say they would or would not like to serve in the U.S. military. We then provide a preliminary assessment of the effectiveness of Army enlistment and reenlistment incentives in meeting the needs of those who might not otherwise choose to serve. Finally, we examine who the key influencers in the enlistment decision process might be and what role they seem to be playing in this process. We also relate our survey results to our hypotheses about the citizen soldier concept.

## 2.0 1983 SURVEY OF HIGH SCHOOL SENIORS

The high school senior survey included females as well as males as respondents; however, because they make up about 90 percent of the U.S. Army and exclusively occupy the combat specialties, male respondents were the primary focus of this report. The first step in the enlistment decision process usually occurs when a high school senior makes his or her first career choice. By surveying students at about the time they were making these choices, we hoped to find out why seniors choose to enlist or not enlist in the U.S. Army.

## 2.1. Method

A sample of 1329 male and female high school seniors was surveyed between November, 1983 and February, 1984. High schools that had participated in a similar Army survey in 1982 were asked to participate in our survey. These high schools were representative of the national high school population geographically, across all nine census divisions, and in population density (urban, suburban, and rural) [6]. Of the sample, 56.7% were male, 84.4% were white, 10.3% were black, and 4.2% were Hispanic.

Table 1 shows a comparison of population proportions of 18 to 24 year olds with our sample proportions of high school seniors from each of the four major census regions. Our sample of high school seniors closely approximates the population distribution for each of these major regions. We have slightly oversampled the southern states and undersampled the western states; the northeast and north central states are very closely approximated by our sample.

Students were selected by their high school officials to be as representative as possible of their senior classes in terms of gender, ethnic group, and academic ability. To insure representative academic abilities, high school officials were asked to select five seniors from the upper quarter of their class academic standings, ten from the middle two quarters, and five from the bottom quarter. Students who agreed to participate were administered a 107 item questionnaire during a single 45 minute class period at their respective high schools. The questionnaire was designed to elicit responses in five major categories: demographic characteristics of the students, their reasons for considering enlisting, their reasons for not considering enlisting, their memory for Army advertising and promotional activities, and their preferences for particular Army occupations. In order to estimate the general cognitive aptitude of the students, the Enlistment Screening Test (EST) was also administered to the students after they had completed the questionnaire [7]. The survey and the EST were administered by U.S. Army Recruiting Command officials who wore civilian clothes and did not identify themselves as Army personnel. Only the responses for the male seniors ( n = 705 ) are reported here.

**Table 1.**

**Comparisons of Sample Regional Distribution with Population Distribution of 18 - 24 year Olds**

| Census Regions | Population | Sample |
|---|---|---|
| Northeast | 21.5% | 21.7% |
| South | 31.9 | 33.5 |
| Northcentral | 26.9 | 26.3 |
| West | 19.7 | 18.5 |

### 2.2. Results

#### 2.2.1. Motives for Enlistment

Table 2 shows the most important overall reasons for enlistment given by high school senior males. The four major reasons our high school seniors thought were the most important of all were: chance to better myself, to get trained in a skill, to serve my country, and to get money for a college education.

The Youth Attitude Tracking Survey (YATS) quality index is a measure of aptitude based on school grades and number of math and science courses taken [8]. As can be seen in Table 2, the higher quality seniors, as measured by the YATS index, were more likely to say that they would consider enlisting to get money for college, and less likely to say they would enlist to get away from a personal problem, prove they can make it, be away from home, because they have a family tradition to serve, or because they were unemployed. For the high YATS quality index seniors, money for a college education was the second most important enlistment reason given, followed closely by patriotism, and just slightly behind a chance to better myself. For low YATS index seniors, chance to better myself, skill training, patriotism, and unemployment were more frequently given as enlistment reasons than was money for a college education.

**Table 2.**

**Most Important Overall Reasons for Enlistment for High School Senior Males by YATS Quality Index**

| Enlistment Reason | Overall | High on YATS | Low on YATS |
|---|---|---|---|
| CHANCE TO BETTER MYSELF | 62% | 58% | 64% |
| TO GET TRAINED IN A SKILL | 59 | 54 | 62 |
| MONEY FOR COLLEGE EDUCATION* | 47 | 56 | 41 |
| TO SERVE MY COUNTRY | 58 | 55 | 57 |
| BEING UNEMPLOYED* | 38 | 26 | 46 |
| TO PROVE I CAN MAKE IT* | 34 | 26 | 39 |
| TO BE AWAY FROM HOME* | 12 | 9 | 14 |
| EARN MORE MONEY | 33 | 29 | 36 |
| TRAVEL | 29 | 25 | 32 |
| ESCAPE PERSONAL PROBLEM* | 11 | 5 | 16 |
| FAMILY TRADITION TO SERVE* | 4 | 2 | 7 |

* $p<.05$ for YATS Index

A factor analysis of the high school senior males' potential reasons for enlisting was performed using a principal components solution and a varimax, orthogonal rotation. This analysis yielded four principal factors. The first factor, which we call **Self Improvement**, contains the items: chance to better myself, proving I can make it, earning the respect of others, physical training and challenge, and getting time to figure out what I really want to do. Factor two, **Education**, contains the items: getting money for college, getting money for vocational-technical or business training, getting trained in a skill that will help get a civilian job, and making more money than as a civilian. The third factor, **Escaping Civilian Life**, contains the items: being unemployed, to be away from home on my own, and getting away from a personal problem. The final factor, **Patriotism**, contains only two items: serving my country and being a soldier.

### 2.2.2. Enlistment Incentives

The major enlistment incentives available only to the Army are a two year enlistment option and the Army College Fund (ACF), an additional educational benefit above those benefits that are available to all recruits regardless of service. The Army uses these incentives to attract prospects who probably

would not otherwise enlist. We asked our high school senior males to indicate their ratings of various incentives that are available to the military in general. We also included the two year option, available only to the Army, in this list of seven items. Table 3 shows the percentage of these senior males who said the incentives were either very important or they would not consider enlisting without them.

**Table 3.**

**Ratings of Enlistment Incentives**

**by High School Senior Males**

| Enlistment Incentive | Percent Rating As Very Important |
|---|---|
| Retirement Benefits | 68.7 |
| Free Medical/Dental Care | 68.4 |
| **Financial Aid for Education** | **56.3** |
| Guaranteed US Location of Choice | 54.9 |
| Guaranteed Overseas Location of Choice | 49.9 |
| Starting Salary of $550 | 49.1 |
| **Two-Year Tour Option** | **41.6** |

**Boldface incentives are those where the Army has exclusive benefits.**

It seems somewhat surprising that retirement benefits would receive such a high ranking among such a young group of people; however, the military is well known for its attractive retirement benefits, and we suspect the public has come to expect this feature as one of the major benefits of pursuing a military career. All the incentives received a large percentage of very positive responses, the lowest being the two year option at 41.6%. When one considers that these ratings were only for those who said these incentives were at least very important, the high ratings are even more remarkable. It should be noted that the two year option is fairly new, especially compared to the other incentives in the list, and has not been widely advertised by the Army.

As Table 4 shows, seniors who considered the two year enlistment option very important or would not consider enlisting without it, say that getting away from a personal problem, making more money than as a civilian, getting trained in a skill that will lead to a civilian job, and getting money for college are their essential reasons for enlistment. Those interested in the two year option are also less likely to say that they definitely will not serve in the Army than are those for whom the two year option is less important or not important. Curiously, those interested in

the two year option are less likely to have considered joining the Army than are their less interested counterparts. A Chi Square analysis showed these differences to be statistically significant ($p < .05$). Perhaps the Army needs to increase its efforts to inform the high school senior population about the availability of the two year option.

**Table 4.**

**Overall Enlistment Reasons and by Interest in Two Year Tour for High School Senior Males**

| | | Tour Length | |
|---|---|---|---|
| **Enlistment Reason** | **Overall** | **2 Year** | **Other** |
| CHANCE TO BETTER MYSELF | 62% | 60% | 64% |
| TO GET TRAINED IN A SKILL* | 59 | 67 | 54 |
| MONEY FOR COLLEGE EDUCATION* | 47 | 55 | 41 |
| TO SERVE MY COUNTRY | 58 | 55 | 57 |
| BEING UNEMPLOYED | 38 | 37 | 39 |
| TO PROVE I CAN MAKE IT | 34 | 34 | 34 |
| BE AWAY FROM HOME ON MY OWN | 12 | 14 | 11 |
| EARN MORE MONEY* | 33 | 41 | 27 |
| TRAVEL | 29 | 34 | 25 |
| ESCAPE FROM PERSONAL PROBLEM* | 11 | 14 | 10 |
| FAMILY TRADITION TO SERVE | 4 | 4 | 5 |

***p<.05 for those interested in the two year tour vs. those not interested in it.**

In order to develop a profile of those who showed strong preferences for the two year option, a step-wise, discriminant analysis was performed in which questionnaire item responses served as predictors, and interest or lack of interest in the two year option were used as classification categories. Those respondents who said that they thought the two year tour was very important, or that they would not consider enlisting without it, were considered to be interested in the short tour; those who said that the short tour was only somewhat important or not important were considered to be not interested in the two year option.

Table 5 shows the results of this analysis. Eleven items were significant predictors of correct classifications. Thus, compared to the male high school senior who is not interested in the two year option, the male senior who is interested in the two year option is a person who: is probably living in a stable home environment, is likely to consult friends (especially a girl friend) about job choices, probably participated in student government, has seen or received a military reserve award, doesn't think that people are treated very well in the military -- but is not as concerned with working conditions in making a job choice, is less likely to remember military ads received in the mail, is most likely to be concerned about getting money for college, a guaranteed overseas assignment, and making less money in the military than as a civilian.

Using the discriminant function with eleven predictor items, 73.2 % of the seniors were correctly classified as those who were interested in the two year option. Similarly, 75.3 % were correctly classified as seniors for whom the two year option was less important. The overall percentage of correct classifications using the discriminant function was 74.4 %.

**Table 5.**

**Step-Wise Descriminant Analysis of**

**Two Year Option Preferences**

| Variable Name | df | F |
|---|---|---|
| Guaranteed Overseas Assignment | 1/654 | 115.61 |
| Make Less Money in the Military | 2/653 | 83.72 |
| Money for Post H.S. Education | 3/652 | 68.18 |
| Don't Like Military Treatment of People | 4/651 | 58.73 |
| Importance of Friends Opinion of a Job | 5/650 | 49.58 |
| Importance of Job Working Conditions | 6/649 | 43.23 |
| Seen or Received a Reserve H.S. Award | 7/648 | 38.09 |
| Consult Girlfriend about Career/Job | 8/647 | 34.38 |
| Participated in Student Government | 9/646 | 31.36 |
| Memory for Mailed Advertising | 10/645 | 29.05 |
| Mother Living at Home | 11/644 | 26.98 |

### 2.2.3. Influencers of the Enlistment Decision Process

To get some idea of who seniors rely on for job or career advice, we asked our seniors to identify who they rely on for help in making career decisions, who are their information sources about jobs/careers, and who they are most interested in

pleasing in their job/career choices. Table 6 shows how important various influencers were to our high school senior males.

**Table 6.**

**Percent of High School Senior Males Selecting Influencer as Important**

| Influencer | Rely on for Help | Information Source | Like to Please |
|---|---|---|---|
| Father | 57.6 | 44.7 | 66.9 |
| Mother | 51.4 | 32.2 | 65.7 |
| School Guidance Counselor | 30.5 | 53.1 | 6.1 |
| Brother/Sister | 20.6 | 13.8 | 19.6 |
| Teacher | 17.9 | 17.2 | 7.1 |
| Friends | 17.5 | 15.6 | 15.4 |
| Girl/Boy Friend | 13.3 | 6.7 | 18.4 |
| Military Recruiter | 11.9 | 14.0 | 4.4 |
| Others (not specified) | 19.1 | 17.6 | 18.9 |

Interestingly enough, fathers and mothers are ranked very high on all three areas of influence, and they rank especially high on the like to please dimension. Siblings, girl/boy friends, and other friends also rank high as influencers. However, girl/boy friends are not seen as valuable information sources for career decisions. These results are especially interesting in light of a recent DoD sponsored survey which showed that fathers and mothers perceive that they have very little influence over a son or daughter's decision to enlist or not enlist in the military service [9]. Our results indicate that mothers and especially fathers have a much bigger influence on the enlistment decision process than they believe.

## 3.0 1982 AND 1983 NEW RECRUIT SURVEYS

Our survey of new recruits includes both Active, Reserve, and National Guard components; however only results from the Active force are included in this report. As with the results from our high school senior survey, the results for new recruits reported here will focus on male recruits.

## 3.1. METHOD

### 3.1.1. 1982 Survey

Our 1982 survey of new recruits was based largely on the 1979 Department of Defense survey of people entering the military service [10]. Although we have preserved many of the same items that appeared in the 1979 survey, we have modified many others and added new items that are more suited to our purposes. Our questionnaire began evolving even in 1982, and we used three different forms during that year.

The 1982 survey was administered to new recruits in group settings during initial entry processing in all seven U.S. Army Reception Stations. The original form of the survey was administered during two one-week periods in May and one one-week period in June of 1982. During the first survey period in May, only five of the reception stations were surveyed, because of prior commitments on the part of two of the stations. A revised form was administered during July and August of 1982. The population sampled was all non-prior service accessions into the Regular Army, Army Reserve, and National Guard who were processing through the Reception Stations on the dates that the survey was given. The details of the survey sampling and administration procedures can be found in Elig, Johnson, Gade, & Hertzbach [11]. The survey yielded 6,318 usable questionnaires from Regular Army, non-prior service recruits.

Individual questionnaires were matched with accessioning records taken from the Military Entrance Processing Station Reporting System (MEPRS). This allowed us to match questionnaire responses with demographic information, such as Armed Services Vocational Aptitude Battery (ASVAB) test scores. Matching MEPRS records could be found for 97.7 % of the questionnaires, yielding a sample of 6,175 respondents for whom MEPRS records were available. Our sampling period only covers the second half of the 1982 fiscal year and may be somewhat seasonally biased as a result. However, this potential for seasonal bias is attenuated by the fact that most of the Regular Army recruits signed enlistment contracts at various times of the year prior to their entry under the Army's Delayed Entry Program.

### 3.1.2. 1983 Survey

A research advisory panel was formed in the second quarter of fiscal year 1983 to review our 1982 survey efforts and to guide our 1983 survey development. The 1983 survey was a replication and extension of the 1982 survey and as such contains many of the same items found in the 1982 survey. For a detailed

accounting of the 1983 survey development and administration, see Elig, Hertzbach and Johnson [12].

As with the 1982 survey, the questionnaires were administered to all new recruits in group settings during their initial entry processing in all seven U.S. Army Reception Stations. Questionnaires were administered to Regular Army, Reserve, and National Guard recruits. Again, only the results for the Regular or Active Army are reported here. The surveys were administered during five, one week periods between May and August of 1983. Three different forms of the survey were used with the Regular Army recruits. A total of 8,605 Regular Army, non-prior service recruits completed usable surveys. As with the 1982 sample, we were very successful in matching MEPRS data to questionnaire data. Matching records were found for 96.9 % of the respondents, thus yielding a sample of 8,341 recruits with matching MEPRS records. Details on the differences among the the three forms can be found in Elig, Hertzbach and Johnson [12].

The 1983 Sample, like the 1982 sample, may be biased by the fact that the survey was administered during the last half of the fiscal year. As with the 1982 survey, this potential seasonal bias is attenuated somewhat by the fact that the recruits who entered the Army during the latter half of the year had signed enlistment contracts at various times during the first half of the fiscal year under the Army's Delayed Entry Program.

### 3.2. RESULTS

Before discussing the results of our 1982 and 1983 survey efforts, a brief description of these samples in relation to their respective accession populations is in order. With respect to AFQT categories, in 1982 we under sampled category IIIA and B recruits and over sampled category IV recruits. In 1983, the situation was reversed. In 1982 we over sampled high school graduates; while in 1983, we under sampled them. We over sampled males and ethnic groups other than whites or blacks in both years. Both our 1982 and 1983 samples over represent 17 year old recruits. We suspect that this is largely due to the time of year our sample was taken; the recruits we sampled were probably close to 18 years old, and it is at this age level that our greatest under representation occurs. With respect to recruiting regions, our 1982 sample was a fairly close representation of the 1982 population of recruits; however, our 1983 sample looks more like the 1982 population of recruits than the 1983 population, in that the Midwest is over represented and the Southwest is under representated.

#### 3.2.1. Motives for Enlistment

In attempting to understand the enlistment decision processes from our survey results, it is useful to begin by comparing the results of our 1982 and 1983 efforts

with those of the Rand survey at enlistment processing stations conducted in 1979. Many of the items used in our two new recruit surveys were identical or at least similar to those used in this 1979 survey.

Table 7 shows the most important reasons for enlisting as they were given by the respondents to these three survey efforts. One is immediately struck by several things when looking at this table. First, the top reported reasons for enlistment are the same across all three time frames, namely, "a chance to better myself" and "to get skill training." 1979 was a very poor recruiting year for the Army, while 1982 and especially 1983 were very good years for recruiting. At least part of the reason for this change can be attributed to the dramatic increase in unemployment as a reason for enlisting between 1979 and 1982. This is consistent with findings of Dale and Gilroy who have shown that unemployment is a key factor in the ability of the Army to enlist male, non-prior service, high school graduates [13]. Money for college as an enlistment reason showed an equally dramatic rise from 1979.

It is interesting to note that patriotism is fairly high up on the list of reasons for enlistment, and that it remains a remarkably stable reason across good and bad recruiting years. This is in agreement with Burk and Faris who found patriotism to be very stable across a variety of cognitive and socio-economic characteristics [14]. As Table 8 shows, the results of the 1982 and 1983 surveys look very much alike for male high school diploma graduates. High AFQT category males most frequently say they enlisted to get money for a college education (especially AFQT category I & II recruits) or for skill training. Lower AFQT males are more likely to say they enlisted to get skill training or because they were unemployed. Patriotism is a more frequently cited reason for enlistment by AFQT category I - IIIA males in 1983 than it was in 1982, and is given slightly less frequently by AFQT category IV recruits.

**Table 7.**

**Comparison of 1982 and 1983 Survey Responses to Most Important Reason for Enlistment with those from the 1979 DoD Survey**

| | April | Spring | | Summer | |
|---|---|---|---|---|---|
| Enlistment Reason | 1979 DoD | 1982 | 1983 | 1982 | 1983 |
| CHANCE TO BETTER MYSELF | 39% | 30% | 25% | * | * |
| TO GET TRAINED IN A SKILL | 26 | 22 | 19 | 35% | 30% |
| MONEY FOR COLLEGE EDUCATION | 7 | 15 | 16 | 20 | 17 |
| TO SERVE MY COUNTRY | 10 | 9 | 9 | 10 | 12 |
| I WAS UNEMPLOYED | 4 | 10 | 9 | 10 | 10 |
| TO PROVE I CAN MAKE IT | 4 | 6 | 7 | 9 | 10 |
| BE AWAY FROM HOME ON MY OWN | 5 | 4 | 5 | 5 | 7 |
| EARN MORE MONEY | 1 | 2 | 7 | 4 | 6 |
| TRAVEL | 4 | * | * | 4 | 4 |
| ESCAPE FROM PERSONAL PROBLEM | 1 | 1 | 2 | 2 | 2 |
| FAMILY TRADITION TO SERVE | 0.5 | 1 | 1 | 1 | 2 |

*** Not measured on these surveys**

**Table 8.**

**Top Four Most Important Reasons for Enlisting for Male High School Graduates**

| | AFQT Category | | | |
|---|---|---|---|---|
| **Enlistment Reason** | **I & II** | **IIIA** | **IIIB** | **IV** |
| **1982 (Summer)** | | | | |
| TO GET TRAINED IN A SKILL | 28.0% | 36.3% | 39.3% | 34.7% |
| MONEY FOR COLLEGE EDUCATION | 36.3 | 21.4 | 12.3 | 8.4 |
| TO SERVE MY COUNTRY | 7.8 | 9.7 | 11.7 | 12.1 |
| I WAS UNEMPLOYED | 7.8 | 10.4 | 11.1 | 13.1 |
| **1983 (Summer)** | | | | |
| TO GET TRAINED IN A SKILL | 22.8% | 26.9% | 36.3% | 26.5% |
| MONEY FOR COLLEGE EDUCATION | 32.5 | 21.1 | 8.3 | 8.8 |
| TO SERVE MY COUNTRY | 12.6 | 11.0 | 11.8 | 10.6 |
| I WAS UNEMPLOYED | 7.0 | 8.5 | 10.6 | 21.2 |

### 3.2.2. Enlistment Incentives

Table 9 shows the responses of male two year recruits who were asked what they would have done if they could not have enlisted for this short tour. The results for 1982 and for 1983 are very similar in that the majority of these recruits say that they would not have enlisted in the Army; furthermore, the overwhelming majority of those who said they would not have enlisted in the Army also said that they would not have enlisted in any service. Clearly, the short tour is attracting young men to the Army who would not otherwise have served in any military service.

**Table 9.**

**Effect of No Two Year Enlistment Option for Male Two Year Recruits**

| Survey Year | Not Enlisted | Different Service | Different Job | Same Job | Not Applicable |
|---|---|---|---|---|---|
| 1982 | 46.7% | 15.6% | 13.8% | 23.5% | 0.4% |
| 1983 | 44.4% | 10.9% | 12.8% | 28.9% | 3.0% |

The two year tour seems to be accomplishing what the draft used to accomplish: attracting the citizen soldier. The two year tour also seems to be a very cost-effective program for the Army. For example, our 1983 survey results show that 55 of every 100 recruits who enlisted for the two year option reported that they would not have enlisted in the Army if this option had not been available. On the other hand, about 41 recruits said they would have enlisted anyway. The Army gets 110 years of active duty service time it would not otherwise get (55x2 years), while giving up 41 to 82 service years (41 x 1 or 2 years of additional time under alternative enlistment tours) it would otherwise have had. This means that the Army probably gains between 28 and 69 active duty service years for each 100 recruits it brings into the service under this enlistment option. In addition, the Army probably saves money in recruiting costs, since it seems likely that the two year enlistment is easier to "sell" to the most highly qualified prospects. But these and other costs, such as attrition losses and reenlistment rates, need to be assessed before the cost effectiveness of this enlistment incentive can be determined.

What about the Army College Fund as an enlistment incentive? Table 10 shows the responses of "high quality" male high school graduates who were asked what they would have done if the ACF had not been available. At least in 1983, respondents most frequently said that they would have enlisted in the same job even without the ACF. The large number of "not applicable" responses in 1982 probably reflects the fact that the Army didn't advertise the ACF until 1983. The dramatic rise in the number of respondents who said they would have enlisted in the same job even without the ACF, seems to be directly related to the equally dramatic drop in the number of recruits who said the ACF did not apply to them.

**Table 10.**

**Effect of No ACF Option**

**for Male Recruits Eligible for the ACF**

| Survey Year | Not Enlisted | Different Service | Different Job | Same Job | Not Applicable |
|---|---|---|---|---|---|
| 1982 | 26.9% | 2.8% | 9.6% | 28.2% | 32.5% |
| 1983 | 26.0% | 7.1% | 10.3% | 45.8% | 10.8% |

Clearly, more recruits were aware of the ACF in 1983 than were aware of it in 1982. More than likely, those recruits who did not think the ACF applied to them in 1982 were those who did not enlist to get the ACF and, therefore, were not aware that they were eligible for it. Perhaps the 1983 recruits who did not specifically enlist for the ACF were more aware of its existence because it was advertised in 1983, but since they did not enlist for this benefit, they answered quite honestly that they would have enlisted for the same job even if there had been no ACF.

### 3.2.3. Influencers of the Enlistment Decision Process

The results of the 1982 and 1983 surveys, shown in Table 11, look very similar with respect to friends as influencers of the enlistment decision process. Recruits reported that friends with Army experience were most positive about their enlistments and friends with no military experience were the least positive. Friends with military experience in military services other than the Army were in-between those with no experience and those with Army experience. Except for the AFQT category IV recruits, friends without military experience were reported to be more positive in 1983 than they were in 1982.

**Table 11.**

**Friends' Reported Favorable Reactions to Army Enlistment in 1982 and 1983**

| 1982 Survey | Friends' Military Experience | | |
|---|---|---|---|
| AFQT Category | None | Other Services | Army |
| I & II | 33.3% | 47.6% | 58.9% |
| IIIA | 38.0 | 58.9 | 60.8 |
| IIIB | 40.2 | 58.5 | 65.6 |
| IV | 50.6 | 63.7 | 69.8 |

| 1983 Survey | Friends' Military Experience | | |
|---|---|---|---|
| AFQT Category | None | Other Services | Army |
| I & II | 41.7% | 50.5% | 52.9% |
| IIIA | 45.7 | 55.0 | 60.4 |
| IIIB | 49.5 | 58.9 | 66.0 |
| IV | 45.2 | 51.0 | 57.3 |

Table 12 shows parents' reactions to their enlistment as reported by our new recruits in 1982 and 1983. In both 1982 and 1983, fathers were reported to be slightly more positive about a son's enlistment than they were about a daughter's enlistment. For mothers, the opposite was true; they were reported to have more favorable reactions to a daughter's enlistment than to a son's enlistment. Except for mother's reaction to daughter's enlistment in 1983, the percent of recruits reporting unfavorable parental reactions went down between 1982 and 1983; however the percentage of recruits who said they didn't know what their parents' reaction had been to their enlistment increased between 1982 and 1983.

**Table 12.**

**Parents' Reaction to Enlistment Reported by**

**1982 & 1983 Male and Female Recruits**

| Father's Reported Reaction | Good Idea | Bad Idea | Don't Know |
|---|---|---|---|
| **Son's Enlistment** | | | |
| 1982 | 75.6% | 10.4% | 14.0% |
| 1983 | 73.4 | 8.8 | 17.8 |
| **Daughter's Enlistment** | | | |
| 1982 | 68.2 | 14.6 | 17.2 |
| 1983 | 69.2 | 11.2 | 19.6 |
| **Mother's Reported Reaction** | **Good Idea** | **Bad Idea** | **Don't Know** |
| **Son's Enlistment** | | | |
| 1982 | 73.3% | 19.4% | 7.3% |
| 1983 | 73.2 | 16.6 | 10.2 |
| **Daughter's Enlistment** | | | |
| 1982 | 79.4 | 15.4 | 5.2 |
| 1983 | 77.8 | 16.4 | 5.8 |

## 4.0 1983 EXIT SURVEY

In our survey of people exiting the army, we were interested in determining the major reasons why people choose to leave the Army and what the incentives might be for leaving or reenlisting. As with our high school senior and new recruit surveys, we were also interested in exploring differences between two year, citizen soldier recruits and those who had enlisted for longer tours of duty. Specifically, we hypothesized that those soldiers who had enlisted for a two year tour would be less likely to leave before their enlistment tours were completed and that they would leave the service at the end of their enlistment obligation to enter college. According to the citizen soldier concept, those serving a short tour should be more willing to put up with the "disamenities" of military life because it represents only a hiatus in their lives and may be a very useful means to get money for a college education.

### 4.1. Method

Exit questionnaires were administered from the middle of September 1983 until mid-December 1983 to: (1) all enlisted personnel exiting the Army, (2) all enlisted personnel transiting through transfer points on PCS (permanent change of station) orders, and (3) AIT (advanced individual training) graduates in selected MOS. These surveys were administered by separation point personnel at 23 CONUS (Continental United States) installations. Outside CONUS (Europe and Korea) personnel exiting and PCSing transited through three main CONUS installations (Dix, Jackson, and Oakland Army Terminal).

Although filling out the questionnaires was voluntary, participation was close to 100% at most installations. The only exception was the Oakland Army Terminal where only about 10% of the soldiers passing through this transfer station completed questionnaires. This low rate of participation was probably due to the fact that most of the personnel passing through this exit point were returning from tours in Korea and seemed to be suffering from jet lag. The questionnaire included demographic items as well as questions about job attitudes, off duty environments, MOS characteristics, reasons for leaving the Army, reenlistment factors, and retirement and other service benefits.

### 4.2. Results

A total of 4,268 usable questionnaires were collected from first-term soldiers. The number of respondents in each of the comparison groups was as follows: 803 Training Graduates, 249 Trainee Discharges (TDP), 1,857 Normal Discharges (ETS), 505 Chapter (Adverse) Discharges, and 655 PCSs. The remaining 199 respondents were not used in the analyses reported in this paper. Only the responses from the soldiers who were ETS, TDP, or Adverse discharges were analyzed in this report. The results presented here are preliminary and should be interpreted with caution.

#### 4.2.1. Motives for Leaving the Army

To assess the relative importance of motives for leaving the Army, we asked exiting soldiers to rate 34 possible reasons for their separation on a five point scale ranging from **extremely important** to **not important**. Shown in Table 13 are the top ten separation reasons for those who were leaving the Army at the end of their first tour (i.e., ETS). The percentage shown for each item in Table 13 is for those respondents who rated that item as either **extremely important** or as **very important**. Also shown in Table 13 are the ratings of the same items for those soldiers who were leaving the Army for adverse or training discharges.

Except for sexual harassment, both male and female soldiers seem to have very similar reasons for wanting to leave the service. As Table 13 shows, both male and

female soldiers who were leaving the Army seem to be doing so primarily because they have acquired skills that have allowed them to compete successfully for civilian jobs or because they wish to further their education. Other major reasons for leaving the Army seem to center around poor NCO leadership and not being able to "better themselves" as they had expected to do when they entered the Army.

Looking at the results in Table 13, one is immediately struck by the fact that, despite the type of discharge or gender of the respondent, several reasons are consistently cited as the major reasons for leaving the Army. Not being treated with respect, unfair treatment, poor NCO leadership, and not getting credit for doing a good job placed high on the list of reasons for leaving the service for everyone who is leaving the Army. These are some of the same intrinsic job characteristics that Faris found to influence late initial term attrition and reenlistment plans [15]. Poor NCO leadership may be largely responsible for the lack of respect, unfair treatment, and lack of performance recognition that these soldiers feel they experienced while they were in the service. The low priority given these reasons by those leaving the service under adverse conditions is surprising. One could logically expect that those leaving under adverse conditions would tend to attribute their failure to the Army system and its authority figures. That these "system failure" reasons are given high priority by those who have successfully completed their enlistment tours is a most disconcerting surprise, since correction of NCO leadership problems promises to be very difficult task.

**Table 13.**

**Top Ten Exit Reasons**

**by Gender and Type of Discharge**

| | Percent Males | | | Percent Females | | |
|---|---|---|---|---|---|---|
| **Exit Reason** | **ETS** | **ADV** | **TDP** | **ETS** | **ADV** | **TDP** |
| GOOD CIVILIAN JOB | 52.8 | 60.0 | 55.7 | 49.8 | * | 42.6 |
| NO RESPECT | 50.9 | 48.8 | 51.5 | 51.9 | 60.0 | 50.0 |
| NO CREDIT FOR GOOD JOB | 48.1 | 40.4 | 38.9 | 46.1 | 60.0 | 40.7 |
| POOR NCOs | 46.6 | * | * | 45.1 | * | 33.3 |
| GO TO SCHOOL/COLLEGE | 45.1 | 41.3 | 41.7 | 51.4 | * | 42.6 |
| FAMILY SEPARATION | 43.7 | 50.0 | 52.0 | 42.8 | 80.0 | 42.6 |
| UNFAIR TREATMENT | 42.9 | * | 41.5 | 45.3 | * | 38.9 |
| CAN'T GET EDUCATION | 41.7 | * | * | 39.9 | * | * |
| LOW PAY | 41.3 | 43.5 | 40.4 | 42.0 | * | * |
| OFFICERS DON'T CARE | 39.1 | * | * | * | * | * |
| SEXUAL HARASSMENT | * | * | * | 37.3 | * | * |

*** Not Among the Top Ten Reasons for That Exit Group.**

Since gender differences in attrition were not the major focus of this paper, we included only male high school graduates who were in or completing their first enlistment tour in our remaining analyses of motives and incentives for leaving the Army. Most of the soldiers we surveyed, about 71%, were leaving the Army at the end of their first enlistment tour. About 20% of those we surveyed were leaving under an adverse discharge, and about 8% were leaving under TDP discharges. As Table 14 indicates, there were slight differences in the type of discharge received by two year soldiers and those who had enlisted for longer tours. Not surprisingly, those enlisting for two years were slightly more likely to finish their tour of duty than were those who had enlisted for longer tours. The discharge rate for adverse reasons is lower for the two tour year soldiers, but they have a higher TDP rate than do those who enlist for longer tours of duty. These results are consistent with our hypothesis that those serving a shorter enlistment tour should be more likely to complete that tour. That shorter tour soldiers have a lower adverse discharge rate is very encouraging, since reasons that produce this type of discharge are often difficult to correct.

**Table 14.**

**Differences in Discharge Rates for Male High School Graduates by Enlistment Tour Length**

| Tour Length | ETS | ADVERSE | TDP | HARDSHIP |
|---|---|---|---|---|
| Two Years | 75% | 13% | 12% | 0% |
| Three or Four Years | 71% | 20% | 8% | 1% |

Table 15 shows the top ten reasons why male high school graduates say that they are leaving the Army. There are clear and marked differences between the two year, citizen soldiers and the soldiers who enlisted for longer tours. To go to school is the number one reason why the two year soldier says he is leaving the Army. Getting a good civilian job is the number one reason why the soldier serving a longer tour says he is leaving the Army. These result are consistent with our hypothesis that the citizen soldier would be leaving the Army primarily to finish his education. Both the two year and longer tour soldiers are in agreement on the second through the fifth most important reasons why they are exiting the Army. As we have seen earlier, these reasons seem to revolve around a perceived lack of good NCO leadership and unfair, demeaning treatment.

Table 16 shows the same information as in Table 15, for ETS, Adverse, and TDP discharges. While one would expect the observed high rate of blaming the Army for their failures from the Adverse and TDP discharges, those who are exiting the Army after successfully completing their tours voiced the same complaints albeit at much lower rates.

**Table 15.**

**Major Reasons for Leaving the Army by Tour Length**

| Exit Reason | Two Year Tour | | Longer Tour | |
|---|---|---|---|---|
| | Percent | Rank | Percent | Rank |
| NO RESPECT | 57 | 2 | 51 | 2 |
| GOOD CIVILIAN JOB | 46 | 6 | 54 | 1 |
| ARMY NOT FOR ME | 44 | 7 | 40 | 10 |
| POOR NCOs | 52 | 4 | 46 | 4 |
| NO FREEDOM AFTER DUTY | 44 | 7 | 38 | 11 |
| LOW PAY | 31 | 12 | 42 | 8 |
| NO CREDIT FOR GOOD JOB | 55 | 3 | 49 | 3 |
| FAMILY SEPARATION | 33 | 11 | 44 | 6 |
| CAN'T GET EDUCATION | 43 | 9 | 42 | 8 |
| UNFAIR TREATMENT | 47 | 5 | 45 | 5 |
| GO TO SCHOOL/COLLEGE | 62 | 1 | 43 | 7 |
| WORK NOT INTERESTING/CHALLENGING | 40 | 10 | 34 | 14 |

**Boldface numbers indicate tied ranks**

**Table 16**

**Major Reasons for Leaving the Army by Tour Length and Type of Discharge**

| | Two Year Tour | | | Longer Tour | | |
|---|---|---|---|---|---|---|
| **Exit Reason** | **ETS** | **ADV** | **TDP** | **ETS** | **ADV** | **TDP** |
| NO RESPECT | 52% | 72% | 69% | 49% | 58% | 50% |
| GOOD CIVILIAN JOB | 44 | 39 | 63 | 54 | 58 | 53 |
| ARMY NOT FOR ME | 38 | 5 | 69 | 37 | 48 | 51 |
| POOR NCOs | 51 | 72 | 38 | 47 | 52 | 30 |
| NO FREEDOM AFTER DUTY | 30 | 47 | 63 | 36 | 45 | 38 |
| LOW PAY | 27 | 17 | 69 | 41 | 49 | 34 |
| NO CREDIT FOR GOOD JOB | 51 | 61 | 69 | 47 | 57 | 41 |
| FAMILY SEPARATION | 27 | 45 | 56 | 40 | 52 | 54 |
| CAN'T GET EDUCATION | 41 | 53 | 44 | 41 | 47 | 34 |
| UNFAIR TREATMENT | 33 | 67 | 50 | 42 | 55 | 43 |
| GO TO SCHOOL/COLLEGE | 65 | 50 | 63 | 43 | 45 | 43 |
| WORK NOT INTERESTING/CHALLENGING | 40 | 56 | 25 | 32 | 45 | 26 |

### 4.2.2. Reenlistment Incentives and Disincentives

In order to assess the effects of various reenlistment incentives and disincentives, we asked exiting male high school graduates to tell us what would be their strongest reason to reenlist if they were to reenlist, and what would be the strongest deterrent to reenlistment for them. The percent of respondents selecting each of the ten reenlistment incentives we asked about is shown in Table 17. Clearly, lack of job satisfaction is the most important reason for not reenlisting for both two year soldiers and those serving longer tours. Its obverse, job satisfaction, is also a strong reason why soldiers would consider reenlisting. This indicates that more of these exiting soldiers might be retained if their job satisfaction could be increased.

Pay seems to be an equally important factor for those serving longer tours, in that it is both a deterrent to reenlistment and considered to be a factor that would

encourage these soldiers to reenlist. Two year soldiers consider pay to be a reason for not reenlisting, yet very few say they would reenlist for pay. For all soldiers, retirement benefits are seen as strong reasons for reenlisting and not a barrier to reenlistment. Apparently retirement benefits are seen as being an important incentive for reenlistment; reenlistment bonuses, on the other hand, seem to have little meaning for the soldiers in this sample. This is not too surprising, since most of the people for whom bonuses are very important reenlistment reasons probably have reenlisted, and therefore would not be included in our sample.

**Table 17.**

**Strongest Reasons for Reenlisting or Not Reenlisting for Male High School Graduates Who are Leaving the Army at the End of Their First Tour**

| | Two Year Tour | | Longer Tour | |
|---|---|---|---|---|
| Reasons Given | Reenlist | Not Reenlist | Reenlist | Not Reenlist |
| Satisfaction with My Job | 18% | 36% | 26% | 29% |
| My Pay | 5 | 18 | 11 | 16 |
| Retirement Pay and Benefits | 24 | 3 | 20 | 8 |
| Quality of Medical Care | 3 | 2 | 5 | 5 |
| Quality of Gov't Housing | 1 | 7 | 1 | 4 |
| Trained in New MOS | 14 | 3 | 11 | 6 |
| Assignment of My Choice | 15 | 8 | 10 | 10 |
| Not Being Separated From Spouse | 4 | 6 | 4 | 10 |
| Overseas Assignment | 9 | 8 | 6 | 5 |
| Getting Reenlistment Bonus | 7 | 7 | 6 | 7 |

## 5.0 GENERAL DISCUSSION

Based on our surveys of high school seniors and new Army recruits, enlistment motives seem to fall into four major categories: those directed toward self-improvement, those oriented toward education and training, those centered around patriotism, and those clustering around getting away from problems in civilian life. Young Americans may enlist for one or more of these major motives. Not surprisingly, higher AFQT young people were more likely to have enlisted in order to further their education and training than were lower AFQT people, who

were more likely to have enlisted to escape problems in civilian life such as unemployment.

With respect to patriotism, our results tend to agree with those of Burk and Faris in that we found it to be an ever-present motive for enlistment that seemed to be relatively high and stable across a variety of demographic, cognitive, and socio-economic variables. In general, young Americans seemed to see military service as a way to improve themselves as well as a way to serve their country. Apparently, many of those who did enlist became disillusioned with the Army as a way to "better" themselves. This disillusionment seems to have stemmed from perceived problems with the Army's NCO leadership and from a lack of job satisfaction; the very same noneconomic factors that Faris has shown to heavily influence the reenlistment plans of enlisted personnel [15].

The enlistment incentives that the Army is currently offering, seem to be right on target in providing the benefits that are appealing to the citizen soldiers who would not otherwise choose military service. Although these benefits, the two year enlistment and the ACF, also encourage soldiers to leave at the end of their first enlistment, they attract young people who are more likely to complete that first enlistment. The enlistment incentives for the more career-minded young person seem to be already in place in all the U.S. military services in the form of retirement and other military fringe benefits.

Our results indicate that parents (especially fathers), school guidance counselors, and friends were the people who were key influencers in the enlistment decision process of young American people. Parents, in general, were seen by their children as being important sources for help in making career decisions, and as the people, other than themselves, whom they wished to please most with their career decisions. Although young Americans also sought information from their parents about career choices, school guidance counselors were their main sources for such information.

Fathers were seen by their children who have enlisted as being more positive about a son's enlistment than they were about a daughter's enlistment. For mothers, the reverse was true. Perhaps mothers saw an Army enlistment as a way for their daughters to make their way in what has traditionally been a male dominated domain.

Friends with military experience, especially those who have been in the Army, were reported by new recruits to have been very positive about their decision to enlist. This is somewhat puzzling in that so many of the soldiers in our exit survey expressed disenchantment with their Army experience at the end of their first enlistment. We suspect that the friends with Army experience who were referenced by the new recruits in our survey, were contemporaries who were

themselves relatively new to the Army and had not as yet had the negative experiences reported by the exiting soldiers. We have not yet addressed the key influencers of the attrition/reenlistment decision process in our research efforts. We are beginning to examine this process by exploring the role of advertising as an influencer in the enlistment/reenlistment decision process [16].

Our hypotheses with respect to the citizen soldier concept were largely borne out in our survey results. Those high school seniors who were interested in the two year option, and those new recruits who enlisted under the Army's two year enlistment option were decidedly different from their counterparts who were not interested in this option. High school seniors interested in the two year option were more likely to say they would enlist to get money for education or to get skill training. The major reason why soldiers actually serving two year tours said they enlisted was to get money for a college education. Furthermore, when leaving the Army, these citizen soldiers were more likely to say they were leaving to attend school than were their longer tour counterparts. We think that continuing development of the citizen soldier concept will provide the Army with some very important information about a pool of potential recruits that as yet has been largely untapped.

## 6.0 REFERENCES


1. C. C. Moskos, Jr., "The Enlisted Ranks in the All-Volunteer Army," in The All-Volunteer Force and American Society, ed. J. B. Keeley (Charlottesville, Va.: University of Virginia Press, 1978), pp. 39-80.

2. C. C. Moskos, "Social Considerations of the All-Volunteer Force," in Miltary Service in the he United States, ed. B. Scowcroft (Englewood Cliffs, NJ: Prentice-Hall, 1982), pp. 129-150.

3. C. C. Moskos, "Citizen Soldier and an AVF GI Bill: Alternative to the Draft," Unpublished manuscript, October 1982.

4. C. C. Moskos, "A Sociologist Looks at Recruiting," Presentation given at the U.S. Army Recruiting Command, October 12, 1983.

5. J. G. Bachman, "American High School Seniors View the Military: 1976-1982," Armed Forces and Society, (Fall 1983): pp. 86-104.

6. R.L. Kaplan and P.T. Harris, "The Measurement of High School Students' Attitudes Toward Recruiting Incentives," (U.S. Army Recruiting Command Report USAREC SR 82-3-1, Fort Sheridan, IL, May, 1983).

7. J. J. Mathews, and M. J. Ree, "Enlistment Screening Test Forms 81a and 81b: Development and Calibration," (U.S. Air Force Human Resources Laboratory Technical Report 81-54, Brooks Air Force Base, TX, March 1982).

8. Market Facts, Inc., "Youth Attitude Tracking Study Fall 1982," (Market Facts Inc., Arlington, VA, May 1983).

9. Orkand Corporation, "Parent's Perceptions of their Influence on Youths' Enlistment Decisions," (The Orkand Corporation Final Report, Silver Spring, MD, March, 1983).

10. Z. D. Doering, D. W. Grissmer, and J. S. Morse, "1979 DoD Survey of Personnel Entering Military Service: Wave 1 (2) User's Manual and Codebook," (Rand Corporation Notes N-MRAL & N-1606-MRAL, Santa Monica, CA, 1980).

11. T. W. Elig, R. M. Johnson, P. A. Gade, and A. Hertzbach, "The 1982 DA Survey of Personnel Entering the Army: Tabular description of 1982 (active) Army Accessions, Volumes 1 & 2," (U.S. Army Research Institute for the Behavioral and Social Sciences Research Products 84-1 and 84-2, Alexandria, VA, 1984).

12. T. W. Elig, A. Hertzbach, and R. M. Johnson, "The 1983 ARI Survey of Army Recruits: Tabular description of 1983 (active) Army Accessions, Volumes 1 & 2," (U.S. Army Research Institute for the Behavioral and Social Sciences Research Products 84-9 and 84-10, Alexandria, VA, 1984).

13. C. Dale, and C. Gilroy, "Determinants of Enlistments: A Macroeconomic Time-Series View," Armed Forces and Society (Winter 1984): pp. 192-210.

14. J. S. Burk, and J. H. Faris, "The Persistence and Importance of Patriotism in the All-Volunteer Force," (U.S. Army Recruiting Command Report USAREC SR 82-6, Fort Sheridan, IL, December, 1982).

15. J. H. Faris,"Economic and Noneconomic Factors of Personnel Recruitment and Retention in the AVF,"Armed Forces and Society (Winter 1984): pp. 251-275.

16. T. W. Elig, M. M. Weltin, and R. M. Johnson, "U.S. Army Advertising from the Recruit's Viewpoint," (U.S. Army Research Institute for the

7. J. J. Mathews, and M. J. Ree, "Enlistment Screening Test Forms 81a and 81b: Development and Calibration," (U.S. Air Force Human Resources Laboratory Technical Report 81-54, Brooks Air Force Base, TX, March 1982).

8. Market Facts, Inc., "Youth Attitude Tracking Study Fall 1982," (Market Facts Inc., Arlington, VA, May 1983).

9. Orkand Corporation, "Parent's Perceptions of their Influence on Youths' Enlistment Decisions," (The Orkand Corporation Final Report, Silver Spring, MD, March, 1983).

10. Z. D. Doering, D. W. Grissmer, and J. S. Morse, "1979 DoD Survey of Personnel Entering Military Service: Wave 1 (2) User's Manual and Codebook," (Rand Corporation Notes N-MRAL & N-1606-MRAL, Santa Monica, CA, 1980).

11. T. W. Elig, R. M. Johnson, P. A. Gade, and A. Hertzbach, "The 1982 DA Survey of Personnel Entering the Army: Tabular description of 1982 (active) Army Accessions, Volumes 1 & 2," (U.S. Army Research Institute for the Behavioral and Social Sciences Research Products 84-1 and 84-2, Alexandria, VA, 1984).

12. T. W. Elig, A. Hertzbach, and R. M. Johnson, "The 1983 ARI Survey of Army Recruits: Tabular description of 1983 (active) Army Accessions, Volumes 1 & 2," (U.S. Army Research Institute for the Behavioral and Social Sciences Research Products 84-9 and 84-10, Alexandria, VA, 1984).

13. C. Dale, and C. Gilroy, "Determinants of Enlistments: A Macroeconomic Time-Series View," Armed Forces and Society (Winter 1984): pp. 192-210.

14. J. S. Burk, and J. H. Faris, "The Persistence and Importance of Patriotism in the All-Volunteer Force," (U.S. Army Recruiting Command Report USAREC SR 82-6, Fort Sheridan, IL, December, 1982).

15. J. H. Faris,"Economic and Noneconomic Factors of Personnel Recruitment and Retention in the AVF,"Armed Forces and Society (Winter 1984): pp. 251-275.

16. T. W. Elig, M. M. Weltin, and R. M. Johnson, "U.S. Army Advertising from the Recruit's Viewpoint," (U.S. Army Research Institute for the Behavioral and Social Sciences Personnel Utilization Technical Area Working Paper 84-6, Alexandria, VA, 1984).

PERSONNEL UTILIZATION TECHNICAL AREA WORKING PAPER 83-1

# THE EFFECTS OF ARMY RECRUITING INITIATIVES ON ARMED SERVICES' RECRUITING

PAUL A. GADE

TIMOTHY W. ELIG

JOYCE L. SHIELDS

November 12, 1982

APPROVED BY:
PAUL A. GADE
Acting Chief, Personnel
Utilization Technical Area

The views, opinions, and/or findings contained in this report are those of the authors and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES
5001 Eisenhower Avenue
Alexandria, Virginia 22333

## Introduction

In a briefing reported in the 8 November 1982 issue of Army Times, Dr. Robert Lockman of the Center for Naval Analyses (CNA) suggests that the Army may have an unfair, competitive edge in recruiting over the other services. In his briefing Dr. Lockman states that the Army College Fund (ACF) formerly called Ultra-VEAP, increased numbers of Army recruiters, enlistment bonuses, and reduced federal spending for youth training programs have given the Army a decided advantage at the expense of the Navy and the Air Force in recruiting non-prior service male AFQT 1-3A high school diploma graduates (HSDG)--the recruits most sought after by all of the services. Of the issues raised, three of the four are military issues, i.e., ACF, enlistment bonuses, and number of recruiters. In the Army Times article and in a personal interview, Dr. Lockman stressed two of these factors as being of overriding concern--the ACF and the increase in the number of Army recruiters in the last two years. This paper will briefly outline Dr. Lockman's approach and arguments, then describe some limitations of his study, and finally present relevant data from other research projects that have examined the impact of the variables of concern to Dr. Lockman.

## Lockman's Study

### Summary

Lockman estimated the effect of the Army's recruitment initiatives on the number of 1-3A HSDG contracts in all four services by using an enlistment supply model developed by CNA. The model predicts contracts for all services by Navy Recruiting Districts. The predictors in the model are: number of recruiters, civilian/military pay for youth, youth unemployment rate, federal spending for youth training programs by the Employment and Training Administration (ETA), and proxies for FY81 and 82.

The proxy variables were used to pick up changes attributable to Ultra-VEAP which became operational in FY82. Unfortunately, as Lockman notes these dummy/proxy variables pick up any changes during these years that are not accounted for by the other variables in the model and are uniquely associated with these years. This means that things other than Army programs could affect these variables and that there is no direct test of the impact of Ultra-VEAP in the study. Lockman used this CNA supply model in the following ways:

a. To identify the variables accounting for greatest variance in predicting NPS male 1-3A HSDG contracts.

b. To predict the number of NPS male 1-3A HSDG contracts for each serivce and to compare the predicted numbers to the actual numbers by service by year.

c. To predict the percentage of NPS male 1-3A HSDG contracts obtained by each service relative to the total NPS male contracts and to compare the predicted percentages to the actual percentages obtained by each service.

He reported the following results from his application of the CNA model:

a. The number of recruiters and civilian military pay were the most important factors in producing 1-3A HSDG contracts. However, no marginal utilities or correlation coefficients/elasticities are reported.

b. The number of 1-3A HSDG contracts for all four services were overpredicted by this model for FY81 compared to FY80. All four services had fewer contracts in FY81 than the model predicted. In FY82 the model overpredicted for the Navy and Air Force and underpredicted for the Army and Marines.

c. The model also overpredicted the percentage of 1-3A HSDG contracts the Navy and Air Force would receive in FY81 and 82 relative to FY80 and

underpredicted the Army and Marine Corps. The Army received 28 percent more "quality" recruits in FY81 than predicted and 61 percent more in FY82.

Based on these analyses, Dr. Lockman concludes that these results are due to the Army Ultra-VEAP, Army enlistment bonuses, big cuts in ETA, and an increase in Army recruiters.

Critique

Unfortunately, there is not enough information in Lockman's preliminary paper to permit a careful evaluation of the CNA model (We are in the process of obtaining those details from CNA). In spite of the lack of information about the CNA model and the predictive process used, several weaknesses in Dr. Lockman's arguments are apparent.

a. Lockman's analyses do not show that the number of Army recruiters have a differential impact on Army acquisition of NPS male 1-3A HSDG contracts. Lockman reports that the number of recruiters is one of the most important factors in producing 1-3A HSDG contracts, but it is not clear how that factor works. Based on results verbally reported to us by Dr. Lockman, it appears that increases in Army recruiters may have had a positive effect on the proportion of "quality" recruits taken by other services. Therefore, it may be that an increase in Army recruiters increases the efforts of the other services and thereby increases total DoD output. Careful examination of this possibility must be deferred until the CNA releases their procedures and results.

b. The results from the CNA model indicate that the Army has improved in the number of 1-3A HSDG NPS males contracted relative to its predictions. There is no direct test of the impact of Army educational incentives and special enlistment bonuses presented by Dr. Lockman. The assertion that the ACF is responsible for the Army's increases at the expense of the Navy and Air Force is based on speculation about the nature

and operation of the dummy/proxy variables he used. It is unclear what these dummy/proxy variables represent. Dr. Lockman says they represent the ACF and bonuses. They could just as easily represent the push by the Army to recruit NPS 1-3A male HSDGs that began in October of 1980 with the advent of the Army's Targeted Recruiting. More importantly, even if these dummy/proxy variables do represent the ACF and bonuses, he presents no direct evidence that they increase Army "quality" enlistments at the expense of the Navy and Air Force. A clearer picture of what has happened can be obtained by examining the data presented by Dr. Lockman.

First, all services decreased goals for the total number of NPS males from the period of FY80 to 82 as shown in Table 1. The Army and Marines decreased goals from FY80 to FY81 and FY81 to FY82 while the Air Force and Navy increased goals from FY80 to FY81 and then decreased.

Second, all services gained in the percentage of NPS male 1-3A HSDG contracts relative to their own goals for NPS males during the period FY80 to FY82. Table 2 shows NPS male HSDG 1-3A contracts achieved as a percent of total NPS male goals for each of the services for FY80, FY81, and FY82 as taken from Lockman's paper. As can be seen, the Army has the lowest percentage of these contracts of all services for all years. With the exception of FY81 where Navy and Air Force percentages dropped 10 and 16 percent respectively, all services have shown an increase in the percentage of NPS 1-3A male HSDGs since 1980. The Army's percentage has risen sharply since 1980; however, the most dramatic rise occurred from FY81 to FY82 (16%) but it is no more dramatic than the 16% rise for the Navy and Marines and the 24% rise for the Air Force. It appears that all services improved their positions in FY82 and by approximately equal percentages. The Army still lags far behind the other services even with this dramatic increase.

Third, the percentage of the total 1-3A HSDG NPS male contracts obtained by each of the services relative to the DoD total of 1-3A HSDG NPS male contracts changed during the FY80 to FY82 period. This was not computed or reported by Lockman, but was calculated easily from the data presented. Table 3 presents actual NPS male 1-3A HSDG contracts for each service for the FY80 to FY82 time period (obtained from Lockman). Table 4 shows the percentage of the total male NPS 1-3A HSDG contracts, or "market share", obtained by each service for these years. No service had a significant shift in market share of the total 1-3A contracts from FY80 to FY81. From FY81 to FY82 the Air Force experienced a 5% drop in 1-3A market share while the Army increased by 6%, and the Navy and Marines remained relatively constant. The numbers in parentheses in Table 4 are the market shares that would be expected if all services had shared equally in numbers of NPS male 1-3A HSDG contracts, weighted by size of their respective NPS male recruiting missions. Once again the Army clearly lags behind the other services. The Air Force, as usual, has a much higher market share than it would have under conditions of an equal "quality" distribution. The Navy seems to be relatively close to a market share parity. The Marines, as the Air Force, enjoy a higher than expected market share.

c. Finally, while Dr. Lockman feels that the Army increase in "quality" enlistments is due to its unfair recruiting advantages, he has no ready explanation for the concurrent, albeit smaller, rise in Marine "quality" enlistments.

## Other Relevant Research

The effects of the ACF on recruiting for all services were directly evaluated in an Office of the Secretary of Defense (OSD) sponsored experiment during FY81 (Polich, Fernandez & Orvis, 1982). The results of this major experiment are clear. The Army experienced a gain in NPS 1-3A

male HSDG enlistments with the use of the Ultra-VEAP kicker, now called the ACF. No corresponding declines in enlistments were experienced by the Navy or Air Force. In fact, Navy recruiters in ACF test areas did better than Navy recruiters in areas where the ACF was not used! This experiment also showed that Army recruiting of "quality" recruits was less successful when the Army had no competitive edge. In summary, this research experimentally demonstrated that Army "quality" enlistments were increased under the ACF with no detriment to other services. Elimination of an educational benefit competitive edge produced increased "quality" enlistments in the Navy and the Air Force at the expense of Army "quality" enlistments.

Recent ARI research by Dale and Gilroy (1982) also needs to be considered. In this research, a multiple regression model was developed to predict Army accessions as a function of a variety of economic and organizational variables. The ACF and number of recruiters were among the predictor variables used in this model. Results from this research are counter to the CNA results in that numbers of recruiters was not a significant variable in predicting percentage of NPS HSDG males. The ACF variable showed a large and statistically significant positive relationship to the percentage of NPS HSDG males obtained by the Army and was unrelated to recruiting results in the other services.

Finally, a project currently in progress at ARI has relevance to this issue as well. In May through August 1982, ARI conducted a survey of people entering the Army to determine what factors had influenced their decisions to enlist. We have completed a partial evaluation of about 60% of those questionnaires (see Elig, Gade, & Shields, 1982). Results indicate that the ACF and, to a lesser extent, enlistment bonuses do encourage a small number of 1-3A NPS HSDGs to join the Army over other services.

With respect to the ACF, we asked respondents to indicate what they would have done if the Army did not offer an additional education bonus (i.e., the ACF) for their MOS. Table 5 shows the overall responses of those NPS 1-3A HSDGs to this question. In this table "takers" are those individuals whose ARS data indicated that they were getting the ACF. "Nontakers" are those whose ARS data indicated that they were not getting the ACF. Approximately 5% of the takers indicated that they would have joined another service without the ACF. Almost 9% said they would not have joined any service. It is interesting to note that about 2% of nontakers indicated that they would also have joined another service and another 2% indicated they would not have joined any service. It is probably reasonable to assume that the responses of the nontakers represent system "noise" (e.g., those who misunderstood the question or were careless in their answers or whose information was miscoded in the ARS). If we subtract these erroneous responses from their corresponding elements for takers, we probably get a "truer" picture of responses here. The results being that about 4% of the takers say they would have joined another service and about 7% say they would not have joined any service.

As Tables 6 and 7 show, the ACF may have different effects on different categories of recruits. It is clear, for example, that two year enlistment recruits are very different from three and four year recruits in what they say they would have done without the ACF. If we adjust the taker percentages for errors (based on nontaker responses as before), only one-half of one percent of the two-year recruits say they would not have joined any service compared to about 3% and 5% for three- and four-year recruits respectively.

With respect to AFQT category, Table 7 shows a distinct difference between 3A category recruits and those in the upper two categories. Again

adjusting for presumed error, about 1% of category 3A recruits and about 5% of the category I & II recruits say they would have joined another service. On the other hand, about 4% of the 3As and about 8% of the I & IIs say they would not have joined any service at all.

Table 8 shows the results of a question designed to assess the effects of the enlistment bonus. The Bonus group includes those who reported they were getting a bonus or were not sure and whose ARS records showed they were getting a bonus. The No Bonus group represents those who reported they were getting a bonus or were not sure and whose ARS data showed they were not getting a bonus. After adjusting the Bonus group by the No Bonus group responses, about 2% of all recruits said they would have joined other services and about 4% said they would not have joined any service.

## Summary and Conclusions

Lockman's briefing suggesting that the Army's education incentives, special enlistment bonuses, and increased recruiting strength are giving the Army an unfair competitive edge that may lead to the detriment of the Navy and Air Force is unsupported by the analyses he has reported to date. A review of three recent, relevant research projects suggests that the question is more complex than it inititally seems. It appears that the dominant effect of the ACF and. to a lesser degree, of enlistment bonuses is to encourage NPS 1-3A HSDGs to join the Army who would not otherwise have joined any service. How much of an impact these Army programs have on other services is still not clear. Polich et al. (1982) showed that the ACF helped the Army without adversely affecting the other services (it actually seems to have helped the Navy!). However, the ARI survey results indicate that some NPS 1-3A HSDGs join the Army over other services due to the ACF and enlistment bonuses. It may be that the ACF produces some crossover enlistments for the Army, but its main effect seems to be to

encourage enlistments in all military services. Promotion of the Army's ACF may have a "spill over" effect of arousing interest in all military education enlistment incentives. Further analyses of the ARI survey data should provide a clearer understanding of the effects of the ACF and enlistment bonuses. Presumably, the Rand study of enlistment bonuses now underway will shed some light on these issues as well.

## References


Dale, C., & Gilroy, C. The effects of the business cycle on the size and composition of the U.S. Army (PPRG Working Paper 82-1). Alexandria, VA: US Army Research Institute for the Behavioral and Social Sciences, 1982.

Elig, T. W., Gade, P. A., & Shields, J. L. The 1982 DA Survey of Personnel Entering the Army. Paper presented at the meeting of the Military Testing Association, San Antonio, Texas, November, 1982.

Lockman, R. F. The effects of Army recruiting initiatives on enlistment contracts (CNA Memorandum 82-1487). Alexandria, VA: Center for Naval Analysis, September, 1982.

Polich, J. M., Fernandez, R. L., & Orvis, B. R. Enlistment effects on military educational benefits (Rand Note N-1783-MRAL). Santa Monica, CA: The Rand Corporation, February, 1982.

Smith, P. Army's 'Ultra-VEAP' held unfair to AF, Navy. Army Times, November 8, 1982, p. 11.

TABLE 1

NPS MALE FINAL GOALS (000)

| | FY80 | FY81 | FY82 |
|---|---|---|---|
| NAVY | 77.1 | 81.9 | 71.5 |
| AIR FORCE | 57.9 | 63.2 | 48.3 |
| ARMY | 135.0 | 98.5 | 100.5 |
| MARINES | 39.6 | 38.1 | 36.5 |

SOURCE: LOCKMAN, 1982

TABLE 2

NPS MALE 1-3A HSDG CONTRACTS ACHIEVED
AS PERCENT OF NPS MALE GOALS

| | FY80 | FY81 | FY82 |
|---|---|---|---|
| NAVY | 57% | 47% | 63% |
| AIR FORCE | 83% | 67% | 91% |
| ARMY | 25% | 34% | 50% |
| MARINES | 60% | 62% | 78% |

SOURCE: LOCKMAN 1982

TABLE 3

ACTUAL NPS MALE 1-3A
HSDG CONTRACTS (000)

| | FY80 | FY81 | FY82 |
|---|---|---|---|
| NAVY | 44.2 | 38.1 | 45.2 |
| AIR FORCE | 47.9 | 42.5 | 44.2 |
| ARMY | 34.2 | 33.8 | 50.6 |
| MARINES | 23.8 | 23.7 | 28.5 |

SOURCE: LOCKMAN, 1982

TABLE 4

MARKET SHARE OF NPS 1-3A CONTRACTS
BY SERVICE

| | FY80 | FY81 | FY82 |
|---|---|---|---|
| NAVY | 29% (25%) | 28% (29%) | 27% (28%) |
| AIR FORCE | 32% (19%) | 31% (22%) | 26% (19%) |
| ARMY | 23% (44%) | 24% (35%) | 30% (39%) |
| MARINES | 16% (13%) | 17% (14%) | 17% (14%) |

TABLE 5

EFFECT OF ACF ON NPS 1-3A HSDGs

| Suppose the job you signed up for did not pay an extra VEAP education bonus. What would you have done? (Mark one) | ACF TAKERS n=809 | ACF NONTAKERS n=494 |
|---|---|---|
| Signed up for the same job anyway. | 28.4 | 14.0 |
| Signed up for a different job in the Army. | 29.9 | 5.9 |
| Tried to join a different service. | 5.2 | 1.6 |
| Not enlisted at all. | 8.7 | 1.8 |
| Does not apply to me; I am not getting an education bonus. | 37.8 | 76.7 |
| | 100% | 100% |

TABLE 6

EFFECT OF ACF ON NPS 1-3A HSDGs
BY TERM OF ENLISTMENT

| Suppose the job you signed up for did not pay an extra VEAP education bonus. What would you have done? (Mark one) | ENLISTMENT TERM 2 | 3 | 4 |
|---|---|---|---|
| ACF TAKERS | n=230 | n=199 | n=380 |
| Signed up for the same job anyway. | 19.1 | 27.6 | 34.5 |
| Signed up for a different job in the Army. | 18.7 | 17.6 | 21.8 |
| Tried to join a different service. | 9.6 | 2.5 | 3.9 |
| Not enlisted at all. | 15.2 | 5.5 | 6.3 |
| Does not apply to me; I am not getting an education bonus. | 37.4 | 46.7 | 33.4 |
| TOTAL | 100% | 100% | 100% |
| ACF NONTAKERS | n=22 | n=232 | n=240 |
| Signed up for the same job anyway. | 18.2 | 12.1 | 15.4 |
| Signed up for a different job in the Army. | 9.1 | 5.2 | 6.3 |
| Tried to join a different service. | 9.1 | 1.7 | 0.8 |
| Not enlisted at all. | 4.5 | 1.7 | 1.7 |
| Does not apply to me; I am not getting an education bonus. | 59.1 | 79.3 | 75.8 |
| TOTAL | 100% | 100% | 100% |

TABLE 7

EFFECT OF ACF ON NPS 1-3A HSDGs
BY AFQT

| Suppose the job you signed up for did not pay an extra VEAP education bonus. What would you have done? (Mark one) | AFQT 1&2 | AFQT 3A |
|---|---|---|
| ACF TAKERS | n=558 | n=251 |
| Signed up for the same job anyway. | 27.6 | 30.3 |
| Signed up for a different job in the Army. | 21.1 | 17.1 |
| Tried to join a different service. | 5.6 | 4.4 |
| Not enlisted at all. | 10.0 | 5.6 |
| Does not apply to me; I am not getting an education bonus. | 35.7 | 42.6 |
| TOTAL | 100% | 100% |
| ACF NONTAKERS | n=329 | n=165 |
| Signed up for the same job anyway. | 12.2 | 17.6 |
| Signed up for a different job in the Army. | 5.8 | 6.1 |
| Tried to join a different service. | 0.9 | 3.0 |
| Not enlisted at all. | 2.1 | 1.2 |
| Does not apply to me; I am not getting an education bonus. | 79.0 | 72.1 |
| TOTAL | 100% | 100% |

TABLE 8

IMPORTANCE OF CASH BONUSES
FOR NPS 1-3A HSDG RECRUITS

| Suppose the job you signed up for did not pay a cash bonus. What would you have done? (Mark one) | BONUS n=765 | NO BONUS n=378 |
|---|---|---|
| Signed up for the same job anyway. | 49 | 66 |
| Signed up for a different job in the Army. | 38 | 27 |
| Tried to join a different service. | 6 | 4 |
| Not enlisted at all. | 7 | 3 |
| | 100% | 100% |

# Personnel Utilization Technical Area Working Paper 86-5

THE ARMY EXPERIENCE

PAUL A. GADE, GLENDA Y. NOGAMI, TIMOTHY W. ELIG, AND
MELVIN J. KIMMEL

MARCH 1986

APPROVED:

GLENDA Y. NOGAMI
Personnel Utilization
Technical Area

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

**U.S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333

**This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.**

## THE ARMY EXPERIENCE

Understanding the enlistment and reenlistment decision making processes of America's young men and women has become crucial to the success of the "all recruited" Army. Since 1982, the Army Research Institute (ARI) has been actively engaged in a program to model the enlistment/reenlistment decision making processes of those young men and women. Initially, this effort has focussed on describing: the motives for enlisting or not enlisting and for reenlisting or not reenlisting, the key influencers (people and advertising) of the decision making process, and the incentives that interact with those motives and the key influencers to affect the enlistment/reenlistment decision. The purpose for the modeling this decision process is to provide Army leaders with information they can use to effectively and efficiently manage recruiting and retention resources. Early research in modeling enlistment/reenlistment decision making at ARI has centered around a series of surveys designed to identify the motives, incentives, and key influencers in the enlistment/reenlistment decision process. This research began with a 1982 survey of new recruits as they processed into the Army at the reception stations. In 1983, we expanded our knowledge base of the enlistment/reenlistment decision process by conducting two surveys in addition to a 1983 version of the new recruit survey. The first was a survey of high school seniors that used many of the same items and concepts developed in the new recruit surveys of 1982 and 1983. This effort provided us with a look at the pre-enlistment decision making motives and processes of young men and women. The second survey of 1983 was an exit survey of separating soldiers at the major Army transfer points. The purpose of this survey effort was to provide information on how and why people had made the decision to leave the Army. Because of his continuing concern for the impact of Army service on its veterans, the results of the 1983 Exit Survey were briefed to Army Secretary John O. Marsh, Jr. in July, 1984. As a result of that briefing, Mr. Marsh directed ARI to conduct a survey of recently separated Army veterans to gather information on how, in retrospect, they view their Army experience, and to determine their willingness to function as Army "alumni."

### The Surveys

The following is a description of each of the major survey efforts that ARI has conducted leading up to the Army Experience Survey of 1985. Since the focus of this paper is on the Army Experience Survey, only brief descriptions are given for the High School Survey, the New Recruit

Surveys, and the Exit Survey. These descriptions are limited to those findings that have implications for the results of the Army Experience Survey. A detailed description and interpretation of the results of the Army Experience Survey are given.

## ARI High School Survey

In the 1983 survey of 1329 male and female high school seniors we found that the reasons they would consider enlisting in a military service clustered around four main factors: Self-improvement, Education, Escaping Civilian Problems, and Patriotism. The single leading reason for considering enlistment was part of the self-improvement cluster of items -- getting a chance to better oneself. Two other items, getting trained in a skill and getting money for college were the next two most highly rated items, and both were part of the Education cluster.

## ARI New Recruit Surveys

In the 1982 and 1983 New Recruit Surveys we surveyed over 14,000 new recruits about their reasons for having enlisted. Like the high school students, their reasons also formed four main factors: Self-improvement by being a Soldier, Education, Economics, and Escaping Civilian Problems. As in the high school survey, a chance to better oneself, part of the self-improvement factor, was the most frequently selected reason for enlisting. The enlistment reasons of money for college and getting skill training were found in two separate factors, Education and Economics respectively for new recruits. Patriotism was not a separate item for new recruits, as it had been for high school students, but was part of the self-improvement factor.

## ARI Exit Survey

In the 1983 Exit Survey, we surveyed a little over 1,800 first term soldiers as they returned to civilian life in 1983. Most told us that they were leaving to get a civilian job or to resume their education; However, a significant number told us they were leaving because of perceived leadership problems.

## Army Experience Survey

We conducted the Army Experience Survey between March and July, 1985 to find out how Army veterans felt about their military service. For the major thrust of this effort, we surveyed 2,566 veterans who

had successfully completed their first term of service and left the Army within the last three years. The results of this survey were very encouraging in that most (87%) of the veterans felt that their Army service had been valuable to them and that, if given the chance, nearly three quarters of them said they would join the Army all over again. In general, first term veterans reported that the most valuable thing about their Army service was the self-growth that they had experienced as a result of their Army enlistment. They said that the Army had a positive impact on such things as: pride in self (87%), self confidence (86%), self-discipline (84%), establishing independence (75%), and ability to make new friends (70%). They also reported that the Army had a positive impact on general work skills such as: developing leadership ability (85%), ability to work with others (85%), respect for authority (76%), and openness to new ideas (72%). Sixty-four percent of these Army veterans also reported that the Army had a positive impact on their job skills; however, this positive impact was significantly less than for any of the self-development or general job skills items. Furthermore, over 68% of these veterans also said that their Army job skills were either dissimilar or very dissimilar from their current civilian job requirements.

It seems that Army veterans value their Army service more for the self-growth they feel it fostered and for the general work skills they developed than for any job specific skills they acquired. This hypothesis is substantiated by the fact that of the 87% of the veterans who reported that their service was valuable to them, 73% said that it had been valuable because of the self-growth they experienced, 24% said it had been valuable for the interpersonal relationships and skills they had developed, 24% also said that they were happy with the life style they had experienced and treatment they had received in the Army. Only 13% said it had been valuable for the job fulfillment or in-service training/education they had received. Furthermore, 66% of these veterans said that the job skills they learned in the Army were different from those required in their current jobs. Of the 13% of the Army veterans who reported that their Army experience had not been valuable for them, 60% said that the reason it had not been valuable was due to their inability to get the the job fulfillment, training or education that they had wanted. Thirty-four percent said that they were unhappy with the Army life style or treatment they had received, and 18% said that negative experiences -- especially unmet expectations were the reasons why they didn't value their Army experience. As might be expected, most of these veterans (84%) also felt that the job

skills they had learned in the Army were different from those required in their civilian jobs.

When we asked veterans to tell us whether they were more likely to learn a valuable skill or trade in the Army or in civilian life, we got additional evidence that supports our hypothesis that having an opportunity for self-development and to learn general job skills are the main benefits that one term soldiers feel they get from their Army service. Of those veterans who said that their Army experience was valuable to them, most (49%) felt that the Army and civilian life were equally likely to provide skill training opportunities, 22% said that these opportunities were more likely to be found in civilian life, and 29% felt they were more likely in the Army. Thus these veterans felt that the Army was valuable primarily for the self-development opportunities it offered, and that the Army was not any more likely than civilian life to provide skill training opportunities. The results were very different for those who said that their Army experience had not been valuable to them. The majority (48%) of this group said that skill training opportunities were more likely in civilian life. Thirty-seven percent said they were equally likely, and only 15% said the opportunities were better in the Army. When asked what effect the Army had on development of job skills, 71% of those who rated their Army experience as valuable said the effect was positive, 25% said it had no effect, and 4% said it was negative. Again, the results for those who didn't find their Army service valuable are very different. For this group, 24% said the Army had a positive effect on their job skills, 54% said it had no effect, and 23% said the effect was negative. We found even greater differences when we asked our first term veterans where they were more likely to enjoy their work, in the Army or in civilian life. For those for whom the Army was a valuable experience, 56% said that enjoying your work was equally likely in the Army and in civilian life, 30% thought it would be more likely in civilian life, and 14% said it would be more likely in the Army. Fifty-nine percent of those for whom Army service was not valuable said that enjoying your work was more likely in civilian life, 35% felt it was equal, and only 6% said it was more likely in the Army. When we asked first term veterans to rate the importance of 23 potential reasons for leaving the service, those who felt their Army experience wasn't valuable rated "not enough chance to do interesting/challenging work" as their fifth most important reason for leaving; while those who felt their Army service was valuable rated this reason as eighth on their list. When we asked these veterans tell us what one thing the Army could have done to keep them in, those who rated the Army experience as not valuable were more likely

to list job related changes than were those who rated the experience as valuable (17.8% vs. 13.3%). They were also more likely to list job related changes when asked in what ways the Army could be improved for future enlistees (14.9% vs. 10.1%).

These results indicate that those who value their Army experience are positive about it on almost all levels but are most positive about the opportunities for self-development and learning general work skills. They are least positive about the opportunities to learn skills that directly related to their civilian job requirements. Those who didn't value their Army experience were disappointed in the lack of skill training and job fulfillment opportunities available to them in the Army, but not with the opportunities for self-development in other areas. However, it may be that those who didn't value their Army experience are those who have trouble adjusting to job situations whether they are in the Army or in civilian life. For example, when we asked first term veterans to indicate their satisfaction with their current civilian jobs, 77% of those who found their Army service valuable said they were satisfied; while only 70% of those who didn't find the Army valuable said they were satisfied with their current jobs. Furthermore, veterans who reported their Army service as not valuable were much more likely to report that they were unemployed and looking for work than were those veterans who rated their Army experience as valuable.

Women and minorities may be an important exception to this hypothesis. For example, a significant proportion of female (36%) and minority - Hispanic (34%) and Black (39%) - veterans responded that they were more likely to have an opportunity to learn a valuable trade or skill in the Army than in the civilian world. Bureau of Labor Statistics unemployment figures seem to bear this out. Although the average unemployment figure during April-June 1985 for 20-24 year old Blacks was 25.2%, the 20-24 year old Black veterans we surveyed reported a 21.3% unemployment rate. Furthermore, Black male veterans in this age group are more likely to be employed in technical/sales occupations (28%) than are Black males in the general population (17%). Black male veterans (20-24 year olds) are no more likely than their non-veteran counterparts to be employed in the service occupations (23%).

## Summary

From the results of our 1983 High School Survey and the results of the 1982 and 1983 New Recruit Surveys, it seems clear that America's young men and women enter Army service expecting, most of all, to

have experiences that will provide them with the opportunity to grow and mature as they learn to take on the responsibilities of adulthood. Apparently they are not disappointed, for it is just these sorts of experiences that they report having and valuing the most during their Army service. They also enter the Army for patriotic reasons. Again, they are not disappointed. The vast majority of Army veterans say they are proud to have served their country as soldiers and that they believe that the Army offered them a unique opportunity to serve their country. Although, Army veterans report that are not likely to learn job skills that directly relate to the requirements of the jobs that they eventually hold as civilians, they do, however, report learning general work skills that should prove useful to them as civilian employees. Women and minorities seem to benefit greatly from their Army experiences. The egalitarian atmosphere of the Army provides them with better opportunities for self-development than does civilian life, and they are more likely to learn skills that will help them in their civilian careers. There are those for whom the Army experience was not a positive one. However, it is unclear whether many of those for whom the experience was not valuable were disappointed by unmet expectations or were individuals who have a difficult time adjusting to any work situation be it civilian or military.

DRAFT

WORKING PAPER

# PILOT RESEARCH FOR VALIDATION OF ASVAB AND ENLISTMENT STANDARDS AGAINST PERFORMANCE ON THE JOB

LAWRENCE M. HANSER, EDWARD W. WILLIAMS,
BEVERLY A. POPELKA, JOYCE L. SHIELDS,
AND RICHARD A. KASS

AUGUST 1981

MANPOWER RESEARCH LABORATORY

APPROVED BY:
JOYCE L. SHIELDS, PH.D.
CHIEF, PERSONNEL UTILIZATION
TECHNICAL AREA

This working paper is an unofficial document and should be treated as such. It is intended for limited distribution to obtain comments. It does not reflect the official position of ARI and thus should not be used for purposes other than comments to ARI.

U. S. ARMY RESEARCH INSTITUTE
for the BEHAVIORAL & SOCIAL SCIENCES
5001 Eisenhower Avenue Alexandria, Virginia 22333

## Introduction

This is the second in a series of preliminary reports on pilot research conducted by ARI in March, 1981, for validation of Army enlistment criteria. This report focuses on the relations among ASVAB 6/7, SQTs, and selected measures of job performance. The initial report dealt with the definition of a "successful soldier", and the extent to which commanding officers and NCO's agreed on the qualities of a "successful soldier."

Since 1977 the major tool which has been available as an indicator of job performance is the MOS-specific Skill Qualification Test. These tests were designed primarily as diagnostic training devices, not as measures of job performance. SQTs have been used, however, as the criterion against which enlistment selection instruments were validated. Prior to 1977, enlistment selection instruments were validated against success in school training. While success in training obviously bears some relation to success on-the-job it is probably contaminated by non-job-related skills such as reading, and probably deficient as an indicator of job performance in the field. In a memorandum dated 11 September 1980 from Robert B. Pirie, Jr., (ASD MRA & L) all services were directed to pursue a long-range systematic program to validate ASVAB and enlistment standards against performance on the job. In order to accomplish this task, measures of job performance must be available.

## Objective

The purpose of the research conducted by ARI in Panama was to determine the feasibility of validating enlistment standards against job performance.

## Procedures

The 193rd Infantry Brigade served as the subject population. Twenty-six companies participated in the research. These units represented combat, combat support, and combat service support units. The initial report dealt with the definition of a "successful soldier", and the extent to which commanding officers and NCO's agreed on the qualities of a "successful soldier."

Several experimental measures of job performance were constructed and tested. Seven indicators of performance from the field 201 file were used to examine the performance of Army enlisted personnel participating in the research. These included: (1) Skill Qualification Test scores, (2) Number of awards, (3) Number of additional military courses completed, (4) Number of additional civilian courses completed beyond High School, (5) Number of letters of appreciation, (6) Number of Article 15's, and (7) Honor graduate status in training schools. A second category of job performance measures used in this research was based on peer and supervisory ratings and rankings of first-term soldiers. These performance measures were obtained from supervisors who completed job performance ratings and rankings on their first-term subordinates. The soldiers participating in the research also were asked to rate the on-the-job performance of their peers.

The Armed Services Vocational Aptitude Battery (ASVAB) forms 6 and 7 were used as predictors in this research. ASVAB is a combination of measures which meet two separate military service testing requirements. The Armed

Forces Qualification Test (AFQT), consisting of the word knowledge, arithmetic reasoning, and space perception subtests, is the basic DOD enlistment test required by the Congress as a means of screening applicants for overall trainability and English language proficiency. The remaining components in ASVAB were derived from the individual service classification test batteries, and are used for the differential assignment of volunteers to specific in-service Technical training courses. In all, ASVAB (Forms 5, 6, and 7) contain 13 subtests. These subtests along with a brief description of each, are listed in Table 1.

For Army use, ASVAB subtests are further combined into nine Aptitude Area Composites. Minimum scores on these composites are used as a prerequisite for entering a set of related skill training programs. Successful completion of the training program results in the award of a Military Occupational Specialty (MOS). For example, one Aptitude Area Composite is labeled CO for Combat and is used to classify recruits into Infantry and Armor specialties; another composite is labeled ST for Skilled Technical, and is used for Military Policeman, Medical, Intelligence, Data Processing, and other specialties (Maier & Grafton, 1981). The Aptitude Area Composites along with the types of skill specialties for which the composites serve as prerequisites are shown in Table 2.

## RESULTS

The statistical analyses consisted of computing correlations among ASVAB 6/7 aptitude area composite scores and all job performance measures. Analyses focused on the relationships among ASVAB and the performance measures as well as the meaning of the performance measures.

There is a strong relationship between ASVAB and SQT scores. For 95B the ST composite score and for 11B the CO composite score consistently predicted SQT scores. The validity of the Army's classification system is supported partially by the high correlations among ASVAB composite scores and SQT scores. In addition there was a weak but significant relationship among additional military courses and ASVAB scores. For 11Bs correlations among awards, additional military and civilian courses, and honor graduate status suggest that ASVAB composite scores are predictive of other objective measures of job performance as well.

There was great agreement among platoon leaders and platoon sergeants on rankings of soldiers on job performance. As in the last report on data from Panama we recommend that an effort be made to insure that supervisory personnel understand and agree on what it means to be a good soldier, in terms of job performance. On the basis of this report, it would appear that platoon leaders and platoon sergeants are able to recognize and agree upon those soldiers who are good soldiers and those soldiers who are poor soldiers. Further, there was also significant agreement among peer rankings and platoon leaders. It appears that the concept of good and poor first-term job performers is shared among peers and supervisors in the 193rd brigade.

Subjective peer and platoon rankings were not predicted consistently by ASVAB composite scores, although 95B peer ranking and 11B platoon rankings were predicted by a number of ASVAB composite scores. The extent to which

these rankings are contaminated or deficient as indicators of job performance is unclear. The different results in the 11B vs. 95B group suggest that peer rankings may mean different things to different groups of soldiers. The relationship between peer and platoon leader and platoon sergeant rankings suggest that they are not lacking in value. Further research needs to be done on peer rankings before their full impact is understood.

In conclusion, the relationship among ASVAB scores and SQT scores frequently reported (Maier and Grafton, 1981) was repeated in this sample of MOS drawn from the 193rd brigade. The failure to find other consistent, statistical relationships among ASVAB and other performance measures does not necessarily mean that these measures are not good measures of job performance. It may mean that new predictors of job performance are required to make better selection and classification decisions. Continued research at ARI will focus on both the development of better predictor and better performance measures.

## Technical Supplement

### Sample

The U.S. Army Research Institute obtained job performance measures on a total of 526 first-term soldiers during pilot research for validation of Army enlistment standards. The sample consisted of the following first-term soldiers:

| MOS | | |
|---|---|---|
| 11B | Infantrymen | 294 |
| 63B | Power Generator/Wheeled Veh. Mech. | 32 |
| 64C | Motor Transport Operator | 44 |
| 91B | Medical Specialist | 30 |
| 95B | Military Police | 126 |
| | Total | 526 |

In addition, 26 Company Commanders and 26 First Sergeants, from the units representing the tested troops, along with a total of 203 first line supervisors (squad leaders) completed job performance rating and rankings on these same first-term troops.

### Job Performance Measures.

These measures may be grouped into two categories. The first category is represented by those measures found in existing records (e.g. 201 files or central automated file). The seven measures of performance from the field 201 files that were analyzed in this report are:

Skill Qualification Test Scores
Number of Awards
Number of additional Military courses
Number of Civilian courses
Number of Letters of Appreciation
Number of Article 15's
Honor graduate from training schools

The second category of job performance measures is based on peer and supervisory rankings of first-term soldiers. These performance measures

were obtained from supervisors who completed job performance ranking on their first-term subordinates and the first-term soldiers participating in the study who rated the on-the-job performance of their peers.

Predictor Variables

ASVAB 6/7 Aptitude Area Composites were obtained from Defense Manpower Data Center (DMDC).

Analysis

The statistical analyses consisted of computing correlations among Aptitude Area Composite scores and job performance measures. A complete correlation matrix was computed for all criterion measures used in the research.

Correlations were computed for 11B's and 95B's separately, as well as for the total sample. Correlation matrices were not computed for samples having less than 50 soldiers. Thus, 63B's, 64C's, and 91B's were not analyzed separately; however, these MOSs were included in the analysis of the total sample. Finally, correlation coefficients were computed to determine the agreement between platoon sergeants on first-term soldiers' job performance. For this analysis the platoon leader's ranking was correlated with the platoon sergeant's ranking of their first-term soldiers.

## Results and Discussion

Analyses focused on two major issues for this report: (1) the meaning and quality of the various criterion measures, and (2) the relationships between scores on ASVAB 6/7 and criterion measures. The results of the analyses appear in Table 3 through 8.

Table 3 shows the extent of agreement between platoon leader and platoon sergeant rankings of first term soldiers in six platoons where sufficient data existed to perform this analysis. The average agreement was $\underline{r} = 0.78$. On a scale of 0-1.00 this represents substantial agreement. This result indicates that there is resonable consensual agreement between platoon leaders and platoon sergeants with regard to which soldiers are "good" soldiers and which soldiers are "poor" soldiers.

Tables 4, 5, and 6 are identical except for the sample on which the correlations were calculated. Table 4 includes the total sample from Panama; Table 5 includes only soldiers in MOS 11B; Table 6 includes only soldiers in MOS 95B. There are a number of substantial and interesting relations found in Table 4. For example soldiers who perform better on SQTs also tend to have received more awards ($\underline{r} = .43$), and to have completed more additional military training courses such as airborne school ($\underline{r} = .34$). It may be that these soldiers perform better on SQTs because they are better trained, or perhaps their higher scores on SQTs and enrollment in additional military training are both the result of a higher level of motivation. Note that subjective ranking tends to be correlated with behavior ($\underline{r} = .27$), such as SQT performance, which could be observed by platoon leaders. This suggests that

these subjective rankings are not merely a reflection of popularity, but probably are grounded in actual performance as well. Similar results appear in Table 5 for the 11B MOS. For example, platoon leaders apparently are cognizant of Article 15's, and rank lower a soldier who has received them ($\underline{r}$ = .33).

In all three Tables, a significant relation exists between peer and platoon leader rankings. It is difficult to determine, from these data, the basis on which peer rankings were given, however, their correlations with platoon leader rankings indicate that they too are more than the result of a popularity contest. The paucity of significant relations for the 95B sample (Table 6) is inexplicable. It may be a reflection of the smaller sample size, or perhaps a reflection of true differences between the 95B and 11B samples. Tables 7 and 8 contain the correlations of the various criterion measures with Aptitude Area Composite scores from ASVAB 6/7. Before discussing the content of the Tables a few points need to be addressed.

In 1980 an error in the calibration of ASVAB 6/7 scores was discovered. This error had the impact of substantially lowering enlistment standards. That is, recruits were enlisted who would not have qualified had the ASVAB 6/7 been calibrated correctly. Analyses reported here are based on a recalibration of ASVAB 6/7 to the correct level. In the course of the analyses, it was discovered that, of the soldiers tested in Panama, sixty-four 11Bs and thirty-one 95Bs would not have been qualified for enlistment under the corrected calibration of ASVAB 6/7. The impact of this result is not addressed as part of this report.

The soldiers who participated in the data collection in Panama initially were qualified for enlistment on the basis of their ASVAB 6/7 scores. The measures and standard deviations for each Aptitude Area Composite in an unselected population are 100 and 20, respectively. Because entry into the 11B MOS is on the basis of scores on the CO Aptitude Area Composite, explicit selection has occured on this variable. By explicit selection, we mean that recruits were classified into an MOS based on their score on a specific composite (a minimum score of 90 was required on CO for enlistment in 11B, and a minimum score of 100 was required on ST for enlistment in 95B). This results in a restricted range of scores for the selected group on the explicit selection variable.

The same restriction has occured for 95B and ST. One indication of this is that CO for 11Bs and ST for 95Bs have the smallest standard deviation within each group. As a result, all correlations with CO for 11Bs and ST for 95Bs have been corrected for the effects of explicit selection on are variable by a formula provided in Lord and Novick (1968). Since the Aptitude Area Composite scores are correlated among themselves, correlations with other composites are also likely to be slightly depressed.

The descriptive information provided by the means and standard deviations in Tables 7 and 8 provide interesting insight. The standard deviations indicate that, as a group, soldiers in the 11B MOS have more widely variable ability as measured by the ASVAB 6/7 than soldiers in the 95B MOS. However, note that soldiers in the 95B MOS have a generally higher level of ability. In fact the mean difference on composites ranges from approximately 6 to 16 points. One interesting result is that on the basis of mean composite scores, the

soldiers in the 95B MOS are more qualified to be in the Infantry than the 11Bs 96.34 vs. 90.21). The Army's current differential classification system is demonstrated here, in that even though the 95Bs would have qualified for entry into the 11B MOS training, they were also qualified for entry into 95B MOS training; which requires a higher Aptitude Area Composite Score on ST than 11B MOS requires in CO.

Turning next to the correlations themselves, the first result is the differing pattern of correlations for the 11B and 95B samples. Again, this could be either an artifact of sample size or a reflection of true differences. For both groups the correlations between SQTs and the ASVAB composites are large, ranging from $\underline{r}$ = .30 to $\underline{r}$ = .63. The validaty of the Army's classification system is supported partially by the result that CO for 11Bs and ST for 95Bs show the highest correlation with SQTs, respectively. Further, even if all composites are corrected for restriction in range the above is still true. A final comparison between the 11B and 95B data shows that peer rank exhibits reasonably high correlations with ASVAB composites for 95Bs, but no correlations for 11B. Although the ST composite score does not predict 95Bs, as indicated earlier, more work needs to be done on peer rankings before we know exactly what it is measuring. Certainly, the complete lack of correlation in the 11B sample at the very least indicates that the criterion measures used by enlisted personnel to rank on the job performance of peers differs from the 95B to 11B group.

While the remaining correlations are somewhat smaller they may be worth considering. The number of small but significant correlations between the Composites and awards, additional military courses, and Honor graduate status indicates that ASVAB is predictive of other indicators of job performance.

Table 1

Content - ASVAB Forms 5, 6, and 7

| Test | No. of Items | Time (Minutes) | Test Descriptions |
|---|---|---|---|
| General Information (GI) | 15 | 07 | A test on knowledge of geography, sports, history, automobiles. |
| Numerical Operations (NO) | 50 | 03 | A speed test of the four arithmetic operations- addition, subtraction, multiplication, division. |
| Attention to Detail (AD) | 30 | 05 | A test of clerical speed and accuracy by counting the number of "C"s embedded in a series of "O"s. Involves knowledge of word meaning. |
| Word Knowledge (WK)* | 30 | 10 | A test of knowledge of word meanings. |
| Arithmetic Reasoning (AR)* | 20 | 20 | A test of reasoning and arithmetic processes. |
| Space Perception (SP)* | 20 | 12 | A test which involves the selection of three dimensional figures which are formed by folding the pattern. |
| Mathematics Knowledge (MK) | 20 | 20 | A test of knowledge and skills in algebra, geometry, and fractions. |
| Electronic Information (EI) | 30 | 15 | A test of knowledge of elementary principles of electricity and electronics. |

Table 1 continued

| | | | |
|---|---|---|---|
| Mechanical Comprehension (MC) | 20 | 15 | A test involving mechanical principles such as gears, pulleys, and hydraulics. |
| General Science (GS) | 20 | 10 | A test involving knowledge of physical and biological sciences. |
| Shop Information (SI) | 20 | 08 | A test involving knowledge of shop procedures and the use of tools. |
| Automotive Information (AI) | 20 | 10 | A test involving knowledge of auto repairs and recognition of symptoms of various malfunctions. |
| TOTAL | 295 | 135 | |

* Scores on these three subtests are added together to provide AFQT scores.

Note: The Army Classification Inventory (87 items and about 20 minutes in time) is administered along with Form 6 and 7 as part of the operational testing procedure.

Table 2

Aptitude Area Composites (6 & 7)
and Prerequisite for Major Groups of Army MOS

| Area Aptitude Composite | ASVAB 6/7 Subtests | Military Occupational Specialties (MOS) |
|---|---|---|
| CO (Combat) | AR+SI+SP+AD+CC | Infantry, Armor, Combat Engineer |
| FA (Field Artillery) | AR+GI+MK+EI+CA | Field Cannon and Rocket Artillery |
| EL (Electronics Repair) | AR+EI+SI+MC+CE | Missile Repair, Air Defense Repair, Electronics Repair, Fixed Plant Communications Repair |
| OF (Operators & Food) | GI+AI+CA | Missile Crewmen, Air Defense Crewmen, Driver, Food Services |
| SC (Surveillance & Communications) | AR+WK+MC+SP | Target Acquisition and Combat Surveillance, Communications Operations |
| MM (Motor Maintenance) | ME+EI+SI+AI+CM | Mechanical and Aircraft Maintenance, Rails |
| GM (General Maintenance) | AR+GSB+MC+AI | Construction and Utilities, Chemical, Marine Petro. |
| CL (Clerical) | AR+WK+AD+CA | Administrative, Finance, Supply |
| ST (Skilled Technical) | AR+MK+GSB | Medical, Military Policeman, Intelligence, Data Processing, Air Control, Topography and Printing, Information and Audio Visual |
| GT (General Technical) | AR+WK | Not currently used for classification into a particular MOS |

Table 3

Agreement Between Platoon Leaders and Platoon Sergeants from Six Platoons on First-Term Soldiers' Job Performance

| Number of First-Term Soldiers Being Rated | Correlation between platoon leader rankings and platoon sergeants rankings on first-term soldiers job Performance. |
|---|---|
| 10 | .80 |
| 13 | .50 |
| 14 | .72 |
| 10 | .87 |
| 8 | .96 |
| 11 | .80 |

Table 4

(Total Panama Sample)

Means, Standard Deviations, and Correlation Coefficients of All Criterion Measures in a Sample of 526 First-Term Soldiers

| | | | | Correlation Coefficients | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variables | Mean | S.D. | Var. No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Awards | .14 | .38 | 1 | | | | | | | | | |
| Mil. Crs. | .24 | .55 | 2 | .56** | | | | | | | | |
| Civ. Crs. | .03 | .22 | 3 | .18** | | | | | | | | |
| SQT | 68.64 | 14.85 | 4 | .43** | .34** | .15* | | | | | | |
| Lett. App. | .81 | 1.98 | 5 | | | (237)<br>.15* | | | | | | |
| Hon. Grd. | .07 | .28 | 6 | | | (185)<br>.37** | | (181)<br>.60** | | | | |
| Art. 15 | .61 | .86 | 7 | | | | | | | | | |
| Peer Rnk. | 7.15 | 3.32 | 8 | | | | | | | | | |
| Plt. Ldr. Rnk. | 7.14 | 4.64 | 9 | | | | (64)<br>.27* | | (76)<br>.38** | (96)<br>.37** | (182)<br>.61** | |

NOTES:

- Blank cells $> .05$
- * $\leq .05$
- ** $\leq .01$
- () = sample size
- Correlation coefficients were not corrected for restriction in range.

Table 5

Means, Standard Deviations and Correlation Coefficients of All Criterion Measures in a Sample of 294 First-Term Soldiers in MOS 11B

| Variables | Mean | S.D. | Var. No. | Correlation Coefficients 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Awards | .23 | .48 | 1 | | | | | | | | | |
| Mil. Crs. | .32 | .58 | 2 | (294) .63** | | | | | | | | |
| Civ. Crs. | .01 | .11 | 3 | (294) .13* | (287) .15* | (157) .20* | | | | | | |
| SQT | 72.94 | 12.98 | 4 | (157) .48** | (157) .37** | (154) .18* | | | | | | |
| Lett. App. | .64 | 1.85 | 5 | | | (127) .34** | (79) .27* | | | | | |
| Hon. Grad. | .03 | .175 | 6 | | | | (127) .70** | | | | | |
| Art. 15 | .62 | .88 | 7 | | | | | | | | | |
| Peer Rnk. | 6.59 | 3.11 | 8 | | | | | | | | | |
| Plt. Ldr. Rnk. | 5.92 | 3.68 | 9 | | | | | | | (69) .33** | (98) .61** | |

NOTES:

- Blank cells $\geq .05$
- * $\leq .05$
- ** $\leq .01$
- () = sample size
- Correlation coefficients were not corrected for restriction in range.

Table 6

Means, Standard Deviations, and Correlation Coefficients of All Criterion Measures in a Sample of 126 First-Term Soldiers in MOS 95B

| Variables | Mean | S.D. | Var. No. | Correlation Coefficients 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Awards | .008 | .09 | 1 | | | | | | | | | |
| Mil. Crs. | .05 | .25 | 2 | | | | | | | | | |
| Civ. Crs. | .008 | .09 | 3 | | | | | | | | | |
| SQT | 62.21 | 11.29 | 4 | | | | | | | | | |
| Lett. App. | .71 | 1.27 | 5 | | | | | | | | | |
| Hon. Grad. | .17 | .46 | 6 | | | | | | | | | |
| Art. 15 | .67 | .97 | 7 | | | | | | | | | |
| Peer Rnk. | 8.98 | 3.71 | 8 | | | | | | | | | |
| Plt. Ldr. Rnk. | 9.59 | 5.23 | 9 | | | | | | | | (53) .55** | |

NOTES:

- Blank cells $\leq .05$
- * $\leq .05$
- ** $\leq .01$
- () = sample size
- Correlation coefficients were not corrected for restriction in range.

Table 7

Means, Standard Deviations, and Correlations Coefficients Between ASVAB Composites Scores and Performance Measures in a Sample of 294 First-Term Soldiers in MOS 11B

| | | | Correlation Coefficients | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Variables | Mean | S.D. | SQT | Awards | Mil. Crs. | Civ. Crs. | Lett. App. | Hon. Grd. | Art. 15 | Peer Rnk. | Plt. Rnk. |
| CO (Combat)[a] | 90.21 | 12.95 | .61** | .30** | .15* | .21* | .21* | .24* | | | |
| FA (Field Artillery) | 89.00 | 15.94 | .46** | .21** | .13* | .18* | | | | | -.24* |
| EL (Electronic Repair) | 89.35 | 14.72 | .45** | .20** | | .17** | | .21* | | | -.22* |
| OF (Operators & Food) | 88.75 | 16.91 | .41** | .23** | .13* | .12* | | | | | |
| SC (Surveill & Comm) | 87.78 | 14.91 | .42** | .23** | .15* | .23* | | .23* | | | |
| MM (mechanic Maint) | 89.00 | 15.28 | .46** | .20** | | .17** | | .23* | | | |
| GM (General Maint) | 87.30 | 15.65 | .46** | .25** | | .20** | | .29** | | | |
| CL (CLerical) | 87.38 | 15.51 | .30** | .16** | | .16** | | | | | |
| ST (Skilled Tech) | 88.10 | 15.94 | .37** | .20** | | .24** | | .29** | | | -.22* |
| GT (General Tech) | 86.85 | 16.07 | .33** | .18** | | .20** | | | | | |
| N[b] = | | | 149 | 283 | 283 | 283 | | 124 | | | 105 |

NOTES:

- Blank cells $\geq .05$
- * $\leq .05$
- ** $\leq .01$
- [a] Correlation coefficients were corrected for restrictions in range.
- [b] N's do not total 294 because of missing data.

Table 8

Means, Standard Deviations, and Correlation Coefficients of ASVAB Composite Scores and Performance Measures in a Sample of 126 First-Term Soldiers in MOS 95B

| | | | Correlation Coefficients | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Variables | Mean | S.D. | SQT | Award | Mil. Crs. | Civ. Crs. | Lett. App. | Hon. Grd. | Art. 15 | Peer Rnk. | Plt. Rnk. |
| CO (Combat) | 96.34 | 14.84 | | | | | | | | -.24* | |
| FA (Field Artillery) | 103.40 | 12.03 | .37** | | | | | | | -.31** | |
| EL (Electronic Repair) | 97.74 | 13.99 | .31* | | | | | | | -.26* | |
| OF (Operators & Food) | 97.48 | 14.77 | .30* | | | | | | | -.42** | |
| SC (Surveill & Comm) | 97.51 | 13.87 | .31* | | | | | | | | |
| MM (Mechanic Maint) | 97.22 | 13.97 | .34* | | | | | | | -.31** | |
| GM (General Maint) | 98.15 | 12.86 | .44** | | | | | | | -.28* | |
| CL (Clerical) | 100.98 | 13.22 | | | | | | | | -.33** | |
| ST (Skilled Tech)[a] | 104.45 | 10.53 | .63** | | .24* | | | | | | |
| GT (General Tech) | 100.90 | 12.72 | .37** | | | | | | | -.26* | |
| N[b] = | | | 51 | | | | | | | 51 | |

NOTES:

- Blank cells $> .05$
- * $\leq .05$
- ** $\leq .01$
- [a] Correlation coefficients were corrected for restriction in range
- [b] N's do not total 126 because of missing data

## REFERENCES


Lord, F. M., & Novick, M. R. Statistical Theories of Mental Test Scores. Massachusetts: Addison-Wesley, 1968, pp. 140-144.

Maier, M. A., & Grafton, F. C., Aptitude Composites for ASVAB 8, 9, and 10. ARI Technical Paper 1308. Washington, DC: Army Research Institute for the Behavioral and Social Sciences, May 1981.

Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics). Aptitude Testing of Recruits (Unclassified), July 1980.

Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics). Aptitude Testing of Recruits (Unclassified) September 1980.

# Personnel Utilization Technical Area Working Paper 86-23

Researcher's Views: Observing Junior Officer Performance During Team Spirit Exercises 1986

Jeffrey D. Horey

Reviewed by:

GLENDA Y. NOGAMI
Team Leader, Personnel Utilization Tech Area

Approved by:

PAUL A. GADE
Chief, Personnel Utilization Technical Area

Cleared by:

For NEWELL K. EATON, Director

## Manpower and Personnel Research Laboratory

**U. S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333-5600

This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

The following report is a subjective view of junior officer performance appraisal during the Army Team Spirit Exercises 1986 taking place in South Korea. The author was on temporary duty as part of a data collection team involved in observing junior officer performance in the field during these exercises. This report contains information regarding the nature of the data collection, the rating procedure methodology, the actual experience during data collection and comments on the experience. The views expressed in this report are those of the author only.

## INTRODUCTION

As a part of the West Point officer career study, performance ratings of junior officer field performance were to be made during the Team Spirit exercises in South Korea. Initially, these ratings were to be collected upon observing a number of junior officers for a period of 1-3 hours while they carry out their assigned duties of the exercises. During this observation period it was felt a good sample of officer performance along the following dimensions would occur:

1) Oral communication
2) Initiative
3) Sensitivity
4) Influence
5) Planning and organizing
6) Delegation
7) Supervisory control
8) Technical skills
9) Judgment/Decisiveness

There were two major purposes of the 1986 Team Spirit data collection. First, civilian and military members were used for the data collection. Determining whether or not civilians could serve as reliable and accurate evaluators of junior officer performance was a major concern of the trip. Second, data for use in the five year officer career study were to be collected for determining strengths and weaknesses of junior officer field performance. Both of these issues require in-depth comments, criticisms and recommendations during this report. I will approach these requirements through a discussion of the rating procedure methodology, the actual rating situations we encountered, general comments and the suggestion of an alternative methodology.

## RATING PROCEDURE METHODOLOGY

The methodology employed for assessing junior officer performance comes from assessment center technology and specifically a previous Army effort on the Leadership Assessment Program (LAP) (Burke and Davis, 1985). The program was developed to serve as a tool for predicting 2nd Lieutenant success during an assessment center exercise. Assessment center technology has been extensively researched and does hold some value for predicting future officer effectiveness when properly applied. The purposes of the present data collection were not as extensive as that of an assessment center approach, and therefore, some of the methodology and rigor is missing.

The methodology of rating junior officer performance during field exercises was designed to pair one rater with one ratee. This rater was to observe the junior officer for a period of approximately one to three hours. This observation time would, hopefully, allow for an appraisal of a number if not all of the dimensions of concern. The extent to which this approach is valuable depends upon the level of detail and predictability desired in the results.

The present phase of the officer career project sought to determine general levels of effectiveness of junior officers in the field and deficiency areas if they could be detected. Adequate sampling of a full range of junior officer behavior in the field is the first requirement for placing any confidence in the results of this data collection. This normally means random sampling and the observation of enough officers to provide some level of power to the findings. While no comparative statistical analyses would be performed on these data, even general level analyses require a somewhat representative sample. Given these conditions, some measure of the actual number of junior officers in the field should be the starting place for sampling. From this, a desired target percentage could be identified.

Once a target percentage is identified, the focus of methodological issues should turn to the instruments utilized and the setting of the assessment. The instrument used requires ratings on 5-point Likert scales of the extent to which a subject exhibits proficiency in a given performance dimension. A value of "not observed" is also included for each dimension. Assuming accurate training of raters using this instrument, the focus then shifts to the situations in which the subjects are assessed.

During the validation of the LAP, specific assessment exercises were developed in order to standardize the conditions for evaluating the assessees. Under these conditions, comparisons between subjects could be made. Field exercises, however, present no such standardized conditions or situations. Therefore, no comparisons of performance between observations should necessarily be made. The objective of this phase of the project was to collect global impressions of junior officer performance, and no requirements of between subject comparisons is inherent for this purpose. However, even global impressions of strengths and weaknesses require somewhat reliable and valid measures to be useful.

Reliablility and validity of the instruments and the settings is a critical issue for this phase of the officer career project. Reliability, for the present purposes, requires that the instrument be capable of giving a comparable score for an individual should that individual be rated in a different situation or by a different rater. Validity requires that the instrument be capable of predicting some future level of effectiveness with some degree of accuracy.

The prerequisite for a reliable situation by which to base an evaluation is that the situation presents stimuli which allow for the exhibition of behavior along the dimensions to be rated and that the time period for the observation is adequate for observing these behaviors. Given the nature of Army field exercises, the potential for an officer to

display the full range of dimensions under consideration is very good. Whether or not a sampled one to three hour rating period is adequate for obtaining reliable assessments is another question.

There is a substantial possibility that randomly choosing an officer during the period of the exercises would result in a great deal of lost observation time. That is, time when few or none of the desired behaviors are observable, or great inference by the rater is required to generate an evaluation. This is a potential risk of the methodology and one that should be avoided if possible. The errors associated with observation are well-documented. The less an observer has to actually observe and the more ambiguous the setting, the more likely inferences and errors will be made. The situations in the field should be chosen, to the extent possible, so the officer has the opportunity to exhibit the full range of behaviors in question. This will require a great deal of planning while in the field to locate the proper officers, in the proper units, at the proper time.

The second issue involving reliability concerns the rater to be used for making observations and evaluations. Reliability involves both the observation of behaviors exhibited by the assessee and the rating of the effectiveness of these behaviors. Given the broad range of assignments junior officers are given in the field, any observers should have ample expertise in the observation of behavior and the purposes of the behaviors being observed. This is roughly the equivalent of a training program that would be standard in any other assessment or evaluation program.

This issue highlights the question of who should rate performance in the field. The use of Army personnel as raters has merit for several reasons. Army officers have experience in many of the same situations that may be observed in the field. Indeed, many of the officers who would likely participate in these evaluations have also participated in one or several field exercises identical to Team Spirit or similar exercises. Army personnel then, would have a greater familiarity with the missions of junior officers while performing field duties than would civilians. Army officers are also familiar with performance ratings from their exposure to Officer Evaluation Reports.

There is a risk in exclusively using Army personnel in making evaluations, however. In those situations where behaviors are not exhibited, or no opportunity for those behaviors to be exhibited is available, Army personnel may possibly make assessments based on their prior experience with junior officers in general rather than upon those behaviors that are actually observed. Army personnel have very definite ideas about the behavioral strategies used by junior officers, and these ideas may possibly bias their observations and evaluations.

The use of civilians having only minimal exposure to military exercises and missions during field exercises presents a number of problems for reliable measurement of junior officer performance. To the extent that the observed situation is rather ambiguous with respect to purpose or clarity of objective, the civilian will be at a distinct disadvantage in observation and evaluation. This situation leaves the civilian de-

pendent only on instinct as to the behaviors that should be exhibited and the effectiveness of the officer in exhibiting these behaviors. Civilians should be able to evaluate whether or not a behavioral dimension has occurred, the deficiency may be in determining the effectiveness of this behavior on the part of the officer.

The point to be made is that rater reliability is of major importance, no matter what the use of the ratings. Inter-rater reliability can be assessed easily by having a number of raters observe the same performance and comparing their ratings. Raters can disagree on two separate dimensions of ratings in the present context. The number of performance dimensions exhibited, as well as the given level of that performance need to be assessed to determine rater reliability for the present purposes.

Once it can be determined that military, civilian or both can make reliable assessments of officer performance under the confines of field exercises, validity of these ratings then becomes and issue. The assessment center approach has been employed almost exclusively as a predictor of promotion rate or promotability. This is not what we wish to predict when observing field exercises. We wish to predict officer effectiveness in general. Validity does become an issue in the present project in this way. Some attempt at establishing the validity of the ratings should be made against relevant criteria.

Possible criteria of effectiveness that should be investigated with respect to these field ratings are: officer evaluation report scores, school grades, Army school performance and administative file data. The validation of field ratings would provide support for this approach in the future. Unvalidated ratings provide little power for recommendations made about the effectiveness of junior officer field performance.

This discussion of reliability and validity has set the stage for assessing the success and potential of collecting these ratings during the Army's two major field exercises held annually (Reforger, Team Spirit). The actual experience using this methodology during Team Spirit 86 will be reviewed in the next section. Each situation that was encountered will be reviewed in detail and critiqued with respect to the previous points on methodology.

## SITUATIONS

### Quick Reaction Force

Our first observation of a junior officer came at Camp Howze while watching a quick reaction force (QRF) along the demilitarized zone (DMZ). We were given a brief introduction to the purpose of a QRF and were then instructed to observe the officer in charge for the purposes of evaluation. This officer was a 2nd Lieutenant and was physically positioned among a number of enlisted men as part of the formation of the QRF. This made it very difficult to hear any instructions he may have been issuing to any of his men. It appeared that his NCO was in charge of directing

and positioning the men during this exercise. In short, the 2nd Lt. did very little during this 10-12 minute drill that could directly be assessed in terms of the scale dimensions.

The QRF is primarily, if not exclusively, a DMZ related unit. Therefore, this exercise was not actually a part of the Team Spirit exercise and should not be considered part of the overall project in terms of data. It could have presented an opportunity for making inter-rater reliability estimates and provided some additional training to the team members. The nature of the exercise, and its duration, however, limited the number of performance dimensions that were possible to observe. Also limited was the range of performance, given this rater's limited knowledge of what could go wrong, what should happen and how much control the officers should have taken.

I feel that both reliability and validity of measurement in this situation will be extremely weak for making any generalizations about the officers performance. The situation did not allow for the exhibition of behavior on the majority of behavioral dimensions of concern. The officer in question had little to do. Any evaluation of behaviors not actually exhibited would be purely speculative on the part of the raters, and of no value to the project.

In summary, the QRF observation was an artificial exercise that provided no opportunity for training raters and only limited estimation of rater reliability. Given these constraints the exercise also failed to provide any usable data on junior officer performance. This type of simulation has great potential, however, for fulfilling both of these purposes. A more elaborate simulation, in which a broader range of performance is required, could prove very useful, particularly in training raters on observation and evaluation.

Outposts Collier and Oullette

The second and third observations of junior officer performance came at Guardposts Collier and Oullette, both in the DMZ. At these guard posts we were given walking tours of the installations by 2nd Lieutenants. During these tours, the officers gave us brief introductions and descriptions of their mission, supplemented by short briefings by enlisted personnel actually manning the guard positions. Our exposure time to each 2nd Lt. was approximately 10-15 minutes per Lieutenant. During this time the Lt. exhibited behavior on the oral communication and possibly the technical skills dimensions. Because these were practiced briefings, an assessment of performance on these dimensions is somewhat confounded. Again, these briefings were not part of the Team Spirit exercises and did not provide the proper context for a full range of behavior to be exhibited or rated. Any evaluation on dimensions other than those actually observed, would be pure speculation. A comparison of civilian and military perceptions of these tours may prove valuable for assessing rater agreement.

Briefing and "tour guide" situations do not provide the proper context for assessing junior officer performance in the field, in this researcher's estimation. In the future, observations of these types of

exercises should be minimal and only made when an understanding of the briefing material is absolutely necessary. Briefings of this type are too artificial, too far removed from field mission accomplishment and too restricted on performance dimensions. They may offer some insight into job knowledge, but this aspect of performance is better measured using tests than ratings. While interesting and informative, they offer little in terms of data for assessing officer functioning in the field.

Field exercise
Bridge defense

While in the field during the Team Spirit exercise, a fellow civilian rater and I observed a 1st Lt. for a time period of about 2 hours. This Lt. was in charge of 3 platoons which had captured a bridge and were in the process of securing and defending it against the anticipated retaliation of the enemy. We arrived after the bridge and surrounding town had been partially secured by two of his platoons. Our observations consisted mainly of following and watching the Lieutenant try to coordinate his two platoons that were already on the scene, and locate a 3rd platoon that was on its way. We followed this Lt. throughout the town as he tried to secure rooftops for his men to take for the evening. We caught a rather slow period for the Lt. but we were able to observe a more full range of behavior than during previous observations.

This observation provided me with a better idea of what happens in the field and the potential for making observations and evaluations. A slightly better understanding of the tasks that were being attempted would help in determining the value to assign to the officer's performance. Perhaps this information could be obtained by talking briefly to the officer's superior prior to observing the officer's performance.

It was fairly easy to determine what behaviors were being exhibited during this observation situation. This observation presented a prime opportunity for comparing inter-rater reliabilities between civilians and officers. Unfortunately, comparisons between civilian and military members were not possible since only civilian raters made observations on this Lieutenant. Comparisons between these raters should still be made.

This observation demonstrated the potential for making observations of officers while in the field. By spending a few hours observing an officer carrying out a number of tasks associated with his/her mission, it is possible to observe the full range of behaviors of interest. A greater knowledge of the task at hand would be helpful to the raters in determining the effectiveness of the behaviors observed. This may argue for the use of military members only as raters, but this determination should be based on reliability differences, if they are shown to exist. Rater reliability is the key issue whether observing simulated briefings or field exercises. An argument may also be presented for keeping civilians involved in the ratings for objectivity purposes.

COMMENTS

The number of observations actually made during Team Spirit 86 was far below my expectation. This could be due to unrealistic expectations on my part or to coordination problems in the field. In either case, a great deal of coordination to identify the personnel and situations that will provide the greatest context for assessment is necessary. This involves a number of logistic issues that are beyond the scope of the present review. This is, however, a major issue if the data collections in the field are to be successful.

More data must be collected in the future to provide any even slight reflection of junior officer effectiveness in the field. No summary findings can be made from the data that was collected during the Team Spirit 86 exercises. Any reports on officer performance would be subject to gross misrepresentation of reliability and validity since no good estimates of either are currently available. A resolve of the reliability issue is required before further data collections should take place using the present methodology.

The findings that do receive support center on the types of tasks performed while actually observing Team Spirit exercises. The one successful observation that was made provides support for employing this methodology in the field, providing it is found to be reliable among raters.

The logistics of locating officers during crucial task performance is the other roadblock to this phase of the project. Better communication between researchers and field units is required to circumvent these problems. This may be accomplished by having coordinating personnel or raters in the field for the duration of the exercise, or getting more and better transportation support for the exercises.

The problems that arose during the Team Spirit 86 exercises revolved around logistics associated with locating officers during the exercises. If enough officers could have been located and observed, tests of the reliability of the instruments could have been made with more accuracy. Logistics are therefore a crucial aspect of continuing with the present methodology to collect officer effectiveness data.

## ALTERNATIVE STRATEGIES

An alternative to the present methodology would be to use supervisors already in the field to rate the performance of their subordinates. Using the same instruments (or more extensive ratings), this would require locating the superior officers to junior officers in the field and giving them instructions for rating their subordinates. This methodology would require different planning but could result in a great deal more data than under the present methodology. More rating data could be collected by the easier locating of superior officers, their supervision of multiple junior officers and less wasted time on the part of the researchers. In addition, reliability assessments could be made using multiple superiors as raters or comparing superior's ratings with experimenter's ratings. The use of superiors would also provide ratings across a longer and more stable rating period which would probably insure

greater validity of the evaluations. While there is potential for a number of rating errors to occur using this methodology, the risks are probably less than with the present methodology.

There are, of course, a number of issues that would need to be resolved for a major change in methodology to take place. These issues are beyond the scope of this review but should be considered in designing future data collections during Army field exercises. The great potential for more accurate and plentiful data should serve as an incentive toward an investigation of this shift in methodology.

## REFERENCE

Burke, W.P. and Davis, P.K. (1985). The Leadership Improvement Modules of the Precommissioning Leadership Assessment Program. Research Report. Army Research Institute, Alexandria, VA.

# Personnel Utilization Technical Area
# Working Paper 87-12

THE ARMY EXPERIENCE OF MALE AND FEMALE VETERANS

Melvin J. Kimmel, Paul A. Gade, and Glenda Y. Nogami

NOT REVIEWED FOR SENSITIVITY: FOR INTERNAL ARI DISTRIBUTION ONLY

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

U.S. Army Research Institute
for the Behavioral and Social Sciences
5001 Eisenhower Avenue, Alexandria, VA 22333

This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

# THE ARMY EXPERIENCE OF MALE AND FEMALE VETERANS

Melvin J. Kimmel, Paul A. Gade, and Glenda Y. Nogami

Understanding the enlistment and reenlistment decision making processes of America's young men and women has become crucial to the success of the "all recruited" Army. Since 1982, the Army Research Institute (ARI) has been actively engaged in a program to model the enlistment/reenlistment decision making processes of those young men and women. Initially, this effort has focused on describing: the motives for enlisting or not enlisting and for reenlisting or not reenlisting, the key influencers (people and advertising) of the decision making process, and the incentives that interact with those motives and the key influencers to affect the enlistment/reenlistment decision. The purpose for modeling this decision process is to provide Army leaders with information they can use to effectively and efficiently manage recruiting and retention resources. Early research in modeling enlistment/reenlistment decision making at ARI has centered on a series of surveys designed to identify the motives, incentives, and key influencers in the enlistment/reenlistment decision process. This research began with a 1982 survey of new recruits as they processed into the Army at the reception stations. In 1983, we expanded our knowledge base of the enlistment/reenlistment decision process by conducting two surveys in addition to a 1983 version of the new recruit survey. The first was a survey of high school seniors that used many of the same items and concepts developed in the new recruit surveys of 1982 and 1983. This effort provided us with a look at the pre-enlistment decision making motives and processes of young men and women. The second survey of 1983 was an exit survey of separating soldiers at the major Army transfer points. The purpose of this survey effort was to provide information on how and why people had made the decision to leave the Army. As a result of that exit survey and because of his continuing concern for the impact of Army service on its veterans, Army Secretary John O. Marsh, Jr. directed ARI to conduct a survey of recently separated Army veterans to gather information on how, in retrospect, they view their Army experience, and to determine their willingness to function as Army "alumni."

Previous research suggests that male and female alumni may differ on these variables. Males and females, for the most part, enlist for the same reasons (Westat, Inc., 1986) and leave for similar reasons (Nogami, Varty, Ross and Gade, 1986). Yet, their Army experience differ in some respects. For example, for the FY82 Cohort (all enlisted entering the Army during Fiscal Year 1982) females had a 44% attrition rate as compared to only 34% for males (DCSPER Report 374, 1986). Further, Nogami et al. (1986) found that their work experience differ. Females who successfully completed their first enlistment reported working indoors, doing paper work, and performing "more important" work more often than males. Females also were more likely than males to agree with the statement, "In general, the Army is what I expected it to be." Because of these findings, it was considered important to attempt to address the Secretary's concerns separately for males and females.

## Sample and Research Methodology

A stratified random sample of 5,134 first term separatees (4261 males and 873 females) who had left the Army between October, 1981 and September, 1984 were selected from the Army's Enlisted Master File (EMF). In addition to gender, the sample was stratified on four other variables: race, AFQT category, years since separating, and term of enlistment. The percentage of women selected in the sample (17%) was slightly greater than the 10.4% they actually represent in the population of first term veterans. This was done to insure an adequate number of women for making valid comparisons between males and females.

The survey was mailed to the sample and telephone follow-ups were attempted for those who did not respond to the mailed questionnaires. Data were actually received and analyzed from 2,566 respondents (2130 males and 436 females), which represents an overall response rate of 50%.

## Results and Discussion

### Why Did They Enlist?

Our previous research with new recruits has shown that enlistment motives cluster around four main factors: Self-improvement, Education, Escaping Problems, and Economics (e.g., unemployment). When we asked first-term veterans to tell us how important various reasons were to their original enlistment decision, we found that they reported motives very similar to those we found for new recruits. Table 1 shows the percentage of first-term separatees by gender who rated each of 12 reasons as being important to their enlistment decision.

Table 1. Percent Males and Females Rating Enlistment Reasons Important.

| ENLISTMENT REASON | PERCENT RATING REASON AS IMPORTANT | |
|---|---|---|
| | MALE | FEMALE |
| Self Improvement | 87% | 87% |
| Serve Country | 86 | 78 ** |
| Skill Training | 79 | 86 ** |
| Travel | 73 | 81 ** |
| Prove Myself | 63 | 69 * |
| Earn More Money | 52 | 63 ** |
| Be On My Own | 50 | 57 ** |
| Time to Mature | 46 | 40 * |
| Money for College | 38 | 50 ** |
| Unemployed | 28 | 29 |
| Family Tradition | 23 | 12 ** |
| Escape a Problem | 18 | 19 |

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

Self-improvement, service to country, skills training and travel opportunities were the top four enlistment reasons for both sexes, although female veterans considered skills training and travel opportunities relatively more important and service to country relatively less important than males. The rank ordering of the remaining eight reasons were the same for both men and women, although the percentages considering these reasons important differed somewhat. More women than men said they joined the Army to prove themselves, earn more money, be on their own, and obtain money for college, while a greater percentage of men than women gave "family tradition" and "time to mature" as reasons for enlisting. "Unemployment" and "escaping a problem" were among the least important reasons for both sexes, being ranked tenth and twelfth, respectively.

Was the Army a beneficial experience?

The results of the survey were very encouraging in that most of the male (86%) and female (89%) respondents felt that their Army service had been valuable to them, and that if given a chance 74% of the males and 77% of the females would join the Army all over again. Both men and women reported that the most valuable thing about their Army service was the self-growth they experienced. Both groups said that the Army had a positive impact on such things as self-pride, self-confidence, self-discipline, developing leadership skills, ability to work with others, respect for authority, and openness to new ideas. Women, as compared to men, were especially positive about the impact the Army had on establishing independence, making friends, and job skill training. The percentages of males and females reporting that the Army's impact was positive on these elements are presented in Table 2.

Table 2. Percent Mailes and Females Reporting a Postive Impact of the Army on Selected Elements.

| ELEMENT | PERCENT POSITIVE ARMY IMPACT | |
|---|---|---|
| | MALE | FEMALE |
| Self-pride | 86% | 89% |
| Self-confidence | 86 | 87 |
| Work with others | 85 | 88 |
| Self-discipline | 84 | 86 |
| Leadership Ability | 85 | 84 |
| Establishing Independence | 74 | 84 * |
| Respect for Authority | 76 | 76 |
| Openness to New Ideas | 73 | 76 |
| Make Friends | 68 | 77 * |
| Job Skill Training | 63 | 74 * |

*indicates significant difference ($p<.01$) between males and females

Why did they leave the service?

Table 3 shows the 10 reasons veterans gave as being the most important out of 23 possible reasons for leaving the Army that we asked them to rate. The only significant male-female difference was for the reason "couldn't get the education or skill you wanted," which was rated an important reason for leaving by a greater percentage of males than females.

Table 3. Percent Mailes and Females Rating Exit Reasons as Important

| REASON | PERCENT RATING REASON FOR LEAVING EXTREMELY IMPORTANT OR VERY IMPORTANT | |
|---|---|---|
| | MALE | FEMALE |
| No credit for doing a good job | 38% | 40% |
| Couldn't get desired education/skill | 34 | 26 * |
| Poor NCO Leadership | 32 | 34 |
| Unfair Treatment | 30 | 30 |
| Not Treated with Respect | 29 | 28 |
| Could Get a Good Civilian Job | 27 | 24 |
| Uninteresting Work | 27 | 22 |
| Not Promoted | 26 | 27 |
| To go to school | 25 | 24 |
| Apathetic Officers | 24 | 24 |

*indicates a significant difference ($p < .01$) between males and females

We also asked veterans to tell us in their own words the most important reason for leaving. The reason most often mentioned by both the male and female veterans was poor adjustment to the military lifestyle (cited by 28% of the males and 27% of the females). A greater percentage of males (23%) than females(17%) said they felt the civilian world offered better opportunities, while a greater percentage of females than males (33% vs 14%) cited interpersonal relationship problems (e.g., poor family adjustment) as their main reason for leaving the service.

How do they compare the civilian world with the Army?

As we saw earlier, the vast majority of male and female veterans surveyed considered the Army to be a valuable experience. But, how do they rate their previous Army lives compared to the lives they now lead as civilians? Are both men and women more satisfied as civilians than they were in the military? As can be seen in the figure below, the answer appears to be a qualified "yes." When asked to compare their relative satisfaction of Army and civilian life,

the majority of both groups indicated that they were more satisfied as civilians. However, a greater percentage of men than women said they were more satisfied as civilians (52% of the males vs 43% of the females), while relatively more women than men stated they had been more satisfied in the Army (25% of the females vs 18% of the males).

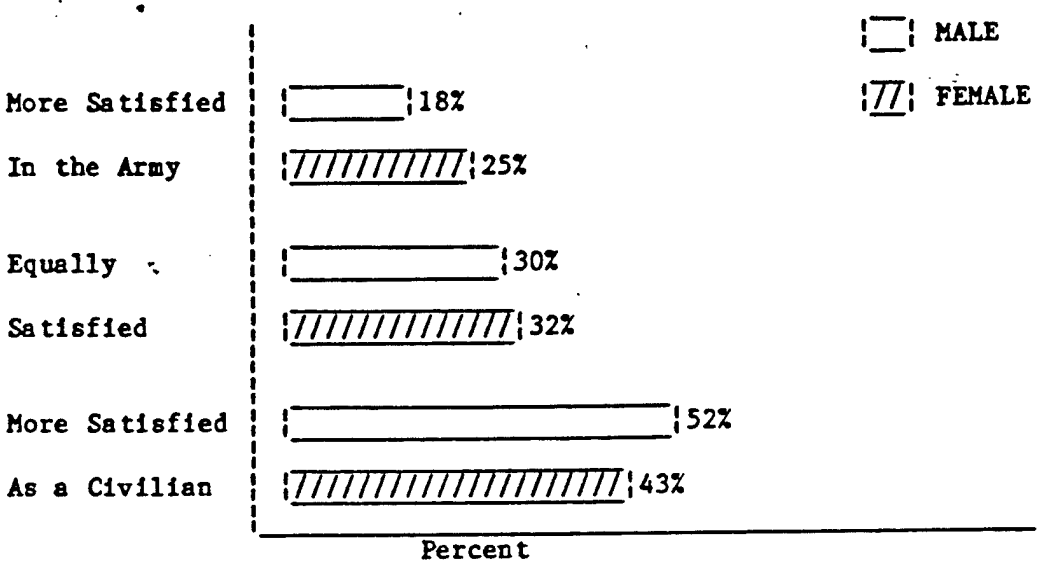



Figure 1. Comparison of Army to Civilian Life:

Relative Satisfaction of Males and Females

A similar pattern emerged when respondents were asked to compare their current standard of living (SOL) with their SOL just before leaving active service. A majority of both men and women said that their standard of living was better now than it had been in the Army. However, this percentage was greater for men (54%) than it was for women (42%). In contrast, 28% of the women as compared to only 17% of the men indicated that their standard of living was worse now than it had been in the Army.

The reasons why women were relatively more satisfied in the Army than men and relatively less satisfied as civilians became clearer when we analyzed their responses to a question asking for direct comparisons between the Army and civilian life. Specifically, the veterans were given a list of 24 Quality of Life issues (e.g., stable home life, personal freedom, retirement benefits, etc.) and asked to place them in one of three categories: "more likely to occur in the Army", "more likely to occur in civilian life" or "equally likely to occur in the Army and civilian life." An overwhelming majority of veterans agreed that the Army provided better opportunities for doing something for one's country (84%), travel (79%), physical training (78%), job security (59%), adventure (58%) and retirement benefits (55%), while the civilian world was

seen as a better place for personal freedom (89%), a stable home life (71%), child-rearing (63%) and community ties (61%). These findings were consistent for both males and females. However, when we compare male and female percentages within each category separately, we find statistically significant differences on 15 of the issues. These differences are summarized in the following figure.

INSERT FIGURE 2 HERE

Relatively more men than women saw the Army as a good place for promotion opportunities, retirement benefits, easy work, and freedom from sexual harassment, while relatively more women than men felt that the Army provided better opportunities for a good income, learning a trade/skill, coworker similarity, making friends and recreation facilities. A significantly greater percentage of men than women saw the civilian world superior to the Army on 11 of the 15 issues. These items covered a broad range of opportunities, including personal freedom, self-development, family issues, and job-related opportunities. "Freedom from sexual harassment" was the only issue on which more women than men saw the civilian world preferable to the Army.

Veterans as Army Alumni

Another indication of how veterans feel about their Army experiences is found in a series of questions concerning their willingness to continue to identify with the Army. When asked if they would like to join an association for former soldiers, 62% of the males and 60% of the females replied positively, and more than 80% indicated an interest in receiving an Army newsletter or magazine that kept them up-to-date on information useful to former soldiers.

Their responses also indicated a willingness to act as Army ambassadors. Eighty-eight percent of the women and 82% of the men said that they speak positively about the Army when talking to friends and aquaintances, and 61% of the women and 56% of the men expressed a willingness to help recruiters identify potential enlistees. When asked about their current level of involvement with Army recruiting, approximately 80% of the male and female respondents said that they have spoken to at least one person about joining the Army, and 52% of the males and 56% of the females said that they would be willing to talk to groups of high school students about the Army.

What do they tell people about joining the Army? Less than 5% of all respondents discourage potential recruits. The vast majority either emphasize the opportunities available in the Army and encourage them to join, or suggest that they find out more about the Army and decide for themselves. Females are especially likely to encourage others to join, as 57% of the women as compared to 43% of the men say they tell potential recruits about the positive opportunities available for young men and women in the Army.

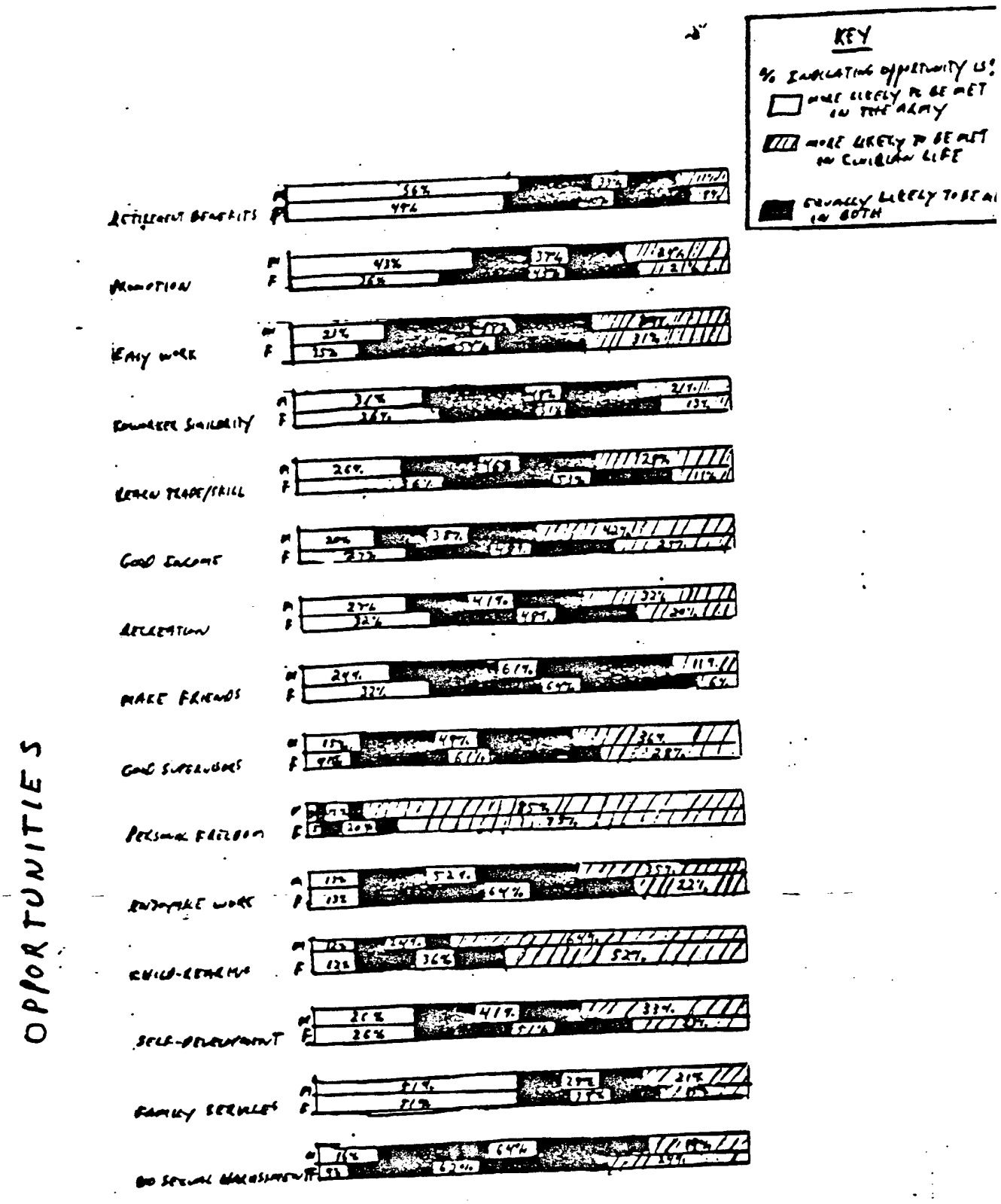



FIGURE 2. MALE(M) and FEMALE(F) COMPARISONS Between Army and Civilian Opportunities

The results of our survey can be summarized by saying that America's young men and women enter Army service expecting to have experiences that will help them grow and mature as they learn to take on responsibilities of adulthood. Apparently they are not disappointed, for it is just these sorts of experiences that they report having and valuing the most during their Army service. The Army seems to be especially beneficial for women. The egalitarian atmosphere of the Army provides them with better opportunities for self-development than does civilian life, and they are more likely to learn skills that will help them in their civilian careers.

## REFERENCES


Nogami G. Y., Varty J., Ross R. and Gade P. A. (1987). Exit Survey of First Term Enlisted Analyzed for Gender, Type of Separation, MOS Traditionality and MOS Physical Demand. (Research Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (In Press)

Westat, Inc. (1986, May). The 1985 ARI Survey of Army Recruits: User's Manual. (Research Note 86-50). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

PB87163

# Personnel Utilization Technical Area Working Paper 87-06

Retention Problems in Military Intelligence MOS 98G and 33T: Summary of Existing Data

Melvin J. Kimmel, Beverly G. Knapp, and Frances L. Carter

Reviewed by:

HYDER LAKHANI
Leader, Family Economics
and Readiness Team

Approved by:

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

**U.S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333

**This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.**

PB87184

# RETENTION PROBLEMS IN MILITARY INTELLIGENCE MOS 98G AND 33T: SUMMARY OF EXISTING DATA

## EXECUTIVE SUMMARY


Requirement:

To compile and summarize existing information on factors affecting enlisted military personnel retention in Military Occupational Specialty (MOS) 98G (Signal Intelligence Voice Intercept) and 33T (Tactical Systems Repair).

Procedure:

Reenlistment/separation data bases, subject matter expert opinions, and attitude survey results served as information sources for this project. Reenlistment and separation patterns for FY82-FY87(1st QTR) were obtained from Enlisted Master File (EMF) data bases maintained by Defense Manpower Data Center (DMDC) and DCSPER Report No. 628. Information on factors affecting 98G/33T retention decisions came from informal interviews with Military Intelligence enlisted personnel and tabulated attitude survey data provided by the U.S. Army Research Institute (ARI) and the Military Intelligence community (U.S. Army Intelligence School-Ft. Devens (USAID), U.S. Army Intelligence and Security Command (INSCOM), Office of the Chief, Military Intelligence (OCMI), and the Military Intelligence Branch, MILPERCEN).

Findings:

(1) Reenlistment/separation data bases revealed that MOS 98G first term rates were comparable to the Army as a whole, with the exception that 98G women reenlisted at lower rates than women in other MOS between 1984 and 1986. Reenlistment rates for MOS 33T 1st term personnel were lower than the rates for the Army as a whole in 1985 and 1986, but were above the Army average for 1st QTR FY87. Recent retention data comparing 98G/33T noncommissioned offficer reenlistment rates with the Army average showed significantly lower rates for MOS 33T mid-careerists and careerists and a somewhat lower rate for 98G careerists.

(2) Although existing data on factors affecting MOS 98G/33T reenlistment decision-making is limited, it appears that job satisfaction and promotion potential are important considerations. MOS 98G personnel are most dissatisfied with the lack of strategic assignments and educational opportunities, while MOS 33T members point to the inability to use their job skill training as a key reason for their dissatisfaction.

EXECUTIVE SUMMARY (continued)

(3) Additional research now being conducted by the Military Intelligence community may help clarify the retention-job satisfaction relationship.

Utilization of Findings:

The information in this report will be of immediate use to Military Intelligence retention policy makers to serve as a preliminary basis for evaluating Military Intelligence retention policies and to highlight areas requiring further research.

# Retention Problems in Military Intelligence MOS 98G and 33T: Summary of Existing Data

Melvin J. Kimmel, Beverly G. Knapp, and Frances L. Carter
U.S. Army Research Institute for the Behavioral and Social Sciences

## INTRODUCTION

During a recent review of Military Intelligence (MI) enlisted Military Occupational Specialties (MOS), conducted by the Director of Military Personnel Management (DMPM), Office of the Deputy Cief of Staff for Personnel (ODCSPER) on 7 DEC 86, the fact surfaced that job satisfaction factors may play a key role in the decision to reenlist following first term. Since training for these intelligence specialties is lengthy, and an additional investment is required to process high level security clearances, it is in the Army's interest to promote the highest level retention rate possible for these MOS in order to gain a return on the initial investment. It was also pointed out at the review that certain MI MOS will face shortages by the 1990's in meeting their authorized strengths, if steps are not taken to reverse first term separation. This trend is largely due to the deployment of new operational intelligence collection systems such as TACJAM, QUICKFIX, GUARDRAIL V, and ADVANCED QUICKLOOK, which will be coming on line during this time frame.

In an effort to better understand the nature of current separation within MI MOS, and to document the role of job satisfaction factors in the reenlistment decision, the Army Research Institute (ARI) was tasked by the DMPM to focus on two MI MOS, 98G and 33T, as exemplars. The objective of the effort was to identify sources of existing data on 98G and 33T which would document the existing separation patterns, and to quantify, if possible, job satisfaction factors which contribute to the patterns.

98G and 33T represent different sides of the three MI MOS career fields (CMF 98, 96, 33). Although both are trained and perform functions in the Signals Intelligence or "SIGINT" domain, the 98G (Voice Intercept Operator) sits "on position", in a tactical or strategic setting, using headphones, and is specifically trained as a foreign linguist. The 33T (Tactical Intelligence Systems Repairer) however, is a troubleshooter and maintainer of the sophisticated electronic receiving and jamming equipment used by 98G and other types of operators within CMF 98.

The CMF 98 consists of operators and intelligence analysts with some history in terms of accession and career development. In contrast, CMF 33, as recently as 1985, underwent a restructure from a single MOS (33S), responsible for the maintenance of over 2500 end items of Electronic Warfare/Intelligence (EW/I) equipment, to five entry level MOS. The five MOS within CMF 33 (and a capper MOS at the E8 paygrade) allowed tasks, within the total EW/I system family, to be subdivided and clustered according to both functional as well as tactical and strategic boundaries. Thus the 33T is one of several new career tracks within CMF 33, with very little career history, except for the midtermers and careerists assigned to 33T from the former single 33S MOS structure.

## APPROACH

Several relevant sources of data on reenlistment and/or job satisfaction were identified. Table 1 summarizes the various information sources. DCSPER Report No. 628 archives and Defense Management Data Center (DMDC) EMF databases served as sources of 98G/33T retention patterns. Annual reenlistment rates for 98G, broken down by various demographic categories, were provided for 1982 through 1st QTR FY 87. As discussed above, historical separation data are not available in the 33T MOS since it was not activated until 1985. By sorting through these service-wide databases, specific reenlistment/separation trends by selected demographic categories were developed.

For documentation regarding 98G/33T reenlistment intentions, job satisfaction, and reasons for separation, interviews were conducted with 98G/33T Subject Matter Experts (SMEs), and survey data were provided by the Intelligence community (i.e. US Army Intelligence School-Devens(USAISD), Intelligence and Security Command (INSCOM), and MI Branch at MILPERCEN). The separation databases followed by the interview responses and Intelligence community survey results will be discussed in turn.

## FINDINGS

### Reenlistment/Separation Databases

DCSPER Report No. 628 contains reenlistment rates (percent of total eligible who reenlist) recorded by year of separation for each MOS separately and for the Army as a whole. DMDC databases provides separation rates (percent of total eligible who leave the Army) encoded by year of accession. The difference between the years referenced respectively in the two different databases reflects the four year term of enlistment. Although separation and reenlistment rates are two sides of the same coin, both databases were used because of the unique information each provides.

DCSPER Report No. 628 was analyzed from 1982 through 1st QTR FY 87 for 98G reenlistment rates as compared to the Army as a whole by gender, marital status,and years of service. A request for hard copy matrix of data from DMDC provided percent separation data for 98G MOS from the Enlisted Master File (EMF) showing comparisons between 98G and other non-combat MOS (defined as MOS outside the 11,12,13,16,17, or 19 series). Data were also obtained showing separation rates for 98G by tactical vs. strategic MACOM (INSCOM vs.FORSCOM only).

Figures 1 - 5 show summary trends drawn from the databases. Figures 1 and 2 graphically portray reenlistment rates for the last four years comparing 98G individuals to total Army data. In Figure 1, it can be seen that fewer 98G reenlisted compared to total Army, but the married group had a higher reenlistment rate overall. Figure 2 (reenlistment rates by gender) shows that reenlistment rates for the total Army-female group were the highest, followed by the total Army-male and the 98G male groups, with the 98G female having the lowest reenlistment rates. Overall, there was only slight variation by year, with a trend for the 98G female reenlistment rate to approach the male levels.

Table 1. Available Data Sources on 98G/33T Retention

| Topic | Source | Information | MOS/Participants |
|---|---|---|---|
| Reenlistment/ separation Rates | DCSPER Report No. 628 (ODCSPER) | Reenlistment rates by Year of Separation (FY 82-1st QTR FY 87); Gender; Marital Status; Enlistment Term | 98G<br>33T (FY85-FY87)<br>Total Army |
| | EMF Files (DMDC) | separation rates by Year of Accesssion (FY 79-FY 83); Gender; Marital Status; ISC Separation Codes | 98G<br>33T (FY85-FY87)<br>Other Noncombat MOS |
| Job Satisfaction/ Reenlistment Intentions | CMF 98 Attitude Survey (ARI-INSCOM, 1979) | Reenlistment motivation | CMF 98 (N=203)<br>Other Noncombat MOS (N=1880) |
| | Basic Training Team Survey (USAICS-DOES,1986) | 2 items (reenlistment intentions; MOS recommendation; AIT job relevance) | 98G (N=126)<br>33T (N=13) |
| | 33CMF Job Satisfaction Survey (USAID-OCMID) | 139 item survey (reenlistment motivation; job characteristics; job/CMF satisfaction) | 33T (N=18)<br>Other 33CMF (N=65) |
| | The Retention Problem of Soldiers in MOS 33T (33T SSG project) | 10 item informal survey (reenlistment motivation; job/CMF satisfaction) | 33T (N=11) |
| | SME interviews | Informal judgements | 98G/33T soldiers (N=3)<br>33CMF MSG (N=1)<br>USAICS/MILPERCEN/INSCOM Branch Managers (N=6) |

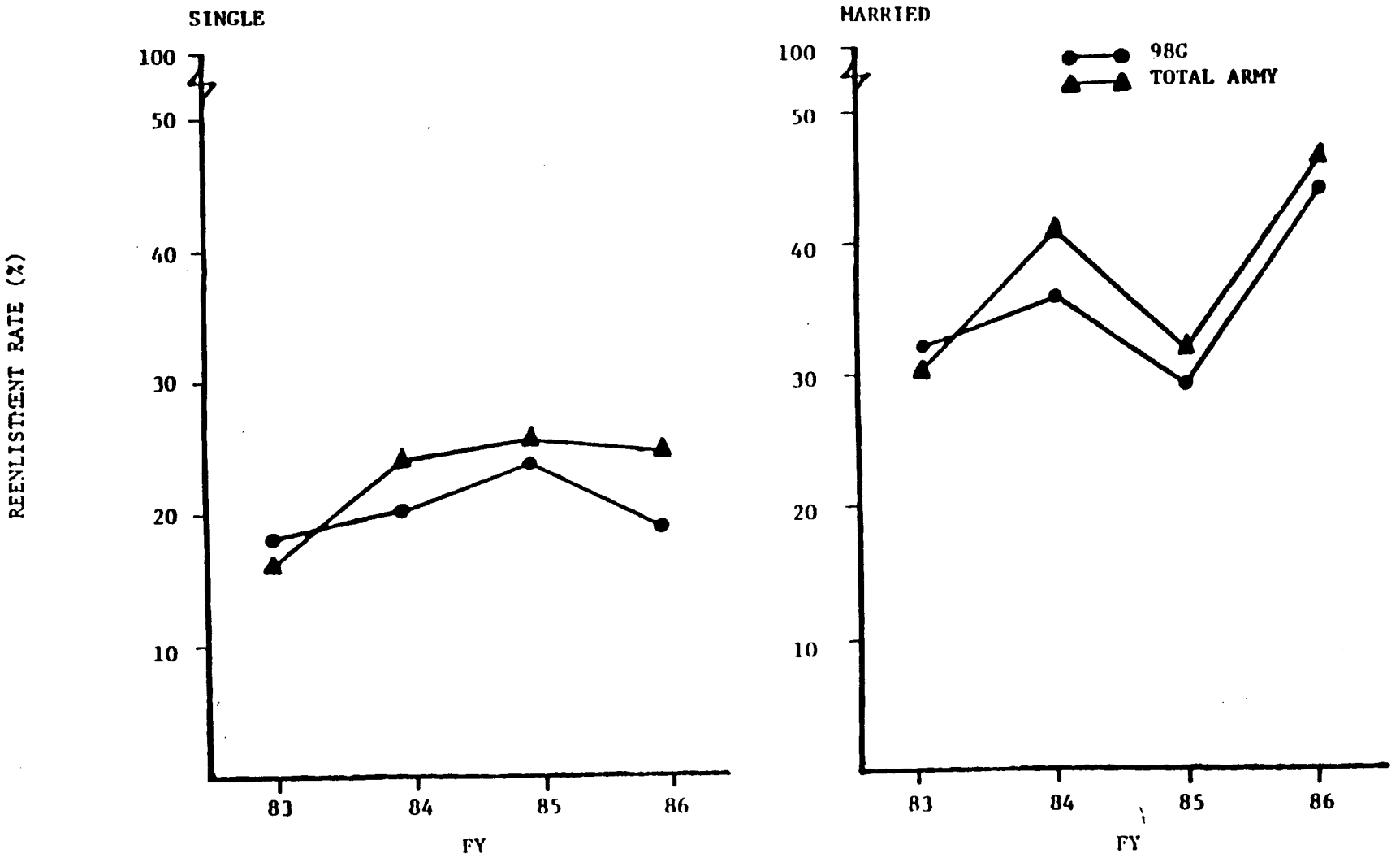



Figure 1. FY83-FY86 First Term Reenlistment Rates By Marital Status: 98G vs. Total Army
(Source: DCSPER Report No. 628)

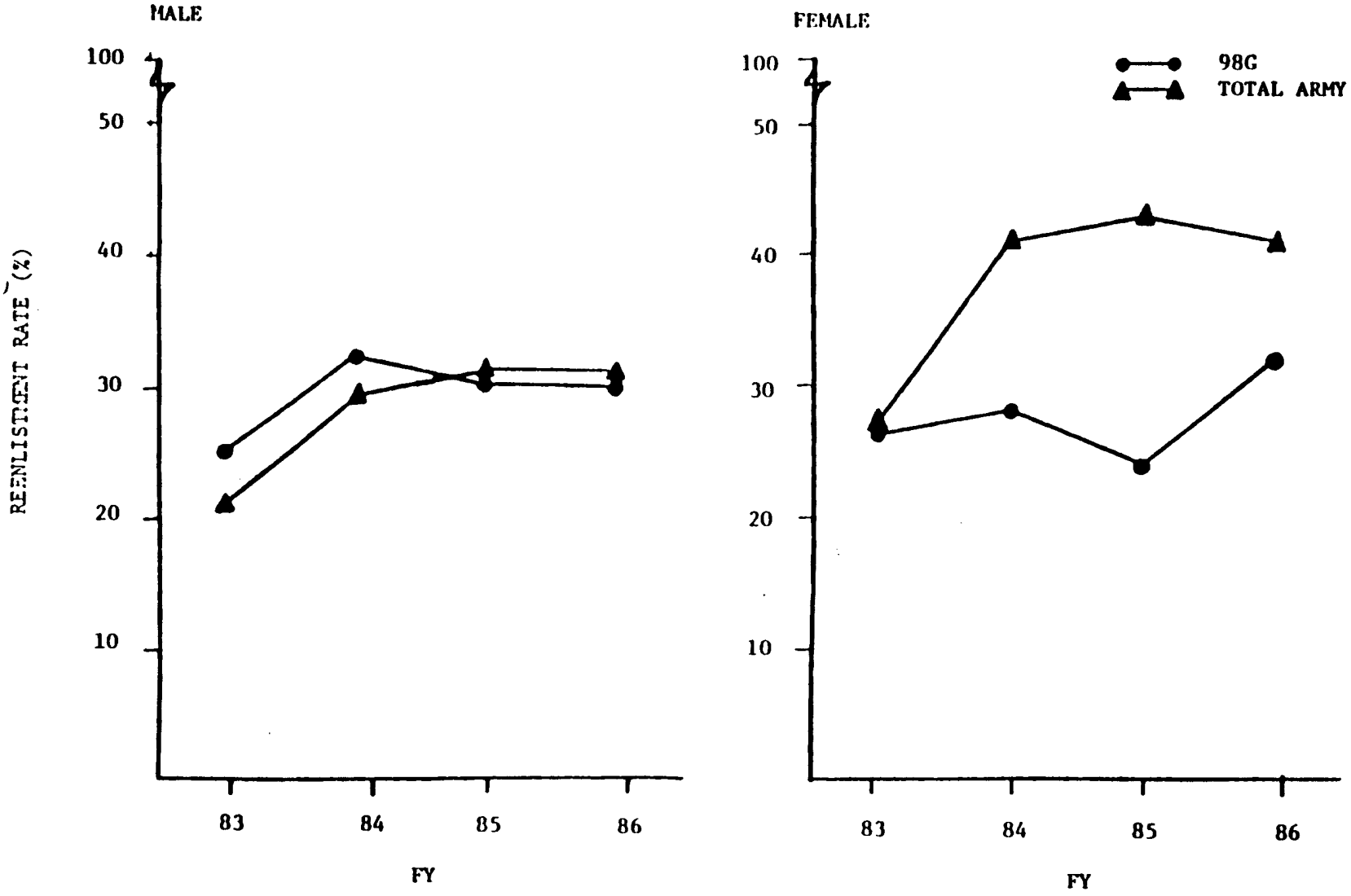



Figure 2. FY83-FY86 First Term Reenlistment Rates By Gender: 98G vs. Total Army
(Source: DCSPER Report No. 628)

Figure 3 depicts 98G first term separation patterns. The two graphs in this figure provide a more detailed picture of gender and marital characteristics by contrasting 98G personnel to all other non-combat MOS rather than total Army. This is a more meaningful comparison since the 98G as well as the non-combat group have a more even distribution of male and female (as opposed to very few females in the combat series). It can be seen from these graphs that the honorable discharge separation rate is 35-40 percent for each 98G single male cohort entering between 1979 and 1982. The single female 98G group is slightly lower in separation, with both of these 98G groups higher than male and female in non-combat positions. For the married groups, the graph indicates that 98G male separation following the first term is higher than for both males and females in other non-combat MOS in each cohort group. The 98G female separation pattern, on the other hand, fluctuates from year to year, being lower than all other accession groups in 1979 and 1982 and higher for the 1980 and 1981 cohorts. Overall, married individuals have a lower separation rate following first term than never married personnel. While marital status seems to impact separation, note that only a small percent of the total group (13%) are married.

Figure 4 provides percent retention in MOS rate by MACOM assignment. Statistics were available for both the 33T and 98G in this case. It is assumed that the 33T data reflect former 33S who transitioned to 33T, as discussed in the introductory section above. For those whose first assignment was spent in a strategic site (INSCOM), the retention rate is near 50% for both 98G and 33T. For 98G, the retention rate for FORSCOM assignees is only 25%; a clear indication of the impact of the tactical setting. For the 33T, the retention rate shifts from 1986 to 1987; at first it is below the INSCOM level, and then it is above. This may indicate that the new MOS is stabilizing after an initial separation of individuals who were formerly in the 33S strategic positions.

Figure 5 provides 98G/33T reenlistment rates according to enlistment term for 1st QTR FY 87. As can be seen, the 41% first term reenlistment rates for 98G and 33T are somewhat above the 36% first term rate for the Army as a whole. However, for midcareerists (those with 6-10 years of service), the 27% 33T reenlistment rate is significantly lower than the 98G rate (69%) and the rate for the Army as a whole (70%). For careerists (those with more than ten years of service), the reenlistment rates for both 98G and 33T (69% and 57%, respectively) are below the 85% rate for the Army as a whole.

## Job Satisfaction and Retention Data

### CMF 98 Attitude Survey

The CMF 98 Attitude Survey was conducted at INSCOM by ARI in the 1978-80 timeframe. Although somewhat dated, this survey gives general information about reenlistment motivations within CMF 98. Table 2 shows the numbers surveyed and the major findings. Although covering the entire CMF and not restricted to 98G, the major conclusions reached give some indication of the difference between the MI career field and other non-combat MOS.

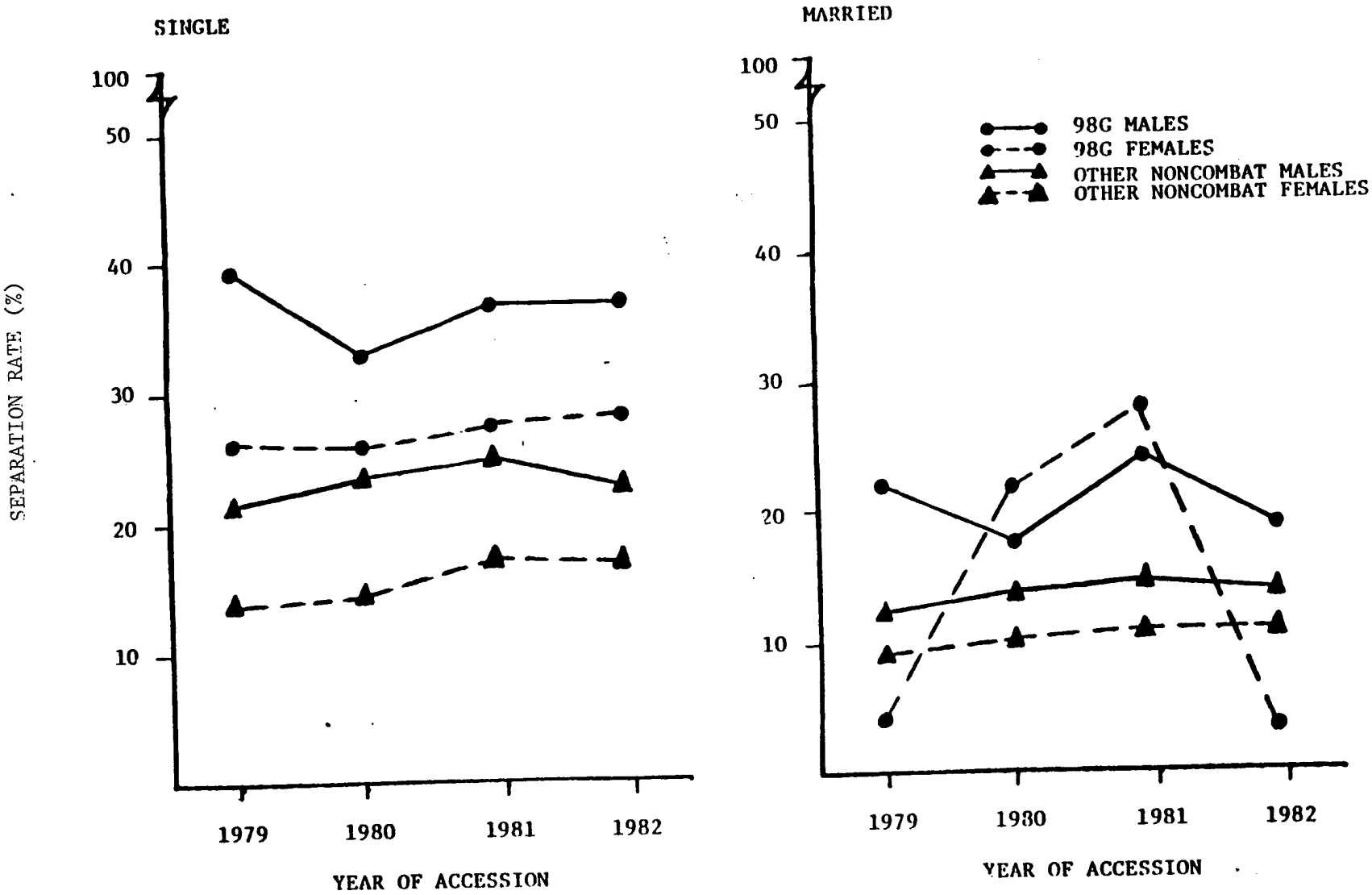



Figure 3. First Term Separation Rates By Marital Status, Gender and Year of Accession: 98G vs. Other Non-Combat MOS (Source: DMDC EMF database)

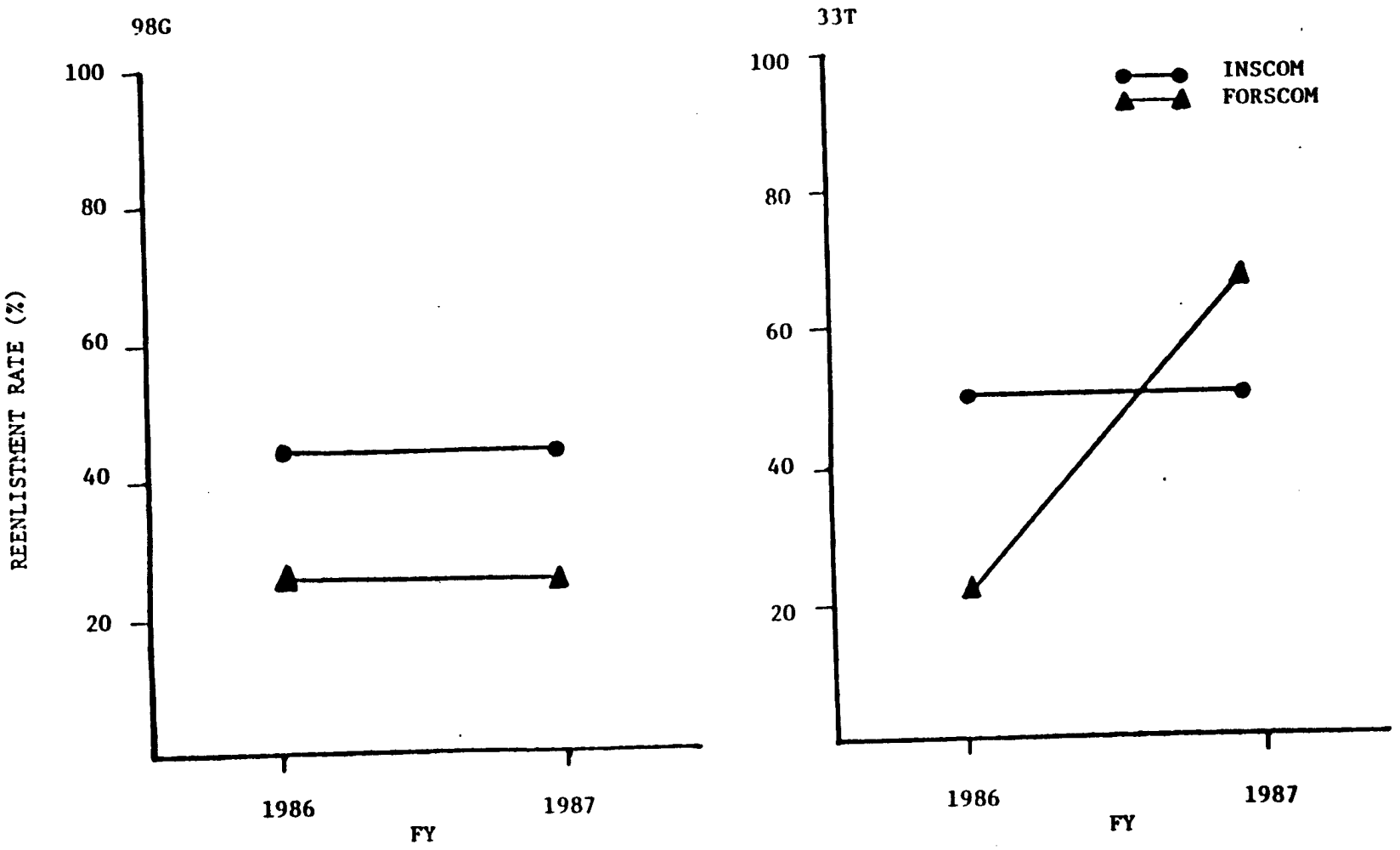



Figure 4. 98G and 33T First Term Reenlistment Rates For FY86 and FY87(1st QTR) According to First Assignment Location (INSCOM vs. FORSCOM) (Source DCSPER Report No. 628)

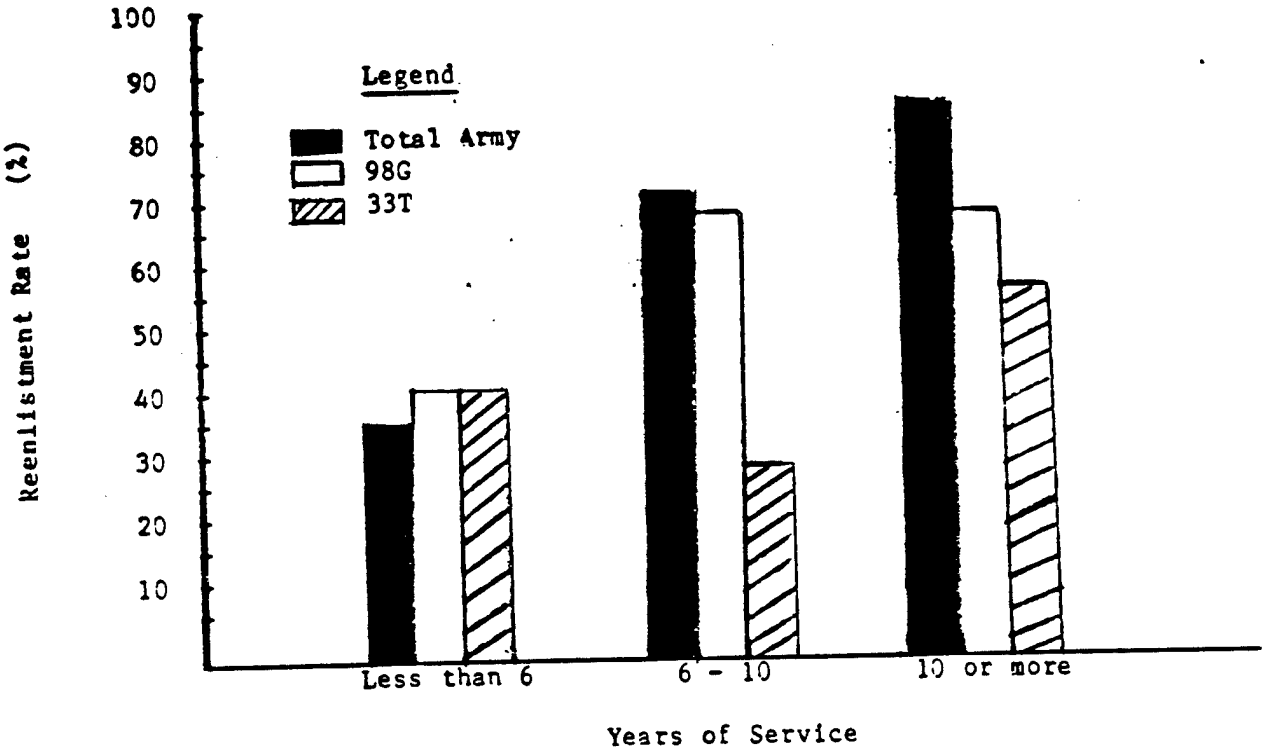



Figure 5. FY87(1st QTR) Reenlistment Rates By Years Of Service For 33T, 98G, and Total Army (Source: DCSPER Report No. 628)

Table 2. 1978-80 ARI CMF 98 Attitude Survey findings:
(a) Satisfaction with Army conditions and (b) reasons for wanting to leave for CMF 98 (N=215) vs other non-combat (N=1880)

(a) Satisfaction with present Army conditions

| | Percent Satisfied | |
|---|---|---|
| | CMF 98 | Other non-combat |
| Working Conditions | 80 | 59 |
| Kind of work | 59 | 52 |
| Pay | 36 | 29 |
| Supervisor | 52 | 45 |
| People you work with | 68 | 58 |
| Chances for promotion | 42 | 31 |
| Travel opportunities | 72 | 41 |
| Job security | 71 | 59 |
| Housing Conditions | 20 | 30 |
| Medical and dental benefits | 49 | 59 |
| Post | 33 | 25 |
| Army as a whole | 30 | 30 |

(b) Reasons for wanting to leave the Army

| | Percent Agreement | |
|---|---|---|
| | CMF 98 | Other non-combat |
| Promotions do not go to soldiers who earn them | 84 | 56 |
| Lack of rewards for good work | 75 | 44 |
| Lack of privacy | 75 | 60 |
| Inadequate housing | 64 | 48 |
| Inadequate medical and dental care | 64 | 48 |
| Lack of training in civilian skills | 62 | 38 |

Non-combat personnel tended to leave the Army due to dissatisfaction with the Army. Members of the CMF 98 group were more satisfied with their Army job, and believed that their CMF provided a basis for them to obtain a comparable civilian career. In addition, CMF 98 saw themselves as different from the Army as a whole due to the nature of their work. They believe they gave more to the Army due to the "live mission" nature of their assignments and felt they should get more from the Army, in terms of pay, benefits, and promotion potential. A negative opinion was expressed toward tactical assignments, saying that these do not afford the opportunity to exercise the skills obtained in Advanced Individual Training (AIT).

The major conclusion from this effort was that, for strategic CMF 98 positions, long term career potential does not provide for the increase in benefits, pay, and recognition that can be achieved in a civilian setting. Since the survey was the collective opinion of the entire CMF 98 as opposed to 98G alone, it is only safe to conclude that it pointed to reenlistment problems in the SIGINT field, but the degree to which this represents 98G attitudes is unclear.

Basic Training Team (BTT) Survey

More recent data for both 98G and 33T is provided by a Basic Training Team (BTT) survey conducted by the U.S. Army Intelligence Center and School, Department of Evaluation and Standards (USAISD-DOES) within the past year. This survey included three questions related to reenlistment intentions and satisfaction. Table 3 lists the questions with answers obtained. A total of 126 98G individuals and 13 33T individuals responded. As can be seen, over half the 98G would recommend the MOS to a friend contemplating joining the Army, and two thirds felt they were adequately prepared for the job by AIT. The majority of the 98G group, though, did not plan to reenlist.

With respect to 33T, only 4 of 13 soldiers would recommend the MOS to a friend who was thinking about joining the Army. Again, the majority in this MOS are not planning to reenlist or are undecided. In most of the cases it was felt that they were adequately prepared in AIT to do the work required.

Subject Matter Expert Opinions

Several sources were tapped to discover the reasons behind these intentions. The only available information on 98G reenlistment decision making comes from informal interviews with several subject matter experts (SMEs): the MI Branch Manager and CMF 98 Branch Manager at MILPERCEN, the Language Management Branch and the Retention NCO at INSCOM, the Director of BTT at USAISD, and a MSG in the Proponency Office at the US Army Intelligence Center and School (USAICS). According to these SMEs, the civilian world offers 98Gs more than the Army. Since they have a security clearance and can speak a foreign language, 98Gs can demand starting salaries approaching $45,000 in the civilian market. In contrast, if they decide to reenlist, 98Gs can expect only a maximum Selective Reenlistment Bonus (SRB) of $15,000 for a six year commitment, and no opportunity to go to college. The Army option becomes even less enticing when they see that promotion points in their MOS have doubled over the past three years and find out that they are not allowed to learn

Table 3. 98G/33T responses to retention and satisfaction items (Source: Branch Training Team Survey,1986)

Based on your experience during AIT and your assignment thus far, would you recommend your MOS to someone contemplating entry in the US Army?

| | | Number |
|---|---|---|
| 98G | Yes | 65 |
| | No | 61 |
| 33T | Yes | 4 |
| | No | 9 |

Do you at this point in your career have any plans to reenlist in the Army and your current MOS?

| | | Number |
|---|---|---|
| 98G | Yes | 20 |
| | No | 72 |
| | Undecided | 34 |
| 33T | Yes | 3 |
| | No | 7 |
| | Undecided | 3 |

In your opinion, did your AIT adequately prepare you to perform your MOS duties?

| | | Number |
|---|---|---|
| 98G | Yes | 68 |
| | No | 32 |
| 33T | Yes | 86 |
| | No | 14 |

another language. Opportunities for growth are especially bad when assigned to a tactical unit. They generally are unable to use their training, face frequent shift work schedule changes, and the turn around time in this Space Imbalanced MOS (SIMOS) when in USAREUR is too short to achieve stability. Despite these drawbacks, the SMEs believe 98Gs can be retained in the Army if given a viable mission and an opportunity to attend a language enhancement program.

Subjective opinions regarding 33T job satisfaction and reenlistment intentions come from two sources: An extensive interview with a retiring MSG who has worked in the Office of the Chief, Military Intelligence (OCMI) for a number of years; and responses of 11 soldiers in MOS 33T to an informal open-ended survey project carried out by a 33T SSG as part of his Bachelor of Arts degree requirements.

According to these individuals, 33T personnel have perhaps the least job satisfaction of any CMF 33. Unlike individuals in other CMF 33 MOS, who are given strategic assignments and perform some repair work under contractor supervision, there are no strategic assignments for 33T, and they are severely limited in the amount of EW/I maintenance they are allowed to perform. Since the equipment they work with is under warranty, their MOS-related duties largely consist of replacing units and transmitting them to contractors for repair. They spend much of their duty hours on non-MOS related details (e.g. "paper-pushing" and/or general motor pool work), which they find neither satisfying nor meaningful.

The SMEs suggest that the retention problem is largely confined to Midtermers, since most first termers are not eligible for reenlistment until 1989. Their 39 weeks of training, plus their experience in 33S makes them highly marketable in the civilian world. According to the SMEs, since these people observe contractors doing the same jobs that they were trained to do - and making more money for it - it is no wonder that they choose to leave the Army.

Aside from job dissatisfaction, the SMEs believe that perhaps the most important reasons for separation are the lack of promotion possibilities and the Selective Reenlistment Bonuses (SRB). The CMF 33 restructuring increased the number of E5 and E6 pay grades to the point where there is an inverted pyramid and little chance for advancement.

## CMF 33 Job Satisfaction Survey

These views are supported by a more formal survey of CMF 33 conducted recently by USAISD. The survey, consisting of 139 items measuring job satisfaction, reenlistment intent and factors associated with each, was administered to 78 CMF 33 enlisted personnel (18 in MOS 33T and 65 in other MOS within CMF33) in the Fall of 1986. (See Appendix A for a copy of the CMF 33 Job Satisfaction Survey).

While the survey, itself, is a rich potential source of detailed

information, the available data is limited in a number of respects. First, not all the information collected on these 78 individuals was coded. Of the 25 background information items in Section I, the raw data was coded only for items 1 (Primary MOS), 2 (Pay Grade), 3 (Years in CMF 33), 14 (Term of Enlistment), 16 (High Scool Education), 17 (College Education), 18 (Reenlistment/Separation Plans), 19 (Job Satisfaction) and 20 (Satisfaction with CMF 33 Restructure). Responses to Section II items (Job/CMF Opinions) were provided for all respondents, while responses to Section III (Separation Reasons) and Section IV (Reenlistment Reasons) were coded for 33T individuals only.

A second limitation of the data concerns the relatively small number of respondents, especially within the 33T MOS, and demographic differences between the two groups. Table 4 provides a breakdown of the 33T vs other CMF 33 MOS respondents by selected background information. As shown in the Table, both the 33T and other CMF 33 groups contained approximately 2 1/2 times more married than nonmarried respondents and a somewhat higher percentage of senior than junior NCOs. For the 33T sample, all 18 respondents were male, and the majority were in their second enlistment term. For the non33T group, no information was available on gender, and the majority were beyond their second enlistment term. Because the sample sizes are small, certain subgroups are overrepresented, and the 33T and non33T groups differ in length of service and (possibly) sex composition, the results should be interpreted cautiously.

Job/CMF opinions. Respondents were provided with a list of characteristics associated with their Army experience and asked to rate the extent to which they agreed with each on a four point scale. Table 5 provides the percentages who agreed with each item for 33T and non33T groups, separately.

The majority of both groups expressed a positive attitude toward the Army as a whole (66% in 33T and 68% in non33T). The majority also agreed that their jobs were satisfying (56% and 64%, respectively), interesting (61% and 69%,respectively), and worthwhile (75% and 85%, respectively); and that their leadership was satisfactory (77% and 69%, respectively).

However, 33T individuals appeared to be more dissatisfied with particular aspects of their work situation than those in other CMF 33 MOS. Only 56% of the 33T compared to 78% of those in other CMF 33 agreed that their supervisors were technically competent. In addition, 33T expressed more dissatisfaction with the state of their equipment. Specifically, only 33% of 33T as compared to 52% of other CMF 33 were satisfied with the tools and test equipment they had to work with. A greater percentage of 33T than other CMF 33 (1) felt their unit did not have all the test equipment they needed (73% in 33T vs 54% in other CMF 33); (2) indicated that what test equipment they had was outdated (90% vs 61%,respectively); and (3) stated that their unit lacked adequate EW/I equipment, as well (54% vs 37%, respectively).

The two groups also differed somewhat in percentage agreement on items describing the nature of their work. About 50% of each group agreed that their job involved troubleshooting EW/I equipment to the piece/part level. However, the degree of troubleshooting appears to be much more limited for 33T. Fifty

Table 4. CMF 33 Job Satisfaction Survey:
Number of 33T vs other CMF 33 respondents by selected demographics

| | | 33T (N=18) | Other CMF 33 (N=65) |
|---|---|---|---|
| Pay Grade | E4/E5 | 8 | 28 |
| | E6/E7 | 10 | 37 |
| Enlistment Term | 1 | 3 | 16 |
| | 2 | 8 | 15 |
| | 3 or more | 8 | 34 |
| | Unknown | 1 | 0 |
| Marital Status | Married | 13 | 45 |
| | Not Married | 5 | 20 |
| Gender | Male | 18 | - * |
| | Female | 0 | - * |

* Information not available

Table 5. Percent 33T vs Other CMF 33 agreement with job/CMF-related items (Source: CMF 33 Job Satisfaction Survey)

| | Percent Agreement | |
|---|---|---|
| | 33T | Other CMF 33 |
| General Attitudes | | |
| Positive opinion of Army | 66 | 68 |
| Satisfying job | 56 | 64 |
| Worthwhile Job | 61 | 69 |
| Adequate supervisor leadership | 77 | 69 |
| Work Situation | | |
| Technically competent supervisors | 56 | 78 |
| Adequate tools/test equipment | 33 | 52 |
| Unit lacks some required test equipment | 73 | 54 |
| Outdated test equipment | 90 | 61 |
| Unit lacks adequate EW/I equipment | 54 | 37 |
| Job duty: Troubleshooting to module/circuit card | 50 | 6 |
| Job duty: Troubleshoot to piece/part level | 45 | 52 |
| Job duty: Replace black box only | 54 | 18 |
| CMF 33 Attitudes | | |
| Assigned to appropriate CMF 33 MOS | 75 | 60 |
| Want to change to non-CMF 33 MOS | 18 | 23 |
| Would change to different CMF 33 MOS | 53 | 31 |
| Dissatisfied with CMF 33 restructure | 88 | 69 |
| CMF 33 restructure not beneficial to Army | 66 | 61 |
| CMF 33 structure should be changed | 46 | 47 |
| Satisfied with MOS assignment opportunities | 61 | 62 |
| Satisfied with amount of MOS-related work | 28 | 46 |
| Most of AIT training not being used | 77 | 46 |
| More training opportunities in other CMF 33 MOS | 19 | 20 |
| Better assignments in other CMF 33 MOS | 69 | 23 |
| Better promotion opportinities in other CMF 33 MOS | 56 | 45 |

percent of 33T as compared to only 6% in other CMF 33 agreed that they were allowed to troublshoot EW/I equipment only to the printed circuit card level; 65% of 33T vs only 28% in other CMF 33 stated that much of the repair work was done by contractors; and 54% of 33T as compared to 18% of other CMF 33 agreed that the only repairs they perform was removing and replacing "black boxes".

The survey also provided information on respondent attitudes toward CMF 33 and their particular MOS. A majority of both groups agreed that they had been placed in an appropriate MOS following the CMF 33 restructuring (75% agreement for 33T and 60% agreement for other CMF 33), and only 18% of the 33T and 23% of those in other CMF 33 expressed a desire to change to another career management field. However, a large percentage of both 33T and non33T groups (88% and 69%, respectively) expressed dissatisfaction with the CMF 33 restructuring. A majority of both groups also believed that the restructuring did not benefit the Army (66% and 61%, respectively) and agreed that CMF 33 should be reorganized once more (47% and 46%, respectively).

The 33T respondents appear to be somewhat more dissatisfied with their MOS than those in other CMF 33. A majority of both groups expressed general satisfaction with their MOS assignment opportunities (61% and 62%, respectively). However, a greater percentage of 33T than those in other CMF 33 indicated they were dissatisfied with the limited amount of time spent performing MOS duties (72% vs 54%, respectively), and stated that most of their training was being wasted, given the limited amount of repairs they are allowed to perform (77% vs 46%).

The 33T dissatisfaction with their MOS is especially evident on items asking respondents to compare opportunities within their MOS with those of other MOS within CMF 33. Although only small percentages of both groups believed that other CMF 33 MOS offered more opportunity for advanced training than their own (19% and 20%), a larger percentage of 33T compared to other CMF 33 respondents agreed that other CMF 33 offered better assignment (69% vs 23%) and promotion opportunities (56% vs 45%), and stated that they would change to a different CMF 33 MOS, if given the chance (53% vs 31%).

Reenlistment attitudes. About the same percentage of 33T and those in other CMF 33 MOS stated that they intended to reenlist (44% and 46%, respectively). Table 6 compares 33T respondents with those in other CMF 33 MOS on percentage agreement to factors related to reenlistment intentions. The opportunity to attend college does not appear to be an important reenlistment incentive for most respondents. High percentages of both 33T (88%) and other CMF 33 respondents (78%) agreed that the Army offered an adequate opportunity to take college courses, and only 30% of the 33Ts and 25% of those in other CMF 33 groups indicated that they would consider leaving the Army to attend college.

The Selective Reenlistment Bonus (SRB) also does not appear to be as important a reenlistment incentive as one might expect. For both 33T and those in other CMF 33 MOS, the SRB was considered less important than having a choice of assignments (65% and 63%, respectively), getting advanced electronic training (73% and 63%), and promotion opportunities (72% and 66%). This last factor appears to be especially important for the 33T group, for 83% of the

Table 6. Percent 33T and other CMF 33 agreeing to reenlistment intention items (Source: CMF 33 Job Satisfaction Survey)

| | Percent Agreement | |
|---|---|---|
| | 33T | Other CMF 33 |
| Intend to reenlist | 44 | 46 |
| Adequate opportunity to take college courses | 88 | 78 |
| Would leave to attend college | 30 | 25 |
| Assignment choices more important than SRB | 65 | 63 |
| Advanced electronic training opportunities more important than SRB | 73 | 63 |
| Promotion opportunities more important than SRB | 72 | 66 |
| Would reenlist if faster promotion opportunity | 83 | 57 |

33Ts as compared to only 51% of those in other CMF 33 MOS stated that they would probably reenlist if there was an opportunity for faster promotions.

33T separation/reenlistment reasons. As indicated earlier, ratings of importance of various reasons for separating (Section III) and reenlisting (Section IV) were coded only for the 33T group. Table 7 lists the reasons that were rated as either "very important" or "somewhat important" by a majority of the ten 33Ts who expressed an intent to separate, and Table 8 provides the same information for the eight 33Ts who indicated that they would probably reenlist.

As shown in Table 7, all ten 33Ts who intend to separate rated "living conditions", "amount of 'real' work", "extra duties", and "having a job that did not challege their training and abilities" as important reasons for their decision to separate; all but one cited "amount of harassment in the Army", "low pay", and "amount of 'busy work' they do"; eight of the ten said "low SRB" was an important reason; and 70% mentioned "frequency of family separation" and "little chance for promotion".

All eight of the 33Ts who intended to reenlist (Table 8) rated "job satisfaction", "job challenge and demands","chance for promotion", "dependent and personal dental care", "SRB availability", "economic security", and "spouse attitude toward reenlistment" as either very important or somewhat important. Seven of the eight rated the "opportunity to serve the US" and "30 days paid leave/year" as important reasons for reenlisting, and six mentioned "PX privileges".

## DISCUSSION

Since the factors affecting the reenlistment decision differed somewhat for 98G and 33T, the findings will be discussed separately for the two MOS.

### 98G Retention and Job Satisfaction

The 98G data available indicates that first term separation in this MOS has a stable pattern from year to year that is slightly higher than the overall Army average. Accessions since 1979 show that 98G individuals who are married, and particularly married females, have a slightly lower separation rate, yet it is still higher than total Army data and other non-combat MOS. These data alone do not indicate the reasons for the lower retention rate.

A detailed CMF 98 job satisfaction survey, although dated, expressed the usual dissatisfaction with pay and promotion benefits. However, many individuals indicated that the strategic level assignment was what attracted them, and a tactical assignment was not desired. Separation data broken out by FORSCOM (tactical) vs INSCOM (strategic) assignments show a dramatic (25%) difference in retention for 1986. Here, those whose first assignment was strategic tended to reenlist at a rate 25% higher than their tactical counterparts. This tracks with the results of recent BTT surveys wherein over half of those interviewed would recommend the MOS to a friend, but more than 75% were not planning to reenlist or were undecided. Most (68%) felt that they were prepared for their job through AIT, however, it cannot be determined

Table 7. Importance of separation reasons for 33T who intend to separate (N=10) (Source: CMF 33 Job Satisfaction Survey)

| Separation Reasons | Percent Important | | |
|---|---|---|---|
| | Very important | Somewhat important | Total |
| Inadequate living conditions | 80 | 20 | 100 |
| Too little "real" work | 50 | 50 | 100 |
| Too much extra duties | 50 | 50 | 100 |
| Job not challenging training/abilities | 40 | 60 | 100 |
| Army harassment | 90 | 0 | 90 |
| Too much "busy" work | 60 | 30 | 90 |
| Low pay | 50 | 40 | 90 |
| Low SRB | 30 | 50 | 80 |
| No promotion opprtunities | 50 | 20 | 70 |
| Too much family separation | 60 | 10 | 70 |

Table 8. Importance of reenlistment reasons for 33T who intend to reenlist (N=8) (Source: CMF 33 Job Satisfaction Survey)

| Reenlistment Reasons | Percent Important | | |
|---|---|---|---|
| | Very important | Somewhat important | Total |
| Job Satisfaction | 80 | 20 | 100 |
| Personal/dependent dental care | 80 | 20 | 100 |
| Promotion opportunities | 80 | 20 | 100 |
| Spouse attitude toward reenlisting | 40 | 60 | 100 |
| Economic security | 40 | 60 | 100 |
| Job challenge/demands | 60 | 40 | 100 |
| SRB Availability | 30 | 70 | 100 |
| Serve country | 40 | 50 | 90 |
| 30 days paid leave/year | 40 | 50 | 90 |
| PX privileges | 70 | 10 | 80 |
| Commissary privileges | 50 | 20 | 70 |

whether they were actually able to do their job. The inference is clear that respondents who were in tactical assignments or were slated to go into them were hesitant about reenlisting.

In essence, no quantitative data exists to support subject matter expert opinions, which assert that 98G separation is directly related to job satisfaction factors. These factors, as indicated in the preceding sections, concern complaints about the use of skills (or lack thereof), the pay, promotion, and benefit packages, along with the difficulties of SIMOS, shift work and lack of educational opportunity. The bottom line, though, is that none of these widely held opinions are documented with reliable data.

33T Retention and Job Satisfaction

The limited data currently available appears to indicate that the 33T reenlistment problem is associated with job dissatisfaction and perceived lack of promotion opportunities. Most people evaluate their current situation by comparing it with the positive and negative features of alternatives. When 33T individuals make this comparison, they find that their current circumstances are not as favorable as the available alternatives. Compared to other CMF 33, they see themselves with less adequate tools and equipment, poorer promotion opportunities, and less of an opportunity to use their MOS-related skills. When they compare their jobs with civilian options, they find their skills highly marketable and see contractors doing the same jobs for which they were trained - and making a lot more money at it. A comparison is also made between their MOS as it exists today and what it was like before the CMF 33 restructure. Prior to 1985, they were using their MOS-related skills to do meaningful, worthwhile work as 33S technicians. Now, they find themselves in tactical units, working behind a desk or in a motor pool. Compared to those "glory days," their current situation seems especially bleak.

Several notes of caution must be added. First, these conclusions are based on a very limited set of data. It would be a grave mistake to generalize from the subjective opinions and survey responses of less than fifty people to an entire MOS. Second, the results, if representative at all, may be more characteristic of Midtermers than first termers. This latter group is vastly underrepresented in the existing data. Since they have not developed the marketable skills as yet, have not had the positive 33S experience with which to compare their current situation, and do not have to make a reenlistment decision until 1989, it is quite likely that these results and conclusions do not apply to them.

## CONCLUSIONS

It appears that two steps need to be taken to focus on MI Branch first term separation: first, insure that the projected surveys will obtain timely and detailed data to quantify the job satisfaction issues, and two, enhance efforts to increase match of AIT training and expectations to first duty assignment tasks.

For firm conclusions to be drawn, a good deal more systematic data than now exists must be collected. Steps are being taken to remedy the situation. The Retention NCO at INSCOM is in the process of conducting extensive interviews with representative samples of both 98G and 33T; the U.S. Army Soldier Support Center's Attitudes and Opinion Branch expect to field the CMF 33 Job Satisfaction Survey world-wide in early FY 88, and plan to extend the effort to include CMF 98 later in the year; and the BTT Survey continues to be administered on a regular basis. Once these data are collected, analyzed and interpreted, it should be possible to draw some firm conclusions about the relationship between 98G/33T job satisfaction and reenlistment decision making.

APPENDIX A

# CMF 33

# JOB SATISFACTION

# SURVEY

# INSTRUCTIONS FOR THE SURVEY

## PURPOSE OF THE SURVEY

1. The purpose of the survey is to ask your opinions about your MOS, your current job, your current unit and the reasons why you intend to reenlist or separate from the Army. Your responses will be grouped with the responses from other CMF 33 soldiers world wide to determine job satisfaction within the CMF.

2. There are no right or wrong answers to the items in this survey. Answer each item so that it most accurately agrees with your personal opinion and attitude.

3. Do not put your name or social security number on the survey forms. Individual responses will remain anonymous. Only group responses will be provided to commanders and supervisors.

## DIRECTIONS FOR THE SURVEY

1. The survey is divided into five sections.

SECTION I - BACKGROUND INFORMATION
SECTION II - JOB SATISFACTION
SECTION III - REASONS FOR SEPARATION
SECTION IV - REASONS FOR REENLISTING
SECTION V - WRITTEN COMMENTS

2. A separate answer sheet is provided for SECTIONS II - III. Data for SECTIONS I and V will be entered on the survey form itself.

3. SECTION I - BACKGROUND INFORMATION

a. Complete SECTION I by entering the appropriate data or placing and "X" in the appropriate box.

b. When entering dates use the "number" of the month and the last two digits of the calendar year.

EXAMPLE: SEP1986 0 9 - 8 6
mo yr

c. Do not proceed to SECTION II until told to do so.

4. SECTION II - JOB SATISFACTION (Items 001 - 060)

a. You are asked to rate each item as to whether you agree or disagree with the statement.

b. Refer to the rating scale and darken the circle on your answer sheet that corresponds to your rating for that item.

c. If an item in SECTION II does not apply to your current duty position, leave the answer sheet blank for that item.

d. There are some items in SECTION II that refer to the 33 CMF Restructure. If you did not serve in MOS 33S for one year or more, do not respond to those items.

5. SECTION III - SEPARATION REASONS (Items 061 - 092)

a. If you plan to separate or retire from the Army, respond to the items in SECTION III.

b. If you plan to reenlist or are undecided skip SECTION III and go to SECTION IV.

c. For SECTION III your are asked to rate each item as to its importance to your decision to separate or retire from the Army.

d. Refer to the rating scale and darken the appropriate circle on your answer sheet for that item.

6. SECTION IV - REENLISTMENT REASONS (Items 093 - 114)

a. If you plan to reelist or are undecided respond to the items in SECTION IV.

b. For SECTION IV you are asked to rate each item as to its importance to your decision to stay in the Army.

c. Refer to the rating scale and darken the appropriate circle on your answer sheet.

7. SECTION V - WRITTEN COMMENTS

a. This section of the survey is for your written comments.

b. Please be specific and objective with your comments.

c. If you need additional sheets of paper, raise your hand and the proctor will provide them to you.

## SECTION I

## BACKGROUND INFORMATION

1. PRIMARY MOS

☐☐☐

2. PAYGRADE

☐

3. BASIC ACTIVE SERVICE DATE

☐☐-☐☐

4. ETS DATE

☐☐-☐☐

5. NUMBER OF YEARS IN CMF 33

☐☐

6. SEX

☐ ☐

1. MALE 2. FEMALE

7. DUTY MOS

☐☐☐

8. DUTY MOS PAYGRADE

☐

9. DATE ASSIGNED TO UNIT

☐☐-☐☐

10. DUTY HOURS PER WEEK

☐☐

11. HOURS PER WEEK OUTSIDE YOUR MOS

☐☐

12. ON A PROMOTION LIST

☐ ☐

1. YES 2. NO

13. IF ON PROMOTION LIST, HOW MANY MONTHS. ☐☐

14. TERM OF ENLISTMENT:

1. ☐ FIRST, I HAVE NOT REENLISTED
2. ☐ SECOND
3. ☐ THIRD
4. ☐ FOURTH OR MORE

15. NUMBER OF PERSONNEL DIRECTLY SUPERVISED:

1. ☐ NONE
2. ☐ 1-4
3. ☐ 5-9
4. ☐ 10-14
5. ☐ 15-19
6. ☐ 20 OR MORE

16. EDUCATION - HIGH SCHOOL

1. ☐ NON HIGH SCHOOL GRADUATE
2. ☐ GED OR HIGH SCHOOL EQUIVALENCY
3. ☐ HIGH SCHOOL DIPLOMA GRADUATE

17. COLLEGE EDUCATION

1. ☐ LESS THAN 2 YEARS
2. ☐ 2 OR MORE YEARS
3. ☐ BACHELORS DEGREE
4. ☐ SOME GRADUATE WORK
5. ☐ GRADUATE DEGREE

18. REENLISTMENT/SEPARATION PLANS (CURRENT ENLISTMENT)

1. ☐ DEFINITELY PLAN TO SEPARATE
2. ☐ UNCERTAIN, PROBABLY SEPARATE
3. ☐ UNCERTAIN, PROBABLY REENLIST
4. ☐ DEFINITELY PLAN TO REENLIST
5. ☐ PLAN TO RETIRE

19. JOB SATISFACTION

1. ☐ EXTREMELY DISSATISFIED
2. ☐ VERY DISSATISFIED
3. ☐ MODERATELY DISSATISFIED
4. ☐ MODERATELY SATISFIED
5. ☐ VERY SATISFIED
6. ☐ EXTREMELY SATISFIED

20. 33 CMF RESTRUCTURE

1. ☐ EXTREMELY DISSATISFIED
2. ☐ VERY DISSATISFIED
3. ☐ MODERATELY DISSATISFIED
4. ☐ MODERATELY SATISFIED
5. ☐ VERY SATISFIED
6. ☐ EXTREMELY SATISFIED

21. MARRIED?

1. ☐ YES
2. ☐ NO

22. PLAN TO APPLY FOR WARRANT OFFICER?

1. ☐ YES
2. ☐ NO

23. ARE YOU CURRENTLY ENROLLED IN AN ON-DUTY/OFF-DUTY EDUCATIONAL PROGRAM?

1. ☐ YES
2. ☐ NO

24. IF YOU ARE NOT ENROLLED, WHY NOT?

1. ☐ PROGRAM NOT AVAILABLE
2. ☐ COURSES I WANT OR NEED NOT AVAILABLE
3. ☐ DUTY HOURS DO NOT PERMIT ENROLLMENT
4. ☐ DO NOT DESIRE TO PARTICIPATE AT THIS TIME

25. IS YOUR DUTY SECTION UP TO STRENGTH IN CMF 33 MOS?

1. ☐ 100%
2. ☐ 75% OR BETTER
3. ☐ 50% OR BETTER
4. ☐ LESS THAN 50%

## INSTRUCTIONS FOR SECTION II

READ ITEMS 001-060 AND RATE THEM IN TERMS OF WHETHER YOU AGREE OR DISAGREE WITH THE STATEMENT ON THE FOLLOWING SCALE:

1. STRONGLY AGREE
2. AGREE
3. DISAGREE
4. STRONGLY DISAGREE

IF THE STATEMENT DOES NOT APPLY TO YOUR CURRENT DUTY POSITION, DO NOT ENTER A RESPONSE.

001 PROMOTIONS ARE MORE IMPORTANT TO ME THAN RECEIVING A REENLISTMENT BONUS.

002 MY UNIT HAS AN EFFECTIVE CHAIN OF COMMAND.

003 IN GENERAL, I AM SATISFIED WITH THE AMOUNT OF TIME I SPEND PERFORMING THE DUTIES I WAS TRAINED TO DO.

004 IF I WERE ASSIGNED TO AN ARMY SERVICE SCHOOL, I WOULD PREFER TO BE AN INSTRUCTOR RATHER THAN DOING SOME OTHER JOB.

005 IN GENERAL, MY UNIT IS RUN WELL.

006 BECAUSE OF MY DUTIES IN MY UNIT, I DON'T HAVE THE TIME TO ENROLL IN OFF DUTY COLLEGE COURSES.

007 I HAVE A POOR OPINION OF THE ARMY MOST OF THE TIME.

008 MY CURRENT JOB IS INTERESTING TO ME.

009 IF I HAD LESS GUIDANCE, AND MORE CHANCES TO MAKE DECISIONS, I COULD DO MY JOB BETTER.

010 MY UNIT NEVER SEEMS TO HAVE THE PARTS I NEED TO FIX THE EQUIPMENT.

011 I AM SATISFIED WITH THE LEADERSHIP ABILITY OF MY SUPERVISOR.

012 IF I HAVE A CHANCE, I WILL CHANGE TO SOME OTHER MOS WITHIN THE ARMY.

013 SOLDIERS IN MY UNIT ARE ENCOURAGED TO ENROLL IN COLLEGE COURSES.

1. STRONGLY AGREE
2. AGREE
3. DISAGREE
4. STRONGLY DISAGREE

014 IF I HAD A DIFFERENT MOS, I WOULD PROBABLY BE PROMOTED FASTER.

015 IN GENERAL, I FEEL THE 33 CMF RESTRUCTURE WILL IMPROVE THE MAINTENANCE AND REPAIR OF EW/I SYSTEMS.

016 I AM SATISFIED WITH THE TECHNICAL ABILITIES OF THE WARRANT OFFICERS ASSIGNED TO MY UNIT.

017 I SPEND MORE TIME DOING WORK OUTSIDE OF MY MOS THAN I DO IN MY MOS.

018 NORMALLY, I'M ALLOWED TO TROUBLESHOOT EW/I EQUIPMENT TO THE PIECE/PART LEVEL.

019 THE ONLY REPAIRS I PERFORM ARE TO REMOVE AND REPLACE BLACK BOXES.

020 AS LONG AS I HAVE THE CHANCE TO WORK IN MY MOS, IT REALLY DOESN'T MATTER WHAT UNIT OR TYPE OF UNIT I'M ASSIGNED TO.

021 I BELIEVE I HAVE THE SAME PROMOTION OPPORTUNITY AS THE SOLDIERS IN THE OTHER MOS WITHIN THE 33 CMF.

022 IN GENERAL I AM SATISFIED WITH THE LEADERSHIP ABILITIES OF THE OFFICERS AND THE NCO'S IN MY UNIT.

023 IN GENERAL I AM SATISFIED WITH THE TOOLS AND TEST EQUIPMENT I HAVE TO WORK WITH IN MY UNIT.

024 IN MY UNIT THERE IS AN EFFECTIVE NCO SUPPORT CHANNEL.

025 I AM SATISFIED WITH THE TECHNICAL ABILITIES OF MY SUPERVISOR.

026 MY UNIT DOES NOT HAVE THE EW/I EQUIPMENT IT'S SUPPOSED TO HAVE.

027 THE TEST EQUIPMENT IN MY UNIT WORKS, BUT IT NEEDS TO BE REPLACED WITH MORE MODERN PIECES OF EQUIPMENT.

028 TO ME, GETTING MY CHOICE OF ASSIGNMENTS IS MORE IMPORTANT THAN A REENLISTMENT BONUS.

1. STRONGLY AGREE
2. AGREE
3. DISAGREE
4. STRONGLY DISAGREE

029 I WOULD PROBABLY REENLIST IF I COULD CHANGE MY MOS.

030 IN GENERAL, I AM SATISFIED WITH THE ASSIGNMENT OPPORTUNITIES FOR MY MOS.

031 BASED ON THE REPAIRS I'M ALLOWED TO PERFORM IN MY UNIT, I FEEL I'M WASTING MOST OF MY TRAINING.

032 IN MY UNIT I HAVE THE OPPORTUNITY TO TAKE COLLEGE COURSES IN MY OFF DUTY TIME.

033 RECEIVING ADVANCED ELECTRONICS TRAINING IS MORE IMPORTANT TO ME THAN RECEIVING A REENLISTMENT BONUS.

034 I AM SATISFIED WITH THE LEADERSHIP ABILITIES OF THE WARRANT OFFICERS ASSIGNED TO MY UNIT.

035 IN GENERAL, I'M SATISFIED WITH THE WORK I'M ALLOWED TO DO ON EW/I SYSTEMS AND EQUIPMENT.

036 I WOULD PROBABLY REENLIST IF I HAD AN OPPORTUNITY FOR FASTER PROMOTION.

037 MUCH OF THE TIME MILITARY INTELLIGENCE UNITS ARE NOT RUN WELL.

038 I AM SATISFIED WITH THE LEADERSHIP ABILITIES OF THE NONCOMMISSIOINED OFFICERS ASSIGNED TO MY UNIT.

039 AT THE PRESENT TIME, I AM ASSIGNED TO A JOB THAT'S SUPPOSED TO BE DONE BY A SOLDIER IN A DIFFERENT MOS AND CMF.

040 NORMALLY I'M ALLOWED TO TROUBLESHOOT EW/I EQUIPMENTS ONLY TO THE MODULE OR PRINTED CIRCUIT CARD LEVEL.

041 IT REALLY DOESN'T MATTER WHAT UNIT I'M ASSIGNED TO, I'LL NEVER HAVE A CHANCE TO WORK IN MY MOS.

1. STRONGLY AGREE
2. AGREE
3. DISAGREE
4. STRONGLY DISAGREE

042 IF I LEAVE THE ARMY, IT'S BECAUSE I WANT TO GO TO COLLEGE.

043 I AM SATISFIED WITH THE LEADERSHIP ABILITIES OF THE COMMISSIONED OFFICERS ASSIGNED TO MY UNIT.

044 MY UNIT DOES NOT HAVE ALL THE TEST EQUIPMENT IT'S SUPPOSED TO HAVE.

045 CMF 33 NEEDED TO BE CHANGED.

046 IN MY UNIT, I HAVE BEEN ASSIGNED TO JOBS THAT WERE SUPPOSED TO BE DONE BY ANOTHER MOS.

047 IF I HAVE A CHANCE, I WILL CHANGE TO SOME OTHER MOS WITHIN THE 33 CMF.

048 IF I HAD A CHOICE, I WOULD RATHER HAVE AN ARMY CAREER AS A REPAIRER RATHER THAN A LEADER.

049 IF I HAD A DIFFERENT MOS I WOULD HAVE MORE CHANCES TO ATTEND ADVANCED TRAINING COURSES.

050 THERE IS HIGH MORALE IN MY UNIT.

051 I BELIEVE I HAVE THE SAME PROMOTION OPPORTUNITY AS OTHER SOLDIERS IN MY UNIT.

052 I BELIEVE MY CURRENT JOB IS USUALLY WORTHWHILE.

053 IF I HAD A DIFFERENT MOS WITHIN CMF 33 I WOULD HAVE BETTER ASSIGNMENT OPPORTUNITIES.

054 THE TEST EQUIPMENT IN MY UNIT IS NOT REALLY THE TEST EQUIPMENT I NEED TO DO MY JOB.

055 MOST OF THE TIME CONTRACTORS DO REPAIRS ON EW/I EQUIPMENT, NOT A 33 CMF SOLDIER.

056 I WAS AWARDED THE RIGHT MOS AS A RESULT OF THE 33 CMF RESTRUCTURE.

1. STRONGLY AGREE
2. AGREE
3. DISAGREE
4. STRONGLY DISAGREE

057 THERE IS LITTLE COOPERATION AMONG THE DUTY SECTIONS WITHIN MY UNIT.

058 - I WOULD RATHER BE IN A DIFFERENT UNIT.

059 WITHIN MY DUTY SECTION COMMUNICATIONS UP AND DOWN THE LINE ARE POOR.

060 CMF 33 NEEDED TO BE CHANGED, BUT THE MOS BREAKOUT SHOULD HAVE BEEN DIFFERENT.

RETENTION

* IF YOU PLAN TO SEPARATE OR RETIRE GO TO SECTION III AND READ THE DIRECTIONS.

* IF YOU PLAN TO REENLIST OR IF YOU ARE UNDECIDED GO TO SECTION IV AND READ THE DIRECTIONS.

SECTION III

SEPARATION/RETIREMENT REASONS

* READ ITEMS 061-092 AND RATE THEM IN TERMS OF IMPORTANCE TO YOUR DECISION TO SEPARATE OR RETIRE USING THE FOLLOWING SCALE:

1. NOT IMPORTANT
2. OF LITTLE IMPORTANCE
3. SOMEWHAT IMPORTANT
4. VERY IMPORTANT

061 COMMISSARY PRIVILEGES

062 AMOUNT OF HARASSMENT IN THE ARMY

063 DENTAL CARE PROVIDED "YOUR DEPENDENTS" BY THE ARMY

064 DENTAL CARE PROVIDED "YOU" BY THE ARMY

065 TO USE GI BILL BENEFITS

066 TO USE POST-VIETNAM VETERAN'S EDUCATIONAL ASSISTANCE PROGRAM

067 MEDICAL CARE PROVIDED "YOUR DEPENDENTS" BY THE ARMY

068 MEDICAL CARE PROVIDED "YOU" BY THE ARMY

069 YOUR LIVING CONDITIONS (HOUSING/BARRACKS)

070 FREQUENT OVERSEAS OR ISOLATED ASSIGNMENTS

071 POOR MORALE IN YOUR UNIT

072 PLACED ON OVERSEAS LEVY (OVERSEAS ORDERS)

1. NOT IMPORTANT
2. OF LITTLE IMPORTANCE
3. SOMEWHAT IMPORTANT
4. VERY IMPORTANT

073 PEOPLE FOR WHOM YOU WORK

074 FREQUENCY OF FAMILY SEPARATIONS DUE TO YOUR ARMY ASSIGNMENTS

075 PEOPLE WITH WHOM YOU MUST ASSOCIATE

076 ATTITUDE OF YOUR WIFE/HUSBAND TOWARD YOUR REENLISTING

077 YOUR CHANCES FOR PROMOTION

078 AMOUNT OF "BUSY WORK" YOU MUST DO

079 AMOUNT OF "REAL WORK" THERE IS TO DO IN THE ARMY

080 NUMBER OF HOURS YOU WORK FOR THE ARMY

081 AMOUNT OF "EXTRA DUTIES" YOU MUST PERFORM

082 ARMY HAIRCUT POLICY

083 HAVING A JOB WHICH DIDN'T CHALLENGE YOUR TRAINING AND ABILITIES

084 IRREGULAR DUTY HOURS

085 YOUR PAY (BASE PAY PLUS TAX FREE ALLOWANCES)

086 LOW SELECTIVE REENLISTMENT BONUS (SRB)

087 LACK OF DISCIPLINING IN YOUR UNIT

088 NOT BEING ABLE TO REENLIST FOR THE ASSIGNMENT YOU WANTED

089 FOUND A CIVILIAN JOB USING THE SKILLS ACQUIRED IN THE ARMY

090 FREQUENT OR LONG TERM TEMPORARY DUTY ASSIGNMENTS

091 NOT BEING ABLE TO REENLIST FOR THE TRAINING YOU WANTED

092 NOT BEING SELECTED FOR NCOES (BNCOC, ANCOC)

## SECTION IV

## REENLISTMENT REASONS

* READ ITEMS 093-114 AND RATE THEM IN TERMS OF IMPORTANCE TO YOUR DECISION TO REENLIST USING THE FOLLOWING DATA:

1. NOT IMPORTANT
2. OF LITTLE IMPORTANCE
3. SOMEWHAT IMPORTANT
4. VERY IMPORTANT

093 COMMISSARY PRIVILEGES

094 YOUR CHANCES FOR PROMOTION

095 AVAILABILITY OF A SELECTIVE REENLISTMENT BONUS (SRB)

096 BEING ABLE TO RETIRE WITH 20 YEARS OF SERVICE

097 GETTING THE REENLISTMENT OPTION YOU WANTED

098 MEDICAL CARE PROVIDED "YOUR DEPENDENTS" BY THE ARMY

099 MEDICAL CARE PROVIDED "YOU" BY THE ARMY

100 CHANCE TO WORK IN YOUR PRIMARY MOS

101 YEARLY PAY RAISE TO KEEP MILITARY PAY COMPARABLE TO CIVILIAN PAY

102 YOUR PAY (BASE PAY PLUS TAX FREE ALLOWANCES)

103 SERVING THE UNITED STATES

104 PX PRIVILEGES

105 THIRTY (30) DAYS OF PAID LEAVE A YEAR

106 GOOD MORALE IN YOUR UNIT

107 BEING SATISFIED WITH YOUR JOB

108 DENTAL CARE PROVIDED "YOUR DEPENDENTS" BY THE ARMY

109 DENTAL CARE PROVIDED "YOU" BY THE ARMY

1. NOT IMPORTANT
2. OF LITTLE IMPORTANCE
3. SOMEWHAT IMPORTANT
4. VERY IMPORTANT

110 ECONOMIC SECURITY PROVIDED BY BEING IN THE ARMY

111 CHALLENGE AND DEMANDS OF YOUR JOB

112 ATTITUDE OF YOUR WIFE/HUSBAND TOWARD YOUR REENLISTING

113 YOUR CHANCE FOR AN ASSIGNMENT NEAR YOUR HOME

114 AVAILABILITY OF THE FOREIGN SERVICE TOUR (FST) EXTENTION INCENTIVES PROGRAM

# Personnel Utilization Technical Area Working Paper 88-10

ANALYSIS OF JUNIOR OFFICERS ATTRITION
RATES BY RACE AND SEX

Hyder Lakhani

August 1988

Reviewed by:

PAUL T. TWOHIG
Technical Assistant
Manpower and Personnel
Research Laboratory

Approved by:

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

Cleared by:

for NEWELL K. EATON, Director

## Manpower and Personnel Research Laboratory

**U. S. Army Research Institute**
**for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333-5600

This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

ABSTRACT

The Officer Longitudinal Research Database of Army Research Institute (ARI) show that there are no significant differences in attrition rates, by ethnic groups, of officers commissioned in 1980, except for Hispanics. The average attrition rate is lower for USMA compared to all other sources of commissioning, except for Officer Candidate Schools, for the commissioning year groups 1971, 1976 and 1980. The attrition rate is higher for female relative to male officers for the three commissioning year groups. The percentage of male and female officers who attrite for such reasons as expiration of obligated tour of duty, disability, non-selection for promotion, and separation is about the same over the three year groups. There are only two differences in the attrition reasons, by sex, namely, more female officers attrite for "family and marriage" reasons than male and more male officers leave for "retirement and other reasons" than do females. The DOD Survey of Officers and Spouses, 1985, shows that the female officers, on average, are younger, less experienced, earn less, intend to serve less, are less satisfied with Army life and have more of their spouses employed compared to male officers. The ARI Survey data suggest that only 20 percent of the officers commissioned in 1986 intend to stay until retirement. These survey data also reveal that over 70 percent of officers, both male and female, either agree or strongly agree with the statement that it is difficult to balance Army Officer

and family life so that policy measures are need to address these issues to help reduce attrition.

## 1.Ø BACKGROUND

The Vice Chief of Staff, Army, inquired about the nature and extent of attrition of U.S. Military Academy graduate officers by race and sex. In his memo (dated 4 Aug 88) to Vice Chief of Staff, Army, LTG Allen Ono noted that "we failed to answer an important part of your question--what causes the attrition." To answer that question, ARI was tasked (by COL Norris R. Faber, Chief, Officer Division) to analyze reasons for the attrition (Attachment 1).

## 2.Ø OBJECTIVE

The purpose of this paper is to present an analysis of attrition rates, by race (Caucasian, Black, Hispanic, Asian) and sex of the U.S. Military Academy (USMA) graduates since 198Ø. An attempt is also made, wherever possible, to compare USMA attrition rates with attrition of officers from other sources of commissioning.

## 3.Ø DATA SOURCES

Four sources of data are employed to conduct the analysis:

a. Attrition Rates compiled by the Total Army Personnel Agency.

b. Officer Longitudinal Research Data Base (OLRDB) developed by ARI from Officer Master Files, 1979 to 1986.

c. Junior Army Officers data developed by an ARI contractor from DOD's Survey of Families, 1985.

d. ARI's project PROTEUS Survey Data, 1987.

These four sources of data appear to complement one another.

## 4.0 DESCRIPTIVE ANALYSIS

### 4.1 Entry Year Groups

The USMA graduates are obligated to serve for an initial term of five years (Department of the Army, 1985). Therefore, it is interesting to analyze the attrition rates at the end of this five year term. Such a five-year term is likely to have been completed only by the graduating classes of 1980, 1981 and 1982. Also, female officers from the USMA are being commissioned only since 1980. Consequently, this analysis is restricted to only these year groups. Comparison of attrition rate of these officers will be made with officers from other commissioning sources since the entry year 1980.

## 4.2 Analysis of TAPA Data

The data available from a TAPA Information Paper (Enclosure 2) reveal that the average attrition rate for all races for the entry year groups 1980-1982 was 21% for these cohorts. By race, the attrition rate was the lowest for Hispanics (5%), followed by Asians (9%), Blacks (18%) and Caucasians (22%). These data, however, fail to provide any information either on the attrition rates by sex or by reasons for attrition. Also, it does not have any information on comparison of USMA attrition rates with that of attrition of officers commissioned from other sources. Therefore, we refer to the information available in the following data sources.

## 4.3 Analysis of ARI's Officer Longitudinal Research Data Base

These data are developed by tracing and tracking individual officers in the Officer Master Files for the Fiscal Year 1979 through FY 1986 (Hunter, 1988). An advantage of this database is that it has information on attrition rates for all sources of commissioning by entry-year group, tenure, race and sex over a long period of time. Therefore, it permits analysis of officers commissioned since 1971. Its limitation is that the latest year group for which the required analyses can be conducted is 1980. Panels 2 and 3 of Table 1 shows the percentages of retention (row titled "In Active Duty") and attrition (rows 2, 3, and 4 titled

Second, the proportion of female officers who leave for "Retirement and other" reason is smaller compared to male officers who leave for the same reason (less than 1%, Ø% and Ø% for the three male cohorts). Since this cohort is too young to retire, this reason is likely to refer to "other" rather than retirement. This Table also reveals that for both male and female officers there is a declining trend in attrition at the expiration of obligated tour of service.

Table 3 shows the retention and attrition by race. The lowest panel of this table shows that for the 198Ø cohort, the attrition rates are the lowest for Hispanics (29%), followed by whites (38%), Blacks (39%) and others (4Ø%). These attrition rates are considerably higher than TAPA's estimates in Attachment 2. The difference is likely to be accounted by the fact that these estimates include officers from other sources of commissioning for which the attrition rates are generally higher, as was noted in Table 1. It is interesting to note that, unlike TAPA's etimates, there is no significant difference in the attrition rates by ethnic groups in the ARI estimates, except that for the Hispanics which are the lowest.

## 4.4 Analysis of DOD Survey of Officers, 1985

One of the major reasons for officer retention or attrition is their satisfaction or dissatisfaction with several elements associated with Army life. The DOD Survey of Officers

and Spouses collected detailed information on these elements. ARI funded a Small Business Innovation Research in 1987 to analyze these data for junior Army officers. This research is available in an ARI Technical Report (Lal and Lakhani, 1988). The junior officers were defined to be those in pay grades Ø1 through Ø4. The sample size was about 2,ØØØ. The results of this research revealed that retention increased with an increase in satisfaction with military life. Some of the descriptive data from this research are reported below.

Table 4 presents data on satisfaction with military life and other benefits. It is observed that while most (52% to 79%) of these junior officers are satisfied with the listed benefits, there were also some (12% to 31%) officers dissatisfied with these elements.

Table 5 shows the descriptive statistics for sub-groups of the sampled officers by sex, professional background, and their sources of commissioning. These data reveal that the female officers, on average, are younger (3Ø versus 33 years old), less experienced (7 versus 1Ø years of service), earn less ($23,ØØØ versus $27,ØØØ/year), intend to serve less (29% intend to serve less than 1Ø years versus only 11% of male officers who intend to serve for less than 1Ø years), are less satisfied (76% satisfied with Army life versus 8Ø% male officers satisfied with Army life), and have more (88% versus 54% for male) of their spouses who are employed.

This database was not analyzed for differences by race. A

separate draft ARI paper (by Lakhani and Lal, 1988) analyzed cost-effectiveness of retention of West Point junior officers and concluded that it is cost-effective for the Army to retain these officers by increasing their Regular Military Compensation.

## 4.5 Analysis of ARI's Project Proteus Data

Project PROTEUS is an annual sample survey of officers who have been commissioned since 1980. It was initiated at the USMA in 1980 to identify early career experiences of the USMA officers. The VCSA expanded it in 1984 to include junior officers from all commissioning sources. In 1987, project PROTEUS was transferred to the ARI. An advantage of this project over the OLRDB referred to above is that it permits elicitation of perceptions of dynamic changes in career intentions of junior officers so that the Army management can design policy measures to increase their retention. A limitation of this survey is that it does not have adequate information to analyze attrition differences by race because of its small sample size. The 1988 Survey will, however, include this information by adequate weighting of the USMA sample.

The Project Proteus Survey of 1987 covered about 1000 officers per year group (1980-1986) from all sources of commissioning so that trends in the differences in the behavior of these cohorts can be developed. The results reported below on

the reasons for attrition, retention, etc. are based on a descriptive analysis of this survey data. For simplification, these results are reported as briefing charts. These results were briefed by ARI to the Vice Chief of Staff, Army, as well as the Deputy Chief of Staff for Personnel in Spring 1988.

Unlike the data on retention or attrition behavior of the officers, the Proteus survey data has information on their intentions to stay until retirement and the reasons for these intentions. The retention intentions are also classified by their probabilities of completion of their current obligations and their likelihood of leaving before or after its completion.

Figure 1 shows that there is a declining trend in the intentions of both the USMA and the ROTC junior officers to stay to retirement. The percentage of officers intending to stay to retirement and to "stay over 20" years of service was over 60% for the class of 1980 but was around 20% for the class of 1986, because the 1980 cohorts had already selected themselves out of the service at the end of their initial obligation terms so that those who remained in service had a higher probability of continuing to retirement. This chart also shows that the career intentions of staying to retirement of the USMA officers have, however, been consistently lower than those of the ROTC officers.

Figure 2 presents probabilities of continuation of USMA officers commissioned between 1980 and 1986. The legend in this chart refers to: "Definitely Leave", "Probably Leave", "Undecided", "Will Stay Beyond Current Obligation but undecided

about staying to retirement", "Will Stay to Retirement (=20 years)", and "Will stay over 20 years". Also, there is an increasing trend for officers who responded that they will "probably leave" or "definitely leave". There is also an increasing trend in the percentage of "undecided" officers so that policy measures to change their decisions in favor of staying can be taken to increase their retention. Finally, there is also a declining trend in the percentage of officers who intend to stay "beyond current obligation".

Figure 3 shows the career intention results for male versus female USMA officers in the 1987 survey. The results reveal that about 45 percent of both male and female officers intend to stay beyond their current obligations. The major difference between them is that more female (30%) USMA officers plan to leave the Army career at the end of their current obligations compared to male (20%) and fewer (20%) female officers plan to stay to retirement relative to male (30%) officers.

Figure 4 presents importance of reasons such as military pay, civilian alternatives, military "retirement" benefits, "assignment location" and other benefits (medical, commissaries, etc.) for retention for USMA versus ROTC officers. The officers were asked to respond to the question on importance of these factors on a scale varying from "not at all important" to "very important". The chart on pay shows that it is "very important" for retention for 40 to 45 percent of respondents for both the sources of commissioning. The chart on importance of

"Retirement" benefits reveals that it is relatively less important for USMA officers than that for the ROTC officers. The importance of "assignment location" has been slightly increasing over time, except for the last year group, for both USMA and ROTC officers perhaps because of such family reasons as spouse employment. The chart on other "benefits" (medical, etc.) reveals that, like retirement, it is less important to the newly commissioned officers relative to the older and it is also less important for the USMA officers relative to that for the ROTC officers.

The officers were asked to respond to a statement that it is difficult to balance Army officer and family life. The responses varied on a five point scale: strongly disagree, disagree, neutral, agree, and strongly agree. Figure 5 shows that over 70 percent of USMA officers of all the six commissioning year groups either "agreed" or "strongly agreed" with the statement that it is difficult to balance Army officer and family life. Hence family reasons are likely to be some of the major reasons for attrition of USMA officers. The importance of these reasons is equally valid for both male and female officers as shown in Figure 6.

ATTACHMENT 1

DEPARTMENT OF THE ARMY
U.S TOTAL ARMY PERSONNEL AGENCY (PROVISIONAL)
200 STOVALL STREET
ALEXANDRIA, VIRGINIA 22332

REPLY TO ATTENTION OF

DAPC-OPD-D

4 AUG 1988

MEMORANDUM THRU ~~COMMANDER, U.S. TOTAL ARMY PERSONNEL AGENCY~~ MC 4/8/88
DEPUTY CHIEF OF ~~STAFF FOR PERSONNEL~~ 5 Aug 88
DIRECTOR OF THE ARMY STAFF

FOR VICE CHIEF OF STAFF, ARMY

SUBJECT: Attrition Rates for USMA Graduates

1. At TAB A are USMA attrition rates by ethnic group at the five year mark for classes of 80-82. USMA class of 83 provides data available through June 1988. At TAB B is the initial tasker from DAPE-ZX requesting USMA attrition rates.

2. Information provided on classes 80-82 depicts a true attrition rate at the five year mark. The attrition rate for class of 83 shows an incomplete picture. The total attrition rate at the five year mark for class of 83 will not be available until the completion of FY 88. Upon completion of FY 88, this office will provide DAPE-ZX actual attrition rate for class of 83.

Encls

GERALD H. PUTMAN
Brigadier General, USA
Director of Officer
Personnel Management

VCSA
We failed to answer important part of your question — what causes the attrition.
Rather than holding this up, I am forwarding this to you as the analysis is made separately.
VR.

8802103X
8807476Z

ATTACHMENT 2

INFORMATION PAPER

DAPC-OPD-D
28 July 1988

SUBJECT: Attrition Rates for USMA Classes

1. PURPOSE: To provide VCSA with USMA attrition rates by sex and minority status. (History on female statistics is not available at this time. Will be provided at a later date.)

2. FACTS:

a. NUMBER OF GRADUATES

| CLASS | CAUC | BLACK | HISPANIC | ASIAN | TOTAL |
|---|---|---|---|---|---|
| 80 | 821 | 29 | 20 | 33 | 903 |
| 81 | 847 | 49 | 20 | 36 | 952 |
| 82 | 792 | 42 | 22 | 29 | 885 |
| 83 | 789 | 36 | 23 | 29 | 877 |

b. NUMBER Remaining at 5 YEAR Mark

| CLASS | CAUC | BLACK | HISPANIC | ASIAN | TOTAL |
|---|---|---|---|---|---|
| 80 | 649(21%) | 23(21%) | 19(5%) | 31( 6%) | 721(20%) |
| 81 | 660(22%) | 41(16%) | 19(5%) | 32(11%) | 756(21%) |
| 82 | 608(23%) | 35(17%) | 21(5%) | 26(10%) | 692(22%) |
| 83 * DATA not available until completion of FY88 | | | | | |

c. Number Remaining Currently (Month end Jun 88)

| CLASS | CAUC | BLACK | HISPANIC | ASIAN | TOTAL |
|---|---|---|---|---|---|
| 80 | 506(38%) | 20(31%) | 0(100%) | 2(94%) | 528(43%) |
| 81 | 574(32%) | 28(43%) | 3( 85%) | 6(83%) | 611(36%) |
| 82 | 580(27%) | 30(29%) | 3( 86%) | 3(90%) | 616(30%) |
| 83 | 703(11%) | 29(19%) | 2( 91%) | 8(72%) | 742(15%) |

( ) = Attrition Rates

Statistics for class of 83 provided on 6 July 1988 reflected data available to date. Actual attrition at the 5 year mark for the class of 83 will not be available until the end of FY88. Data will be provided in late October to DAPE-ZX. We anticipate that during the last 4 months of FY88 the attrition rate will come more in line with the previous attrition rates.

Mr. Stevens/325-5175
Approved by:
Ms Botelho

TABLE 1

Percentages of 1971, 1976, and 1980 Entry-Year Groups by Tenure Lengths and Source of Commission

| Tenure Status As Of FY86 | USMA | ROTC | OCS | DIR/APPT | OTHER |
|---|---|---|---|---|---|
| **1971 Entry-Year Group** | | | | | |
| In Active Duty | 38 | 21 | 26 | 3 | 38 |
| Separate After 1-3 Years | 2 | 54 | 56 | 79 | 9 |
| Separate After 4-6 Years | 42 | 16 | 7 | 15 | 13 |
| Separate After 7-10 Years | 13 | 5 | 5 | 2 | 28 |
| Separate After 11-15 Years | 5 | 3 | 6 | 1 | 13 |
| Total % | 100 | 99 | 100 | 100 | 101 |
| Num. Officer | 659 | 6837 | 981 | 4334 | 552 |
| **1976 Entry-Year Group** | | | | | |
| In Active Duty | 59 | 46 | 59 | 38 | 23 |
| Separate After 1-3 Years | 2 | 23 | 27 | 37 | 48 |
| Separate After 4-6 Years | 31 | 24 | 8 | 15 | 19 |
| Separate After 7-10 Years | 8 | 7 | 6 | 10 | 10 |
| Total % | 100 | 100 | 100 | 100 | 100 |
| Num. Officer | 808 | 3941 | 583 | 689 | 1661 |
| **1980 Entry-Year Group** | | | | | |
| In Active Duty | 67 | 60 | 74 | 58 | 57 |
| Separate After 1-3 Years | 2 | 16 | 15 | 25 | 24 |
| Separate After 4-6 Years | 31 | 24 | 11 | 17 | 19 |
| Total % | 100 | 100 | 100 | 100 | 100 |
| Num. Officer | 908 | 4494 | 959 | 740 | 1124 |

Note: Source of commission was missing for 1, 13, and 29 cases for the 1971, 1976, and 1980 groups, respectively; above percentages are based on subtotals excluding these cases.

TABLE 2

Reasons for Separation for 1971, 1976 and 1980 Groups: Percentages by Sex

| Tenure Status As Of FY86 | Male 1971 | Male 1976 | Male 1980 | Female 1971 | Female 1976 | Female 1980 |
|---|---|---|---|---|---|---|
| Expiration of Oblig. Tour | 48 | 43 | 42 | 54 | 43 | 49 |
| Retirement & other | 48 | 52 | 46 | 29 | 47 | 36 |
| Disability | 1 | 2 | 2 | 3 | 3 | 1 |
| Family & Marriage | <1 | 0 | 0 | 10 | 4 | 7 |
| Non Selection for Promotion | 1 | 1 | 3 | 2 | 1 | 2 |
| Problem Separation | 1 | 2 | 7 | 2 | 1 | 5 |
| Total % | 100 | 100 | 100 | 100 | 99 | 100 |
| Total Number | 10143 | 3655 | 2478 | 945 | 761 | 686 |

TABLE 3

Tenure Lengths of 1971, 1976, and 1980 Entry-Year Groups by Race

| Tenure Status As Of FY86 | White % (Number) | Black % (Number) | Hispanic % (Number) | Other % (Number) |
|---|---|---|---|---|
| **1971 Entry-Year Group** | | | | |
| In Active Duty | 18 ( 2076) | 41 ( 132) | 16 ( 19) | 4 ( 35) |
| Separate After 1-3 Years | 58 ( 6770) | 31 ( 100) | 48 ( 56) | 93 ( 829) |
| Separate After 4-6 Years | 17 ( 2007) | 17 ( 54) | 22 ( 25) | 2 ( 17) |
| Separate After 7-10 Years | 4 ( 411) | 4 ( 12) | 3 ( 4) | 1 ( 6) |
| Separate After 11-15 Years | 3 ( 375) | 8 ( 25) | 10 ( 12) | <1 ( 3) |
| Total | 100 (11639) | 101( 323) | 99 ( 116) | 100 ( 890) |
| **1976 Entry-Year Group** | | | | |
| In Active Duty | 50 ( 2793) | 58 ( 348) | 49 ( 46) | 48 ( 86) |
| Separate After 1-3 Years | 14 ( 763) | 16 ( 96) | 11 ( 10) | 23 ( 41) |
| Separate After 4-6 Years | 27 ( 1502) | 18 ( 106) | 21 ( 20) | 18 ( 32) |
| Separate After 7-10 Years | 10 ( 535) | 8 ( 51) | 19 ( 18) | 12 ( 21) |
| Total | 101 ( 5593) | 100 ( 601) | 100 ( 94) | 100 ( 180) |
| **1980 Entry-Year Group** | | | | |
| In Active Duty | 62 ( 4070) | 61 ( 744) | 71 ( 98) | 60 ( 169) |
| Separate After 1-3 Years | 15 ( 1019) | 21 ( 262) | 13 ( 18) | 26 ( 74) |
| Separate After 4-6 Years | 23 ( 1517) | 18 ( 220) | 16 ( 22) | 14 ( 41) |
| Total | 100 ( 6606) | 100 (1226) | 100 ( 138) | 100 ( 284) |

Note: Race information was missing for 396 and 1227 cases for the 1971 and 1976 groups, respectively; above percentages are based on subtotals exclusing these cases.

TABLE 4

SATISFACTION WITH MILITARY LIFE AND SELECTED BENEFITS

| | % Satisfied | % Neither Satisfied nor Dissatisfied | % Dissatisfied |
|---|---|---|---|
| Military Life | 79 | 4 | 17 |
| Pay & Allowances | 52 | 23 | 25 |
| Chance of Promotion | 58 | 16 | 26 |
| Retirement Benefits | 68 | 20 | 12 |
| Educational Benefits | 58 | 23 | 19 |
| Medical Care | 53 | 16 | 31 |
| Commissary Services | 70 | 16 | 14 |
| Frequency of Moves | 44 | 25 | 31 |
| Family Environment | 60 | 20 | 20 |
| Working Condition | 60 | 18 | 22 |

Source: Survey of Officers and Enlisted Personnel, Sponsored by Defense Manpower Data Center, 1985, Department of Defense.

TABLE 5

MAJOR ATTRIBUTES OF SUB-GROUPS OF OFFICERS

| Classification of Officers | Percentage of Officers | Average Age (in years) | Years of Service | RMC (in $1,000) | % of officers who intend to serve for less than 10 years | % of officers satisfied with Army life | % of Employed Spouses |
|---|---|---|---|---|---|---|---|
| Male | 79.4 | 32.6 | 9.7 | 26.7 | 11.1 | 80.0 | 54.7 |
| Female | 20.6 | 30.4 | 6.6 | 23.5 | 29.4 | 76.4 | 88.6 |
| Engineers, Scientist or Medical Professionals | 31.9 | 33.0 | 8.6 | 27.3 | 20.5 | 74.4 | 65.0 |
| Other Officers | 68.1 | 31.8 | 9.2 | 25.4 | 12.3 | 80.8 | 60.1 |
| Officers in Combat Arms | 35.4 | 32.1 | 9.7 | 26.4 | 9.6 | 81.2 | 52.4 |
| Officers in Non-Combat Arms | 64.6 | 32.2 | 8.6 | 25.8 | 17.7 | 71.4 | 66.8 |
| Academy Graduates | 10.9 | 29.9 | 8.1 | 24.5 | 16.7 | 77.0 | 57.9 |
| ROTC Regular Officers | 33.6 | 32.2 | 9.3 | 25.8 | 10.6 | 82.1 | 59.3 |
| ROTC Scholarship Officers | 19.5 | 29.4 | 7.1 | 23.5 | 19.6 | 78.0 | 61.8 |
| Direct Hirees through Civilian Labor Force | 11.9 | 34.2 | 7.8 | 26.5 | 21.1 | 74.6 | 72.4 |

Source: Survey of Officers and Enlisted Personnel, Sponsored by Defense Manpower Data Center, 1985, Department of Defense.

# CAREER INTENTIONS
# STAYING TO RETIREMENT

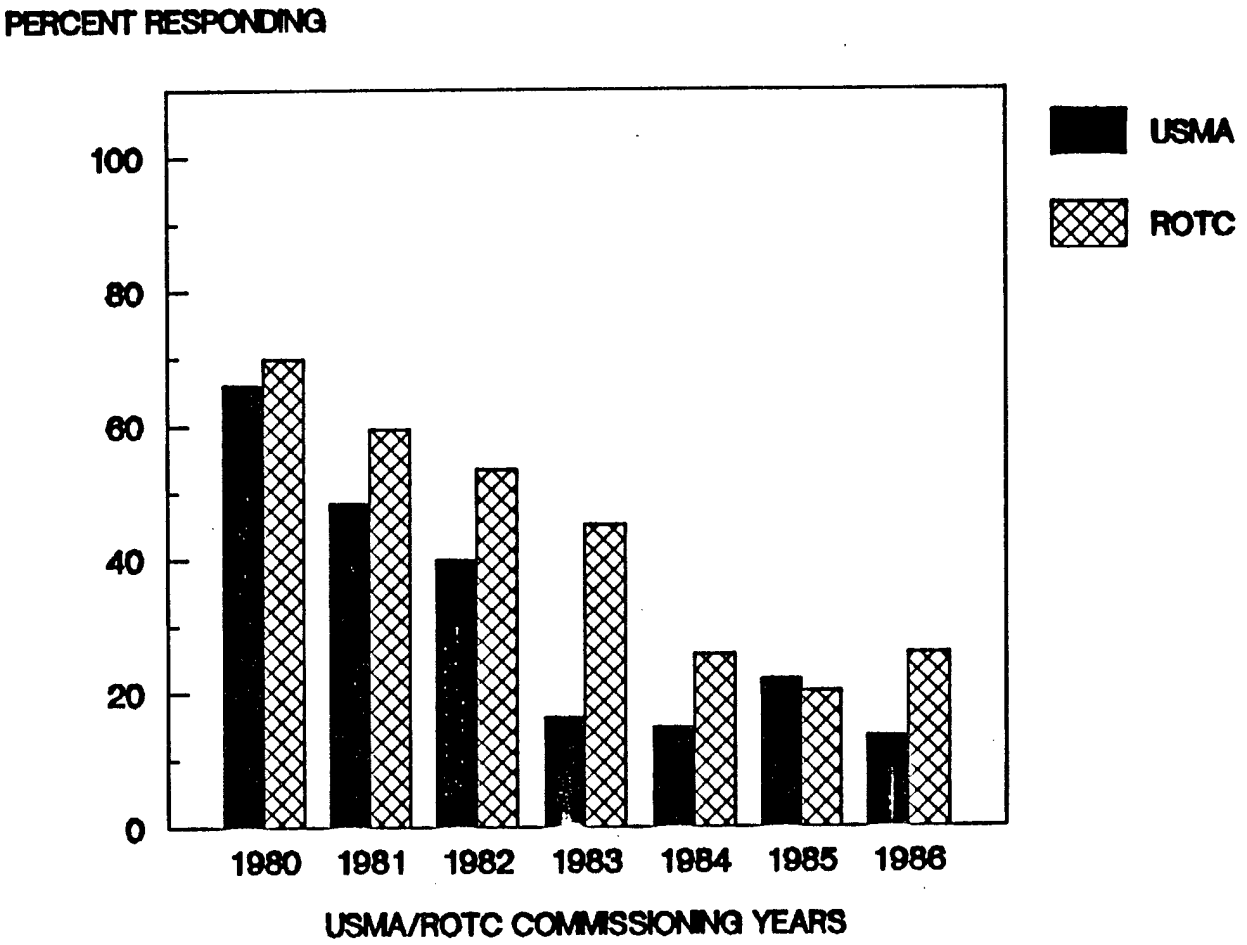



Figure 1

# CAREER INTENTIONS OF USMA OFFICERS

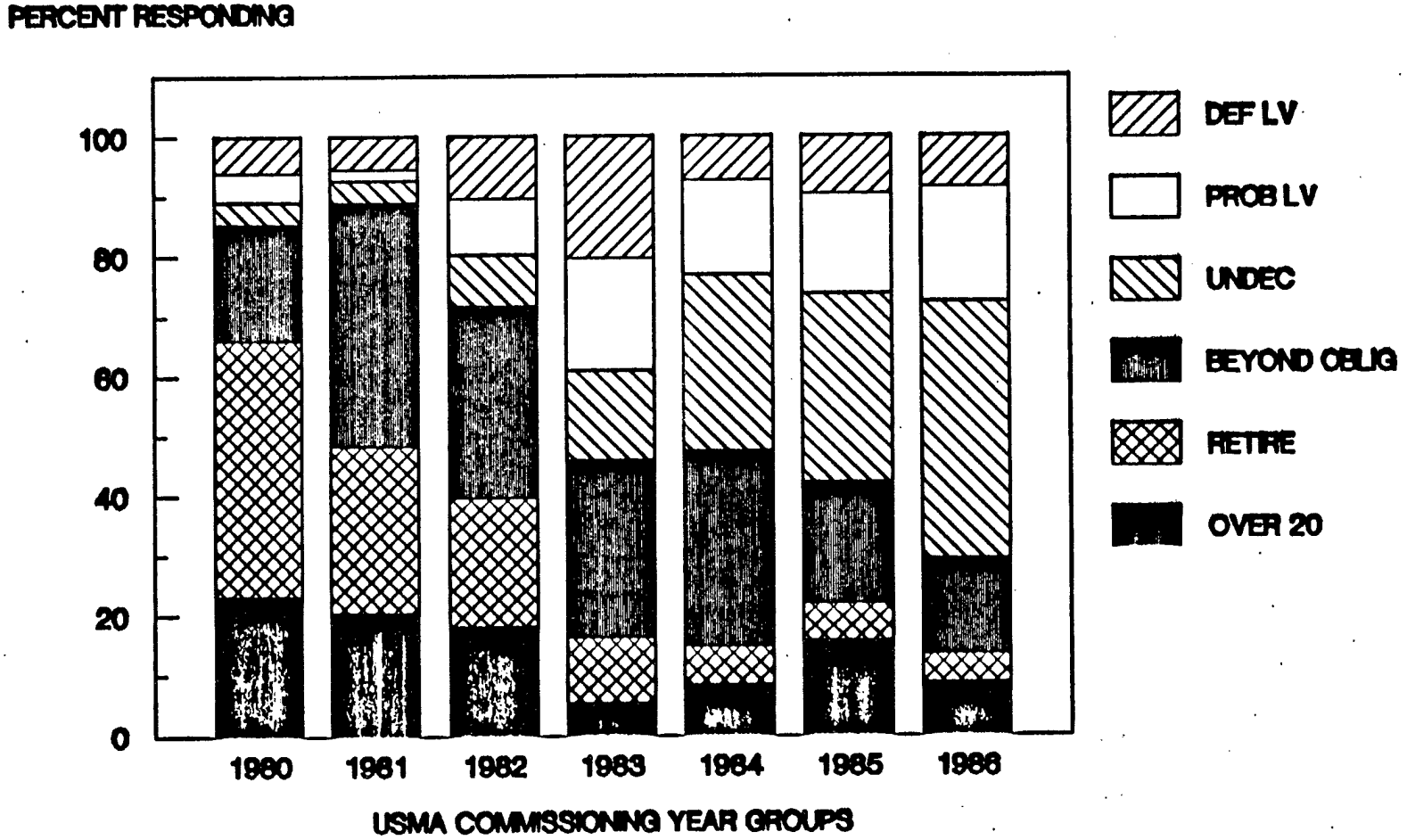



Figure 2

# CAREER INTENTIONS
# USMA FEMALE/MALE OFFICERS

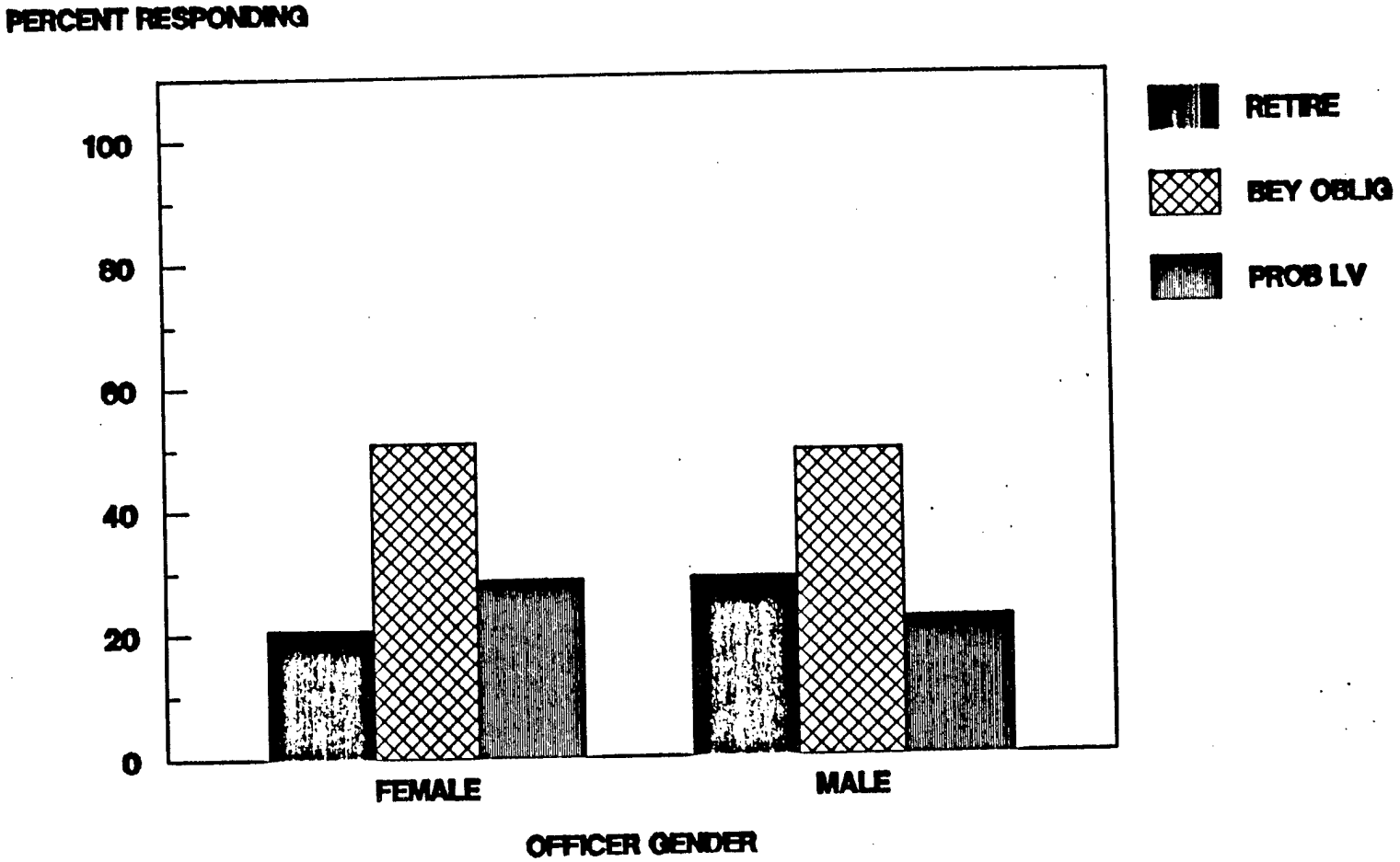



Figure 3

# RETENTION FACTORS

## USMA AND ROTC COMPARISONS

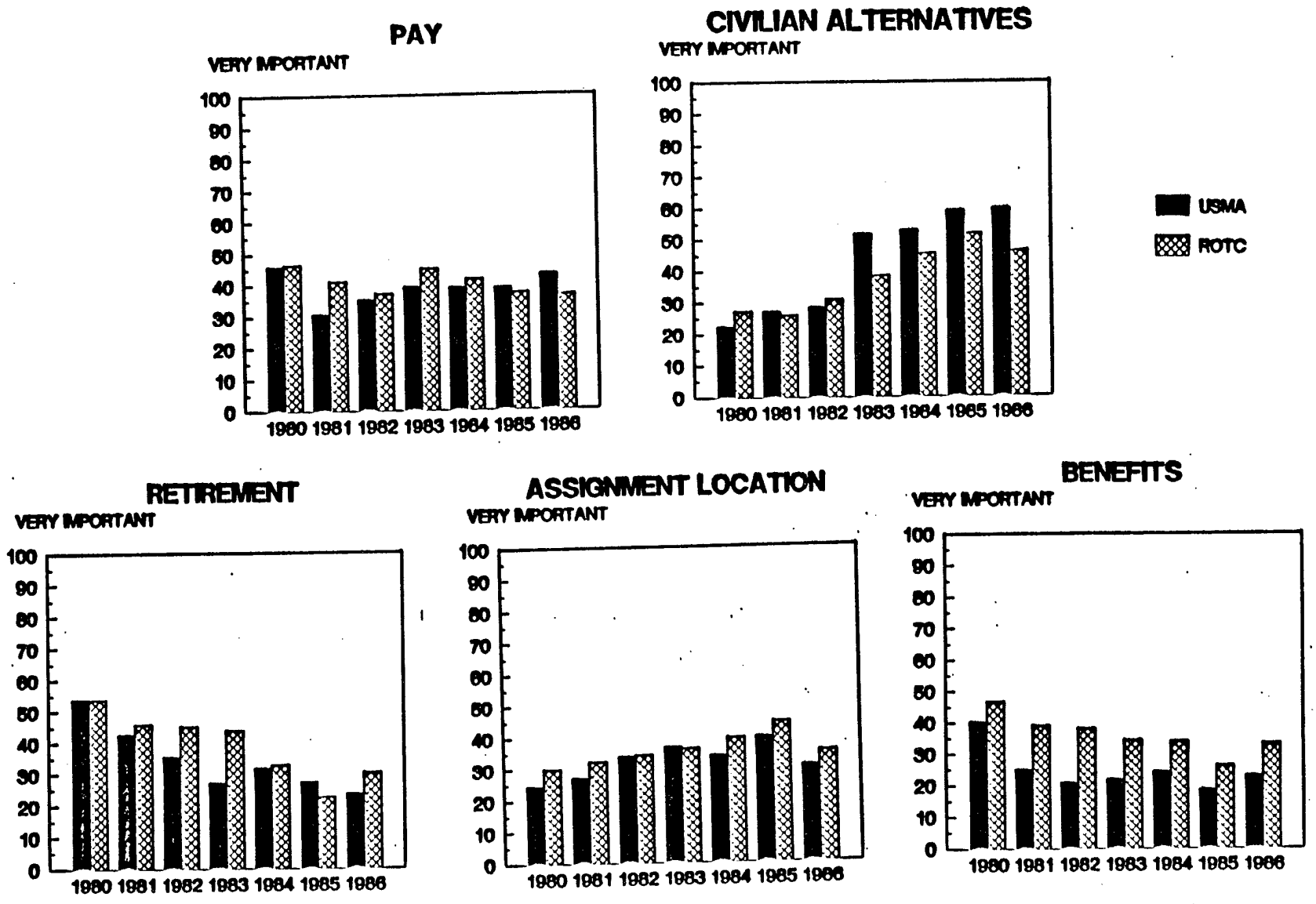



Figure 4

# DIFFICULT TO BALANCE: ARMY OFFICER AND FAMILY

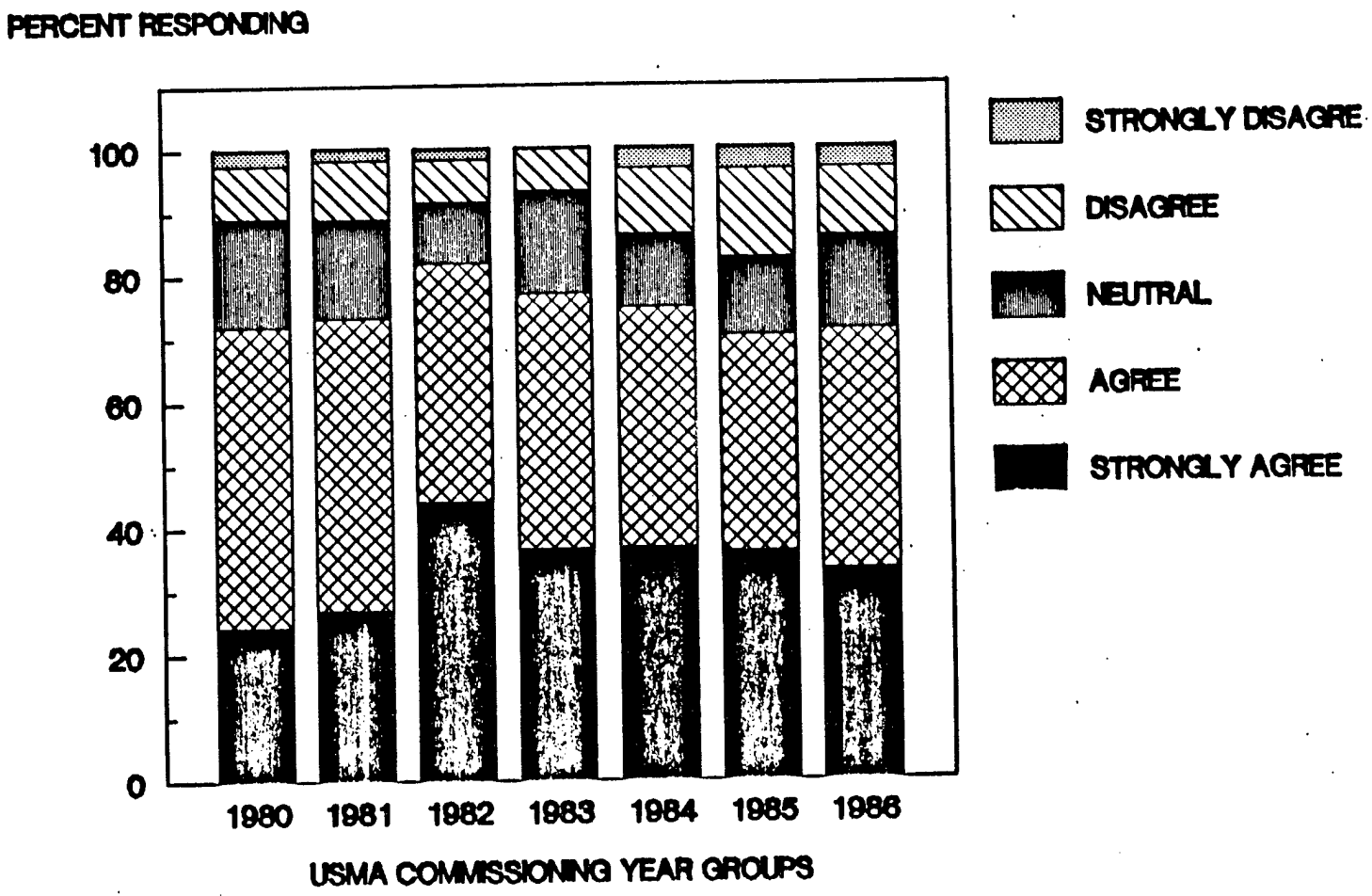



Figure 5

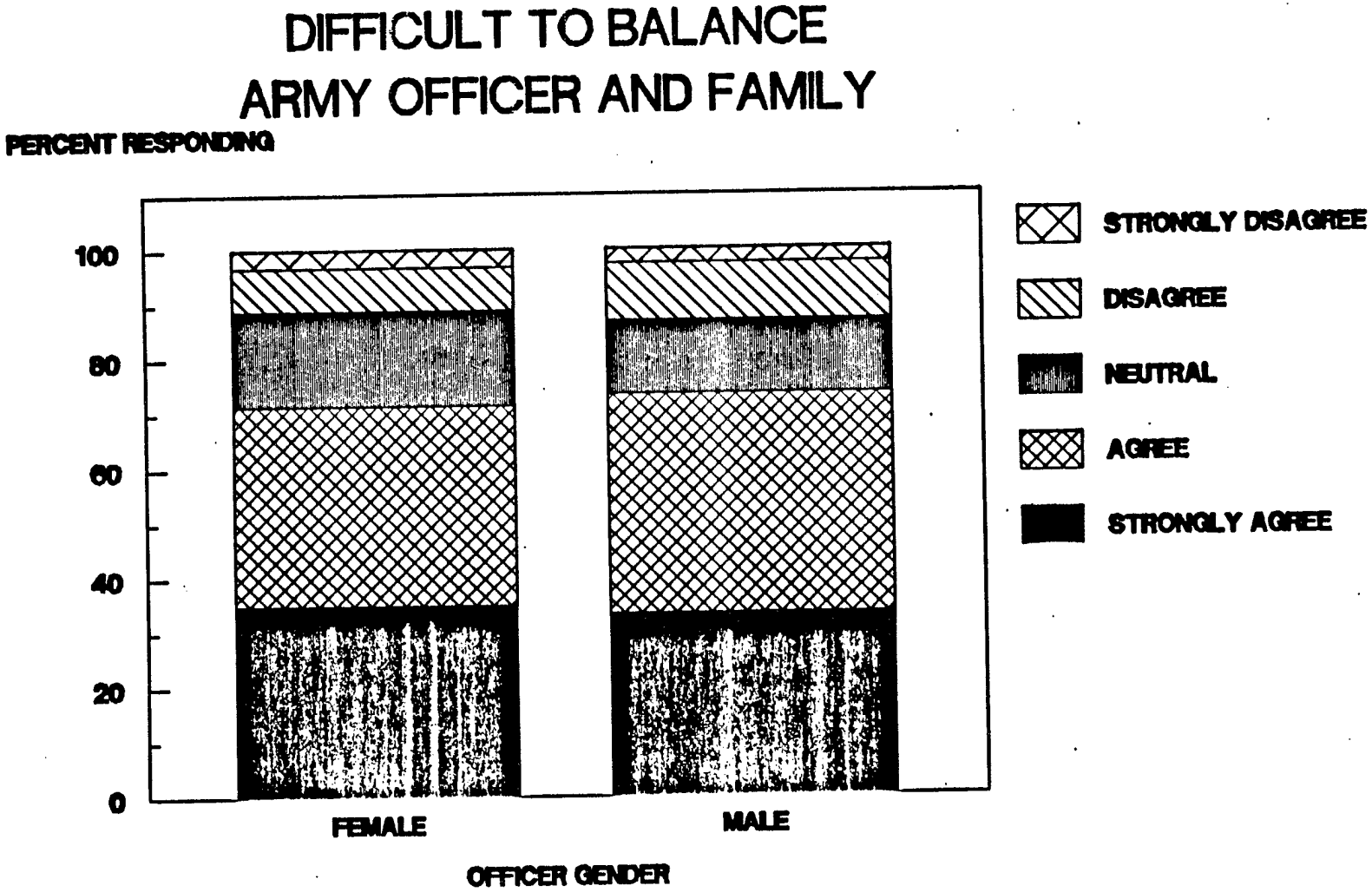

DIFFICULT TO BALANCE
ARMY OFFICER AND FAMILY
PERCENT RESPONDING
100
80
60
40
20
0
FEMALE
MALE
OFFICER GENDER
STRONGLY DISAGREE
DISAGREE
NEUTRAL
AGREE
STRONGLY AGREE

Figure 6

## SELECTED REFERENCES


Department of the Army (1985). Officer Active Duty Service Obligations. Army Regulation 350-100, Washington, D.C., 25 November.

Hunter, Fumio. (1988). Tenure Patterns of U.S. Army Commissioned Officers in the 1970s and 1980s (Technical Report). Alexandria, VA: U.S. Army Research Institute.

Lakhani, Hyder and R. Lal (1988). "Cost-effectiveness of Retention of West Point Junior Officers," draft paper being prepared for presentation at the Military Testing Association, Washington, D.C., August 1988, ARI, Alexandria, VA.

Lal, Rashmi and Hyder Lakhani. (1988). A Model of Employment Decision-making. An Analysis of Quit/Stay Decisions of Junior Army Officers (Technical Report). Alexandria, VA: U.S. Army Research Institute.

Turner, Jocelyn O. (1988). "Project Proteus 1987: Longitudinal Research Data Base" (Draft Working Paper). Alexandria, VA: U.S. Army Research Institute.

# Personnel Utilization Technical Area Working Paper 88-1

ANALYZING ATTRITION FROM NATIONAL GUARD UNITS ATTENDING THE NATIONAL TRAINING CENTER

Glenda Y. Nogami
David Grissmer

January, 1988

Approved for Distribution to Sponsor or Proponent.

REVIEWED BY:

DAVE HORNE
Labor Economist

PAUL A. GADE
Chief, Personnel Utilization Technical Area

## Manpower and Personnel Research Laboratory

**U. S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333-5600

This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

# ANALYZING ATTRITION FROM NATIONAL GUARD UNITS ATTENDING THE NATIONAL TRAINING CENTER

# ANALYZING ATTRITION FROM NATIONAL GUARD UNITS

# ATTENDING THE NATIONAL TRAINING CENTER

## Background

In 1983, the first Army National Guard (ARNG) round-out battalion attended the National Training Center (NTC)* with its Active brigade affiliate. To date, ten ARNG round-out battalions and one ARNG brigade with an Active battalion have attended the NTC. All ARNG battalions and the brigade are either Mechanized Infantry or Armor units.

The first battalion to attend NTC reported a significant strength loss after NTC. Analysis of strength figures from this unit indicated that one year prior to NTC, the unit was at 110% strength, but within six months of returning, their strength was down by 15% to 20%. Concern was expressed by the Field Commanders, the Vice Chief of Staff of the Army (VCSA), and the Deputy Chief of Staff for Personnel (DCSPER), that this loss might be related to the NTC experience.

## Methodology

A two-pronged research approach was utilized for this effort: a case studies methodology and a statistical analysis of attrition. In the case studies methodology, focus group interviews were conducted with each of the seven ARNG round-out units that attended NTC and a small group of Officers and NCOs from their active affiliate who attended NTC with the ARNG units.

The statistical analyses involved the comparison of attrition from NTC units to matched non-NTC units. Non-NTC units were selected to match the NTC units by state, and when possible, by Table of Organization and Equipment (TO&E), function, and size. To the extent possible, two or more comparison non-NTC units were found for each NTC unit. The data used for the analyses and for selecting the comparison units was the Reserve Component Common Personnel Data System (RCCPDS).

The data reported here were based on DMDC RCCPDS from 1982 to 1985. Interviews were conducted at the units between 1984 and 1986. Hence, the data are from the first seven units only.

* NTC is a simulated total combat scenario which includes live fire exercises. These exercises are held at the National Training Center near Bakersfield, California. These exercises are operated by the US Army Forces Command (FORSCOM), one of the active duty Army Major Commands (MACOM).

# BACKGROUND

- Guard roundout units began NTC rotations in 1983
- All seven units attending through FY85 were mech infantry or armor
- Motivation for study
  - First NTC unit reported significant strength drop after rotation
  - Theory of reserve participation would predict higher attrition
- Approach
  - Case studies of first seven Guard units to attend NTC
  - Comparison of attrition from NTC and control unit

This page contains the NTC National Guard Round-out Battalion schedule from the beginning of their participation in 1983 to the present. For each one of these rotations, the participating Active Affiliate is a Brigade minus one Battalion; hence the National Guard round-out unit. One exception is the last entry on this page. The Louisiana 256th Brigade went as a Brigade with an Active Affiliate Round-out battalion.

The results reported here will be about the <u>first seven</u> round-out Battalions listed (1-108 AR Battalion to the 3-156th INF (M)).

# NTC ROUNDOUT BATTALION SCHEDULE

| ARNG UNIT | STATE | DATES |
|---|---|---|
| 1-108 AR | GA | SEPTEMBER 1983 |
| 2-136 INF (M) | MN | APRIL-MAY 1984 |
| 1-121 INF (M) | GA | OCTOBER 1984 |
| 2-121 INF (M) | GA | MARCH-APRIL 1985 |
| 2-152 AR | AL | JUNE 1985 |
| 2-120 INF (M) | NC | JUNE-JULY 1985 |
| 3-156 INF (M) | LA | AUGUST-SEPTEMBER 1985 |
| 2-156 INF (M) | LA | JUNE 1986 |
| 1-263 AR | SC | JULY-AUGUST 1986 |
| 2-252 AR | NC | MARCH-APRIL 1987 |
| 256 BDE | LA | AUGUST 1987 |

## RESEARCH OBJECTIVES

The research objectives of this effort were:

(1) To determine if the ARNG NTC units have higher attrition levels than comparable non-NTC ARNG units.

(2) To determine what types of personnel have higher attrition levels in the NTC units.

(3) To identify potential causes of higher attrition from NTC units.

(4) To identify policies which might lower attrition levels.

To reiterate from a previous page, these research objectives were to be met through both the case studies method and a statistical analysis of the DMDC RCCPDS data.

# STUDY OBJECTIVES

- To determine if Guard NTC units have higher levels of attrition
- To determine what types of personnel have higher attrition levels
- To identify causes of higher attrition levels — if present
- To identify policies which might mitigate higher attrition levels

## CASE STUDY METHODS

Purposes:

The advantages of the case study method in this effort are numerous. Case study methods allow for detailed descriptions of the characteristics of the total rotation, from preparation to execution to recovery. Because the case study method is flexible and open-ended, it allows for the inclusion of information that may be specific to a unit; and does not require generalizability. Through the case study, we tried to identify issues and problems that may have contributed to attrition from the units.

These interviews were conducted within a year of each unit's participation at NTC. Small group (4 to 9 persons) interviews were conducted separately for unit Officers, NCOs, and in the later units (Alabama, North Carolina, and Louisiana), Junior Enlisted. (In addition, several NCOs and Officers from the Active Affiliate were interviewed.) A total of approximately 150 persons from the units were interviewed.

# CASE STUDY METHODS

- Purpose
  - Gather descriptive data on characteristics of rotation
  - Gather manning data from units
  - Identify perceived reasons for leaving
  - Identify problems and suggested solutions

- Approach
  - Visits to units and active parent units
  - Interviews with approximately 150 individuals singly or in groups

# COMPARISON OF ATTRITION FROM

# NTC AND CONTROL UNITS

Comparison non-NTC units (or control units) were selected to match the NTC units on the following characteristics: (1) the units were from the same state, (2) units had the same or similar Table of Organization and Equipment (TO&E), and (3) units had a similar function and size.

## Two attrition Measures

The two attrition measures are: attrition probability from the Guard and attrition probability from the unit. Attrition from the Guard are those cases where the person has left the Guard; i.e., are no longer to be found on any Guard roster within the state. Attrition from the unit are those cases where the person has left the unit. Attrition from the unit, however, includes those person who have transferred to another Guard unit within the state. The following equation may be helpful.

Guard attrition = no longer in the Guard
Unit attrition = no longer in the Guard + transferred to another Guard unit within the state.

Attrition was measured for two time periods. For each unit and its comparison unit(s), an 18-month attrition rate was calculated surrounding the NTC training. This included the 12-month train-up preparation time, participation in NTC and 6 months recovery time. The second time analysis included data from 12-months before NTC to the end of FY85 (30 September 1985). This second analysis was appropriate for the first two units. Only for these two units was the additional time analysis useful.

The source of the data is the Defense Manpower Data Center (DMDC) Reserve Component Common Personnel Data System (RCCPDS).

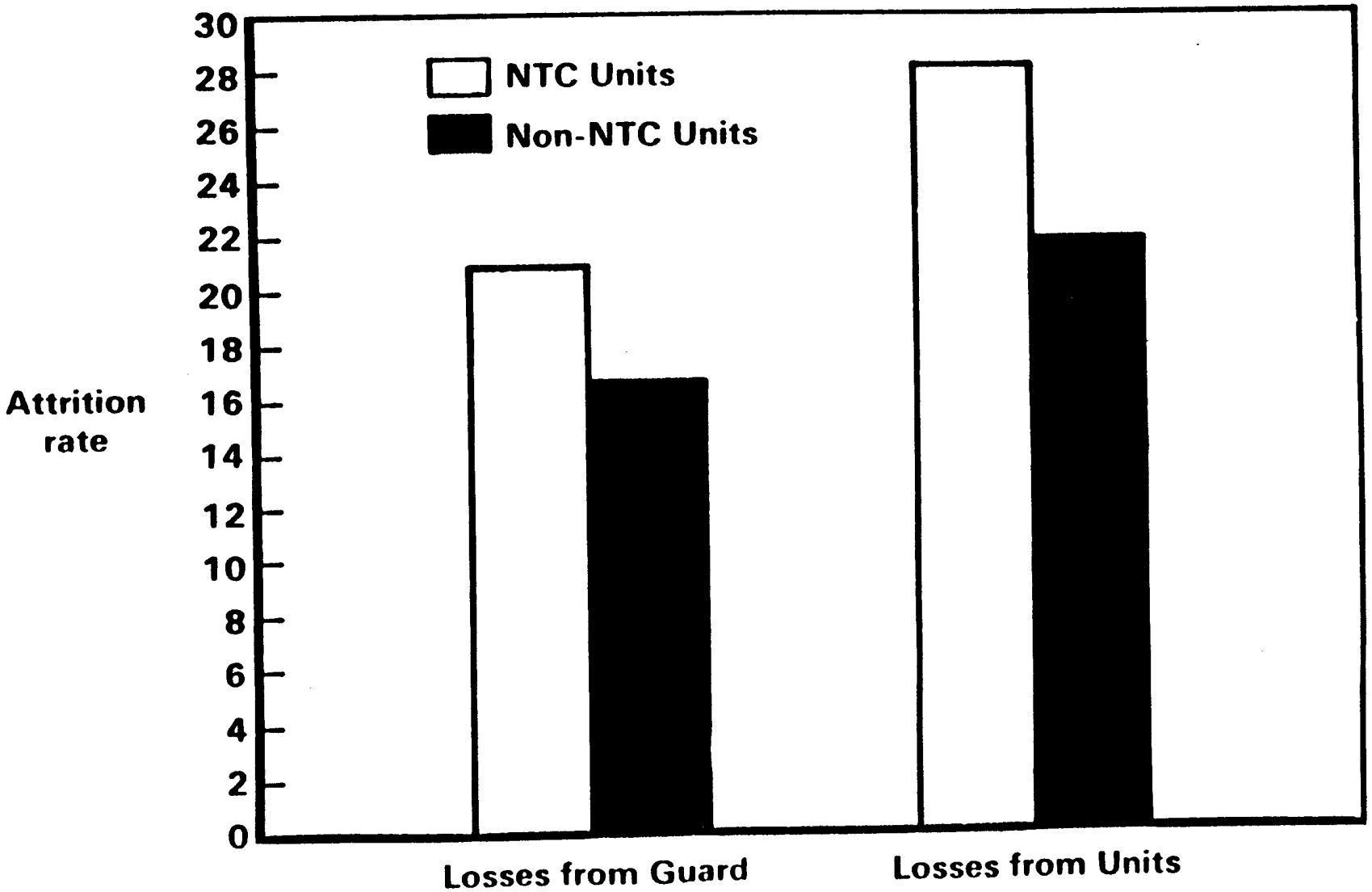
# COMPARISON OF ATTRITION FROM NTC AND CONTROL UNIT

- Control unit selection criteria
  - Units in same state
  - Units with same TOE — whenever possible
  - Units with similar function and size
- Two attrition measures
  - Attrition probability from the Guard
  - Attrition probability from unit
- Two time periods
  - One year prior to NTC to six months following NTC
  - One year prior to NTC to end of FY85
- Data source — DMDC RCCPDS reserve data

This chart indicates the differences in Guard attrition and Unit attrition for NTC vs. non-NTC units over the aforementioned 18-month period surrounding NTC participation. Losses from the Guard were approximately 20% higher in NTC units than in comparable non-NTC units (21% vs. 17% respectively); and losses from the unit are 25% higher in NTC vs. non-NTC units (28% to 22%).

Approximately 25% of the unit losses are transfers to other Guard units within the state (the difference between unit attrition and Guard attrition). Although any loss of personnel is bad from a unit perspective, from a total Force perspective, these transfers are not a loss to the Guard.

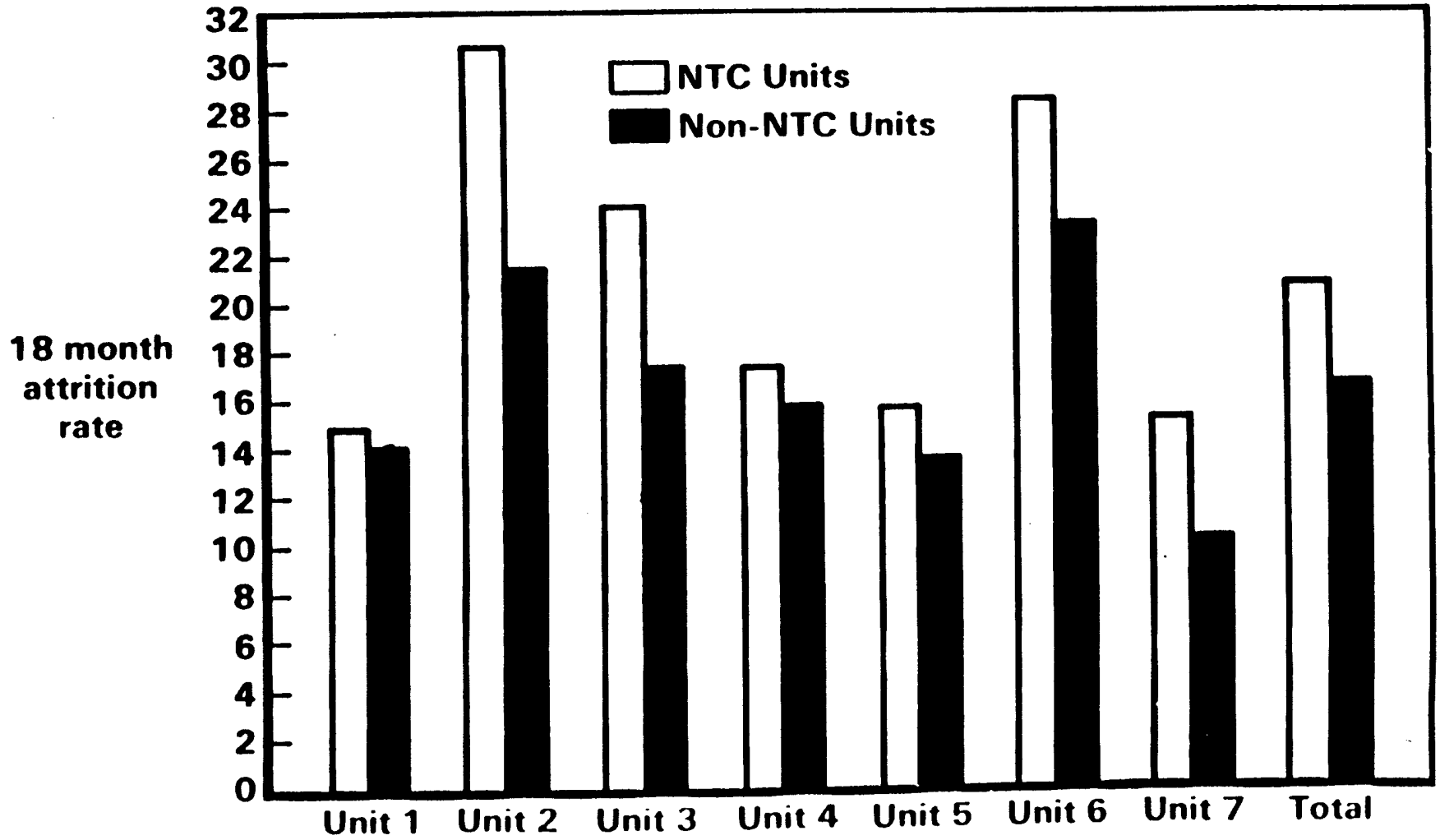
# NTC CAUSES MORE TRANSFERS AND LOSSES



When the Guard attrition rate for NTC vs. non-NTC units is disaggregated into the various unit comparison groups, it is evident that the differences are not constant. That is, the differences between some NTC units and their comparison units are larger than others (e.g., Unit 2 vs. Unit 5). However, in all cases, the attrition rate in the NTC units was higher than in non-NTC units.

The units are listed in random order, and are **NOT** listed by order of NTC participation. Therefore, Unit 1 is NOT the first unit to NTC, nor is Unit 7 the last of the first seven units to NTC.

# ATTRITION RATES — NTC AND NON-NTC UNITS
## TOTAL GUARD ATTRITION

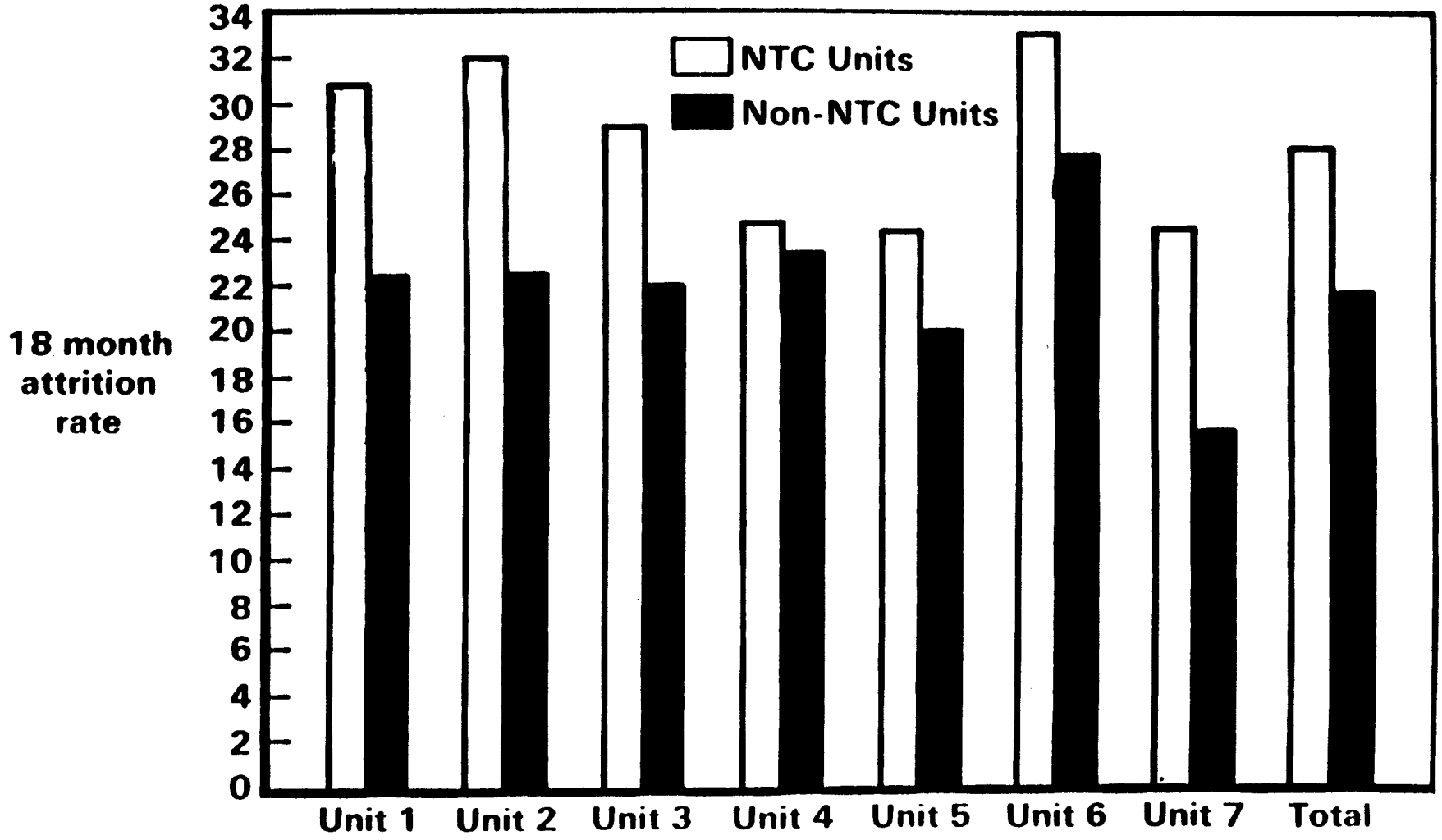


The order of the units on this page correspond to the previous page. That is, Unit 1 on this page is the same Unit 1 as on the previous page.

The same pattern evidenced in the Guard attrition chart is reflected in this unit attrition chart: NTC units have a higher unit attrition (transfers and separations) rate than non-NTC units.

Comparing Guard and unit attrition rates for each unit reveals that some units experienced a greater proportion of transfers to other Guard units rather than leaving the Guard entirely.

# ATTRITION RATES — NTC AND NON-NTC UNITS
## TOTAL UNIT ATTRITION



## COMPARING SHORT AND LONG RUN ATTRITION

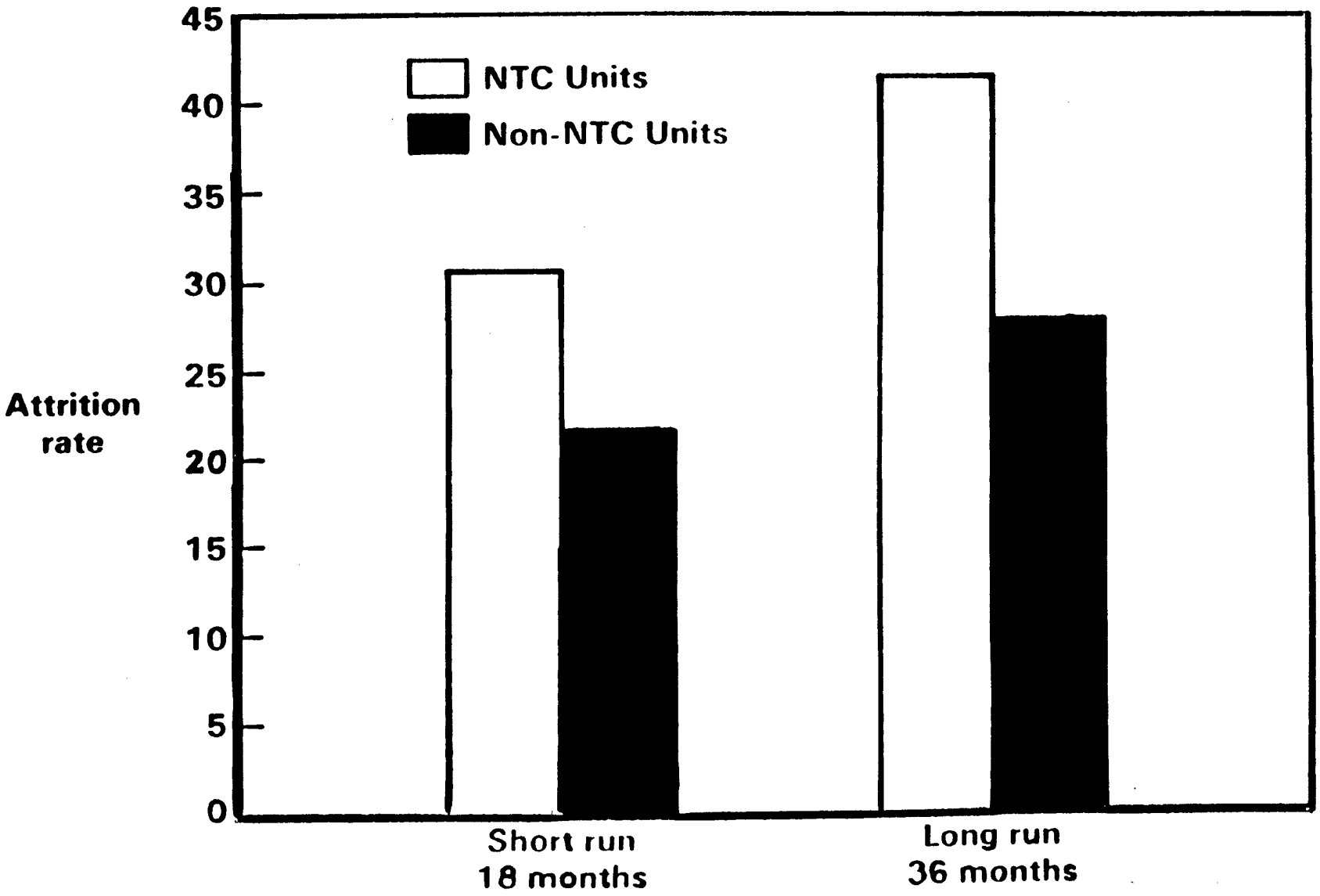
### FIRST NTC UNIT

During the focus group interviews, some unit NCOs and Officers suggested that NTC attrition would only occur during the eighteen-month period surrounding NTC participation. Following this period, the attrition rate would decrease and differences between NTC and non-NTC units would be negligible. To test this, we looked at longer term - 36-months - attrition for the first NTC unit. This was the only unit for which 36 month (12 months prior and 24 months after NTC) data was available as of the end of FY 85.

The data indicate that the differential Guard attrition rate between the first NTC and comparison non-NTC unit are still increasing.

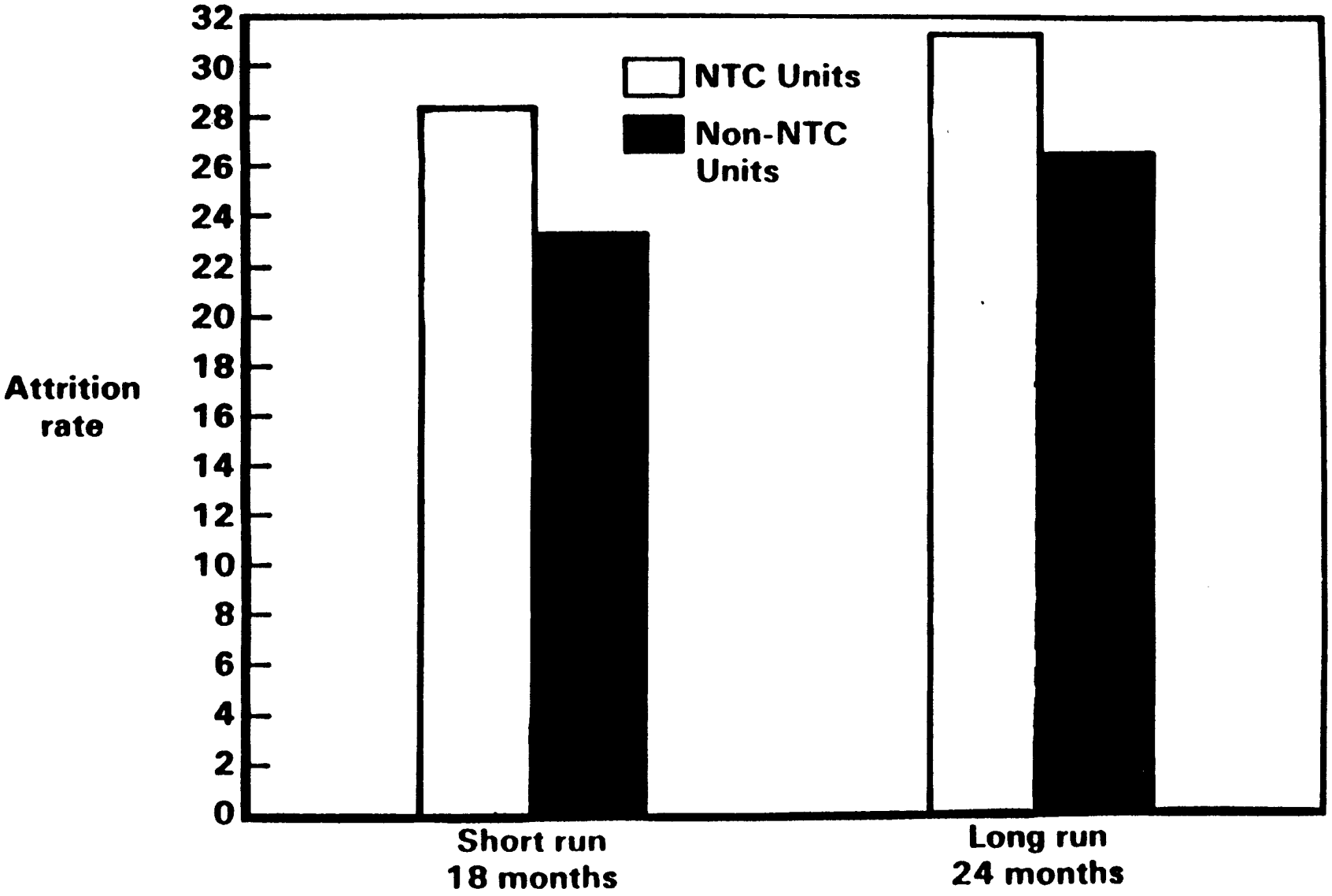
| | 18 months | 36 months |
|---|---|---|
| First NTC unit | 30.7 | 41.5 |
| Comparison unit | 21.5 | 27.8 |
| Difference | + 6.1 | + 13.7 |

# COMPARING SHORT AND LONG RUN ATTRITION
## FIRST NTC UNIT



In the second unit to attend NTC, data were available for both the 18-months and 24-months attrition rate. For this unit, in comparison to the first unit, the attrition differential did not increase over time. It should be noted that this is a shorter period of time than that available for the first unit, which may account for the lack of differential. However, other potential explanations (i.e., differential personnel policies from the first unit, learning lessons from the first unit, different economic conditions in the communities) cannot be ruled out.

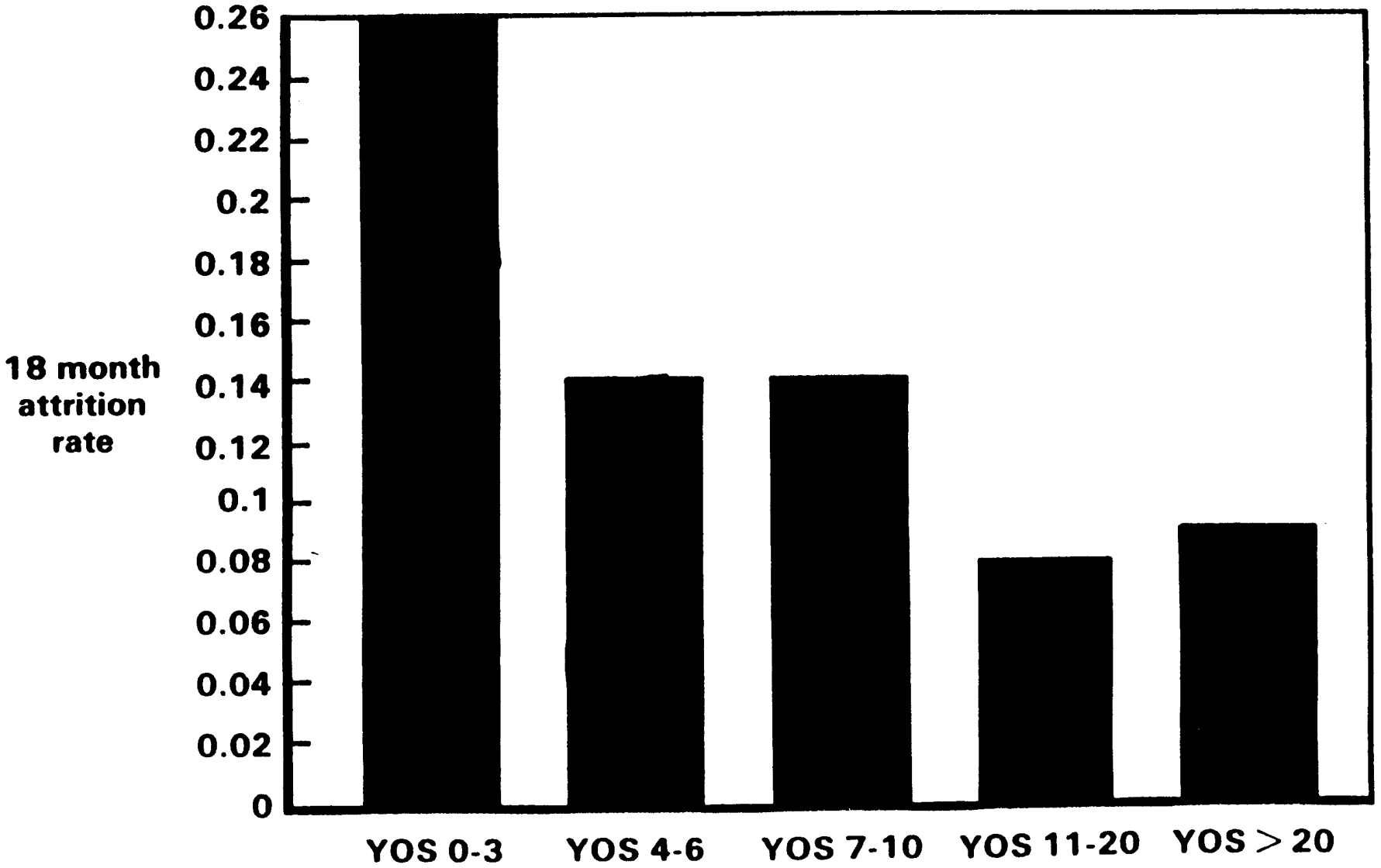
# COMPARING SHORT AND LONG RUN ATTRITION
## SECOND NTC UNIT



## YEARS OF SERVICE AND ATTRITION

The number of years of service had a significant impact on attrition rates. Guard with less than 4 years of service (Ø-3 years) were much more likely to attrite than any other group. Attrition rates seemed to be much less lower for those with 11 or more years of service.

# INFLUENCE OF YOS ON ATTRITION
## LOSSES FROM GUARD

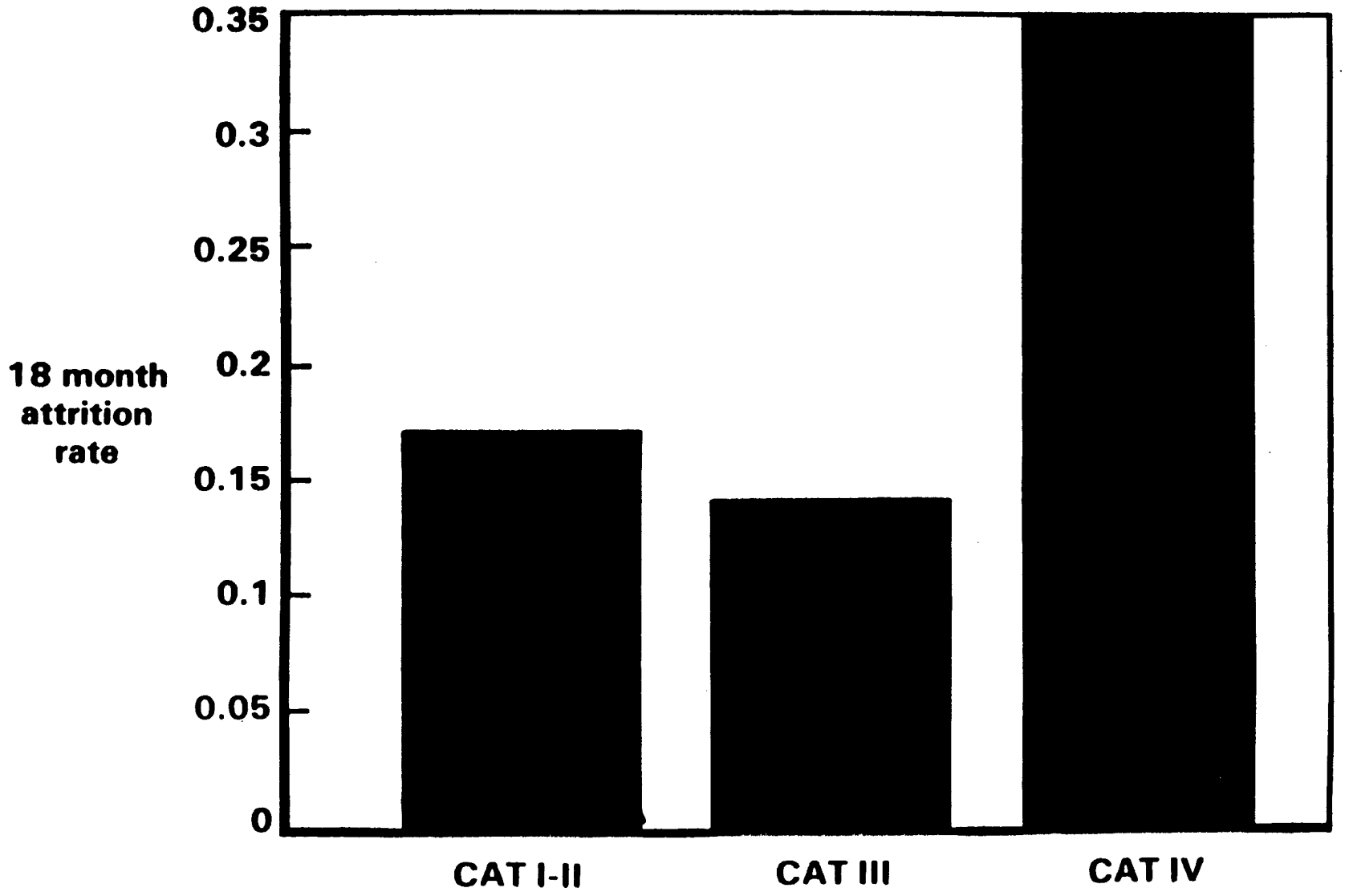


## ARMED FORCES QUALIFYING TEST SCORES AND ATTRITION

The data from the seven National Guard NTC units indicated that soldiers with category IV AFQT scores were more likely to attrite than those with higher AFQT scores (categories I to III).

Although there is a very high attrition rate for CAT IV, it should be noted that CAT IV personnel only made up 5% of the total Guard population in the seven units.

# INFLUENCE OF AQFT ON ATTRITION
## LOSSES FROM GUARD



## CONCLUSIONS

Overall, NTC units experienced a higher attrition than similar non-NTC units, matched for size, function, TO&E, and geographic location. Attrition from the unit was approximately 25% higher in NTC units than non-NTC units, and attrition from the Guard was approximately 20% higher. However, as seen on an earlier chart, some NTC units had lower attrition rates than other NTC units, and the differences between NTC and non-NTC units differed greatly.

Although all NTC Guard units had higher attrition rates than non-NTC units, some Guard were more likely to attrite than others. For example, Guard soldiers with lower AFQT scores (CAT IV) and less experienced personnel (with less than 4 years of service) were much more likely to attrite than those with higher AFQT scores or more years of service.

# CONCLUSIONS

- NTC units experience higher attrition rates than similar non-NTC units
  - Attrition from the unit is approximately 25 percent higher
  - Attrition from the Guard is approximately 20 percent higher
- All types of reservists in NTC units experienced higher attrition rates
  - Younger, lower quality (CAT IV) reservists experienced the highest differential rates
  - More experienced personnel had the smallest differential rates

Based on both the DMDC RCCPDS data and case studies interview data, we have identified four potential causes for higher attrition in NTC units than non-NTC units. These four potential explanations will be listed here and discussed in greater detail in the following eight pages.

(1) The selective pruning of marginal performers in preparation for NTC. This process of elimination of certain Guard could have been voluntary (initiated by the soldier himself) or involuntary (initiated by the unit in potential opposition of the wishes of the soldier) or simply a clerical clean up of the unit roster.

(2) Additional pre-NTC and NTC training resulted in less family time for Guard. This was especially a problem for NCOs and Officers. It was not unusual to find NCOs and Officers who did not have any free weekends with their families for the three to six months prior to NTC. This put a strain on families and pressure from the families for the Guard to attrite.

(3) Additional training time also added to conflicts with employers, with employment schedules, and with peers at work. When Guard participation is seen as a source of secondary income, many Guard could not afford to lose a day's civilian wages or to potentially lose their job - or primary income.

(4) NCOs and Officers reported significant losses in income due to the scheduled and unscheduled additional training time. This was especially the case for two groups:

(a) those who had to turn down overtime pay opportunities due to Guard duty and

(b) those who were self-employed and could not accept any new work.

# CONCLUSIONS
## (CONTINUED)

- Four potential causes of higher attrition were identified
  - Pruning of marginal performers in preparation for NTC
  - Family conflicts due to added training time
  - Employer conflicts due to added training time
  - Losses in income due to added training time

## PRUNING OF MARGINAL PERFORMERS

As indicated in earlier charts, attrition rates are higher in units which attended NTC than those that did not. In the NTC units, lower aptitude soldiers with fewer years of service were much more likely to attrite than other soldiers.

There are many possible reasons for this attrition, but some of this attrition may be a clerical exercise. That is, prior to NTC, the units routinely purge their personnel rosters of so-called "ghosts" or non-performers. These are soldiers who - on paper - are in the unit, but who - in actuality - may not have been attending drill for months. The removal of these "ghosts" and non-performers is essential for identifying where substitutions (fillers) will be needed as each unit is required to go to NTC with its full complement of soldiers.

Representatives from the Actives briefed the Guard units on NTC experiences - what to expect, equipment needed, how to prepare, what to prepare, the sequence of events, lessons learned, etc. In addition, they brought back horror stories of life at NTC. It is evident that many of these stories overstated the hardships at NTC and frightened many of the young junior enlisted.

For older NCOs and Officers, time appeared to be a significant factor in attrition. Many of them could not make the additional time commitment due to work or family considerations. Where possible, many of these NCOs and Officers transferred to other units rather than attriting from the Guard. In a few cases, NCOs and Officers were replaced before NTC due to weight, stamina or performance problems.

# PRUNING OF MARGINAL "PERFORMERS"

- Some Evidence that Lower Quality, Young Enlisted had Higher Attrition
  - Statistical Analysis Shows Higher Attrition for CAT IV in NTC Units
  - Anecdotal Evidence Suggests Ghosts and Nonperformers Removed
  - Young Enlisted Were More Likely to Fear New Experience
- Some Evidence that Some NCO'S were Transferred or Removed
  - Weight, Stamina and Performance Problems
  - Some Could Not Make the Significant Added Time Commitment
- Some Officers were Transferred Because of Large Time Commitment Required

## FAMILY ISSUES

Loss of family time due to additional drills was a common theme with all ranks and in all the units. Loss of family time, however, appeared to be greatest among the key NCOs and Officers in the unit. These soldiers were required to attend all drills, all administrative nights (every other Wednesday evening), leadership training sessions (the alternate Wednesday evenings), and all planning sessions (during weekday nights or drill-free weekends). Some NCOs and Officers report not having a free weekend with their families for months at a time before NTC.

Loss of income is both an economic issue and a family issue. Many NCOs and Officers reported a significant loss of income due to the additional drills and longer AT period. Many of the self-employed soldiers found that they could not accept any orders for work to be completed before NTC, and then found that rebuilding their businesses meant another lean four to six months after NTC.

Because many soldiers were not allowed military leave, or not allowed sufficient military leave, many were required to use their personal vacation time or even leave without pay. In these cases, the families had the additional problem of no vacations for two or more years. This, however, is not a specific problem of NTC, as many are forced to use vacation time for normal AT. However, the problem is exacerbated when AT is extended and when there is an extensive train-up period.

In a few cases, the additional drill times put a strain on single parents or on divorced parents. Child visitation and custody issues were an especial problem when drill dates were not firmly established far in advance of the drill.

Many soldiers complained that there was little advance notification of drill dates. Families were also said to have problems with this. On closer examination, it appears to be a problem that may be generated by either the unit or the soldier, himself. There were a few cases where the unit had many unscheduled drills or short notice drills. But, it appears that the families' problem may be due to the soldier's late notification of his family. Some soldiers "forgot" to tell their families about scheduled drills. Some of these families were told as the soldier was going out the door. This causes havoc with family leisure plans.

# FAMILY ISSUES

- Loss of family time
- Loss of income
- Loss of vacation time
- Child visitation and custody issues
- Little advance notice for scheduling of drills and extra time

## EMPLOYER ISSUES

Some soldiers perceived discrimination in the hiring, overtime opportunities and promotion of guard members. Some have stated that job applicants are not hired because of membership in the Guard. Several have reported that soldiers in their unit were told some variation of you can either show up for work on Saturday or go to the unit Drill and not bother to come in on Monday". There is very little perceived protection against this discrimination.

In order to retain more productive workers, some companies have instituted a profit-sharing plan with employees. One company's profit sharing plan was based on bonus points accrued by employee team attendance. At the end of the year, each employee received his portion of the profit based on the bonus points acrued by his team. Each team received one bonus point when all team members arrived to work on time and worked a full eight hour day, one bonus point for each week all team members arrived on time and worked 40-hours, and one bonus point for each month all team members arrived on time and worked the entire month. MUTA-5's eliminated the bonus point for a day, the week and the month for the Guard and his team members. Peer pressure on the Guard member could be fierce.

Upper level management is generally very supportive of the Guard. Employer problems, when they occur, tend to be at the first line supervisor level. It is the first line supervisor, responsible for the production of "x" number of "widgets", who feels the impact of additional Guard time on his company's production. This same first line supervisor also has a significant impact on decisions affecting the Guard: decisions about promotions, overtime opportunity, hiring and firing, and quality of work life for the Guard. Absences due to intense drilling have a significant impact on the first line supervisor's productivity.

One reportedly prevalent perception among employers is that of the "old Guard" - the "smokin', jokin', barbeque and poker" weekend drills and annual training. Employers and community members really are not cognizant of the newer readiness missions that these round-out units have. Many employers resent allowing the Guard members military leave for what they consider to be a paid vacation with the boys. This misperception of the Guard was reported in all visited units, and was reported to have a significant impact on the acceptance of additional drill time or a longer annual training period.

# EMPLOYER ISSUES

- Perceived discrimination in hiring, promotion, overtime opportunity
- Conflict with co-workers
- Conflict with supervisors
- Little perceived protection from discrimination and military leave laws
- No military leave given
- Productivity and absences due to intense drilling
- Employer perception of Guard often "old Guard"

# ISSUES OF LOST INCOME DUE TO NTC TRAINUP

Many in the Guard report loss of income to due to annual training, extended/additional drills, and additional planning/administrative time.

Annual Training. Many Guard lose income while attending annual training. This can be due to many causes: Guard pay was less than civilian regular pay, and especially overtime pay; not receiving military leave from their employer and having to take leave without pay or to use personal vacation time for AT. Paid military leave appeared to be an exception rather than a rule. Knowing this to be a problem with two-week AT, one can imagine the loss of income due to a three-week AT, such as NTC.

Extended Drills. In preparation for NTC, many units held three-day weekend drills (MUTA 5 or MUTA 6). This, in many cases, necessitated missing work either on Friday or Monday. Where military leave was not available or where military leave was not sufficient to cover all the drill weekends and annual training time, vacation or personal leave and/or leave without pay was frequently taken.

Additional Planning Time. Preparations for NTC included many unpaid days and nights, especially for the NCOs and Officers. These uncompensated days (called LAD days - for Love And Devotion) were in addition to drill days. These were generally weekday evenings devoted to logistical planning, leadership training, special training, and administrative work. These LADs eliminated the possibility for overtime opportunities for NCOs and Officers.

Self-employed persons claimed lost income during the preparation for NTC and also for the six months following NTC. Self-employed Guard, primarily NCOs and Officers, were not able to accept any contracts or any orders up to a year before NTC because of their already considerable time commitment to the Guard due to extended drills and additional training/planning time. In addition, after this considerable time of not accepting any work orders, they found that they needed about six months to re-build their businesses to the level before NTC. Guard pay did not nearly compensate them for their loss of income.

# ISSUES OF LOST INCOME DUE TO NTC TRAINUP

- Losses from annual training
  - Many reservists lose income while attending normal annual training
  - Extended NTC annual training increases the number losing income and the amount of losses
    - Military income does not make up for lost civilian income
    - Many did not receive military leave and took LWOP or vacation time

- Losses from extended drills
  - Many NTC units had three day weekend drills
    - Military leave often not available —vacation and LWOP
    - Frequent absence from work on Monday

- Losses due to additional planning time

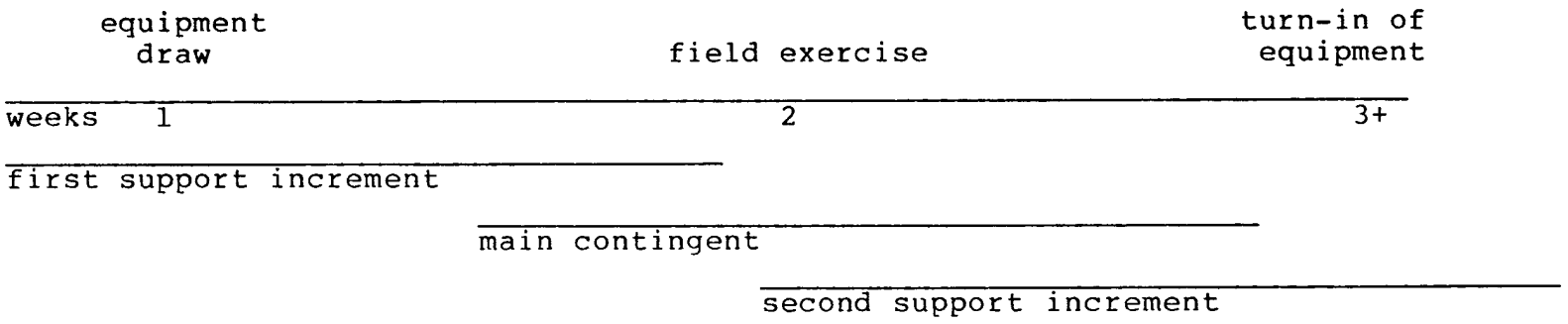
- Self employed persons often claimed lost income due to extra committment

## RECOMMENDATIONS

It is recommended that the scheduling and timing of NTC for the Guard be reviewed by a joint committee of the Guard and the Active. While normal AT is generally scheduled for the summer months for the Guard units, NTC exercises are scheduled throughout the year to meet the needs of the Active Army. Because many Guard units depend upon high school students, college students, teachers and others for whom the school cycle is very important, timing of AT has many implications for their ability to attend NTC.

NTC exercises are three-week training exercises that, for the National Guard, are in lieu of regularly scheduled two-week annual training (AT). As most employers are familiar with two-week ATs, and have probably planned their civilian workforce to substitute for their Guard employees during that two-week interval, a three-week AT may hamper their operations. In addition, in the cases where military leave was granted, it generally did not extend over the entire three weeks of AT.

One solution to this problem has been to send support personnel in two increments. Although the first Guard units to attend NTC took their entire entourage for the three weeks, later units found that they could rotate their personnel so that one group went to NTC for the equipment draw and early maintenance during the exercises, and the second group went for final maintenance and the turn-in of equipment. In this way, no group of support personnel were at NTC for more than two weeks, and the main contingent of mechanized infantry or armor soldiers were there for the two weeks of field exercises.



# RECOMMENDATIONS

- Joint active/Guard review of NTC procedures to address several issues peculiar to the Guard
  - Streamlining procedures for equipment draw and turnin
  - Length of rotation and deployment schedule
  - Frequency of rotation
  - Use of fillers
- More education and advertising to highlight differences between "old" and "new" Guard
- Need to explicitly address mismatch in expectation of training schedule

The Guard units were of one voice in the frequency of rotation: once every three to five years was perceived to be sufficient to retain combat readiness and promote unit retention and morale. More frequent rotations might increase utilization of combat skills but would almost certainly decrease unit retention - thereby decreasing combat readiness with the lack of experienced personnel.

The Guard problems with more frequent rotations were due to several factors: employer - Guard conflicts and family - Guard conflicts. It would appear that many of these conflicts are the product of an outdated perception of the "old" Guard - the smoking, joking, bar-b-que and poker weekend soldier. It was frequently suggested that educating employers - both top managers and first line supervisors - and families about the responsibilities and activities of the "new" Guard would alleviate some of these conflicts. The current mismatch of expectations and the reality of the preparatory training and NTC itself probably is the source of much of the conflict.

# RECOMMENDATIONS

- Joint active/Guard review of NTC procedures to address several issues peculiar to the Guard
  - Streamlining procedures for equipment draw and turnin
  - Length of rotation and deployment schedule
  - Frequency of rotation
  - Use of fillers
- More education and advertising to highlight differences between "old" and "new" Guard
- Need to explicitly address mismatch in expectation of training schedule

PB 87184

# Personnel Utilization Technical Area Working Paper 87-7

INCENTIVES AND DISINCENTIVES TO REENLISTMENT:
AN EXAMINATION OF NEED FULFILLMENT IN THE ARMY

Alfred L. Smith, Jr.

August 1987

GUY L. SIEBOLD
Leader, Cohesion and
Values Research Team

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

**U.S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333

**This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.**

INCENTIVES AND DISINCENTIVES TO REENLISTMENT:
AN EXAMINATION OF NEED FULFILLMENT IN THE ARMY

TABLE OF CONTENTS


Page

INTRODUCTION . . . . . 1
First Phase (Generation of Need Inventory). . . . . 1
Second Phase (Pilot). . . . . 1
Findings. . . . . 2
Utilization . . . . . 2


LIST OF TABLES


Table 1. Needs Considered in Making a Reenlistment Decision (Reported as of Very High Importance by More than 50 Percent of Soldiers Across All Career Groups . . . . . 3

2. Needs Rated of Very High Importance in Making a Reenlistment Decision, by Length of Service (Needs Rated by More than 50 Percent of Any Group). . . . . 5

3. Needs Not Expected to Be Met, Grouped by Length of Service . . . 8

4. Needs Not Expected to Be Met, Grouped by Reenlistment Intention. . . . . .11

5. Needs Not Expected to Be Met, Grouped by Marital Status. . . . .14

6. Needs Not Expected to Be Met, Grouped by Gender. . . . . .17

7. Needs Not Expected to Be Met, Grouped by Combat, Combat Support and Combat Service MOS . . . . . .20

## INTRODUCTION

The U.S. Army Research Institute (ARI) conducted a survey beginning in June 1986 through February 1987 at CONUS and OCONUS installations. The research was sponsored by DAPE-MPD of the ODCSPER. The purpose of the research was to identify and determine the influence of incentives and disincentives on the decision to reenlist in the Army.

The research approach was to define incentives and disincentives in terms of met and unmet needs. (Aspirations and values were also included since they are higher order needs.) The basic assumption underlying this research is that the strongest reenlistment incentives (and disincentives) were those that the soldier experienced while doing his job. Features of the job can be either positive, negative, or neutral depending on the nature of the feature and the desires/needs of the particular soldier. If, for example, a soldier has a need for a supportive supervisor and has one, that feature of the job would be an incentive to reenlist. If the soldier has the need for a supportive supervisor and does not have one then a disincentive situation exists. On the other hand, if supportive supervision is not a need of the soldier, the absence of such a situation would be neutral. Other features of the job that may act as incentives/disincentives could include promotion opportunity, job autonomy, time with spouse, and the opportunity for job related or educational training. Given the number of job features that may have incentive/disincentive aspects to them an inventory of items were developed.

### First Phase (Generation of Need Inventory)

Researchers during the months of February and March 1986 interviewed approximately forty soldiers representing combat, combat service and combat support MOS. Soldiers were at different points in their careers and all were facing a reenlistment decision. Some indicated that they were staying, others were leaving and some were undecided about a continued military career.

Soldiers were questioned about the types of issues they were considering in making a reenlistment decision. Areas that were probed by the interviewer included the job, family, personal, and career issues. Soldiers were then asked how important the items they had identified would be in making a final decision to reenlist. For the purpose of increasing the number of items used in the inventory soldiers were asked to discuss issues they thought other soldiers had considered in making a reenlistment decision. A list of seventy-two items were identified from these interviews. This list was expanded to seventy-eight items after review by various departments within ODCSPER.

### Second Phase (Pilot)

A pilot study was conducted to establish the relationship between needs being met and reenlistment intent. Four other major factors were included in the questionnaire. These factors were satisfaction with the Army,

organizational commitment, occupational stress and perceived job alternatives. Soldiers were provided by two FORSCOM installations for pilot purposes. All soldiers surveyed were eligible for reenlistment and six months or less to ETS.

Soldiers were administered the questionnaire in groups of no more than six. Soldiers were instructed to indicate how important each of the seventy-eight items were for them in making a decision to reenlist. Next, soldiers were asked to indicate how likely they thought it was that those seventy-eight needs would be met while in the Army. Analysis of the pilot indicates that when the soldier perceived his needs would not be met his reenlistment intention would be not to continue in the Army.

## Findings

The findings presented here are based on a sample of 1236 soldiers facing a reenlistment decision eight months or less from ETS from both CONUS and OCONUS locations. Soldiers were instructed to indicate how important each of the seventy-eight needs were in making a decision to reenlist and to indicate the likelihood of each need being met while in the Army. In general, when needs are perceived as being met soldiers tended to indicate a positive reenlistment intention. If needs are perceived as going unfulfilled a negative reenlistment intent is indicated.

## Utilization

The purpose of the following tables is to give Army manpower planners and Retention NCOs an information base for developing organizational interventions and career guidance strategies aimed at influencing reenlistment decision. In Table 1, needs that are considered very important in the reenlistment decision by a majority of soldiers are presented. Table 2 shows the percent of soldiers for each career group who rated those needs as very important. In Tables 3 through 7 the variables of career group, reenlistment intention, marital status, gender, and MOS affiliation are introduced respectively. These tables show the number of soldiers for each variable that indicate the need as being very important and the percent of that number that indicate a very low to moderate likelihood of the need being met while in the Army.

Table 1

Needs Considered in Making a Reenlistment Decision (Reported as of Very High Importance by More than 50 Percent of Soldiers Across All Career Groups)[a]

| NEEDS | % RESPONDING[b] |
|---|---|
| Obtaining a college degree. | 58 |
| Receiving a steady paycheck. | 81 |
| Having job skills that are attractive to civilian employers. | 71 |
| Saving money for college education for my children. | 61 |
| Being promoted when eligible. | 85 |
| A permanent place to live. | 54 |
| Working for a supervisor who cares about you. | 71 |
| Establishing financial credit. | 72 |
| Working for a competent supervisor. | 75 |
| Owning your own home. | 66 |
| Being promoted on performance. | 82 |
| Being prepared for a second career. | 65 |
| Serving your country. | 66 |
| Getting credit for doing a good job. | 72 |
| Having challenging work. | 62 |
| Being available when your family needs you. | 88 |
| Having decision-making responsibility. | 65 |
| Being treated equally regardless of race. | 86 |
| Getting a job that facilitates personal growth. | 66 |
| Having the opportunity to teach others on the job. | 51 |
| Having a job with a variety of different tasks to perform. | 51 |
| Having personal freedom. | 80 |
| Having on-going training (e.g., job related) opportunities. | 60 |
| Receiving quality dental and medical benefits. | 88 |
| Getting retirement benefits. | 83 |
| Getting the reenlistment option you want. | 83 |
| Satisfying your spouse's wants and needs. | 77 |
| Having job security. | 85 |
| Having an officer who cares about the soldiers in his unit. | 79 |
| Receiving fair treatment from the civilian community. | 63 |
| Living in good housing. | 81 |
| Receiving a reenlistment bonus. | 61 |

[a] Based on a sample of 1236 initial term, mid-career and career soldiers. All soldiers were facing a reenlistment decision and were eight months or less to ETS.

[b] Rounded to nearest percent.

Table 1 (continued)

| NEEDS | % RESPONDING[b] |
|---|---|
| Getting training for a civilian job. | 72 |
| Having your next assignment guaranteed. | 76 |
| Receiving a fair workload. | 64 |
| Developing personal discipline. | 71 |
| Receiving credit for your ideas. | 63 |
| Being treated equally regardless of sex. | 74 |
| Being able to balance time required by family and job demands. | 78 |
| Having a great deal of independence in accomplishing tasks | 58 |
| Having enough time off to take care of my personal/ family needs. | 75 |
| Having a job with clear expectations. | 68 |
| Having quality soldiers in the Army. | 81 |
| Having good NCO leadership. | 87 |
| Working in an organized environment. | 77 |
| Being able to say what's on your mind without hurting your career. | 81 |
| Doing meaningful work. | 79 |
| EERs that reflect only performance. | 55 |
| Receiving positive feedback on your job performance. | 71 |
| Being treated as an individual. | 73 |
| Attending college. | 70 |
| Achieving your full potential. | 83 |
| Having officers respect NCO's authority. | 77 |
| Working with competent coworkers. | 71 |
| Equal considersation in the promotion of men and women. | 73 |
| Saving money. | 82 |
| Working for an organization that takes care of it's people. | 87 |
| Having competent peers in your MOS. | 75 |
| Being able to retire after 20 years. | 62 |
| Receiving 30 days of paid leave a year. | 77 |
| Having a spouse supportive of your career decision. | 78 |
| Having your NCO care about the soldiers in his unit. | 79 |
| Receiving pay adjustments that keep pace with the cost of living. | 90 |
| Working a normal work week. | 64 |
| Reaching your potential. | 84 |
| Having good officer leadership. | 75 |
| Achieving comparability with civilian salaries. | 76 |
| Knowing that your spouse has a positive attitude towards your career/job. | 76 |

Table 2

Needs Rated of Very High Importance in Making a Reenlistment Decision, by Length of Service
(Needs Rated by More than 50 Percent of Any Group)

| Needs | Group | | |
|---|---|---|---|
| | 5 years and less (n = 730) | 6-10 years (n = 307) | Over 10 years (n = 199) |
| Obtaining a college degree | 60% | 57% | 51% |
| Receiving a steady paycheck | 80 | 82 | 81 |
| Having job skills that are attractive to civilian employers | 74 | 68 | 60 |
| Saving money for college education of my children | 59 | 66 | 61 |
| Working in your PMOS | 41 | 58 | 50 |
| Being promoted when eligible | 84 | 87 | 86 |
| A permanent place to live | 50 | 56 | 64 |
| Working for a supervisor who cares about you | 71 | 69 | 66 |
| Establishing financial credit | 73 | 71 | 65 |
| Working for a competent supervisor | 74 | 81 | 72 |
| Owning your own home | 63 | 69 | 68 |
| Being promoted on performance | 80 | 82 | 84 |
| Being prepared for a second career | 63 | 65 | 66 |
| Serving your country | 59 | 73 | 80 |
| Getting credit for doing a good job | 72 | 73 | 69 |
| Having challenging work | 60 | 66 | 68 |
| Being available when your family needs you | 89 | 86 | 83 |
| Having decision-making responsibility | 62 | 71 | 68 |
| Being treated equally regardless of race | 85 | 88 | 82 |
| Getting a job that facilitates personal growth | 65 | 69 | 64 |
| Having the opportunity to teach others on the job | 42 | 64 | 61 |
| Having a job with a variety of different tasks to perform | 49 | 54 | 56 |
| Having personal freedom | 84 | 76 | 70 |
| Having on-going training (e.g., job related) opportunities | 56 | 68 | 62 |

[a] n represents number of respondents in each length of service category.

Table 2 (continued)

| Needs | Group | | |
|---|---|---|---|
| | 5 years and less (n = 730) | 6-10 years (n = 307) | Over 10 years (n = 199) |
| Receiving quality dental and medical benefits | 87 | 89 | 89 |
| Getting retirement benefits | 79 | 84 | 95 |
| Getting the reenlistment option you want | 83 | 85 | 79 |
| Satisfying your spouse's wants and needs | 77 | 80 | 76 |
| Having job security | 83 | 87 | 89 |
| Having an officer who cares about the soldiers in his unit | 80 | 79 | 76 |
| Receiving fair treatment from the civilian community | 63 | 62 | 63 |
| Living in good housing | 82 | 81 | 76 |
| Receiving a reenlistment bonus | 60 | 63 | 63 |
| Getting training for a civilian job | 74 | 70 | 65 |
| Having your next assignment guaranteed | 76 | 78 | 74 |
| Receiving a fair workload | 64 | 62 | 63 |
| Developing personal discipline | 69 | 76 | 72 |
| Counseling subordinates | 42 | 59 | 63 |
| Receiving credit for your ideas | 61 | 65 | 67 |
| Being treated equally regardless of sex | 74 | 75 | 74 |
| Being able to balance time required by family and job demands | 79 | 80 | 74 |
| Having a great deal of independence in accomplishing tasks | 57 | 56 | 59 |
| Having enough time off to take care of my personal/family needs | 79 | 74 | 59 |
| Having a job with clear expectations | 66 | 71 | 65 |
| Having quality soldiers in the Army | 79 | 84 | 85 |
| Having good NCO leadership | 85 | 88 | 90 |
| Working in an organized environment | 76 | 79 | 75 |
| Being able to say what's on your mind without hurting your career | 83 | 78 | 74 |
| Doing meaningful work | 79 | 80 | 80 |
| EERs that reflect only performance | 50 | 59 | 62 |
| Receiving positive feedback on your job performance | 70 | 71 | 74 |
| Being treated as an individual | 75 | 71 | 67 |
| Attending college | 73 | 69 | 56 |

Table 2 (continued)

| Needs | Group | | |
|---|---|---|---|
| | 5 years and less (n = 730) | 6–10 years (n = 307) | Over 10 years (n = 199) |
| Achieving your full potential | 85 | 84 | 76 |
| Having officers respect NCOs' authority | 72 | 86 | 84 |
| Having reenlistment standards that do not change | 43 | 47 | 51 |
| Staying in the Army until retirement | 20 | 55 | 79 |
| Working with competent coworkers | 68 | 76 | 70 |
| Equal consideration in the promotion of men and women | 70 | 76 | 78 |
| Saving money | 83 | 82 | 76 |
| Working for an organization that takes care of its people | 86 | 89 | 86 |
| Having competent peers in your MOS | 73 | 81 | 76 |
| Being able to retire after 20 years | 51 | 74 | 82 |
| Receiving 30 days of paid leave a year | 75 | 77 | 79 |
| Having a spouse supportive of your career decision | 75 | 82 | 82 |
| Having your NCO care about the soldiers in his unit | 76 | 83 | 82 |
| Receiving pay adjustments that keep pace with the cost of living | 89 | 92 | 91 |
| Working a normal work week | 67 | 62 | 54 |
| Reaching your potential | 84 | 86 | 82 |
| Having good officer leadership | 72 | 80 | 74 |
| Achieving comparability with civilian salaries | 74 | 77 | 78 |
| Knowing that your spouse has a positive attitude towards your career/job | 76 | 78 | 77 |

Table 3

Needs Not Expected to Be Met, Grouped by Length of Service[a]

| Needs | Group | | |
|---|---|---|---|
| | 5 years and less (n = 730)[b] | 6–10 years (n = 307) | Over 10 years (n = 199) |
| Obtaining a college degree | 80% (438)[c] | 69% (176) | 60% (102) |
| Receiving a steady paycheck | 05 (587) | 04 (251) | 02 (162) |
| aving job skills that are attractive to civilian employers | 59 (543) | 57 (208) | 45 (119) |
| Saving money for college education of my children | 52 (429) | 50 (204) | 49 (122) |
| Working in your PMOS | 40 (297) | 28 (177) | 22 (99) |
| Being promoted when eligible | 56 (614) | 62 (267) | 53 (172) |
| A permanent place to live | 73 (363) | 81 (172) | 72 (126) |
| Working for a supervisor who cares about you | 76 (519) | 73 (213) | 57 (131) |
| Establishing financial credit | 30 (533) | 23 (219) | 22 (128) |
| Working for a competent supervisor | 69 (541) | 63 (248) | 51 (143) |
| Owning your own home | 68 (461) | 60 (212) | 58 (135) |
| Being promoted on performance | 75 (583) | 71 (252) | 61 (168) |
| Being prepared for a second career | 70 (462) | 67 (201) | 66 (131) |
| Serving your country | 08 (434) | 06 (225) | 06 (159) |
| Getting credit for doing a good job | 74 (524) | 64 (226) | 54 (138) |
| Having challenging work | 59 (436) | 50 (203) | 36 (135) |
| Being available when your family needs you | 78 (650) | 74 (265) | 68 (164) |
| Having decision-making responsibility | 51 (451) | 36 (218) | 37 (136) |
| Being treated equally regardless of race | 46 (625) | 39 (270) | 27 (164) |
| Getting a job that facilitates personal growth | 72 (474) | 66 (212) | 50 (127) |
| Having the opportunity to teach others on the job | 29 (307) | 20 (196) | 21 (121) |
| Having a job with a variety of different tasks to perform | 35 (356) | 16 (165) | 16 (110) |

[a] Needs not expected to be met is defined by rating the likelihood as very low to moderate while in the Army.

[b] n represents number of respondents in each length of service category.

[c] Percentages are based on the number in parentheses that rated that need as of very high importance in making a reenlistment decision.

Table 3 (continued)

| Needs | Group | | | | | |
|---|---|---|---|---|---|---|
| | 5 years and less (n = 730) | | 6-10 years (n = 307) | | Over 10 years (n = 199) | |
| Having personal freedom | 83 | (611) | 74 | (233) | 62 | (138) |
| Having on-going training (e.g., job related) opportunities | 65 | (407) | 59 | (208) | 50 | (123) |
| Receiving quality dental and medical benefits | 28 | (635) | 34 | (274) | 38 | (177) |
| Getting retirement benefits | 27 | (580) | 32 | (259) | 25 | (188) |
| Getting the reenlistment option you want | 78 | (604) | 83 | (263) | 74 | (158) |
| Satisfying your spouse's wants and needs | 72 | (549) | 69 | (245) | 66 | (148) |
| Having job security | 28 | (609) | 29 | (267) | 21 | (178) |
| Having an officer who cares about the soldiers in his unit | 70 | (589) | 66 | (244) | 61 | (151) |
| Receiving fair treatment from the civilian community | 69 | (459) | 68 | (191) | 62 | (125) |
| Living in good housing | 58 | (597) | 61 | (251) | 57 | (152) |
| Receiving a reenlistment bonus | 79 | (438) | 86 | (194) | 82 | (125) |
| Getting training for a civilian job | 79 | (542) | 74 | (216) | 74 | (129) |
| Having your next assignment guaranteed | 75 | (554) | 79 | (239) | 74 | (148) |
| Receiving a fair workload | 71 | (465) | 66 | (192) | 62 | (125) |
| Developing personal discipline | 22 | (501) | 18 | (235) | 18 | (143) |
| Counseling subordinates | 38 | (306) | 19 | (182) | 17 | (126) |
| Receiving credit for your ideas | 77 | (444) | 63 | (200) | 65 | (133) |
| Being treated equally regardless of sex | 56 | (537) | 48 | (231) | 41 | (148) |
| Being able to balance time required by family and job demands | 82 | (573) | 79 | (245) | 76 | (146) |
| Having a great deal of independence in accomplishing tasks | 63 | (416) | 57 | (173) | 56 | (117) |
| Having enough time off to take care of my personal/family needs | 76 | (577) | 65 | (227) | 67 | (118) |
| Having a job with clear expectations | 73 | (484) | 65 | (220) | 56 | (129) |
| Having quality soldiers in the Army | 68 | (578) | 66 | (260) | 66 | (170) |
| Having good NCO leadership | 70 | (622) | 55 | (272) | 47 | (179) |
| Working in an organized environment | 76 | (553) | 70 | (243) | 61 | (149) |
| Being able to say what's on your mind without hurting your career | 92 | (608) | 86 | (240) | 82 | (147) |
| Doing meaningful work | 68 | (576) | 63 | (246) | 54 | (159) |
| EERs that reflect only performance | 71 | (359) | 70 | (179) | 71 | (124) |
| Receiving positive feedback on your job performance | 68 | (509) | 61 | (220) | 60 | (147) |
| Being treated as an individual | 74 | (545) | 64 | (219) | 53 | (133) |

Table 3 (continued)

| Needs | Group | | | | | |
|---|---|---|---|---|---|---|
| | 5 years and less (n = 730) | | 6–10 years (n = 307) | | Over 10 years (n = 199) | |
| Attending college | 71 | (532) | 65 | (212) | 66 | (111) |
| Achieving your full potential | 69 | (618) | 60 | (258) | 51 | (152) |
| Having officers respect NCOs' authority | 77 | (525) | 77 | (264) | 71 | (168) |
| Having reenlistment standards that do not change | 86 | (310) | 90 | (146) | 82 | (102) |
| Staying in the Army until retirement | 52 | (147) | 38 | (169) | 17 | (157) |
| Working with competent coworkers | 69 | (497) | 66 | (235) | 52 | (140) |
| Equal consideration in the promotion of men and women | 45 | (515) | 46 | (234) | 46 | (155) |
| Saving money | 51 | (608) | 55 | (254) | 60 | (151) |
| Working for an organization that takes care of its people | 70 | (629) | 64 | (272) | 56 | (171) |
| Having competent peers in your MOS | 59 | (530) | 59 | (250) | 53 | (151) |
| Being able to retire after 20 years | 36 | (374) | 34 | (227) | 13 | (163) |
| Receiving 30 days of paid leave a year | 07 | (551) | 08 | (237) | 08 | (158) |
| Having a spouse supportive of your career decision | 43 | (543) | 34 | (251) | 27 | (162) |
| Having your NCO care about the soldiers in his unit | 71 | (554) | 57 | (255) | 43 | (164) |
| Receiving pay adjustments that keep pace with the cost of living | 72 | (653) | 80 | (282) | 80 | (181) |
| Working a normal work week | 82 | (488) | 80 | (189) | 73 | (108) |
| Reaching your potential | 66 | (612) | 52 | (266) | 47 | (164) |
| Having good officer leadership | 69 | (527) | 68 | (246) | 62 | (148) |
| Achieving comparability with civilian salaries | 84 | (540) | 87 | (237) | 85 | (155) |
| Knowing that your spouse has a positive attitude towards your career/job | 54 | (595) | 43 | (237) | 49 | (105) |

Table 4

Needs Not Expected to Be Met, Grouped by Reenlistment Intention[a]

| Needs | Group | | |
|---|---|---|---|
| | Stayers (n = 513)[b] | Leavers (n = 411) | Undecided (n = 312) |
| Obtaining a college degree | 55% (275)[c] | 88% (265) | 82% (174) |
| Receiving a steady paycheck | 02 (424) | 07 (318) | 05 (255) |
| Having job skills that are attractive to civilian employers | 46 (323) | 68 (306) | 57 (240) |
| Saving money for college education of my children | 44 (328) | 60 (239) | 52 (185) |
| Being promoted when eligible | 49 (264) | 65 (326) | 62 (266) |
| A permanent place to live | 70 (458) | 80 (215) | 76 (164) |
| Working for a supervisor who cares about you | 61 (361) | 84 (275) | 78 (226) |
| Establishing financial credit | 19 (349) | 35 (295) | 30 (234) |
| Working for a competent supervisor | 51 (390) | 79 (299) | 69 (240) |
| Owning your own home | 54 (333) | 75 (262) | 67 (212) |
| Being promoted on performance | 62 (416) | 81 (329) | 75 (256) |
| Being prepared for a second career | 55 (318) | 80 (255) | 75 (219) |
| Serving your country | 05 (386) | 12 (229) | 05 (200) |
| Getting credit for doing a good job | 57 (369) | 81 (285) | 71 (231) |
| Having challenging work | 37 (330) | 69 (259) | 57 (182) |
| Being available when your family needs you | 66 (437) | 85 (356) | 79 (283) |
| Having decision-making responsibility | 31 (349) | 58 (259) | 51 (195) |
| Being treated equally regardless of race | 36 (452) | 50 (334) | 41 (271) |
| Getting a job that facilitates personal growth | 50 (331) | 81 (263) | 74 (217) |
| Career counseling for a second career | 59 (239) | 80 (173) | 76 (156) |
| Having the opportunity to teach others on the job | 18(314) | 32 (157) | 30 (151) |
| Having a job with a variety of different tasks to perform | 18 (302) | 39 (177) | 30 (150) |
| Having personal freedom | 65 (381) | 91 (344) | 82 (255) |

[a] Needs not expected to be met is defined by rating the likelihood as very low to moderate while in the Army.

[b] n represents number of respondents in each reenlistment intention category.

[c] Percentages are based on the number in parentheses that rated that need as of very high importance in making a reenlistment decision.

Table 4 (continued)

| Needs | Group | | | | | |
|---|---|---|---|---|---|---|
| | Stayers (n = 513)[b] | | Leavers (n = 411) | | Undecided (n = 312) | |
| Having on-going training (e.g., job related) opportunities | 51 | (327) | 73 | (230) | 62 | (179) |
| Receiving quality dental and medical benefits | 30 | (463) | 34 | (346) | 30 | (274) |
| Getting retirement benefits | 24 | (470) | 32 | (304) | 30 | (251) |
| Getting the reenlistment option you want | 72 | (454) | 87 | (288) | 83 | (280) |
| Satisfying your spouse's wants and needs | 60 | (398) | 81 | (296) | 75 | (245) |
| Having job security | 22 | (450) | 32 | (334) | 28 | (268) |
| Having an officer who cares about the soldiers in his unit | 61 | (419) | 78 | (318) | 67 | (244) |
| Receiving fair treatment from the civilian community | 62 | (325) | 75 | (245) | 66 | (203) |
| Living in good housing | 54 | (417) | 64 | (332) | 60 | (249) |
| Receiving a reenlistment bonus | 80 | (343) | 84 | (213) | 81 | (199) |
| Getting training for a civilian job | 68 | (338) | 85 | (308) | 78 | (238) |
| Having your next assignment guaranteed | 68 | (400) | 82 | (287) | 81 | (251) |
| Receiving a fair workload | 60 | (317) | 77 | (255) | 70 | (208) |
| Developing personal discipline | 16 | (391) | 26 | (261) | 22 | (224) |
| Counseling subordinates | 20 | (289) | 41 | (158) | 28 | (165) |
| Receiving credit for your ideas | 60 | (326) | 82 | (244) | 76 | (206) |
| Being treated equally regardless of sex | 44 | (385) | 58 | (284) | 57 | (245) |
| Being able to balance time required by family and job demands | 75 | (399) | 87 | (309) | 81 | (254) |
| Having a great deal of independence in accomplishing tasks | 52 | (299) | 71 | (230) | 61 | (176) |
| Having enough time off to take care of my personal/family needs | 64 | (366) | 72 | (316) | 70 | (238) |
| Having a job with clear expectations | 56 | (337) | 77 | (270) | 75 | (223) |
| Having quality soldiers in the Army | 60 | (440) | 76 | (311) | 69 | (254) |
| Having good NCO leadership | 50 | (467) | 78 | (334) | 64 | (269) |
| Working in an organized environment | 62 | (401) | 80 | (299) | 78 | (242) |
| Being able to say what's on your mind without hurting your career | 83 | (398) | 96 | (336) | 90 | (259) |
| Doing meaningful work | 51 | (412) | 79 | (327) | 69 | (239) |
| EERs that reflect only performance | 63 | (297) | 78 | (198) | 75 | (166) |
| Work schedules that do not change | 83 | (222) | 90 | (205) | 85 | (169) |

Table 4 (continued)

| Needs | Group | | | | | |
|---|---|---|---|---|---|---|
| | Stayers (n = 513)[b] | | Leavers (n = 411) | | Undecided (n = 312) | |
| Receiving positive feedback on your job performance | 56 | (383) | 77 | (261) | 67 | (231) |
| Being treated as an individual | 54 | (365) | 82 | (307) | 73 | (223) |
| Attending college | 60 | (348) | 77 | (294) | 78 | (270) |
| Achieving your full potential | 49 | (422) | 80 | (344) | 69 | (259) |
| Having officers respect NCOs' authority | 71 | (428) | 83 | (281) | 77 | (245) |
| Working with competent coworkers | 53 | (387) | 79 | (264) | 71 | (218) |
| Equal consideration in the promotion of men and women | 41 | (394) | 53 | (276) | 45 | (231) |
| Saving money | 50 | (422) | 56 | (318) | 56 | (270) |
| Working for an organization that takes care of its people | 58 | (450) | 78 | (345) | 65 | (274) |
| Having competent peers in your MOS | 52 | (406) | 65 | (285) | 60 | (237) |
| Being able to retire after 20 years | 20 | (392) | 44 | (179) | 39 | (191) |
| Receiving 30 days of paid leave a year | 07 | (406) | 08 | (293) | 05 | (245) |
| Having a spouse supportive of your career decision | 24 | (413) | 57 | (291) | 36 | (250) |
| Having your NCO care about the soldiers in his unit | 50 | (425) | 77 | (298) | 67 | (248) |
| Receiving pay adjustments that keep pace with the cost of living | 72 | (479) | 80 | (349) | 74 | (285) |
| Working a normal work week | 74 | (289) | 87 | (277) | 79 | (217) |
| Reaching your potential | 44 | (448) | 78 | (333) | 65 | (258) |
| Having good officer leadership | 61 | (399) | 77 | (278) | 66 | (241) |
| Achieving comparability with civilian salaries | 82 | (380) | 90 | (304) | 84 | (245) |
| Knowing that your spouse has a positive attitude towards your career/job | 34 | (390) | 69 | (298) | 55 | (242) |

Table 5

Needs Not Expected to Be Met, Grouped by Marital Status[a]

| Needs | Marital Status | |
|---|---|---|
| | Single ($n$ = 545)[b] | Married ($n$ = 690) |
| Obtaining a college degree | 80% (330)[c] | 69% (384) |
| Receiving a steady paycheck | 07 (426) | 03 (571) |
| Having job skills that are attractive to civilian employers | 59 (392) | 55 (476) |
| Saving money for college education of my children | 50 (279) | 52 (476) |
| Being promoted when eligible | 58 (438) | 57 (611) |
| A permanent place to live | 67 (230) | 79 (429) |
| Working for a supervisor who cares about you | 76 (378) | 70 (482) |
| Establishing financial credit | 28 (380) | 27 (497) |
| Working for a competent supervisor | 67 (401) | 63 (527) |
| Owning your own home | 69 (293) | 61 (512) |
| Being promoted on performance | 73 (437) | 70 (562) |
| Being prepared for a second career | 70 (337) | 68 (454) |
| Serving your country | 06 (325) | 07 (489) |
| Getting credit for doing a good job | 72 (379) | 66 (506) |
| Having challenging work | 56 (327) | 50 (443) |
| Being available when your family needs you | 76 (455) | 76 (621) |
| Having decision-making responsibility | 48 (324) | 42 (478) |
| Being treated equally regardless of race | 46 (454) | 38 (601) |
| Getting a job that facilitates personal growth | 71 (351) | 63 (459) |
| Having the opportunity to teach others on the job | 27 (232) | 23 (388) |
| Having a job with a variety of different tasks to perform | 31 (262) | 23 (365) |
| Having personal freedom | 83 (445) | 74 (535) |
| Having on-going training (e.g., job related) opportunities | 63 (315) | 60 (420) |

[a] Needs not expected to be met is defined by rating the likelihood as very low to moderate while in the Army.

[b] $n$ represents number of respondents in each marital status category.

[c] Percentages are based on the number in parentheses that rated that need as of very high importance in making a reenlistment decision.

Table 5 (continued)

| Needs | Marital Status | |
|---|---|---|
| | Single (n = 545)[b] | Married (n = 690) |
| Receiving quality dental and medical benefits | 25 (469) | 35 (613) |
| Getting retirement benefits | 28 (441) | 28 (582) |
| Getting the reenlistment option you want | 77 (447) | 81 (576) |
| Satisfying your spouse's wants and needs | 74 (350) | 69 (588) |
| Having job security | 31 (445) | 24 (605) |
| Having an officer who cares about the soldiers in his unit | 71 (432) | 65 (548) |
| Receiving fair treatment from the civilian community | 68 (328) | 66 (444) |
| Living in good housing | 64 (423) | 55 (574) |
| Receiving a reenlistment bonus | 78 (319) | 84 (436) |
| Getting training for a civilian job | 76 (391) | 77 (494) |
| Having your next assignment guaranteed | 76 (394) | 75 (545) |
| Receiving a fair workload | 71 (331) | 66 (447) |
| Developing personal discipline | 22 (369) | 20 (506) |
| Receiving credit for your ideas | 79 (327) | 66 (446) |
| Being treated equally regardless of sex | 59 (377) | 47 (535) |
| Being able to balance time required by family and job demands | 83 (383) | 79 (578) |
| Having a great deal of independence in accomplishing tasks | 65 (295) | 57 (409) |
| Having enough time off to take care of my personal/family needs | 76 (398) | 69 (522) |
| Having a job with clear expectations | 75 (344) | 62 (485) |
| Having quality soldiers in the Army | 69 (423) | 66 (581) |
| Having good NCO leadership | 69 (458) | 53 (611) |
| Working in an organized environment | 78 (402) | 67 (539) |
| Being able to say what's on your mind without hurting your career | 92 (441) | 87 (551) |
| Doing meaningful work | 72 (421) | 59 (556) |
| EERs that reflect only performance | 71 (261) | 70 (400) |
| Receiving positive feedback on your job performance | 69 (367) | 62 (506) |
| Being treated as an individual | 75 (399) | 63 (495) |
| Attending college | 72 (389) | 67 (463) |
| Achieving your full potential | 70 (458) | 60 (566) |
| Having officers respect NCOs' authority | 77 (390) | 74 (564) |

Table 5 (continued)

| Needs | Marital Status | |
|---|---|---|
| | Single ($n$ = 545)[b] | Married ($n$ = 690) |
| Working with competent coworkers | 69 (359) | 62 (510) |
| Equal consideration in the promotion of men and women | 48 (380) | 43 (520) |
| Saving money | 47 (426) | 58 (583) |
| Working for an organization that takes care of its people | 70 (465) | 64 (603) |
| Having competent peers in your MOS | 60 (394) | 57 (533) |
| Being able to retire after 20 years | 31 (278) | 30 (482) |
| Receiving 30 days of paid leave a year | 07 (399) | 08 (545) |
| Having a spouse supportive of your career decision | 51 (346) | 30 (607) |
| Having your NCO care about the soldiers in his unit | 71 (424) | 56 (545) |
| Receiving pay adjustments that keep pace with the cost of living | 74 (477) | 76 (635) |
| Working a normal work week | 76 (339) | 83 (444) |
| Reaching your potential | 65 (448) | 56 (590) |
| Having good officer leadership | 69 (389) | 66 (528) |
| Achieving comparability with civilian salaries | 85 (403) | 85 (526) |
| Knowing that your spouse has a positive attitude towards your career/job | 64 (355) | 43 (573) |

Table 6

Needs Not Expected to be Met, Grouped by Gender[a]

| Needs | Gender | |
|---|---|---|
| | Male (n = 990)[b] | Female (n = 247) |
| Obtaining a college degree | 77% (556)[c] | 64% (160) |
| Receiving a steady paycheck | 05 (788) | 03 (211) |
| Having job skills that are attractive to civilian employers | 61 (699) | 44 (201) |
| Saving money for college education of my children | 53 (603) | 45 (151) |
| Being promoted when eligible | 58 (837) | 51 (214) |
| A permanent place to live | 74 (545) | 79 (114) |
| Working for a supervisor who cares about you | 73 (683) | 72 (178) |
| Establishing financial credit | 29 (702) | 21 (177) |
| Working for a competent supervisor | 64 (732) | 67 (199) |
| Owning your own home | 65 (656) | 60 (150) |
| Being promoted on performance | 72 (796) | 72 (205) |
| Being prepared for a second career | 71 (646) | 60 (148) |
| Serving your country | 07 (674) | 07 (142) |
| Getting credit for doing a good job | 68 (701) | 70 (185) |
| Having challenging work | 52 (601) | 53 (171) |
| Being available when your family needs you | 75 (860) | 78 (218) |
| Having decision-making responsibility | 44 (662) | 47 (141) |
| Being treated equally regardless of race | 42 (837) | 39 (220) |
| Getting a job that facilitates personal growth | 67 (649) | 66 (163) |
| Having the opportunity to teach others on the job | 23 (513) | 29 (109) |
| Having a job with a variety of different tasks to perform | 26 (502) | 30 (128) |
| Having personal freedom | 78 (785) | 80 (196) |

[a] Needs not expected to be met is defined by rating the likelihood as very low to moderate while in the Army.

[b] n represents number of respondents in each gender category.

[c] Percentages are based on the number in parentheses that rated that need as of very high importance in making a reenlistment decision.

Table 6 (continued)

| Needs | Gender | |
|---|---|---|
| | Male ($n$ = 990)[b] | Female ($n$ = 247) |
| Having on-going training (e.g., job related) opportunities | 62 (595) | 57 (142) |
| Receiving quality dental and medical benefits | 32 (863) | 28 (221) |
| Getting retirement benefits | 28 (834) | 27 (191) |
| Getting the reenlistment option you want | 79 (810) | 80 (213) |
| Satisfying your spouse's wants and needs | 71 (767) | 70 (173) |
| Having job security | 28 (836) | 22 (216) |
| Having an officer who cares about the soldiers in his unit | 67 (779) | 72 (204) |
| Receiving fair treatment from the civilian community | 68 (623) | 66 (151) |
| Living in good housing | 59 (795) | 58 (204) |
| Receiving a reenlistment bonus | 79 (608) | 92 (148) |
| Getting training for a civilian job | 79 (707) | 69 (179) |
| Having your next assignment guaranteed | 75 (743) | 79 (197) |
| Receiving a fair workload | 67 (610) | 74 (171) |
| Developing personal discipline | 22 (700) | 14 (177) |
| Receiving credit for your ideas | 70 (619) | 75 (158) |
| Being treated equally regardless of sex | 49 (710) | 64 (204) |
| Being able to balance time required by family and job demands | 81 (760) | 77 (203) |
| Having a great deal of independence in accomplishing tasks | 63 (570) | 50 (135) |
| Having enough time off to take care of my personal/family needs | 72 (741) | 71 (180) |
| Having a job with clear expectations | 67 (673) | 71 (159) |
| Having quality soldiers in the Army | 68 (811) | 65 (195) |
| Having good NCO leadership | 62 (857) | 63 (214) |
| Working in an organized environment | 70 (753) | 77 (191) |
| Being able to say what's on your mind without hurting your career | 88 (791) | 93 (202) |
| Doing meaningful work | 68 (780) | 53 (199) |
| EERs that reflect only performance | 73 (518) | 61 (142) |
| Receiving positive feedback on your job performance | 66 (687) | 62 (187) |
| Being treated as an individual | 68 (700) | 70 (196) |
| Attending college | 72 (671) | 57 (184) |

Table 6 (continued)

| Needs | Gender | | | |
|---|---|---|---|---|
| | Male ($n$ = 990)[b] | | Female ($n$ = 247) | |
| Achieving your full potential | 65 | (819) | 60 | (208) |
| Having officers respect NCOs' authority | 76 | (769) | 75 | (187) |
| Working with competent coworkers | 65 | (689) | 65 | (182) |
| Equal consideration in the promotion of men and women | 45 | (700) | 48 | (202) |
| Saving money | 57 | (805) | 41 | (207) |
| Working for an organization that takes care of its people | 66 | (850) | 68 | (220) |
| Having competent peers in your MOS | 59 | (743) | 54 | (186) |
| Being able to retire after 20 years | 30 | (632) | 31 | (131) |
| Receiving 30 days of paid leave a year | 07 | (759) | 06 | (185) |
| Having a spouse supportive of your career decision | 38 | (774) | 35 | (180) |
| Having your NCO care about the soldiers in his unit | 62 | (770) | 66 | (201) |
| Receiving pay adjustments that keep pace with the cost of living | 77 | (889) | 69 | (225) |
| Working a normal work week | 82 | (613) | 75 | (171) |
| Reaching your potential | 62 | (826) | 53 | (214) |
| Having good officer leadership | 66 | (731) | 71 | (188) |
| Achieving comparability with civilian salaries | 88 | (753) | 77 | (177) |
| Knowing that your spouse has a positive attitude towards your career/job | 52 | (752) | 46 | (178) |

Table 7

Needs Not Expected to Be Met, Grouped by Combat, Combat Support and Combat Service MOS[a]

| Needs | MOS | | | | | |
|---|---|---|---|---|---|---|
| | Combat (n = 347) | | Combat Support (n = 552) | | Combat Service (n = 269) | |
| Obtaining a college degree | 82 | (168) | 73 | (348) | 82 | (131) |
| Receiving a steady paycheck | 05 | (272) | 03 | (459) | 05 | (215) |
| Having job skills that are attractive to civilian employers | 71 | (213) | 57 | (402) | 42 | (204) |
| Saving money for college education of my children | 54 | (217) | 50 | (333) | 49 | (155) |
| Being promoted when eligible | 54 | (281) | 63 | (483) | 50 | (234) |
| A permanent place to live | 69 | (195) | 81 | (298) | 73 | (132) |
| Working for a supervisor who cares about you | 71 | (240) | 77 | (383) | 65 | (191) |
| Establishing financial credit | 30 | (257) | 28 | (383) | 22 | (191) |
| Working for a competent supervisor | 60 | (249) | 68 | (435) | 64 | (197) |
| Owning your own home | 65 | (242) | 67 | (349) | 59 | (170) |
| Being promoted on performance | 66 | (279) | 75 | (446) | 73 | (220) |
| Being prepared for a second career | 75 | (236) | 70 | (363) | 58 | (147) |
| Serving your country | 08 | (251) | 07 | (363) | 06 | (160) |
| Getting credit for doing a good job | 64 | (247) | 72 | (400) | 67 | (192) |
| Having challenging work | 44 | (199) | 55 | (361) | 55 | (171) |
| Being available when your family needs you | 74 | (301) | 79 | (484) | 72 | (233) |
| Having decision-making responsibility | 38 | (235) | 47 | (364) | 49 | (161) |
| Being treated equally regardless of race | 41 | (292) | 42 | (471) | 38 | (234) |
| Getting a job that facilitates personal growth | 69 | (208) | 67 | (392) | 63 | (164) |
| Having the opportunity to teach others on the job | 23 | (198) | 21 | (278) | 31 | (108) |

[a] Needs not expected to be met is defined by rating the likelihood as very low to moderate while in the Army.

[b] n represents number of respondents in each MOS category.

[c] Percentages are based on the number in parentheses that rated that need as of very high importance in making a reenlistment decision.

Table 7 (continued)

| Needs | MOS | | | | | |
|---|---|---|---|---|---|---|
| | Combat (n = 347) | | Combat Support (n = 552) | | Combat Service (n = 269) | |
| Having a job with a variety of different tasks to perform | 23 | (167) | 26 | (300) | 31 | (127) |
| Having personal freedom | 77 | (273) | 80 | (437) | 75 | (213) |
| Having on-going training (e.g., job related) opportunities | 56 | (195) | 64 | (352) | 59 | (146) |
| Receiving quality dental and medical benefits | 33 | (304) | 31 | (486) | 31 | (235) |
| Getting retirement benefits | 26 | (302) | 33 | (447) | 21 | (221) |
| Getting the reenlistment option you want | 79 | (289) | 81 | (459) | 75 | (218) |
| Satisfying your spouse's wants and needs | 69 | (275) | 74 | (423) | 64 | (190) |
| Having job security | 31 | (304) | 27 | (467) | 21 | (224) |
| Having an officer who cares about the soldiers in his unit | 65 | (276) | 70 | (444) | 66 | (207) |
| Receiving fair treatment from the civilian community | 67 | (217) | 69 | (352) | 63 | (160) |
| Living in good housing | 53 | (267) | 65 | (448) | 54 | (224) |
| Receiving a reenlistment bonus | 80 | (219) | 81 | (351) | 85 | (141) |
| Getting training for a civilian job | 86 | (244) | 77 | (404) | 62 | (188) |
| Having your next assignment guaranteed | 74 | (261) | 80 | (424) | 69 | (202) |
| Receiving a fair workload | 65 | (213) | 70 | (357) | 69 | (166) |
| Developing personal discipline | 23 | (246) | 20 | (395) | 18 | (185) |
| Receiving credit for your ideas | 70 | (210) | 71 | (360) | 71 | (164) |
| Being treated equally regardless of sex | 47 | (244) | 56 | (419) | 50 | (202) |
| Being able to balance time required by family and job demands | 82 | (257) | 81 | (437) | 74 | (212) |
| Having a great deal of independence in accomplishing tasks | 62 | (198) | 61 | (309) | 54 | (158) |
| Having enough time off to take care of my personal/family needs | 76 | (259) | 71 | (408) | 70 | (201) |
| Having a job with clear expectations | 67 | (227) | 70 | (383) | 65 | (167) |
| Having quality soldiers in the Army | 64 | (286) | 70 | (446) | 64 | (220) |
| Having good NCO leadership | 55 | (306) | 66 | (476) | 62 | (232) |
| Working in an organized environment | 70 | (257) | 73 | (427) | 68 | (207) |
| Being able to say what's on your mind without hurting your career | 88 | (272) | 91 | (453) | 88 | (212) |
| Doing meaningful work | 71 | (263) | 65 | (449) | 54 | (212) |
| EERs that reflect only performance | 67 | (183) | 74 | (302) | 67 | (135) |

Table 7 (continued)

| Needs | MOS | | | | | |
|---|---|---|---|---|---|---|
| | Combat (n = 347) | | Combat Support (n = 552) | | Combat Service (n = 269) | |
| Receiving positive feedback on your job performance | 62 | (234) | 68 | (397) | 61 | (192) |
| Being treated as an individual | 64 | (240) | 71 | (403) | 67 | (203) |
| Attending college | 80 | (213) | 68 | (399) | 60 | (197) |
| Achieving your full potential | 60 | (273) | 69 | (468) | 60 | (227) |
| Having officers respect NCOs' authority | 73 | (278) | 80 | (422) | 68 | (197) |
| Working with competent coworkers | 61 | (230) | 68 | (409) | 63 | (182) |
| Equal consideration in the promotion of men and women | 43 | (227) | 48 | (417) | 42 | (212) |
| Saving money | 57 | (280) | 56 | (459) | 46 | (219) |
| Working for an organization that takes care of its people | 62 | (298) | 68 | (481) | 65 | (231) |
| Having competent peers in your MOS | 59 | (253) | 61 | (426) | 49 | (200) |
| Being able to retire after 20 years | 29 | (241) | 34 | (333) | 22 | (147) |
| Receiving 30 days of paid leave a year | 12 | (267) | 06 | (426) | 05 | (200) |
| Having a spouse supportive of your career decision | 35 | (267) | 38 | (424) | 37 | (211) |
| Having your NCO care about the soldiers in his unit | 58 | (274) | 66 | (427) | 61 | (213) |
| Receiving pay adjustments that keep pace with the cost of living | 77 | (312) | 76 | (502) | 69 | (239) |
| Working a normal work week | 85 | (217) | 81 | (340) | 72 | (178) |
| Reaching your potential | 56 | (285) | 64 | (474) | 54 | (226) |
| Having good officer leadership | 64 | (260) | 68 | (408) | 69 | (200) |
| Achieving comparability with civilian salaries | 88 | (256) | 87 | (431) | 78 | (192) |
| Knowing that your spouse has a positive attitude towards your career/job | 48 | (266) | 53 | (408) | 48 | (206) |

# Personnel Utilization Technical Area Working Paper 87-10

A PRELIMINARY INVESTIGATION INTO SOME ASPECTS OF SPOUSAL SATISFACTION WITH THE ARMY: THE SOLDIER'S CAREER DECISION

Alfred L. Smith, Jr.

OCTOBER 1987

REVIEWED BY:

Clessen J. Martin

CLESSEN J. MARTIN

Paul A. Gade

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

**U.S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333

This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

The influence of positive spousal attitudes toward the military on the retention of soldiers is well documented (e.g. Orthner, 1980; Szoc, 1982; McCubbin & Patterson, 1983; Seboda & Szoc, 1984). Making family members' entry into Army life and ensuring that the quality of life is as good-- if not better than would be found elsewhere-- benefits the organization. These benefits may be reflected in retention of highly skilled soldiers which translates into a reduction in training cost dollars and enhanced force readiness (Peterson, 1987).

Orthner and Pittman (1986) have suggested that the military organization has formed a alliance with families. This alliance is based upon the assumption that a comprehensive approach to family support programs will have payoff in terms of increased family identification with the organization and increased career commitment on the part of soldiers. This would suggest that positive spousal attitudes toward the soldier's continued military participation are partly the result of satisfaction with support services offered by the Army.

Another issue to consider, given the current circumstances in which having both spouses employed is becoming the norm rather than the exception, is that various aspects related to the spouse's career/employment may also impact on a soldier's reenlistment decision. The effect could be a direct economic factor (spouse has greater earning power), or of a different type, e.g., spouse's refusal to leave career and move to new duty station.

Data for this paper were taken from selected items from the Reenlistment Incentives and Career Decisions Questionnaire (RICQ), which was designed to tap a number of factors which influence reenlistment decisions. These factors include needs and their fulfillment, satisfaction with the Army,

organizational commitment, occupational stress, perceptions of civilian alternatives, opinions on reenlistment policies and procedures, demographic and family variables. One section of the questionnaire was devoted to assessing the soldiers's perceptions of the spouse's satisfaction with Army support services and time available to spend with spouse. Services included housing, medical care, daycare facilities, commissary, recreational facilities, sponsorship progrm, the PX, recreational programs, children's education. Soldiers were also asked about their spouse's attitude toward their reenlistment, i.e., did their spouses want them to reenlist. The first goal was to determine the relationship between spouse's attitude about staying in the Army and soldier's reenlistment intent. The second research purpose was to examine the relationship of spousal satisfaction with services and time plus spouse's age, number of years married, and education to spouse's attitude toward reenlistment. Finally, because a relationship between spouse's attitude and reenlistment intent was expected, the research looked at whether prediction of reenlistment intent could be improved by the addition of other variables related to spouse's employment.

## Method

### Sample

Sample consisted of 530 currently married soldiers who met the following conditions: eligible for reenlistment, within 8 months of Expiration of Term of Service (ETS), and indicated a definite reenlistment intention. Some soldiers may have been dropped from one or more analyses due to missing data points.

## Analyses

Three analyses were performed to answer the three research questions. The first was a simple regression of reenlistment intent on spouse's attitude. The second was a stepwise multiple regression of spouse's attitude toward reenlistment on spouse age and education, years married, and the 10 spousal satisfaction items. In the final analysis, reenlistment intent was regressed on spouse's attitude plus responses to questions related to spouse's employment/ career. Reenlistment intent was dummy coded with 0=Stay and 1=Leave. These questions asked if the spouse was employed, if the soldier had ever considered leaving the Army for spouse's career, if it was important for his/her spouse to have good job, how likely it would be for spouse to find good job if the soldier left the Army, if spouse's ability to find a good job was a factor in the reenlistment decision, and the amount of spouse's income. Reenlistment intent was coded as 0=Stay and 1=Leave.

## Results

The regression of reenlistment intent on spouse's attitude about staying was significant [$F(1,527) = 423.89$, $p=.0001$] with R-square=.44. That is, the two variables are highly correlated ($r=.68$) as was expected.

The stepwise regression of spouse's attitude on demographic and satisfaction items was also significant [$F(7,510)=13.68$, $p=.0001$]. Seven out of the 13 variables contributed to the model with an R-square=.16. Age of the spouse accounted for nearly 6%, while the first four variables entering the model accounted for 13% of the variance in the dependent variable, with the remaining three items accounting for only an additional 3%. A summary of results of this analysis are presented in Table 1.

The final analysis was a stepwise regression of reenlistment intent on spouse's attitude about staying in the Army and the six items related to spousal employment. Only two variables in addition to spouse's attitude -- likelihood of finding a good job and consideration of leaving because of spouse's career -- were retained in the model which accounted for 46% of the variance in reenlistment intent. Thus, the increase in R-square over just spouse's attitude about staying was only .02. A summary of the results is provided in Table 2.

Table 1.
Summary of Stepwise Multiple Regression of Spouse's Attitude toward Staying in the Army on Spousal Satisfaction items, Age, Education, and Years Married.

| Variables in the Equation | B | Partial F* |
|---|---|---|
| Spouse Age | .02 | 13.37 |
| Spousal Satisfaction w/ housing | .06 | 10.17 |
| Spouse Education | .04 | 9.86 |
| Spousal Satisfaction w/ quality of medical care | .05 | 7.40 |
| Years Married | .01 | 5.81 |
| Spousal Satisfaction w/ PX | .07 | 9.63 |
| Spousal Satisfaction w/ Commissary | -.05 | 5.44 |
| R-square | .16 | |
| R | .40 | |
| F (7, 510) | 13.68 | |

* $p < .05$ to stay in the equation.

Table 2.
Summary of Stepwise Multiple Regression of Soldier's Reenlistment Intent on Spouse's Attitude toward Staying in the Army and Spousal Employment Items.

| Variables in the Equation | B | Partial F* |
|---|---|---|
| Spouse wants soldier to stay | -.61 | 352.16 |
| Likelihood spouse finds good job if leave Army | .06 | 15.24 |
| Soldier considers leaving for spouse's career | .07 | 4.24 |
| R-square | .46 | |
| R | .68 | |
| F(3, 512) | 144.18 | |

* $p < .05$ to stay in the equation.

## Discussion

In keeping with previous findings (e.g., Peterson, 1987), soldiers' indications of their spouses' desire for them to leave or stay in the Army are very highly related to soldiers' intentions about reenlistment. Thus, efforts to influence spousal attitudes about the Army should have desirable effects on retention of soldiers.

Unfortunately, only minimal light is shed on the influencers of spouse's attitude about reenlistment from the analyses performed here. Spouse's age is the best predictor out of the variables examined here of his/her wanting the partner to reenlist. This finding is not surprising since it has been commonly found that reenlistment intent is related to the age of the soldier him/herself. Only four support services -- housing, medical care, PX, and commissary -- contributed to the regression model. The actual amount of variance explained by them is quite small, and, in total, only 16% of variance in spouses' attitude is explained by the model. Further efforts are needed to identify other factors which might influence the spouse, as well as to determine better the role of satisfaction with support services on spouses' attitude .

Although the notion of different aspects of spouse's employment/career influencing soldiers' reenlistment decisions is a logical consideration, the findings here don't provide much support for this. Only two out of six items entered into the regression model and they only provided a .02 increase in R-square. One problem here may be that the specific items do not tap the right information. However, the results do suggest that further efforts in this direction are needed.

The findings reported here are prelimary and of a limited nature. Several important variables have been overlooked -- most noticeably sex of the soldier and whether the spouse is a civilian or another soldier. Further analyses that take these variables into account are needed since they may impact considerably on variables included in these present efforts.

## References

McCubbin, H.I., & Patterson, J. M. (1983). One thousand Army families: Strengths, coping, and support. University of Minnesota.

Orthner, D. K. (1980) Families in blue: A study of married and single parent families in the Air Force. Washington, D. C.: Department of the Air Force.

Orthner, D. K., & Pittman, J. E. (1986). Family contributions to work commitment. Journal of Marriage and the Family, 48, 573-581.

Peterson, M. (1987). Army families: You're important! Soldier Support Journal. January-March, 47-51.

Seboda, B. L., & Szoc, R. (1984). Family factors critical to the retention of Naval personnel: The link between retention intention and retention behavior. Technical Report. Westinghouse Public Applied Systems

Szoc, R. (1982). Family factors critical to the retention of Naval personnel. Final Report. Westinghouse Public Applied Systems

# Personnel Utilization Technical Area Working Paper 89-1

MARRIED JUNIOR ARMY OFFICERS: DETERMINANTS OF CAREER DECISIONS AND SPOUSE QUALITY OF LIFE PERCEPTIONS

Martha L. Teplitzky

January 1989

For Internal ARI Distribution Only

Approved by:

Paul A. Gade

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

## Manpower and Personnel Research Laboratory

**U. S. Army Research Institute for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333-5600

This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

TABLE OF CONTENTS

Introduction .....1

Model Overview and Military Background .....2

Research Models .....2

Background: Officer Careers .....5

The Retention Model .....12

Review of the Literature .....12

Major Studies .....12

Job Characteristics and Officer Retention .....15

Spouse Attitudes and Officer Retention .....21

Joint Utility Maximization and the Retention Decision .....24

Family Stage Constraints and the Retention Decision .....27

Summary and Theoretical Implications of the Retention Model .....35

(Section after first yellow sheet)

The Spouse Quality of Life Model .....1

Review of the Literature .....3

Direct Determinants of Quality of Life Perceptions .....3

Time Demands of Military Life .....3

Relocation Requirements .....9

Demands of the Traditional Spouse Role .....11

Determinants of Reactions to the Demands of Military Life .....21

Career Orientation .....21

Army Support for Families .....32

Summary and Theoretical Implications of Quality of Life Model ....42

TABLE OF CONTENTS (cont)

(section after second yellow sheet)

Method .....1

Sampling Strategy and Sample Size Estimates .....1

Procedure .....5

Measures .....7

Data Analysis .....11

APPENDICES

Appendix A: Scale Items for Variables in the Retention Model

Appendix B: Scale Items for the Direct Predictors of Quality of Life Expectations

Appendix C: Scale Items for Indirect Predictors in Quality of Life Model

# MARRIED JUNIOR ARMY OFFICERS:

# DETERMINANTS OF CAREER DECISIONS AND SPOUSE QUALITY OF LIFE PERCEPTIONS

The retention of highly qualified junior officers is a strong and continuing concern of policy makers at the highest levels of the Army. Millions of dollars are spent annually to attract and train the young men and women who will rise to positions of authority within the Army. Retaining the best of the officers selected for commissioning and early leadership positions is critical to the Army's ability to accomplish its mission.

In the past decade, Army initiatives to retain highly qualified soldiers have been concentrated in two areas. Most visible and constant have been efforts to influence Congress to increase military pay and allowances. More recent and less tangible have been the initiatives aimed at increasing the quality of family life in the Army. These initiatives include greater resource allocations for family services and programs, the establishment of family action plans and advocacy groups, public recognition of the important role families play in the military, and funds for research on the needs and concerns of Army families.

The philosophy underlying the new emphasis on families and quality of life issues was summarized by the Chief of Staff of the Army in the 1983 White Paper, "The Army Family". In his position paper, General Wickham described the relationship between the Army and Army families as a partnership based on a unique set of reciprocal responsibilities. The Army's responsibility to military families stems from the level of commitment required of service members. In taking the oath of service, a soldier accepts a 24 hour a day

"unlimited liability" contract. He agrees to work, train, deploy, and fight, if necessary, whenever and wherever the Army needs him. General Wickham observed that the Army has a moral obligation to support the families of those whoa are willing to make this kind of commitment to their country.

General Wickham also underscored the fact that enhancing the quality of family life in the Army is an organizational, as well as a moral imperative. Married soldiers develop commitments and make career decisions in the context of their family lives. When soldiers or their spouses believe that family needs cannot be satisfied in the Army, institutional loyalties will be strained, and valuable service members may leave. As many have observed, "the Army recruits soldiers, but retains families".

In order to address family issues and ultimately retain military families, we need to know more about the concerns, attitudes and perceptions of the spouses of contemporary junior officers. More specifically we need to learn what factors influence the quality of life military spouses experience, and how quality of life and officer career considerations combine to influence retention decisions. Mission requirements and resource constraints limit what the Army is willing and able to do for families; convincing data on the priorities of junior officers and their wives can help policy makers target programs or policies areas in need of attention.

The purpose of the present research is to provide useful information on these work and family issues to Army decision makers. More specifically, this research should help to answer two important questions: why are some junior officer wives attracted to military life when others are not, and how do work, family and situational factors combine to influence the career intentions of junior officers.

## Model Overview and Military Background

### Research Models

In order to address the questions posed above, two separate models have been developed. One model is an attempt to identify the important predictors of officer and spouse retention preferences. The second model addresses the determinants of Army officer wives' assessments of the quality of life available to them in the Army.

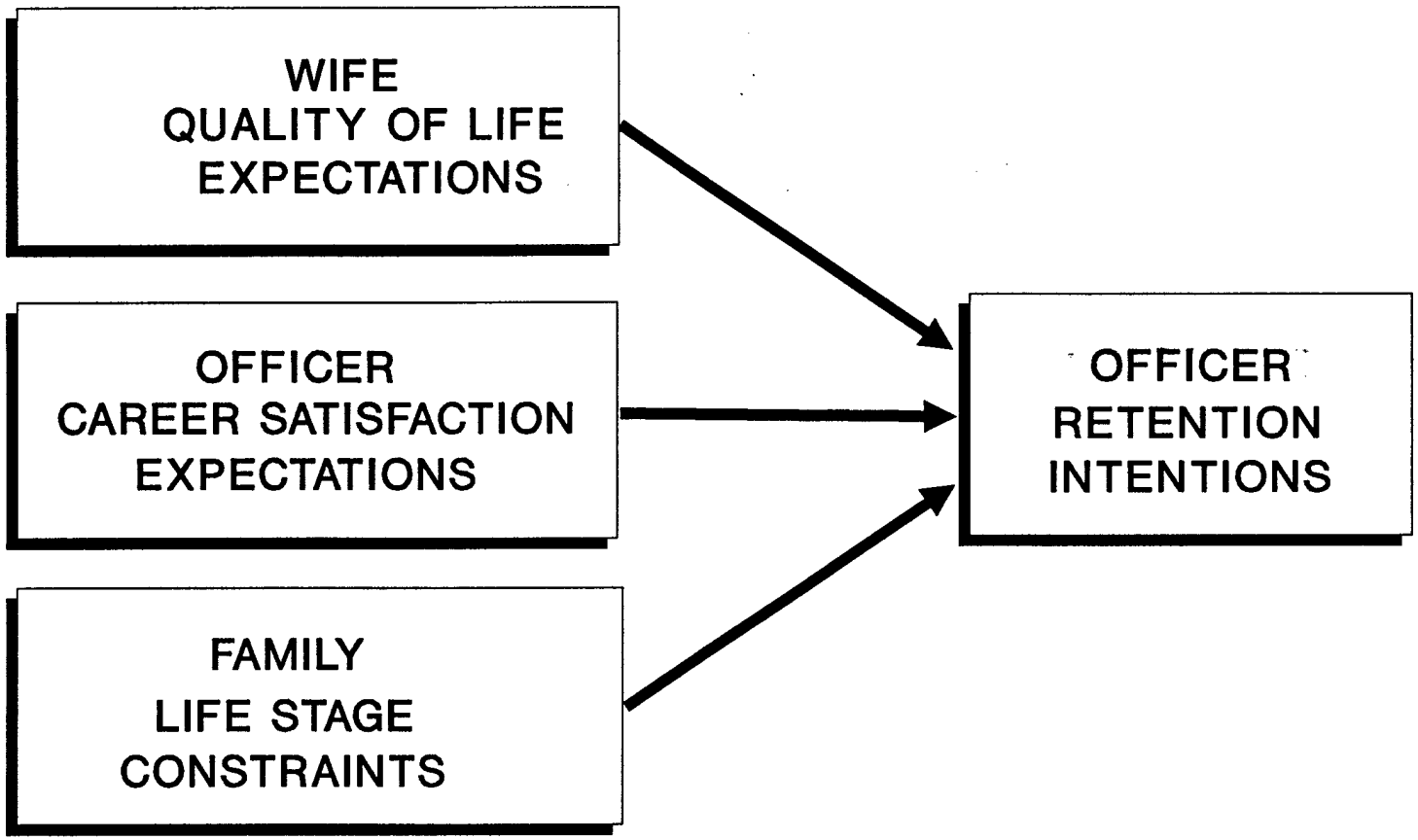
For convenience and because the sample for this and most officer research consists only of male officers, masculine pronouns are used throughout this proposal to refer to officers, and military spouses are assumed to be civilian women. The small percentage (10%) of female officers in the Army face a whole different set of career and family issues, and their concerns, like those of dual military career couples warrant separate treatment.

### Retention Model

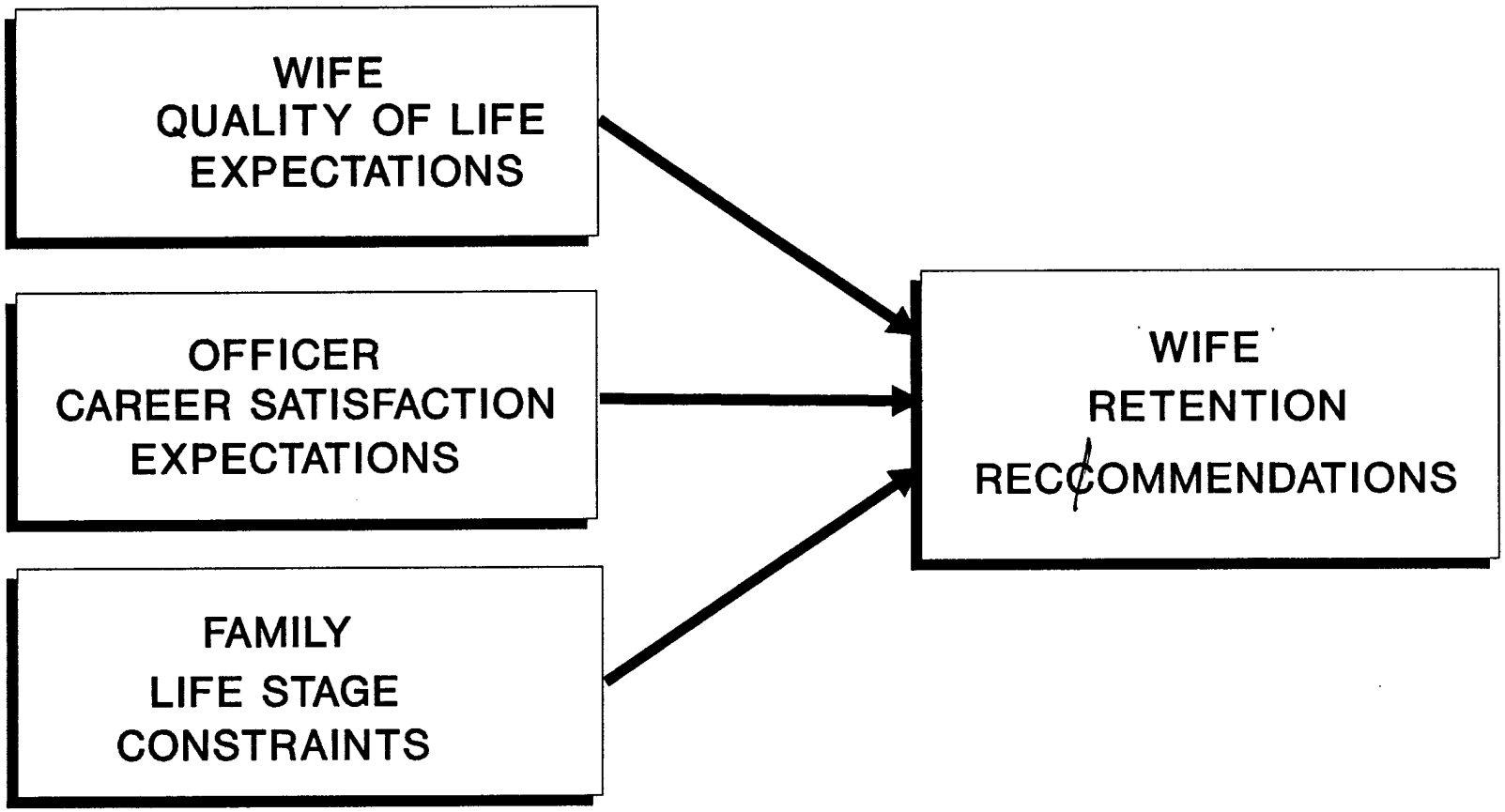
The retention model is tested using two separate retention measures, one from officers, and one from spouses. The dependent variable for officers in this model is a measure of retention intentions. The dependent variable for spouses is a measure of what they would recommend or prefer that their husbands do with regard to staying in the Army.

The model proposes that both officer retention intentions and spouse retention preferences are largely determined by three factors: (a) the officer's asessment of his prospects for a satisfying career in the Army, (b) his wife's feelings about the quality of life she, personally, is likely to experience if her husband stays in the Army, and (c) practical constraints related to the couple's stage in the family life cycle. This hypothesis is based on the assumption that spouses consider the implications of military life

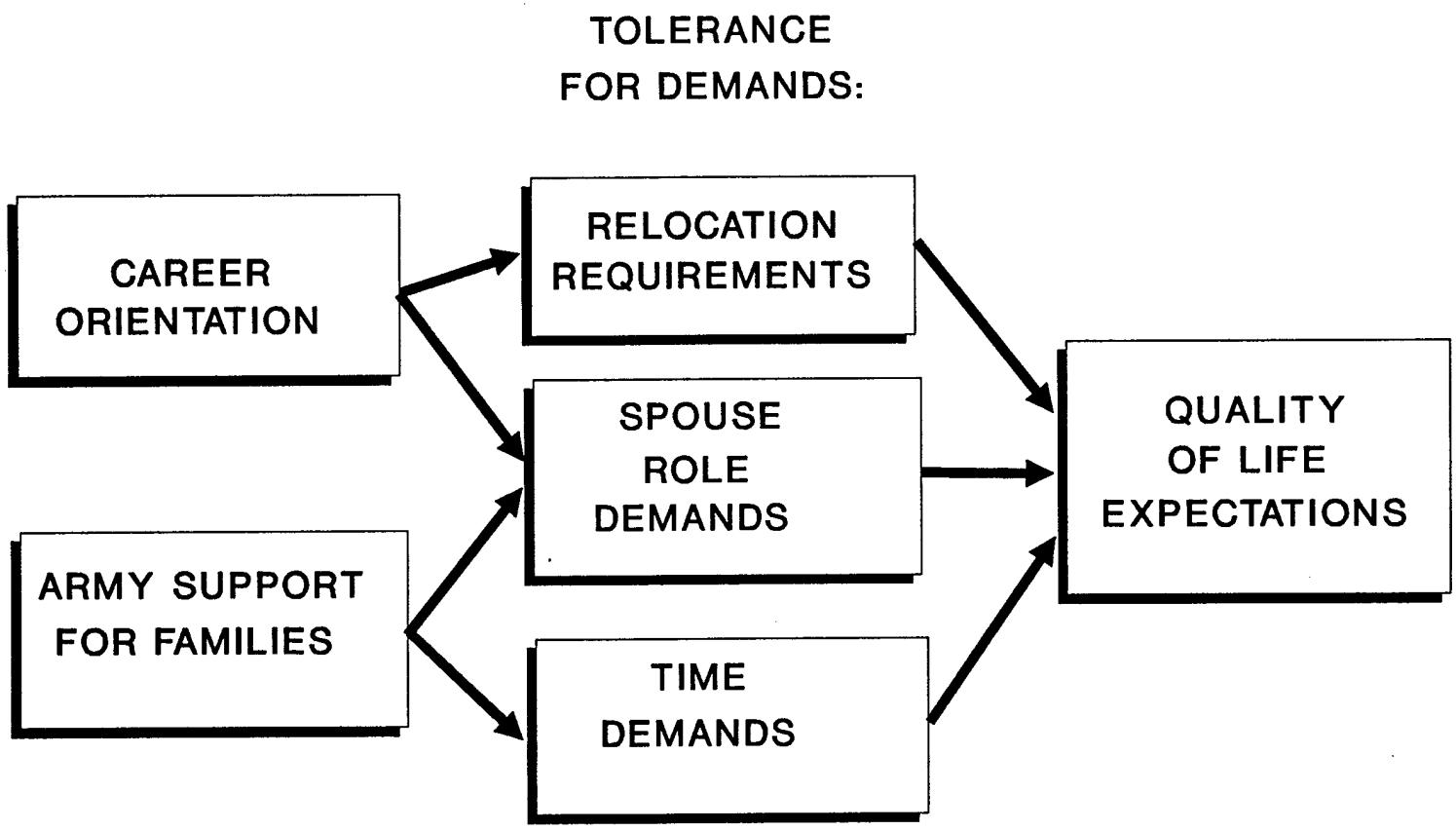
# RETENTION MODEL 1



# RETENTION MODEL 2



# SPOUSE QUALITY OF LIFE MODEL



for their partner's happiness as well as their own, and that couples jointly decide what would be the best course of action for the family as a whole.

A combined officer and spouse sample will be used in testing this model. Reports of the officer's career prospects in the military will be obtained directly from officers, and measures of the wife's quality of life expectations will be obtained from the spouse survey. Separate multiple regression analyses will be used to assess the predictive power of the set of independent variables for officers and their spouses. A comparison of the size of the independent effects of the three predictors will suggest the relative importance of career considerations, spouse lifestyle preferences and situational constraints in the career deliberations of junior officers and their wives.

Spouse Quality of Life Model

In the retention model described above, the spouse quality of life measure is independent variable. In this second model, the quality of life measure is the dependent variable, and the purpose of the model is to uncover the determinants of wives' assessments of the quality of life they will experience if their husbands remain in the Army. It is hypothesized that reactions to three specific demands of military life (time demands, relocation requirements, and spouse role obligations) directly determine a wife's quality of life expectations. It is further proposed that the wife's career orientation and her perceptions of family support in the Army influence quality of life expectations indirectly through their effects on reactions to the three major demands of military life. All the data in this model will be obtained from spouses. Path analysis will be used to test the hypotheses of the model and clarify the nature of the interrelationships among the variables.

## Background: Officer Careers

A full understanding of the officer retention literature and the sampling strategy employed in this research requires some familiarity with structure of an Army officer's career. Service obligations, retirement benefits, and the timing of the retention decision are are discussed below in the context of the sampling frame for the proposed research.

### Officer Service Obligations

When officers are commissioned into the Army, they incur an obligation to spend a certain number of years on active duty before they can elect to leave the Army. The length of an officer's initial obligation is a function of his commissioning source. Officers commissioned through ROTC have either a three year (non-scholarship students) or a four year (ROTC scholarship students) obligation. Officers commissioned through USMA (United States Military Academy at West Point) have a five year active duty obligation. Some officers, however, incur additional obligations through special or advanced training (e.g., aviator or ranger training, civilian graduate school) or a relocation that occurs shortly before the end of the initial obligation.

The service obligations military officers are bound to fulfill (or face serious penalties) have several important implications for retention research. First, the obligation ensures that there is virtually no voluntary attrition from any commissioning year group for at least three years. This makes it possible for researchers to concentrate on officers with a minimum level of organizational experience without biasing the sample (through voluntary attrition early on) in favor of those inclined to stay. In the present sample, all officers will have at least one year of service, and most will have two or more. The career intentions of these officers are more likely to have

crystallized and stabilized than the intentions of officers just still within their first year of service (Shenk and Wilbourn, 1971; Szoc, 1982). Moreover, the salience of the retention decision for officers nearing the end of their obligations is expected to encourage thoughtful responses and strengthen the relationship between intentions and behavior.

The more important implication of the service obligation, however, is that the end of the obligation marks a natural career decision point. Statistics on the retention patterns of three cohorts of USMA and ROTC officers confirm that the large majority of officers who voluntarily leave the Army do so within a year or two of the end their initial obligations (see Table 2).

Table 2

Tenure Status in 1986 for Officers Commissioned in 1971, 1976 and 1980

| | Percentage of officers in each tenure status | | | | | |
|---|---|---|---|---|---|---|
| | 1971 Year Group | | 1976 Year Group | | 1980 Year Group | |
| Tenure status FY 86: | USMA | ROTC | USMA | ROTC | USMA | ROTC |
| On active duty | 38% | 21% | 59% | 46% | 67% | 60% |
| Left after 1-3 years | 2% | 54% | 2% | 23% | 2% | 16% |
| Left after 4-6 years | 42% | 16% | 31% | 24% | 31% | 24% |
| Left after 7-10 years | 13% | 5% | 8% | 7% | --- | --- |
| Left after 11-15 years | 5% | 3% | --- | --- | --- | --- |

Source: Hunter (1988)

Years of Service and Retention and Retention Intentions

Not surprisingly, there is also a strong relationship between years of service and career intentions. In fact tenure is the strongest and most consistent predictor of career intentions in samples including officers with a range of experience. In the 1985 DoD survey (McCallà, Rakoff, Doering, and Mahoney, 1986), for example, just under half (48%) of all Army officers in their first three years of service (when all are still under obligation)

intended to make the Army a career. The proportion intending to stay increased to 60% for officers with four to six years of service and jumped to almost 90% for officers with seven to ten years of service.

Voluntary attrition as successive year groups complete their obligations is one important factor in this relationship. Each year between the third and sixth or seventh years of service, more of the officers who are not interested in a military career can leave the Army as they complete their obligations. This results in an increase, with each year of service, in the percentage of the officers remaining in the cohort who intend to stay.

Retirement benefits. "Golden handcuffs" effects are another important factor in the relationship between years of service and retention. Not all officers who remain beyond their obligations are fully commited to a military career. Some may be undecided, others may be waiting for a better job offer or a more opportune moment to make the transition. Yet each additional year an officer stays in the Army represents an investment toward retirement benefits.

Officers who stay on active duty for a full twenty years can retire at any point after that and receive retirement benefits equal to half of their current pay; officers who leave before 20 years receive nothing. The officers who continue to postpone their departure are likely to conclude, at some point, that it is no longer practical to leave the Army before retirement. The point at which individuals rule out leaving the Army as a viable option will vary, but the sharp decline in turnover after six years of service suggests that time investments may begin to influence retention decisions relatively early. As officers approach the halfway point, it appears to be increasingly difficult to resist the opportunity to begin a second career in one's early forties with a sizable military pension.

In the present research, the sample is limited to junior officers who are still under obligation, and have a maximum of two years before they will complete their obligations. Officers at this stage of their careers may be attracted to the military by the prospect of retirement benefits, but few are likely to rule out leaving the Army solely because of time investments.

"Up or out" Policies

The "up or out" promotion policies in the Army argue even more strongly for placing limits on the seniority of officers examined in retention research. The military is one of the few places where, at a specific point in the individual's organizational career, he or she must be selected for promotion or leave the organization (the tenure system in academia offers the closest parallel in the civilian world).

The first career hurdle junior officers face is the promotion from second lieutenant (O1) to first lieutenant (O2) at the end of their second year. The second hurdle comes two years later when first lieutenants are selected for promotion to captain (O3). Only a small percentage of eligible officers (5% to 10%) fail to make these cuts. The third and most competitive cut officers face before eligibility for retirement is the promotion from captain to major (O4) between the tenth and twelfth years of service. Promotions rates to major have dropped significantly over the course of the past three years, from over 85% to about 75% of those eligible (Total Army Personnel Agency, 1988).

Promotion rates and up or out policies are important to consider because they highlight the fact that not all turnover in the military is voluntary. Any sample of junior officers will include some individuals whose intentions to leave reflect the fact that they have been, or expect to be passed over for promotion. There is no simple way to exclude these officers from research

samples intended to examine voluntary turnover (it may be too much to expect them to volunteer on a survey that they are leaving primarily because the Army does not want them). At the lower, O2 and O3 levels, however, it may not be important or even desirable to exclude the officers who are not expecting or receiving promotions. All of the officers up for promotion to O2 and the large majority being considered for O3 are being judged on the basis of performance and attitudes they displayed while they were still under obligation. It is likely that many in the small percentage of officers passed over while they had no choice about staying in the Army were were not at all interested in a military career, and made that evident to their superiors.

The case is quite different, however, once the obligated period of service is over. Officers who stay the 10 or more years they need to be eligible for promotion to major are almost surely interested in making the Army a career. Therefore, when an officer with eleven or twelve years of service reports that he intends to leave the Army before retirement, it is very likely that he is leaving <u>not</u> because he wants to, but because he has been passed over for promotion to major. The effects of up or out policies may also be felt before the Army makes it promotion selections. One poor performance evaluation will effectively eliminate an officer's chances for promotion. An officer who becomes unpromotable because of a poor evaluation in his eighth can avoid the the public humiliation of being kicked out the Army if he can leave before the selection board ever meets.

In short, the determinants of <u>voluntary</u> turnover are likely to be obscured in samples where many officers have a considerable time investment (e.g., eight or more years of service) because the percentage of officers who are leaving because they <u>have</u> to will increase with the tenure level of the sample.

Unfortunately, with two notable exceptions (Szoc, 1982; Mohr, Holzbach and Morrison, 1981) most researchers appear to have overlooked the implications of service obligations, retirement benefits and up or out policies for officer retention decisions. Many samples appear to be products of convenience or attempts to obtain a representative sample of officers across all career stages. This has resulted in samples where officers who are just starting out (and still years away from the opportunity to leave) are mixed in with officers approaching retirement, as though the entire population of officers comprised a logical target for retention research. When samples include a high proportion of officers who are constrained from leaving by time investments, or prevented from staying because they are not promotable, attempt to identify the predictors of voluntary retention decisions are likely to be confounded. This is an important consideration from a practical standpoint as a well; policy makers are more likely to trust and use results that are clearly based on a sample of junior officers the Army is interested in retaining. The purpose of limiting the sample in the present research to officers who are still under obligation but close to the career decision point is to provide a more reasonable basis for analyzing the factors that influence the voluntary career decisions of junior officers.

Overview and Background Summary

In summary, the present research is designed test two separate models. The "retention model" specifies a set of factors hypothesized to predict both officer and spouse feelings about the advisability of staying in the military. The second model, called the "quality of life model" is concerned with the determinants of spouse quality of life expectations. The target population for the proposed research consists of married junior Army officers with similar

commissioning backgrounds (ROTC and USMA) who are within 2 years of the end o their active duty service obligation. This restriction is designed to ensure that officers have served long enough to start thinking seriously about their career alternatives, yet have not invested so much time in the Army that leaving before retirement is excluded as a viable option. Time in service restrictions also increase the likelihood that intentions to leave reflect officer, as opposed to organizational, preferences. The spouse sample consists of the civilian wives of the officers who were randomly selected from the population of officers meeting the selection criteria.

The models developed for this research are an attempt to explain and integrate results obtained from a variety of often unrelated studies. The results of the analyses proposed here should be relevant to civilian research on the career decisions of young professionals, as well as the emerging military literature on career decisions in the family context.

## THE RETENTION MODEL

### Review of the Literature

The research relevant to the retention model includes studies of the determinants of officer retention intentions, research on the attitudes and perceptions of military spouses, and two studies where the responses of both officers and their spouses have been combined. Studies on enlisted soldiers and their spouses are generally excluded from the review because of the marked differences in the background, socio-economic status and career options of officers and enlisted personnel (although some research on combined officer and enlisted samples is included). The civilian turnover research is not included because (a) family factors are seldom considered in this literature, (b) the circumstances surrounding Army retention decisions are unique to the military, and (c) the decision to leave the military has more far-reaching career and lifestyle implications than the typical organizational turnover decision in the civilian world. The more popular civilian models of the turnover process (e.g., Mobley et al., 1977) are discussed, however, when there are data addressing their applicability to military populations.

### Major Studies

Two studies are especially important in this literature review because the samples are restricted to junior level officers, multivariate analyses are employed, and family as well as work related predictors of career intentions are examined. These studies are briefly described below. The remainder of the literature review is organized around the elements of the model.

Szoc (1982) and his colleagues at the Navy Personnel Research and Development Center (NPRDC) conducted one of the most thorough examinations of

the work and family related determinants of officer retention. Szoc's (1982) initial research focused on the career intentions of 312 married junior Naval officers (94% male), and a follow-up study examined the actual retention behavior of the officers in the survey sample (Szoc and Seboda, 1984). All of the officers surveyed for this research were in the junior paygrades (Ø1-Ø4) and most importantly, within one year of the completion of their minimum active duty service requirement. Career intentions were assessed by asking respondents what they intended to do upon completion of their active duty obligation. Officers were evenly distributed across the three intention categories created for the analyses; one third said they definitely or probably intended to stay, one third (definitely or probably) intended to leave, and one third were undecided.

Szoc's (1982) survey included over 3ØØ items, and analyses ranging from descriptive statistics to path coefficients were reported in the technical reports. Unfortunately, however, the length of the survey may have discouraged potential respondents. Although the sample size was adequate for the analyses, the very low response rate (37%) raises questions about the generalizability of the findings. Nevertheless, Szoc's work is cited frequently in this review because it is one of the few sources of data on family factors and the career decisions of junior officers.

The report authored by Mohr, Holzbach and Morrison (1981) is also cited frequently in the literature review. This report is one in a series based on a similar survey of Naval officers conducted by NPRDC (Holzbach, 1979; Holzbach, Morrison and Mohr, 198Ø). The Mohr et al. sample of male junior surface warfare officers was, like Szoc's sample, selected specifically to ensure its appropriateness for officer retention research; most officers were

in their third or fourth years of service, and none had been in the Navy more than six years. Career intentions were measured using the 50-point Military Career Commitment Gradient (Holzbach, 1979), although for most analyses, scores on this scale were simply used to classify officers as as "leavers" (about 40%), "stayers" (about 40%) or "undecided" (20%).

A more respectable, 54% response rate was obtained for this survey. Analyses of the effects of family factors on retention were based on the responses of the 217 married or engaged officers in the total sample. Many results were based on the attitudes and perceptions officers attributed to their spouses. The authors reported differences in reported spouse attitudes as a function of officer retention intentions, and described (rather incompletely, unfortunately) the results of regression analyses testing a fairly complicated retention model.

The review of the literature begins with an overview of the research on job characteristics (both demands and rewards) and officer retention intentions. This section provides the backgound for the development of the spouse quality of life model as well as the retention model. The second major section covers the literature on the relationship between spouse attitudes and officer retention intentions. This literature clearly illustrates that the feelings of junior officers' wives play a role in retention decisions. The third section reviews empirical and conceptual support for the contention that retention decisions are joint decisions guided by joint, rather than individual utility maximization principles. In the fourth section, arguments supporting the hypothesized constraining effects of family life cycle factors are presented, and finally the theoretical implications of the retention model are reviewed.

## Job Characteristics and Officer Retention

### Job Rewards and Retention Decisions

The military is a uniquely attractive employer for many young men. In the military, an officer can assume important leadership responsibilities at a relatively young age, receive job related training at every career stage (including opportunities for civilian graduate education) and acquire work experience in a variety of jobs and settings. At the same time, with its unique image, values, and mission, military service holds a special ideological or emotional appeal for many young men. For example, high school students who foresee a career in the military not only rate the military high in terms of job opportunities and work conditions, they also express social and political values congruent with the image and mission of the military (Bachman, Sigelman and Diamond, 1987). Similarly, ROTC cadets are more likely than other college students to view military service as a patriotic duty, perceive the Army as a prestigious institution, and value the opportunity to perform as a leader (Gilbert and Wilson, 1983). Officers who identify with the military institution can derive pride and satisfaction from their affiliation with the military as well as the work they perform as officers (Moskos, 1977, 1988; Wood, 1982).

The intrinsic satisfaction individuals associate with a career in the military is clearly a critical component of the decision to remain with the organization. Perceptions that a military career offers challenging and meaningful work, a sense of accomplishment, and opportunities to advance to positions of greater responsibility are strongly and consistently related to intentions to stay in the military (Ashcraft, 1987; Gibb, Nontasak, Dolgin and Helm, 1987; Hayden, 1985; Meola, 1983; Monkus, 1979; Schmidt, 1982; Shenk and

Wilbourn, 1971; Steele, 1987; Szoc, 1982). Similarly, individuals whose commitment to the organization is based on value congruence and role identification are much less likely to leave than individuals for whom organizational membership is not an important source of satisfaction (Moskos, 1977; O'Reilly and Chatman, 1986; Wood, 1982).

Relevance of Civilian Models of Turnover

These results are somewhat consistent with the emphasis on job satisfaction (Mobley et al., 1979; Price and Meuller, 1981) and organizational commitment (Mowday, Porter and Steers, 1982) in popular civilian models of turnover. In the military as well as in civilian life, it is the more satisfied, committed individuals who tend to stay in an organization. In general, however, civilian turnover models do not appear to be very useful for explaining military retention decisions.

Military service is quite different from civilian employment, and civilian turnover models omit variables likely to be important in retention decisions. For example, a military career consists of a sequence of temporary jobs, or assignments in a variety of areas. Because every assignment is temporary, and the decision to leave the military is a decision to change careers, as well as employers, satisfaction with one's current job may be less critical to the retention decision than anticipated career satisfaction.

Another problem with attempts to apply civilian turnover models to military retention is that the most popular turnover models fail to consider how the effects of work on family life and family member satisfaction affect turnover. The only family related variable included in civilian turnover models is "kinship responsibilities" - basically a family stage measure hypothesized to increase intent to stay (Price and Meuller, 1981).

Ten years ago Schneider and Dachler (1978) suggested that:

> The limited and frequently confused understanding of organizational participation and withdrawal may well be the result of having looked for determinants of these behaviors only within the narrow context of isolated work or individual difference variables. (p. 3).

Schneider and Dachler (1978) advocated a more holistic approach to the study of turnover. They conceptualized turnover as a response to a multi-dimensional affective state, and suggested that one's long term work career and extra-work (primarly family) environment might be as important as the immediate work environment in determining an individual's propensity to leave an organization. This broader perspective on turnover has not yet gained wide acceptance in either the military or the civilian literature. Yet the important career and family implications of the decision to terminate or continue military service make this framework especially appropriate for military retention research.

## The Family Related Demands of a Military Career

A military career is unique in the "constellation of requirements" it entails for service members and their families (Segal, 1986). Military life is characterized by frequent relocations, both short and long term family separations, long work hours, unpredictable schedule and assignment changes, and "normative pressures on family members regarding their roles in the military community" (Segal, 1986, p. 16). These requirements place demands on spouses and have important implications for the quality of life family members experience (Derr, 1979; Farkas and Durning, 1982; Grace and Steiner, 1978; Hunter and Shaylor, 1978; Jans, 1988; Orthner and Bowen, 1982; Wood, 1982).

Over the years, officers have consistently identified demands impinging on family life as the career attributes most likely to make them leave. In a large scale survey conducted in 1964, separations from family and isolated tours were identified by officers who stayed, as well as those who left, as the

factors which would most influence them to leave the Air Force (Shenk and Wilbourn, 1971). In a sample of Army officers a decade later, family separations outranked even repetitive tours in Vietnam as an "influence to leave", and frequency of moves was the third most negative factor (Lund, 1978). Similarly, junior Naval officers presented with a list of 45 aspects of military life identified relocation frequency, family separations, and time with family as the most important reasons for leaving the military (Szoc, 1982). Moreover, officers intending to leave the Navy indicated that reducing the disruptions to family life (fewer/shorter deployments, regular 40 hour work weeks, fewer moves) would be more likely than changes in any other job conditions (including better pay and benefits) to make them decide to stay (Szoc, 1982).

Differential Effects of Job Demands on Retention Decisions

Research clearly indicates that job demands, as well as job or career rewards, enter into officer career deliberations. A question that remains unanswered is why family related job demands induce some military officers to leave and not others. Variations in the type or severity of demands officers experience do not appear to be the answer. Both Szoc (1982) and Jans (1988), for example, found that only reactions to separations (satisfaction, family stress and problems associated with separations), not the number or duration of separations were related to officer retention intentions or feelings about military life. Farkas and Durning (1982) focused on perceptions of work/family conflict. They found that global, subjective perceptions of work/family conflict were strong predictors of family pressure to leave the Navy. However, reports of the time spent away from the family, the length of the typical work week and number of hours per week with the spouse exhibited only very small

correlations (r=.11 to .15) with the subjective measure of work interference with family life.

Szoc (1982) suggested that different values or work/family priorities might be responsible for the differential effects of job demands on retention decisions. He found that officers planning to stay in the military said that job satisfaction was the most important factor in their decision. Yet among the officers who were undecided or planning to leave the Navy, family separations and time with family were the most importance decision factors and job satisfaction ranked fifth in importance. On the basis of these results Szoc concluded that "for those people intending to stay, job related factors take precedence over either Navy services or family concerns" (p. 115). Exit and retention surveys of Naval officers could be interpreted as supporting this conclusion. Officers who are leaving tend to give family related reasons for their decisions (e.g., separations, excessive work hours), whereas officers who are staying say they are doing so because they find their work intrinsically satisfying (e.g., meaningful and challenging work, positions of responsibility and authority, opportunities to use skills and abilities and serve their country) (Ashcraft, 1987; Schmidt, 1982).

Other surveys (Lund, 1978; Mohr et al., 1981) and interviews (Adams, 1986; Jans, 1988; Wood, 1982), however, suggest that differences across officers in family values and concerns cannot account for the differential effects of job demands on career plans; families are a high priority for officers regardless of their retention intentions. Furthermore, data from a survey of over 600 Naval officers confirmed that officers who subsequently left the Navy were no different from those who stayed in either the job attributes they valued or the importance they attached to family life (Neumann, Abrahams and Githens, 1972).

Officers who stayed, as well as those who left, rated "a satisfactory family life" as being more important to their career decisions than any of 17 other "extrinsic" work factors. What did distinguish "stayers" and "leavers" in this sample were assessments of the attainability of the work and family outcomes they valued. Officers who stayed in the Navy were much more likely than those who left to believe that they could attain a satisfactory family life in the Navy. In fact, there was only one item (likelihood of fully using one's abilities) in the combined set of intrinsic and extrinsic factors where differences between the attainability ratings of "stayers" and "leavers" were larger than they were for "a satisfactory family life".

It appears then, that neither differences in the actual severity of the demands experienced nor differences in the values of officers can adequately explain why job demands cause some, but not other married officers to leave the military. Here it is proposed that it is the way the officer's spouse reacts to the demands of a military career that determines whether or not job demands become a salient factor in retention decisions. In other words, it is assumed that job demands and/or career requirements become important, negative factors in retention decisions primarily when the officer's wife is reluctant to put up with the demands of military life.

This proposition suggests that in the absence of any negative effects on their families, officers will not assign much weight to job demands relative to job rewards in their retention decisions. Career considerations (i.e., the anticipated rewards of a military vs. a civilian career) rather than the implications of the military for family life are expected to dominate retention decisions when wives are willing to accept the demands of military life. There are two reasons this is expected to be the case. First, by the time officers

are eligible for commissioning they are well aware of the requirements of a military career. Realistic expectations and self-selection out of the military prior to commissioning both reduce the likelihood that job demands will come as a disconcerting surprise to officers or disrupt prior plans for a certain kind of lifestyle. Second, demanding assignments are often associated with positive career outcomes for the officer. For example, relocations, unaccompanied tours, and deployments may disrupt family life, but they often represent opportunities for exciting new assignments for officers (Derr, 1979). Similarly, command assignments tend to be the hardest on families, with long, unpredictable work hours and extensive time in the field, yet command opportunities are typically viewed as the most important and rewarding assignments of an officer's career. Third, officers' reactions to the demands of a military career are likely to be dependent on the the satisfaction they derive from their work. If an officer finds few rewards in his work, he is not likely to willingly suffer personal or family hardships for the sake of his work or the Army.

The proposition that retention decisions are largely a function of career satisfaction and the implications of military life for families is supported by evidence that spouse attitudes are strongly related to officer retention intentions. This literature is reviewed below.

## Spouse Attitudes and Officer Retention

### Importance of Spouse Opinions

Self-reports of the importance officers ascribe to spouse opinions indicate that wives' attitudes are an important factor in the career decisions of married junior officers. In Szoc's (1982) survey of junior Naval officers,

over half of the sample indicated that the opinions of their spouses were "very important" in their retention decisions, and an additional third said spouse opinions were "quite important". Furthermore, Szoc's suggestion that officers who stay in the military place less emphasis on family concerns is contradicted by the fact that "spouse attitudes" were second only to job satisfaction in terms the percentage of "staying" officers who identified this factor as being critical to their retention decision (mentioned, in fact, by almost twice as many of the stayers as leavers).

Mohr, Holzbach and Morrison's (1981) results went further, suggesting that in most officer families important career decisions are actually joint decisions. Almost three fourths (72%) of their sample of junior Naval officers reported that when they made decisions about future assignments, they would "seek input from their spouse with the aim of arriving at a mutually agreeable decision" (p. A-3). Virtually none of the officers reported that they made assignment decisions without seeking the input of their wives.

Spouse Attitudes and Officer Retention Intentions

Strong, consistent correlations between spouse attitudes and officer career intentions also point to the importance of wives' opinions in the retention decision. Results from virtually every study where officers are asked about the attitudes of their spouses indicate that married officers intending to stay in the military have spouses who are more favorably disposed toward military life than officers intending to leave (Bowen, 1986; Farkas and Durning, 1982; Lund, 1978; Mohr et al., 1981; Orthner and Bowen, 1982; Orthner and Pittman, 1986; Szoc, 1982; Steele, 1987). The wives of officers intending to stay are not only more likely to be percieved as wanting their husbands to remain in the military, they are also reported to be more satisfied with

almost every aspect of military life.

Multivariate analyses highlight the importance of spouse attitudes relative to other factors in officer retention decisions. When multivariate models of the determinants of officer career intentions have been tested, officer perceptions of "spouse support" for a military career and "family pressure to leave" have emerged as stronger predictors of officer career intentions than a variety of other more specifically job related attitudinal measures (Farkas and Durning, 1982; Mohr et al., 1981; Szoc, 1982). Moreover, Szoc and Seboda's (1984) analyses of the predictors of actual retention decisions indicated that after retention intentions, the spouse's preference for staying in/leaving the military (reported by the officer) was the strongest predictor of turnover.

The results obtained in the studies cited above are convincing in the consistency of their results, however they are limited in that the measures of spouse attitudes were obtained from officers rather than spouses themselves. One could argue that the observed relationships might be due in part, at least, to a tendency for officers' own feelings to influence reports of their spouses' feelings about military life. Fortunately, in two studies, researchers have been able to examine officer career intentions as a function of attitudes reported directly by the spouse. In each case, results were similar to the results obtained using officer reports of spouse attitudes.

Griffeth, Doering and Mahoney (1986) examined officer career intentions in relation to spouse satisfaction with military life in a large, representative sample of junior Army officer families. They found that the percentage of officers intending to make the military a career increased markedly as the satisfaction level of the wife increased. Only 41% of the officers whose spouses were neutral or dissatisfied intended to make the Army a career,

whereas 65% of the officers whose wives were "somewhat" satisfied and 73% of the officers whose spouses were "satisfied" with military life intended to stay. In a large Air Force sample, Bowen (1986) not only found a strong relationship between spouse support and officer career intentions, he also found that the level of support reported by the spouse was a better predictor of the officer's career intentions than the level of spouse support reported by the husband.

## Joint Utility Maximization and the Retention Decision

### Changing Family Roles

Indications that wives' feelings about military life influence the career decisions of their husbands contradict traditional assumptions about male and female spheres of influence in the family. In "traditional" families, important decisons are made by the husband, and the husband's career goals and requirements are expected to take precedence over the lifestyle preferences of wives. However, in military as well as civilian families, contemporary couples are less likely to conform to traditional sex-role norms, and more likely to accept the participation of wives in important family decisions (Szinovacz, 1984). In her review of the literature on changing family roles, for example, Szinovacz (1984) observed that the percentage of wives agreeing with the statement "The husband should make important family decisions" declined from 67% in 1962 to 29% in 1980. The majority of both officers (53%) and their wives (68%) disagreed with a similar statement ("The husband should have the final word on most of the important decisions in our family") in a 1983 survey of 1000 Army families (Ozkaptan, Sanders and Holz, 1986). Although research suggests that, in practice, decisions are not as egalitarian as one might

expect on the basis of ideological support for shared decision power, neither are they as one sided as they were when gender based family roles were more widely accepted (Szinovacz, 1984).

Joint Utility Maximization Model of Decision Making

Evidence that wives' attitudes and opinions are important in officer career deliberations supports the contention that retention decisions are based on the ability of military and civilian alternatives to maximize positive outcomes for both partners. This notion is consistent with recent economic models of time allocation and employment decisions in multi-person households.

In the "new home economics", the traditional focus on individual utility maximization has been largely replaced by a focus on the family or the household as the unit of analysis when individuals are married (Becker, 1981; Fuchs, 1983; ~~Schmalensee, 1974~~). In other words, the family is considered to be the decision making entity when choices have important family implications, and couples are expected to select the alternative that maximizes the benefits to both partners, or the family as a whole. As Becker (1981) observes in his economic treatise on the family, the behavior of family members tends to be "altruistic" because the utility function of one spouse is likely to depend on the well-being of the other.

The research indicating that spouse attitudes influence the way officers evaluate their career alternatives suggests that a joint utility maximization decision model is an appropriate overarching framework for officer retention research. Data on the importance wives attach to the career satisfaction of their husbands (reviewed below) suggests that the joint utility decision model also describes how spouses arrive at a decision to support their husbands' military career.

Husbands' Career Satisfaction and Wives' Attitudes Toward the Military

Not surprisingly, military spouses are more inclined to support a military career when they, themselves, are satisfied with military life (Griffeth et al., 1986, 1988; Jans, 1988; Orthner, 1980). Nevertheless, Becker's notion that family members are "altruistic" when they evaluate the utility of clearly applies to wives as well as husbands.

In interviews, officer wives indicate that their husbands' attachment to the military is a key determinant of their own willingness to stay in the military (Derr, 1979; Jans, 1988). Similarly, in the large survey of Army spouses, the majority of junior officers wives who favored staying in the Army said that their husband's job satisfaction (as opposed to pay, benefits, or lifestyle considerations) was the reason behind their support (Griffeth, Stewart and Cato, 1988). Grace and Steiner (1978) obtained consistent results in their survey of enlisted wives, concluding that "who perceived that their husbands were happy, liked their present jobs, and were experiencing career satisfaction tended to be more likely to be willing for their husbands to re-enlist" (p. 45).

The only multivariate analyses bearing on this issue suggested that an officer's feelings about his career might influence his wife's support for a military career indirectly, through effects on the quality of life she experiences (Jans, 1988). In Jans's study, career involvement was the strongest of eight hypothesized predictors of wives' assessments of the quality of family life in the military. The more involved the officer was in his career (based on measures of intrinsic satisfaction, personal involvement, congruent values) the more positive his wife was about family life and the quality of her own experiences in the miltiary. This "quality of family life"

measure, in turn, accounted for nearly all of the explained variance in a three variable model (also including age and sex-role values) of the determinants of a wife's level of support for her husband's military career.

Evidence that a wife's support for staying in the military is influenced by her husband's career satisfaction is not surprising. A young officer's retention decision represents a lifestyle, as well as a career choice, and a "wrong" decision can have far-reaching implications for his future satisfaction. If a wife knows that her husband derives a great deal of satisfaction from his role in the military she is likely to be reluctant to press him to leave.

In light of the importance of the retention decision for young officers, it is somewhat surprising that the husband's opportunity for a satisfying career has not been addressed more fully in the research on the determinants of spouse suppport for staying in the military. Most spouse research focuses instead on spouse feelings about family life in the military, satisfaction with various aspects of military life, and evaluations of the services and programs available to military families. The test of the present model will argue for broadening this focus if results indicate that wives' perceptions of their husbands' prospects for a satisfying career account for unique variance in their feelings about staying in the Army.

## Family Stage Constraints and the Retention Decision

The career satisfaction and quality of life measures in the retention model are construed as reflecting unconstrained preferences for either military or civilian life. However, what couples actually intend to do with regard to the retention decision may be a function of real world, practical considerations

as well as ideal preferences. Situational constraints can reduce the viabilty of certain options and limit an individual's or couple's ability to pursue the most intrinsically satisfying course of action. Hulin, Roznowski and Hachiya (1985) allude to this when they observe that for a variety of reasons, many dissatisfied individuals never form behavioral intentions to quit their jobs. Unanticipated situational constraints may also be the reason many officers who do express intentions to leave the military subsequently wind up staying beyond their obligated tour of duty (Shenk and Wilbourn, 1971; Szoc and Seboda, 1984).

The retention model tested in this research suggests that for many junior officer couples, family life stage factors act as situational constraints in retention decisions. The empirical and conceptual support for this proposition is presented below.

Family Size and Officer Retention

A number of retention studies have examined correlations between family size, or number of dependents, and retention intentions. Results indicate that for married junior officers, family size, or the presence of children is positively related to intentions to stay in the military (Mohr et al., 1981; Schmidt, 1982; Strifler, 1982; Stumpf (1978); Szoc, 1982). In the two studies where significant effects were not found, one used a sample where about half the officers were single (Ashcraft, 1987), and the other included a number of officers who were contemplating retirement (Gibb et al., 1987). Szoc and Seboda's (1984) follow-up study of married junior Naval officers confirmed that the presence of children is related to actual retention behavior as well as intentions; only 11% of the officers with children left the Navy at the end of their obligations, in contrast to 25% of the married officers without children.

The fact that sizable effects were observed in samples of officers with

limited tenure (less than seven years) indicates that the positive effects of children on retention are not simply a function of the relationship between time in service and family size (Mohr et al., 1981; Szoc, 1982). Mohr et al. also partially controlled for time in service effects within their sample of junior officers by statistically controlling for length of marriage (related to both age and time in service). Eliminating the effects of years married did not reduce the sizable (r=.37) correlation between number of children and commitment to a military career.

Spouse employment is a second possible confounding factor in the relationship between family size and retention. Childless women are considerably more likely to be in the labor force than women with small children. In the Army, for example, 68% of the officer wives who are under thirty and childless work outside the home, compared to 27% of the wives with children under the age of two, and 35% of the women whose youngest child is between three and five (Griffeth, Stewart, and Cato, 1988). Strifler's (1982) examination of retention intentions in subgroups defined by spouse employment status and number of children suggested that these two variables might interact in determining retention intentions (although the significance of the interaction was not examined). The likelihood of staying in the military increased with family size in both the "employed spouse" and "not employed spouse" subgroups. However, the officers who had working wives and no children were significantly more likely than officers in any of the other four groups to have plans to leave the military.

Family Life Cycle Stage Constraints

Correlations between family size and retention intentions have been duly noted in research reports, however, this relationship has not been discussed

in the context of any conceptual framework. In the present research, a family stage constraints framework for interpreting these effects is proposed. Within this framework, the apparent effects of family size on retention intentions are attributed to family life stage factors rather than the number of children in the family.

Statistics on the family status of officers approaching the end of their obligations are not available, but fully 40% of all married lieutenants and captains in the Army have a child under the age of two (Griffeth et al., 1988). This suggests that many junior officers in samples where the number or presence of children is positively correlated with retention intentions have only recently started their families. In the family stage constraints framework it is assumed that couples just starting a family experience significant changes in their overriding priorities and concerns and their present and anticipated financial status. It is argued that the psychological and financial changes associated with the "new parent transition period" mitigate against leaving the military.

Financial constraints. Nearly all couples are likely to incur additional expenses with the birth of the first child. Even if medical expenses are covered, furniture, food and clothing costs can be substantial. In addition, the majority of officer couples will experience a sudden reduction in the family's total income as the wife leaves or interrupts her job when the baby is born. Sixty-eight percent (68%) of the junior officer wives without children work for pay, in contrast to only 27% of the wives who have a child under the age of two (Griffeth et al., 1988). Even when new mothers do return to work within a few months, the contribution they can make to the family income is likely to be greatly reduced by their childcare expenses.

The financial changes typically associated with the birth of the first child are hypothesized to be an important constraining factor in the career deliberations of junior officer couples. In Szoc's (1982) sample, officers who reported that their family incomes allowed them to live comfortably and fully meet expenses who were the most likely to have plans to leave the Navy. Similarly, aviators whose wives earned substantial salaries were more likely to intend to leave the Air Force, and the reason most gave was that they felt freer to leave the military as long as their wives could support the family during the transition to civilian life (Gibb et al., 1987). Economic considerations are expected to play an even greater role in the retention decisions of couples making the psychological transition to parenthood because of the related changes in their priorities and concerns.

Changes in priorities. Couples making the psychological transition to parenthood may be somewhat intimidated by the costs of a new baby and the long-term financial responsibilities of parenthood. Financial considerations are likely to become more salient at this stage of life, and a steady, secure source of income may suddenly become very important. Couples in this transition stage may evaluate their employment alternatives differently, placing a greater value on military retirement benefits, comprehensive medical care and the relative security (until the next career hurdle at least) of military service. When a couple is expecting or has recently had a child, they are also more likely to rule out leaving the Army before the officer has another job lined up, especially when as is usually the case, the officer is the sole source of income for the family. Yet, at the same time, financial constraints can limit the range of viable employment options, making retention decisions more dependent on the civilian employment opportunities immediately

available in the local economy. For example, financial constraints may prevent an officer from taking time off from work or traveling at his own expense to explore job prospects. Similarly, for a family experiencing financial difficulties, the costs of moving to a better employment market may be prohibitive.

Depleted psychological or coping resources during the new parent transition stage can also mitigate against leaving the military. The period of time surrounding the birth of a child can be very stressful for new parents. The physical and emotional strains of adjusting to parenthood may render couples less willing or able to cope with another major lifestyle change. Some couples who might otherwise leave the military at the end of the obligated tour may elect to stay simply because they don't feel emotionally ready to plan or make the transition from the familiar military environment to a new life in the civilian world. If, as hypothesized, results indicate that couples in the transition stage more likely to stay in the military, research on the relative importance of possible reasons for the effect would be warranted (e.g., inability to travel or relocate; salience of job security, retirement benefits, and comprehensive health care; stress level and the inability to plan/manage the transition to civilian life).

Boundaries of the Transition Period

There are no clear boundaries for the beginning or end of a couple's transition from the "pre-child" to the "established family" stages of the family life cycle. For the purpose of testing the present model, however, we will assume that the psychological transition to parenthood begins when a couple first learns that the wife is pregnant. The end point is more difficult to estimate; some couples will adjust to parenthood in a matter of months,

others may take years. We are assuming in the exploratory measure proposed here that the large majority of couples will have adjusted to their new roles and become accustomed to the emotional and financial responsibilities of parenthood by the time their first child is two years old. If a couple's first child will be under the age of two or still "on the way" when the officer completes his obligation, it is hypothesized that the retention decision will be influenced by the constraints of the new parent transition stage.

For some couples, the financial and emotional changes associated with parenthood may be permanent; in other words, overload, security needs and financial concerns will be salient until children leave home. In other cases, the constraining effects of the transition period may change during the transition, building during pregnancy, peaking with the birth of the first child, and gradually diminishing as couples psychologically and financially adapt to life with children. The simple, somewhat arbitrary index of family stage constraints used in this research should be adequate for the present purposes, however, and supplementary analyses will suggest the utility of refining the measure and the conceptualization of the framework.

Supplementary Analyses

The primary purpose for the inclusion of the constraints index in the retention model is to see whether or not this variable accounts for variance in retention measures over and above the variance explained by the career and lifestyle preference indicators. However, supplementary analyses will provide a stronger basis for determining the utility of the proposed family stage constraints framework in retention research. Regression analyses substituting current family size for the constraints index in the model will provide a test of the assumption that family size is less important than the family's life

cycle stage. In addition, a test of the model excluding couples in which both spouses appear to strongly prefer military life will allow the constraints hypothesis to be tested more directly. The model suggests that couples in the new parent transition stage will find it more difficult to leave the military. Therefore, family stage constraints will be irrelevant for couples strongly inclined to stay in the military on the basis of quality of life assessments alone. A truer estimate of the constraining effects of the transition stage can be obtained by excluding from the sample those couples who would almost surely elect to stay in the military no matter what their family status (i.e., couples where both expect to find military life very satisfying).

Another issue supplementary analyses can address is the temporal effects of family life cyle stage constraints. Couples just starting a family may differ from other couples inclined toward civilian life simply in the timing of their departure from the military (e.g., they intend to stay beyond their obligation but not until retirement, or they expect to serve six years instead of four). On the other hand, family stage constraints experienced at the time an officer would normally leave the military may lead to a decision to stay the military until retirement. A comparison of family stage effects on the time oriented and the career commitment oriented retention items will allow an examination of the temporal effects of life stage transitions.

Summary

In summary, it is hypothesized that both financial considerations and psychological factors operate to constrain new and expectant parents from leaving the Army. The effects of family stage constraints are expected to be largely independent of the effects of the husband's anticipated career satisfaction and the wife's quality of life expectations. The attempt to

index the constraints associated with the transition from the "pre-child" to the "established family" stage of life is clearly exploratory and the cut-off points are somewhat arbitrary. The measure proposed for the present research will consist of assigning a constraint "point" to couples if they will be expecting a child or if their first child will be under the age of two when the officer completes his obligation. Exploratory analyses may suggest a modifications of this measure and refinements of the conceptual framework.

Summary and Theoretical Implications of the Analyses of the Retention Model

It is only recently that military researchers have included quality of life and family factors in their models of the determinants of officer retention decisions. Results from this innovative line of research confirm that a variety of family related factors, including spouse attitudes and preferences, influence officers' evaluations of the desirability of a military career. At the same time, it is clear from the emerging body of research on military spouses that wives feelings about staying in the military are related to the the implications of military life for both their own satisfaction and the job or career satisfaction of their husbands.

The exploratory, largely atheoretical nature of the military work/family research to date, however, makes it difficult to draw general conclusions about the importance of career and family considerations in the retention decision. We know that a number of work, family and situational variables are correlated with each other, and with retention intentions, but researchers have yet to test a simple multivariate model of the combined effects of career and family related variables on couples' feelings about staying in the military. The proposed research provides such a test by examining the independent effects of

officer career considerations, spouse lifestyle preferences and family stage constraints on retention measures obtained from each spouse. From these analyses we can draw inferences about the retention decision process (e.g., extent to which perceptions are shared) as well as the relative importance of different factors for officers and their wives.

The specification of cross spouse variables in the present model is based on the assumption that for most contemporary junior officer couples, the retention decision is a joint decision, guided by an attempt to maximize the positive outcomes for the family as a whole. The validity of several of the assumptions underlying the joint utility hypothesis can be assessed in the test of the retention model.

First of all, if the model is correct in assuming that couples, together, make the retention decison, officer career intentions should be strongly correlated with spouse retention recommendations. The consensus may be reached easily because of similar quality of life expectations, or it may be a result of long negotiations or difficult trade-offs. Nevertheless, in either case one would expect basic agreement on the best course of action if the retention decision is truly a joint decision.

The model further proposes that joint, rather than individual utility assessments determine what couples consider to be the best course of action. Evidence that the concerns of one's partner contribute to variance in retention measures will be interpreted as support for this proposition. The model also proposes that the financial and psychological changes associated with the transition to parenthood will constrain the willingness and ability of some couples to leave the Army. Evidence that family life stage constraints explain variance in both retention intentions (officers) and

recommendations (spouses) will suggest that both spouses also consider the implications of leaving for the family as a whole, and hence will provide additional support for the joint utility maximization model.

In summary the test of the present model may be able to indicate whether or not a joint utility maximization model is an appropriate overarching framework for retention research in this area, and results on the contributions of work and family factors may enable us to develop more sophisticated, causal models of officer retention decisions.

# SPOUSE QUALITY OF LIFE MODEL

## Model Overview

In the retention model we hypothesized that a wife's quality of life expectations will be a significant predictor of both her husband's career intentions and her own feelings about staying in the Army. The model presented in this section specifies the likely determinants of wives' assessments of the quality of life they are likely to experience if their husbands stay in the military.

A wife's quality of life expectations are hypothesized to be largely a function of her reactions to three family related demands of a military career: (a) relocation requirements, (b) schedule and separation demands, and (c) the demands of the traditional role of the Army officer's wife. The model further proposes that a wife's reactions to these demands will be strongly influenced by her career orientation and her perceptions of Army support for military families.

Variables are included as predictors in the model on the basis of empirical evidence that they are related to some type of quality of life or retention measure for spouses and/or officers. The specific causal linkages proposed in the model, however, are based largely on conceptual arguments. It is only recently that researchers in this field have had the empirical foundations (i.e., descriptive statistics, bivariate correlations) for developing and testing multivariate models. The direct and indirect effects hypothesized in this model will be tested using path analysis.

The career orientation measure proposed as the first exogenous variable in the model taps the wife's work/career plans and the importance of paid

employment as a source of satisfaction in her life. Women with a strong career orientation are expected to react more negatively to military relocation requirements and the social demands of the traditional Army wife role. The second exogenous variable in the model, Army family support, consists of two subscales: perceptions of Army support and concern for families at the organizational level, and supervisory responses to the family concerns and obligations of their subordinates. Wives who perceive higher levels of support for families in the Army are expected to be more tolerant of both spouse role demands and the time/separation requirements of a military career.

The dependent variables in the model are conceptualized and measured somewhat differently from similar variables examined in previous spouse research. For example, most researchers have used global measures of "satisfaction with military life" or "spouse support for a military career" as dependent variables in their analyses. These general measures, however, may reflect a wife's assessment of her husband's opportunities for satisfaction in the military as well as her own, and hence are less useful for the present purposes. The dependent variable in this model focuses more specifically on the implications of the husband's military career for the wife's own goals, happiness and general life satisfaction.

The measures of wives' reactions to the relocation, time, and spouse demands of a military career also differ from the attitudinal measures (typically satisfaction ratings) traditionally used in spouse surveys. The measures used in the present research are more specific, focusing on (a) the wife's willingness or reluctance to accept various demands/conditions of military life, and (b) the extent to which different requirements create problems or stress in the family.

## Review of the Literature

The literature review is organized into two major sections. First the literature related to the hypothesized direct determinants of quality of life perceptions is reviewed. Within this section, time and separation demands are discussed first, then relocation requirements and the demands of the traditional Army wife role are addressed. In the second major section, the career orientation and Army family support constructs are discussed, and evidence that these variables may influence reactions to military lifestyle demands is reviewed. Because studies focusing directly on spouses are limited in number and scope, results from officer surveys (particularly those based on officer perceptions of spouse attitudes), as well as spouse surveys, are presented when they are relevant to the general propositions of the model.

### Direct Determinants of Quality of Life Perceptions

#### Time Demands of Military Life

The time demands of a military career are conceptualized in terms of schedule and separation requirements. Schedule demands include daily and weekly work hours and temporary travel (TDY) or field duty requirements. Separation demands refer to long-term absences (several months or more) for extended training, deployments and unaccompanied tours.

The time demands officers experience will vary with their specialties, the nature of their immediate assignments, and the expectations of their superiors. In general, however, the time demands of an officer's career are considerable. There are very few assignments where an officer can count on working only 40 hours a week, and nearly all officers will experience periods of separation from their families over the course of a military career. Fewer than a quarter

(23%) of the junior Army officer wives wives surveyed in 1985 reported that their husbands had been away from home for less than a month during the past year. One third said they had been separated one to two months, 29% reported separations of three to four months, and 14% said their husbands had been absent five months or more in the past year (Griffeth et al., 1986).

Separations and long work weeks also characterize many civilian jobs, but in the civilian world, at least, the 40 hour work week still serves as a frame of reference for an employee's obligation to his employer. In addition, civilian employees are likely to have the option of turning down an assignment that would entail spending months at a time away from their families. Military officers, on the other hand, are obligated to serve 24 hours a day if necessary, and have little recourse when they are told to work weekends, or to move halfway around the world without their families.

Family problems associated with military time demands. In his qualitative analyses of junior Air Force officer commitment, Wood (1982) suggested that recurring separations, long hours and erratic work schedules are the source of most work/family conflicts in the military. These demands not only limit the time an officer can spend with his family, they also make it difficult for families to organize their lives and settle into an adaptive routine. In fact, families may have difficulty adjusting to the presence, as well as the absence of the officer when frequent short term absences are combined with long, erratic hours (Wood, 1982).

The uncertainty generated by military time and schedule demands is apparent in the results of the 1983 survey of Army families in Europe. About half of the respondents said that they were seldom sure when the officer would be home or gone, and close to sixty percent agreed that their work and family

schedules were always up in the air because of frequent TDY (temporary duty travel) and long work hours (Ozkaptan et al., 1986). When schedules are unpredictable, families may not be able to take full advantage of the limited amount of time officers do have available for family activities.

Another problem associated with officer time demands is the extra burden placed on wives when husbands are unable to help with household and family responsibilities. Suter's (1979) results suggest that overload is especially likely to be a problem when the the wife has her own career. In a survey of over 400 married Naval officers, one third of the officers whose wives had "careers" (vs. 17% whose wives had "jobs") said they experienced serious conflicts as a result of their combined jobs/careers. Overload (too much work, lack of leisure time) and no time for intimacy were identified as important sources of conflict for these couples.

Overload may be more problematic for working than nonworking wives, however, women who have a life of their own outside the family may be less susceptible to loneliness and isolation when their husbands are not around. Interviews suggest that for some women at least, finding employment is a means of coping with the absence or unavailability of their husbands (Jans, 1988; Wood, 1982). It is interesting, in light of these observations, to note that employed Army officer wives selected "independence" more often than any other factor as the primary reason they were working (Griffeth et al., 1986). Independence for many military wives may mean not having to rely on their husbands for companionship and emotional support.

Reactions to time demands. It is not clear which of the several problems associated with military time demands is most serious or salient in terms of quality of life considerations. It is clear, however, that global reactions to

these demands have important implications for the satisfaction and retention of military families. Married officers consistently cite the lack of time for families as the primary reason they are leaving or might consider leaving the military (Lund, 1978; Schmidt, 1982; Shenk and Wilbourn, 1971). Satisfaction with family separations is also a strong predictor of family/Navy satisfaction, and both retention intentions and behavior (Szoc, 1982; Szoc and Seboda, 1984).

Officer wives appear to be equally, or even more sensitive, to the time demands of a military career. Over half of the Army officer wives responding to the 1985 DoD spouse survey said they were "dissatisfied" or "very dissatisfied" with family separations and the time their husbands had available to spend with the family (Griffeth et al., 1986). Subsequent correlational analyses confirmed that satisfaction with separations and time for families was related to a wife's overall satisfaction with the military way of life (Bowen and Neenan, 1988). Jans (1988) obtained similar results. Over one quarter of the junior officers he surveyed reported that their husband's absences were a "marked" problem, and wives for whom absences were problematic were less positive about the quality of family life in the military.

Differences in schedule and separation demands. It is logical to assume that reactions to time demands will be related to the extent of those demands. In the case of short-term schedule demands, this appears to be true. Family pressure to leave the Navy exhibited significant (although small) correlations with both the length of the work week and the frequency of short-term absences in a sample of Navy personnel (Farkas and Durning, 1982). Similarly, work hours were related to a desire to leave the military in a sample of Air Force wives (Orthner, 1980).

Reactions to separation requirements, on the other hand, do not appear to

be a linear function of either the frequency or the duration of the long-term separations a family has experienced (Farkas and Durning, 1982; Jans, 1988; Szoc, 1982). One explanation for these results is that reactions to separation requirements are based largely on anticipated demands, and couples are aware that current or past experiences are not necessarily representative of the demands of future assignments. Junior officers rotate through a variety of assignments early in their careers, and a staff assignment entailing very little time away from home may be followed by an unaccompanied 12 month tour in Korea or an operational assignment requiring months in the field. The future orientation of measures in the present model is based on the assumption that it is the anticipated demands of the officer's military career that will influence quality of life expectations, and ultimately retention decisions. A relationship between past or current experiences and future oriented measures (e.g., work hours and retention preferences) suggests that experiences to date are taken as indicators of what individuals can expect in the future.

A second consideration in the analysis of the effects of time demands is that reactions to separation requirements may not be a linear function of the number of months the officer will be away. Extended separations tend to be feared because they are viewed as possibly precipitating the breakup of the marriage and family (Teplitzky et al., 1987; Wood, 1982). If a long separation is seen as being harmful to the marriage, whatever the wife perceives to be a "long" separation is likely to produce a negative reaction to separation requirements. In other words, separations may be tolerated as long as they do not excede a certain threshold (e.g., a year long separation, several 3-4 month separations over a three year period), and this critical point is likely to be different for different individuals. Conceptualizing a long-term separation as

a discrete event and day-to-day time demands as continuous variables may lead to clearer interpretations of the effects of the types of time demands.

Summary. In summary, there is ample evidence to support the hypothesis that a wife's reactions to the time demands of her husband's military career will be a factor in the quality of life she expects in the military. Long hours and erratic schedules can generate family stress by disrupting plans and schedules, forcing wives to take on extra domestic burdens, and limiting the time and emotional support the officer can give to family members. In addition, long-term separations are often perceived as a threat to the viability of the marriage.

Differences in the nature and consequences of schedule and separation demands imply that different types of items are needed to capture reactions to these requirements. In the present research, separation items will focus on the wife's tolerance for the frequency and duration of the long-term separations typically required in the officer's career field. Reactions to schedule demands will assess feelings about the work hours and temporary absences required in both the present assignment and the assignment considered typical for an officer in that branch.

Personal and family factors, as well as differences across officers in the objective requirements of their particular career fields, are all likely to account for some variance in wives' reactions to the time demands of their husbands' career. Of special interest in the present model, however, is the extent to which perceptions of the climate of support for families in the Army influence wives' feelings about time and separation demands. The rationale for the hypothesized influence of Army family support on reactions to time demands is discussed in the second major section of the literature review.

## Relocation Requirements

Relocation requirements are posited as the second important factor in wives' quality of life assessments. Frequent relocations are a fact of life in the Army. At any one time, over one third (36%) of the women married to Army officers have been at their present location for less than one year (Griffeth et al., 1988). Moreover, in 1987, over half (58%) of a representative sample of Army officer wives reported they had moved two or more times in the space of just three years (Griffeth et al., 1988).

Because relocation requirements are almost impossible to avoid, a wife who is reluctant to have the Army dictate when and where the family will move is expected to be less positive about the quality of life available in the military. Correlational analyses of the data obtained from Army officer wives in 1985 (Griffeth et al., 1986) revealed a significant, but moderate relationship between a wife's level of satisfaction with PCS moves and her overall satisfaction with military life (Bowen and Neenan, 1988).

Problems and advantages associated with PCS requirements. For most officer families, housing problems and extra expenses are the most problematic aspects of permanent change of station (PCS) moves (Griffeth et al., 1986). Almost half of the Army officer wives surveyed in 1987 reported having to wait three months or more before they could move into permanent housing in their last move, and well over half had unreimbursed expenses (Griffeth et al., 1988). The unreimbursed expenses associated with temporary lodgings or setting up a new home are viewed as a "serious problem" by 40% of wives of junior Army officers (Griffeth et al., 1986). After expenses, employment problems were the most common. Twenty percent (20%) of the random sample of Army officer wives indicated that finding civilian employment was a serious problem.

Despite the inconvenience and expense of moving, however, many military families view relocations as exciting opportunities to travel and broaden their horizons, especially before their children reach an age when stabililty becomes more important (Derr, 1979; Hunter, 1978; Orthner,1980; Orthner and Bowen, 1982). Officer families also appear to be very adept at establishing themselves in new communities; fewer than 7% of the officer wives surveyed in 1985 indicated serious problems in the areas of personal adjustment, children's adjustment, or establishing new social contacts when they made their last move (Griffeth et al., 1986).

Reactions to relocation requirements. The combination of costs and benefits associated with PCS moves may be responsible for the typically mixed or neutral feelings Army officers (Lund, 1978) and their wives (Griffeth et al., 1986) report when asked for their global evaluations of PCS requirements. Lieutenants' wives are typically "neither satisfied nor dissatisfied" with relocation requirements, and the modal response for women married to captains and majors is "satisfied", with the neutral response a close second (Griffeth et al., 1986).

In the present research, relocation measures will be somewhat more specific, focusing on reactions to several different aspects of military relocation requirements. One item will address the willingness of wives to accept the frequency of family moves in the Army. Other items will assess reactions to the level of choice and uncertainty associated with relocations and feelings about the locations Army families are likely to be assigned to.

Although many factors are likely to influence wives reactions to the moves required in the military (e.g., home ownership, age of children, location), relocation requirements are expected to be especially problematic for women

with a desire to pursue their own careers. The negative impact of military relocations on the opportunities available to career oriented women is expected to produce a strong relationship between career orientation and reactions to relocation requirements. The rationale for this hypothesis is developed more fully in the section on career orientation.

The Demands of the Traditional Spouse Role

Demands stemming from the traditional role of an officer's wife in the military are hypothesized to be the third direct determinant of wives' quality of life expectations. In many organizations and occupations a wife may occasionally be called upon to play a supportive or social role in her husband's career. However, in the military, the demands placed on an officer's wife are both broader in scope and more formalized than the demands spouses typically face in the civilian world. A full understanding of the importance of this variable in the model requires some background discussion of the traditional role of the Army officer's wife.

Traditional role of the officer's wife. The military has a long tradition of relying on officers' wives to play an active role in the social and community life of the post. Historically, officers' wives have welcomed newcomers, provided assistance to needy Army families, organized community and volunteer activities, and hosted and attended the numerous teas, parties, formals, and ceremonial functions associated with life on an Army post. Over time, voluntary activities evolved into expected activities, to the point where spouse role obligations are formally defined, and the military, at the higher levels at least, is considered a "two-person" career (Papanek, 19 ).

The contributions expected of the wife of a military officer increase with rank and command responsibilities of her husband. For example, when an

officer becomes a battalion or brigade commander, his wife inherits a leadership role in the community of wives as well as a greater number and variety of social obligations. Wives of high ranking officers may also have public relations responsibilities. In overseas assignments, especially, the local commanders wife may be called upon to make public appearances, give speeches, serve on various committees and generally act as a community liason. In this respect, the role a field grade or general officer's wife is expected to play in her husband's career is comparable to the complementary role a foreign service officer's wife is expected to fill (Segal, 1986; Stoddard and Cabanillas, 1976).

Wives of junior officer have fewer formal responsibilities, but in the traditional model of the spouse role they are still expected to adhere to certain standards of behavior and show a willingness to learn the roles they might be called upon to play in the future. There are numerous handbooks and social custom guides in the military that describe quite specifically the attitudes and behavior expected of an "ideal" officer's wife.

Prescriptions of the officer wives' handbooks. In the traditional model of the military spouse role, an officer's wife is viewed as a key (albeit, "silent") member of the "team" (Shea, 1966). According to handbooks current in the late 1960's and early 1970's, a wife's primary role is to contribute to her husband's career success by maintaining a smoothly running household, meeting her social obligations, and demonstrating loyalty to the unit and the chain of command (Ott, 1975).

Appeals to patriotism and duty are often used in social custom books to motivate wives to accept the responsibilities of their role in the military. Women are reminded that an officer's first and highest loyalty must be to the

Army and his country. The officer's wife is exhorted to fulfill her own duty, to both her husband and her country, by supporting her husband whole heartedly and shielding him from problems and domestic responsibilities that might distract him from his work. Women are urged to take pride in their contributions to the military mission and view their husbands' successes, medals, and promotions as their own (Shea, 1966).

At the same time, however, wives are reminded that they really have little choice in the matter if their husbands aspire to a military career. One of the pervasive themes in officer wives' handbooks is that a wife can help or hinder her husband's career through her attitudes and social participation (Ott, 1975). The author of a book addressed to young lieutenants' wives stated the case quite clearly:

> It has been said that when a man acquires a commission, the government has gained not one, but two - the officer and his wife. If the wife is well informed as to what is expected of her, the probability is greater that the officer will have an easier and more successful career (Gross, 1968, cited in Ott, 1975, p. 33).

Wives are warned that they can hurt their husbands' careers if they avoid their social obligations, "rock the boat" by questioning time honored traditions, or fail to observe proper military etiquette (Ott, 1975). Respect for the privileges of rank is a particularly important element of military protocol, and for wives, this means following the lead of the wives of higher ranking officers. For example, if a commander's wife extends an "invitation" to other wives in the unit to participate in volunteer activities or attend a social function, it may be considered a breach of etiquette to fail to respond. The fact that the commander's wife has the ear of the man who can make or break a junior officer's career is a strong incentive to conform.

Social changes. The traditional model of the "ideal" officer's wife is based on the assumptions many organizations have long held about male employees: that they all have wives at home willing to take full responsibility for home and family, provide emotional and practical support to their husbands, and subordinate their own interests to the needs of the family and the husband's career (Bailyn, 1984; Holmstrom, 1972; Pleck, 1975). However, the feminist movement and the influx of women into the labor market in the past two decades have produced dramatic demographic and social changes. The emergence of new family structures and the evolution of the sex-roles attitudes and personal goals of both men and women render traditional assumptions about employees less tenable than ever.

By 1984, 70% of the women between the ages of 25 and 44 were working outside the home, an increase of 20% in the span of just 14 years (Fullerton, 1985). At the same time, the importance of work in the lives of women has increased. Careers are increasingly likely to be viewed as an important source of satisfaction in a woman's life (Gray, 1983; Hardesty and Betz, 1980; Regan and Roland, 1985; Sekaran, 1982), and more women than ever before aspire to full-time careers with opportunities for advancement and professional growth (Bartol and Manhardt, 1979; Bem, 1987; Regan and Roland, 1985).

The military tends to be more conservative than society at large, but it has not been exempt from these changes. About half of the women married to junior officers today have college degrees, and another third have at least some college education (Griffeth et al., 1988). Just over half are also in the labor force and an even larger percentage of military wives would prefer to be working (Griffeth et al., 1988). Not surprisingly, younger officer wives also tend to ascribe to more "liberal" or contemporary sex-role values than their

older counterparts (Hunter and Pope, 1981; Jans, 1988; Orthner 1980; Orthner and Bowen, 1982; Ozkaptan, Sanders and Holz, 1986). As one Air Force wife remarked (Wood, 1982, p. 73):

> The typical Air Force wife is changing. Ninety percent are college graduates. They have more options and want more say in where they go and what they do.

The attitudes of younger officers in the military also reflect a more contemporary set of values. Even students in military academies appear to have been affected by the social changes of the 1970's. DeFleur and Warner (1987) found that the sex-role attitudes of Air Force Academy students became less traditional between entry in 1976 and graduation in 1980, despite the the tendency of military academies to "reinforce somewhat traditional attitudes and masculine gender-role traits" (p. 530). Furthermore, almost half of the 1980 graduates expected that their future wives would work, a situation that would hardly have been considered conducive to a successful military career a generation earlier.

The new generation of junior officers may also have different criteria for career success and life satisfaction than their predecesors. Several authors have observed that younger officers are more likely to want to balance their work and family lives, instead of subordinating all non-military interests (including those of their wives) to the demands of their careers (Derr, 1979; Jans, 1988; Wood, 1982). At the same time, younger officers are less likely than their older counterparts to believe that the attitudes and personal characteristics of their wives are critical to their own career success (Gibb et al., 1987).

Conflicts between traditional and contemporary values. The less traditional attitudes of younger officers tend to make them sympathetic to the

lifestyle preferences of contemporary women. In fact, in one survey, more officers (77%) than wives (67%) agreed that a woman should be able to make long range plans for her occupation in the same way her husband does (Orthner and Bowen, 1982). However, if traditional expectations prevail in a unit, junior officers can do little to reduce the pressures on their wives to conform. Officers who began their careers when "traditional" values and non-working wives were the norm may be unsympathetic, or even hostile to the new values younger couples espouse (Derr, 1979). For example, one older commander commented during interviews:

> "I don't understand these young wives. They are ruining these guys careers. If they would fall into line half my problems would be resolved. They just need to mature beyond all this Women's Lib crap" (Derr, 1979, p. 13).

Derr' interviews also provide an example of what can happen if a wife does not conform to the expectations of superiors. A young Navy lieutenant reported that his wife was not considered a "team" player because she was in school and couldnt't cope with all the things the commanding officer's wife had asked her to do. As a result, his otherwise perfect performance evaluation was marred by a footnote saying he that he had promotion potential <u>if</u> "he and his wife just learned the Navy team concept" (Derr, 1979; p. 13).

It is not clear to what extent traditional expectations about spouses prevail in the military today. Many senior level officers have undoubtedly modified their beliefs about the role of a military spouse to reflect more contemporary values and life style preferences. However, anecdotes and surveys from the late 1970' and early 1980's suggest that there are still enough of the "old school" officers in the military hierarchy to make the demands of the traditional spouse role a significant factor in military life.

Contemporary spouse role expectations. Interviews with mid-level Marine Corps officer wives led Bowman (1984) to conclude that "following the 'social niceties' of the military wife continues to be an expectation of the military establishment" (p. 75). Furthermore, all the women interviewed agreed that a wife who follow military protocol can help her husband's careers. Similarly, the overwhelming majority of a sample of Naval officer wives agreed that their behavior affected their husbands' careers (Thomas and Durning, 1980). Consequently, over one third of the wives in this sample who were "involved in Navy activities" (almost 80% of the total) said they participated in these activities only to support their husband's careers.

More recently, almost 60% of the both the Army officers and wives surveyed in Europe agreed that "the Army seems to dictate to spouses of military members what they should and should not do (Ozkaptan et al., 1986). In a similar vein, an Air Force colonel's wife observed as recently as 1984 that there were still plenty of commanding generals around who were telling women, 'You will not work' (Ladycom, June 1984, p. 58).

Wives' reactions to spouse role demands. Data indicate that a significant minority of women are dissatisfied with the role they are expected to play in the military. In the late 1970's over one third of a sample of junior Army officers said their wives were "dissatisfied" (12%) or "very dissatisfied" (23%) with "military social life and protocol" (Lund, 1978). Similarly, in 1985, 36% of women married to Army officers said they were dissatisfied with the demands the Army placed on spouses (Griffeth et al., 1986).

Correlational analyses confirm that reactions to the demands of the spouse role are important; they are related to both quality of life perceptions and preferences for military life. In their analyses of data from the 1985 DoD

spouse survey, Bowen and Neenan (1988) reported correlations between a global, single item measure of satisfaction with the military way of life, and satisfaction with sixteen specific aspects of military life. The strongest correlate of satisfaction with military life for wives without children was satisfaction with the demands placed on civilian spouses (r=.42). For wives with children, only satisfaction with the service's attitude toward military families (r=.60), was a stronger predictor of global satisfaction than satisfaction with spouse demands (r=.53). A related variable, satisfaction with the rights of civilian spouses, was also strongly related to satisfaction with military life, and was the third strongest correlate overall.

Mohr et al. (1981) addressed spouse role demands from a different perspective. Using reports from junior Naval officers, Mohr et al. factor analyzed twelve items assessing different types and levels of a wife's involvement in her husband's career. Two distinct factors emerged. An "emotional involvement" factor was defined by items asking about the interpersonal support the wife gave her husband (e.g., interest in his work, pride in his accomplishments, encouragement when things went wrong). The second factor appeared to capture the wife's acceptance of the traditional social role of an officer's wife. The items with the highest loadings on this "social involvement" factor asked the extent to which the wife: (a) worked actively with other Navy spouses on Navy related projects, (b) was active in the military community/social life, (c) helped to entertain people important to the officer's career, and (d) projected a good image as a Navy officer's spouse. The wife's level of social (but not emotional) involvement was strongly and positively related to her willingness to stay in the Navy (based on husband's perceptions) and the officer's own retention intentions.

In a similar vein, Lund (1978) found that wives of officers intending to leave the Army were more negative about almost every aspect of military life (based on officer reports). However, the differences between "staying" and "leaving" officer wives were particularly striking with regard to feelings about military social life and protocol. Thirty-nine percent (39%) of the officers intending to leave the Army said their wives were "very dissatisfied" with military social life and protocol, in contrast to only 16% of the officers intending to stay.

Jans (1988) is the only other researcher to examine the consequences of wives' feelings about the demands placed on military spouses. Using a combination of new and borrowed items (from Mohr et al., 1981), Jans constructed a ten item scale he conceptualized as a measure of the wife's identification with her husband's career. Several of the scale items, however could also be interpreted as measures of the wife's willingness to accept the traditional spouse role. For example, one item asked wives if they resented having to "make a special effort as a wife" just because they married someone in the service (Jans, 1988, p. 350). Other items asked how much their "role as an officer's wife" conflicted with their other roles, and whether or not they attended official functions only out of concern for the husband's career. Most of the remaining items in Jan's scale were similar or identical to the items defining the "emotional involvement" factor in Mohr et al.'s (1981) analyses. Correlational analyses indicated that women who scored high on Jans' identification/involvement measure were more satisfied with their experiences and family life in the military.

Summary. In summary, the attitudes of younger officers and their wives suggest a movement away from the more traditional notions about the role of

women in the family and her husband's career. Younger military wives appear more reluctant to dutifully follow their husbands, and younger husbands are more reluctant to sacrifice family responsibilities and spouse aspirations for the demands of a military career (Orthner and Bowen, 1982). As junior officers advance through the ranks, their more liberal attitudes may, in time, modify expectations concerning the appropriate role of an officer's wife (Stoddard, 1978). However, for the present at least, it appears that the officers with the most contemporary values have not yet reached positions where they can reduce the pressure on spouses to be traditional military wives.

Social changes and correlational data suggest that wives' reactions to traditional role expectations are a factor in their evaluations of military life. When traditional obligations are not perceived to be legitimate or personally satisfying, pressures to conform are likely to detract from the quality of life wives experience and anticipate in the military. On the other hand, women whose values and preferences are compatible with traditional expectations may derive a great deal of satisfaction from their ability to successfully meet the challenges of this role.

Two variables are proposed in the present model as determinants of wives' reactions to spouse role demands: career orientation, and perceptions of the level of support for families in the Army. In the following section, the concept of career orientation is defined and arguments underlying the proposed links between career orientation and the intermediate elements of the model are presented.

## Determinants of Reactions to the Demands of Military Life

### Career Orientation

To date, few researchers have focused on the impact a military wife's career orientation might have on the way a family evaluates the costs and benefits of staying in the military. Yet, as more women develop career aspirations, this variable may be an increasingly important determinant of the attractiveness of military life to junior officer families of the 1980's and 1990's. For example, one young officer explained that he was leaving the military because "as I get more senior, they want to include my wife in more activities, and she doesn't want to be in the Navy. She has her own career" (Derr, 1979, p. 13).

The spouse quality of life model proposes that a military wife's career orientation (and the cluster of related values about her role as a wife) is an important determinant of her reactions to (a) the social obligations traditionally conferred on an officer's wife, and (b) the frequent relocations required by a military career.

#### Construct Definition

Career orientation broadly refers to the importance individuals attach to work in their lives. In this research, a woman is viewed as having a strong career orientation if she (a) is committed to working (outside the home) for most of her adult years, (b) derives or expects to derive a great deal of personal gratification from her work, and (c) wants to develop professionally and advance to positions of progressively greater responsibility. Measures civilian researchers have used to tap the psychological importance of work are similar, but none include all three of the elements of career orientation proposed here.

Greenhaus (1971) was one of the first to sytematically examine the psychological importance of work. He developed a 28 item measure of a construct he called "career salience" and conducted factor analyses to explore the dimensionality of his scale. Three distinct dimensions emerged: general attitudes toward work, degree of vocationally relevant planning and thought, and the importance of work/career relative to other spheres of life. The dimension tapping the importance of work relative to other spheres of life is closest to the career orientation construct proposed here.

Sekaran (1982; 1986) also developed a measure of career salience, but her operationalization of the construct included measures of person/career fit as well as the "perception of one's career as an integral and satisfying part of one's life". In fact her eight item scale was dominated by items concerned with the fit between an individual's career and his or her personality and educational background, intentions to change careers, and opportunity to make a contribution to society through one's career.

The factor Marshall and Wijting (1982) named "career centeredness" is closest to the conceptualization of career orientation in this research. Marshall and Wijting conducted a factor analytic study designed to determine the dimensionality of commonly used measures of career orientation. Analyses of nine scales or subscales in two different samples suggested that existing measures tap two dimensions of career orientation. The first factor, "career centeredness" was defined by items reflecting plans for lifetime employment, intentions to devote a lot of time to work relative to other activities, and reports that work is an important source of intrinsic satisfaction in life. A second factor, "career commitment", also reflected plans devote time to work, but career committed individuals did not necessarily see work as an important

source of satisfaction in life. Measures of general work attitudes and vocational knowledge and planning (similar to two of the dimensions of career salience Greenhaus identified) did not load strongly on either factor.

The career orientation measure used in this research is differs from career centeredness (Marshal and Wijting, 1982) only in ithe inclusion of items assessing developmental career goals. One of the defining characteristics of a "career" (as opposed to a "job") in the dual career literature is that a career involves a developmental sequence of related positions leading to advancement within a particular field (Rapoport and Rapoport, 1978). This distinction is likely to be particularly important in research on military wives. The military lifestyle is expected to be more frustrating for women who aspire to careers (in this narrow sense of the term) than women who prefer to work, but are not necessarily interested climbing a career ladder. The inclusion of items tapping developmental goals in the career orientation measure ensures that women who truly have career aspirations can be distinguished from women who enjoy work but are not as interested in advancement.

In the commonly used, narrow definition of the term, the type of occupation (e.g., professional, "white collar") and the level of education or training required for the work (e.g., college, specialized training) are also used to distinguish careers from jobs (Hall, 1976; Rapoport and Rapoport, 1976). It is assumed here, however, that women with a variety of educational backgrounds and occupational specialties can hold the values associated with a strong career orientation. Career orientation is clearly <u>related</u> to education and occupational status (Griffeth et al, 1986, 1988; Jans, 1988; Suter, 1979), but the importance women attach to work is not expected to be <u>dependent</u> on having a college degree or a job that fits into a "professional" category.

In summary, a woman is defined as having a strong career orientation if she prefers paid employment, sees work as an important source of satisfaction in life, and aspires to develop and advance in her field of employment. This conceptualization of career orientation is distinct from related career orientation measures primarily in its emphasis on career goals.

Few military researchers have attempted to directly measure a wife's work or career values (Griffeth et al., 1988 and Jans, 1988 are exceptions). However, studies examining the relationship between spouse employment and retention preferences provide strong indirect support for the hypothesis that career orientation is an important determinant of feelings about military life.

Spouse Employment and Retention Preferences

Analyses of officer surveys consistently show that when the wife of a junior officer is employed, the officer is more likely to intend to leave the military (Jans, 1988; Mohr, et al. 1981; Robinson, 1986; Szoc, 1982; Strifler, 1982; Suter, 1979; Valentine, 1985; Wood, 1982). For example, data from a recent survey of 12,000 Air Force officers indicated that 59% of the officers planning to leave the military had working spouses, in contrast to only 41% of the officers intending to stay (Robinson, 1986). In the only two studies examining the relationship between a wife's employment status and her own feelings about staying in the military the results were similar; employed officer wives were more likely to want their husbands to leave the military than nonworking wives (Griffeth et al., 1988; Thomas and Durning, 1980).

Occupational status and retention preferences. Although most researchers simply focus on whether or not the wife is working when they address spouse employment issues, several studies suggest that the wife's occupational status is more important than employment status in determining retention preferences.

Szoc's (1982) secondary analyses, for example, suggested that effects attributed to employment status were largely due to the much greater tendency of officers with professionally employed wives to intend to leave the military. Among officers with working wives, fully 60% of those whose wives were had professional level jobs were intending to leave the Navy, in contrast to only 38% of the officers whose wives were employed in a nonprofessional capacity. Differences in retention intentions as a function of employment status were much smaller (58% of the "leavers" had working wives vs. 47% of the "stayers"). Results from the follow-up study indicated that spouse occupational status was related to actual retention behavior as well as retention intentions (Szoc and Seboda, 1984). Officers whose wives held professional level jobs were three times as likely to leave the Navy at the end of their obligated tour (27%) as officers officers whose working spouses were not employed in a professional capacity (8%).

Szoc's (1982; Szoc and Seboda, 1984) results suggest that wives employed in lower level jobs are more similar to nonworking wives than they are to women working in professional or career type jobs. Other studies of junior Naval officers lend additional support to this notion. Suter (1979) examined differences in officer retention intentions as a function of the husband's categorization of his wife's work as being a "career" or a "job". Officers with nonworking spouses and officers who said their wives had jobs were equally likely to intend to make the Navy a career (89% and 87%, respectively). However, a significantly smaller proportion (76%) of the officers who said their wives had "careers" were planning to stay in the military. Similarly, in a sample of aviators, 65% of the officers whose spouses had a "low" occupational status jobs intended to continue, whereas only

43% of the officers with "high" occupational status wives intended to stay in the service (Gibb et al., 1987). The results of Mohr et al.'s (1981) correlational analyses are also consistent with the results reported above; officers married to housewives and clerical workers expressed a stronger commitment to their husbands' military career than officers married to teachers, fellow officers or women they claassified as "professionals".

Wood (1982) established that officer career intentions were related not only to spouse employment status, but also to the number of hours a wife worked. Officers whose wives worked full-time were more likely than officers whose wives worked part-time to be planning on leaving the military. Data from Army spouses confirm that women in higher level jobs are more likely to work full-time than women in clerical and service jobs (Griffeth, 1988).

In summary, research on spouse employment suggests both officers' and wives' retention preferences are related to the wife's occupational status. In many studies, spouse employment issues are peripheral to the central research objectives and hence the results are not discussed (e.g., Gibb et al., 1987; Griffeth, 1988; Robinson, 1986). However, authors who do interpret these effects tend to argue that working women prefer civilian life because frequent relocations make it difficult for military wives to maintain continuous employment (Henderson, 1982; Jans, 1988; Suter, 1979; Szoc, 1982). This argument assumes that working women prefer to work, and have career goals that require employment continuity. In other words, the negative reactions of working women to military life are assumed to be a function of what is defined here as career orientation. The correlations between education, job level and the values that determine career orientation also suggest that career orientation is the important underlying variable.

Advantages of a direct measure of career orientation

Although researchers have obtained consistent, interpretable results using measures of occupational status, there are sound theoretical and practical reasons for measuring career orientation directly in military spouse reseach. Measuring career orientation rather than employment or occupational status will allow a direct test of the hypothesis that the relationship between occupational status and retention is a function of career goals that are incompatible with military life. A direct measure of career orientation also allows researchers to conceptualize separate causal paths for the effects of work values and spouse income on retention intentions. In the retention model described in the first section of this proposal, financial considerations were hypothesized to influence retention intentions directly by constraining choices. In contrast, career orientation is hypothesized to affect retention preferences indirectly through effects on the wife's anticipated quality of life in the military.

An important practical reason for assessing career orientation rather than employment status is that there are likely to be many officer wives who have career aspirations, but for a variety of reasons are not currently employed. Unemployment among military wives is quite high; 12% of the officer wives in the 1987 Army spouse survey said they were currently unemployed, and many of these women are likely to be career oriented. In addition, 9% of the junior officer wives who were not employed and not looking for jobs said the reason they were not seeking work was that they were still in school or training. The most important factor in the labor force participation of military wives, however, is the presence of small children. The women married to junior officers are typically in their twenties (Griffeth et al., 1986), an age when

many women are just starting families. In the 1987 survey of Army spouses (Griffeth et al., 1988), over half (61%) of the women not in the labor market said that childcare problems or family responsibilities (rather than "not interested in paid employment") were the primary reasons. Moreover, almost a third of the officer wives who were staying home with small children said they would prefer to be employed (Griffeth et al., 1988). The effects of spouse career goals and employment problems on feelings about military life can be seriously underestimated if only women who are presently working are assumed to value employment opportunities.

In summary, there is strong evidence that a wife's occupational status has an impact on family preferences for a military career. At the same time, there is evidence that a number of women would prefer to be working are not in the labor force because of the family responsibilities, schooling or their inability to find suitable jobs. A direct measure of career orientation will allow the effects of current and anticipated conflicts between career goals and military lifestyle demands to be examined.

The rationale for the proposed link in the present model between career orientation and reactions to relocation requirements and spouse role demands is presented below.

Impact of Relocation Requirements on Military Wives' Careers

The impact of PCS moves on the spouse's career is consistently cited in interviews as an important reason officers with working wives are thinking about or intending to leave the military (Derr, 1979; Gibb et al., 1987; Jans, 1988; Wood, 1982). Survey results confirm that relocations are especially problematic when wives want to work. One third of the officers in dual career families in Suter's (1979) study indicated that they and their spouses

experienced "serious conflict" as a result of their combined careers/jobs, and relocation was identified as the number one problem. Henderson (1981) obtained very similar results; 36% of his subgroup of dual career officers reported serious career conflicts and relocation requirements were again reported to be the major problem. Mohr et al., (1981) found that fully half of the junior officers in their sample reported that PCS moves had a "considerable" or "extreme" impact on their wives' employment, and the impact was strongest for women in non-clerical jobs. Moreover, in one of the few multivariate analyses, the extent to which spouse employment was a problem in the last PCS was the strongest (after rank) contributor to officer career intentions (Strifler, 1982). Relevant data from spouses themselves is limited to results indicating that approximately 30% of the working wives of Army officers find that their husband's jobs interfere "a great deal" or "completely" with their own (Griffeth et al., 1986). The percentage reporting interference also increased as a function of the wife's educational level .

The difficulties relocation requirements pose for working and career oriented women are related to both the frequency of moves and the geographic location of most Army posts. In 1985, over half of the women who had been married to Army officers for two to four years had moved at least twice since they had been married, and 28% had moved three or more times (Griffeth, et al., 1986). This obviously makes it very difficult for a young military wife to acquire the tenure or experience needed for advancement (Jans, 1988; Segal, 1986; Suter, 1979; Vernez and Zellman, 1987). By the time a wife settles her family into a new location and finds a job, she may be have only a year or two to work before she has to leave her job to orchestrate another cross country or overseas move.

The women who find jobs at all may be the lucky ones, however. Army posts within the United States are typically located in rural areas with a limited number and variety of employment options. In addition, at any one time about a quarter of the married officers in the Army are stationed overseas, where status of forces agreements even limit employment opportunities within the military. Discrimination can further reduce employment prospects for military wives. Because moves are so frequent in the military, some employers are reluctant to hire military wives for developmental or responsible positions (Jans, 1988; Suter, 1979). Given these constraints it is not surprising that almost a third of all Army officer wives rate the employment opportunities for military spouses in their present location as being "poor" or "very poor" (Griffeth et al., 1986). The limited opportunities can make the job search very frustrating. Over one fourth of the officer wives who were actively seeking paid employment in 1985 had been looking for more than six months. Other junior officer wives (12% of those who were not working or looking for work) indicate that they have simply given up because there are no suitable jobs available (Griffeth et al., 1988).

In summary, relocation requirements have a strong, negative impact on the career opportunities available to military wives. PCS moves in the Army are frequent, making it difficult to acquire the tenure and experience needed for professional advancement. In addition, PCS moves often take families to locations where job opportunities, especially for college educated women, are limited. Because of the obstacles relocation requirements pose for career oriented women, career orientation is expected to be a significant predictor of a wife's willingness to accept the relocation demands of an Army career.

Career Orientation and Spouse Role Demands

A wife's career orientation is also expected to be a significant determinant of her reactions to the demands of the traditional role of an Army officer's wife. Research to date provides only indirect support for this proposition, primarily through evidence that reactions to spouse role demands are related to variables highly correlated with career orientation.

In a survey of Naval officer wives, Thomas and Durning (1980) found that women with more education were less likely to (a) enjoy their social obligations, (b) say that their role as an officer's wife contributed to feelings of pride and self-worth, and (c) believe that officers' wives should be expected to participate in Navy events and activities. Other studies have indicated that a wife's social involvement in her husband's career is related to her employment status and the the traditionality of the sex-role values she espoused (Jans, 1988; Mohr et al., 1981). Because working women, college graduates and women with more liberal sex-role attitudes are more likely to have career aspirations (Jans, 1988; Orthner, 1980; Orthner and Bowen, 1982; Ozkaptan, Sanders and Holz, 1986; Thomas and Durning, 1980), these studies provide indirect empirical support for the proposition that career oriented women will be less tolerant of the demands of the traditional spouse role.

Career oriented women are expected to react more negatively to the demands of the spouse role because of both value conflicts and time conflicts. On an ideological level, the more feminist values of career oriented women are antithetical with the notion that an officer's wife should serve and support the military without benefit of remuneration or formal recognition.

Career oriented women have also chosen a different outlet for the time and energy they might otherwise have available to devote to military activities.

Women with a strong career orientation are likely to be working, looking for work, or preparing for a career in school. As a result they are less likely to have the time or inclination to participate in wives' clubs, volunteer activities and the numerous social functions integral to military life. In summary, career oriented women are expected to react more negatively to traditional spouse role demands because of both value conflicts and time constraints.

## Army Support for Families

The perceived level of support for families in the Army is the second variable hypothesized to influence reactions to the demands of military life. Perceptions of support for families at both the organizational level and the unit or workplace level will be obtained in the survey. At the organizational level, support items will focus on the Army's willingness to accomodate the needs of families, the level of concern high level leaders show for family members, and the supportiveness of the military community in general. At the unit or workplace level, items will focus on the attitudes and behavior of the officer's immediate supervisor with respect to the family obligations and concerns of subordinates. For example, some items address the latitude the supervisor gives subordinates to accomodate family needs that arise during work hours. Other items focus on the supervisor's level of personal support and understanding. These items are very similar to, and in some cases identical to measures of "supervisory support" used in previous research (specifically, Farkas and Durning, 1982, and Szoc, 1982).

It is hypothesized in the model that a wife's perceptions of family support in the Army will influence her reactions to both the demands of the spouse role

and the time/separation demands of a military career. Equity theory (Adams, 1965) provides the conceptual framework for the hypothesized effects.

Equity Theory

Equity theory (Adams, 1965) proposes that individuals evaluate relationships by comparing their own input/outcome ratios against the input/outcome ratios of relevant others. A relationship will be perceived as inequitable if one's own input/outcome ratio is unfavorable relative to a comparison person's. Equity theory further proposes that it is inherently distressing to be in an inequitable relationship, hence individuals are motivated to eliminate the inequity by altering their own inputs or terminating the relationship.

For junior officer couples, general perceptions of input/outcome ratios in civilian organizations are likely to provide the basis for equity comparisons. Because the Army generally asks more of soldiers and their families than civilian employers, equity theory predicts that the relationship will be experienced as inequitable unless the outcomes for families are also greater than in civilian life. When the greater sacrifices of military life are not balanced by greater rewards, wives are likely to be motivated to either terminate the relationship or reduce their own inputs. In terms of the quality of life model, when the family's relationship with the Army is perceived to be inequitable, wives are expected to be less willing to conform to traditional role expectations and less tolerant of the time demands of a military career.

Effects of family support on equity perceptions. Army support for families is expected to produce more positive reactions to military demands by creating more favorable input/outcome ratios. Supportive policies, programs and practices can both reduce the inputs or sacrifices required of family members,

and increase the positive outcomes families experience as a result of their affiliation with the military. For example, a supervisor who respects the family obligations of his subordinates is not likely to require "overtime" or weekend work unless it is absolutely necessary. Similarly, an understanding supervisor can establish flexible norms for the social participation of wives and keep the number of truly obligatory social functions to a minimum. At the organizational level, effective services and programs for families can reduce the negative impact of some of the requirements of military life (e.g., employment assistance programs, sponsors for overseas tours), and flexible, family oriented policies can make it easier for families to accomodate the requirements of the officer's career.

Family support can also increase both the tangible and the intangible rewards military families experience. Support and concern at the organizational level can result in the allocation of funds to family oriented programs and services (e.g., recreation centers, counseling services, childcare). At the same time, evidence that families are valued can increase the psychological rewards of military service. Organizational and supervisory support can make family members' feel that they are respected and appreciated, and perhaps most importantly, part of a cohesive, caring community. When wives believe that the Army really does "take care of its own", they are expected to be more willing to accomodate the inevitable demands and hardships of military life. On the other hand, when spouses feel that Army leaders are uncaring and inflexible when in comes to family needs, the demands the Army places on families are likely to be percieved as excessive and unfair.

## Supervisory Support and Reactions to Military Life

Supervision and retention intentions. A number of studies indicate that the treatment officers receive from their supervisors is important in retention decisions. Szoc (1982), for example, found that officers intending to leave the Navy were three times as likely as staying officers to be dissatisfied with "treatment by supervisors" (41% vs. 12%). Satisfaction with treatment by superiors was also the second strongest correlate of career intentions (after spouse support for a military career) in two mixed officer and enlisted samples of married Air Force personnel (Orthner 1980, Orthner and Bowen, 1982). Similarly, Sterling and Allen (1983) found that a measure of supervisory support (respect, recognition) was the strongest predictor of Army officer career intentions after "pride in the Army".

In the present research, a specific dimension of supervisory support is singled out for attention. Supervisory support and flexibility with respect to the family matters is the job related factor hypothesized to be most critical to wives' reactions to military life. To date, this aspect of supervision has not been examined in relation to spouse attitudes. However, both Szoc (1982) and Farkas and Durning (1982) used a measure of supervisory support for family concerns in their multivariate analyses of the determinants of officer retention intentions.

Support for families and work/family conflict. Szoc (1982) constructed a "social support" measure (alpha=.93) from ten items assessing the sympathy, help and "leeway" provided by supervisors and coworkers when subordinates had family problems. This variable was included in 22 variable path model of the determinants of the career intentions of (officer and enlisted) Navy personnel. The four variables with the largest direct effects on career intentions were:

spouse preference for staying, family/Navy satisfaction (largely a work/family conflict measure), job/career satisfaction, and years of service (Szoc, 1982).

The social support measure was one of three variables exhibiting large, significant indirect effects on officer career intentions. The results suggested that when supervisors are flexible and understanding with regard to family matters, officers are more satisfied with their jobs, experience less work/family conflict and perceive their wives to be more involved in and supportive of their career in the military. In other words, supportive supervisors appear to reduce the disruptive effects of job demands on family life, and encourage wives to play a more active, supportive role in their husbaand's careers.

Farkas and Durning (1982) used a seven item measure of "supervisory support" identical to Szoc's (1982) "social support" measure except for the exclusion of three items referring specifically to co-workers. This measure was one of several regressed on career intentions in a mixed male and female, officer and enlisted sample. Results indicated that family pressure to leave the Navy explained as much variance in retention intentions as the global measure of the service members' satisfaction with Navy life (Farkas and Durning, 1982). The strongest predictor of family pressure to leave the Navy was a measure of Navy interference with family life ($r=.54$), and supervisory support for family needs (i.e., leeway, flexibility, understanding with respect to family concerns) emerged as one of the strongest predictors of the work/family conflict. The effects of supervisory support on work/family conflict were as strong as the effects of "number of serious family problems in the military", and stronger than the effects of total time deployed, weekly hours with spouse, and hours in the Navy work week.

The results of both these studies suggest that supervisors have the power to ameliorate or exacerbate work/family conflicts through their treatment of their subordinates. It appears that when supervisors respect family concerns and allow subordinates the flexibility they need to meet important family obligations, the disruptive effects of time demands on family life can be reduced.

Although empirical data on the effects of supervision are limited to officers, it is expected that the family support exhibited by supervisors will have similar effects on spouses. When supervisors are understanding and flexible, some work/family conflicts can be avoided or resolved in favor of the family. This reduces the inconvenience and hardships officer career requirements can cause families. At the same time, when wives believe that supervisors really try to minimize family life disruptions, they are more likely to be tolerant of the conflicts that must be resolved in favor of the Army.

Understanding superiors are also expected to have a positive effect on perceptions of and reactions to the social demands placed on officers' wives. A superior officer who respects the lifestyle and family role preferences of his subordinates can significantly reduce the social pressures on wives in the unit. When wives feel that they can define their own roles in the military without adversely affecting their husbands' careers they are less likely to perceive spouse role demands as a problem.

Organizational Support and Reactions to Military Life

Sterling and Allen (1983) found that general satisfaction with a variety of Army programs and benefits (e.g., arts and crafts facilities, substance abuse

programs, child care services, housing, medical care, retirement benefits) did not contribute directly to officers retention intentions. However multivariate analyses indicate that perceptions of organizational support can influence career intentions indirectly through their effects on intermediate reactions to military life. In Szoc's (1982) model, satisfaction with Navy family services influenced family/Navy satisfaction, which in turn was a predictor of retention intentions. In addition, officers who said that Navy sponsors and orientation programs had facilitated the adjustment of their spouses also indicated that their spouses were more supportive of a military career (Mohr, et al., 1981).

Orthner and Pittman (1986) found that a multidimensional measure of perceived organizational support for families had both direct and indirect effects on the commitment of Air Force officers. Officers who perceived greater organizational support for families were more likely to say that their families were in favor of staying in the military, and family support for a military career was directly related to commitment to the Air Force.

Bowen (1988) examined how perceptions of the environment for families in the military influenced Army officer's overall satisfaction with military life. His sample consisted of the almost 5000 Army officers who responded to the 1985 DoD Survey. The family environment item asked officers how satisfied they were with."the environment for families in the military considering current policies". In the analyses, overall satisfaction with military life was regressed on the family environment variable and sixteen other specific satisfaction items. Satisfaction with the environment for families did not contribute to satisfaction with military life for married officers who did not have children. Satisfaction with current job, opportunity to serve one's country, pay and allowances and personal freedom were the important predictors

for childless married officers. In the subgroup of officers with children, however, satisfaction with the environment for families had the third largest independent effect on satisfaction with military life. The effect was weaker than the effects of satisfaction with personal freedom and assignment stability, but stronger than the significant effects of four other job related variables on satisfaction with military life.

The importance of satisfaction with personal freedom in these analyses is noteworthy. In interpreting the contribution of personal freedom, Bowen (1988) suggested that family related policies and practices which are viewed as restricting or interfering with personal freedom and family autonomy may actually lower satisfaction with military life (1988, p. 19). The strong effects of personal freedom also support the contention that supervisors who allow their subordinates a measure of flexibility in the workplace promote satisfaction with military life.

Support for families and spouse attitudes. Bowen and Neenan (1988) examined family support and satisfaction with military life using data from the 3450 wives of Army officers surveyed in the 1985 DoD Spouse Survey. The independent variable of interest in this study was the wife's satisfaction with the service's attitude toward families and family problems. The purpose of the analyses was to test the hypothesis that satisfaction with the service's attitude toward families would account for variance in satisfaction with military life even when effects due to satisfaction with fifteen other aspects of military life were partialled out. The hypothesis was supported, and the effects were particularly strong among officer wives with children.

Results from the 1987 Survey of Army Families are probably most relevant to the propositions of the present model (Griffeth et al., 1988). For officer

wives, satisfaction with "the Army as a way of life" was strongly related to two variables: perceptions that Army demands on families are a problem, and the level of support the Army demonstrated for families. In addition, satisfaction with the Army was moderately related to problems achieving personal goals, and satisfaction with the level of support for officers in the husband's unit. Consistent with the propositions of the present model, these results confirm the importance of organizational and unit level support and indicate that wives are more likely to be satisfied with the military when they can achieve their own personal goals.

Summary. Wood (1982) argued that the inflexibility of military work requires families to make all the adjustments; members have few options other than getting out if work requirements cause problems for their families. This is true to a degree. There are many training and operational assignments in the military that are, by nature, inflexible in terms of location, hours or schedule. Studies cited above, however, suggest that in many cases, supervisors have a great deal of control over demands that create work/family conflicts for soldiers. In peacetime at least, a supervisor who respects the time and family obligations of his subordinates can often limit "overtime" and weekend work, allow subordinates to adjust their schedules or take time off to meet family needs, and afford officers a measure of control over assignments that would take them away from their families. In other words, a supportive supervisor can reduce the family conflicts and disruptions associated with the time demands of a military career.

Research on organizational support suggests that perceptions of support for families at the organizational level can also have positive effects on the attitudes of family members. Satisfaction with programs and services is

associated with positive feelings about the military. This relationship may be due to the ability of effective programs to directly reduce hardships and/or enhance the quality of life in the military, or it may be a result of the the message the existence of these programs sends to family members. Family oriented programs and policies let family members know that they are considered special in the military and their needs are important.

Supportive supervisors also contribute to the intangible rewards of being associated with the military. Their attitudes and behavior can create a climate that lets people know that they are respected, family needs are given a high priority, and members of the unit stick together and look out for each other. The intangible benefits of being part of a cohesive, caring community can restore feelings of equity in the relationship - feelings that the Army demands more of its families than most organizations, but also gives much more in return.

In summary, when wives perceive that Army leaders respect and support military families they are expected to react more positively to the spouse role and time demands of a military career. Equity theory provides the theoretical rationale for this proposition. A supportive environment is expected to contribute to increase the favorability of input/outcome comparisons with civilian life, and hence reduce perceptions of inequity that might otherwise result from the demanding nature of military life.

Army support for families is expected to create more positive input/outcome ratios both by generating more positive outcomes for families (e.g., respect, social/emotional support) and limiting the number of sacrifices family members have to make (e.g., giving up important family time, sacrificing a career or outside interests because of spouse role demands). When the family related

reduced, or balanced by positive family outcomes, wives are expected to be more willing to accomodate the requirements of military life.

## Summary and Theoretical Implications of the Quality of Life Model

Research on military wives' has documented that a number of variables (generally measures of satisfaction with specific aspects of military life) are related a wife's overall level of satisfaction with military life. The interest in military wives is fairly recent, however, and as yet, few studies have looked beyond general satisfaction measures or developed and tested more interesting explanatory hypotheses. Fortunately, at the same time the Army is recognizing the importance of spouse attitudes, there is a growing body of research within the officer retention literature that addresses family concerns and spouse attitudes and perceptions. In combination, results from the officer and spouse research of the past decade suggest a number of avenues for fruitful exploration.

It is clear that the demands of military life affect both officers' and spouses' evaluations of the pros and cons of a military career. Research also suggests that a wife's employment or occupational status affects an officer's, and presumably, his wife's feelings about staying in the military. Here an effort is made to specify both the critical demands of Army life, and the factors that determine how wives react to those demands. The hypothesized relationship between career orientation and feelings about relocations and the traditional spouse role suggests that some women are unhappy with the military because the military lifestyle conflicts with their own basic goals and values. The proposed relationships between support for Army families and tolerance for time and spouse role demands is based on the notion of equity. The Army asks

alot of officers' wives, and their willingness to put up with the demands placed on them is expected to be at least partly a function of what they perceive the Army gives to families in return.

The test of the model proposed in this research will enable us to refine our thinking, and future models, of the way wives respond to the military, and better understand the relative importance of various demands, personal goals, and perceptions.

## METHOD

### Sampling Strategy and Sample Size Estimates

#### Officer Longitudinal Survey

The officer sample for this research will consist of a subgroup of officers sampled for the larger Officer Longitudinal Survey to be conducted by the Army Research Institute in the summer of 1989. The relevant aspects of the sampling strategy for the larger project will consist of the following steps: (1) from the master officer personnel file at the U.S Army Soldier Support Center identify all male officers commissioned between 1980 and 1988 from either USMA or ROTC, (2) eliminate those officers (approximately 30%) who are not currently assigned to one of the six largest Major Commands (MACOMS) in the Army, (3) from the officers who remain, randomly select approximately 50% of all the male USMA officers from each commissioning year group, and 20% of all male ROTC officers in each commissioning year group.

Sample restrictions. Restricting the sample to officers currently assigned to one of the six largest Major Army Commands (MACOMS) is necessary to facilitate the world-wide distribution of surveys through Army channels. Eliminating the smaller MACOMS will exclude approximately 30% of the junior officer population.

The sample is restricted to USMA (the U.S. Military Academy at West Point) and ROTC graduates because most Army officers come from one of these two commissioning sources (see Table 1), and officers from ROTC and USMA are very similar to each other in terms of age and educational background. Both groups get their initial military training while they are still in college and receive thier commissions as soon as they graduate. Officers commissioned through Officer Candidate School (OCS), on the other hand, have usually either come

from the enlisted ranks or finished college prior to joining the Army. The fourth major source of officer commissions, direct appointments, are generally reserved for individuals with graduate degrees in civilian professional fields (e.g., medicine, law, ministry). Both OCS and Direct Appointment officers are likely to be older and have a different orientation to their officer status than ROTC and USMA officers. USMA officers are oversampled for the Officer Longitudinal Research to ensure an adequate sample size for subgroup analyses; ROTC officers outnumber USMA officers by about five to one.

Table 1

Percentage of Officers from each Commissioning Source for 2 Year Groups

| Source | Commissioning Year Group | |
|---|---|---|
| | 1980 | 1985 |
| | % (Number) | % (Number) |
| USMA | 11 ( 908) | 13 (1088) |
| ROTC | 54 (4494) | 55 (4744) |
| OCS | 12 ( 959) | 8 ( 686) |
| Direct | 9 ( 740) | 15 (1256) |
| Other | 14 (1124) | 5 ( 421) |

Source: Hunter (1988)

## Officer Subsample for the Proposed Research

The sampling strategy for the Officer Longitudinal Survey will result in approximately 300 USMA and 400 ROTC officers per year group. The sample of officers to be used in this research will consist of the subgroup of officers from this larger sample who: (a) are married to civilian women, (b) have not yet completed their active duty service obligations, and (c) have fewer than two years of obligated service remaining.

Sample size estimates. For the purposes of estimating sample size, we assume that for each commissioning source two year groups will have fewer than two years of service remaining in their obligations; the 1984 and 1985 year groups for USMA, the 1985 and 1986 cohorts of ROTC scholarship officers, and the 1986 and 1987 ROTC non-scholarship year groups. This means that about 600 USMA officers and 800 ROTC officers will meet the time in service selection criteria (b and c above).

Table 2 gives the percentage of married ROTC and USMA officers for the commissioning year groups 1982 through 1986, as of mid-1988. The proportions of married officers are expected to be very similar for the 1983 through 1987 year groups to be surveyed in mid-1989.

Table 2

Percentage of Married Male Officers by Commissioning Source and Year Group as of August, 1988

| Source of Commissioning | Commissioning Year Group | | | | |
|---|---|---|---|---|---|
| | 1982 | 1983 | 1984 | 1985 | 1986 |
| ROTC | 79% | 75% | 67% | 60% | 52% |
| USMA | 72% | 62% | 58% | 45% | 34% |

Source: U.S. Army Soldier Support Center, Alexandria, VA, 1988

Most ROTC officers with less than two years remaining in their obligations will be in the 1986 year group (comparable to the 1985 year group in Table 2) so it is estimated that 60% will be married. The same percentage (60%) is used to estimate the number of married USMA officers, because between 58% and 62% of

the USMA officers with less than two years left in their initial obligation were married in 1988. These estimates suggest that about 360 USMA and 480 ROTC officers will meet all three sample selection criteria (total N=840). Allowing for a 10% non-deliverable rate and a 50% response rate, it is estimated that the final sample will consist of 350 to 400 officers. This estimate is conservative, however, because extensive follow-up contacts are planned to support the targeted response rate of 75%.

Spouse Sample

Surveys will be sent to the wives of ROTC officers in primary sample who were commissioned between 1984 and 1987, and the wives of USMA officers commissioned between 1983 and 1986. Wives who indicate in the survey that their husbands do not meet the time in service selection criteria (still under obligation with less than two years remaining) will not be included in the final spouse sample.

Previous research indicates that response rates in the range of 70% can be expected for surveys mailed to officer wives (Griffeth et al., 1986, 1988). If we reduce the expected response rate to about 60% to allow for undeliverable surveys, and assume, based on officer estimates that about 840 wives will have husbands who meet the time in service selection criteria, we can expect between 500 and 550 respondents. This is the sample that will be used to test the spouse quality of life model.

Combined sample. If we assume that there is no relationship between the tendency of husbands and wives to respond to the survey, we can estimate that we will have spouse data for about 60% of the officer respondents. This would result in a final combined sample of somewhere between 210 and 240 couples. This combined sample will be used to test the four variable retention model.

## Procedure

### Survey Distribution

Once the final sample for the Officer Longitudinal Survey is drawn, the Army Soldier Support Center will print out mailing labels for each pariticipant from the official personnel files. For officers, the address will be the current work address, for wives it will be the official home address.

Officer surveys. Officer surveys will be distributed by a command appointed point of contact (POC) for each Army post or geographical area in the six MACOMS included in the sample. The POC will receive a box containing his instructions, survey tracking sheets, and all the pre-addressed surveys he is responsible for distributing. The POC will be instructed to mail (U.S. mail service or internal mail) or hand deliver the survey packets to the officers on his list within one week. Instructions to respondents call for the surveys to be sealed in the envelopes provided in the packet and returned to the POC once they are completed. Respondents are also given the option of mailing their survey directly to ARI in case they are reluctant to use Army channels.

POC's are to log in the surveys they receive (names are on the envelopes), and make a follow-up call to officers who have not responded within two weeks. Officers who do not respond after the follow-up call will be mailed another survey and a letter asking for their participation. The decision to attempt a third follow-up contact will be based on the response rate at the time.

Spouse survey distribution. Spouse surveys will be mailed directly to the wife's most recent home address. When surveys are returned as undeliverable, efforts will be made to obtain a more current address through personnel records or the husband. Spouses will be asked to return their surveys in the self-addressed stamped envelope directly to the research team. Researchers will

mail out reminder letters to those who have not responded within two to three weeks. If there is no response to the reminder, another letter and a second cpoy of the survey will be mailed.

General instructions. Each survey packet consists of a cover letter signed by a general officer, the scannable survey booklet, instructions for returning the survey, and a return envelope. The cover letter provides an overview of the research project, guarantees confidentiality and asks for cooperation in the research effort. In addition, the first page of the survey emphasizes that names and social security numbers are used for tracking and matching purposes only and that the confidentiality of respondents will be strictly protected.

Married respondents are informed that their spouses may receive a similar survey and will be asked to verify that their spouse's social security number on their return address label is correct. Married respondents will be asked to complete their surveys independently, but to respond to the questions on the last page concerning the impact of the survey if it prompted them to question or discuss career or family issues with their spouse.

Pre-test

The entire final version of the survey will be pre-tested on a sample of 40 to 50 junior officer wives from Ft. Bragg, NC and Ft. Belvoir, VA at least two months before survey is actually to be administered. The survey administration sessions will be followed by individual interviews or small group discussions covering both the content and clarity of the survey, and general issues of concern to officer wives. In addition, item analyses will be used to identify scale items that can be eliminated or need to be changed. Procedures and items for the officer survey will be modified on the basis of the very similar 1988 Officer Longitudinal Survey.

## Measures

### Retention Model

Dependent variables. In this model, as in most retention research, the dependent variable for officers is a measure of career intentions (or recommendations, in the case of the spouse) rather than actual retention behavior. However, research indicates that intentions are moderately good predictors of officer retention behavior (Shenk and Wilbourn, 1971; Szoc and Seboda, 1984). Air Force and Naval officer career intentions (definitely stay, probably stay, undecided, probably leave, definitely leave) measured one year prior to the end of the obligated tour exhibited correlations of .56 and .50 with subsequent (stay/leave) behavior (Shenk and Wilbourn, 1971; Szoc and Seboda, 1984).

Typically officer career intentions are measured using a single item asking either the number of years the officer expects to remain in the service or the probability that he will stay beyond his obligation or until retirement. An exploratory, multi-faceted career intentions measure is proposed for this research. In addition to the commonly used "expected years of service" and "probability of staying" measures, the proposed scale includes two additional items: one asks if the officer is "planning on" or "leaning toward" an Army or a civilian career, and another ask how long after the end of his obligation the officer intends to stay. (See Appendix A for all retention model items.)

Responses to the two time-oriented items (#'s 3 and 4) will be recoded into one of three categories before scores are combined: (a) likely to stay for a career (at least 20 years), (b) undecided, and (c) likely to leave within two years of end of obligation. The internal consistency of the items will be used to determine the advisability of retaining all four items in the scale.

The dependent variable for wives in the model is called career or retention "preferences" or "recommendations". The items making up this measure are similar to those used for the officer measure except for the introductory stem. For example, instead of asking for intentions, a spouse item may ask what the wife would like to see her husband do with regard to his career, or what she thinks would be the best course of action (see Appendix A). In addition, there is a five part item designed to tap the amount of money a civilian job would have to pay before the wife would encourage her husband to accept it. The score for this item will consist of the number of times the wife answers "encourage him to accept the job".

Independent variables. The independent variables in the retention model consist of multi-items scales tapping spouse quality of life assessments (spouse reports) and officer career satisfaction prospects (officer reports). The quality of life items are global, typically asking the wife abouut her oppportunities for a satisfying personal life if her husband stays in the Army. The officer career prospect items focus more specifically on career or advancement prospects, and opportunities to do the kind of work the officer most enjoys. Items which reduce the internal consistency of the scales will be dropped.

The third independent variable is the family stage constraints index. This will be determined by the amount of time left in the officer's obligation (his report) and the wife's responses to the family status questions in Appendix A. Couples who will have a child "on the way" or under the age of two when the officer completes his obligation will be assigned a constraints score of "1". If, at the end of the obligation, a couple will have two children under the age of two, or if there is one child under two years old and the wife

is also pregnant at this time, the couple will be assigned a constraints score of "2". Childless couples who are not currently expecting children, and couples whose children will be older than two when the officer's obligation ends will receive scores of "Ø".

Quality of Life Model

Dependent variable. The dependent variable in this model is identical to the spouse quality of life measure in the retention model. The items comprising this scale can be found in Appendix A.

Direct Predictors. Reactions to the time and relocation demands of military career are measured using two set of exploratory items (See Appendix B). In one set of items, Anticipated Army Career Demands, wives are asked to report their expectations with regard to the time and relocation demands of their husbands' careers, then indicate their willingness to accept these conditions. One item in this set (#14) addresses feelings about relocation frequency. Reactions to time demands are assessed by two items tapping feelings about anticipated separations (#'4 and 6) and three items on schedule and work hour demands (#'2, 1Ø and 12).

In the second set of items (Tolerance for Assignment Demands) wives are presented with a variety of specific demands that might be associated with an otherwise desirable (from a career perspective) assignment. They are asked to indicate for each situation whether they would: (a) encourage their husband to accept the assignment (scored +1); (2) stay neutral or don't know what they would do (scored Ø); or (3) encourage their husband to get out of the assignment (scored -1).

Question # 1 is concerned with PCS moves, questions 2 and 3 address separations, and question 4 covers schedule demands. Scores will be computed

for each question simply by summing the responses to the items (a, b, c, etc.) under each question. The only exception is question # 4 where responses to items "c" through "f" will be averaged before being added to the responses to items "a" and "b" (so that feelings about the length of the work week will not overshadow feelings about erratic hours and weekend work. Responses to the specific items for each questions are not expected to be strongly correlated because they are not intended to be indicators of a single unitary attitude. The scale scores simply indicate the number of conditions the wife is willing to accept, relative to those she is not willing to accept.

To obtain the final measures of tolerance for the time and relocation demands of military life, scores from Anticipated Army Career Demands, and the additive indices from the Tolerance for Assignment Demands will be combined. For example, in the test of the model, the measure of tolerance for PCS requirements will consist of the score on item 14 from Anticipated Demands plus the index from the set of Tolerance items. In the case of time demands, the separation and work hours/schedule subscales will be kept separate unless they are highly correlated. Because these measures are based on feelings about specific conditions rather than global reactions, the lack of a correlation with quality of life expectations may mean that either that the type of demand is not important or that the conditions addressed in the questions are not the salient ones. A strong relationship, on the other hand, will confirm the importance of these particular aspects of time and relocation demands.

Traditional spouse role obligations are proposed as the third important demand of military life. Reactions to these demands are measured by an 8 item scale focusing on feelings about the rewards of the traditional role, and item # 16 from the Anticipated Demands section.

Indirect predictors. The indirect predictors of quality of life expectations include career orientation and perceptions of support for Army families (see Appendix C). The six career orientation items address work plans, career goals and feelings about the importance of work as a source of satisfaction in life. Items which reduce the internal consistency of the scale will be dropped for the test of the model.

Army support for families is measured using two separate scales. The supervisory support scale focuses on the flexibility the supervisor affords his subordinates to meet family obligations, and the personal concern he demonstrates when problmes arise. The organizational support scale asks about family oriented programs and services and the priorities of Army leaders. Factor analyses and internal consistency reliabilities will be used to determine the appropriateness of combining assessments of organizational and supervisory support for families.

## Data Analysis

### Retention Model

In the retention model tested in this research, three variables are proposed as direct determinants of both officer and spouse feelings about the desirability of staying in the Army. In other words, the same three predictors are expected to make significant, independent contributions to the explained variance in retention measures obtained from officers and their wives. The two subjective independent variables in the model are (a) the wife's global assessment of the quality of life she is likely to experience if her husband stays in the military, and (b) her perceptions of the satisfaction her husband is likely to derive from a military career. The situational

variable in the model is an index of family life cycle stage constraints.

The model will be tested using the multiple regression program in SPSS-X. Each dependent variable (officer career intentions and spouse retention preferences) will be regressed on the three predictors (no sequential orderring of the variables will be specified). The importance of the three variables to the retention decision will be determined by their ability to make a significant independent contribution to the explained variance in the dependent variable. Conclusions about the predictive utility of the model for junior officers and their wives will be based on the magnitude of the $R^2$. The model will be considered useful if it can account for half of the variance in the retention measures.

Quality of Life Model

The direct and indirect causal relationships proposed in the quality of life model will be tested using path analytic techniques (which I will describe as soon as I understand them better - I'm working on it).

# APPENDIX A

## SCALE ITEMS FOR VARIABLES IN THE RETENTION MODEL

OFFICER CAREER INTENTIONS

1. Which of the following best describes your current career intentions?

a) I plan to stay in the Army beyond 20 years
b) I plan to stay in the Army until retirement at 20 years
c) I plan to stay in the Army beyond my obligation, but am undecided about staying until retirement
d) I am undecided whether or not I will stay in the Army upon completion of my obligation
e) I will probably leave the Army upon completion of my obligation
f) I will definitely leave the Army upon completion of my obligation

2. Right now I am ...

a) planning on an Army career
b) leaning toward an Army career
c) undecided
d) leaning toward a civilian career
e) planning on a civilian

3. When do you think you will leave the Army?

a) at the end of my obligation
b) within 1 year of the end of my obligation
c) 1 - 2 years after the end of my obligation
d) 2 - 3 years after the end of my obligation
e) more than 3 years after my obligation, but before retirement
g) when I am eligible for retirement at 20 years
h) sometime after 20 years

4. How many years of active duty service do you expect to have completed by the time you leave the Army?

_____ years

(grid)

SPOUSE CAREER PREFERENCES/RECOMMENDATIONS

1. What do you think is the best course of action your husband could take right now with regard to his career?

a) Firmly commit himself to an Army career
b) Plan for an Army career, but explore civilian options
c) Wait a while before making plans either way
c) Plan for a civilian career, but keep Army options open
d) Firmly commit himself to a civilian career

2. When would you like to see your husband leave the Army?

a) at the end of his obligation
b) within 1 year of the end of his obligation
c) 1 - 2 years after the end of his obligation
d) 2 - 3 years after the end of his obligation
e) more than 3 years after his obligation, but before retirement
g) when he is eligible for retirement at 20 years
h) sometime after 20 years

3. Which of the following best describes how you feel about your husband staying in the Army for a career?

a) definitely want him to stay in the Army
b) lean towards wanting him to stay
c) neutral, or satisfied either way
d) lean towards wanting him to leave
e) definitely want him to leave the Army

4. What would you do if your husband had a chance for a career enhancing assignment, but it involved **work or training that:**

| | encourage him to accept assignment | stay neutral or don't know | encourage him to get out of assignment |
|---|---|---|---|
| b. had no relevance to a future civilian career | a | b | c |
| c. would increase his active duty time obligation to the Army | a | b | c |

(from Tolerance for Assignment Demands section)

SPOUSE CAREER PREFERNCES (cont)

Possible additional item:

5. What would you do if your husband were offered a civilian job with moderately interesting work and reasonable advancement opportunties, and the **starting pay and benefits package was** worth:

| | encourage him to accept the job | stay neutral or don't know | encourage him to turn down the job |
|---|---|---|---|
| a. $2,000 less than what a junior captain receives | a | b | c |
| b. about the same as what a junior captain receives | a | b | c |
| c. $2,000 more than what a junior captain receives | a | b | c |
| d. $5,000 more than what a junior captain receives | a | b | c |
| e. $15,000 more than what a junior captain receives | a | b | c |

SPOUSE QUALITY OF LIFE ASSESSMENTS

1. Overall, how satisfied are you with the military way of life?

a) very satisfied
b) satisfied (from DoD and ASAF)
c) neutral
d) dissatisfied
e) very dissatisfied

2. In terms of your own personal happiness, how do the advantages of Army life compare to the disadvantages?

a) many more advantages
b) more advantages
c) about equal
d) more disadvantages
e) many more disadvantages

3. Will you be able to do the things you find most rewarding if your husband decides to pursue a career in the Army?

a) to a very large extent
b) to a large extent
c) to some extent
d) to a small extent
e) not at all

4. Is the Army lifestyle compatible with your own lifestyle preferences?

a) to a very large extent
b) to a large extent
c) to some extent
d) to a small extent
e) not at all

5. Looking ahead to what I, personally, would like from the next 10 or 15 years of my life, I expect that I will:

a) definitely be happiest if my husband stays in the Army.
b) probably be happiest if my husband stays in the Army.
c) be equally happy if my husband stays in the Army or leaves.
d) probably be happiest if my husband leaves the Army.
e) definitely be happiest if my husband leaves the Army.

6. Do you think your own quality of life is likely to be better if your husband pursues a military or civilian career?

a) military
b) civilian
c) don't know
d) his career choice won't affect the quality of my life

OFFICER PROSPECTS FOR A SATISFYING ARMY CAREER

1. All in all how satisfied are you with your career prospects in the Army?

a) very satisfied
b) satisfied
c) neutral
d) dissatisfied
e) very dissatisfied

2. The kind of work I enjoy most is available:

a) only in the military
b) primarily in the military
c) equally in military or civilian life
d) primarily in civilian employment
e) only in civilian employment

3. I am very likely to get assignments that match my skills and interests if I stay in the Army.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

4. How good are the opportunities for advancement in your branch for someone who has had the types of assignments you have had?

a) excellent
b) very good
c) good
d) limited
e) very limited

If you were to stay in the Army, to what extent would you expect to:

(scale scored so that c is most positive, b and d are second, and a and e are last)

a) much more than I like
b) more than I like
c) about right for me
d) less than I like
e) much less than I like

5. Participate in field exercises and/or combat training?

6. Work in your functional area?

7. Work in your branch/operational specialty?

ITEMS FOR FAMILY STAGE CONSTRAINTS INDEX

I. From Spouse Survey

1. How many children do you have?

a) none
b) none, but currently expecting
c) one
d) one and expecting second
e) two
f) two and expecting third
g) three
h) three and expecting fourth
i) four or more

2. When was your oldest child born?

o not applicable (no children)

_____ month _____ year

(grid)

3. When was your youngest child born?

o not applicable (no children)

o same as above (only one child)

_____ month _____ year

(grid)

II. From Officer Survey

1. What was the length of your initial active duty service obligation?

a) 3 years
b) 4 years
c) 5 years
d) 6 years
e) other

2. How many months do you have left in obligated period of active duty service (including additional obligations incurred from PCS, military training, civilian schooling, etc.)?

Enter "ØØ" if you have completed your current obligation.

_____ months (grid)

# APPENDIX B

## SCALE ITEMS FOR THE DIRECT PREDICTORS OF QUALITY OF LIFE EXPECTATIONS

## ANTICIPATED ARMY CAREER DEMANDS

In this section, we are asking about job conditions and career requirements you could expect if your husband were to stay in the Army. Next you will be asked how you feel about these conditions.

1. In a typical assignment, how many hours per week (on average) would you expect your husband to devote to the Army?

a) 40-45
b) 45-50
c) 50-55
d) 55-60
e) 60-65
f) 65-70
g) 70-75
h) over 75

| | very reluctant to accept | somewhat reluctant to accept | mixed feelings or neutral | somewhat willing to accept | very willing to accept |
|---|---|---|---|---|---|
| 2. **How do you feel** about this? | a | b | c | d | e |

3. How much total time would you expect your husband to spend away from home in a typical year (including TDY, field exercises, training, alerts, etc.)?

a) under 1 month
b) 1-2 months
c) 2-3 months
d) 3-4 months
e) 4-5 months
f) 5-6 months
g) 6-7 months
h) over 7 months

| | very reluctant to accept | somewhat reluctant to accept | mixed feelings or neutral | somewhat willing to accept | very willing to accept |
|---|---|---|---|---|---|
| 4. **How do you feel** about this? | a | b | c | d | e |

5. How many unaccompanied tours (6 months or more) would you expect your husband to have to take over the course of a 20 year career in the Army?

a) none b) 1 c) 2 d) 3 e) 4 f) 5 or more

| | very reluctant to accept | somewhat reluctant to accept | mixed feelings or neutral | somewhat willing to accept | very willing to accept |
|---|---|---|---|---|---|
| 6. **How do you feel** about this? | a | b | c | d | e |

7. What level of risk, relative to most other Army jobs, is involved in the kind of work your husband would typically be doing?

a) much higher risk
b) somewhat higher risk
c) about the same as most
d) somewhat lower risk
e) much lower risk

| | very reluctant to accept | somewhat reluctant to accept | mixed feelings or neutral | somewhat willing to accept | very willing to accept |
|---|---|---|---|---|---|
| 8. **How do you feel** about this? | a | b | c | d | e |

9. In most Army assignments, how much flexibility would your husband have in his daily schedule to take time off for personal or family reasons?

a) almost no flexibility
b) a little flexibility
c) some flexibility
d) a lot of flexibility
e) almost total flexibility

| | very reluctant to accept | somewhat reluctant to accept | mixed feelings or neutral | somewhat willing to accept | very willing to accept |
|---|---|---|---|---|---|
| 10. **How do you feel** about this? | a | b | c | d | e |

11. In most Army assignments, how much control would your husband typically hve over the timing (i.e., length, when he would leave) of trips or assignments that would take him away from home?

a) almost no control
b) a little control
c) some control
d) a lot of control
e) almost total control

| | very reluctant to accept | somewhat reluctant to accept | mixed feelings or neutral | somewhat willing to accept | very willing to accept |
|---|---|---|---|---|---|
| 12. **How do you feel** about this? | a | b | c | d | e |

13. If your husband stays in the Army, how long, on the average, would you expect to stay in one location before a PCS move?

a) more than 4 years
b) about 4 years
c) about 3 years
d) about 2 years
e) less than 2 years

| | very reluctant to accept | somewhat reluctant to accept | mixed feelings or neutral | somewhat willing to accept | very willing to accept |
|---|---|---|---|---|---|
| 14. **How do you feel** about this? | a | b | c | d | e |

15. In your husband's current battalion, how many hours a week (on average) do you think a company commander's wife is expected to devote to military work or social activities (e.g., wives clubs, formals, volunteer work, social events)?

a) Ø hours - there are no expectations
b) less than 2 hours a week
c) 2 to 4 hours a week
d) 4 to 6 hours a week
e) 6 to 8 hours a week
f) 8 to 1Ø hours a week
g) more than 1Ø hours a week

| | very reluctant to accept | somewhat reluctant to accept | mixed feelings or neutral | somewhat willing to accept | very willing to accept |
|---|---|---|---|---|---|
| 16. **How do/would you feel** about these expectations? | a | b | c | d | e |

## TOLERANCE FOR ASSIGNMENT DEMANDS

In this section we are interested in your feelings about some of the separation, relocation and schedule demands of an Army career. Specifically, we would like to know the conditions that might lead you to encourage your husband to turn down, or try to get out of an otherwise good assignment.

In answering the following set of questions, please assume that (a) you will be staying in the Army for at least one more assignment, (b) your husband wants your honest opinion about the assignment he is likely to get next. Thank-you.

1. What would you do if your husband had a chance for an assignment that would be good for his Army career (i.e., career enhancing), but required **a PCS move to:**

| | encourage him to accept assignment | stay neutral or don't know | encourage him to get out of assignment |
|---|---|---|---|
| a. a foreign country | a | b | c |
| b. a US post you consider geographically undesirable | a | b | c |
| c. a community with poor schools or childcare facilities | a | b | c |
| d. an area where you are unlikely to find employment | a | b | c |
| e. a high cost location | a | b | c |

2. What would you do if your husband had a chance for a career enhancing assignment, but it involved **duties (field duty, TDY, etc.) that would take him away from home for:**

| | encourage him to accept assignment | stay neutral or don't know | encourage him to get out of assignment |
|---|---|---|---|
| a. 2 to 3 weeks a year | a | b | c |
| b. 1 to 2 months a year | a | b | c |
| c. 3 to 4 months a year | a | b | c |
| d. 5 to 6 months a year | a | b | c |
| e. 7 or more months a year | a | b | c |

3. What would you do if your husband had a chance for a career enhancing assignment, but it involved **an unaccompanied (i.e., no family) overseas tour lasting:**

| | encourage him to accept assignment | stay neutral or don't know | encourage him to get out of assignment |
|---|---|---|---|
| a. 12 months | a | b | c |
| b. 18 months | a | b | c |
| c. 24 months | a | b | c |

4. What would you do if your husband had a chance for a career enhancing assignment, but **the job involved:**

| | encourage him to accept assignment | stay neutral or don't know | encourage him to get out of assignment |
|---|---|---|---|
| a. unpredictable hours, frequent last minute schedule changes | a | b | c |
| b. frequent (twice a month) weekend work or travel | a | b | c |
| c. working 40-50 hours/week | a | b | c |
| d working 50-60 hours/week | a | b | c |
| e. working 60-70 hours/week | a | b | c |
| f. working 70-80 hours/week | a | b | c |

5. What would you do if your husband had a chance for a career enhancing assignment, but it involved **work or training that:**

| | encourage him to accept assignment | stay neutral or don't know | encourage him to get out of assignment |
|---|---|---|---|
| a. had a high element of risk - either for training accidents or combat involvement | a | b | c |
| b. had no relevance to a future civilian career | a | b | c |
| c. would increase his active duty time obligation to the Army | a | b | c |

SPOUSE ROLE DEMANDS

1. How willing are you to accept the social obligations (clubs, volunteer work, social functions, etc.) an officer's wife is traditionally expected to meet?

a) very willing to accept
b) somewhat willing to accept
c) neutral or mixed feelings
d) somewhat reluctant to accept
e) very reluctant to accept

Agree/disagree scale

2. I resent having to make a special effort as a wife just because I married an Army officer.

3. If I attend "official" Army functions or social events, it is only because I am afraid it would reflect poorly on my husband if I didn't.

4. I think the social functions and community activities are a very positive aspect of Army life.

5. I find the role I play in the military community and my husband's Army career very rewarding.

6. I think the Army has a right to expect officers' wives to participate in the life of the military community.

(Extent scale)

7. To what extent do the obligations or duties of an officer's wife conflict with other things you would rather be doing?

8. To what extent do think you would find personal satisfaction in fulfilling the traditional role of a commander's wife?

# APPENDIX C

## SCALE ITEMS FOR INDIRECT PREDICTORS IN QUALITY OF LIFE MODEL

ARMY SUPPORT FOR FAMILIES

I. SUPERVISORY SUPPORT FOR FAMILIES

(First three items adapted from Szoc (82) and Farkas and Durning (82))

1. My husband's supervisor gives him some leeway at work if he knows he is having a personal or family problem.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

2. My husband's supervisor lets him take time off when necessary to do things for the family.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

3. My husband's supervisor seems sympathetic to the conflicts and problems families experience.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

4. My husband's supervisor does his best to ensure that his subordinates are not separated from their families more than is necessary.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

5. I always feel free to call my husband at work when I need to talk to him.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

I. SUPERVISORY SUPPORT FOR FAMILIES (cont)

* 6. How much flexibility does your husband's supervisor give his people to adjust their hours or take time off for personal or family reasons?

a) almost no flexibility
b) a little flexibility
c) some flexibility
d) a lot of flexibility
e) almost total flexibility

* 7. How much control does your husband's supervisor give his people over the timing (i.e., length and when he leaves) of trips or assignments that take them away from home?

a) almost no control
b) a little control
c) some control
d) a lot of control
e) almost total control

* 8. How often are personal or family plans (vacations, family outings, special dinners, etc.) disrupted by job demands or schedule changes?

a) very seldom
b) occasionally
c) about half the time
d) frequently
e) almost always

* Adapted from 1988 officer survey

II. ORGANIZATIONAL SUPPORT FOR FAMILIES

Agree/Disagree Scale

1. Army leaders do their best to ensure that personnel policies do not inconvenience families more than necessary.

2. When soldiers are required to work hours that cut into their family time (evenings, weekends), there is nearly always a very good reason for it.

3. High level leaders in the Army are effectively encouraging others to show respect and concern for military families.

4. The Army makes sure that officers are separated from their families only when it is clearly necessary for the mission.

5. When/if we leave the Army, I will miss the family programs and services available in the Army.

6. The Army really does "take care of its own".

7. The quality/effectiveness of Army family programs and services suggests to me that the Army is:

| very concerned about families | | somewhat concerned about families | | not at all concerned about families |
|---|---|---|---|---|
| a | b | c | d | e |

8. The support for families in the Army is:

a) much better than in most civilian organizations
b) better than in most civilian organizations
c) about the same as in most civilian organizations
d) less than in most civilian organizations
e) much less than in most civilian organizations

If your husband seriously looked for work in the civilian sector, do you think he could:

(this is one in a series of 5 on civilian alternatives)

10. find an employer offering as many worthwhile benefits and services for families as the the Army offers?

a) definitely yes
b) probably yes
c) don't know
d) probably not
e) definitely not

CAREER ORIENTATION

1. Which best describes what you would like to be doing right now?

a) full-time homemaker
b) full-time student
c) full-time employee
d) part-time employee and part-time homemaker
e) part-time employee and part-time student
f) part-time student and part-time homemaker

2. If your life goes the way you would like it to, what do you think you will be doing in three or four years?

a) full-time homemaker
b) full-time student
c) full-time employee
d) part-time employee and part-time homemaker
e) part-time employee and part-time student
f) part-time student and part-time homemaker

3. Which statement best describes your long-term work/career aspirations?

a) not interested in working for pay outside the home
b) interested in occasional or temporary jobs
c) want fairly continuous employment, but not career or advancement oriented
d) want a career with advancement potential, but willing to postpone or interrupt career (e.g., for children, relocation)
e) want a full-time career with advancement potential and no major career interruptions

4. If I went several years without having a job, I would probably feel that I was missing something very important in life.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

5. Over the course of my lifetime I expect to derive a great deal of personal satisfaction from paid employment.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

6. I will be very disappointed if I am unable to develop and advance in my field of employment.

a) strongly agree
b) agree
c) neither agree nor disagree
d) disagree
e) strongly disagree

f) Not applicable - I don't have a field of employment

# Personnel Utilization Technical Area Working Paper 88-8

DESCRIPTIVE ANALYSIS OF THE DATABASE FOR ESTIMATION OF REENLISTMENT SUPPLY EQUATIONS BY MOS, 1979-1985

Robert W. Tinney

June 1988

For Internal ARI Distribution Only.

Paul A. Gade

PAUL A. GADE
Chief, Personnel Utilization
Technical Area

## Manpower and Personnel Research Laboratory

**U. S. Army Research Institute**
**for the Behavioral and Social Sciences**
5001 Eisenhower Avenue, Alexandria, VA 22333-5600

This working paper is an unofficial document intended for limited distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

Tinney

PB 8942

# DESCRIPTIVE ANALYSIS OF THE DATABASE FOR ESTIMATION OF REENLISTMENT SUPPLY EQUATIONS BY MOS, 1979-1985

## Introduction

The primary data source used to estimate first term reenlistment supply equations in this study are computer files of active duty military personnel records maintained and updated by the Defense Manpower Data Center (DMDC). The next section presents an overview of this data source. The definition of the reenlistment variable that is the dependent variable in the analysis is discussed in section 1.2. Independent variables in the reenlistment supply equations are also described in 1.2. Distributions of enlisted personnel for the variables included in the estimating equations are described by summary statistics in section 1.3. Measured differences between soldiers who reenlisted and those who did not from 1979 - 1985 are evaluated by cross tabulations displayed in section 1.3.

## 1.Ø Overview of DMDC Data Files

The primary source of data for this study are records of transactions by enlisted personnel reported to the DMDC on a quarterly and monthly basis during the period 1979-1985[1]. DMDC maintains records of two types of transactions. They are enlistments/reenlistments/extensions (gains) and separations (losses). The advantage of these data are that they provide detailed information about the military experience of active duty enlisted personnel that are needed to estimate reenlistment supply equations by Military Occupation Specialty (MOS). In addition to MOS, the records include data on Armed Forces Qualification Test (AFQT) scores rank, pay grade, separation date (year/month/day) (loss records), accession date (gain records) and expiration of term of service (ETS) date. Some socio-economic data are also included on the records such as race, sex, education, marital status, and the number of dependents.

Two disadvantages are that the data are primarily cross sectional in nature rather than longitudinal and there is little data on family characteristics such as spouse employment experience and opportunities. A consequence of both of these characteristics concerns the accuracy of the estimated effects of SRB's. First, changes in SRB's (or other financial incentives) that affect first term reenlistment rates also influence subsequent reenlistments because of a changing distribution of "taste for Army life". Longitudinal data that track the military

---

[1] Department of Defense (DOD) instructions concerning the structure and information requirements of active duty personnel files maintained by DMDC are contained in DOD Instruction No. 1336.5, May 22, 1985.

careers of individual soldiers over time are needed to account for this heterogeneity. In the absence of such data, reasonably accurate estimates of the effect of SRB's can be obtained by limiting the analysis to first term reenlistments. Secondly, there is evidence that family related factors influence reenlistment decisions.[2] Our ability to account for this is limited to the use of a small number of indicators of family circumstances (e.g. number of dependents) available on the gain/loss records.

DMDC processed 2,951,321 gain and loss records of enlisted personnel from 1979 through 1985. Not all of these records are relevant for an analysis of reenlistments at the first ETS. Transaction records of subsequent reenlistments, and loss records of soldiers who were not eligible to reenlist are also included in the data. Furthermore, there are transactions other than reenlistments that result in the creation of gain and loss records, such as extending an initial enlistment term to enter a training program (e.g., the Bonus Extension and Reenlistment (BEAR) program).

The first task was to select records of enlisted personnel who were eligible to reenlist at their first ETS during this period. Then a procedure was needed for identifying active duty personnel who reenlisted at their first ETS. Initial enlistment terms ranged from 2 to 6 years during the period 1979 to 1985. According to Army regulations in effect at the time, a member could reenlist at any point in the interval beginning 6 months prior to, and including his/her first ETS date.[3] Consequently, for enlisted personnel to be eligible to reenlist, they must have been on active duty at least 18 months.

Each record in the gain/loss files has a length of service variable coded in months. This variable was used as a first eligibility screen by selecting records of members who had been on active duty for at least 18 months. This yielded a sample of 726,766 gain and or loss records of enlisted personnel potentially eligible to reenlist at their first ETS.

Members who were eligible to reenlist immediately and did so were first discharged (i.e., separated) and simultaneously reenlisted. There are circumstances however under which soldiers eligible for reenlistment must wait a designated period of time after separation before they can reenlist. For example, if reenlistment is not authorized under reenlistment control policy

---

2 FAMILY ACOL : THE HOUSEHOLD AS THE DECISION UNIT IN MILITARY RETENTION , Systems Research and Applications Corporation, Arlington, Va., February 1988.

3 AR 601-280, paragraph 5-2.

at the time of separation, an otherwise qualified soldier must wait 92 days after separation to reenlist.[4]

The separation transaction results in a loss record and reenlistment is recorded on a gain record. Consequently, if a soldier reenlisted at his/her first ETS, there would be matching gain and loss records with an accession date (gain) either 1 or 92 days after the separation date (loss). Otherwise there would be a single loss record at the first ETS date.

There were 453,891 single loss records without a subsequent gain record in the file that passed through the length of service filter. Ninety-two percent of these were single loss records. The other 8 per cent came from sets of more than two gain/loss records with the same identifying Social Security number (SSN). In addition, there were 224,734 matched pairs of gain/loss records with an accession date 1 to 92 days after a separation date. Application of these two sample selection criteria provided a data set consisting of records for 678,625 (= 453,891 + 224,734) enlisted personnel.

Additional selection criteria included reenlistment eligibility status and MOS category. Not all of the 678,625 enlisted personnel were eligible to reenlist at their first ETS in 1979-85. Information on reenlistment eligibility status, available on loss records, was used to select 496,623 soldiers from this larger sample who were eligible to reenlist at separation. The final selection filter was MOS category. From 1979 to 1985, 165 of 365 MOS's were not part of the SRB program. Since the purpose of the analysis is to evaluate the effect of SRB payments on reenlistments for specific MOS's, records of members belonging to nonparticipating MOS categories were excluded. Remaining occupations with fewer than 100 observations were also excluded.[5] Application of this final criteria yielded a sample of 313,326 soldiers who were eligible to reenlist between 1979 and 1985, and who were in occupation specialties (with at least 100 members) entitled to SRB payments during this period.

The variables included in the reenlistment equations are described in section 1.2. Section 1.3 provides sample statistics of these variables.

---

4 AR 601-280, paragraph 4-3. See also DMDC's Active Duty Military Master and Loss Edit Coding and Data Element Description, June 1987.

5 A minimum of 100 observations was selected in order to have sufficient degrees of freedom to estimate reenlistment supply equations.

## 2.0 Reenlistment Supply Equation Variables

The dependent variable in the reenlistment supply equations is defined as a dichotomous variable assigned a value of 1 for members who reenlisted at their first ETS, and 0 for members who were eligible to reenlist and separated from the Army. An enlistment is assumed to have occurred if a soldiers' separation date exceeds his/her ETS date by at least three years. This definition is based on Army regulations covering reenlistments in effect during the period 1979-1985.[6] The minimum period for reenlistments at that time was three years. Extensions had a maximum length of thirty five months. Differences in ETS and separation dates less than three years are defined as extensions and are not examined in the analysis. There were 4,278 observations that satisfied this definition and were therefore excluded, leaving sample of 309,048 soldiers eligible to reenlist at their first ETS during the period 1979 - 1985.

The explanatory, or independent, variables are based on a simple economic model of the selection between alternative career paths. The model predicts that a soldier will reenlist in the Army if the annualized present value of the stream of expected military compensation plus civilian earnings after leaving the Army exceeds the annualized present value of the stream of earnings that could be expected in civilian alternatives if he/she left at the first ETS. On the other hand, if the magnitude of present values is reversed, a member eligible to reenlist would be expected to leave the Army. This criteria is an application of the economic theory of human capital in which decisions about investments in human capital are made in order to maximize utility, or the economic welfare of the individual, over time.[7] This is done by selecting that investment path that yields the largest present value of net benefits. In this context, net benefits are defined as expected earnings of a given alternative minus the opportunity cost of other alternatives. Because there are different combinations of military and subsequent civilian experience available to members of the Army, this decision criterion can be stated as reenlist if the maximum difference between present values is positive.

---

6 AR601-280, Appendix F.

7 The human capital model can be found in the following references:
Gary S. Becker, HUMAN CAPITAL, 2nd Edition, University of Chicago Press, 1975, Jacob Mincer, SCHOOLING, EXPERIENCE, AND EARNINGS, National Bureau of Economic Research, New York, 1974 and Robert J. Willis and Sherwin Rosen, " Education and Self - Selection ", Journal of Political Economy, 1979, vol.87, no. 5, pt. 2, pp. S 7 - S 36.

In the military manpower literature, a stochastic error term is added to the difference in present values, and the annualized value of this difference is defined as the annualized cost of leaving the military, or ACOL. A recent version of this model, the ACOL-2 model, provides the analytical framework for this study. Individual specific differences and random shocks are incorporated explicitly in the error term of the ACOL-2 model. Individual differences refer to differences in "taste" for Army life and earnings - related ability factors.[8] Random shocks are changes that occur over time that are not individual - specific. An example of the latter are changes in economy - wide labor market conditions.

The purpose of defining the error term of the ACOL-2 model in this way is to account for the effect of a changing distribution of unmeasured taste and ability factors that occurs over the first, second and third term reenlistment points. With the passage of time, soldiers who stay in the Army may have a higher probability of doing so than those who separate as a result of individual differences in taste for Army life. Consequently, the sample of soldiers who reenlist at their first (or subsequent) ETS would be a nonrandom sample of their enlistment cohort. Because the value of military compensation tends to rise with length of service, failure to account for a changing taste distribution may result in overestimates of the impact of policy variables such as SRB's, basic pay, and retirement benefits.

The value of the ACOL variable will also be correlated with the error term in the model if unmeasured ability factors affect present and future civilian earnings and/or military compensation. Soldiers who separate from the Army may have better than average earnings prospects in civilian job markets. In this case expected civilian earnings would be higher for soldiers who separate than for soldiers who reenlist. This does not mean that they would also have had higher earnings in the Army. Soldiers who reenlist may realize higher compensation in the Army than soldiers who separated would have had they stayed. That is, earnings related differences in abilities may represent comparative advantage rather than hierarchial, or absolute differences in abilities.[9]

If the ACOL variable is included in empirical reenlistment supply equations, these unmeasured differences need to be accounted for. Otherwise, the estimated impact of ACOL will

---

8 The ACOL-2 model is developed in A DYNAMIC MODEL OF MILITARY REENLISTMENT BEHAVIOR, Systems Research and Applications Corp., ARLINGTON, Va., June, 1987.

9 The principle of comparative advantage in the context of ability and earnings is discussed in detail in Willis and Rosen, " Education and Self Selection ", op. cit.

reflect ability differences as well as the impact of military compensation.

The explanatory variables included in this study reflect measurable individual differences in (1) net benefits of reenlistment, (2) taste (3) ability (4) differences in family circumstances and (5) shocks, such as changes in general economic conditions over time. The variables are defined as follows: [10]

| | |
|---|---|
| ACOL | Annualized cost of leaving the Army. Based on the dollar value of total military compensation and expected civilian earnings. |
| NHSGRAD | 1, if not a high school graduate |
| HSGRAD | 1, if graduated from high school or obtained a GED |
| SOMECOLL | 1, if attended college and did not graduate |
| AFQTI-IIIA | 1, if AFQT score category I-IIIA |
| AFQTIIIB-IV | 1, if AFQT score category IIIB-IV |
| RACENW | 1, if nonwhite |
| SEXF | 1, if female |
| MARSTM | 1, if married |
| NOD2 | 1, if 2 dependents |
| NODGT2 | 1, if more than 2 dependents |
| UNEMP | Aggregate unemployment rate; also stratified by race and sex. |
| PYGRD | Pay grade (basic pay) |
| SRB | SRB multiplier |
| LOS | Length of service (months) |

---

10 Most of these variables are dichotomous 1,Ø variables. Observations not coded as 1 receive a value of Ø.

As a measure of the net benefits of reenlistment, ACOL depends on education, ability, civilian experience and Army experience.[12] It is defined as the annualized difference between the present values of expected (1) civilian earnings - experience profiles plus military retirement pay the individual is entitled to and (2) Army experience compensation profiles plus civilian earnings after retirement. The latter includes basic pay, allowances and selective reenlistment bonuses.

The estimated effect of the ACOL variable therefore provides information needed to evaluate the impact of SRB's on reenlistments. The greater the perceived net benefits to reenlisting in the Army, the higher the probability any given individual will do so. Previous studies that have included a version of the ACOL variable support this expectation.

Education and AFQT scores are also included separately to control for unmeasured taste and ability factors. Higher levels of education are associated with greater civilian lifetime earnings prospects. If ACOL is not included explicitly as a variable in the supply equations, education would therefore be expected to have a negative effect on the probability of reenlistment. A similar expectation can be formulated for the AFQT test score variable. Since AFQT is an aptitude test score, it can be interpreted as an index of ability that is directly related to civilian earnings. Higher test scores may therefore indicate higher expected earnings in civilian alternatives and hence lower reenlistment probabilities. If ACOL is included as a variable, education and AFQT test scores will represent unmeasured taste factors and ability not captured by ACOL. In this context, the effects of education and test scores on reenlistment probabilities could be either positive or negative.

Race and sex are demographic characteristics that may also reflect differences in civilian earnings alternatives for minorities and women, as well as differences in taste. Expected earnings for women and minorities may be lower in civilian jobs than in the Army. In this case, one would expect to observe higher reenlistment rates for women and/or minorities.[13]

---

12 A value of the ACOL variable will be computed for each record in the analysis file by a computer program developed by SRA, Inc. The algorithm is based on the formula described in appendix A of A DYNAMIC MODEL, op. cit.

13 Previous studies tend to support this hypothesis for minorities. See for example Lakhani and Gilroy, ibid. for evidence on race and Scheirer, Mary Ann et al., The Reenlistment of Army Enlisted Personnel, March, 1985, p.84, Westat, Inc. Report prepared for the U. S. Army Research Institute, Alexandria, Va. for evidence concerning sex.

Unemployment rates by race and sex are included to control explicitly for the effects of labor market demand conditions on the reenlistment decision. In this context, unemployment rates measure the degree of ease or difficulty in finding jobs.

Marital status and the number of dependents are included to represent the influence of the family as the decision making unit for the reenlistment decision of married soldiers. In the military manpower literature married soldiers with children have consistently been found to have a higher probability of reenlisting than single soldiers or couples with no children.[14]

Unemployment is included to capture the effects of shocks on reenlistments due to changes in civilian labor market conditions. Year is intended to measure the effects of trends unaccounted for by measured variables included in the analysis. In particular, the analysis file consist of data from different entry cohorts. Unmeasured taste for Army life factors may differ between cohorts, leading to an observed trend in reenlistment rates over time. For example, a downward trend in reenlistment rates could be indicative of a general decline in "taste" for Army life factors. Finally, non-pecuniary aspects of Army life such as degree of risk and separation from families probably vary by occupational specialty. Such differences are taken into account by estimating separate equations by MOS.

## 3.0 Descriptive Statistics

Means and standard deviations of the explanatory variables included in the analysis are displayed in Table 1.

The data indicate that soldiers eligible to reenlist at their first ETS from 1979 - 1985 were predominantly white, single males who had graduated from high school or received a GED and scored between the 10th and 50th percentiles on the AFQT test. Sixty-four percent of the sample were white (36% were black, hispanic and other non-white) and 93% were males. Sixty-four percent were single, 78% graduated from high school or received a GED, and 60% had AFQT test scores in categories IIIB or IV. The average length of service for this group of soldiers was 3.3 years.

Fourteen of the 164 MOS's in the study account for approximately 54% of the observations in the data base. These MOS's are identified in Table 2. The largest occupations are combat arms MOS's in CMF's 11, 12, 13, and 19. The largest

---

[14] For a summary of findings in the literature and a theoretical and empirical analysis of the family as the decision making unit in the context of the military reenlistment decision, see FAMILY ACOL, op.cit.

TABLE 1

MEANS AND STANDARD DEVIATIONS OF ANALYSIS VARIABLES

| Variable Name | Percent of Example | Standard Deviation |
|---|---|---|
| EDUCATION: | | |
| Less than High School or GED | 15 | .36 |
| High School Graduate or GED | 78 | .42 |
| More than High School or GED | 7 | .25 |
| AFQT CATEGORY: | | |
| CAT I-IIIA | 40 | .49 |
| CAT IIIB-IV | 60 | .50 |
| RACE: | | |
| White | 64 | .48 |
| Non-white | 36 | .48 |
| SEX: | | |
| Male | 93 | .25 |
| Female | 7 | .25 |
| MARITAL STATUS | | |
| Single | 64 | .48 |
| Married | 36 | .48 |
| NUMBER OF DEPENDENTS | | |
| Two | 17 | .38 |
| Two or more | 18 | .38 |

TABLE 1 (continued)

MEANS AND STANDARD DEVIATIONS OF ANALYSIS VARIABLES

| Variable Name | Average Value | Standard Deviation |
|---|---|---|
| PAY GRADE | 4.1 | .69 |
| SELECTIVE REENLISTMENT BONUS | 1.Ø2 | 1.Ø1 |
| LENGTH OF SERVICE | 4Ø mo. | 1Ø.3 |
| UNEMPLOYMENT RATE | 12.6% | 1.78 |

TABLE 2

SAMPLE SIZE OF THE FOURTEEN LARGEST MOSs

1979-85

| MOS | N | Percent of Records in Data Base |
|---|---|---|
| 11B Infantryman | 41,854 | 14.0 |
| 11C Indirect Fire Infantryman | 9,838 | 3.2 |
| 11H Heavy Antiarmor Wepons Infantryman | 6,182 | 2.0 |
| 12B Combat Engineer | 11,843 | 3.8 |
| 13B Cannon Crew Member | 20,368 | 6.6 |
| 13F Fire Support Specialist | 3,683 | 1.2 |
| 19D Calvary Scout | 8,425 | 2.7 |
| 19E M48-M60 Armor Crewman | 12,592 | 4.1 |
| 31M Multichannel Comm Equipment Operator | 6,595 | 2.1 |
| 36C Wire System Installer/ Operator | 4,811 | 1.6 |
| 36K Tactical Wire Operator Specialist | 10,045 | 3.3 |
| 63B Lightweight Vehical/ Power Gen Mechanic | 17,960 | 5.8 |
| 67N Utility Helicopter Repairman | 3,899 | 1.3 |
| 91B Medical Specialist | 6,165 | 2.0 |
| All other MOSs | 144,788 | 47.0 |
| Total | 309,048 | 100.0 |

single MOS is 11B, Infantryman, with 41,854 observations (14% of the total), followed by 19D and 19E, Armored crews (6.8% of total), and 12B, Combat Engineers (3.8%).

There are important distributional differences in the measured characteristics described above between members who reenlisted and those who separated (or extended). Table 3 displays reenlistment rates by category for the independent variables described above.

The proportion of members who reenlisted declines the higher the level of educational attainment. Forty-five percent of high school nongraduates reenlisted compared to 40% of soldiers with at least some college. Examination of differences in AFQT scores also reveals lower reenlistment rates in higher aptitude test score categories. Both of these observations are consistent with the hypothesis that soldiers with more education and different abilities have greater earnings opportunities in civilian jobs than in the Army. Consequently, they separate at higher rates than soldiers with less education and lower AFQT scores.

Except for sex, reenlistment rates also differ for other personal and demographic characteristics. The proportions of males and females who reenlisted were similar ( 44% of males, 42% of females). Non-whites on the other hand reenlisted at a significantly higher rate than their white counterparts - 56% compared to 38%. The Army may provide better earnings opportunities than civilian occupations for minority groups.

Family related factors also differ by reenlistment status. Thirty-eight percent of single members reenlisted compared to 55% of married members. Likewise 60 percent of members with two or more dependents reenlisted. This difference may be indicative of family influences on the reenlistment decision. It may also represent the effect of higher allowances and subsidies for families with more children.

Reenlistment rates have also varied over time, with the highest rate occurring in 1981. Reenlistments have declined steadily since then. This may reflect a decline in "taste for Army life" of more recent entry cohorts. Finally, as we would expect, reenlistment rates increase steadily with the magnitude of SRB multipliers, increasing from 40% with no bonus to 55% for a multiplier of 5.

In general, the comparisons described in this section are based on one and two way classifications of the data. While this is suggestive of an underlying structure of the reenlistment decision, multivariate techniques are needed in order to obtain accurate estimates of policy variables from the data and draw correct statistical inferences. This will enable us to isolate

TABLE 3

REENLISTMENT RATES BY
EXPLANATORY VARIABLE

| Variable | Percent of Category |
|---|---|
| Education | |
| Less Than High School | 45 |
| High School Graduate | 44 |
| More than High School or GED | 40 |
| AFQT Score Category | |
| I-IIIA | 39 |
| IIIB-IV | 48 |
| Sex | |
| Male | 44 |
| Female | 42 |
| Race | |
| White | 38 |
| Non-White | 56 |
| Marital Status | |
| Single | 38 |
| Married | 55 |
| Number of Dependents | |
| One (Single) | |
| Two | 52 |
| Two or more | 60 |

TABLE 3 (continued)

REENLISTMENT RATES BY
EXPLANATORY VARIABLE

| Variable | Percent of Category |
|---|---|
| Year | |
| 1979 | 5.5 |
| 1980 | 19.3 |
| 1981 | 19.9 |
| 1982 | 17.7 |
| 1983 | 15.2 |
| 1984 | 13.4 |
| 1985 | 9.1 |
| SRB Multiplier | |
| 0 | 40 |
| 1 | 45 |
| 2 | 47 |
| 3 | 50 |
| 4 | 52 |
| 5 | 55 |

the separate effects of measured and unmeasured variables that influence the reenlistment decision and may be correlated with one another.

A multivariate approach will be presented in a subsequent paper that is designed to provide accurate estimates of the impact of policy variables on first term reenlistment rates, with particular reference to SRB's.

# Personnel Utilization Technical Area Working Paper 83-28

ROTC/Army Career Attitudes Survey: An Update

L.B. Wilson, A.C.F. Gilbert, and J.A. Hicks

1983

## Manpower and Personnel Research Laboratory

**United States Army Research Institute for the Behavioral and Social Sciences**

This working paper is an unofficial document intended for distribution to obtain comments. The views, opinions, and/or findings contained in this document are those of the author(s) and should not be construed as the official position of ARI or as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

# ROTC/ARMY CAREER ATTITUDES SURVEY: AN UPDATE

## BRIEF

### Requirement:

The objective of this research was to identify the current attitudes and values of the college student population in order to provide useful information for ROTC advertising, recruiting, and retention efforts. This objective was facilitated by comparing ROTC cadets with non-cadets and former cadets across numerous variables.

### Procedure:

The data were gathered from questionnaires administered to 1,120 students from 11 college campuses. Students were selected to provide representative samples of ROTC cadets, non-cadets, and former cadets. The colleges were also selected to provide a representative cross-section.

### Findings:

Most of the respondents were male, white, and reared in small towns in the South. Approximately 60% of the cadets were enrolled in the first two years of ROTC (MSI and MSII). Cadets and non-cadets were found to share about the same general media habits. As expected, cadets were more knowledgeable about the Army than non-cadets, and found ROTC more attractive. Cadets tend to have higher salary goals than non-cadets, and males to have higher salary goals than females. Cadets were found to become aware of ROTC in high school, but to postpone decisions about joining until college. Less than half of the cadets expressed an intent to continue through the Advanced Course, a replication of a previous survey finding. Relatively few cadets indicated that they would join the Army voluntarily, without an obligation to do so.

### Utilization of Findings:

This report contains much current and relevant information of interest to ROTC recruiters, professors of military science (PMS), ROTC Advertising and Media personnel, and appropriate officials concerned with retention and career commitment of ROTC cadets.

## FOREWORD

Part of the research of the Personnel Utilization Technical Area of the US Army Research Institute for the Behavioral and Social Sciences (ARI) deals with encouraging college students to become Army officers through enrollment in the Reserve Officers' Training Corps (ROTC). This report explores and compares ROTC cadet, non-cadet, and former cadet attitudes, perceptions, and behaviors as they relate recruitment and retention in ROTC. The survey data upon which this report is based were collected by Booz-Allen & Hamilton, Inc. under Contract MDA903-81-C-0382. The research was accomplished under ARI Program Element 63731A, and Project 2Q2637A792.

EDGAR M. JOHNSON
Technical Director, ARI and
Chief Psychologist, US Army

TABLE OF CONTENTS


| | | Page |
|---|---|---|
| I. | INTRODUCTION | 1 |
| II. | METHODS | 3 |
| III. | ADVERTISING AND MEDIA ATTENTION | 9 |
| IV. | KNOWLEDGE AND ATTITUDES TOWARD ROTC AND MILTARY SERVICE | 18 |
| V. | EDUCATION AND CAREER PLANS | 38 |
| VI. | ROTC CADETS: ROTC INVOLVEMENT AND ARMY CAREER COMMITMENT | 54 |
| VII. | NON-ROTC CADETS: INTEREST IN ROTC AND ARMY | 77 |
| VIII. | COMPARISON OF SEX AND ETHNIC DIFFERENCES BETWEEN CADETS AND NON-CADETS | 84 |
| IX. | SUMMARY AND CONCLUSIONS | 146 |
| | APPENDIX | 158 |

# I. INTRODUCTION

## A. Objective

The objective of this survey was to identify the current attitudes and values of the contemporary college student population and to provide ROTC useful information for advertising and recruiting efforts. The survey was to replicate, to the extent possible, the research activities of earlier projects. The assignment was carried out by the National Analysts Division of Booz·Allen & Hamilton in January to March, 1982 under the auspices of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) and the U.S. Army Training and Doctrine Command (TRADOC).

## B. Background

Since the early 1970's, attention has been focused on college students' reactions to and assessments of Army ROTC, its programs and participants. Five on-campus surveys have been conducted, each sharing the common theme but each with a slightly different thrust.

- Ayer and Yankelovich, 1971 -- Identified and classified Cadet and non-Cadet students in terms of their orientation toward military service into four groups -- Patriots, Rational Thinkers (would serve only if called upon), Wishful Thinkers (hoped to avoid service) and Anti-military (would actively avoid service).

- Virginia Polytechnic, 1973 -- Assessed post-draft campus attitudes and identified attitudinal and demographic differences among ROTC Cadets and non-Cadets

- American Institutes for Research, 1975 -- Explored differences between college Cadets and non-Cadets in context of building a model of career commitment.

- Gilbert Youth Research, 1977 -- Studied the attitudes and values of college youth and the changing character of the ROTC Cadet population.

- American Institutes for Research, 1979 -- Investigated attitudes and reactions of Cadets and non-Cadets to the Army as a career option and to various ROTC program modifications with special attention to subpopulation differences (between males and females, and among blacks, whites and Hispanics).

## II. METHODS

### A. Subjects

One thousand, one hundred, and twenty students on 11 Army ROTC host campuses participated in this survey research effort; 686 were ROTC Cadets and 434 were non-Cadet students.

1. Selection -- The selection of college campuses for this project attempted to replicate, to the extent possible, the complement of schools included in the 1979 survey. The original design called for 13 schools -- a random selection of one large and one small school in each of four regions and five institutions selected with certainty because of their relatively large Hispanic student populations.

   Ten of the original campuses were represented in the replication survey. In addition, one small Region 1 school, St. Peters College, replaced Canisius College which was in the 1979 survey but unable to take part in the 1982 effort. No replacements were provided for Texas Tech University and St. Mary's University at San Antonio.

   In order not to lose sample size due to a decrease in the number of colleges, the average number of questionnaires completed per campus was increased from the 1979 level.

   The 11 schools participating in the 1982 replication survey were:

   St. Peters College
   West Virginia University
   Marquette University
   Michigan State University
   Jackson State University
   Idaho State University
   UCLA
   Eastern New Mexico University
   Texas A&I University
   University of Miami
   University of Texas at El Paso

The selection of students followed the same general pattern across all campuses. All MSI and MSII students attending class on the day of questionnaire administration were included in the sample. To select non-Cadet students, cooperation was secured from the instructor of a lower level required course, (e.g., English, introductory sociology) which had a cross-section of the campus population. All students in class on the day of questionnaire administration were eligible to participate.*

2. Characteristics -- The 1,120 students in this sample are predominantly white males with an average age of 20 years. Nearly half grew up in the South, in either a small- or medium-sized city. As would be expected, most are from upscale households with reported parental income of just over $28,110. More detailed information about the sample is given in Table 1. Each demographic variable is discussed below.

   a. Sex -- Two out of three survey respondents are males. While the breakdown between males and females among non-Cadets is representative of a typical college campus, with males showing a slight edge over females (55.1% versus 44.9%, respectively), Cadets are heavily populated with males (72.9% versus 27.1% females). These sex differences between Cadet and non-Cadet students are significant.

   b. Ethnic background -- Most students sampled are white (68.0%), with the non-white students equally

*Throughout this report, an ROTC Cadet is defined as a student attending but not auditing MSI or MSII classes. A non-ROTC Cadet is a student who is not attending MSI or MSII classes. On some campuses, MSI and MSII students do not think of themselves as Cadets, as this term is reserved for those in the Advanced Course. These self-styled distinctions in program participation are not treated in this report. Moreover, data from MSI or MSII Cadets who, by chance, were also surveyed in the required course sampling effort, were dropped from the analysis.

TABLE 1

Demographic Variables

| Sex of Respondent | Total % | ROTC Cadets % | Non-ROTC Cadets % | Test of Significance |
|---|---|---|---|---|
| Male | 66.0 | 72.9 | 55.1 | $X^2(1) = 37.67$*** |
| Female | 34.0 | 27.1 | 44.9 | |
| **Ethnic Background** | | | | |
| White | 68.0 | 71.0 | 63.1 | |
| Black | 16.1 | 19.0 | 11.6 | N.A.[1] |
| Hispanic | 15.9 | 10.0 | 25.3 | |
| **Region of Formative Years** | | | | |
| South | 45.1 | 43.9 | 47.1 | |
| East | 20.4 | 23.9 | 14.9 | |
| West | 13.5 | 12.8 | 14.7 | N.A.[1] |
| Midwest | 12.5 | 12.5 | 12.4 | |
| Outside U.S. | 3.2 | 1.2 | 6.5 | |
| Several Regions | 5.2 | 5.7 | 4.4 | |
| **Type of Community of Formative Years** | | | | |
| Small city/town | 35.0 | 35.5 | 34.3 | $X^2(4)= 24.97$*** |
| Medium-size city | 22.0 | 20.6 | 24.3 | |
| Large city | 15.1 | 12.0 | 20.1 | |
| Rural | 14.6 | 16.2 | 12.0 | |
| Suburb | 13.2 | 15.8 | 9.3 | |
| **Mean ($\bar{X}$) Age of Respondent** | 20.32 | 19.85 | 21.06 | t(1115)=5.048*** |
| **Mean ($\bar{X}$) Parental Annual Income** | $28,110 | $28,530 | $27,450 | t(1096)=NS |
| (Categorical Mean)[2] | 6.19 | 6.27 | 6.06 | t(1096)=NS |

[1] N.A. = Not applicable

[2] (6 = $25,000 to $29,999 per year, 7 = $30,000 to $34,999 per year)

*** $p<.001$

divided between blacks (16.1%) and Hispanics (15.9%). Seven out of every ten ROTC Cadet respondents are white. Two of the remaining three are black and one is of Hispanic origin. The non-ROTC Cadet group shows a larger percentage of Hispanics (25.3%) and less blacks (11.6%) than the total sample. The largest percentage is still white (63.1%), which is consistent with the total group of respondents.

c. Region of formative years

Nearly half of the respondents (45.1%) spent their formative years (elementary and high school years) in the South. The East is the next most frequently mentioned region (20.4%), followed by the West (13.5%) and Midwest (12.5%). This pattern is similar for ROTC Cadets and non-ROTC Cadets. The large percentage of respondents indicating the South as their home region is indicative of the large number of southern college campuses contained in the sample.

d. Type of community of formative years

The types of communities in which students report spending their elementary and high school years are quite varied. About a third (35.0%) identify a small city/town as their home when they were growing up. This is followed by medium cities (22.0%), large cities (15.1%), rural communities (14.6%) and the suburbs (13.2%). This pattern is similar for ROTC Cadets and non-ROTC Cadets, with the exception that more non-ROTC Cadets than Cadets report growing up in a large city (20.1% versus 12.0%, respectively).

e. Mean age of respondents

The mean age of all respondents is 20.32 years. ROTC Cadets are significantly younger than non-ROTC Cadets, with a mean age of 19.85 years and 21.06 years, respectively ($t=5.048$, $df=1115$, $p<.001$).

f. Average parental annual income

Respondents were asked to choose an income category that best approximates their parents' combined annual income. The mean parental annual income for all respondents is $28,110; the median is $28,000. There are no significant differences between ROTC Cadets and non-ROTC Cadets.

## B. Instruments

A slightly modified version of the self-administered "Career Attitude Survey: A Questionnaire for College Students" was employed in this research. The document developed for the 1979 survey (see Appendix A for a copy) is divided into four sections covering the topics of: background information, school life, career plans, and ROTC and military knowledge and attitudes. The latter section was divided into two subparts, one directed at Cadets and the other at non-Cadets.

The questionnaire was updated in two important ways for use in the 1982 replication. First, in two media questions (I-l magazine readership and I-m radio programming preferences), the set of precoded answer categories was expanded to incorporate all previously volunteered answers. That is, if students reported in 1979 reading a magazine not listed in the questionnaire, that magazine was included in the revised 1982 version.

The second change introduced three new items to both Cadets (IV-w, IV-x, and IV-y) and non-Cadets (IV-p, IV-q, and IV-r) regarding changes in the program designed to enhance the attractiveness of the Advanced Course or Army ROTC in general.

## C. Procedures

On each of the 11 college campuses, a PMS was designated survey coordinator. That individual arranged to have the questionnaires administered in MSI and MSII classes and contacted an instructor of a required freshman or sophomore class to have the questionnaires completed by civilian students. As the materials were designed to be

self-explanatory and self-administered, instructors simply handed out an introductory letter, a questionnaire, and answer sheet (see Appendix A) to each student at the beginning of class and collected them at the end of the period.

Completion of the questionnaire took approximately 45 minutes. Participation was voluntary and all answers were recorded anonymously.

All answer sheets were returned to a central location where they were coded, keypunched and 100% verified, mechanically edited and tabulated. These data were analyzed using a series of cross-tabulations and appropriate significance tests ($X^2$, t-, and F-tests).

## III. ADVERTISING AND MEDIA ATTENTION

This chapter addresses advertising and media preferences of college students as expressed in the 1982 Career Attitude Survey questionnaire. Respondents provided information concerning four areas of media attention and preference. First they rated their frequency of reading or listening to various media sources. Next, they indicated how often they read selected magazines. In addition, students identified their favorite television programs and types of radio programming.

### A. Media Attended to Occasionally or Regularly

Students indicated the frequency with which they direct attention to each of 15 different types of communication vehicles or media. Table 2 presents the percent of students reporting regular or occasional attention by media category.

The four most frequently attended media sources for all respondents are newspapers, general radio, campus newspapers, and television (over 85% each). ROTC Cadets report their four most frequent media sources in the above order, while non-ROTC Cadets report general radio most frequently attended to, followed by newspapers, television and campus radio. Significantly more ROTC Cadets than non-Cadets occasionally or regularly attend to newspapers, sports/outdoor magazines, men's magazines and campus radio. Home service and women's magazines are attended to significantly more often by non-ROTC Cadets.

The least frequently attended to media sources for all respondents are automotive and home service magazines. ROTC Cadets report home service and women's magazines as least attended, while non-ROTC Cadets report campus radio and automotive magazines as the least occasionally or regularly attended to media sources.

TABLE 2

Media Preferences

| Media Attended to Occasionally or Regularly | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Newspapers | 92.6 | 94.0 | 90.3 | $X^2(1) = 5.36^*$ |
| General radio | 92.6 | 93.1 | 91.7 | $X^2(1) = NS$ |
| Campus newspaper | 87.4 | 88.3 | 85.9 | $X^2(1) = NS$ |
| Television | 87.0 | 86.9 | 87.1 | $X^2(1) = NS$ |
| Sports/outdoor magazines | 72.3 | 74.6 | 68.6 | $X^2(1) = 4.84^*$ |
| Advertising/billboards | 68.0 | 66.8 | 69.9 | $X^2(1) = NS$ |
| Sunday supplmt. | 66.1 | 67.3 | 64.2 | $X^2(1) = NS$ |
| General magazines | 65.7 | 66.2 | 65.0 | $X^2(1) = NS$ |
| Business/trade Magazines | 43.4 | 45.6 | 40.0 | $X^2(1) = NS$ |
| Men's magazines | 42.7 | 47.4 | 35.3 | $X^2(1) = 15.73^{***}$ |
| Mechanics/science magazines | 42.3 | 44.3 | 39.1 | $X^2(1) = NS$ |
| Women's magazines | 32.7 | 27.9 | 40.4 | $X^2(1) = 18.92^{***}$ |
| Campus radio | 30.4 | 33.8 | 25.2 | $X^2(1) = 9.24^{**}$ |
| Home service magazines | 30.1 | 25.5 | 37.2 | $X^2(1) = 17.08^{***}$ |
| Automotive magazines | 28.7 | 30.8 | 25.4 | $X^2(1) = NS$ |

* p <.05
** p <.01
*** p <.001

B. Magazine Readership

For each of 59 magazines, students indicated the frequency with which they read it. Overall, respondents report reading 11.59 magazines occasionally or regularly with ROTC Cadets reading significantly more magazines than non-ROTC Cadets ($t=3.103$, $df=104$, $p<.01$).

As shown in Table 3, Time, Newsweek, and Sports Illustrated are the most popular, being read occasionally or regularly by over 55% of the respondents. Of the top ten magazines reported, seven -- Time, Newsweek, T.V. Guide, Reader's Digest, U.S. News and World Report, National Geographic, and People are considered general magazines. All except National Geographic are weeklies. Of the remainder, two are considered men's magazines -- Playboy and Penthouse, and one is a sports magazine -- Sports Illustrated.

ROTC Cadets report reading, on average, just over 12 magazines at least occasionally. Non-Cadets report between 10 and 11 magazines.

ROTC Cadets report reading 18 magazines significantly more often than non-ROTC Cadets. These magazines can be classified mostly as general, news, and male-oriented magazines (including sports and mechanics-type issues). One highly significant difference is Soldier of Fortune which 17.2% of ROTC Cadets read at least occasionally as opposed to 7.0% for non-ROTC Cadets. Non-ROTC Cadets report reading six magazines significantly more often than ROTC Cadets. These can be classified mostly as women's magazines (Cosmopolitan, Glamour, McCalls, Navaho Times, Reader's Digest (Spanish) and Redbook).

Delegate and Wassaja show the lowest frequency of occasional or regular reading for all respondents (both less than 2%).

Table 4 lists the magazines in addition to those given in the questionnaire mentioned by students. Forty percent of write-ins were classified as "all others" which is indicative that many magazines were specified but with only a few responses each.

TABLE 3

Magazine Readership

| Magazines Read Occasionally or Regularly | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Time | 65.5 | 70.6 | 57.4 | $X^2(1) = 20.27***$ |
| Newsweek | 61.4 | 67.3 | 51.9 | $X^2(1) = 26.84***$ |
| Sports Illustrated | 56.0 | 61.3 | 47.7 | $X^2(1) = 19.97***$ |
| T.V. Guide | 48.0 | 48.8 | 46.8 | $X^2(1) = NS$ |
| Playboy | 45.3 | 49.6 | 38.5 | $X^2(1) = 13.04***$ |
| Reader's Digest | 45.1 | 45.9 | 43.9 | $X^2(1) = NS$ |
| Penthouse | 39.6 | 44.3 | 32.0 | $X^2(1) = 16.74***$ |
| U.S. News & World Report | 39.5 | 43.2 | 33.6 | $X^2(1) = 10.32**$ |
| National Geographic | 38.6 | 39.5 | 37.1 | $X^2(1) = NS$ |
| People | 38.6 | 38.5 | 38.7 | $X^2(1) = NS$ |
| Life | 28.8 | 29.6 | 27.4 | $X^2(1) = NS$ |
| Sport | 26.8 | 29.7 | 22.2 | $X^2(1) = 7.63**$ |
| Field & Stream | 25.8 | 28.1 | 22.2 | $X^2(1) = 4.83*$ |
| Popular Science | 23.6 | 26.1 | 19.7 | $X^2(1) = 6.05*$ |
| Popular Mechanics | 21.8 | 23.8 | 18.8 | $X^2(1) = 3.90*$ |
| Glamour | 21.4 | 19.2 | 24.8 | $X^2(1) = 4.91*$ |
| Rolling Stone | 21.1 | 23.1 | 17.9 | $X^2(1) = 4.23*$ |
| Cosmopolitan | 21.1 | 17.3 | 27.1 | $X^2(1) = 15.09***$ |
| Seventeen | 20.1 | 18.5 | 22.7 | $X^2(1) = NS$ |
| National Lampoon | 19.3 | 22.5 | 14.2 | $X^2(1) = 11.80***$ |
| Road & Track | 17.8 | 19.7 | 14.8 | $X^2(1) = 4.29*$ |
| Stereo Review | 17.6 | 19.8 | 14.2 | $X^2(1) = 5.86*$ |
| Car & Driver | 16.9 | 18.7 | 14.1 | $X^2(1) = 3.93*$ |
| Ebony | 16.8 | 19.6 | 12.5 | $X^2(1) = 9.44**$ |
| Popular Photography | 16.4 | 18.0 | 13.9 | $X^2(1) = NS$ |
| Vogue | 15.7 | 14.3 | 17.9 | $X^2(1) = NS$ |
| McCalls | 15.7 | 13.3 | 19.5 | $X^2(1) = 7.70**$ |
| Jet | 15.6 | 17.2 | 13.0 | $X^2(1) = NS$ |
| Mademoiselle | 15.3 | 13.7 | 17.9 | $X^2(1) = NS$ |
| Guns & Ammo | 14.4 | 15.5 | 12.8 | $X^2(1) = NS$ |
| Campus Life | 14.3 | 15.0 | 13.2 | $X^2(1) = NS$ |
| Psychology Today | 13.8 | 12.8 | 15.3 | $X^2(1) = NS$ |
| American Rifleman | 13.5 | 15.0 | 10.9 | $X^2(1) = NS$ |
| Redbook | 13.5 | 11.5 | 16.7 | $X^2(1) = 6.00*$ |
| Soldier of Fortune | 13.3 | 17.2 | 7.0 | $X^2(1) = 24.24***$ |
| Hot Rod | 12.3 | 13.6 | 10.2 | $X^2(1) = NS$ |
| Mechanix Illustrated | 11.8 | 13.1 | 9.7 | $X^2(1) = NS$ |
| On Your Own | 10.8 | 11.7 | 9.4 | $X^2(1) = NS$ |
| College Outlook | 10.7 | 10.9 | 10.4 | $X^2(1) = NS$ |
| Exploring | 10.6 | 11.2 | 9.5 | $X^2(1) = NS$ |

(Continued)

TABLE 3

Magazine Readership
(Continued)

| Magazines Read Occasionally or Regularly | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Black Sports | 10.1 | 10.3 | 9.7 | $X^2(1)$ = NS |
| Playgirl | 9.9 | 8.6 | 11.9 | $X^2(1)$ = NS |
| Career World | 9.4 | 9.9 | 8.6 | $X^2(1)$ = NS |
| Essence | 8.3 | 9.6 | 6.3 | $X^2(1)$ = 3.91* |
| Senior Scholastic | 8.0 | 8.5 | 7.2 | $X^2(1)$ = NS |
| Reader's Digest (Spanish) | 7.3 | 5.8 | 9.7 | $X^2(1)$ = 5.96* |
| Wheels | 6.4 | 6.0 | 7.2 | $X^2(1)$ = NS |
| National Future Farmer | 5.9 | 6.3 | 5.3 | $X^2(1)$ = NS |
| Black Enterprise | 5.6 | 6.6 | 3.9 | $X^2(1)$ = NS |
| Nutshell | 5.1 | 6.0 | 3.7 | $X^2(1)$ = NS |
| Black Collegian | 5.0 | 5.7 | 3.9 | $X^2(1)$ = NS |
| Crisis | 4.7 | 3.8 | 6.3 | $X^2(1)$ = NS |
| 18 Almanac | 4.5 | 5.0 | 3.7 | $X^2(1)$ = NS |
| Dawn | 2.5 | 2.2 | 3.0 | $X^2(1)$ = NS |
| Sourcebook | 2.4 | 2.8 | 1.9 | $X^2(1)$ = NS |
| Navaho Times | 2.3 | 1.6 | 3.5 | $X^2(1)$ = 4.08* |
| Nuestro | 2.1 | 1.6 | 3.0 | $X^2(1)$ = NS |
| Wassaja | 1.3 | 1.2 | 1.6 | $X^2(1)$ = NS |
| Delegate | 1.3 | 1.2 | 1.6 | $X^2(1)$ = NS |
| Average number of magazines read occasionally or regularly | 11.56 | 12.09 | 10.71 | t(1104) = 3.103** |

* p <.05
** p <.01
*** p <.001

TABLE 4

Other Magazines

| Other (WRITE-IN) Magazines Read Occasionally or Regularly | Total % | ROTC Cadet % | Non-ROTC Cadet % |
|---|---|---|---|
| Omni | 2.4 | 2.3 | 2.5 |
| Science | 1.4 | 1.6 | 1.2 |
| Outdoor Life | 1.2 | 1.6 | 0.5 |
| Hustler | 0.9 | 1.2 | 0.5 |
| Business Week | 0.9 | 0.9 | 0.9 |
| All others | 40.6 | 42.4 | 37.8 |

## C. Favorite Television Programs

By far the most popular television show among college students is M*A*S*H. It received more than twice the number of mentions than Hill Street Blues the second most popular program (42.1% and 19.3%, respectively). Other TV shows mentioned by more than 10% of the sample are: 60 Minutes (15.7%), Dynasty (11.7%), and Dallas (11.2%) (See Table 5).

Students have fairly eclectic tastes in TV programming as seen by the wide variety of news, drama, sitcom and sports programs mentioned and by the large number of programs with small followings (30 programs were mentioned as favorites by less than 7% of the sample). Moreover, fully a third of the sample indicate a favorite program which is mentioned by less than 1% of their colleagues.

The data show one in five (21%) did not indicate a preference for a TV program. This non-response needs to be interpreted with caution. It combined, in ways which cannot be unraveled, those who do not watch TV, those who do not have or choose not to report a favorite program, along with non-respondents who may have omitted the question.

There are no notable differences between ROTC Cadets and non-ROTC Cadets in their choices of favorite television programs.

## D. Favorite Radio Programming

The most popular radio programming for all respondents are FM, Rock, Top Forty, Country-Western, and News (See Table 6). All types of programming except Spanish and Other are enjoyed by at least 10% of the students sampled.

ROTC Cadets and non-ROTC Cadets show similar patterns in the frequency with which they list most types of radio programming as their favorite. However, there are several notable differences between the groups. More ROTC Cadets report FM, News, Sports, and Jazz programs among their favorites. Non-ROTC Cadets report significantly more interest in Country-Western, Easy Listening, and Spanish programming than do Cadets.

TABLE 5

Television Preferences[1]

| Favorite Television Programs | Total % | ROTC Cadet % | Non-ROTC Cadet % |
|---|---|---|---|
| M*A*S*H | 42.1 | 43.4 | 39.9 |
| Hill Street Blues | 19.3 | 20.5 | 17.4 |
| Sixty Minutes | 15.7 | 17.4 | 12.9 |
| Dynasty | 11.7 | 12.5 | 10.2 |
| Dallas | 11.2 | 9.1 | 14.7 |
| Magnum P.I. | 7.9 | 8.0 | 7.8 |
| News (unspecified) | 7.2 | 8.7 | 4.8 |
| Fame | 6.7 | 7.3 | 5.7 |
| 20/20 | 6.4 | 6.0 | 7.2 |
| Sports (unspecified) | 5.9 | 6.9 | 4.2 |
| Quincy | 5.7 | 4.5 | 7.5 |
| General Hospital | 5.5 | 4.0 | 8.1 |
| Jeffersons | 5.2 | 5.8 | 4.2 |
| Saturday Night Live | 5.2 | 4.2 | 6.9 |
| Hart to Hart | 4.9 | 4.7 | 5.1 |
| Love Boat | 4.8 | 4.7 | 4.8 |
| Any cable mentions | 4.6 | 5.3 | 3.6 |
| Fall Guy | 4.6 | 4.2 | 5.4 |
| Movies (other) | 4.4 | 4.5 | 4.2 |
| Different Strokes | 4.3 | 4.7 | 3.6 |
| Barney Miller | 4.0 | 4.0 | 3.9 |
| Sanford and Son | 3.5 | 4.0 | 2.7 |
| Tonight Show | 3.4 | 3.6 | 3.0 |
| Benny Hill | 3.2 | 4.2 | 1.5 |
| Taxi | 3.1 | 3.6 | 2.1 |
| Three's Company | 2.9 | 3.1 | 2.7 |
| Happy Days | 2.8 | 2.0 | 4.2 |
| Today's F.B.I. | 2.8 | 3.6 | 1.5 |
| All My Children | 2.6 | 2.2 | 3.3 |
| Dukes of Hazzard | 2.4 | 2.5 | 2.1 |
| Flamingo Road | 2.4 | 2.7 | 1.8 |
| Little House on the Prairie | 2.4 | 2.2 | 2.7 |
| Greatest American Hero | 2.4 | 2.2 | 2.7 |
| Trapper John M.D. | 2.3 | 1.6 | 3.3 |
| Lou Grant | 2.1 | 2.0 | 2.4 |
| Nova | 2.1 | 1.8 | 2.7 |
| Facts of Life | 2.1 | 1.5 | 3.3 |
| All Other | 33.3 | 31.8 | 35.7 |
| No favorite indicated | 21.1 | 19.7 | 23.3 |

[1]Programs under 2% not listed

TABLE 6

Radio Preferences

| Favorite Radio Programs | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| FM | 93.8 | 95.7 | 90.7 | $x^2(1)=11.09$*** |
| Rock | 75.2 | 77.0 | 72.3 | $x^2(1)$=NS |
| Top Forty | 51.7 | 51.8 | 51.6 | $x^2(1)$=NS |
| Country-Western | 43.7 | 38.4 | 52.3 | $x^2(1)=20.11$*** |
| News | 42.5 | 45.0 | 38.4 | $x^2(1)=4.51$* |
| Pop | 39.1 | 38.4 | 40.1 | $x^2(1)$=NS |
| Sports | 37.3 | 40.5 | 32.2 | $x^2(1)=7.58$** |
| Easy Listening | 35.7 | 33.1 | 39.9 | $x^2(1)=5.16$* |
| AM | 34.4 | 32.9 | 36.8 | $x^2(1)$=NS |
| Jazz | 33.6 | 36.1 | 29.6 | $x^2(1)=4.83$* |
| Disco | 31.9 | 33.1 | 30.1 | $x^2(1)$=NS |
| Soul | 26.3 | 27.7 | 24.1 | $x^2(1)$=NS |
| Classical | 24.0 | 24.6 | 22.9 | $x^2(1)$=NS |
| Rhythm & Blues | 20.9 | 21.7 | 19.6 | $x^2(1)$=NS |
| Religious | 13.2 | 14.4 | 11.2 | $x^2(1)$=NS |
| Talk | 12.4 | 13.2 | 11.0 | $x^2(1)$=NS |
| Spanish | 6.6 | 4.5 | 10.0 | $x^2(1)=13.04$*** |
| Other | 3.3 | 3.4 | 3.1 | $x^2(1)$=NS |

* p <.05
** p <.01
*** p <.001

## IV. KNOWLEDGE AND ATTITUDES TOWARD ROTC AND MILITARY SERVICE

Several areas of the 1982 Career Attitude Survey questionnaire touched on students' knowledge of and feelings about various aspects of the ROTC program and military service. The results discussed here pertain to reference group contacts with Army ROTC and the military, first awareness of Army ROTC and of Army ROTC scholarships, knowledge of ROTC and Army life, and attitudes toward and attractiveness of Army ROTC and the Army. The primary focus of this discussion is on college ROTC, although a brief section at the end of this chapter treats high school ROTC.

### A. Reference Group Contacts with ROTC and Military Service

To explore students' military socialization patterns, the questionnaire investigated who and how many members of the respondent's reference group were ever in ROTC (or a military academy) or had ever seen military service.

For the most part, Cadets appear to have closer ties to the military than non-ROTC Cadets. Over half of all respondents report having good friends who are now or ever have been in ROTC or a military academy (See Table 7). Moreover, many have relatives who are or were involved with ROTC. For example, one in five report cousins or aunts and uncles in ROTC, whereas one in seven report the involvement of near relatives, such as parents/guardians (16.3%) or brothers and sisters (14.6%).

These data are similar for Cadets and non-Cadets, except that Cadets more often report having good friends and close relatives (e.g., parents/guardians and brothers/sisters) in ROTC or a military school.

Students report, on average, having 1.93 relatives or friends involved in the military. There are no differences between the number reported by ROTC Cadets and non-ROTC Cadets.

Many more students have friends or relatives who have seen military service than who have been in ROTC. As shown in Table 7, over 60% of all respondents report

TABLE 7

Reference Group's Contacts With the Military

| Relatives/Friends Who Are (Have Ever Been) in ROTC or Military Academy | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Good Friends | 52.9 | 55.7 | 48.5 | $X^2(1) = 5.54$* |
| Cousins | 21.3 | 22.4 | 19.5 | $X^2(1) =$ NS |
| Aunts/Uncles | 20.8 | 22.0 | 18.9 | $X^2(1) =$ NS |
| Parents/Guardians | 16.3 | 18.2 | 13.4 | $X^2(1) = 4.42$* |
| Brothers/Sisters | 14.6 | 17.9 | 9.4 | $X^2(1) = 14.98$*** |
| Grandparents | 8.9 | 9.5 | 8.0 | $X^2(1) =$ NS |
| Mean number of relatives/friends ever in ROTC/Military Academy | 1.93 | 1.98 | 1.85 | $t(1114) =$ NS |
| **Relatives/Friends Who Are (Have Ever Been) in the Military** | | | | |
| Good Friends | 70.3 | 74.1 | 64.2 | $X^2(1) = 12.36$*** |
| Aunts/Uncles | 61.6 | 64.5 | 56.8 | $X^2(1) = 6.51$* |
| Parents/Guardians | 60.0 | 65.4 | 51.3 | $X^2(1) = 21.95$*** |
| Cousins | 47.6 | 49.7 | 44.2 | $X^2(1) =$ NS |
| Grandparents | 36.1 | 37.8 | 33.3 | $X^2(1) =$ NS |
| Brothers/Sisters | 20.6 | 22.2 | 17.9 | $X^2(1) =$ NS |
| Mean number of relatives/friends ever in the military | 3.24 | 3.36 | 3.03 | $t(1115) = 3.481$*** |

* p <.05
** p <.01
** p <.001

good friends, aunts/uncles, or parents/guardians as having ever been in the military. Somewhat fewer students report service for cousins, grandparents, and brothers/sisters. Generally, more ROTC Cadets report members of their reference group being in the military than non-ROTC Cadets. This is true for every friend/relative category. Three of these differences are significant: good friends, aunts/uncles and parents/guardians. The average number of relatives or friends who have ever been in the military as reported by all respondents is 3.24. ROTC Cadets mention a significantly higher number of acquaintances (3.36) in the military than non-ROTC Cadets (3.03) ($t=3.481$, $df=1115$, $p<.001$).

## B. First Awareness of Army ROTC and ROTC Scholarship Program

Most respondents (six out of ten) report first becoming aware of ROTC during high school. An additional two out of ten say they did not become aware of the program until arriving at college. The remainder either had become aware of ROTC during grade school or had not heard of ROTC until participation in this survey. There are no significant differences between the time when ROTC Cadets report first becoming aware of ROTC and the time of first awareness reported by non-ROTC Cadets.

The sources by which students are made aware of ROTC are numerous and varied (See Table 8). The most frequently identified sources of first awareness of ROTC for all respondents are friends (65.4%), pamphlets (60.8%) and ROTC personnel on campus (60.2%). Also popular sources are ROTC recruiters (56.6%), radio/TV (52.0%) and magazine or newspaper ads (52.0%). ROTC Cadets report ROTC personnel on campus, ROTC recruiters, military personnel, family, and personal reading as sources of awareness significantly more often than non-ROTC Cadets. This result is consistent with the earlier finding that ROTC Cadets reported more family or friends in the military than non-ROTC Cadets.

Students become aware of ROTC through multiple channels, with Cadets receiving significantly more sources of input than non-Cadets. The mean number of sources of awareness for ROTC Cadets is 5.76, while it is only 5.27 for non-Cadets ($t=2905$, $df=1101$, $p<.01$)

TABLE 8

Awareness of Army ROTC

| Time of First Awareness of ROTC | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| During grade school | 13.2 | 12.3 | 14.7 | $X^2(3)$ = NS |
| During high school | 61.3 | 61.1 | 61.5 | |
| After arriving at college | 23.9 | 25.4 | 21.4 | |
| Never heard of ROTC until now | 1.6 | 1.2 | 2.4 | |
| **Sources of First Awareness of ROTC** | | | | |
| Friends | 65.4 | 65.5 | 65.2 | $X^2(1)$ = NS |
| Pamphlets | 60.8 | 62.3 | 58.3 | $X^2(1)$ = NS |
| ROTC personnel on campus | 60.2 | 63.9 | 54.2 | $X^2(1) = 10.16^{**}$ |
| ROTC recruiters | 56.6 | 58.9 | 52.8 | $X^2(1) = 4.00^{*}$ |
| Radio/T.V. | 52.0 | 50.0 | 55.4 | $X^2(1)$ = NS |
| Magazine or newspaper ads | 52.0 | 51.8 | 52.5 | $X^2(1)$ = NS |
| Other military personnel | 47.7 | 50.3 | 43.4 | $X^2(1) = 4.93^{*}$ |
| Teachers/counselors | 42.9 | 43.9 | 41.2 | $X^2(1)$ = NS |
| Family | 41.8 | 47.2 | 32.9 | $X^2(1) = 21.99^{***}$ |
| Personal reading | 38.6 | 42.5 | 32.1 | $X^2(1) = 12.04^{***}$ |
| Other sources not listed above | 31.2 | 32.7 | 28.9 | $X^2(1)$ = NS |
| Mean number of awareness sources mentioned | 5.58 | 5.76 | 5.27 | $t(1101) = 2.905^{**}$ |

* $p < .05$
** $p < .01$
*** $p < .001$

Awareness of Army ROTC Scholarships lags behind awareness of the general ROTC program (See Table 9). Respondents report first becoming aware of the ROTC Scholarship Program during high school (47.6%), after arriving at college (39.5%), and during grade school (2.3%). An additional 10.6% report never having heard of the Scholarship Program until the time of the survey.

There are significant differences between the time of first awareness for ROTC Cadets and for non-ROTC Cadets ($X^2$=45.25, df=3, p<.001). It appears that relatively more ROTC Cadets than non-Cadets became aware of the ROTC Scholarship Program during high school or on their college campuses. When combined, over 90% of ROTC Cadets became aware of the program during this time. In contrast, relatively more non-ROTC Cadets report no awareness of the program until the time of the survey (18.5%), with only 80% becoming aware of the program during high school or college.

The top three sources of first awareness of the ROTC Scholarship Program mentioned by all respondents are ROTC personnel on campus (59.9%), ROTC recruiters (55.5%), and pamphlets (51.8%). Significantly more ROTC Cadets than non-ROTC Cadets report other sources of awareness, such as ROTC personnel on campus, ROTC recruiters, pamphlets, other military personnel, teachers/counselors, personal reading and the family.

Overall, ROTC Cadets report a mean of 4.99 scholarship awareness sources, while non-ROTC Cadets report a mean of 4.45. The difference between these means is statistically significant (t=2.953, df=1085, p<.01).

It appears that most ROTC Cadets and non-Cadets first became aware of the ROTC program during high school, typically through input from five or more sources, most of whom are family members or military-related sources. In addition, there are fewer awareness sources for the Scholarship Program and the most frequently mentioned sources are ROTC-related. This suggests that students are finding out about the Scholarship Program only after becoming interested in the ROTC program.

TABLE 9

Awareness of ROTC Scholarship Program

| Time of First Awareness of ROTC Scholarship Program | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| During grade school | 2.3 | 2.8 | 1.4 | $X^2(3) = 45.25$*** |
| During high school | 47.6 | 49.3 | 45.0 | |
| After arriving at college | 39.5 | 42.1 | 35.1 | |
| Never heard of ROTC scholarship until now | 10.6 | 5.8 | 18.5 | |
| **Sources of First Awareness of ROTC Scholarship Program** | | | | |
| ROTC personnel on campus | 59.9 | 70.1 | 43.1 | $X^2(1) = 78.04$*** |
| ROTC recruiters | 55.7 | 63.0 | 43.8 | $X^2(1) = 38.16$*** |
| Pamphlets | 51.8 | 55.4 | 45.8 | $X^2(1) = 9.61$** |
| Friends | 40.7 | 42.6 | 37.7 | $X^2(1) =$ NS |
| Other military personnel | 40.7 | 44.6 | 34.2 | $X^2(1) = 11.47$*** |
| Magazine or newspaper ads | 40.1 | 40.8 | 39.1 | $X^2(1) =$ NS |
| Teachers/counselors | 38.9 | 42.2 | 33.6 | $X^2(1) = 8.01$** |
| Radio/T.V. | 37.3 | 37.0 | 37.8 | $X^2(1) =$ NS |
| Personal reading | 28.1 | 31.4 | 22.7 | $X^2(1) = 9.59$** |
| Family | 26.6 | 30.2 | 20.8 | $X^2(1) = 11.68$*** |
| Other sources not listed above | 22.3 | 23.5 | 20.3 | $X^2(1) =$ NS |
| Mean number of awareness sources mentioned | 4.80 | 4.99 | 4.45 | $t(1085) = 2.953$** |

* $p < .05$
** $p < .01$
*** $p < .001$

C. Knowledge of ROTC and the Army

Over half of all respondents report some knowledge about Army ROTC (See Table 10). The remaining portion is evenly divided among those respondents who profess knowing little or nothing and those who report knowing a great deal about Army ROTC. The differences between ROTC Cadets and non-ROTC Cadets are highly significant ($X^2$=183.59, df=2, p<.001), with more ROTC Cadets reporting a great deal of knowledge and more non-ROTC Cadets reporting little or no knowledge of Army ROTC.

In addition to their self-assessed level of knowledge of ROTC, respondents were "tested" on their familiarity with aspects of ROTC and military service. Respondents were asked to judge fifteen statements about the U.S. Army ROTC Program on a typical college campus and about the U.S. Army Officer Corps as either true or false.

Table 11 lists each of the ROTC/Army information statements rank ordered according to the percent of correct response. ROTC Cadets and non-ROTC Cadets correctly responded most often to the following three statements:

- ROTC is available for both men and women (95.8%)
- Postgraduate schooling is available to officers while in the Army (86.9%)
- ROTC scholarships are available for each college year (81.2%)

The statements with the least number of correct responses are:

- All officers must serve at least four (4) years active duty (43.7%)
- Officers receive a maximum of 20 days paid vacation per year (47.0%)

ROTC Cadets correctly respond to each of the statements more often than non-ROTC Cadets. Such differences are significant for eleven of the fifteen statements. The statements exhibiting the greatest disparity are:

TABLE 10

Self-reported Knowledge of Army ROTC

| Respondents' Knowledge About Army ROTC | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Little or nothing | 21.4 | 9.9 | 40.1 | $X^2(2) = 183.59$*** |
| Some | 54.9 | 56.7 | 52.0 | |
| A great deal | 23.6 | 33.3 | 7.8 | |

*** p <.001

TABLE 11

Knowledge of ROTC and Army Variables

| ROTC/Army Information Statements Responded to Correctly | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| ROTC is available for both men and women (True). | 95.8 | 96.7 | 94.3 | $x^2(1) = 3.87*$ |
| Postgraduate schooling is available to officers while in the Army (True). | 86.9 | 89.1 | 83.3 | $x^2(1) = 7.34**$ |
| ROTC scholarships are available for each college year (True). | 81.2 | 83.0 | 78.1 | $x^2(1) = 4.00*$ |
| Some ROTC graduates fulfill most of their Army obligation in the Reserves (True). | 73.2 | 74.1 | 71.6 | $x^2(1) = NS$ |
| ROTC pays all Cadets $100 per month during the junior and senior years of college (True). | 71.9 | 78.1 | 61.3 | $x^2(1) = 34.97***$ |
| All officers must serve in the infantry for at least one year (False). | 70.8 | 76.9 | 60.3 | $x^2(1) = 33.41***$ |
| After an obligated duty period, officers may resign from the Army at any time (True). | 70.5 | 71.4 | 68.8 | $x^2(1) = NS$ |
| ROTC requires attending a summer camp each year of college (False). | 68.2 | 79.4 | 49.1 | $x^2(1) = 106.54***$ |
| ROTC pays all Cadets $100 per month during the freshman and sophomore years of college (False). | 68.1 | 76.0 | 54.6 | $x^2(1) = 53.13***$ |

(Continued)

TABLE 11

Knowledge of ROTC and Army Variables
(Continued)

| ROTC/Army Information Statements Responded to Correctly | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| The starting base pay for an Army officer is over $900 per month (True). | 67.6 | 70.9 | 62.1 | $X^2(1) = 8.82^{**}$ |
| It is possible to join the last two years of ROTC without attending the first two (True). | 65.6 | 70.1 | 58.1 | $X^2(1) = 16.11^{***}$ |
| Officers can retire after 14 years' duty at one-half of their pay (False). | 53.7 | 57.5 | 47.1 | $X^2(1) = 10.97^{***}$ |
| Graduating from ROTC means that you have to serve four years of active duty in the Army (False). | 51.2 | 53.1 | 47.9 | $X^2(1) = NS$ |
| Officers receive a maximum of 20 days paid vacation per year (False). | 47.0 | 50.9 | 40.4 | $X^2(1) = 11.12^{***}$ |
| All officers must serve at least four (4) years' active duty (False). | 43.7 | 49.4 | 34.2 | $X^2(1) = 23.77^{***}$ |
| Mean number of statements responded to correctly | 10.15 | 10.77 | 9.11 | $t(1076) = 11.380^{***}$ |

* p <.05
** p <.01
*** p <.001

- ROTC requires attending a summer camp each year of college ($X^2$=106.54, df=1, p<.001)

- ROTC pays all Cadets $100 per month during the freshman and sophomore years of college ($X^2$=53.13, df=1, p<.001)

The mean number of correct answers by ROTC Cadets and non-Cadets are 10.77 and 9.11, respectively. This difference is significant (t=11.380, df=1076, p<.001) and reflects a high degree of knowledge about the ROTC and the Army among ROTC Cadets.

D. Attractiveness of College ROTC Program

Respondents rated, on a five-point scale, ten aspects of their College ROTC Program in terms of attractiveness -- the more attractive the feature, the higher the rating. As seen in Table 12, for all respondents, the highest mean attractiveness ratings are given to a guaranteed job after college (3.83), the Scholarship Program (3.78), and ROTC instructors (3.72). ROTC Cadets give these three aspects of the program high mean ratings, but reserve the highest mean rating for ROTC instructors (4.09), followed by a guaranteed job after college (4.06) and the Scholarship Program (3.98). Non-ROTC Cadets attribute the highest mean ratings to the Scholarship Program (3.45), a guaranteed job after college (3.44) and the quality of the program (3.27).

The least attractive aspects for all respondents are the obligated duty requirement (3.06), ROTC Cadets (3.29), and the image of the program (3.32). ROTC Cadets report these same three aspects as least attractive to themselves, although the ratings are slightly higher -- 3.28, 3.51, and 3.52, respectively. Non-ROTC Cadets also rated the obligated duty requirement as the least attractive aspect of the ROTC program (2.69). However, the second and third least attractive aspects are the program requirements (2.90) and ROTC Cadets themselves (2.92).

Overall, ROTC Cadets rated all ten aspects of the ROTC program as significantly more attractive than non-ROTC

TABLE 12

Attractiveness Ratings of ROTC Program

| Mean Attractiveness Rating of Aspects of College ROTC Program | Total $\bar{X}$[1] | ROTC Cadet $\bar{X}$ | Non-ROTC Cadet $\bar{X}$ | Test of Significance |
|---|---|---|---|---|
| Guaranteed job after college | 3.83 | 4.06 | 3.44 | $t(1065) = 8.217^{***}$ |
| Scholarship Program | 3.78 | 3.98 | 3.45 | $t(1064) = 7.701^{***}$ |
| ROTC instructors | 3.72 | 4.09 | 3.10 | $t(1063) = 15.124^{***}$ |
| Quality of the program (instruction, training, etc.) | 3.63 | 3.84 | 3.27 | $t(1067) = 9.283^{***}$ |
| Program activites (courses, modules, labs, social functions, etc.) | 3.59 | 3.86 | 3.12 | $t(1066) = 11.069^{***}$ |
| Program environment (social climate, morale, etc.) | 3.42 | 3.68 | 2.98 | $t(1065) = 10.204^{***}$ |
| Program requirements | 3.33 | 3.59 | 2.90 | $t(1067) = 10.615^{***}$ |
| Image of the program | 3.32 | 3.52 | 2.98 | $t(1066) = 8.206^{***}$ |
| ROTC Cadets | 3.29 | 3.51 | 2.92 | $t(1065) = 8.624^{***}$ |
| Obligated duty requirement | 3.06 | 3.28 | 2.69 | $t(1064) = 8.377^{***}$ |
| Average number of attractive aspects of college ROTC (Rating of "4" or "5") | 3.50 | 3.74 | 3.08 | $t(1067) = 12.931^{***}$ |

[1](1 = Very unattractive, 5 = Very attractive)

*** $p < .001$

Cadets. Moreover, Cadets rate significantly more aspects of ROTC as attractive than non-ROTC Cadets, -- 3.74 versus 3.08, respectively ($t=12.931$, $df=1067$, $p<.001$).

## E. Attractiveness of Army Life

The personal attractiveness of 16 aspects of Army life to respondents were recorded and are shown in Table 13. The aspects with the highest mean attractiveness ratings for all respondents are job security (3.94), officer responsibility (3.59), and office pay and fringe benefits (3.55). ROTC Cadets and non-Cadets do not differ in their ratings of these three features of Army life.

The least attractive aspects of the Army for all respondents and those features which are given negative ratings are restrictions to personal freedom in the Army (2.53), prejudice in the Army (2.60), and Army living arrangements (2.66). ROTC Cadets report these aspects as the least appealing; whereas for non-ROTC Cadets, the Army living arrangements is the least attractive aspect of the Army (2.29). This is followed by personal freedom in the Army (2.35) and prejudice in the Army (2.48).

Overall, ROTC Cadets rate all aspects of the Army as significantly more attractive ($p<.01$) than non-ROTC Cadets. ROTC Cadets also rate significantly more aspects of the Army as being attractive than non-ROTC Cadets -- 3.40 versus 2.92, respectively ($t=10.119$, $df=1070$, $p<.001$).

These results appear consistent with respondents' mean attractiveness ratings of the ROTC program. That is, Cadets find more aspects of ROTC and the Army holding an attraction for them than do non-ROTC Cadets. One of the biggest attractions seems to be the emphasis on job security, both for ROTC Cadets and non-ROTC Cadets.

## F. Feelings about Military Service

Respondents were asked to choose one statement that best describes their current feelings about becoming involved with military service. As shown in Table 14, almost half

TABLE 13

Attractiveness Ratings of Army Life

| Mean Attractiveness Rating of Aspects of the Army | Total | ROTC Cadet | Non-ROTC Cadet | Test of Significance |
|---|---|---|---|---|
| | $\bar{X}$[1] | $\bar{X}$ | $\bar{X}$ | |
| Job security | 3.94 | 4.12 | 3.62 | t(1072) = 7.040*** |
| Officer responsibilities | 3.59 | 3.78 | 3.27 | t(1072) = 7.656*** |
| Officer pay & fringe benefits | 3.55 | 3.77 | 3.18 | t(1072) = 8.147*** |
| Quality of Army officers | 3.48 | 3.69 | 3.12 | t(1072) = 8.155*** |
| Goals of the Army | 3.44 | 3.64 | 3.11 | t(1072) = 7.237*** |
| Available recreation and entertainment | 3.34 | 3.51 | 3.06 | t(1071) = 6.462*** |
| Relevance of the military to society | 3.33 | 3.49 | 3.06 | t(1071) = 5.963*** |
| Required mobility and travel | 3.29 | 3.42 | 3.07 | t(1072) = 4.521*** |
| Army training | 3.22 | 3.46 | 2.81 | t(1074) = 8.928*** |
| Day-to-day activities | 3.21 | 3.44 | 2.83 | t(1070) = 8.892*** |
| Discipline required | 3.18 | 3.41 | 2.79 | t(1074) = 8.356*** |
| Nature of personal relationships | 3.13 | 3.30 | 2.85 | t(1072) = 6.962*** |
| Public image of the Army | 3.02 | 3.17 | 2.76 | t(1072) = 5.925*** |
| Army living arrangements | 2.66 | 2.88 | 2.29 | t(1074) = 8.429*** |
| Prejudice in the Army | 2.60 | 2.67 | 2.48 | t(1073) = 2.770** |
| Personal freedom in the Army | 2.53 | 2.64 | 2.35 | t(1074) = 4.050*** |
| Average number of things found attractive about army life | 3.22 | 3.40 | 2.92 | t(1070) = 10.119*** |

[1](1 = Very unattractive, 5 = Very attractive)

** p <.01

*** p <.001

TABLE 14

Attitude Toward Military Service

| Respondents' Feelings about Military Service | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| I haven't given much thought to military service. | 32.7 | 24.6 | 46.7 | $X^2(2) = 86.48$*** |
| I feel I have a duty to serve if needed. | 49.2 | 50.3 | 47.2 | |
| I feel it is my duty to serve in the military. | 18.1 | 25.1 | 6.1 | |

*** $p < .001$

of all respondents feel they have a duty to serve if needed. Three in ten respondents haven't given much thought to military service, while two in ten feel it is their duty to serve in the miltary.

Cadets and non-Cadets exhibit significant differences in their response to this question. Fully one-half of the ROTC Cadets (50.3%) report having a duty to serve if needed. The remainder are evenly split between a feeling they have a duty to serve (25.1%) and not having given it much thought (24.6%). In contrast, only 6.1% of non-ROTC Cadets report feeling that it is their duty to serve in the military. The remaining respondents are split between the feeling they would serve if needed (47.2%) and not having given much thought to the military (46.7%).

It appears that Cadets as a whole have given much more thought to their participation in the military and perhaps see it as a career, although one in four confess to not giving much thought to service. On the other hand, only a small percentage of non-ROTC Cadets feel the necessity to serve in the military, while almost half haven't given much thought to military service.

## G. Participation in and Attitudes toward Junior ROTC Programs

Respondents were asked to identify the availability of a Junior ROTC Program in their high school and to report about their participation in it. In addition, those who reported Junior ROTC was available were asked to rate the attractiveness of seven aspects of their Junior ROTC Program.

Three in ten respondents report the availability of any (Army, Navy or Air Force) Junior ROTC Program in their high school (See Table 15). Somewhat surprisingly, significantly more non-ROTC Cadets report this availability than ROTC Cadets ($X^2$= 21.69, df=1, p<.001). Of the Junior ROTC programs reported as available, 24.2% were Army ROTC, 7.8% were Navy ROTC, and 6.9% were Air Force ROTC. An additional 8.5% of respondents reported Junior ROTC without identifying the service sponsorship. Again, significantly more non-ROTC Cadets report the

TABLE 15

Availability and Participation in Junior ROTC

| Available Junior ROTC Programs in High School | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Army ROTC | 24.2 | 19.9 | 31.3 | $X^2(1) = 18.20^{***}$ |
| Navy ROTC | 7.8 | 6.2 | 10.4 | $X^2(1) = 6.44^{*}$ |
| Air Force ROTC | 6.9 | 6.5 | 7.7 | $X^2(1) =$ NS |
| ROTC (unspecified) offered or attended | 8.5 | 8.1 | 9.2 | N.A. |
| **Any Junior ROTC Available in High School** | | | | |
| Any ROTC program | 30.7 | 25.7 | 39.0 | $X^2(1) = 21.69^{***}$ |
| **Number of Years Participated in Junior ROTC** | | | | |
| 1 Year | 1.8 | 2.2 | 1.2 | $X^2(5)=40.42^{***}$ |
| 2 Years | 2.2 | 2.2 | 2.2 | |
| 3 Years | 2.8 | 3.1 | 2.2 | |
| 4 Years | 2.2 | 2.9 | 1.0 | |
| Didn't participate although it was offered | 28.2 | 21.9 | 38.6 | |
| Junior ROTC was not offered | 60.7 | 66.1 | 51.6 | |

* $p<.05$
** $p<.01$
*** $p<.001$

availability of Army ROTC ($X^2$=18.20, df=1, p<.001) and Navy ROTC ($X^2$=6.44, df=1, p<.05) than ROTC Cadets. There are no significant differences between groups for Air Force ROTC availability.

When asked to report their participation in Junior ROTC, only 9% of all respondents report from one to four years participation in a Junior ROTC program (See Table 15). Most (60.7%) said Junior ROTC was not offered. An additional 28.2% said Junior ROTC was offered but they did not participate.

There are significant differences between ROTC Cadets and non-ROTC Cadets in their involvement with Junior ROTC ($X^2$=40.42, df=5, p<.001). In terms of participation, 10.4% of ROTC Cadets report from one to four years in Junior ROTC, while 6.6% of non-ROTC Cadets report from one to four years in Junior ROTC.

A total of 404 respondents report that some form of Junior ROTC was available in their high school. As such, they are the base of respondents eligible to rate the attractiveness of Junior ROTC Program aspects (See Table 16).

For this subset of respondents, the aspects of Junior ROTC with the highest attractiveness ratings are ROTC Instructors (3.31), quality of the program (3.14) and program activities (3.11). ROTC Cadets and non-ROTC Cadets agree on these features being most attractive; however, Cadets rate ROTC instructors (3.43) as most attractive, followed by program activities (3.23) and quality of the program (3.22).

Unattractive aspects of Junior ROTC, that is, those with the lowest mean attractiveness ratings, are the image of the program (2.81), ROTC Cadets (2.91), and program requirements (2.99). Cadets report these same three aspects as least attractive. Non-ROTC Cadets find the program environment to be somewhat more unattractive (2.89) than program requirements (2.95).

TABLE 16

Attractiveness of Junior ROTC

| Attractiveness of Junior (High School) ROTC | Total | ROTC Cadet | Non-ROTC Cadet | Test of Significance |
|---|---|---|---|---|
| | $\bar{X}$[1] | $\bar{X}$ | $\bar{X}$ | |
| ROTC instructors | 3.31 | 3.43 | 3.17 | t(295)=NS |
| Quality of the program (instruction, training, etc.) | 3.14 | 3.22 | 3.05 | t(296)=NS |
| Program activities (courses, modules, labs, social functions, etc.) | 3.11 | 3.23 | 2.96 | t(294)=1.999* |
| Program environment (social climate, morale, etc.) | 3.01 | 3.10 | 2.89 | t(296)=NS |
| Program requirements | 2.99 | 3.02 | 2.95 | t(294)=NS |
| ROTC cadets | 2.91 | 3.01 | 2.78 | t(297)=NS |
| Image of the program | 2.81 | 2.98 | 2.60 | t(301)=2.741** |
| Mean number of attractive aspects of Junior ROTC | 3.07 | 3.16 | 2.95 | t(301)=NS |

[1](1 = Very unattractive, 5 = Very attractive)

* p<.05

** p<.01

Generally, ROTC Cadets report higher mean attractiveness ratings to all seven aspects of Junior ROTC than do non-Cadets. Of these seven, two differences are statistically significant. ROTC Cadets rate the attractiveness of program activities and the image of the program significantly higher than non-ROTC Cadets. However, there are no significant differences between ROTC Cadets and non-ROTC Cadets in terms of the average number of aspects of Junior ROTC that they found attractive.

## V. EDUCATION AND CAREER PLANS

This chapter treats two interrelated topics -- educational and career plans. The first examines actual school performance, sources of financial support, chosen or intended field of study and identification of education influencers. The second topic -- career plans -- looks at students' choices of career fields, salary expectations, importance of selected job dimensions, perception of the Army as a satisfying career choice and reference group ratings of a military career.

### A. College Performance: Year and Grade Point Average

Freshmen make up the largest percent of the sample (42.8%) followed by Sophomores (34.9%) and the "other" category (22.3%) -- presumably this latter group of students is mostly Juniors and Seniors (See Table 17). There are slightly more non-ROTC Cadets in the "other" category and correspondingly fewer in the Sophomore group. This is consistent with the finding that non-ROTC Cadets are older, on average, than Cadets.

The mean college grade point average for all respondents is 79.87% which corresponds to a letter grade of C+. ROTC Cadets report slightly higher averages than non-ROTC Cadets. However, this difference is not statistically significant.

### B. College Major

Table 17 shows that the actual or intended major courses of study most popular among respondents are business (28.6%) and engineering (13.8%). A sizable group (16.5%) report a major not listed among the choices, and 5.8% report they do not know their major as of yet. Although the choice patterns are similar for ROTC Cadets and non-ROTC Cadets, significantly more non-ROTC Cadets report majors in education and physical education than do ROTC Cadets.

TABLE 17

Year in School and College Major

| Year in School | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Freshman | 42.8 | 42.8 | 42.9 | N.A. |
| Sophomore | 34.9 | 36.9 | 31.5 | |
| Other | 22.3 | 20.3 | 25.6 | |
| **Actual/Intended Major** | | | | |
| Business | 28.6 | 28.2 | 29.4 | $x^2(1)$=NS |
| Engineering | 13.8 | 14.3 | 12.9 | $x^2(1)$=NS |
| Social Science | 6.9 | 8.0 | 5.2 | $x^2(1)$=NS |
| Biological Science | 5.9 | 5.8 | 6.1 | $x^2(1)$=NS |
| Education | 5.0 | 3.6 | 7.3 | $x^2(1)=7.27$** |
| Physical Science | 4.0 | 3.6 | 4.5 | $x^2(1)$=NS |
| Agriculture & Forestry | 3.8 | 3.9 | 3.5 | $x^2(1)$=NS |
| Fine Arts | 2.6 | 2.9 | 2.1 | $x^2(1)$=NS |
| Physical Education | 2.4 | 1.6 | 3.8 | $x^2(1)=5.15$* |
| Nursing | 2.1 | 2.0 | 2.1 | $x^2(1)$=NS |
| Mathematics | 1.0 | 1.0 | 0.9 | $x^2(1)$=NS |
| English & Literature | 0.8 | 0.7 | 0.9 | $x^2(1)$=NS |
| Foreign Language | 0.7 | 0.9 | 0.5 | $x^2(1)$=NS |
| Other | 16.5 | 17.8 | 14.4 | $x^2(1)$=NS |
| Don't know | 5.8 | 5.4 | 6.4 | $x^2(1)$=NS |

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

C. Sources of Financial Support

Students report multiple sources of financial support for their education -- the major source of financing coming from the respondent's own family (See Table 18). Six out of ten report their family as a source of finance for college. Five out of ten respondents report working to finance their own schooling, followed by three in ten who report scholarships, and one in ten who receive an ROTC scholarship.

Although Cadets and non-Cadets report similar patterns of financing, significantly more ROTC Cadets report the family and ROTC scholarships as sources of funds for college. Non-ROTC Cadets report "other" scholarships as a financial aid significantly more often than ROTC Cadets.

D. Educational and Career Plans Influencers

Using a five-point scale to report the role various authority figures play in guiding educational and career choices, respondents assert their mother or female guardian is the person with the greatest amount of influence (See Table 19). The next largest role is attributable to the father or male guardian. The least influential in educational and career planning are counselors and other relatives.

This pattern of influence is similar for both Cadets and non-ROTC Cadets, with the exception that ROTC Cadets rate the role of those in the career as much more influential than do non-ROTC Cadets ($t=4.267$, $df=1108$, $p<.001$).

E. High School Performance: Grade Point Average and Extracurricular Activities

The mean high school grade point average for all respondents is 84.27% or a letter grade equivalent of a B. There are no significant differences between ROTC Cadets and non-ROTC Cadets. Not surprisingly, this mean average is approximately one-half grade level above the mean college grade point average for all respondents.

TABLE 18

Sources of College Financing

| Sources of Finance for College | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Family | 64.6 | 66.9 | 61.0 | $x^2(1)=3.96$* |
| Work | 53.8 | 54.3 | 53.1 | $x^2(1)$=NS |
| Scholarship (Other) | 33.8 | 27.3 | 44.2 | $x^2(1)=33.10$*** |
| Scholarship (ROTC) | 9.4 | 14.6 | 1.0 | $x^2(1)=56.19$*** |

* $p<.05$
** $p<.01$
*** $p<.001$

TABLE 19

Ratings of Influencers on Educational and Career Plans

| | Total | ROTC Cadet | Non-ROTC Cadet | Test of Significance |
|---|---|---|---|---|
| | $\bar{X}$[1] | $\bar{X}$ | $\bar{X}$ | |
| Mean Rating of Persons on Educational & Career Plans | | | | |
| Mother/female guardian | 3.69 | 3.72 | 3.66 | t(1,107)=NS |
| Father/male guardian | 3.50 | 3.52 | 3.45 | t(1,108)=NS |
| Information from those in the career | 2.77 | 2.90 | 2.57 | t(1,108)=4.267*** |
| Teachers | 2.70 | 2.73 | 2.66 | t(1,109)=NS |
| Friends | 2.58 | 2.57 | 2.60 | t(1,109)=NS |
| Other relatives | 2.49 | 2.50 | 2.48 | t(1,108)=NS |
| Counselors | 2.27 | 2.31 | 2.20 | t(1,108)=NS |

[1](1 = Very small role, 5 = Very large role)
*** p<.001

Most students report some form of extracurricular activities in high school. Seven out of ten respondents report participation in more than one high school extracurricular activity, with another two in ten reporting participation in at least one activity (See Table 20).

Although both Cadets and non-ROTC Cadets are active, a significantly higher percentage of ROTC Cadets report participating in one or more high school activity ($X^2$= 30.88, df=2, p<.001).

## F. Salary Expectations and Career Choice

Overall, respondents expect a mean salary of $36,010 ten years after college (See Table 21). ROTC Cadets expect significantly higher salaries than non-ROTC Cadets ($37,030 and $34,330, respectively). The salary expectations for all respondents appear consistent with their career cluster choices. Business administration is the most frequent first career choice for all respondents. This is followed by a career choice as a military officer for ROTC Cadets and a career choice in engineering/physical sciences/math/architecture for non-ROTC Cadets. For all respondents, the least popular career choices are construction trades/general labor, community and public service, housewife, and mechanics/industrial trades.

As shown in Table 22, when the first three career field choices are combined, business administration is still the most frequently mentioned career for all respondents. This is followed by military officer, engineering/physical sciences/math/architecture and humanities/law/social and behavioral sciences. Non-ROTC Cadets differ from Cadets in that they are more likely to include general teaching among their preferred career areas and do not mention a position as a Military Officer among their top choices.

Both the first, and the combined first, second, and third career choices point to areas considered to be professional careers, such as business administration, law, medicine and engineering. As such, student salary expectations are in line with their career intentions.

TABLE 20

High School Performance

| | Total | ROTC Cadet | Non-ROTC Cadet | Test of Significance |
|---|---|---|---|---|
| Mean Grade in High School | 84.27 | 84.26 | 84.29 | t(1107) = NS |
| High School Extra-curricular Activities | % | % | % | |
| Yes (more than one activity) | 72.6 | 78.4 | 63.2 | |
| Yes (in one activity) | 17.3 | 13.3 | 23.8 | |
| No | 10.1 | 8.3 | 13.0 | $x^2(2)=30.88$*** |

***p<.001

TABLE 21

Salary Expectations and Career Choices

| | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Mean Expected Salary 10 Years After College | 36,010 | 37,030 | 34,380 | $t(1102) = 3.825^{***}$ |
| (Categorical Mean)[1] | 8.82 | 7.03 | 6.47 | $t(1102) = 3.784^{***}$ |
| Careers Being Considered (First Choice) | | | | |
| Business administration | 22.3 | 20.1 | 25.9 | $X^2(1) = 4.94^{*}$ |
| Engineering/phys. science/ math/architecture | 17.5 | 16.3 | 19.5 | $X^2(1) =$ NS |
| Military offices | 12.4 | 18.1 | 3.3 | $X^2(1) = 52.01^{***}$ |
| Medical and biological sciences | 12.1 | 10.3 | 15.0 | $X^2(1) = 5.34^{*}$ |
| Humanities/law/social & behavioral sciences | 10.2 | 10.7 | 9.3 | $X^2(1) =$ NS |
| General teaching/ social services | 6.8 | 4.3 | 10.9 | $X^2(1) = 18.18^{***}$ |
| Fine/performing arts | 2.8 | 3.2 | 2.1 | $X^2(1) =$ NS |
| Technical jobs | 2.5 | 2.6 | 2.4 | $X^2(1) =$ NS |
| Proprietors/sales | 2.3 | 2.6 | 1.7 | $X^2(1) =$ NS |
| Secretarial/office workers | 1.6 | 1.9 | 1.2 | $X^2(1) =$ NS |
| Construction trades | 0.8 | 0.9 | 0.7 | $X^2(1) =$ NS |
| General labor/comm. & public service | 0.8 | 0.7 | 1.0 | $X^2(1) =$ NS |
| Housewife | 0.8 | 0.6 | 1.2 | $X^2(1) =$ NS |
| Mechanics/industrial trades | 0.6 | 0.6 | 0.7 | $X^2(1) =$ NS |
| Other | 6.3 | 6.9 | 5.2 | $X^2(1) =$ NS |

[1](6 = $30,000 to $34,999 per year, 7 = $35,000 to $39,999 per year)

* $p<.05$

** $p<.01$

*** $p<.001$

TABLE 22

Career Choice Clusters

| Career Being Considered (First, Second or Third Choice) | Total % | ROTC Cadet % | Non-ROTC Cadet % | Test of Significance |
|---|---|---|---|---|
| Business administration | 48.5 | 51.0 | 44.5 | $X^2(1) = 4.51^*$ |
| Military offices | 31.5 | 43.4 | 12.5 | $X^2(1) = 116.04^{***}$ |
| Engineering/phys. science/ math/architecture | 30.0 | 29.3 | 31.1 | $X^2(1) =$ NS |
| Humanities/law/social & behavioral sciences | 27.3 | 28.9 | 24.7 | $X^2(1) =$ NS |
| General teaching/ social services | 22.6 | 17.7 | 30.4 | $X^2(1) = 23.82^{***}$ |
| Medical and biological sciences | 21.2 | 20.1 | 23.1 | $X^2(1) =$ NS |
| Technical jobs | 16.9 | 16.6 | 17.4 | $X^2(1) =$ NS |
| Proprietors/sales | 15.1 | 14.4 | 16.2 | $X^2(1) =$ NS |
| Housewife | 10.6 | 7.3 | 15.8 | $X^2(1) = 9.31^{**}$ |
| Secretarial/office workers | 9.9 | 7.8 | 13.4 | $X^2(1) =$ NS |
| Construction trades | 8.8 | 8.4 | 9.4 | $X^2(1) =$ NS |
| General labor/comm. & public service | 8.1 | 8.4 | 7.8 | $X^2(1) =$ NS |
| Fine/performing arts | 7.9 | 8.4 | 7.1 | $X^2(1) =$ NS |
| Mechanics/industrial trades | 7.9 | 8.1 | 7.5 | $X^2(1) =$ NS |
| Other | 19.0 | 18.2 | 20.2 | $X^2(1) =$ NS |

* $p<.05$
** $p<.01$
*** $p<.001$

Careers typically defined as feminine (i.e., secretarial/office worker, housewife) and careers in the skilled trades field (i.e., construction/industrial/general labor)generated the least amount of interest. The low interest in the typically feminine areas (and, hence, lower salary areas) could be reflective of the greater proportion of males to females in the survey. The low interest in the skilled trades areas may be indicative of the currently depressed economic market.

The ROTC Cadets' higher salary expectations may be tied into their views of ROTC and an Army career as a secure position which provides the opportunity for advancement and leadership. On the other hand, it may be that they believe the experience they gain in ROTC and the Army (in addition to their college degree) will contribute to an increased marketability of their skills, should they enter the civilian job market ten years after college.

## G. Personal Importance Ratings of Job Dimensions

When asked to rate the personal importance of selected job factors or dimensions, ROTC Cadets and non-ROTC Cadets gave very similar responses (See Table 23), although ROTC Cadets evince slightly higher personal importance ratings to all dimensions than do non-Cadets. For all respondents, the most important job dimensions based on high mean ratings are:

- Opportunity to advance within the organization (4.55)
- Interesting/challenging work (4.48)
- Job security (4.44)
- Self-improvement and development (4.44)
- Contentment of spouse and family with job (4.41)

The composite picture of a highly satisfying job for college students is one where both personal and professional growth are possible, preferably a secure and challenging position provided within the same organization.

TABLE 23

Importance of Job Dimension

| Mean Importance Ratings of Job Dimension | Total | ROTC Cadet | Non-ROTC Cadet | Test of Significance |
|---|---|---|---|---|
| | $\bar{X}$[1] | $\bar{X}$ | $\bar{X}$ | |
| Opportunity to advance within the organization | 4.55 | 4.60 | 4.46 | t(1053) = 2.575* |
| Interesting/challenging work | 4.48 | 4.52 | 4.40 | t(1059) = 2.277* |
| Job security | 4.44 | 4.46 | 4.42 | t(1063) = NS |
| Opportunities for continued self-improvement and development | 4.44 | 4.43 | 4.46 | t(1062) = NS |
| Contentment of spouse and family with job | 4.41 | 4.39 | 4.43 | t(1056) = NS |
| Amount of personal freedom in expression of opinions on and off the job | 4.36 | 4.34 | 4.41 | t(1064) = NS |
| Opportunity to work with interesting people | 4.34 | 4.35 | 4.32 | t(1065) = NS |
| Quality of supervisor(s) | 4.31 | 4.34 | 4.26 | t(1061) = NS |
| Importance of one's work to the organization | 4.28 | 4.30 | 4.24 | t(1059) = NS |
| Use of previously developed skills in a specialized field | 4.28 | 4.28 | 4.27 | t(1063) = NS |
| Amount of personal responsibility | 4.27 | 4.30 | 4.23 | t(1065) = NS |
| Salary | 4.26 | 4.24 | 4.27 | t(1022) = NS |
| Feedback about how well one is doing on the job | 4.25 | 4.27 | 4.22 | t(1060) = NS |
| Opportunity to help others | 4.21 | 4.22 | 4.18 | t(1063) = NS |
| Opportunity for stable home life and involvement in the community | 4.21 | 4.21 | 4.20 | t(1064) = NS |
| Opportunity to make a lasting contribution to society | 4.05 | 4.06 | 4.04 | t(1064) = NS |
| Chance to be a leader | 4.05 | 4.17 | 3.86 | t(1064) = 4.677*** |
| Chance for adventure and a variety of duties | 4.02 | 4.06 | 3.96 | t(1064) = NS |
| Amount of prestige associated with job | 3.99 | 4.06 | 3.89 | t(1064) = 2.630** |
| Geographic desirability of job location | 3.93 | 3.96 | 3.87 | t(1063) = NS |
| Opportunity to obtain additional formal schooling | 3.85 | 3.87 | 3.81 | t(1064) = NS |

[1](1 = Not important at all, 5 = Very important)

* p<.05
** p<.01
*** p<.001

ROTC Cadets report significantly higher mean ratings than non-Cadets to the following job attributes:

- The chance to be a leader (4.17 versus 3.86)
- The amount of prestige associated with a job (4.06 versus 3.89)
- The opportunity to advance within the organization (4.60 versus 4.46)
- Interesting/challenging work (4.52 versus 4.40)

The least important job dimension for ROTC Cadets and non-ROTC Cadets alike is the opportunity to obtain additional schooling (3.87 and 3.81, respectively). ROTC Cadets rate the geographic desirability of a job location as the next least important job dimension (3.96), while non-ROTC Cadets report their second least important job dimension as the chance to be a leader (3.86).

It appears to be personally more important to ROTC Cadets than to non-Cadets to have a job that is challenging and prestigious with leadership and advancement opportunities. This may explain the attraction of ROTC Cadets to the Army and the ROTC program.

## H. Army Potential Satisfaction Ratings of Job Dimensions

After rating the importance of selected job dimensions, students were asked to assess each factor in terms of its potential for satisfaction in the Army. As shown in Table 24, the job dimensions with the highest mean Army satisfaction ratings for all respondents are:

- Job security (4.39)
- Opportunity to advance within the organization (4.27)
- Chance to be a leader (4.23)

In general, the mean Army satisfaction ratings of the 21 job dimensions for ROTC Cadets are higher than those for

TABLE 24

Army Job Satisfaction Ratings

| Mean Satisfaction Ratings of Job Dimension by Army | Total | ROTC Cadet | Non-ROTC Cadet | Test of Significance |
|---|---|---|---|---|
| | $\bar{X}$[1] | $\bar{X}$ | $\bar{X}$ | |
| Job security | 4.39 | 4.44 | 4.30 | t(1074) = 2.294* |
| Opportunity to advance within the organization | 4.27 | 4.38 | 4.09 | t(1067) = 4.215*** |
| Chance to be a leader | 4.23 | 4.39 | 3.96 | t(1073) = 6.221*** |
| Chance for adventure and a variety of duties | 4.19 | 4.31 | 3.99 | t(1073) = 4.651*** |
| Opportunities for continued self-improvement and development | 4.13 | 4.21 | 4.00 | t(1072) = 3.077** |
| Amount of personal responsibility | 4.12 | 4.21 | 3.99 | t(1076) = 3.390*** |
| Interesting, challenging work | 4.07 | 4.16 | 3.93 | t(1070) = 3.252** |
| Feedback about how well one is doing on the job | 4.02 | 4.07 | 3.93 | t(1072) = 2.003* |
| Opportunity to work with interesting people | 4.02 | 4.08 | 3.92 | t(1076) = 2.336* |
| Opportunity to help others | 3.99 | 4.06 | 3.86 | t(1073) = 2.919** |
| Importance of one's work to the organization | 3.98 | 4.02 | 3.90 | t(1073) = NS |
| Use of previously developed skills in a specialized field | 3.94 | 3.96 | 3.90 | t(1073) = NS |
| Quality of supervisor(s) | 3.89 | 3.96 | 3.78 | t(1070) = 2.386* |
| Opportunity to obtain additional formal schooling | 3.87 | 3.96 | 3.72 | t(1074) = 3.315*** |
| Amount of prestige associated with the job | 3.83 | 3.92 | 3.68 | t(1077) = 3.406*** |
| Opportunity to make a lasting contribution to society | 3.80 | 3.83 | 3.74 | t(1077) = NS |
| Contentment of spouse and family with job | 3.67 | 3.71 | 3.61 | t(1070) = NS |
| Salary | 3.55 | 3.59 | 3.47 | t(1048) = NS |
| Geographic desirability of job location | 3.45 | 3.50 | 3.38 | t(1073) = NS |
| Amount of personal freedom in expression of opinions on and off the job | 3.44 | 3.44 | 3.45 | t(1073) = NS |
| Opportunity for a stable home life and involvement in community | 3.42 | 3.45 | 3.36 | t(1072) = NS |

[1](1 = Very unsatisfied, 5 = Very satisfied)

* p<.05
** p<.01
*** p<.001

non-ROTC Cadets. Of these, 13 dimensions reached statistical significance.

ROTC Cadets report job security (4.44), the chance to be a leader (4.39), and the opportunity to advance within the organization (4.38) as the job dimensions with the highest potential for satisfaction by a career as an Army Officer. Non-ROTC Cadets also see job security (4.30) as a very satisfying dimension of an Army Officer career. In addition, they report the opportunity to advance within the organization (4.09) and the opportunity for continued self-improvement and development (4.00) to also have a high potential for satisfaction.

The job dimensions rated as having the least potential for satisfaction by a career as an Army Officer are the same for all respondents. ROTC Cadets rate the amount of personal freedom in expression of opinions on and off the job as the least satisfiable dimension (3.44), followed by the opportunity for a stable home life and involvement in the community (3.45), and the geographic desirability of the job location (3.50). Non-ROTC Cadets rate the opportunity for a stable home life and involvement in the community (3.36) as the least satisfiable job dimension, followed by the geographic desirability of the job location (3.38), and the amount of personal freedom in expression of opinions on and off the job (3.45). These results suggest both ROTC Cadets and non-ROTC Cadets have fairly realistic expectations regarding the limitations of an Army career.

It is of interest to note that for Cadets, the Army is perceived to provide satisfaction in many key areas. The highly important job factors of advancement, security and development are areas where the ROTC Cadets expect a career in the Army to provide the greatest satisfaction.

## I. Ratings of a Military Career by Students' Reference Group

ROTC Cadets consistently report higher ratings for an Army Officer career by parents and friends than do non-ROTC Cadets. Cadets ascribe an Army Officer's career mean rating of 3.84 to their parents or guardians, while non-Cadets report a 3.41 mean rating. Although they believe their friends would assign a lower status rating

than their parents to an Army career, Cadets think that rating would be 3.25, which is significantly higher than the 3.04 reported by non-Cadets (See Table 25).

TABLE 25

Reference Group Ratings of Career as Army Officer

| | Total | ROTC Cadet | Non-ROTC Cadet | Test of Significance |
|---|---|---|---|---|
| | $\bar{X}$[1] | $\bar{X}$ | $\bar{X}$ | |
| Mean Rating of an Army Officer Career by Parents/Guardians | 3.67 | 3.84 | 3.41 | t(1116) = 6.715*** |
| Mean Rating of an Army Officer Career by Friends | 3.17 | 3.25 | 3.04 | t(1116) = 3.465*** |

[1](1 = They would attribute very low status to it, 5 = They would attribute very high status to it)

***p<.001

## VI. ROTC CADETS: ROTC INVOLVEMENT AND ARMY CAREER COMMITMENT

This chapter presents Cadets' responses to questions concerning factors affecting their involvement with ROTC and their Army career commitment. The following chapter treats issues unique to non-Cadets.

Factors affecting involvement with ROTC are explored through specific questions on when the decision to join college ROTC was first made, what the most important influences on joining ROTC were, what the most important influences on transitioning to the Advanced Course were, and what Cadets' reactions are to several service obligation options following graduation. ROTC Cadets were also asked to state their intentions of continuing in the ROTC program, to describe how removal of subsistence allowance would affect their intentions, and to indicate their hopes for an ROTC scholarship. Finally, those ROTC Cadets who hold ROTC scholarships were asked if they would have joined ROTC if they had not received the scholarship and if they intend to stay in ROTC without one.

Career commitment issues are probed in a series of questions beginning with the type of Army service being planned, willingness to join the Army without contractual obligation, intended years of service and plans for an Army career.

In reviewing these results, the reader is reminded that, as a group, the Cadets are predominantly male (500 men versus 186 women) and white (471 white as compared to 126 black and 66 Hispanic respondents).

### A. Time of Decision to Join College ROTC

Table 26 indicates that the freshman and sophomore years of college are the times when most ROTC Cadets report making the decision to join the ROTC program (40.1% and 28.2%, respectively). The third most frequently mentioned decision point is during the high school years (18.6%). These are followed by the summer before entering college (11.4%) and the grade school years (1.8%).

TABLE 26

ROTC Cadets: Decision to Join College ROTC

| Time of Decision to Join College ROTC | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| | | | | $X^2(4)=18.32^{**}$ | | | | $X^2(8)=46.13^{***}$ |
| Freshman year in college | 40.1 | 38.0 | 46.3 | | 67.3 | 32.9 | 43.9 | |
| Sophomore year in college | 28.2 | 25.7 | 35.4 | | 11.2 | 32.7 | 26.3 | |
| High school | 18.6 | 22.2 | 8.2 | | 9.2 | 20.1 | 22.8 | |
| Summer before entering college | 11.4 | 12.3 | 8.8 | | 9.2 | 12.8 | 5.3 | |
| Grade school | 1.8 | 1.9 | 1.4 | | 3.1 | 1.5 | 1.8 | |

**p<.01
***p<.001

There are significant sex differences ($X^2$=18.32, df=4, p<.01) -- males appear to make the decision at an earlier point in time than females. However, the largest percentage still report the freshman year as the decision point. Over 80% of the females decided to join college ROTC after their arrival on campus.

Ethnic differences are also significant ($X^2$=46.13, df=8, p<.001). Freshman year is the most popular time for blacks to decide to join ROTC; fully two-thirds reach their decision in this year. Whites are equally divided between their freshman (32.9%) and sophomore (32.7%) years. The freshman year is also the period for decision for Hispanics -- 43.9% say they made their decision about ROTC then. One in five Hispanics reached this decision in high school and one in four mentioned their sophomore year of college.

B. Influence on Decision to Join ROTC

The three most influential factors in a respondent's decision to join ROTC are family, friends and personal beliefs and interests (See Table 27). This is true whether the results are examined in terms of the single most influential source or the top three influencers taken together. The least influential factors on the decision to join are media advertisements, ROTC unit requirements and service obligations.

C. Influences on Decision to Enroll in Advanced Course

The most influential factors in a Cadet's decision to enroll in the Advanced Course are similar to those affecting the choice to join the program. The factors are family (27.3%), personal beliefs and interests (20.5%), and career goals (15.6%). When the three most influential factors are considered as a group, career goals becomes even more important (See Table 28).

The least influential decision factors are media advertisements about ROTC (0.5%), military personnel (0.9%), teachers/counselors (1.2%) and program requirements (1.4%). It should be noted that advertising is given a consistent low rating regardless of whether it is

TABLE 27

ROTC Cadets: Influences on Decision to Join ROTC

| Influence on Decision to Join ROTC | Most Influential Factor % | First, Second and Third Most Influential Factor % |
|---|---|---|
| Family | 20.8 | 37.9 |
| Friends | 19.1 | 37.6 |
| Personal beliefs and interests | 13.9 | 32.9 |
| Career goals | 7.6 | 32.4 |
| Military lifestyle | 4.4 | 22.0 |
| Educational goals | 7.1 | 23.8 |
| ROTC instructors | 8.2 | 27.4 |
| ROTC recruiters | 7.6 | 20.2 |
| General economic conditions/job market | 3.2 | 16.7 |
| Teachers/counselors | 2.3 | 12.0 |
| Other military personnel | 2.4 | 12.3 |
| ROTC obligated service | 1.2 | 5.5 |
| ROTC unit requirements | 1.1 | 3.6 |
| Media advertisements about ROTC | 1.2 | 6.4 |

examined in the context of the single or among the three most influential factors.

Males and females indicate similar patterns of influence on their decision to transition to the Advanced Course. However, when the three most influential factors are examined, there are five areas in which significant sex differences are noted (See Table 28). Males report a military life-style and general economic conditions/job market as more influential decision factors than females. On the other hand, females report friends, ROTC instructors, and family as more influential in their Advanced Course decision than males.

Hispanic ROTC cadets are more influenced by the military life-style and the general economic conditions/job market than black or white ROTC Cadets. Black ROTC Cadets are more influenced by ROTC instructors than are Hispanics or whites.

D. Intent to Continue ROTC in Subsequent Years

Table 29 shows that 43.4% of ROTC Cadets report they will continue in ROTC through the Advanced Course. An additional 28.6% report they will continue for at least one more year, and 27.9% report they will not sign up next year.

Males and females show significantly different responses to this question ($X^2=10.30$, df=2, $p<.01$). Females are equally divided in their intent to drop out, to continue for one more year and to transition to the Advanced Course. On the other hand, nearly half (47.3%) of the males will go on to the Advanced Course and the remainder are evenly split between one more year or not at all.

Ethnic differences are also significant ($X^2=20.07$, df=4, $p<.001$). A large percentage of Hispanics and blacks (62.1% and 50.5%, respectively) report they will go on to the Advanced Course. Relatively more whites report the intention of not signing up next year (32.7%) rather than Hispanics (19.0%) and blacks (16.2%).

TABLE 28

ROTC Cadets: Influences on Decision to Enroll in Advanced Course

| Influences on Advanced Course Decision (Most Influential) | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Family | 27.3 | 27.1 | 27.8 | $X^2(1) = NS$ | 33.3 | 24.9 | 26.8 | $X^2(2) = NS$ |
| Personal beliefs and interests | 20.5 | 21.9 | 16.7 | $X^2(1) = NS$ | 16.7 | 20.1 | 25.0 | |
| Career goals | 15.6 | 15.2 | 16.7 | $X^2(1) = NS$ | 10.4 | 16.5 | 17.9 | $X^2(2) = NS$ |
| Friends | 9.2 | 7.8 | 13.2 | $X^2(1) = NS$ | 10.4 | 9.9 | 5.4 | $X^2(2) = NS$ |
| Educational goals | 5.1 | 5.0 | 5.6 | $X^2(1) = NS$ | 6.3 | 5.3 | 3.6 | $X^2(2) = NS$ |
| ROTC instructors | 4.2 | 4.3 | 4.2 | $X^2(1) = NS$ | 6.3 | 3.6 | 7.1 | $X^2(2) = NS$ |
| Military lifestyle | 3.7 | 4.0 | 2.8 | $X^2(1) = NS$ | 3.1 | 4.6 | - | $X^2(2) = NS$ |
| General economic conditions/job market | 3.4 | 3.6 | 2.8 | $X^2(1) = NS$ | 2.1 | 4.1 | 1.8 | $X^2(2) = NS$ |
| ROTC obligated service | 2.8 | 3.3 | 1.4 | $X^2(1) = NS$ | 4.2 | 2.8 | 1.8 | $X^2(2) = NS$ |
| ROTC recruiters | 2.5 | 1.9 | 4.2 | $X^2(1) = NS$ | 3.1 | 2.0 | 5.4 | $X^2(2) = NS$ |
| ROTC program environment (social climate, morale) | 1.6 | 1.2 | 2.8 | $X^2(1) = NS$ | 1.0 | 1.8 | 1.8 | $X^2(2) = NS$ |
| ROTC unit requirements | 1.4 | 1.2 | 2.1 | $X^2(1) = NS$ | 1.0 | 1.5 | 1.8 | $X^2(2) = NS$ |
| Teachers/counselors | 1.2 | 1.7 | - | $X^2(1) = NS$ | 2.1 | 1.3 | - | $X^2(2) = NS$ |
| Other military personnel | 0.9 | 1.2 | - | $X^2(1) = NS$ | - | 1.0 | 1.8 | $X^2(2) = NS$ |
| Media advertisements about ROTC | 0.5 | 0.7 | - | $X^2(1) = NS$ | - | 0.8 | - | $X^2(2) = NS$ |

TABLE 28
(Continued)

| Influences on Advanced Course Decision (First, Second, or Third Most Influential) | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Family | 53.7 | 51.2 | 61.1 | $X^2(1) = 4.25^*$ | 61.5 | 50.5 | 56.5 | $X^2(2) = NS$ |
| Career goals | 45.8 | 46.9 | 42.4 | $X^2(1) = NS$ | 45.8 | 45.9 | 42.1 | $X^2(2) = NS$ |
| Personal beliefs and interests | 37.3 | 39.3 | 31.3 | $X^2(1) = NS$ | 29.2 | 38.1 | 40.4 | $X^2(2) = NS$ |
| Friends | 34.5 | 31.8 | 42.4 | $X^2(1) = 5.35^*$ | 37.5 | 33.8 | 31.6 | $X^2(2) = NS$ |
| Educational goals | 22.6 | 21.3 | 26.4 | $X^2(1) = NS$ | 22.9 | 24.6 | 10.5 | $X^2(2) = NS$ |
| Military lifestyle | 20.7 | 22.7 | 14.6 | $X^2(1) = 4.37^*$ | 10.4 | 22.8 | 24.6 | $X^2(2) = 7.76^*$ |
| ROTC instructors | 18.9 | 16.8 | 25.0 | $X^2(1) = 4.68^*$ | 28.1 | 16.8 | 21.1 | $X^2(2) = 6.58^*$ |
| General economic conditions/job market | 13.3 | 14.9 | 8.3 | $X^2(1) = 4.06^*$ | 5.2 | 15.0 | 17.5 | $X^2(2) = 7.17^*$ |
| ROTC recruiters | 9.7 | 9.5 | 10.4 | $X^2(1) = NS$ | 13.5 | 8.4 | 12.3 | $X^2(2) = NS$ |
| ROTC obligated service | 8.8 | 9.0 | 8.3 | $X^2(1) = NS$ | 8.3 | 9.9 | 5.3 | $X^2(2) = NS$ |
| Teachers/counselors | 8.7 | 9.2 | 6.9 | $X^2(1) = NS$ | 11.5 | 7.9 | 10.5 | $X^2(2) = NS$ |
| ROTC program environment (social climate, morale) | 6.7 | 6.2 | 8.3 | $X^2(1)=NS$ | 7.3 | 7.1 | 3.5 | $X^2(2) = NS$ |
| Other military personnel | 6.2 | 6.2 | 6.3 | $X^2(1)=NS$ | 2.1 | 6.6 | 10.5 | $X^2(2) = NS$ |
| ROTC unit requirements | 4.9 | 4.5 | 6.3 | $X^2(1)=NS$ | 7.3 | 4.3 | 5.3 | $X^2(2) = NS$ |
| Media advertisements about ROTC | 1.8 | 2.1 | 0.7 | $X^2(1)=NS$ | 2.1 | 2.0 | - | $X^2(2) = NS$ |

TABLE 29

ROTC Cadets: Intent to Continue in ROTC

| Intent to Continue ROTC in Subsequent Years | Total % | Sex | | Significance (Sex) | Ethnicity | | | Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Yes, I will continue through the advanced course | 43.4 | 47.3 | 32.2 | $x^2(2) = 10.30$** | 50.5 | 38.9 | 62.1 | $x^2(4)=20.07$*** |
| Yes, I will continue for at least one more year | 28.6 | 26.7 | 34.2 | | 33.3 | 28.5 | 19.0 | |
| No, I will not sign up next year | 27.9 | 26.0 | 33.6 | | 16.2 | 32.7 | 19.0 | |

**p<.01
***p<.001

## E. Four Options and Their Effect on Enrollment into the Advanced Course

When offered four different service options, six out of ten ROTC Cadets report that their decision to enroll in the Advanced Course would not be affected by any of the options. If offered a two-year service obligation instead of three years or a guarantee of service in the Army Reserve/National Guard, 34.1% and 31.0% of the respective ROTC Cadets report an increased likelihood of enrolling into the Advanced Course. The option which yielded the largest percentage of ROTC Cadets (18.0%) decreasing their likelihood of enrolling in the Advanced Course is if an ROTC scholarship were given which would extend obligated service by a year.

### 1. Guaranteed Army Reserve/National Guard service obligations

Table 30 shows that the option of a guarantee to serve in the Army Reserve/National Guard would increase the likelihood of enrolling in the Advanced Course for three out of ten ROTC cadets. This option decreases the likelihood of entering the Advanced Course for one in ten ROTC cadets and has no impact on the remainder (six out of ten ROTC cadets).

There are no response differences between males and females or blacks, whites, and Hispanics for this option.

### 2. Two- versus three-year service obligation

This option has the highest percentage (34.1%) of ROTC Cadets who report an increased likelihood of Advanced Course enrollment (See Table 30). However, 59.0% of the Cadets would not be affected by the two- instead of three-year obligated tour and a scant 6.9% would decrease their likelihood of advancing to MSIII and IV. There are no significant sex or ethnic differences for this option.

TABLE 30

ROTC Cadets: Impact of Services Options on Enrollment in Advanced Course

| Impact of Guaranteed Service in Army Reserve/National Guard on Enrollment in Advanced Course | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Would increase the likelihood of my enrolling in the advanced course | 31.0 | 31.7 | 28.9 | $X^2(2) = NS$ | 34.3 | 31.1 | 27.6 | $X^2(4) = N$ |
| Would not affect my decision | 59.6 | 59.8 | 59.1 | | 55.6 | 60.0 | 58.6 | |
| Would decrease the likelihood of my enrolling in the advanced course | 9.4 | 8.5 | 12.1 | | 10.1 | 8.8 | 13.8 | |

| Impact of Two Year Obligated Service Instead of Three Years on Enrollment in Advanced Course | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Would increase the likelihood of enrolling in the advanced course | 34.1 | 32.7 | 38.3 | $X^2(2) = NS$ | 34.3 | 34.1 | 28.1 | $X^2(4) = NS$ |
| Would not affect my decision | 59.0 | 60.8 | 53.7 | | 57.6 | 58.8 | 66.7 | |
| Would decrease the likelihood of my enrolling in the advanced course | 6.9 | 6.5 | 8.1 | | 8.1 | 7.1 | 5.3 | |

3. Scholarship coupled with extended tour

When offered an ROTC scholarship with an additional year of military service attached, 60.4% of ROTC Cadets report not being affected by this option enough to change their decision to enroll in the Advanced Course (See Table 31). Only 21.6% of ROTC Cadets would be more likely to enroll in the Advanced Course with the addition of this option, while 18.0% would be less likely to enroll.

Once again, there are no sex or ethnic differences for this option that reach significance.

4. Scholarship coupled with variable service obligation

This option offered students a variable obligation (rather than fixed) associated with scholarship. Thus, for every year the student held a scholarship, he or she would be obligated for six months of service, for a minimum obligation of two years and a maximum of four.

Table 31 indicates that 61.1% of ROTC Cadets say their decision to enroll in the Advanced Course would not be affected by this option. One-quarter (25.6%) of the ROTC Cadets report that this option would increase the likelihood of their enrollment in the Advanced Course, while 13.3% report being less likely to enroll.

There are no significant differences between males and females. However, ethnic differences are significant ($X^2=18.03$, $df=4$, $p<.01$). There are more blacks who report that this variable service option would decrease their likelihood of enrolling in the Advanced Course.

TABLE 31

ROTC Cadets: Impact of Service Options on Enrollment in Advanced Course

| Impact of ROTC Scholarship and Increased Military Service of One Year Enrollment in Advance Course | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Would increase the likelihood of my enrolling in the advanced course | 21.6 | 21.8 | 20.8 | $X^2(2) = NS$ | 20.2 | 21.6 | 25.9 | $X^2(4) = NS$ |
| Would not affect my decision | 60.4 | 60.2 | 61.1 | | 58.6 | 60.5 | 62.1 | |
| Would decrease the likelihood of my enrolling in the advanced course | 18.0 | 17.9 | 18.1 | | 21.2 | 17.9 | 12.1 | |

| Impact of Service Related Number of Years of ROTC Scholarship on Enrollment in Advanced Course | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Would increase the likelihood of my enrolling in the advanced course | 25.6 | 25.8 | 25.2 | $X^2(2) = NS$ | 25.5 | 26.6 | 19.0 | $X^2(4)=18.03$** |
| Would not affect my decision | 61.1 | 62.0 | 58.5 | | 50.0 | 63.8 | 63.8 | |
| Would decrease the likelihood of my enrolling in the advanced course | 13.3 | 12.2 | 16.3 | | 24.5 | 9.6 | 17.2 | |

** $p < .01$

F. Intention of Staying in ROTC without Subsistence Allowance

The importance of subsistence allowance and its impact on program involvement was also examined. ROTC Cadets attribute a mean rating of 3.06 (on a five-point scale) to their intention of staying in ROTC without a subsistence allowance during the final two years (See Table 32). This figure means that the ROTC Cadets are almost evenly divided into three categories: 36.3% would probably or definitely stay without the allowance, 33.7% do not know, and 29.9% would probably or definitely not stay without the allowance.

Differences between males and females on this question are not large enough to reach significance. However, ethnic differences are significant ($F(2,550)=6.812$, $p<.01$). Black ROTC Cadets report the highest mean intention rating of staying in ROTC without the allowance (3.41). They are followed by Hispanic (3.23) and white (2.93) ROTC Cadets. That is, blacks tilt slightly to staying with the program even without subsistence, while whites lean in the direction of withdrawing if there were no subsistence pay.

G. Hope of Receiving an ROTC Scholarship

Table 33 shows that 16.7% of the ROTC Cadets surveyed report they are already holding an ROTC scholarship. An additional 38.1% report hoping to receive an ROTC scholarship, while 45.2% have no hope of receiving an ROTC scholarship.

The differences between the sexes and between the ethnic background of ROTC Cadets are significant. More males report already possessing an ROTC scholarship and the hope of receiving one ($X^2=9.40$, $df=2$, $p<.01$). More ROTC Cadets whose ethnic background is white, already hold ROTC scholarships, followed by those of Hispanic origin. However, more black ROTC cadets report the hope of receiving an ROTC scholarship ($X^2= 20.04$, $df=4$, $p<.001$).

TABLE 32

ROTC Cadets: Continuing Program Without Subsistence

| Intention of Staying in ROTC Without Subsistence Allowance During the Last Two Years | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Definitely not | 14.5 | 14.1 | 15.9 | t(571)=NS | 8.2 | 16.3 | 17.5 | F(2,550)=6.812** |
| Probably not | 15.4 | 15.0 | 16.6 | | 11.2 | 16.8 | 7.0 | |
| Don't know | 33.7 | 32.6 | 37.2 | | 27.6 | 35.7 | 33.3 | |
| Probably | 22.7 | 23.4 | 20.7 | | 37.8 | 19.6 | 19.3 | |
| Definitely | 13.6 | 15.0 | 9.7 | | 15.3 | 11.6 | 22.8 | |
| Mean rating[1] | 3.06 | 3.10 | 2.92 | | 3.41 | 2.93 | 3.23 | |

[1](1 = Definitely not, 5 = Definitely)

**p<.01

TABLE 33

ROTC Cadets: Expectation of Scholarship

| Whether Hope to Get an ROTC Scholarship | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Yes | 38.1 | 39.4 | 34.3 | $X^2(2)=9.40$** | 54.6 | 32.5 | 43.9 | $X^2(4)=20.04$*** |
| No | 45.2 | 41.8 | 55.2 | | 38.1 | 47.8 | 42.1 | |
| I already have an ROTC scholarship. | 16.7 | 18.8 | 10.5 | | 7.2 | 19.7 | 14.0 | |

* p <.05
** p <.01
*** p <.001

## H. Impact of Financial Aid on Scholarship Holders

Table 34 presents the mean responses of ROTC Cadet scholarship holders to two questions about their intent to join and stay in ROTC without the scholarship. ROTC scholarship holders report a slightly positive response (a mean of 3.33 on a five-point scale) to the question of their joining ROTC if they had not received the scholarship. There are no significant differences between the mean ratings for males and females, while ethnic differences do show significant reactions ($F(2,85)=6.867$, $p<.01$). That is, black ROTC Cadets report a higher mean probability (4.83) of joining ROTC without the scholarship than Hispanic (4.38) or white (3.16) ROTC Cadets.

When asked about their intention of staying in ROTC without the scholarship, Cadets lean in the direction of staying (a rating of 3.31 on a five-point scale). Again, sex differences are not large enough to reach significance, while the ethnic differences are stronger ($F(2,85)=5.598$, $p<.01$). Once more, black ROTC Cadets show a higher mean score (4.83) of staying in ROTC without the scholarship than either Hispanic (3.88) or white (3.15) ROTC Cadets.

## I. Intention of Joining the Army after College without ROTC Contractual Obligation

Table 35 shows that ROTC Cadets are not likely to join the Army after college without having an ROTC contract (a mean rating of 2.83 on a five-point scale). In terms of percentages, the largest group of Cadets (39.4%) would probably or definitely not join up, while 31.1% state they would probably or definitely join. The remainder (29.7%) of the ROTC Cadets report not knowing what they would do.

The differences between male and female Cadets do not reach significance. Differences between black, Hispanic, and white Cadets are significant ($F(2,547)=4.341$, $p<.05$). Black and Hispanic ROTC Cadets attribute a higher mean intent to join the Army without a contract (3.10 and 3.00, respectively) than do white Cadets (2.73).

TABLE 34

ROTC Cadets: Impact of Scholarship on ROTC Intentions

| | Total | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male | Female | | Black | White | Hispanic | |
| | $\bar{X}$ | $\bar{X}$ | $\bar{X}$ | | $\bar{X}$ | $\bar{X}$ | $\bar{X}$ | |
| Mean Intention of Joining ROTC Without Scholarship[1] | 3.33 | 3.43 | 2.87 | t(89)=NS | 4.83 | 3.16 | 4.38 | F(2,85)=6.867** |
| Mean Intention of Staying in ROTC Without Scholarship[1] | 3.31 | 3.41 | 2.80 | t(89)=NS | 4.83 | 3.15 | 3.88 | F(2,85)=5.598** |

[1](1 = Definitely not, 5 = Definitely)

** $p < .01$

TABLE 35

ROTC Cadets: Intention to Join the Army

| Intention of Joining the Army After College Without ROTC Contractual Obligation | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Definitely not | 17.6 | 17.9 | 16.7 | t(568)=NS | 12.5 | 18.6 | 21.1 | F(2,547)=4.341* |
| Probably not | 21.8 | 20.5 | 25.7 | | 17.7 | 24.7 | 8.8 | |
| Don't know | 29.7 | 28.7 | 32.6 | | 27.1 | 29.5 | 33.3 | |
| Probably | 22.0 | 22.4 | 20.8 | | 32.3 | 19.9 | 22.8 | |
| Definitely | 9.0 | 10.6 | 4.2 | | 10.4 | 7.3 | 14.0 | |
| Mean rating[1] | 2.83 | 2.87 | 2.70 | | 3.10 | 2.73 | 3.00 | |

[1](1 = Definitely not, 5 = Definitely)
* p <.05

J. Type of Service Planned after College

A large percentage of ROTC Cadets (41.4%) report not knowing which type of Army service they are planning after college (See Table 36). The remainder are either leaning toward or definitely planning to serve in the Regular Army (33.5%), followed by Reserve Forces Duty (17.1%), and the Active Duty Reserves (8.1%).

Significantly more females than males are unsure as to the type of Army service they are planning ($X^2=9.44$, df=1, $p<.01$). Significantly more males than females will definitely serve in the Regular Army ($X^2=14.34$, df=1, $p<.001$).

The only significant ethnic difference is that more black ROTC Cadets report leaning toward duty in the Reserve Forces ($X^2=8.80$, df=2, $p<.05$).

K. Number of Years Intending to Serve in the Army

Cadets have not given much thought to their military service. When asked to forecast their intended length of stay in the Army, the majority of ROTC Cadets (approximately six in ten) report not knowing how long they will serve (See Table 37). Of those ROTC Cadets who respond with some idea of their intentions, 17.6% say they will serve only the minimum required under their contract, 13.0% say they will serve more than five years beyond contract, 5.3% report three to five years beyond contract, and 4.5% report one or two years beyond contract.

There are significant sex differences ($X^2=9.25$, df=4, $p<.05$). More females report the minimum obligation (24.5%), while more males report more than five years after contract obligation (14.8%). There are no significant ethnic differences in the ROTC Cadet responses to this question.

TABLE 36

ROTC Cadets: Type of Service Planned

| Type of Army Service Planned After College | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Regular Army definitely | 20.6 | 24.3 | 9.4 | $X^2(1)=14.34$*** | 16.5 | 19.9 | 32.1 | $X^2(2)$=NS |
| Leaning toward regular Army | 12.9 | 13.1 | 12.2 | $X^2(1)$=NS | 11.3 | 14.0 | 7.1 | $X^2(2)$=NS |
| Leaning toward reserve forces duty | 11.5 | 10.7 | 13.7 | $X^2(1)$=NS | 19.6 | 10.4 | 5.4 | $X^2(2)=8.80$* |
| Reserve forces duty definitely | 5.6 | 5.0 | 7.2 | $X^2(1)$=NS | 7.2 | 5.7 | 3.6 | $X^2(2)$=NS |
| Leaning toward active duty reserve | 4.3 | 4.8 | 2.9 | $X^2(1)$=NS | 6.2 | 3.4 | 5.4 | $X^2(2)$=NS |
| Active duty reserve definitely | 3.8 | 4.3 | 2.2 | $X^2(1)$=NS | 6.2 | 3.1 | 5.4 | $X^2(2)$=NS |
| Don't know | 41.4 | 37.7 | 52.5 | $X^2(1)=9.44$** | 33.0 | 43.5 | 41.1 | $X^2(2)$=NS |

* p <.05
** p <.01
*** p <.001

TABLE 37

ROTC Cadets: Intended Years of Military Service

| Number of Years Intending to Serve in the Army | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| The minimum obligation that accompanies my contract | 17.6 | 15.3 | 24.5 | $X^2(4)=9.75$* | 12.6 | 19.0 | 12.3 | $X^2(8)$=NS |
| A year or two beyond my contract | 4.5 | 4.5 | 4.2 | | 6.3 | 3.6 | 7.0 | |
| Three to five years beyond my contract | 5.3 | 5.7 | 4.2 | | 9.5 | 4.4 | 7.0 | |
| More than five years beyond my contract | 13.0 | 14.8 | 7.7 | | 14.7 | 12.8 | 10.5 | |
| Don't know at this time | 59.5 | 59.6 | 59.4 | | 56.8 | 60.3 | 63.2 | |

* $p < .01$

## L. Intent to Make a Career in the Army

In keeping with their lack of clarity about their choice of service and tenure with the Army, Cadets are not likely to report the Army as a career. Table 38 shows that, on a five-point scale, the mean response of ROTC Cadets is 2.60. This slightly negative response indicates that 45.7% of the ROTC Cadets report they would probably or definitely not make the Army their career. Almost one-third (30.6%) report not knowing at this time what they intend to do. Therefore, only 23.7% of the ROTC Cadets report the intent of making a career of the Army.

Males and females report no significant differences in their intentions concerning the Army as a career. Ethnic differences are significant ($F(2,549)=8.956$, $p<.001$). Hispanic ROTC Cadets show a higher mean intention rating (3.00) of the Army as a career than do black (2.88) and white (2.45) ROTC Cadets, although their response is still neutral.

TABLE 38

ROTC Cadets: Military Career Intentions

| Intent to Make a Career of the Army | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Definitely not | 24.7 | 22.8 | 30.3 | t(570)=NS | 16.3 | 28.0 | 19.3 | F(2,549)=8.956*** |
| Probably not | 21.0 | 21.1 | 20.7 | | 22.4 | 22.2 | 12.3 | |
| Don't know | 30.6 | 31.7 | 27.6 | | 31.6 | 30.7 | 26.3 | |
| Probably | 17.2 | 17.1 | 17.2 | | 16.3 | 14.9 | 33.3 | |
| Definitely | 6.5 | 7.3 | 4.1 | | 13.3 | 4.3 | 8.8 | |
| Mean ratings[1] | 2.60 | 2.65 | 2.44 | | 2.88 | 2.45 | 3.00 | |

[1](1 = Definitely not, 5 = Definitely)
*** $p<.001$

# VII. NON-ROTC CADETS: INTEREST IN ROTC AND ARMY

This chapter contains the responses of 434 non-ROTC Cadets to questions about their interest in ROTC. Covered here are topics dealing with influences on decisions to join or drop out of ROTC, and reaction to five different options/incentives to becoming involved with the program. There are 239 male and 194 female non-ROTC Cadets in this sample. Of those who reported their ethnic background, 48 are black, 262 are white, and 105 are of Hispanic origin.

## A. Influence on Decision Not to Join or to Drop Out of ROTC

The most influential factors in a student's decision not to join or to leave the ROTC program are, in order of importance, personal beliefs and interests, family and friends (See Table 39). If the three most influential sources are considered together, career goals are also seen as playing a role in the respondent's decision about ROTC.

## B. Four Options and Their Effect on Enrollment or Continuation in ROTC

Overall, relatively few non-ROTC Cadets would be likely to join or stay in ROTC even if any of the four inducements are offered. Subgroup analyses show that those most interested in joining or staying in ROTC, if the inducements are offered, are Hispanics and blacks. These groups make excellent target candidates for inducements, as they also show increased interest in ROTC and the Army as a career. The least likely target group for the inducements is females.

### 1. Guaranteed Army Reserve/National Guard service obligations

Table 40 indicates that only 14.2% of non-ROTC Cadets report they would probably or definitely join/stay in ROTC if given a guarantee of Army Reserve or National Guard duty. Those least likely to join/stay in ROTC number 54.0%, while 31.8% said they do not know.

TABLE 39

Non-ROTC Cadets: Influences on Decision to Join ROTC

| Influence on Decision to Join/Dropout of ROTC | Most Influential Factor % | First, Second and Third Most Influential Factors % |
|---|---|---|
| Family | 18.2 | 38.7 |
| Friends | 13.9 | 35.2 |
| Personal Beliefs and Interests | 20.3 | 42.4 |
| Career Goals | 13.1 | 40.0 |
| Military Lifestyle | 12.8 | 28.3 |
| Educational Goals | 5.9 | 29.6 |
| ROTC Instructors | 1.3 | 4.3 |
| ROTC Recruiters | 2.1 | 8.8 |
| General Economic Conditions/Job Market | 3.5 | 15.2 |
| Teachers/Counselors | 2.4 | 11.5 |
| Other Military Personnel | 2.1 | 7.5 |
| ROTC Obligated Service | 2.4 | 12.5 |
| ROTC Unit Requirements | 1.3 | 6.1 |
| Media Advertisements about ROTC | 0.5 | 6.4 |

TABLE 40

Non-ROTC Cadets: Impact of Service Options on Enrollment in ROTC

| Impact of Guaranteed Service in Army Reserve/ National Guard on Enrollment in ROTC | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Definitely not | 23.1 | 21.7 | 24.8 | t(358)=NS | 13.5 | 25.3 | 17.7 | F(2,342)=3.781* |
| Probably not | 30.9 | 29.8 | 32.3 | | 32.4 | 32.3 | 29.1 | |
| Don't know | 31.8 | 32.8 | 30.4 | | 35.1 | 31.0 | 34.2 | |
| Probably | 11.4 | 12.1 | 10.6 | | 13.5 | 10.0 | 12.7 | |
| Definitely | 2.8 | 3.5 | 1.9 | | 5.4 | 1.3 | 6.3 | |
| Mean ratings[1] | 2.40 | 2.46 | 2.32 | | 2.65 | 2.30 | 2.61 | |

| Impact of Two Year Obligated Service Instead of Three Years on Enrollment in ROTC | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Definitely not | 20.4 | 17.3 | 24.2 | t(357)=2.189* | 10.8 | 23.1 | 14.1 | F(2,341)=6.998*** |
| Probably not | 31.6 | 29.9 | 33.5 | | 32.4 | 34.5 | 25.6 | |
| Don't know | 30.4 | 33.0 | 27.3 | | 27.0 | 30.1 | 34.6 | |
| Probably | 15.6 | 16.8 | 14.3 | | 24.3 | 10.9 | 23.1 | |
| Definitely | 2.0 | 3.0 | 0.6 | | 5.4 | 1.3 | 2.6 | |
| Mean ratings[1] | 2.46 | 2.58 | 2.34 | | 2.81 | 2.33 | 2.74 | |

[1](1 = Definitely not, 5 = Definitely)

* p <.05

Males and females do not differ in their response to a guaranteed Reserve or National Guard obligation. On the other hand, ethnic differences are significant for this option ($F(2,342)=3.781$, $p<.05$). Relatively more blacks (18.9%) and Hispanics (19.0%) than whites (11.3) report the probable or definite likelihood of joining or staying in ROTC with this guarantee.

2. Two versus three year service obligation

Table 40 shows that when reducing the obligated military service to two years instead of three, 17.6% of non-ROTC Cadets say they would be likely to join or stay in ROTC. Again, over one-half (52.0%) of all non-ROTC Cadets would still be unlikely to join or stay in ROTC, and 30.4% do not know what they would do if offered this option.

Differences between the sexes are significant, with males being more likely to join or stay in ROTC than females ($t=2.189$, $df=357$, $p<.05$).

Ethnic differences are highly significant, with blacks (29.7%) and Hispanics (25.7%) most likely to join/stay in ROTC ($F(2,341)=6.998$, $p<.001$). Only 12.2% of the white non-ROTC Cadets report a high likelihood of joining/staying in ROTC if offered this option.

3. Scholarship coupled with extended tour

If non-ROTC Cadets were offered an ROTC scholarship with the stipulation of an additional year of military service, only 18.5% would be likely to join or stay in ROTC (See Table 41). Over half (51.4%) said they probably or definitely would not join or stay in ROTC, while 30.2% do not know what they would do.

TABLE 41

Non-ROTC Cadets: Impact of Service Options on Enrollment in ROTC

| Impact of ROTC Scholarship and Increased Military Service of One Year on Enrollment in ROTC | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Definitely not | 22.1 | 17.3 | 28.0 | t(357)=2.268* | 13.5 | 24.9 | 16.7 | F(2,341)=5.443** |
| Probably not | 29.3 | 31.5 | 26.7 | | 27.0 | 31.9 | 24.4 | |
| Don't know | 30.2 | 29.9 | 30.4 | | 29.7 | 29.3 | 34.6 | |
| Probably | 15.4 | 16.8 | 13.7 | | 27.0 | 12.2 | 19.2 | |
| Definitely | 3.1 | 4.6 | 1.2 | | 2.7 | 1.7 | 5.1 | |
| Mean ratings[1] | 2.48 | 2.60 | 2.34 | | 2.78 | 2.34 | 2.72 | |

| Impact of Service Related to Number of Years of ROTC Scholarship on Enrollment in Advanced Course | Total % | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | | Male % | Female % | | Black % | White % | Hispanic % | |
| Definitely not | 20.9 | 17.8 | 24.8 | t(357)=2.646** | 10.8 | 23.6 | 15.4 | F(2,341)=4.538* |
| Probably not | 34.4 | 33.0 | 36.0 | | 40.5 | 35.8 | 26.9 | |
| Don't know | 27.7 | 27.9 | 27.3 | | 29.7 | 27.9 | 26.9 | |
| Probably | 14.8 | 18.3 | 10.6 | | 16.2 | 11.4 | 23.1 | |
| Definitely | 2.2 | 3.0 | 1.2 | | 2.7 | 1.3 | 3.8 | |
| Mean ratings[1] | 2.43 | 2.56 | 2.27 | | 2.59 | 2.31 | 2.69 | |

[1](1 = Definitely not, 5 = Definitely)

* p <.05

Males and females show significant differences ($t=2.268$, $df=357$, $p<.05$) with males slightly more likely than females to join or stay in ROTC. There are also significant differences between blacks, whites and Hispanics ($F(2,341)=5.443$, $p<.01$). Blacks (29.7%) and Hispanics (24.3%) are more likely to join or stay in ROTC if this incentive were offered than are whites (13.9%).

4. Scholarship coupled with variable service obligation

In response to a scenario which offered an additional six months of military service for every year of scholarship support, only one in six of the non-ROTC Cadets report they would probably or definitely join or stay in ROTC (See Table 41). Once more, over half (55.3%) of these respondents would be unlikely to join, and 27.7% do not know what they would do.

Sex differences are significant ($t=2.646$, $df=357$, $p<.01$), with females less likely to join or stay in ROTC than males under the variable service option.

Ethnic differences are also significant ($F(2,341)=4.538$, $p<.05$). Hispanics report the most interest in this option, with 26.9% likely to join or stay in ROTC.

C. Intention of Joining the Army without ROTC

As seen in Table 42, few students would consider joining the Army after college without going through ROTC training. Two out of three students (65.4%) state they probably or definitely would not join without participating in ROTC. Only 16.2% indicate they would consider joining.

There are significant sex differences visible for this option ($t=2.267$, $df=357$, $p<.05$). Males are more likely to join the Army after college (21.8%) as opposed to females (9.3%). Ethnic differences are not statistically significant.

TABLE 42

Non-ROTC Cadets: Intention to Join the Army

| Intention of Joining the Army After College Without ROTC | Total | Sex | | Test of Significance (Sex) | Ethnicity | | | Test of Significance (Ethnicity) |
|---|---|---|---|---|---|---|---|---|
| | % | Male % | Female % | | Black % | White % | Hispanic % | |
| Definitely not | 32.7 | 31.5 | 34.2 | t(357)=2.267* | 21.6 | 32.8 | 33.3 | F(2,341)=NS |
| Probably not | 32.7 | 29.9 | 36.0 | | 35.1 | 34.9 | 29.5 | |
| Don't know | 18.4 | 16.8 | 20.5 | | 24.3 | 17.9 | 17.9 | |
| Probably | 14.2 | 18.8 | 8.7 | | 13.5 | 13.1 | 16.7 | |
| Definitely | 2.0 | 3.0 | 0.6 | | 5.4 | 1.3 | 2.6 | |
| Mean ratings[1] | 2.20 | 2.32 | 2.06 | | 2.46 | 2.15 | 2.26 | |

[1](1 = Definitely not, 5 = Definitely)

* $p < .05$

# VIII. COMPARISON OF SEX AND ETHNIC DIFFERENCES BETWEEN CADETS AND NON-CADETS

The focus of this chapter is on sex and ethnic differences within the Cadet and non-Cadet student populations. These differences will be examined both independently and interdependently (ethnicity within sex). In reporting these findings, first univariate analyses will be made -- males versus females and blacks versus whites versus Hispanics -- followed by the interdependent analysis of ethnicity within sex. These differences will be examined first for Cadets and then for non-Cadets. The topics covered will parallel those of earlier chapters. Only significant or otherwise noteworthy differences will be discussed.

The results of these analyses, especially the ethnicity by sex, should be interpreted cautiously because of sample limitations. The number of respondents within each cell has the potential to be very small. This means that even where large percentage differences are noted, the results may be unstable.

## A. Respondent Characteristics

The sex and ethnicity breakdown of subgroup membership for the 1982 Career Attitude Survey is shown in Table 43. In nearly all subgroups males are more heavily represented than females. The black ROTC Cadet group has approximately 20% more males than females. The Hispanic ROTC Cadet group has twice as many males as females, and the white ROTC Cadet group has three times as many males as females.

The black non-ROTC Cadet group has almost twice the number of female black non-ROTC Cadets. There are almost 50% more male Hispanic non-ROTC Cadets than female Hispanic non-ROTC Cadets. The white non-ROTC Cadet group is approximately equal in number of males and females.

Table 44 gives selected demographic information by sex and by ethnicity for Cadets and non-Cadets. Although region and type of childhood community are related to sample selection and, therefore, not subjected to significance testing, there are interesting differences among the groups. There are relatively more black and Hispanic ROTC Cadets than whites who report growing up in the

TABLE 43

Sex and Ethnic Composition of ROTC and Non-ROTC Cadet Respondents

| Ethnicity* | Sex | Total N | ROTC Cadets N | Non-ROTC Cadets N |
|---|---|---|---|---|
| Black | Male | 104 | 73 | 31 |
| | Female | 70 | 53 | 17 |
| Hispanic | Male | 111 | 46 | 65 |
| | Female | 60 | 20 | 40 |
| White | Male | 493 | 361 | 132 |
| | Female | 240 | 110 | 130 |

*Excludes 42 non-responses to ethnicity

TABLE 44

Selected Demographics by Sex and Ethnicity of Cadets and Non-Cadets

| | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex of Respondent | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| Male | 66.0 | 100 | - | N.A.[1] | 57.9 | 76.6 | 69.7 | N.A.[1] | 100 | - | N.A.[1] | 64.6 | 50.4 | 61.9 | N.A.[1] |
| Female | 34.0 | - | 100 | | 42.1 | 23.4 | 30.3 | | - | 100 | | 35.4 | 49.6 | 38.1 | |
| Ethnic Background | | | | | | | | | | | | | | | |
| White | 68.0 | 75.2 | 60.1 | N.A.[1] | - | 100 | - | N.A.[1] | 57.9 | 69.5 | N.A.[1] | - | 100 | - | N.A.[1] |
| Black/Afro-Amer./ Negro | 16.1 | 15.2 | 29.0 | | 100 | - | - | | 13.6 | 9.1 | | 100 | - | - | |
| Hispanic/Mexican Amer./Chicano | 15.9 | 9.6 | 10.9 | | - | - | 100 | | 28.5 | 21.4 | | - | - | 100 | |
| Region of Formative Years | | | | | | | | | | | | | | | |
| South | 45.1 | 42.2 | 48.4 | N.A.[1] | 73.8 | 35.5 | 53.0 | N.A.[1] | 50.6 | 42.8 | N.A.[1] | 43.5 | 40.6 | 67.3 | N.A.[1] |
| East | 20.4 | 26.2 | 17.7 | | 12.7 | 28.7 | 13.6 | | 11.9 | 18.6 | | 10.9 | 20.7 | 3.8 | |
| West | 13.5 | 11.4 | 16.7 | | 2.4 | 14.0 | 19.7 | | 13.6 | 16.0 | | 13.0 | 17.2 | 8.7 | |
| Midwest | 12.5 | 13.2 | 10.8 | | 7.9 | 15.1 | 3.0 | | 11.1 | 13.9 | | 21.7 | 15.7 | 1.0 | |
| Outside U.S. | 3.2 | 1.4 | 0.5 | | 0.8 | - | 6.1 | | 8.1 | 4.6 | | 6.5 | 1.5 | 15.4 | |
| Several regions | 5.2 | 5.6 | 5.9 | | 2.4 | 6.8 | 4.5 | | 4.7 | 4.1 | | 4.3 | 4.2 | 3.8 | |
| Type of Community of Formative Years | | | | | | | | | | | | | | | |
| Small city/town | 35.0 | 33.2 | 41.6 | N.A.[1] | 36.5 | 33.8 | 44.6 | N.A.[1] | 29.8 | 39.8 | N.A.[1] | 22.9 | 38.3 | 29.5 | N.A.[1] |
| Medium size city | 22.0 | 21.8 | 17.3 | | 23.0 | 19.1 | 23.1 | | 23.1 | 25.8 | | 18.8 | 22.2 | 31.4 | |
| Large city | 15.1 | 12.2 | 11.4 | | 18.3 | 9.3 | 16.9 | | 26.9 | 11.9 | | 50.0 | 11.9 | 26.7 | |
| Rural | 14.6 | 16.4 | 15.7 | | 15.9 | 18.3 | 7.7 | | 11.3 | 12.9 | | 2.1 | 15.3 | 7.6 | |
| Suburb | 13.2 | 16.4 | 14.1 | | 6.3 | 19.5 | 7.7 | | 8.8 | 9.8 | | 6.3 | 12.3 | 4.8 | |

(Continued)

TABLE 44
(Continued)

| | | ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Significance |
| Mean Age of Respondent $\bar{X}$ | 20.32 | 19.93 | 19.64 | t(683)=NS | 19.34 | 19.92 | 20.29 | F(2,658)=3,060* |
| Mean Parental Annual Income $\bar{X}$ = | $28,110 | 29,390 | 26,200 | t(673)=2.437* | 17,260 | 32,970 | 20,450 | F(2,649)=85,243*** |
| (Categorical Mean)[2] $\bar{X}$ = | 6.19 | 6.45 | 5.80 | t(673)=2.403* | 3.97 | 7.18 | 4.62 | F(2,646)=81,923 |

| | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|
| | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Significance |
| Mean Age of Respondent | 20.70 | 21.51 | t(431)=NS | 19.65 | 20.90 | 21.83 | F(2,411)=4.178* |
| Mean Parental Annual Income | 27,430 | 27,470 | t(422)=NS | 23,800 | 31,930 | 19,620 | F(2,403)=31.484*** |
| (Categorical Mean)[2] | 6.04 | 6.07 | t(422)=NS | 5.30 | 6.98 | 4.45 | F(2,400)=30.698*** |

[1] Not applicable
[2] (1 = Under $5,000 per year, 6 = $25,000 to $29,999 per year, 7 = $30,000 to $34,999 per year)
* $p < .05$
** $p < .01$
*** $p < .001$

South. More males and whites report the East as their region of socialization. For non-ROTC Cadets, more males and Hispanics report the South as their childhood home, while more blacks report the Midwest as their region of socialization.

There is a higher percentage of female than male ROTC Cadets and more Hispanic than black or white Cadets who report spending their formative years in a small city. Among non-ROTC Cadets, more males and blacks report residing in a large city, while more females report residing in a small city or town.

There are no sex differences in age for either ROTC Cadets or non-ROTC Cadets. However, ethnic differences are significant for both groups, with the average Hispanic student being older than the average white who is, in turn, older than the average black.

Mean parental annual income as reported by ROTC Cadets is significantly higher for males than females and significantly higher for whites than Hispanics and blacks. There are no sex differences on this variable among non-ROTC Cadets. However, whites again report higher mean income than blacks or Hispanics.

## B. Media Preferences

### 1. Media attended to occasionally or regularly

Profiling the media preferences by subgroups, it is found that most male ROTC Cadets state they regularly or occasionally attend to newspapers, general radio, campus newspaper and television (See Table 45). They give their least attention to women's magazines and home service magazines. On the other hand, female ROTC Cadets most often attend to newspapers and general radio. They rate campus newspapers and television as the next most frequently attended to media sources. The least attended media sources for female ROTC Cadets are automotive and mechanical/science magazines. Of the 15 media categories presented, 10 show significant differences between male and female ROTC Cadets. The largest differences are in the attention given to women's home service,

TABLE 45

Media Preferences by Sex and Ethnicity of Cadets and Non-Cadets

| Media Attended to Occasionally or Regularly | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
| Newspapers | 92.6 | 93.2 | 96.2 | $X^2(1)=$ NS | 94.4 | 93.6 | 95.5 | $X^2(2)=$ NS | 90.0 | 90.7 | $X^2(1)=$ NS | 85.4 | 91.6 | 88.6 | $X^2(2)=$ NS |
| General radio | 92.6 | 92.0 | 96.2 | $X^2(1)=$ NS | 91.3 | 94.3 | 92.4 | $X^2(2)=$ NS | 88.7 | 95.4 | $X^2(1)=$ 6.23* | 91.7 | 92.7 | 89.5 | $X^2(2)=$ NS |
| Campus newspaper | 87.4 | 87.0 | 91.9 | $X^2(1)=$ NS | 78.6 | 92.4 | 81.8 | $X^2(2)=$ 22.28*** | 86.2 | 85.6 | $X^2(1)=$ NS | 87.5 | 84.0 | 90.5 | $X^2(2)=$ NS |
| Television | 87.0 | 86.6 | 87.6 | $X^2(1)=$ NS | 87.3 | 86.6 | 86.4 | $X^2(2)=$ NS | 87.4 | 86.6 | $X^2(1)=$ NS | 93.8 | 84.4 | 90.5 | $X^2(2)=$ NS |
| Sports/outdoor magazine | 72.3 | 81.6 | 55.9 | $X^2(1)=$ 47.25*** | 72.2 | 77.5 | 68.2 | $X^2(2)=$ NS | 79.9 | 54.6 | $X^2(1)=$ 31.76*** | 77.1 | 67.2 | 70.5 | $X^2(2)=$ NS |
| Advertising/ billboards | 68.0 | 62.8 | 77.4 | $X^2(1)=$ 13.06*** | 79.4 | 62.8 | 68.2 | $X^2(2)=$ 12.27** | 66.0 | 74.7 | $X^2(1)=$ 3.91* | 66.7 | 67.9 | 77.9 | $X^2(2)=$ NS |
| Sunday supplements | 66.1 | 62.4 | 80.6 | $X^2(1)=$ 20.52*** | 67.5 | 66.5 | 74.2 | $X^2(2)=$ NS | 57.3 | 72.7 | $X^2(1)=$ 10.99*** | 43.8 | 66.8 | 66.7 | $X^2(2)=$ 9.76** |
| General magazine | 65.7 | 61.8 | 78.0 | $X^2(1)=$ 15.81*** | 75.4 | 63.1 | 68.2 | $X^2(2)=$ 6.90* | 59.7 | 71.6 | $X^2(1)=$ 6.75** | 66.7 | 63.6 | 64.8 | $X^2(2)=$ NS |
| Business/trade magazine | 43.4 | 47.8 | 39.8 | $X^2(1)=$ NS | 46.0 | 47.3 | 39.4 | $X^2(2)=$ NS | 45.2 | 33.5 | $X^2(1)=$ 6.09* | 35.4 | 38.5 | 44.8 | $X^2(2)=$ NS |

(Continued)

TABLE 45

(Continued)

| Media Attended to Occasionally or Regularly | ROTC CADETS | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
| Men's magazines | 42.7 | 54.0 | 29.6 | $X^2(1)=$ 32.45*** | 57.1 | 46.1 | 39.4 | $X^2(2)=$ 6.82* | 51.5 | 15.5 | $X^2(1)=$ 60.74*** | 52.1 | 29.4 | 41.0 | $X^2(2)=$ 11.43** |
| Mechanical science magazine | 42.3 | 52.4 | 22.6 | $X^2(1)=$ 48.83*** | 36.3 | 46.3 | 43.9 | $X^2(2)=$ NS | 49.0 | 26.9 | $X^2(1)=$ 21.72*** | 31.3 | 38.3 | 45.7 | $X^2(2)=$ NS |
| Women's magazines | 32.7 | 5.8 | 87.1 | $X^2(1)=$ 445.21*** | 50.0 | 22.1 | 33.8 | $X^2(2)=$ 38.98*** | 7.1 | 81.4 | $X^2(1)=$ 245.68*** | 35.4 | 42.0 | 40.0 | $X^2(2)=$ NS |
| Campus radio | 30.4 | 29.8 | 44.6 | $X^2(1)=$ 13.14*** | 49.2 | 31.3 | 22.7 | $X^2(2)=$ 18.23*** | 21.3 | 29.9 | $X^2(1)=$ 4.16* | 43.8 | 21.4 | 23.8 | $X^2(2)=$ 11.00** |
| Home service magazine | 30.1 | 10.8 | 65.1 | $X^2(1)=$ 209.51*** | 38.1 | 21.9 | 30.8 | $X^2(2)=$ 14.58*** | 11.3 | 69.1 | $X^2(1)=$ 153.03*** | 25.0 | 39.7 | 39.0 | $X^2(2)=$ NS |
| Automotive magazine | 28.7 | 38.8 | 9.1 | $X^2(1)=$ 56.00*** | 28.6 | 31.6 | 28.8 | $X^2(2)=$ NS | 41.4 | 5.7 | $X^2(1)=$ 72.23*** | 27.1 | 24.8 | 28.6 | $X^2(2)=$ NS |

* $p < .05$
** $p < .01$
*** $p < .001$

automotive, mechanics/sciences, and sports/outdoors magazines, with more females attending to traditionally women-oriented materials and males attending to time-honored men's reading matter. Furthermore, male ROTC Cadets attend more to men's magazines while female ROTC Cadets attend more to Sunday supplements, general magazines, advertising/billboards, and campus radio.

Newspapers and general radio are the most frequently attended to media sources among black, white, and Hispanic ROTC cadets. The third and fourth most frequently mentioned media sources by black ROTC Cadets are television and advertising/billboards. White ROTC Cadets mention campus newspapers and television. For Hispanic ROTC Cadets, television and campus newspapers are the third and fourth most frequently mentioned media sources.

The least attended to media sources for black ROTC Cadets are automotive magazines and mechanics/science magazines. White ROTC Cadets report home service and women's magazines as their least attended to media, while campus radio and automotive magazines are the least popular media sources among Hispanic Cadets.

Seven of these 15 media sources reveal statistically significant ethnic differences. The largest of these is in the women's magazines category which has more blacks than others attending to it. (This may be a function of the relatively larger number of black females in the ROTC group.) Black ROTC Cadets also attend more to advertising/billboards, general, men's, and home service magazines and campus radio. White ROTC Cadets attend more to campus newspapers than black or Hispanic ROTC Cadets.

Newspapers, general radio, television, and campus newspapers are the four media sources more often reported attended to by male non-ROTC Cadets. Female non-ROTC Cadets attended occasionally or regularly to the same four media -- general radio, newspapers, television, and campus newspapers. The least often attended to media sources among male non-ROTC Cadets are women's and home service magazines. For female

non-ROTC Cadets, automotive and men's magazines are the least attended to media sources. Twelve out of these 15 media sources show statistically significant differences among male and female non-ROTC Cadets. Significantly more male non-ROTC Cadets attend to sports/outdoor, business/trade, men's, mechanic/science, and automotive magazines than do female non-ROTC Cadets. In contrast, significantly more female non-ROTC Cadets attend to general and campus radio, advertising/billboards, Sunday supplements, and general, women's, and home service magazines.

Newspapers, general radio, campus newspapers, and television are the top four media choices for all ethnic subgroups of non-ROTC Cadets. However, the ordering of these four categories is different for each ethnic group. Most black non-ROTC Cadets report television as the most attended to media source, followed by general radio, campus newspaper, and newspapers. White non-ROTC Cadets report general radio most attended to, followed by newspapers, television, and campus newspaper. Equal numbers of Hispanic non-ROTC Cadets report attention to television and campus newspaper, followed by general radio and newspapers. The least attended to media sources are home service and automotive magazines for black non-ROTC Cadets. White and Hispanic non-ROTC Cadets attend least often to campus radio and automotive magazines.

There are three media categories that exhibit statistically significant differences between black, white, and Hispanic non-Cadets. More black than white and Hispanic non-ROTC Cadets report attending to men's magazines and campus radio. White and Hispanic non-ROTC Cadets attend equally, and more than blacks, to Sunday supplements.

2. Magazine readership

The analysis of magazine readership among Cadet and non-Cadet subgroups is restricted to the 15 most widely reported publications. Of the top 15 magazines read occasionally or regularly by the entire sample, male ROTC Cadets most often report reading Time, Newsweek, Sports Illustrated and Playboy (See

Table 46). Female ROTC Cadets most often report reading Newsweek, Time, People, and TV Guide. The readership for 12 of these 15 magazines reveal significant sex differences among ROTC Cadets. Significantly more males report reading Time, Sports Illustrated, Playboy, Penthouse, National Geographic, Sport, Field and Stream, Popular Science, and Popular Mechanics. Significantly more female ROTC Cadets report reading TV Guide, Reader's Digest, and People. There are no significant differences between the average number of magazines consumed by male and female ROTC Cadets.

Black ROTC Cadets report reading Sports Illustrated, TV Guide, Newsweek, and Time most often. The magazines most frequently reported by white Cadets are Time, Newsweek, Sports Illustrated, and Playboy. Hispanic ROTC Cadets report Newsweek, Time, Sports Illustrated, TV Guide, and Playboy as their most frequently read magazines within the top 15 choices. Ethnic readership differences of significance are noted for four magazines. White ROTC Cadets more often report reading Time, National Geographic, and Field and Stream than do blacks or Hispanics. However, black ROTC Cadets report reading TV Guide significantly more than white or Hispanic ROTC Cadets. The average number of magazines read occasionally or regularly by blacks (16.08) is significantly higher than the number reported by whites (11.18) or Hispanics (11.45).

Male non-ROTC Cadets most often report reading Sports Illustrated, Playboy, Time, and Newsweek. Most female non-ROTC Cadets report reading Time, TV Guide, Newsweek, and People. Nine of the top 15 magazines read occasionally or regularly by non-Cadets show statistically significant differences between males and females. Significantly more male than female non-ROTC Cadets report reading Sports Illustrated, Playboy, Penthouse, U.S. News and World Report, Sport, Field and Stream, Popular Science, and Popular Mechanics. Female non-ROTC Cadets report reading People magazine significantly more often than male non-ROTC Cadets. There are no significant differences between male and female non-ROTC Cadets for the average number of magazines read occasionally or regularly.

TABLE 46

Magazine Readership by Sex and Ethnicity of Cadets and Non-Cadets

| Top Fifteen Magazines Read Occasionally or Regularly | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| Time | 65.5 | 73.4 | 62.9 | $X^2(1)=$ 7.19** | 57.9 | 74.3 | 65.2 | $X^2(2)=$ 13.69** | 56.3 | 58.8 | $X^2(1)=$ NS | 46.8 | 59.9 | 58.1 | $X^2(2)=$ NS |
| Newsweek | 61.4 | 68.4 | 64.5 | $X^2(1)=$ NS | 63.5 | 68.6 | 66.7 | $X^2(2)=$ NS | 53.4 | 50.0 | $X^2(1)=$ NS | 34.0 | 51.5 | 60.0 | $X^2(2)=$ 8.77* |
| Sports Illustrated | 56.0 | 66.7 | 46.8 | $X^2(1)=$ 22.76*** | 68.3 | 61.3 | 54.5 | $X^2(2)=$ NS | 62.6 | 29.4 | $X^2(1)=$ 47.29*** | 72.3 | 42.0 | 51.4 | $X^2(2)=$ 15.45*** |
| T.V. Guide | 48.0 | 46.4 | 55.4 | $X^2(1)=$ 4.38* | 65.9 | 44.3 | 50.0 | $X^2(2)=$ 18.44*** | 43.7 | 50.5 | $X^2(1)=$ NS | 59.6 | 44.3 | 48.6 | $X^2(2)=$ NS |
| Playboy | 45.3 | 61.4 | 17.7 | $X^2(1)=$ 103.37*** | 42.1 | 50.7 | 50.0 | $X^2(2)=$ NS | 62.0 | 9.8 | $X^2(1)=$ 122.90*** | 44.7 | 37.5 | 37.1 | $X^2(2)=$ NS |
| Reader's Digest | 45.1 | 42.6 | 54.8 | $X^2(1)=$ 8.18** | 49.2 | 44.8 | 48.5 | $X^2(2)=$ NS | 39.7 | 49.0 | $X^2(1)=$ NS | 23.4 | 43.7 | 50.5 | $X^2(2)=$ 9.80** |
| Penthouse | 39.6 | 55.2 | 15.1 | $X^2(1)=$ 88.54*** | 35.7 | 45.6 | 47.0 | $X^2(2)=$ NS | 51.1 | 8.8 | $X^2(1)=$ 87.66*** | 40.4 | 30.7 | 33.3 | $X^2(2)=$ NS |
| U.S. News & World Report | 39.5 | 44.1 | 40.9 | $X^2(1)=$ NS | 40.5 | 45.3 | 39.4 | $X^2(2)=$ NS | 38.2 | 27.8 | $X^2(1)=$ 5.18* | 31.9 | 32.1 | 35.2 | $X^2(2)=$ NS |
| National Geographic | 38.6 | 42.4 | 31.7 | $X^2(1)=$ 6.47* | 19.0 | 46.5 | 30.3 | $X^2(2)=$ 33.98*** | 36.7 | 37.6 | $X^2(1)=$ NS | 14.9 | 40.2 | 39.0 | $X^2(2)=$ 11.20** |

(Continued)

TABLE 46
(Continued)

| Top Fifteen Magazines Read Occasionally or Regularly | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| People | 38.6 | 31.4 | 57.5 | $X^2(1)=$ 39.09*** | 47.6 | 36.5 | 37.9 | $X^2(2)=$ NS | 29.8 | 49.5 | $X^2(1)=$ 17.41*** | 40.4 | 38.5 | 39.0 | $X^2(2)=$ NS |
| Life | 28.8 | 30.5 | 27.4 | $X^2(1)=$ NS | 30.4 | 29.5 | 30.3 | $X^2(2)=$ NS | 27.8 | 26.8 | $X^2(1)=$ NS | 23.4 | 25.3 | 33.3 | $X^2(2)=$ NS |
| Sport | 26.8 | 36.4 | 11.8 | $X^2(1)=$ 39.18*** | 37.3 | 28.5 | 24.2 | $X^2(2)=$ NS | 34.0 | 7.7 | $X^2(1)=$ 42.78*** | 44.7 | 14.1 | 30.5 | $X^2(2)=$ 28.19*** |
| Field & Stream | 25.8 | 34.4 | 11.3 | $X^2(1)=$ 35.81*** | 16.7 | 32.3 | 18.2 | $X^2(2)=$ 15.48*** | 31.9 | 10.3 | $X^2(1)=$ 28.91*** | 14.9 | 23.7 | 24.8 | $X^2(2)=$ NS |
| Popular Science | 23.6 | 32.0 | 10.0 | $X^2(1)=$ 33.36*** | 19.8 | 27.8 | 24.2 | $X^2(2)=$ NS | 25.2 | 12.9 | $X^2(1)=$ 10.27** | 12.8 | 20.2 | 22.9 | $X^2(2)=$ NS |
| Popular Mechanics | 21.8 | 30.4 | 5.9 | $X^2(1)=$ 44.87*** | 18.3 | 25.1 | 22.7 | $X^2(2)=$ NS | 29.4 | 5.7 | $X^2(1)=$ 39.55*** | 12.8 | 17.6 | 23.8 | $X^2(2)=$ NS |
| Mean Number of Magazines Read Occasionally or Regularly | 11.56 | 11.91 | 12.59 | t(1104) =NS | 16.00 | 11.18 | 11.45 | F(2,656) =25.117*** | 11.22 | 10.07 | t(1104) =NS | 12.85 | 9.84 | 11.91 | F(2,403) =5.480** |

* p<.05
** p<.01
***p<.001

Black non-ROTC Cadets most often report reading Sports Illustrated, TV Guide, Time, Playboy, and Sport. White non-ROTC Cadets report reading more Time, Newsweek, TV Guide, and Reader's Digest. Hispanic non-ROTC Cadets report reading more Newsweek, Time, Sports Illustrated, and Reader's Digest than other magazines. Blacks report significantly more occasional or regular reading of Sports Illustrated and Sport than whites or Hispanics. Hispanic non-ROTC Cadets report significantly more occasional or regular reading of Newsweek and Reader's Digest. White and Hispanic non-ROTC Cadets both report greater readership of National Geographic than black non-ROTC Cadets. Black non-ROTC Cadets report a significantly higher average number of magazines (12.85) read occasionally or regularly than Hispanics (11.91) or whites (9.84).

3. Favorite television programs

The top 15 television programs rated by the entire sample were chosen for subgroup analysis. Both male and female ROTC Cadets choose M*A*S*H as their favorite television show (see Table 47). Most males follow this choice with Hill Street Blues, 60 Minutes and News programming. Most females follow their first choice with Dynasty, 60 Minutes, and Dallas.

Black ROTC Cadets choose The Jeffersons, Fame, Dynasty, and Dallas as their favorite television shows. White ROTC Cadets indicate that M*A*S*H, Hill Street Blues, 60 Minutes, and Dynasty are the most popular with them. M*A*S*H, 60 Minutes, Dynasty, and Dallas are the top four shows reported by Hispanic ROTC Cadets. Blacks and Hispanics have a high percentage of "other" responses which included a new, relatively popular show -- Gimme a Break.

Male non-ROTC Cadets select M*A*S*H, Hill Street Blues, 60 Minutes, and Dallas as their four favorite television shows. Most female non-ROTC Cadets indicate M*A*S*H, Dynasty, Dallas, and Hill Street Blues as being among their four favorites.

Black non-ROTC Cadets report Hill Street Blues, Dallas, The Jeffersons, and M*A*S*H as their favorite shows. Very high "other" and "no favorite programs"

TABLE 47

Television Preferences by Sex and Ethnicity of Cadets and Non-Cadets

| Top Fifteen Favorite Television Programs | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| M*A*S*H | 42.1 | 48.5 | 30.8 | NA | 7.8 | 51.6 | 40.8 | NA | 46.7 | 32.9 | NA | 17.9 | 49.5 | 26.6 | NA |
| Hill Street Blues | 19.3 | 23.0 | 14.5 | | 19.4 | 23.2 | 8.2 | | 20.7 | 14.0 | | 28.6 | 17.9 | 13.9 | |
| Sixty Minutes | 15.7 | 16.6 | 19.5 | | 9.7 | 19.5 | 18.4 | | 13.0 | 12.8 | | 7.1 | 13.7 | 13.9 | |
| Dynasty | 11.7 | 6.4 | 27.7 | | 23.3 | 9.7 | 14.3 | | 3.6 | 17.1 | | 14.3 | 11.3 | 6.3 | |
| Dallas | 11.2 | 5.6 | 17.6 | | 20.4 | 6.1 | 12.2 | | 13.0 | 16.5 | | 28.6 | 11.8 | 16.5 | |
| Magnum P.I. | 7.9 | 8.2 | 7.5 | | 4.9 | 9.2 | 8.2 | | 5.9 | 9.8 | | 7.1 | 9.0 | 5.1 | |
| News (unspecified) | 7.2 | 10.2 | 5.0 | | 7.8 | 9.2 | 4.1 | | 6.5 | 3.0 | | 7.1 | 4.2 | 6.3 | |
| Fame | 6.7 | 4.1 | 15.1 | | 26.2 | 3.4 | - | | 1.2 | 10.4 | | 14.3 | 5.2 | 3.8 | |
| 20/20 | 6.4 | 5.1 | 8.2 | | 1.9 | 6.8 | 6.1 | | 5.3 | 9.1 | | 7.1 | 5.7 | 12.7 | |
| Sports (unspecified) | 5.9 | 9.4 | 0.6 | | 4.9 | 8.2 | 2.0 | | 6.5 | 1.8 | | 3.6 | 4.2 | 5.1 | |
| Quincy | 5.7 | 3.6 | 6.9 | | 7.8 | 3.7 | 6.1 | | 5.3 | 9.8 | | 7.1 | 7.5 | 8.9 | |
| General Hospital | 5.5 | 1.5 | 10.1 | | 2.9 | 4.5 | 2.0 | | 3.6 | 12.8 | | 3.6 | 10.4 | 5.1 | |
| The Jeffersons | 5.2 | 3.8 | 10.7 | | 27.2 | 0.3 | 4.1 | | 4.7 | 3.7 | | 25.0 | 0.9 | 5.1 | |

(Continued)

TABLE 47
(Continued)

| Top Fifteen Favorite Television Programs | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| Saturday Night Live | 5.2 | 5.4 | 1.3 | | 2.9 | 4.5 | 4.1 | | 8.3 | 5.5 | | 3.6 | 8.0 | 5.1 | |
| Hart to Hart | 4.9 | 3.3 | 8.2 | | 7.8 | 4.5 | - | | 1.8 | 8.5 | | 7.1 | 4.2 | 6.3 | |
| All other | 33.3 | 32.4 | 30.2 | | 43.7 | 26.6 | 40.8 | | 34.9 | 36.6 | | 42.9 | 33.5 | 35.4 | |
| No favorite indicated | 21.1 | 21.6 | 14.5 | | 18.3 | 19.3 | 25.8 | | 29.3 | 15.9 | | 41.7 | 19.1 | 24.8 | |

responses are given by black non-ROTC Cadets. White non-ROTC Cadets report M*A*S*H, Hill Street Blues, 60 Minutes, and Dallas as their four top television programs. Hispanic non-ROTC Cadets also report these four as their favorite television shows.

4. Favorite radio programming

The most popular radio programming reported by male ROTC Cadets is FM, Rock, Sports, and Top Forty (See Table 48). Female ROTC Cadets replace Sports with Disco in identifying favorites. Eight out of the 18 radio programming categories reveal significant differences between male and female ROTC Cadets. Significantly more males report Rock and Sports as their favorites than do females. FM, Top Forty, AM, Disco, Soul, and Religious programs are significantly more often reported by female ROTC Cadets.

Black ROTC Cadets report FM, Soul, Disco, Jazz, and Religious programming as their favorites. White ROTC Cadets prefer FM, Rock, Top Forty, and News programming. Hispanic ROTC Cadets note FM, Rock, and Top Forty as their favorite three, with a four-way tie for fourth place among News, Easy Listening, Disco, and Country-Western.

Thirteen of the 18 radio programming types significantly distinguish among black, white, and Hispanic ROTC Cadets. Blacks report preferences for AM, Jazz, Disco, Soul, Rhythm & Blues, and Religious programming significantly more than do white or Hispanic ROTC Cadets. Significantly more white ROTC Cadets find Rock, Pop, and Sports programming appealing than do blacks or Hispanics. Hispanic ROTC Cadets report Top Forty, Country-Western, Easy Listening, and Spanish programming as their favorites significantly more often than do black or white ROTC Cadets.

Male non-ROTC Cadets report FM, Rock, Country-Western, and Sports programs as their top four favorite radio programming types. Female non-ROTC Cadets agree except they prefer Top Forty to Sports programs. Five of these 18 categories show significant

TABLE 48

Favorite Radio Programming by Sex and Ethnicity of Cadets and Non-Cadets

| Favorite Radio Programming | Total % | ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | NON-ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FM | 93.8 | 94.7 | 98.4 | $X^2(1)=4.45^*$ | 95.1 | 95.3 | 98.5 | $X^2(2)=$ NS | 88.5 | 93.2 | $X^2(1)=$ NS | 85.4 | 90.7 | 92.3 | $X^2(2)=$ NS |
| Rock | 75.2 | 80.2 | 68.6 | $X^2(1)=10.05^{**}$ | 45.1 | 86.0 | 69.2 | $X^2(2)=92.85^{***}$ | 76.2 | 67.7 | $X^2(1)=$ NS | 43.9 | 80.5 | 67.3 | $X^2(2)=26.96^{***}$ |
| Top Forty | 51.7 | 47.9 | 62.2 | $X^2(1)=11.01^{***}$ | 44.3 | 52.0 | 63.1 | $X^2(2)=6.09^*$ | 45.4 | 58.9 | $X^2(1)=7.57^{**}$ | 53.7 | 53.3 | 44.2 | $X^2(2)=$ NS |
| Country-Western | 43.7 | 38.4 | 38.4 | $X^2(1)=$ NS | 17.2 | 41.9 | 47.7 | $X^2(2)=28.05^{***}$ | 50.7 | 54.2 | $X^2(1)=$ NS | 31.7 | 49.8 | 63.5 | $X^2(2)=12.68^{**}$ |
| News | 42.5 | 46.0 | 42.2 | $X^2(1)=$ NS | 47.5 | 44.5 | 47.7 | $X^2(2)=$ NS | 45.4 | 30.2 | $X^2(1)=10.11^{**}$ | 24.4 | 40.1 | 42.3 | $X^2(2)=$ NS |
| Pop | 39.1 | 37.4 | 41.1 | $X^2(1)=$ NS | 23.8 | 41.7 | 36.9 | $X^2(2)=13.26^{**}$ | 38.3 | 42.2 | $X^2(1)=$ NS | 48.8 | 35.8 | 47.1 | $X^2(2)=$ NS |
| Sports | 37.3 | 48.1 | 20.5 | $X^2(1)=42.17^{***}$ | 32.0 | 44.1 | 38.5 | $X^2(2)=6.09^*$ | 49.3 | 12.0 | $X^2(1)=66.48^{***}$ | 43.9 | 29.2 | 37.5 | $X^2(2)=$ NS |
| Easy Listening | 35.7 | 31.9 | 36.2 | $X^2(1)=$ NS | 35.2 | 30.3 | 47.7 | $X^2(2)=8.13^*$ | 37.4 | 42.7 | $X^2(1)=$ NS | 26.8 | 36.6 | 52.9 | $X^2(2)=11.43^{**}$ |
| AM | 34.4 | 28.2 | 45.4 | $X^2(1)=17.94^{***}$ | 54.9 | 26.2 | 35.4 | $X^2(2)=36.50^{***}$ | 35.7 | 38.0 | $X^2(1)=$ NS | 51.2 | 30.4 | 46.2 | $X^2(2)=12.20^{**}$ |
| Jazz | 33.6 | 35.4 | 37.8 | $X^2(1)=$ NS | 55.7 | 30.5 | 40.0 | $X^2(2)=27.03^{***}$ | 30.8 | 28.1 | $X^2(1)=$ NS | 68.3 | 24.5 | 26.0 | $X^2(2)=33.46^{***}$ |

(Continued)

TABLE 48
(Continued)

| Favorite Radio Programming | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
| Disco | 31.9 | 27.2 | 48.6 | $X^2(1)=27.89^{***}$ | 68.9 | 21.5 | 47.7 | $X^2(2)=105.10^{***}$ | 25.6 | 35.4 | $X^2(1)=4.81^{*}$ | 58.5 | 21.0 | 38.5 | $X^2(2)=29.62^{***}$ |
| Soul | 26.3 | 21.3 | 44.9 | $X^2(1)=37.28^{***}$ | 86.9 | 12.5 | 32.3 | $X^2(2)=263.86^{***}$ | 27.3 | 20.3 | $X^2(1)=$ NS | 85.4 | 12.8 | 25.0 | $X^2(2)=104.02^{***}$ |
| Classical | 24.0 | 24.1 | 25.9 | $X^2(1)=$ NS | 22.1 | 24.5 | 33.8 | $X^2(2)=$ NS | 15.4 | 31.8 | $X^2(1)=15.75^{***}$ | 7.3 | 25.3 | 25.0 | $X^2(2)=6.58^{*}$ |
| Rhythm & Blues | 20.9 | 20.0 | 25.9 | $X^2(1)=$ NS | 46.7 | 16.3 | 15.4 | $X^2(2)=53.89^{***}$ | 21.6 | 17.2 | $X^2(1)=$ NS | 41.5 | 16.7 | 16.3 | $X^2(2)=14.68^{***}$ |
| Religious | 13.2 | 9.8 | 26.5 | $X^2(1)=30.28^{***}$ | 55.7 | 4.5 | 7.7 | $X^2(2)=208.15^{***}$ | 9.3 | 13.5 | $X^2(1)=$ NS | 31.7 | 10.5 | 6.7 | $X^2(2)=18.74^{***}$ |
| Talk | 12.4 | 13.5 | 12.4 | $X^2(1)=$ NS | 19.7 | 11.6 | 13.8 | $X^2(2)=$ NS | 11.5 | 10.4 | $X^2(1)=$ NS | 12.2 | 10.9 | 11.5 | $X^2(2)=$ NS |
| Spanish | 6.6 | 5.3 | 2.2 | $X^2(1)=$ NS | 1.6 | 0.9 | 35.4 | $X^2(2)=162.72^{***}$ | 9.3 | 10.9 | $X^2(1)=$ NS | 2.4 | 1.2 | 36.5 | $X^2(2)=102.13^{***}$ |
| Other | 3.3 | 3.3 | 3.8 | $X^2(1)=$ NS | 2.5 | 3.4 | 4.6 | $X^2(2)=$ NS | 3.1 | 3.1 | $X^2(1)=$ NS | 2.4 | 2.3 | 4.8 | $X^2(2)=$ NS |

* $p < .05$
** $p < .01$
*** $p < .001$

differences between male and female non-ROTC Cadets. Males significantly more often report News and Sports as favorites than do females. Female non-ROTC Cadets report Top Forty, Disco, and Classical as favorites significantly more often than do male non-ROTC Cadets.

Black non-ROTC Cadets most often report FM and Soul radio programs as their favorites. This is followed by Jazz and Disco. White non-ROTC Cadets most often report FM, Rock, Top Forty, and Country-Western as their favorites. Hispanic non-ROTC Cadets report FM, Rock, Country-Western, and Easy Listening as their favorites. Eleven of the 18 radio programming categories show significant ethnic differences among non-ROTC Cadets. Significantly more black than white or Hispanic non-ROTC Cadets report AM, Jazz, Soul, Rhythm & Blues, and Religious programs as their favorites. White non-ROTC Cadets significantly more often report Rock as their favorite programming, while Hispanic non-ROTC Cadets significantly more frequently report Country-Western, Easy Listening, and Spanish programs. Classical programming is reported as a favorite equally more often by white and Hispanic non-ROTC Cadets than by black non-ROTC Cadets.

## C. Knowledge and Attitudes Toward ROTC and Army

### 1. First awareness of Army ROTC and ROTC Scholarship Program

Male Cadets, generally, become aware of ROTC at an earlier period in their lives than female Cadets. Male ROTC Cadets who are made aware of ROTC in grade school number 13.6%, while females only number 8.6% (See Table 49). An additional 63.3% of the male ROTC Cadets report becoming aware of ROTC during high school, as compared to 55.1% of the female ROTC Cadets. On the other hand, more female than male Cadets (35.7% versus 21.6%) report first becoming aware of the program only after arriving at college. These differences are statistically significant ($X^2$= 15.51, df=3, $p<.01$).

TABLE 49

First Awareness and Sources of Awareness of Army ROTC by Sex and Ethnicity of Cadets and Non-Cadets

| Time of First Awareness of ROTC | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| During grade school | 13.2 | 13.6 | 8.6 | $X^2(3)=15.51^{**}$ | 12.1 | 11.5 | 19.7 | $X^2(6)=24.36^{***}$ | 17.7 | 11.1 | $X^2(3)=$ NS | 6.8 | 15.5 | 15.8 | $X^2(6)=17.09^{**}$ |
| During high school | 61.3 | 63.3 | 55.1 | | 58.9 | 63.3 | 50.0 | | 57.3 | 66.7 | | 77.3 | 65.1 | 49.5 | |
| After arriving at college | 23.9 | 21.6 | 35.7 | | 27.4 | 25.1 | 24.2 | | 21.6 | 21.2 | | 13.6 | 18.2 | 29.7 | |
| Never heard of until now | 1.6 | 1.4 | 0.5 | | 1.6 | 0.2 | 6.1 | | 3.4 | 1.1 | | 2.3 | 1.2 | 5.0 | |
| Sources of First Awareness of ROTC | | | | | | | | | | | | | | | |
| Friends | 65.4 | 62.9 | 72.4 | $X^2(1)=5.40^{*}$ | 69.4 | 63.5 | 71.2 | $X^2(2)=$ NS | 64.7 | 65.9 | $X^2(1)=$ NS | 61.4 | 61.3 | 74.3 | $X^2(2)=$ NS |
| Pamphlets | 60.8 | 61.7 | 63.8 | $X^2(1)=$ NS | 66.9 | 61.6 | 60.6 | $X^2(2)=$ NS | 55.4 | 61.8 | $X^2(1)=$ NS | 56.8 | 61.3 | 51.0 | $X^2(2)=$ NS |
| ROTC personnel on campus | 60.2 | 62.5 | 67.6 | $X^2(1)=$ NS | 74.2 | 61.8 | 59.1 | $X^2(2)=7.27^{*}$ | 49.8 | 59.7 | $X^2(1)=4.06^{*}$ | 43.2 | 57.8 | 52.0 | $X^2(2)=$ NS |

(Continued)

TABLE 49
(Continued)

| Sources of First Awareness of ROTC | Total % | ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | NON-ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ROTC recruiters | 56.6 | 56.5 | 65.4 | $X^2(1)=4.41^*$ | 66.9 | 58.0 | 50.0 | $X^2(2)=$ NS | 53.7 | 51.6 | $X^2(1)=$ NS | 61.4 | 54.7 | 46.0 | $X^2(2)=$ NS |
| Radio/T.V. | 52.0 | 48.1 | 55.1 | $X^2(1)=$ NS | 58.9 | 49.3 | 42.4 | $X^2(2)=$ NS | 50.6 | 61.3 | $X^2(1)=4.72^*$ | 56.8 | 60.9 | 43.0 | $X^2(2)=9.40^{**}$ |
| Magazine or newspaper ads | 52.0 | 49.3 | 58.4 | $X^2(1)=4.46^*$ | 59.7 | 52.7 | 39.4 | $X^2(2)=7.11^*$ | 48.9 | 57.0 | $X^2(1)=$ NS | 61.4 | 55.5 | 40.0 | $X^2(2)=8.54^*$ |
| Other military personnel | 47.7 | 52.1 | 45.4 | $X^2(1)=$ NS | 56.5 | 49.0 | 47.0 | $X^2(2)=$ NS | 44.2 | 42.5 | $X^2(1)=$ NS | 45.5 | 44.9 | 41.0 | $X^2(2)=$ NS |
| Teachers/ counselors | 42.9 | 42.7 | 47.0 | $X^2(1)=$ NS | 40.3 | 46.1 | 34.8 | $X^2(2)=$ NS | 43.1 | 38.9 | $X^2(1)=$ NS | 40.9 | 43.4 | 37.6 | $X^2(2)=$ NS |
| Family | 41.8 | 49.9 | 40.0 | $X^2(1)=5.31^*$ | 46.0 | 48.4 | 37.9 | $X^2(2)=$ NS | 30.7 | 35.5 | $X^2(1)=$ NS | 27.3 | 34.1 | 29.7 | $X^2(2)=$ NS |
| Personal reading | 38.6 | 42.9 | 41.6 | $X^2(1)=$ NS | 62.9 | 38.6 | 36.4 | $X^2(2)=24.88^{***}$ | 36.2 | 26.9 | $X^2(1)=4.12^*$ | 38.6 | 30.5 | 33.7 | $X^2(2)=$ NS |
| Other sources not above | 31.2 | 33.9 | 29.3 | $X^2(1)=$ NS | 36.3 | 31.5 | 30.3 | $X^2(2)=$ NS | 31.2 | 26.1 | $X^2(1)=$ NS | 32.6 | 25.9 | 33.0 | $X^2(2)=$ NS |
| Mean number of awareness sources $\bar{X}$ | 5.58 | 5.73 | 5.86 | $t(683)=$ NS | 6.54 | 5.65 | 5.17 | $F(2,658)=7.127^{***}$ | 5.23 | 5.32 | $t(417)=$ NS | 5.25 | 5.41 | 4.98 | $F(2,398)=$ NS |

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

Ethnic differences in program awareness among ROTC Cadets also are strong enough to reach statistical significance ($X^2$=24.36, df=6, p<.001). It appears that relatively more Hispanic ROTC Cadets report becoming aware of ROTC during grade school and high school than black or white ROTC Cadets, who report developing their awareness during high school and college.

There are no significant differences between male and female non-ROTC Cadets in terms of first awareness. However, ethnic differences among non-ROTC Cadets are significant ($X^2$=17.09, df=6, p<.01). Generally, a higher percentage of black and white non-ROTC Cadets report ROTC awareness during high school. More Hispanic non-ROTC Cadets become aware of ROTC during college.

Sources of program awareness show sex and ethnic differences among ROTC Cadets. Male ROTC Cadets report friends, ROTC personnel on campus, and pamphlets as the top three sources of their ROTC awareness. Female ROTC Cadets report their top three as all interpersonal sources: friends, ROTC personnel on campus, followed by information from ROTC recruiters.

Significantly more female than male ROTC Cadets report friends, ROTC recruiters, and magazine/newspaper ads as awareness sources. Male ROTC Cadets report the family as an awareness source significantly more often than female ROTC Cadets. There are no significant differences between male and female ROTC Cadets in terms of the mean number of awareness sources they mention. Males mention 5.73, while females mention 5.86.

Black ROTC Cadets most often report ROTC personnel on campus and friends as their sources of program awareness. Tied for third in importance are pamphlets and ROTC recruiters. White ROTC Cadets reveal friends, ROTC personnel on campus, and pamphlets as their three most frequent sources of awareness. Hispanic ROTC Cadets most often report friends, pamphlets, and ROTC personnel on campus as their awareness sources.

Significantly more black than white or Hispanic ROTC Cadets report awareness by ROTC personnel on campus, magazines or newspaper ads and personal reading. Blacks also report a significantly higher mean number of awareness sources (6.54) over white (5.65) or Hispanic (5.17) ROTC Cadets ($F[2,658]=7.127$, $p<.001$).

Male and female non-ROTC Cadets most often report friends and pamphlets as their sources of ROTC awareness. Males report ROTC recruiters as the third most important source, while females report radio/T.V. as their third most important ROTC awareness source. Significantly more female non-ROTC Cadets report becoming aware of the program through ROTC personnel on campus, and radio/T.V., while significantly more males report gaining their awareness through personal reading. There are no differences in the average number of sources mentioned by males (5.23) and females (5.32).

Among blacks, friends, ROTC recruiters, and magazine/newspaper ads are tied as the most important awareness sources. White non-ROTC Cadets are made aware equally through friends and pamphlets, followed by radio/T.V. Hispanic non-ROTC Cadets report friends, ROTC personnel on campus, and pamphlets as their awareness sources. There are two sources that reveal significant ethnic differences. White non-ROTC Cadets report radio/T.V. more frequently as a source than do black or Hispanic non-ROTC Cadets. Similarly, black non-ROTC Cadets report magazines or newspaper ads as an important source more frequently than do white or Hispanic non-ROTC Cadets. There are no significant ethnic differences among non-ROTC Cadets in terms of the average number of ROTC awareness sources mentioned.

There are significant sex and ethnic differences among Cadets concerning when they first become aware of the Scholarship Program (See Table 50). Specifically, over 50% of the males report awareness during high school, while over 50% of the females report first awareness during the college years.

TABLE 50

First Awareness and Sources of Awareness of the ROTC Scholarship Program by Sex and Ethnicity of Cadets and Non-Cadets

| Time of First Awareness of ROTC Scholarship Program | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
| During grade school | 2.3 | 3.6 | 0.5 | $X^2(3)=18.48^{***}$ | 3.2 | 2.8 | 3.0 | $X^2(6)=23.52^{***}$ | 1.7 | 1.1 | $X^2(3)=$ NS | 2.3 | 0.8 | 2.0 | $X^2(6)=15.50^{*}$ |
| During high school | 47.6 | 53.1 | 38.9 | | 41.9 | 53.5 | 37.9 | | 45.2 | 44.6 | | 34.1 | 52.2 | 33.0 | |
| After arriving at college | 39.5 | 38.1 | 53.0 | | 50.0 | 39.5 | 42.4 | | 33.5 | 37.1 | | 40.9 | 32.5 | 39.0 | |
| Never heard of until now | 10.6 | 5.2 | 7.6 | | 4.8 | 4.2 | 16.7 | | 19.6 | 17.2 | | 22.7 | 14.5 | 26.0 | |
| Sources of First Awareness of ROTC Scholarship Program | | | | | | | | | | | | | | | |
| ROTC personnel on campus | 59.9 | 68.3 | 75.0 | $X^2(1)=$ NS | 82.9 | 67.9 | 65.2 | $X^2(2)=11.58^{**}$ | 42.7 | 43.7 | $X^2(1)=$ NS | 36.4 | 44.1 | 45.0 | $X^2(2)=$ NS |
| ROTC recruiters | 55.7 | 61.5 | 67.0 | $X^2(1)=$ NS | 71.5 | 62.2 | 57.6 | $X^2(2)=$ NS | 42.2 | 45.9 | $X^2(1)=$ NS | 34.1 | 47.8 | 39.4 | $X^2(2)=$ NS |
| Pamphlets | 51.8 | 55.2 | 56.0 | $X^2(1)=$ NS | 63.4 | 54.3 | 51.5 | $X^2(2)=$ NS | 46.6 | 44.8 | $X^2(1)=$ NS | 29.5 | 50.8 | 40.0 | $X^2(2)=8.58^{*}$ |

(Continued)

TABLE 50
(Continued)

| Sources of First Awareness of ROTC Scholarship Program | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
| Friends | 40.7 | 42.7 | 42.3 | $X^2(1)=$ NS | 43.1 | 42.6 | 37.9 | $X^2(2)=$ NS | 40.1 | 34.6 | $X^2(1)=$ NS | 38.6 | 36.0 | 40.0 | $X^2(2)=$ NS |
| Other military personnel | 40.7 | 44.8 | 44.0 | $X^2(1)=$ NS | 50.4 | 44.9 | 36.4 | $X^2(2)=$ NS | 36.6 | 31.1 | $X^2(1)=$ NS | 38.6 | 36.2 | 29.0 | $X^2(2)=$ NS |
| Magazine or newspaper ads | 40.1 | 40.8 | 40.8 | $X^2(1)=$ NS | 47.2 | 41.1 | 36.4 | $X^2(2)=$ NS | 37.1 | 41.8 | $X^2(1)=$ NS | 45.5 | 43.7 | 24.0 | $X^2(6)=$ 12.59** |
| Teachers/ counselors | 38.9 | 42.5 | 41.2 | $X^2(1)=$ NS | 44.7 | 42.7 | 34.8 | $X^2(2)=$ NS | 34.5 | 32.4 | $X^2(1)=$ NS | 29.5 | 35.6 | 29.0 | $X^2(2)=$ NS |
| Radio/T.V. | 37.3 | 38.2 | 33.7 | $X^2(1)=$ NS | 42.3 | 38.3 | 24.2 | $X^2(2)=$ 6.26* | 37.1 | 38.8 | $X^2(1)=$ NS | 36.4 | 41.3 | 29.0 | $X^2(2)=$ NS |
| Personal reading | 28.1 | 31.3 | 31.5 | $X^2(1)=$ NS | 48.8 | 28.5 | 24.2 | $X^2(2)=$ 20.41*** | 27.3 | 16.9 | $X^2(1)=$ 6.21* | 29.5 | 20.1 | 25.0 | $X^2(2)=$ NS |
| Family | 26.6 | 33.8 | 20.3 | $X^2(1)=$ 11.47*** | 22.8 | 31.9 | 27.3 | $X^2(2)=$ NS | 20.7 | 20.9 | $X^2(1)=$ NS | 15.9 | 22.9 | 16.0 | $X^2(2)=$ NS |
| Other sources not above | 22.3 | 25.3 | 18.3 | $X^2(1)=$ NS | 25.2 | 23.2 | 22.7 | $X^2(2)=$ NS | 22.9 | 17.0 | $X^2(1)=$ NS | 23.3 | 19.4 | 21.0 | $X^2(2)=$ NS |
| Mean number of sources mentioned $\bar{X}$ = | 4.80 | 5.03 | 4.86 | $t(676)=$ NS | 5.56 | 4.92 | 4.52 | $F(2,651)=$ 3.909* | 4.56 | 4.30 | $t(408)=$ NS | 4.22 | 4.54 | 4.24 | $F(2,391)=$ NS |

* $p < .05$
** $p < .01$
*** $p < .001$

Whites, as a group, are aware of scholarships at an earlier time in their lives than blacks, who in turn, are aware before Hispanics ($X^2$=23.52, df=6, p<.001). Four in ten black ROTC Cadets report becoming aware of ROTC scholarships during high school, while an additional 50.0% become aware during college. Over half (53.5%) of the white ROTC Cadets report becoming aware of ROTC scholarships during high school and 39.5% during college. A little over a third (37.9%) of the Hispanic ROTC Cadets report becoming aware during high school and 42.4% during college.

Male and female non-ROTC Cadets are similar in their response patterns, with almost 50% of both groups showing awareness of the ROTC Scholarship Program during high school. Significant ethnic differences are evident among non-ROTC Cadets ($X^2$=15.50, df=6, p<.05). Relatively more white non-ROTC Cadets report awareness during high school, while more black and Hispanic non-ROTC Cadets first become aware of the Scholarship Program during college. Also, a larger percentage of black (22.7%) and Hispanic (26.0%), rather than white non-ROTC Cadets report never having heard of the ROTC Scholarship Program until the time of the survey.

Male and female ROTC Cadets are similar in the ROTC scholarship awareness sources they mention. The three most frequently mentioned sources are ROTC personnel on campus, ROTC recruiters, and pamphlets. Significantly, more male than female ROTC Cadets report their family as a source of awareness. Additionally, the male and female ROTC Cadets report similar average numbers of awareness sources (See Table 50).

Ethnic differences are, in general, very few. The three most frequently mentioned awareness sources for black, white, and Hispanic ROTC Cadets parallel those for male and female ROTC Cadets. Significantly more black than white or Hispanic ROTC Cadets report ROTC

personnel on campus, radio/T.V., and personal reading as sources of awareness. Moreover, blacks report a significantly higher average number of ROTC Scholarship Program awareness sources (5.56) than do white (4.92) or Hispanic (4.52) ROTC Cadets ($F[2,651] = 3.909$, $p<.05$).

Male non-ROTC Cadets report pamphlets, ROTC personnel on campus, and ROTC recruiters as the three most frequent awareness sources. Female non-ROTC Cadets report ROTC recruiters, pamphlets, and ROTC personnel on campus as their most frequent awareness sources. Significantly more male than female non-ROTC Cadets report personal reading as a source. There are no significant differences among male and female non-ROTC Cadets in terms of the average number of sources mentioned.

Black non-ROTC Cadets attribute their first awareness of ROTC scholarships to magazines or newspaper ads, friends, and "other" military personnel. White non-ROTC Cadets report pamphlets, ROTC recruiters, and ROTC personnel on campus as their most frequent awareness sources. Hispanic non-ROTC Cadets report ROTC personnel on campus as the most frequent source of awareness, followed equally by pamphlets and friends. Two awareness sources exhibit significant ethnic differences. Significantly more white than Hispanic or black non-ROTC Cadets attribute awareness to pamphlets, while significantly more black than white or Hispanic non-ROTC Cadets attribute awareness to magazine or newspaper ads. There are no significant differences among the average number of awareness sources mentioned by black, white, and Hispanic non-ROTC Cadets.

2. Knowledge of ROTC and the Army

As mentioned in an earlier chapter, over half of the respondents know something about Army ROTC, with the remainder split between knowing little or nothing and

knowing a great deal. Male and female ROTC Cadets exhibit significant differences ($X^2$=18.60, df=2, p<.001) in their reponses to this query. As shown in Table 51, males are more likely to report knowing a great deal about the Army (36.3%) than females (25.4%). On the other hand, females report knowing little about the Army (17.3%) more often than males (7.2%).

Likewise, there are significant ethnic differences among ROTC Cadets on this variable ($X^2$=12.56, df= 4, p<.05). Hispanic ROTC Cadets report knowing little or nothing about Army ROTC (21.2%), while black and white ROTC Cadets appear to be fairly knowledgeable.

Male and female non-ROTC Cadets also show significant response differences ($X^2$=16.17, df=2, p<.001). A majority of the male non-ROTC Cadets report some knowledge of Army ROTC (57.8%), with the remainder reporting little or no knowledge (31.9%) or a great deal (10.3%). Fewer female non-ROTC Cadets report some knowledge (45.0%), more report little or no knowledge (50.3%), and only a few say a great deal (4.3%).

Ethnic differences among non-ROTC Cadets are also strong enough to reach statistical significance ($X^2$=10.97, df=4, p<.05). Over half of the black, white and Hispanic non-ROTC Cadets report knowing something about Army ROTC. Most of the remainder report knowing little or nothing about Army ROTC. However, none of the black non-ROTC Cadets report knowing a great deal about Army ROTC, while 10.9% of the white and 3.0% of Hispanic non-ROTC Cadets report knowing a great deal about Army ROTC.

Supplementing students' self-assessed knowledge levels was a 15-item true/false battery on knowledge of aspects of ROTC and military service. These results are found in Table 51.

In general, male Cadets more often give correct answers to the knowledge questions than female Cadets. For both sexes, the three statements most

TABLE 51

Knowledge of ROTC and the Army by Sex and Ethnicity of Cadets and Non-Cadets

| Respondents' Knowledge about Army ROTC | Total % | ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | NON-ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Little/nothing | 21.4 | 7.2 | 17.3 | $X^2(2)=18.60$*** | 6.5 | 8.9 | 21.2 | $X^2(4)=12.56$* | 31.9 | 50.3 | $X^2(2)=16.17$*** | 45.5 | 38.4 | 38.6 | $X^2(4)=10.97$* |
| Some | 54.9 | 56.5 | 57.3 | | 58.1 | 58.2 | 45.5 | | 57.8 | 45.0 | | 54.5 | 50.8 | 58.4 | |
| A great deal | 23.6 | 36.3 | 25.4 | | 35.5 | 32.9 | 33.3 | | 10.3 | 4.8 | | 0 | 10.9 | 3.0 | |
| Army/ROTC Information Statements Responded to Correctly | | | | | | | | | | | | | | | |
| ROTC is available for both men and women (T) | 95.8 | 96.6 | 97.2 | $X^2(1)=$ NS | 95.1 | 97.2 | 96.9 | $X^2(2)=$ NS | 92.1 | 97.1 | $X^2(1)=4.66$* | 88.6 | 95.5 | 93.5 | $X^2(2)=$ NS |
| Postgraduate schooling is available to officers while in the Army(T) | 86.9 | 88.9 | 89.5 | $X^2(1)=$ NS | 78.7 | 92.9 | 83.1 | $X^2(2)=23.56$*** | 81.1 | 86.2 | $X^2(1)=$ NS | 81.8 | 85.0 | 80.6 | $X^2(2)=$ NS |

(Continued)

TABLE 51

(Continued)

| | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| ROTC scholarships are available for each college year (T) | 81.2 | 82.8 | 83.4 | $X^2(1)=$ NS | 82.0 | 83.8 | 78.5 | $X^2(2)=$ NS | 77.5 | 78.7 | $X^2(1)=$ NS | 77.3 | 78.1 | 77.4 | $X^2(2)=$ NS |
| Some ROTC graduates fulfill most of their Army obligations in the Reserves (T) | 73.2 | 73.9 | 74.6 | $X^2(1)=$ NS | 65.6 | 76.5 | 72.3 | $X^2(2)=$ 6.12* | 70.0 | 73.6 | $X^2(1)=$ NS | 70.5 | 73.3 | 67.7 | $X^2(2)=$ NS |
| ROTC pays all Cadets $100 per month during junior and senior years of college (T) | 71.9 | 77.8 | 79.0 | $X^2(1)=$ NS | 84.4 | 77.8 | 72.3 | $X^2(2)=$ NS | 62.1 | 60.3 | $X^2(1)=$ NS | 47.7 | 66.8 | 55.9 | $X^2(2)=$ 7.68* |
| All officers must serve in the infantry at least one year (F) | 70.8 | 80.2 | 68.0 | $X^2(1)=$ 11.20*** | 66.4 | 79.1 | 81.5 | $X^2(2)=$ 9.61** | 66.5 | 52.3 | $X^2(1)=$ 8.32** | 45.5 | 66.8 | 52.7 | $X^2(2)=$ 10.66** |

(Continued)

TABLE 51
(Continued)

| | | ROTC CADETS | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| After an obligated duty period, officers may resign from the Army at any time (T) | 70.5 | 70.9 | 72.9 | $X^2(1)=$ NS | 70.5 | 72.4 | 64.6 | $X^2(2)=$ NS | 69.6 | 67.8 | $X^2(1)=$ NS | 65.9 | 68.4 | 73.1 | $X^2(2)=$ NS |
| ROTC requires attending a summer camp each year of college (F) | 68.5 | 81.4 | 74.0 | $X^2(1)=$ 4.42* | 71.3 | 80.6 | 83.1 | $X^2(2)=$ NS | 52.9 | 44.3 | $X^2(1)=$ NS | 36.4 | 52.6 | 50.5 | $X^2(2)=$ NS |
| ROTC pays all Cadets $100 per month during freshman and sophomore years of college (F) | 68.1 | 77.4 | 72.4 | $X^2(1)=$ NS | 84.4 | 73.3 | 78.5 | $X^2(2)=$ 6.82* | 57.7 | 50.6 | $X^2(1)=$ NS | 47.7 | 54.7 | 57.0 | $X^2(2)=$ NS |

(Continued)

TABLE 51
(Continued)

| | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| The starting base pay for officers is over $900 per month (T) | 67.6 | 70.5 | 71.8 | $X^2(1)=$ NS | 63.1 | 72.6 | 69.2 | $X^2(2)=$ NS | 65.2 | 58.0 | $X^2(1)=$ NS | 59.1 | 62.3 | 61.3 | $X^2(2)=$ NS |
| It is possible to join the last two years of ROTC without attending the first two (T) | 65.6 | 73.5 | 60.8 | $X^2(1)=$ 10.30** | 51.6 | 74.1 | 76.9 | $X^2(2)=$ 24.99*** | 59.5 | 56.3 | $X^2(1)=$ NS | 52.3 | 56.7 | 63.4 | $X^2(2)=$ NS |
| Officers can retire after 14 years' duty at one-half of their pay (F) | 53.7 | 61.2 | 47.5 | $X^2(1)=$ 10.18** | 57.4 | 56.0 | 67.7 | $X^2(2)=$ NS | 52.4 | 40.2 | $X^2(1)=$ 5.88* | 40.9 | 48.6 | 50.5 | $X^2(2)=$ NS |
| Graduating from ROTC means that you have to serve four years of active duty in the Army (F) | 51.2 | 54.1 | 50.3 | $X^2(1)=$ NS | 53.3 | 51.3 | 66.2 | $X^2(2)=$ NS | 45.8 | 50.6 | $X^2(1)=$ NS | 43.2 | 52.2 | 40.9 | $X^2(2)=$ NS |

(Continued)

TABLE 51
(Continued)

| | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance | Male % | Female % | Test of Signif-icance | Black % | White % | Hispanic % | Test of Signif-icance |
| Officers receive a maximum of 20 days' paid vacation per year (F) | 47.0 | 54.9 | 39.8 | $X^2(1)=$ 12.20*** | 41.8 | 52.1 | 53.8 | $X^2(2)=$ NS | 42.7 | 37.4 | $X^2(1)=$ NS | 31.8 | 44.5 | 36.6 | $X^2(2)=$ NS |
| All officers must serve at least (4) four years active duty (F) | 43.7 | 51.9 | 42.5 | $X^2(1)=$ 4.66* | 46.7 | 48.9 | 58.5 | $X^2(2)=$ NS | 33.5 | 35.1 | $X^2(1)=$ NS | 29.5 | 38.5 | 24.7 | $X^2(2)=$ 6.13* |
| Mean number of statements responded to correctly $\bar{X}$ = | 10.15 | 10.96 | 10.24 | $t(675)=$ 3.636*** | 10.12 | 10.89 | 11.03 | $F(2,652)=$ 5.610** | 9.29 | 8.89 | $t(400)=$ NS | 8.18 | 9.44 | 88.6 | $F(2,381)=$ 7.171*** |

* $p < .05$
** $p < .01$
*** $p < .001$

often correctly answered concern the availability of ROTC to men and women, postgraduate schooling, and ROTC scholarships. Male ROTC Cadets correctly respond to six of the 15 statements significantly more often than do female ROTC Cadets. In addition, males correctly respond to a higher average number of statements than do female ROTC Cadets ($t=3.636$, $df=675$, $p<.001$).

The statements most often correctly answered by black ROTC Cadets concern: availability of ROTC to men and women, and the paid allowance during the junior and senior years and not during the freshman and sophomore years of college. White ROTC Cadets most often correctly identify the availability of ROTC for both men and women, postgraduate schooling, and ROTC scholarships for each year of college. Hispanic ROTC Cadets also identify most frequently that ROTC is for both men and women and that postgraduate schooling was available. They also know that a summer camp is not a requirement for ROTC.

Five of the 15 statements reveal significant ethnic differences among ROTC Cadets. Significantly more white and Hispanic rather than black ROTC Cadets know of the availability of postgraduate schooling, know that service obligations can be fulfilled in the reserves, that officers do not have to serve in the infantry, and that it is possible to join the last two years of ROTC without attending the first two.

However, significantly more black ROTC Cadets know that ROTC does not pay $100 per month during the freshman and sophomore years of college. In addition, Hispanics have significantly more correct answers, on the average, than do black or white ROTC Cadets ($F[2,652]=5.610$, $p<.01$).

Non-ROTC Cadets also show similar male and female responses to the ROTC/Army statements. The three statements to which correct responses are most often given are identical to those described for male and female ROTC Cadets. In general, the non-ROTC Cadets show lower frequency of correct responses to the

statements than do the ROTC Cadets. Significantly more female than male non-ROTC Cadets are aware that ROTC is available to men and women. However, significantly more male non-ROTC Cadets know that officers do not have to serve in the infantry and that officers cannot retire after 14 years of duty at one-half of their pay. There are no significant differences between the average number of statements responded to correctly by male and female non-ROTC Cadets.

Black, white, and Hispanic non-ROTC Cadets also correctly responded to the knowledge statements in a manner similar to males and females. The three statements most often correct for each group are the same as for the male and female non-ROTC Cadets. Significantly more white than Hispanic or black non-ROTC Cadets know that ROTC pays $100 per month during the junior and senior years of college and that officers do not have to serve in the infantry for a year. Significantly more white than black or Hispanic non-ROTC Cadets are aware that officers do not have to serve four years of active duty. Furthermore, white non-ROTC Cadets correctly respond to more statements, on the average, than do Hispanic and black non-ROTC Cadets ($F[2,381]=7.171$, $p<.001$).

3. Attractiveness of college ROTC program

Male and female ROTC Cadets are attracted to the program by the ROTC instructors, guaranteed job after college, and the Scholarship Program (See Table 52). In general, females assign higher attractiveness ratings to the aspects of college ROTC than do men, with four aspects revealing large enough differences to be significant. Females also rate significantly more aspects of college ROTC as attractive than do male ROTC Cadets ($t=2.553$, $df=671$, $p<.05$).

All ethnic groups find the guaranteed job after college, ROTC instructors, and the Scholarship Program attractive aspects of ROTC. Black ROTC Cadets also mention the quality of the program. Significant ethnic differences are evident for six out of ten

TABLE 52

Attractiveness of College ROTC Program By Sex and Ethnicity of Cadets and Non-Cadets

| Mean Attractiveness Rating of Aspects of College ROTC Program[1] | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Guaranteed job after college | 3.83 | 4.03 | 4.14 | t(670)= NS | 4.18 | 4.01 | 4.22 | F(2,646)= NS | 3.38 | 3.51 | t(394)= NS | 3.58 | 3.37 | 3.48 | F(2,375) =NS |
| Scholarship Program | 3.78 | 3.96 | 4.04 | t(670)= NS | 3.99 | 3.96 | 4.20 | F(2,646)= NS | 3.41 | 3.50 | t(393)= NS | 3.51 | 3.41 | 3.46 | F(2,374) =NS |
| ROTC instructors | 3.72 | 4.06 | 4.16 | t(671)= NS | 4.12 | 4.08 | 4.20 | F(2,647)= NS | 3.18 | 2.99 | t(391)= NS | 3.28 | 2.98 | 3.26 | F(2,373) =3.035* |
| Quality of the Program (instructors, training, etc.) | 3.63 | 3.81 | 3.94 | t(671)= NS | 4.00 | 3.81 | 3.97 | F(2,647)= NS | 3.33 | 3.18 | t(395)= NS | 3.19 | 3.22 | 3.33 | F(2,376) =NS |
| Program activities (courses, modules, labs, social functions, etc.) | 3.59 | 3.84 | 3.92 | t(671)= NS | 3.98 | 3.80 | 4.08 | F(2,647)= 3.376* | 3.30 | 2.88 | t(394)= 3.875*** | 3.33 | 3.00 | 3.27 | F(2,375) =3.077* |

(Continued)

TABLE 52
(Continued)

| Mean Attractiveness Rating of Aspects of College ROTC Program[1] | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Program environment (social climate, morale, etc.) | 3.42 | 3.62 | 3.86 | t(671)= 2.630** | 3.89 | 3.59 | 3.97 | F(2,647)= 6.506** | 3.04 | 2.90 | t(393)= NS | 3.35 | 2.82 | 3.16 | F(2,375) =6.530** |
| Program requirements | 3.33 | 3.54 | 3.73 | t(671)= 2.268* | 3.80 | 3.53 | 3.74 | F(2,647)= 4.292* | 2.99 | 2.79 | t(395)= NS | 2.98 | 2.80 | 3.05 | F(2,376) =NS |
| Image of the Program | 3.32 | 3.47 | 3.86 | t(671)= 2.558* | 3.81 | 3.42 | 3.80 | F(2,647)= 10.098*** | 3.00 | 2.96 | t(394)= NS | 3.00 | 2.87 | 3.12 | F(2,375) =NS |
| ROTC Cadets | 3.29 | 3.42 | 3.76 | t(671)= 3.795*** | 3.77 | 3.40 | 3.85 | F(2,647)= 9.332*** | 2.86 | 3.01 | t(393)= NS | 3.07 | 2.81 | 3.05 | F(2,374) =NS |
| Obligated duty requirement | 3.06 | 3.24 | 3.38 | t(671)= NS | 3.53 | 3.18 | 3.48 | F(2,647)= 5,822** | 2.75 | 2.60 | t(392)= NS | 2.98 | 2.58 | 2.75 | F(2,373) =NS |
| Average number of things found attractive about college ROTC $\bar{X}$ = | 3.50 | 3.70 | 3.86 | t(671)= 2.553* | 3.91 | 3.68 | 3.95 | F(2,647)= 7.111*** | 3.12 | 3.03 | t(395)= NS | 3.23 | 2.98 | 3.19 | F(2,376)= 3,093* |

[1](1 = Very unattractive, 5 = Very attractive)

* $p < .05$
** $p < .01$
*** $p < .001$

aspects rated by ROTC Cadets. Hispanic ROTC Cadets find ROTC program activities, environment, and the ROTC Cadets themselves significantly more attractive than do black or white ROTC Cadets. Black ROTC Cadets find the program requirements, image of the program, and obligated duty requirements significantly more attractive than do Hispanic or white ROTC Cadets. Overall, Hispanic and black ROTC Cadets find more aspects attractive about the college ROTC program than do white ROTC Cadets.

Male non-ROTC Cadets differ from their female counterparts in that they find the program activities to be significantly more attractive. There are no significant differences in the average number of program aspects found attractive by male and female non-ROTC Cadets.

Significantly more black and Hispanic than white non-ROTC Cadets report ROTC instructors and program activities as attractive. The program environment is significantly more attractive to black than Hispanic or white non-ROTC Cadets. Black non-ROTC Cadets report a significantly greater average number of ROTC aspects as attractive than do Hispanic or white non-ROTC Cadets.

4. Attractiveness ratings of aspects of the Army

Male ROTC Cadets reveal that job security, officer responsibilities, and officer pay and fringe benefits are the most attractive aspects of the Army to them (See Table 53). Female ROTC Cadets also find job security as the number one attractive aspect of the Army. This is followed by officer pay and fringe benefits and quality of Army officers. There are significant sex differences among ROTC Cadets on six of 16 Army aspects. Females rate the attractiveness of officer pay and fringe benefits, quality of Army officers, goals of the Army, required mobility and travel, and the public image of the Army as significantly higher than male ROTC Cadets. However, the males find Army training significantly more attractive than female ROTC Cadets. There are no sex differences in the average number of aspects of Army life found attractive among ROTC Cadets.

TABLE 53

Attractiveness Ratings of Aspects of the Army by Sex and Ethnicity of Cadets and Non-Cadets

| Mean Attractiveness Rating of Aspects of the Army[1] | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Job security | 3.94 | 4.11 | 4.17 | t(673)= NS | 4.27 | 4.09 | 4.14 | F(2,649)= NS | 3.59 | 3.66 | t(398)= NS | 3.84 | 3.67 | 3.46 | F(2,380) =NS |
| Officer responsibilities | 3.59 | 3.79 | 3.76 | t(674)= NS | 3.94 | 3.72 | 3.94 | F(2,650)= 3.139* | 3.28 | 3.25 | t(396)= NS | 3.35 | 3.24 | 3.33 | F(2,378) =NS |
| Officer pay and fringe benefits | 3.55 | 3.71 | 3.94 | t(674)= 2.505* | 4.02 | 3.70 | 3.88 | F(2,650)= 4.449* | 3.09 | 3.29 | t(397)= NS | 3.37 | 3.17 | 3.13 | F(2,379) =NS |
| Quality of Army officers | 3.48 | 3.64 | 3.83 | t(673)= 2.338* | 4.02 | 3.59 | 3.82 | F(2,649)= 9.964*** | 3.06 | 3.19 | t(398)= NS | 3.42 | 3.09 | 3.11 | F(2,380) =NS |
| Goals of the Army | 3.44 | 3.59 | 3.80 | t(674)= 2.380* | 4.06 | 3.49 | 3.95 | F(2,650)= 16.461*** | 3.06 | 3.16 | t(397)= NS | 3.47 | 3.05 | 3.02 | F(2,379) =NS |
| Available recreation and entertainment | 3.34 | 3.49 | 3.56 | t(674)= NS | 3.66 | 3.46 | 3.68 | F(2,650)= NS | 3.04 | 3.09 | t(396)= NS | 3.26 | 3.07 | 2.95 | F(2,378) =NS |
| Relevance of the military to society | 3.33 | 3.49 | 3.51 | t(672)= NS | 3.78 | 3.40 | 3.58 | F(2,648)= 6.763*** | 3.11 | 2.99 | t(398)= NS | 3.19 | 3.08 | 2.84 | F(2,380) =NS |
| Required mobility and travel | 3.29 | 3.32 | 3.68 | t(674)= 3.730*** | 3.89 | 3.29 | 3.51 | F(2,650)= 13.170*** | 2.90 | 3.29 | t(397)= 3.094** | 3.30 | 3.08 | 2.96 | F(2,379) =NS |
| Army training | 3.22 | 3.52 | 3.27 | t(674)= 2.522* | 3.63 | 3.41 | 3.51 | F(2,650)= NS | 2.96 | 2.63 | t(399)= 2.835** | 3.16 | 2.72 | 2.88 | F(2,381) =NS |

(Continued)

TABLE 53
(Continued)

| | Total $\bar{X}$ | ROTC CADETS | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Day-to-day activities | 3.21 | 3.43 | 3.46 | t(673)= NS | 3.79 | 3.33 | 3.63 | F(2,649)= 10.067*** | 2.87 | 2.78 | t(396)= NS | 3.07 | 2.74 | 2.96 | F(2,378) =NS |
| Discipline required | 3.18 | 3.44 | 3.30 | t(674)= NS | 3.66 | 3.31 | 3.65 | F(2,650)= 5.882** | 2.85 | 2.71 | t(399)= NS | 3.05 | 2.67 | 2.94 | F(2,381) =3.070* |
| Nature of personal relationships | 3.13 | 3.27 | 3.38 | t(673)= NS | 3.35 | 3.28 | 3.34 | F(2,649)= NS | 2.83 | 2.89 | t(398)= NS | 3.05 | 2.83 | 2.83 | F(2,380) =NS |
| Public image of the Army | 3.02 | 3.11 | 3.34 | t(674)= 2.408* | 3.56 | 3.05 | 3.35 | F(2,650)= 11.941*** | 2.67 | 2.87 | t(397)= NS | 3.16 | 2.70 | 2.76 | F(2,379) =3.301* |
| Living arrangements | 2.66 | 2.87 | 2.91 | t(674)= NS | 3.35 | 2.70 | 3.29 | F(2,650)= 23.734*** | 2.36 | 2.20 | t(399)= NS | 2.77 | 2.13 | 2.45 | F(2,381) =7.736*** |
| Prejudice in the Army | 2.60 | 2.68 | 2.65 | t(674)= NS | 2.72 | 2.68 | 2.57 | F(2,650)= NS | 2.45 | 2.53 | t(398)= NS | 2.70 | 2.47 | 2.44 | F(2,380) =NS |

(Continued)

TABLE 53
(Continued)

| | | ROTC CADETS | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Personal freedom in the Army | 2.53 | 2.63 | 2.70 | t(674)= NS | 2.89 | 2.54 | 2.97 | F(2,650)= 8.143*** | 2.23 | 2.50 | t(399)= 2.317* | 2.74 | 2.24 | 2.47 | F(2,381) =4.199** |
| Average number of things found attractive about Army life $\bar{X}$ = | 3.22 | 3.38 | 3.45 | t(673)= NS | 3.66 | 3.32 | 3.55 | F(2,649)= 13.299*** | 2.90 | 2.94 | t(396)= NS | 3.18 | 2.88 | 2.91 | F(2,378) =NS |

[1](1 = Very unattractive, 5 = Very attractive)

* $p < .05$
** $p < .01$
*** $p < .001$

Black ROTC Cadets attribute the greatest attractiveness to job security and goals of the Army. These are followed with equal frequency by officer pay and fringe benefits and quality of Army officers. White ROTC Cadets believe the job security, officer responsibilities, and officer pay and fringe benefits to be the most attractive aspects of the Army. Hispanic ROTC Cadets think job security, goals of the Army, and officer responsibilities are the most attractive. Eleven out of 16 aspects reveal significant ethnic differences among ROTC Cadets. In all cases, black, and Hispanic ROTC Cadets find aspects of Army life more attractive than do white ROTC Cadets. Black ROTC Cadets rate significantly more aspects of the Army as attractive than do Hispanic or white ROTC Cadets ($F[2,649]=13.299$, $p<.001$).

Male non-ROTC Cadets find the job security, officer responsibilities, and relevance of the military to society as the most attractive aspects of the Army. Female non-ROTC Cadets report job security most attractive. This is followed with equal frequency by officer pay and fringe benefits and required mobility and travel. Females report that the mobility and travel in addition to the personal freedom in the Army are significantly more attractive than they are for male non-ROTC Cadets. However, the males believe Army training is more attractive than do the female non-ROTC Cadets. Male and female non-ROTC Cadets rate similar numbers of aspects of Army life as attractive.

Black non-ROTC Cadets rate as most attractive job security, goals of the Army, and quality of Army officers. White and Hispanic non-ROTC Cadets attribute the greatest attractiveness to job security, officer responsibilities, and officer pay and fringe benefits. Four out of 16 aspects of the Army reveal significant ethnic differences among the non-ROTC Cadets. In all cases, blacks rate the aspects more attractive than do Hispanics who rate them higher than do white non-ROTC Cadets. Black, white, and Hispanic non-ROTC Cadets find a similar number of Army aspects attractive.

## 5. Feelings about military service

When asked about their feelings toward military service, almost half said they would serve if needed. There are, however, notable sex and ethnic differences as shown in Table 54. The differences between male and female Cadets is carried primarily by the degree of prior thinking about their service commitment. Whereas 18.5% of the male ROTC Cadets say they have not given much thought to serving, 41.0% of the females respond the same way.

Although most of the ROTC Cadet respondents feel it is their duty to serve, if needed, a larger percentage of white (26.6%) and Hispanic (31.8%) than black (15.7%) ROTC Cadets feel it is their duty to serve, regardless of need. A larger percentage of black (33.1%) rather than white (22.5%) or Hispanic (24.2%) ROTC Cadets report not having given much thought to service in the military.

Sex differences are significant among non-ROTC Cadets ($X^2$=13.01, df=2, $p<.01$). Over half (54.1%) of the male non-ROTC Cadets would serve if needed, while 38.2% of the females would. Most female non-Cadets (57.1%) have not given it much thought (as compared to 38.7% of the males).

Ethnic differences also are significant among non-ROTC Cadets ($X^2$=11.69, df=4, $p<.05$). Approximately half of the white (49.8%) and Hispanic (50.0%) non-ROTC Cadets would serve if needed, while this is true for only 31.0% of the black non-ROTC Cadets. There are 64.3% of black non-ROTC Cadets who have not given much thought to the military, which is more than white and Hispanic non-ROTC Cadets (45.7% and 38.9%, respectively). Only a small percentage of black (4.8%), white (4.5%) and Hispanic (11.1%) non-ROTC Cadets feel a duty to serve.

TABLE 54

Feeling about Military Service by Sex and Ethnicity of Cadets and Non-Cadets

| Respondents' Feelings about Military Service | Total % | ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | NON-ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I haven't given much thought to military service | 32.7 | 18.5 | 41.0 | $X^2(2)=41.55^{***}$ | 33.1 | 22.5 | 24.2 | $X^2(2)=10.77^{*}$ | 38.7 | 57.1 | $X^2(2)=13.01^{**}$ | 64.3 | 45.7 | 38.9 | $X^2(4)=11.69^{*}$ |
| I feel I have a duty to serve if needed | 49.2 | 52.1 | 45.4 | | 51.2 | 50.9 | 43.9 | | 54.1 | 38.2 | | 31.0 | 49.8 | 50.0 | |
| I feel it is my duty to serve in the military | 18.1 | 29.3 | 13.7 | | 15.7 | 26.6 | 31.8 | | 7.2 | 4.7 | | 4.8 | 4.5 | 11.1 | |

* $p < .05$
** $p < .01$
*** $p < .001$

## D. Education and Career Plans

### 1. College major

The selection of a college major differs by sex and ethnicity. Although business is a popular choice among all respondents, choice of major shows a traditional break between males and females (See Table 55). Male ROTC Cadets choose a major in engineering significantly more often than do females. However, the female ROTC Cadets choose a major in education, nursing and foreign language significantly more often than do the male ROTC Cadets.

A significiantly greater number of white than Hispanic or black ROTC Cadets choose majors in engineering and agriculture/forestry. Hispanic ROTC Cadets, significantly more often than other ROTC Cadets, choose majors in education, while black ROTC Cadets significantly more often choose the "other category" as a college major.

Among non-ROTC Cadets, the traditional male-dominated and female-dominated choices are manifested. Male non-ROTC Cadets choose engineering and physical education significantly more often than do females. The female non-ROTC Cadets choose majors in the biological sciences, education, and nursing significantly more often than do males.

There are significantly more black than Hispanic or white non-ROTC Cadets who choose a college major in physical education.

### 2. Sources of financial support

The sources of financial support differ for males and females and for blacks, whites, and Hispanics (See Table 56). There are significantly more female (75.7%) than male (63.6%) ROTC Cadets who report receiving finances from family, while significantly more males (16.3%) than females (10.3%) report work and ROTC scholarships as means of financial support.

TABLE 55

College Major by Sex and Ethnicity of Cadets and Non-Cadets

| Respondents' Actual/Intended Major | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
| Business | 28.6 | 27.5 | 30.1 | $X^2(1)=$ NS | 23.8 | 28.1 | 34.8 | $X^2(2)=$ NS | 33.2 | 24.9 | $X^2(1)=$ NS | 20.0 | 31.4 | 26.0 | $X^2(2)=$ NS |
| Engineering | 13.8 | 18.0 | 4.3 | $X^2(1)=$ 20.85*** | 3.2 | 18.9 | 6.1 | $X^2(2)=$ 24.07*** | 19.4 | 5.2 | $X^2(1)=$ 18.90*** | 11.1 | 11.2 | 18.3 | $X^2(2)=$ NS |
| Social science | 6.9 | 8.8 | 5.9 | $X^2(1)=$ NS | 7.9 | 7.7 | 13.6 | $X^2(2)=$ NS | 3.4 | 7.3 | $X^2(1)=$ NS | 11.1 | 5.0 | 3.8 | $X^2(2)=$ NS |
| Biological science | 5.9 | 6.2 | 4.8 | $X^2(1)=$ NS | 5.6 | 6.2 | 3.0 | $X^2(2)=$ NS | 3.9 | 8.8 | $X^2(1)=$ 4.46* | 2.2 | 7.8 | 3.8 | $X^2(2)=$ NS |
| Education | 5.0 | 2.4 | 7.0 | $X^2(1)=$ 8.10** | 4.8 | 2.6 | 10.6 | $X^2(2)=$ 10.74** | 2.6 | 13.0 | $X^2(1)=$ 16.75*** | 6.7 | 6.6 | 9.6 | $X^2(2)=$ NS |
| Physical science | 4.0 | 4.0 | 2.7 | $X^2(1)=$ NS | 1.6 | 4.0 | 1.5 | $X^2(2)=$ NS | 5.2 | 3.6 | $X^2(1)=$ NS | 4.4 | 3.9 | 5.8 | $X^2(2)=$ NS |
| Agriculture/ forestry | 3.8 | 4.4 | 2.7 | $X^2(1)=$ NS | - | 5.1 | 3.0 | $X^2(2)=$ 7.02* | 2.2 | 5.2 | $X^2(1)=$ NS | 2.2 | 4.7 | 1.9 | $X^2(2)=$ NS |

(Continued)

TABLE 55
(Continued)

| Respondents' Actual/Intended Major | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total % | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
| Fine arts | 2.6 | 2.4 | 4.3 | $X^2(1)=$ NS | 5.6 | 2.1 | 4.5 | $X^2(2)=$ NS | 2.2 | 2.1 | $X^2(1)=$ NS | - | 2.3 | 2.9 | $X^2(2)=$ NS |
| Physical education | 2.4 | 1.8 | 1.1 | $X^2(1)=$ NS | - | 1.9 | 3.0 | $X^2(2)=$ NS | 6.0 | 1.0 | $X^2(1)=$ 7.26** | 13.3 | 1.9 | 4.8 | $X^2(2)=$ 13.46** |
| Nursing | 2.1 | 0.4 | 6.5 | $X^2(1)=$ 24.78*** | 3.2 | 1.7 | 1.5 | $X^2(2)=$ NS | - | 4.7 | $X^2(1)=$ 11.05*** | - | 2.7 | 1.9 | $X^2(2)=$ NS |
| Mathematics | 1.0 | 1.2 | 0.5 | $X^2(1)=$ NS | 1.6 | 0.9 | 1.5 | $X^2(2)=$ NS | 0.4 | 1.6 | $X^2(1)=$ NS | - | 1.2 | 1.0 | $X^2(2)=$ NS |
| English/ literature | 0.8 | 0.6 | 1.1 | $X^2(1)=$ NS | 1.6 | 0.6 | - | $X^2(2)=$ NS | 0.9 | 1.0 | $X^2(1)=$ NS | - | 1.6 | - | $X^2(2)=$ NS |
| Foreign language | 0.7 | 0.4 | 2.2 | $X^2(1)=$ 4.78* | - | 1.1 | 1.5 | $X^2(2)=$ NS | 0.9 | - | $X^2(1)=$ NS | - | - | 1.0 | $X^2(2)=$ NS |
| Other | 16.5 | 16.4 | 21.5 | $X^2(1)=$ NS | 36.5 | 13.8 | 10.6 | $X^2(2)=$ 37.50*** | 13.8 | 15.0 | $X^2(1)=$ NS | 22.2 | 13.6 | 13.5 | $X^2(2)=$ NS |
| Don't know | 5.8 | 5.4 | 5.4 | $X^2(1)=$ NS | 4.8 | 5.3 | 4.5 | $X^2(2)=$ NS | 6.0 | 6.7 | $X^2(1)=$ NS | 6.7 | 6.2 | 5.8 | $X^2(2)=$ NS |

* $p < .05$
** $p < .01$
*** $p < .001$

TABLE 56

Sources of Financial Support by Sex and Ethnicity of Cadets and Non-Cadets

| Sources of Finance for College | Total % | ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance | NON-ROTC CADETS Male % | Female % | Test of Significance | Black % | White % | Hispanic % | Test of Significance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Family | 64.6 | 63.6 | 75.7 | $X^2(1)=8.91^{**}$ | 70.5 | 68.8 | 47.0 | $X^2(2)=13.32^{**}$ | 53.9 | 69.5 | $X^2(1)=10.59^{**}$ | 51.1 | 64.5 | 58.4 | $X^2(2)=$ NS |
| Work | 53.8 | 56.7 | 47.8 | $X^2(1)=4.25^{*}$ | 34.1 | 59.0 | 63.6 | $X^2(2)=26.55^{***}$ | 53.4 | 52.7 | $X^2(1)=$ NS | 26.7 | 59.1 | 52.0 | $X^2(2)=16.41^{***}$ |
| Scholarship (Other) | 33.8 | 28.0 | 25.4 | $X^2(1)=$ NS | 43.5 | 20.9 | 39.4 | $X^2(2)=31.05^{***}$ | 47.2 | 40.5 | $X^2(1)=$ NS | 57.8 | 41.2 | 45.1 | $X^2(2)=$ NS |
| Scholarship (ROTC) | 9.4 | 16.3 | 10.3 | $X^2(1)=3.86^{*}$ | 9.1 | 15.8 | 18.2 | $X^2(2)=$ NS | 1.3 | 0.5 | $X^2(1)=$ NS | - | 0.8 | 1.0 | $X^2(2)=$ NS |

* $p < .05$
** $p < .01$
*** $p < .001$

Significantly fewer Hispanic (47.0%) than black (70.5%) and white (68.8%) ROTC Cadets report financial support from family, while significantly more Hispanic ROTC Cadets report finances coming from work (63.6% versus 34.1% versus 59.0%, respectively).

For all non-ROTC Cadets, support is received primarily from family, work, and other scholarships. Male and female non-ROTC Cadets are relatively similar in their sources of finance for college. The exception is that a significantly greater number of females receive support from their families than do males. Significantly more white (59.1%) than Hispanic (52.0%) or black (26.7%) non-ROTC Cadets report work as a source of college finances.

3. Educational and career plans influencers

Although both parents play an important role in the educational plans of all respondents, some interesting sex and ethnic differences emerge. As shown in Table 57, significantly more female than male ROTC Cadets attribute influence to the mother/female guardian, information from those in the career, teachers, and counselors. Black ROTC Cadets attribute the greatest influence to their mothers/female guardians, followed by their teachers, and then their fathers/male guardians. White ROTC Cadets, on the other hand, report most influence from their fathers/male guardians, then the mothers/female guardians, and information from those in the career. Hispanic ROTC Cadets report their mothers/female guardians, fathers/male guardians, and information from those in the career as the most influential persons on their educational plans.

Sex and ethnic subgroups of non-ROTC Cadets are slightly different from the patterns established by Cadets. Significantly more female than male non-ROTC Cadets report information from those in the career as influencing their educational plans. Black, white, and Hispanic non-ROTC Cadets all report that their mothers/female guardians and fathers/male guardians are the first and second most influential people in their educational plans. Black and Hispanic non-ROTC Cadets attribute the third most influential role to teachers, while white non-ROTC Cadets attribute it to their friends. Significantly more black than

TABLE 57

Educational and Career Plans Influencers by Sex and Ethnicity of Cadets and Non-Cadets

| Mean Size of Role Played by Persons on Educational Plans of Respondent[1] | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Mother/female guardian | 3.69 | 3.66 | 3.88 | t(683)= 2.178* | 4.30 | 3.55 | 3.86 | F(2,659)= 21.208*** | 3.60 | 3.73 | t(423)= NS | 3.77 | 3.68 | 3.50 | F(2,403)= NS |
| Father/male guardian | 3.50 | 3.57 | 3.40 | t(684)= NS | 3.18 | 3.60 | 3.50 | F(2,659)= 4.827** | 3.52 | 3.36 | t(423)= NS | 3.45 | 3.52 | 3.26 | F(2,403)= NS |
| Information from those in the career | 2.77 | 2.84 | 3.09 | t(684)= 2.305* | 3.13 | 2.81 | 3.08 | F(2,660)= 3.723* | 2.41 | 2.75 | t(423)= 2.864** | 2.56 | 2.51 | 2.76 | F(2,403)= NS |
| Teachers | 2.70 | 2.67 | 2.89 | t(684)= 2.079* | 3.37 | 2.51 | 3.06 | F(2,660)= 30.030*** | 2.58 | 2.77 | t(424)= NS | 2.89 | 2.56 | 2.83 | F(2,404)= NS |
| Friends | 2.58 | 2.52 | 2.70 | t(684)= NS | 2.73 | 2.54 | 2.45 | F(2,660)= NS | 2.56 | 2.64 | t(424)= NS | 2.64 | 2.62 | 2.62 | F(2,404)= NS |
| Other relatives | 2.49 | 2.45 | 2.62 | t(683)= NS | 3.08 | 2.35 | 2.39 | F(2,659)= 19.689*** | 2.54 | 2.40 | t(424)= NS | 2.71 | 2.37 | 2.69 | F(2,404)= 3.171* |
| Counselors | 2.27 | 2.25 | 2.49 | t(644)= 2.279* | 2.98 | 2.11 | 2.47 | F(2,659)= 28.692*** | 2.25 | 2.15 | t(423)= NS | 2.69 | 2.03 | 2.44 | F(2,403)= 8.510*** |

[1] (1 = Very small role, 5 = Very large role)

* $p < .05$
** $p < .01$
*** $p < .001$

Hispanic or white non-ROTC Cadets are influenced by other relatives and counselors.

4. Annual salary expectations and career choices

As shown in Table 58, male ROTC Cadets expect significantly higher mean annual salaries ten years after college than do females ($38,330 versus $33,510, respectively). Hispanic Cadets report significantly lower expected salaries ($32,990) than either whites ($37,540), or blacks ($7,360). Male non-ROTC Cadets also expect significantly higher salaries than their female counterparts; salary expectations do not differ among non-ROTC Cadets by ethnicity.

The first choice of careers for male ROTC Cadets is that of a military officer, followed by engineering and business administration (also illustrated in Table 58). Female ROTC Cadets list military officer as their third choice behind careers in business administration and medical/biological sciences. Significantly more male ROTC Cadets choose engineering and military officer than do females. However, the female ROTC Cadets choose medical/biological sciences, teaching/social services, and secretarial/office workers as careers significantly more often than do male ROTC Cadets.

Black and Hispanic ROTC Cadets most frequently mention administration, military officer, and humanities/law/social and behavioral sciences as their first choice careers. White Cadets include engineering among their top choices. Hispanic ROTC Cadets are significantly more interested in being a military officer and in the humanities/law/social and behavioral sciences. Black ROTC Cadets are significantly more interested than white or Hispanic ROTC Cadets in the fine/performing arts, technical jobs, and secretarial/office work.

The first choices of male non-ROTC Cadets are evenly divided among business administration and engineering, followed by humanities/law/social and behavioral sciences. Female non-ROTC Cadets choose medical/bio-

TABLE 58

Annual Salary Expectation and Career Choice By Sex and Ethnicity of Cadets and Non-Cadets

| | | ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Mean Expected Annual Salary Ten Years After College | $36,010 | $38,330 | $33,510 | t(678)=5.123*** | $37,360 | $37,540 | $32,990 | F(2,654)= 5.429* |
| (Categorical Mean)[1] | 6.82 | 7.31 | 6.28 | t(678)=5.145*** | 7.09 | 7.15 | 6.17 | F(2,651)= 5.353* |
| Careers Being Considered (First Choice) | | | | | | | | |
| Business administration | 22.3 | 18.8 | 23.8 | $X^2(1)$=NS | 19.5 | 21.1 | 15.4 | $X^2(2)$=NS |
| Engineering/physical science/math/architecture | 17.5 | 19.4 | 8.1 | $X^2(1)$=12.56** | 8.1 | 20.4 | 6.2 | $X^2(2)$=16.37*** |
| Military officer | 12.4 | 20.8 | 10.8 | $X^2(1)$=9.08* | 14.6 | 16.8 | 30.8 | $X^2(2)$=8.64* |
| Medical/biological sciences | 12.1 | 8.7 | 14.6 | $X^2(1)$=5.09* | 9.8 | 10.4 | 6.2 | $X^2(2)$=NS |
| Humanities/law/social & behavioral sciences | 10.2 | 11.5 | 8.6 | $X^2(1)$=NS | 14.6 | 8.7 | 16.9 | $X^2(2)$=6.58* |
| General teaching/social services | 6.8 | 2.6 | 8.6 | $X^2(1)$=11.96*** | 3.3 | 4.3 | 7.7 | $X^2(2)$=NS |
| Fine/performing arts | 2.8 | 2.4 | 5.4 | $X^2(1)$=NS | 7.3 | 2.1 | 4.6 | $X^2(2)$=8.48* |
| Technical jobs | 2.5 | 2.6 | 2.7 | $X^2(1)$=NS | 5.7 | 2.1 | - | $X^2(2)$=6.83* |
| Proprietors/sales | 2.3 | 2.8 | 2.2 | $X^2(1)$=NS | 1.6 | 3.0 | 3.1 | $X^2(2)$=NS |
| Secretarial/office workers | 1.6 | 0.2 | 6.5 | $X^2(1)$=28.36*** | 6.5 | 0.4 | 4.6 | $X^2(2)$=21.19*** |
| Construction trades | 0.8 | 1.2 | - | $X^2(1)$=NS | 2.4 | 0.6 | - | $X^2(2)$=NS |
| General Labor/community & public service | 0.8 | 0.8 | 0.5 | $X^2(1)$=NS | 0.8 | 0.6 | 1.5 | $X^2(2)$=NS |
| Housewife | 0.8 | 0.4 | 1.1 | $X^2(1)$=NS | - | 0.9 | - | $X^2(2)$=NS |
| Mechanics/industrial trades | 0.6 | 0.8 | - | $X^2(1)$=NS | - | 0.9 | - | $X^2(2)$=NS |
| Other | 6.3 | 6.9 | 7.0 | $X^2(1)$=NS | 5.7 | 7.7 | 3.1 | $X^2(2)$=NS |

(Continued)

TABLE 58

(Continued)

| | Total $\bar{X}$ | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Mean Expected Annual Salary Ten Years After College | $36,010 | $37,980 | $30,010 | t(423)=7.534*** | $35,710 | $34,720 | $33,230 | F(2,403)= NS |
| (Categorical Mean)[1] | 6.82 | 7.24 | 5.55 | t(423)=7.583*** | 6.74 | 6.55 | 6.22 | F(2,400)= NS |
| Careers Being Considered (First Choice) | | | | | | | | |
| Business administration | 22.3 | 27.9 | 23.4 | $X^2(1)$=NS | 26.1 | 25.2 | 24.3 | $X^2(2)$=NS |
| Engineering/physical science/math/architecture | 17.5 | 27.9 | 9.0 | $X^2(1)=23.58$*** | 10.9 | 18.5 | 24.3 | $X^2(2)$=NS |
| Military officer | 12.4 | 5.6 | 0.5 | $X^2(1)=8.25$** | 13.0 | 2.4 | 1.0 | $X^2(2)=16.49$*** |
| Medical/biological sciences | 12.1 | 5.2 | 27.1 | $X^2(1)=39.49$*** | 10.9 | 16.1 | 14.6 | $X^2(2)$=NS |
| Humanities/law/social & behavioral sciences | 10.2 | 9.4 | 9.0 | $X^2(1)$=NS | 10.9 | 9.8 | 8.7 | $X^2(2)$=NS |
| General teaching/social services | 6.8 | 6.4 | 16.5 | $X^2(1)=10.80$** | 6.5 | 9.8 | 16.5 | $X^2(2)$=NS |
| Fine/performing arts | 2.8 | 2.1 | 2.1 | $X^2(1)$=NS | - | 2.8 | 1.9 | $X^2(2)$=NS |
| Technical jobs | 2.5 | 2.1 | 2.7 | $X^2(1)$=NS | 4.3 | 2.8 | 1.0 | $X^2(2)$=NS |
| Proprietors/sales | 2.3 | 1.7 | 1.6 | $X^2(1)$=NS | 4.3 | 2.0 | - | $X^2(2)$=NS |
| Secretarial/office workers | 1.6 | 0.4 | 2.1 | $X^2(1)$=NS | - | 1.2 | 1.0 | $X^2(2)$=NS |
| Construction trades | 0.8 | 1.3 | - | $X^2(1)$=NS | - | 1.2 | - | $X^2(2)$=NS |
| General Labor/community & public Service | 0.8 | 1.3 | 0.5 | $X^2(1)$=NS | - | 0.8 | 1.9 | $X^2(2)$=NS |
| Housewife | 0.8 | 0.4 | 2.1 | $X^2(1)$=NS | - | 1.6 | 1.0 | $X^2(2)$=NS |
| Mechanics/industrial trades | 0.6 | 0.9 | 0.5 | $X^2(1)$=NS | 2.2 | 0.4 | 1.0 | $X^2(2)$=NS |
| Other | 6.3 | 7.3 | 2.7 | $X^2(1)=4.52$* | 10.9 | 5.5 | 2.9 | $X^2(2)$=NS |

[1](6 = $30,000 to $34,999 per year, 7 = $35,000 to $39,999 per year)

* $p < .05$
** $p < .01$
*** $p < .001$

logical sciences, business administration, and teaching/social services most often as their first choice careers. Male non-ROTC Cadets are significantly more interested than females in engineering, military officer, and "other" careers. Female non-ROTC Cadets are significantly more interested in medical/biological sciences and teaching/social services.

Black non-ROTC Cadets are interested in business administration and military officer careers. White non-ROTC Cadets are interested in business administration, engineering, and medical/biological sciences. Hispanic non-ROTC Cadets are equally interested in business administration and engineering, followed by a career in teaching/social services. Significantly more black non-ROTC Cadets report military officer as their first choice career than do white or Hispanic non-ROTC Cadets.

5. Personal importance ratings of job dimensions

Male and female ROTC Cadets show similar patterns in importance ratings given to selected job dimensions (See Table 59). Advancement, challenge, and security are most important to male ROTC Cadets, while female ROTC Cadets are less concerned with security and put more emphasis on self-improvement. Generally, females exhibit slightly higher mean ratings than do males to most of the 21 dimensions, with nine dimensions revealing significant sex differences among the ROTC Cadets.

Black ROTC Cadets are interested in advancement, salary, and security. White ROTC Cadets believe that challenge is more important than security, while Hispanics rate highly feedback about job performance. In general, black ROTC Cadets attribute higher mean importance ratings to all dimensions of a job than do white or Hispanic ROTC Cadets. Not once do the mean importance ratings of black ROTC Cadets fall below four on a five-point scale.

Male non-ROTC Cadets are concerned with the advancement, personal freedom, and self-improvement dimensions of a job. Female non-ROTC Cadets believe a

TABLE 59

Personal Importance Ratings of Job Dimensions By Sex and Ethnicity of Cadets and Non-Cadets

| Mean Importance of Job Dimensions | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Opportunity to advance within the organization | 4.55 | 4.58 | 4.66 | t(663)= NS | 4.70 | 4.57 | 4.66 | F(2,638)= NS | 4.48 | 4.44 | t(389)= NS | 4.41 | 4.49 | 4.43 | F(2,372)= NS |
| Interesting/ challenging work | 4.48 | 4.50 | 4.57 | t(666)= NS | 4.47 | 4.53 | 4.56 | F(2,641)= NS | 4.33 | 4.50 | t(392)= NS | 4.08 | 4.55 | 4.11 | F(2,375)= 11.796*** |
| Job security | 4.44 | 4.44 | 4.52 | t(669)= NS | 4.63 | 4.42 | 4.48 | F(2,644)= 3.134* | 4.37 | 4.47 | t(393)= NS | 4.49 | 4.42 | 4.36 | F(2,376)= NS |
| Opportunity for continued self-improvement & development | 4.44 | 4.38 | 4.54 | t(667)= 2.462* | 4.60 | 4.37 | 4.50 | F(2,642)= 4.044* | 4.38 | 4.55 | t(394)= 2.146* | 4.44 | 4.48 | 4.41 | F(2,377)= NS |
| Contentment of spouse and family with job | 4.41 | 4.35 | 4.50 | t(665)= NS | 4.29 | 4.42 | 4.37 | F(2,640)= NS | 4.33 | 4.56 | t(390)= 2.463* | 4.28 | 4.57 | 4.13 | F(2,374)= 8.232*** |
| Amount of personal freedom in expression of opinions on and off the job | 4.36 | 4.31 | 4.41 | t(669)= NS | 4.51 | 4.31 | 4.24 | F(2,644)= 3.076* | 4.40 | 4.41 | t(394)= NS | 4.28 | 4.45 | 4.35 | F(2,377)= NS |
| Opportunity to work with interesting people | 4.34 | 4.30 | 4.48 | t(669)= 2.575* | 4.55 | 4.30 | 4.40 | F(2,644)= 4.474* | 4.19 | 4.47 | t(395)= 3.168** | 4.33 | 4.37 | 4.15 | F(2,379)= NS |

(Continued)

TABLE 59

(Continued)

| Mean Importance of Job Dimensions | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Quality of supervisors | 4.31 | 4.30 | 4.44 | t(667)= 1.971* | 4.38 | 4.32 | 4.34 | F(2,642)= NS | 4.24 | 4.27 | t(393)= NS | 4.13 | 4.35 | 4.05 | F(2,376)= 3.728* |
| Importance of one's work to the organization | 4.28 | 4.25 | 4.43 | t(666)= 2.426* | 4.35 | 4.25 | 4.47 | F(2,641)= NS | 4.19 | 4.30 | t(392)= NS | 4.13 | 4.31 | 4.07 | F(2,375)= NS |
| Use of previously developed skills in a specialized field | 4.28 | 4.24 | 4.40 | t(667)= 2.168* | 4.58 | 4.21 | 4.33 | F(2,642)= 8.378*** | 4.26 | 4.28 | t(395)= NS | 4.22 | 4.24 | 4.35 | F(2,379)= NS |
| Amount of personal responsibility | 4.27 | 4.28 | 4.34 | t(669)= NS | 4.47 | 4.26 | 4.33 | F(2,644)= 3.205* | 4.21 | 4.26 | t(395)= NS | 4.13 | 4.28 | 4.18 | F(2,374)= NS |
| Salary | 4.26 | 4.19 | 4.38 | t(645)= 2.653** | 4.65 | 4.14 | 4.31 | F(2,620)= 16.210*** | 4.34 | 4.19 | t(376)= NS | 4.59 | 4.19 | 4.31 | F(2,360)= 3.330* |
| Feedback about how well one is doing on the job | 4.25 | 4.21 | 4.42 | t(666)= 2.966** | 4.39 | 4.20 | 4.61 | F(2,641)= 7.280*** | 4.19 | 4.27 | t(393)= NS | 4.05 | 4.29 | 4.11 | F(2,376)= NS |
| Opportunity to help others | 4.21 | 4.16 | 4.39 | t(668)= 3.106** | 4.48 | 4.13 | 4.43 | F(2,643)= 9.249*** | 4.09 | 4.31 | t(394)= 2.450* | 4.15 | 4.26 | 4.04 | F(2,377)= NS |
| Opportunity for a stable home life and involvement in the community | 4.21 | 4.17 | 4.32 | t(699)= NS | 4.53 | 4.14 | 4.16 | F(2,644)= 7.646*** | 4.14 | 4.27 | t(394)= NS | 4.33 | 4.27 | 3.99 | F(2,377)= NS |

(Continued)

TABLE 59

(Continued)

| Mean Importance of Job Dimensions | Total $\bar{X}$ | ROTC CADETS | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Opportunity to make a lasting contribution to society | 4.05 | 4.07 | 4.04 | t(669)= NS | 4.45 | 3.95 | 4.16 | F(2,644)= 11.215*** | 4.08 | 4.00 | t(394)= NS | 4.10 | 4.04 | 4.09 | F(2,378)= NS |
| Chance to be a leader | 4.05 | 4.21 | 4.07 | t(669)= NS | 4.42 | 4.08 | 4.46 | F(2,644)= 9.542*** | 4.10 | 3.56 | t(394)= 4.997*** | 3.92 | 3.86 | 3.84 | F(2,377)= NS |
| Chance for adventure and a variety of duties | 4.02 | 4.05 | 4.08 | t(669)= NS | 4.09 | 4.04 | 4.22 | F(2,644)= NS | 3.91 | 4.02 | t(394)= NS | 4.10 | 4.00 | 3.80 | F(2,377)= NS |
| Amount of prestige associated with the job | 3.99 | 4.04 | 4.09 | t(669)= NS | 4.28 | 3.96 | 4.30 | F(2,644)= 7.867*** | 3.91 | 3.86 | t(394)= NS | 3.97 | 3.84 | 3.99 | F(2,379)= NS |
| Geographic desirability of job location | 3.93 | 3.92 | 4.07 | t(668)= NS | 4.07 | 3.94 | 3.89 | F(2,643)= NS | 3.82 | 3.93 | t(394)= NS | 3.47 | 4.01 | 3.72 | F(2,378)= 5.245** |
| Opportunity to obtain additional formal schooling | 3.85 | 3.79 | 4.06 | t(669)= 3.089** | 4.28 | 3.73 | 4.02 | F(2,644)= 13.242*** | 3.77 | 3.86 | t(394)= NS | 3.95 | 3.69 | 4.03 | F(2,377)= 3.392* |

[1](1 = Not important at all, 5 = Very important)

* $p < .05$
** $p < .01$
*** $p < .001$

spouse's contentment with a job, self-improvement, and challenge are important job dimensions. Males and females attribute similar ratings to most dimensions, although females attribute significantly higher mean importance ratings than males to self-improvement, spouse's contentment with the job, working with interesting people, helping others, and leadership opportunities of a job.

Black non-ROTC Cadets believe salary, security, and self-improvement to be the most important job dimensions. White non-ROTC Cadets attribute greatest importance to spouse's contentment with the job, challenge, and advancement opportunities. Hispanic non-ROTC Cadets look to the opportunity for advancement, self-improvement, and security in a job. White as compared to Hispanic or black non-ROTC Cadets attribute significantly higher mean importance ratings to a job's challenge, spouse's contentment with the job, quality of supervisors, and geographic desirability of the job location. Black non-ROTC Cadets find salary significantly more important than other non-ROTC Cadets. Hispanic non-ROTC Cadets find additional school opportunities a significantly more important job dimension than do black or white non-ROTC Cadets.

## 6. Army potential satisfaction ratings of job dimensions

As shown in Table 60, both male and female Cadets give the Army high marks for potentially providing security, leadership, and advancement opportunities. Female ROTC Cadets rate the Army significantly higher than do males in terms of the importance of one's work to the organization, use of previously developed skills, and salary.

For all ethnic groups among Cadets, job security, advancement, and leadership opportunities are valued. There are small but significant differences along nearly all dimensions, with black Cadets generally rating the Army's ability to provide job satisfaction higher than do whites or Hispanics.

TABLE 60

Army Potential Satisfaction Ratings of Job Dimensions By Sex and Ethnicity for Cadets and Non-Cadets

| Mean Satisfaction of Job Dimensions by Army[1] | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Job security | 4.39 | 4.43 | 4.46 | t(673)= NS | 4.53 | 4.41 | 4.46 | F(2,649)= NS | 4.27 | 4.33 | t(400)= NS | 4.51 | 4.26 | 4.41 | F(2,380)= NS |
| Opportunity to advance within the organization | 4.27 | 4.39 | 4.35 | t(670)= NS | 4.58 | 4.32 | 4.48 | F(2,646)= 4.076* | 4.02 | 4.18 | t(396)= NS | 4.19 | 4.09 | 4.09 | F(2,376)= NS |
| Chance to be a leader | 4.23 | 4.42 | 4.29 | t(673)= NS | 4.52 | 4.35 | 4.40 | F(2,649)= NS | 4.06 | 3.83 | t(399)= NS | 3.90 | 3.97 | 4.06 | F(2,379)= NS |
| Chance for adventure and a variety of duties | 4.19 | 4.33 | 4.26 | t(672)= NS | 4.35 | 4.31 | 4.36 | F(2,648)= NS | 3.93 | 4.07 | t(400)= NS | 3.85 | 4.00 | 4.06 | F(2,380)= NS |
| Opportunity for continued self-improvement & development | 4.13 | 4.18 | 4.27 | t(671)= NS | 4.46 | 4.11 | 4.44 | F(2,647)= 8.059*** | 3.93 | 4.10 | t(400)= NS | 4.41 | 3.94 | 4.08 | F(2,380)= 3.473* |
| Amount of personal responsibility | 4.12 | 4.22 | 4.16 | t(675)= NS | 4.32 | 4.15 | 4.32 | F(2,651)= NS | 3.97 | 4.01 | t(400)= NS | 4.12 | 3.88 | 4.18 | F(2,381)= NS |
| Interesting/ challenging work | 4.07 | 4.15 | 4.19 | t(671)= NS | 4.40 | 4.08 | 4.30 | F(2,647)= 5.559** | 3.86 | 4.01 | t(398)= NS | 4.07 | 3.87 | 4.08 | F(2,378)= NS |
| Feedback about how well one is doing on the job | 4.02 | 4.05 | 4.13 | t(672)= NS | 4.30 | 3.98 | 4.27 | F(2,648)= 6.318** | 3.88 | 3.99 | t(399)= NS | 3.98 | 3.92 | 4.03 | F(2,379)= NS |
| Opportunity to work with interesting people | 4.02 | 4.04 | 4.18 | t(675)= NS | 4.29 | 4.00 | 4.28 | F(2,651)= 5.719** | 3.76 | 4.11 | t(400)= 3.093* | 4.16 | 3.82 | 4.11 | F(2,381)= 3,253* |

(Continued)

TABLE 60

(Continued)

| Mean Satisfaction of Job Dimensions by Army[1] | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Opportunity to help others | 3.99 | 4.02 | 4.18 | t(672)= NS | 4.31 | 3.96 | 4.29 | F(2,648)= 8.134*** | 3.77 | 3.98 | t(400)= NS | 4.15 | 3.79 | 4.03 | F(2,380)= NS |
| Importance of one's work to the organization | 3.98 | 3.98 | 4.15 | t(672)= 1.965* | 4.19 | 3.92 | 4.34 | F(2,648)= 7.032*** | 3.82 | 3.99 | t(400)= NS | 4.10 | 3.78 | 4.10 | F(2,380)= 3.473* |
| Use of previously developed skills in a specialized field | 3.94 | 3.90 | 4.12 | t(674)= 2.502* | 4.36 | 3.85 | 4.06 | F(2,650)= 11.928*** | 3.86 | 3.95 | t(398)= NS | 4.14 | 3.79 | 4.11 | F(2,379)= 3.523* |
| Quality of supervisors | 3.89 | 3.94 | 4.01 | t(670)= NS | 4.19 | 3.89 | 4.03 | F(2,646)= 3.625* | 3.74 | 3.83 | t(399)= NS | 4.10 | 3.69 | 3.93 | F(2,379)= NS |
| Opportunity to obtain additional formal schooling | 3.87 | 3.92 | 4.04 | t(674)= NS | 4.19 | 3.87 | 4.11 | F(2,650)= 5.721** | 3.70 | 3.74 | t(399)= NS | 3.92 | 3.64 | 3.89 | F(2,379)= NS |
| Amount of prestige associated with the job | 3.83 | 3.93 | 3.90 | t(675)= NS | 4.09 | 3.82 | 4.32 | F(2,651)= 8.786*** | 3.57 | 3.81 | t(401)= 2.068* | 4.00 | 3.59 | 3.84 | F(2,382)= 3.350* |
| Opportunity to make a lasting contribution to society | 3.80 | 3.82 | 3.87 | t(675)= NS | 4.15 | 3.72 | 4.05 | F(2,651)= 8.127*** | 3.70 | 3.79 | t(401)= NS | 4.00 | 3.59 | 4.06 | F(2,381)= 5.740** |

(Continued)

TABLE 60

(Continued)

| Mean Satisfaction of Job Dimensions by Army[1] | ROTC CADETS | | | | | | | | NON-ROTC CADETS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total $\bar{X}$ | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance | Male $\bar{X}$ | Female $\bar{X}$ | Test of Significance | Black $\bar{X}$ | White $\bar{X}$ | Hispanic $\bar{X}$ | Test of Significance |
| Contentment of spouse and family with job | 3.67 | 3.66 | 3.83 | t(671)= NS | 3.97 | 3.60 | 3.95 | F(2,647)= 5.570** | 3.47 | 3.79 | t(398)= 2.394* | 4.00 | 3.52 | 3.71 | F(2,379)= NS |
| Salary | 3.55 | 3.53 | 3.76 | t(660)= 2.575* | 4.03 | 3.44 | 4.03 | F(2,636)= 21.205*** | 3.41 | 3.54 | t(387)= NS | 4.05 | 3.28 | 3.76 | F(2,368)= 11.049*** |
| Geographic desirability of job location | 3.45 | 3.49 | 3.52 | t(673)= NS | 3.69 | 3.42 | 3.72 | F(2,649)= 3.792* | 3.33 | 3.43 | t(399)= NS | 3.39 | 3.35 | 3.46 | F(2,380)= NS |
| Amount of personal freedom in expression of opinions on and off the job | 3.44 | 3.42 | 3.49 | t(673)= NS | 3.93 | 3.27 | 3.71 | F(2,649)= 15.442*** | 3.36 | 3.56 | t(399)= NS | 3.95 | 3.31 | 3.72 | F(2,379)= 6.024** |
| Opportunity for a stable home life and involvement in the community | 3.42 | 3.42 | 3.51 | t(672)= NS | 3.96 | 3.27 | 3.81 | F(2,648)= 17.254*** | 3.38 | 3.34 | t(399)= NS | 3.75 | 3.25 | 3.61 | F(2,379)= 3.990* |

[1](1 = Very unsatisfied, 5 = Very satisfied)

*p<.05
**p<.01
***p<.001

The ratings of male and female non-ROTC Cadets are similar with only a few dimensions being rated significantly different between the sexes. Females attribute to the Army significantly higher ratings in terms of the opportunity to work with interesting people, prestige, and a spouse's contentment with the job.

Similar to the perception of Cadets, black Cadets more often perceive the Army as a place to provide several forms of job satisfaction.

# IX. SUMMARY AND CONCLUSIONS

Chapters II through VIII of this report have described the results of the 1982 Career Attitude Survey. This chapter focuses on a discussion of those results and compares them to the findings of the 1979 survey. The conclusions and recommendations to be drawn from these data are also presented.

## A. Demographic Characteristics

A total of 1,120 students from 11 college campuses completed self-enumerative questionnaires in this present survey. The sample was predominantly male and white as was the 1979 survey conducted on these the same campuses. Unlike the previous survey, which was nearly equally split between Cadets and non-Cadets, about 60% of the current sample was enrolled in MSI or MSII.

Most of the students were reared in the South in a small town or city. This same pattern occurred in the 1979 survey and is likely the result of the overrepresentation of southern colleges in the sample.

Students in the present survey are older by a year than they were in the previous effort, with the ROTC Cadets being significantly younger (19.85 years) than the non-ROTC Cadets (21.06 years). Mean parental income is reported to be higher now than before, but not out of line with the growth of inflation between the two surveys.

The composition of the two samples is sufficiently similar to warrant comparisons across time.

## B. Advertising and Media

### 1. General media

Cadets and non-Cadets share the same media habits. They direct their attention mainly to newspaper, general radio, campus newspapers, and TV. ROTC

Cadets, perhaps because of the larger representation of males, are more likely to read sports and outdoor magazines, while non-ROTC Cadets are more likely to read home service and women's magazines.

Campus newspapers and radio were included in this survey (and not in the 1979 effort) as potentially useful types of media to research students. The campus newspaper is clearly a popular choice with all students, although campus radio broadcasting receives very little audience support.

2. Magazine readership

Students report exposure to numerous magazines and appear to be "reachable" through several general and focused vehicles. Across the campus, the most popular magazines are the weekly news-oriented issues: Time, Newsweek, and Sports Illustrated. Also widely read are TV Guide, Reader's Digest, U.S. News and World Report, National Geographic, and People.

Although ROTC Cadets report more exposure to more magazines than non-ROTC Cadets, their choices of reading materials do not differ importantly. Traditional reading habits are noted between males and females but not among ethnic groups. That is, males are drawn to such traditional men's magazines as Playboy and Penthouse, while females most often report reading People or women-focused magazines. Although, there are some significant differences in the reading patterns among whites, blacks, and Hispanics, they are not in terms of targeted, ethnically oriented magazines. Print advertising in national media would be most effective if placed in general weekly rather than highly focused magazines which appear not to capture much of their intended audience on college campuses.

3. Favorite television programs

The TV preferences of students, in many ways, parallels that of the American public at large. M*A*S*H is the overwhelming first choice among all groups of

students. Other popular choices favor the continuing dramatic series of Hill Street Blues, Dynasty, and Dallas. Also popular is 60 Minutes. This pattern is somewhat different than two years ago, when student TV viewing was heavily skewed toward comedy series. These changing patterns are in line with the shifting tastes of the general TV audience.

Black students -- both ROTC Cadets and non-ROTC Cadets -- are attracted by programming featuring minority group members. Popular among these shows are The Jeffersons and Fame.

4. Favorite radio programming

FM programming is a universal favorite among students and will provide the widest reach into the campuses. However, narrow casting makes some sense also. That is, it is possible to focus on a target audience through selective radio programming. Blacks express a preference for some Jazz and Religious radio programs. Whites appear to distinguish themselves by their interest in Rock, Top Forty, and Country-Western music. Hispanic students are more diverse in their programming but can be reached over Spanish language stations and Country-Western radio.

C. Knowledge of and Attitudes Toward ROTC and Military Service

Cadets have closer ties to the military and are more knowledgeable about Army life than non-Cadets. A finding from the 1979 survey, confirmed in the present study, is that ROTC Cadets have more contacts with the military. They more often have good friends and relatives who either were or are ROTC Cadets themselves or who have seen military service. Non-ROTC Cadets are less socialized by military contacts and may actively shy away from such contacts.

## 1. Awareness of Army ROTC and Scholarship

Information about ROTC reaches students through multiple channels -- some of which are interpersonal and some media-based. Friends, ROTC personnel on campus, and recruiters all play a role in getting out the message. On the other hand pamphlets, radio/T.V., magazine, and newspaper ads also serve to make students aware of the program.

Male Cadets become aware of ROTC through their family and friends and learn about the program earlier than females (i.e., grade and high school). Hispanics evince an interesting awareness pattern: those who become involved with the program (i.e., Cadets) report exposure to the program in grade school and high school, which is earlier than whites or blacks, while those who are not in the program do not become aware until later -- that is, until college.

Program awareness and scholarship awareness are not gained concurrently. Students hear about ROTC before becoming aware of scholarships. In fact, it may be because of their awareness and interest in ROTC that they learn about the Scholarship Program. This relationship is demonstrated by the types of information sources used to learn about the Scholarship Program; they are primarily military-related -- ROTC personnel on campus, recruiters, and brochures. It is also supported by the fact that one in five non-Cadets are totally unaware of ROTC scholarships.

Even when the message gets out, not all groups are reached equally well. Consistent with the 1979 research, males know about the program at an earlier time than females, and whites know about it before blacks and Hispanics.

As the scholarship is perceived to be an attractive feature of the ROTC program, early and consistent communications about it across all groups will be desirable.

2. Knowledge of ROTC and the Army

Not surprisingly, ROTC Cadets professed more knowledge about ROTC than non-Cadets and, when "tested," demonstrate this knowledge. Cadets answer more ROTC/Army knowledge questions correctly. Males, in general, indicate more knowledge about this program than females regardless of whether they are Cadets or not.

As found in the earlier survey, non-Cadets tend to overestimate the obligations of ROTC and underestimate some of the benefits. For example, non-Cadets think summer camp is required every year of college but do not recognize that Cadets receive a $100 stipend as freshmen and sophomores.

The patterns of response to the 1982 and 1979 surveys are remarkably similar. Nearly all respondents know that ROTC is available to men and women and that postgraduate training is available to officers. They consistently err in thinking that all officers are obligated to serve four years of active duty.

3. Attractiveness of college ROTC

As would be expected, Cadets find the program more attractive than non-Cadets. However, all students rate highly the guarantee of a job after college and the Scholarship Program. It is interesting to note that minority group members, in general, find more things attractive about the program than whites do.

Cadets and non-Cadets are consistent in the aspects of the program that they value least. The requirement for obligated duty after college, the ROTC Cadets themselves, and the image of the program are factors with the lowest attractiveness ratings.

It should be noted that one feature of the ROTC program, that is, subsequent military service, is perceived as both a plus and a minus. When students think of service as guaranteed employment in this uncertain economy, they find that to be very positive. However, when their attention is focused on the fact that this commits them to a specified period of service, they are repelled by the obligation. Communications about the ROTC military service requirement need to be particularly sharp when addressing this issue and to convey the opportunities without the perceived liabilities.

4. Attractiveness of Army life

Echoing their concerns for employment, students say job security is the most attractive feature of Army life. Officer pay and fringe benefits are also highly rated.

Overall, ROTC Cadets find the Army more to their liking than non-ROTC Cadets. This is shown through higher ratings given to individual features and more aspects of Army life being positively evaluated. Black Cadets are the most attracted to Army life.

5. Feelings about military service

Although half of all students would serve in the military if needed, Cadets are more likely to perceive it as their duty, whereas most non-Cadets have not given military service much thought. Females, in general, are much less likely than males to consider unconditional service. Blacks, although stating their attraction to Army life, are more likely than whites or Hispanics not to have given much thought to military service.

6. Junior ROTC

Only about three in ten students had Junior ROTC available to them, and, for the most part, this was an Army program. Only one in ten participated in any Junior program.

The attractive and unattractive features of the Junior program parallel those of college ROTC. That is, instructors and the quality of the program are valued, whereas the ROTC Cadets and the image of the program are not.

## D. Education and Career Plans

### 1. College major

On campuses today, popular college majors are business administration and engineering. Traditional patterns of male- or female- dominated majors are found in the present survey. Males are most often pursuing engineering courses; females are studying education, nursing, and languages.

### 2. Sources of financial support

The sources of financial aid to college students are multiple, and similarities are found between those used by Cadets and non-Cadets. The family represents the most important source of money to students. Cadets report ROTC scholarships as an important source, where non-ROTC Cadets are more likely to mention other scholarships. Female Cadets more often report families, and males more often report work and ROTC scholarships as income sources.

### 3. Educational and career plan influencers

Those closest to the students have the most influence on their educational and career plans. For all except white Cadets, the mother/female guardian figure is reported to be most influential. For white Cadets, the father/male guardian role is most influential.

The model provided by someone in the field is more important to Cadets than to non-Cadets. This may speak to why more Cadets have friends and relatives connected to the military and have more contacts and information from ROTC personnel and recruiters.

4. Salary expectations and career choices

Cadets have higher salary goals than non-Cadets and, as with the prior survey, males are looking for higher salaries than females. Career choices are congruent with the course of study being pursued in college. Thus, business is a frequent career choice, as is engineering. Cadets, as a group, often seek a career as an Army officer, although this is more often the case for male than for female Cadets.

Careers typically defined as feminine (i.e., secretarial/office worker, housewife) and careers in the skilled trades field (i.e., construction/industrial/general labor) generated the least amount of interest. The low interest in the typically feminine areas could be reflective of the greater proportion of males to females in the survey. The low interest in the skilled trades areas may be indicative of the currently depressed economic market.

The ROTC Cadets' higher salary expectations may be tied into their views of ROTC and an Army career as a secure position which provides the opportunity for advancement and leadership. On the other hand, it may be that they believe the experience they gain in ROTC and the Army (in addition to their college degree) will contribute to an increased marketability of their skills, should they enter the civilian job market ten years after college.

It is not clear that students realize that there is opportunity in the Army to pursue activities that draw on their educational training and career interest. It is as if one could not consider a military and a technical career at the same time.

5. Personal importance ratings of job dimensions

Aspects of a job which are highly valued by students include the opportunity to advance, interesting and challenging work, job security, and self-improvement. Essentially, these are the same job factors rated highly in the 1979 survey, only now job security has increased in importance. Cadets also value the chance to be a leader and to be associated with a prestigious organization more than non-Cadets.

6. Army potential satisfaction ratings of job dimensions

Rating the Army's potential to satisfy various needs along these same job dimensions, it seems that, at least for Cadets, the Army can satisfy most of their important criteria. The Army is seen as offering job security, the opportunity to advance and to perform as a leader. In addition, the Army is much more positively rated on most dimensions by Cadets than non-Cadets, and particularly high ratings are by black Cadets.

The aspects of the Army which detract from its value in the minds of both Cadets and non-Cadets are perceived restriction on personal freedom, less opportunity for a stable home life and involvement in the community, and uncertainty in geographic location.

7. Ratings of a military career by reference group

Given that Cadets have more friends and relatives with exposure to the military and that the Army is rated highly on many dimensions, it is consistent that Cadets think their friends and parents would all rate a military career positively.

In general, the Cadets are consistent in their positive orientation to the military. They are knowledgeable about and value aspects of a military lifestyle. The dimensions of a job that are important to them are also ones which they think the Army will satisfy. Moreover, the Army is perceived to satisfy many of the aspects which they look for in a job.

## E. ROTC Involvement and Career Commitment

### 1. Time of decision to join college ROTC

Cadets, although aware of and interested in the program by the time they are in high school, tend to delay their decision to join the program until college. This is a departure from the 1979 survey where it was noted that the majority of Cadets decided to join ROTC in their high school years. Males reach their decision at an earlier point in their lives than females, which is consistent with their earlier awareness of the program and of scholarship opportunities.

### 2. Influences on decision to join ROTC and to enroll in advanced course

The factors influencing a student to join ROTC are similar to those leading him or her to continue into the Advanced Course -- that is, there is support to joinfrom family and friends and the "fit is good." Being in the program is consistent with the student's personal system of values and beliefs, and with career objectives.

Advertising and information from military personnel do not figure in as factors influencing the decision. It is likely the message that is communicated about the program does not "persuade" anyone to join or continue in the program -- rather,it provides information or clarification for students to see how ROTC will meet their personal goals and needs.

3. Intent to continue in ROTC

Slightly less than half of the Cadets intend to continue through the Advanced Course, which is about the same as reported in the 1979 survey. Fully one-quarter will not sign up, which again is consistent with the earlier research. The bulk of these who do not intend to continue are female, and a relatively higher proportion are white.

It may be that those who joined ROTC found that it did not meet their needs as expected, and therefore they decided not to continue, while those who intend to make the transition believe it will be consistent with their goals.

4. Options and enrollment in Advanced Course

When four variations on service obligations were linked to the decision to make the transition to the Advanced Course, little impact was noted. Options which offer guaranteed Reserve or National Guard service, a two-year commitment, or a scholarship with an extended or variable tour were presented. The most attractive alternative as measured by the interest shown in it is a two-year service obligation instead of three. About one-third of the Cadets state such an alternative would increase their likelihood of continuing in MS III and MS IV.

For the most part, the alternatives tested are met with indifference. More than half state the changes would neither increase nor decrease their likelihood of continuing in the program. This reinforces the notion that participation is maintained if it appears to fit one's needs, and if that link cannot be established in the Cadet's mind, then the program is abandoned.

5. Subsistence allowance and staying in the ROTC

Cadets are split into three equal sized camps about whether or not to continue ROTC without subsistence. Blacks are more likely to stay if there were no subsistence; whites are more likely to leave.

### 6. Intention of joining the Army and making it a career

A surprisingly small group of Cadets say they would join the Army even if they were not required to do so by contract. As with the previous survey, Cadets show a slight inclination toward not joining. Consistent with their commitment to the ROTC program, blacks are more likely to join without the requirement, and whites are less likely. For the most part, Cadets have not given much thought to their military service. A sizable group are unsure which type of Army service they would prefer. The majority do not know how long they would serve if they joined, and nearly half would not seek a career in the Army.

Males are more focused with regard to military service than females. Females are more uncertain about the type of service they would like and more often report their intent to serve their minimum obligation.

## F. Non-ROTC Cadets: Interest in ROTC and the Army

The same optional program changes presented to Cadets were evaluated by non-ROTC Cadets. In all cases -- whether the choice was guaranteed Reserve or National Guard duty, atwo-year obligation, or a scholarship with extended or variable tour -- more than half of the non-Cadets would not be persuaded to join or stay (if they were dropouts) in the Army. Less than one in five would be attracted by any of the proposed alternatives.

Subgroup analyses show that those most interested in joining or staying in the ROTC, if the inducements are offered, are Hispanics and blacks. These groups make excellent target candidates for inducements, as they also show increased interest in ROTC and the Army as a career. The least likely target group for the inducements is females.

Again, the students' needs and ROTC or the Army's perceived ability to meet these desires may be the key to attracting and retaining more students. The program changes will give an added appeal but are unlikely to function as inducement if the basic compatibility between needs and satisfaction is not perceived.

# APPENDIX

- Career Attitude Survey:
  A Questionnaire for College Students
- Answer Sheet
- Introductory Letter