

AD-A215 932



**DEFENSE**

## **MANPOWER DATA CENTER**

**Military Advertising Exposure and  
Service Images:**

**Findings from the 1988 Youth  
Attitude Tracking Study II**

DTIC  
ELECTE  
DEC 19 1989  
S D

**DISTRIBUTION STATEMENT A**

Approved for public release;  
Distribution Unlimited

**1600 WILSON BOULEVARD ARLINGTON, VIRGINIA 22209**

**Military Advertising Exposure and Service Images:**  
**Findings from the 1988 Youth Attitude Tracking Study II**

by  
**Robert M. Bray**  
**B. Kathleen Jordan**  
**Susan L. Bailey**

Accession	
NTIS	CRS
DTIC	774
Unprocessed	
Justified	
By <i>per CES</i>	
Dist. <i>000000</i>	
Availability	
Dist	Assessment
<i>A-1</i>	

This report has been prepared for the Directorate for Accession Policy, Office of the Deputy Assistant Secretary of Defense (Military Manpower and Personnel Policy [(ODASD)(MM&PP)(AP)]) under Contract Number MDA903-86-C-0066. The Research Triangle Institute (RTI) has been the contractor for this study with Dale S. DeWitt and Robert M. Bray, Ph.D., serving as project directors.

The views, opinions, and findings contained in this report are those of the authors and should not be construed as an official Department of Defense position, policy, or decision, unless so designated by other official documentation.

Additional copies of this report may be obtained from:

Defense Manpower Data Center  
Survey and Market Analysis Division  
1600 Wilson Boulevard, Suite 400  
Arlington, VA 22209-2593

## TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS.....	1x
EXECUTIVE SUMMARY.....	xi
 1. INTRODUCTION AND METHODOLOGY.....	 1
A. YATS II Basic Features.....	2
B. 1988 YATS II Objectives.....	3
C. Sampling Design.....	3
D. Data Collection and Survey Performance Rates.....	4
E. Measurement Approach.....	6
1. Measures of Propensity.....	6
2. Predicted AFQT Market Segmentation Approach.....	8
F. Characteristics of Survey Population.....	9
 2. EXPOSURE TO MILITARY ADVERTISING.....	 13
A. Advertising Awareness.....	13
1. Awareness Among Males.....	14
2. Awareness Among Females.....	16
3. Composite of Awareness, Young Males and Females.....	 16
4. Sequence of Mentions by Service.....	16
5. Awareness by School Status and Predicted AFQT...	17
B. Recognition of Military Advertising Slogans.....	22
1. Army Slogan.....	22
2. Navy Slogan.....	22
3. Marine Corps Slogans.....	22
4. Air Force Slogan.....	24
5. Joint Services Slogans.....	24
6. Recognition of Slogans by School Status and Predicted AFQT.....	 25
C. Awareness of Print and Broadcast Advertising.....	25
1. Print Advertising and Propensity.....	28
2. Broadcast Advertising and Propensity.....	28
D. Receipt of Recruiting Literature.....	31
E. Awareness of All Advertising by School Status and Predicted AFQT.....	 34
F. Summary.....	34
 3. SERVICE IMAGES AND ATTENDANCE AT EVENTS FEATURING THE MILITARY.....	 39
A. Image Statements.....	39
B. Events Featuring the Military.....	43
1. Attendance at Events.....	43
2. Event Attendance by School Status and Predicted AFQT.....	 47

TABLE OF CONTENTS (continued)

	<u>Page</u>
C. Events Increasing Likelihood of Enlisting.....	47
1. Effects of Events by Market Group.....	47
2. Effects of Attendance at Events by School Status and Predicted AFQT.....	50
D. Summary.....	52
REFERENCES.....	55

## LIST OF TABLES

<u>Number</u>		<u>Page</u>
1.1	Survey Performance Rates.....	6
1.2	Estimates of Sociodemographic Characteristics of Survey Population.....	11
2.1	Levels of Awareness of Military Advertising.....	15
2.2	Order of Mention for Recall of Military Advertising.....	19
2.3	Young Males' Awareness of Military Advertising by AFQT Category.....	20
2.4	Young Females' Awareness of Military Advertising by AFQT Category.....	21
2.5	Correct and Incorrect Sponsor Attributions for Military Advertising Slogans.....	23
2.6	Young Males' Correct Sponsor Attributions for Military Advertising Slogans by AFQT Category.....	26
2.7	Young Females' Correct Sponsor Attributions for Military Advertising Slogans by AFQT Category.....	27
2.8	Awareness of Print Media Advertising.....	29
2.9	Awareness of Broadcast Media Advertising.....	30
2.10	Reported Receipt of Recruiting Literature.....	32
2.11	Young Males' and Young Females' Awareness of Print, Broadcast, and Recruiting Advertising by AFQT Category.....	35
3.1	First Service Mentioned in Response to Service Image Statements for Young Males and Females.....	40
3.2	First Service Mentioned in Response to Service Image Statements for Older Males and Females.....	41
3.3	Events Attended During Past Year that Featured Active Military.....	44
3.4	Service Represented at Military Events Attended During Past Year for Young Males and Young Females.....	45
3.5	Service Represented at Military Events Attended During Past Year for Older Males and Older Females.....	46
3.6	Young Males' Events Attended During Past Year that Featured Active Military by AFQT Category.....	48
3.7	Young Females' Events Attended During Past Year that Featured Active Military by AFQT Category.....	49
3.8	Services for Which Attendance at Events Increased Likelihood of Joining the Military.....	50
3.9	Services for Which Events Attended Increased Young Males' Events Likelihood of Joining the Military by AFQT Category.....	51

## LIST OF FIGURES

<u>Number</u>		<u>Page</u>
2.1	Trends in Young Males' Aided and Unaided Awareness of Advertising, 1984-1988.....	17
2.2	Trends in Young Females' Aided and Unaided Awareness of Advertising, 1984-1988.....	18

## ACKNOWLEDGEMENTS

This report is one of a series of topical reports for the 1988 Youth Attitude Tracking Study II (YATS II). YATS II is a study performed by Research Triangle Institute under Contract MDA 903-86-0066 as part of the Joint Market Research Program sponsored by the Office of the Deputy Assistant Secretary of Defense (Military Manpower and Personnel Policy) [ODASD(MM&PP)].

YATS II is a key component of the Joint Market Research Program which contributes to policy formulation and the development of recruiting marketing strategies. The Military Services provide comments and guidance through the Joint Market Analysis and Research Committee (JMARC). YATS II provides annual data about the propensity of young men and women to enlist in the active military and in the Reserve components. It also measures awareness of military advertising, contact with recruiters, and knowledge of the financial incentives for enlisting. This report describes findings about military advertising exposure and Service Images.

The Project Directors for the 1988 YATS II were Dale S. DeWitt and Dr. Robert M. Bray of Research Triangle Institute. L. Lynn Guess was responsible for instrument development, and Sara C. Wheelless for the sampling design. Ronald Smith coordinated data collection at Amrigon, RTI's subcontractor for some of the data collection. Teresa F. Gurley completed the typing and clerical requirements. Special thanks are due to the tireless efforts of the telephone survey staff in completing the interviews, both at RTI and Amrigon; to Dr. Jay R. Levinsohn for Computer Assisted Telephone Interviewing (CATI) design and implementation; to Cheryl Whitacre for CATI programming; to Anne C. Theisen and Barbara J. York for analytical support; and to Dr. Daniel G. Horvitz for his interest and support. Of course, we are indebted to the respondents who provided the data for the study.

Research Triangle Institute acknowledges the efforts of individuals from the Department of Defense in the successful completion of this study. At the Defense Manpower Data Center, Dr. Michael T. Laurence and Dr. Jerry Lehnus, Market Research Branch, were the principal DoD contacts who



provided specific direction during all stages of the effort. Bette Mahoney also provided valuable guidance on the report.

In ODASD(MM&PP), Dr. W. S. Sellman, Director, Accession Policy, and LTC Daryl Supak, U.S. Army, provided critical policy guidance. Finally, we would like to thank the executive committee and members of JMARC, who provided continuing support for the study and made valuable suggestions regarding questionnaire modification.

## EXECUTIVE SUMMARY

The 1988 Youth Attitude Tracking Study (YATS) was designed to examine the propensity of potential recruits to enlist in the military, changes in propensity since 1976, and attitudes and motivations of potential recruits, including differences by Armed Forces Qualification Test (AFQT) scores. Computer assisted telephone interviews were conducted from July to November of 1988 to collect data on 10,985 respondents. These respondents include four market groups: 5,486 males ages 16-21 (young males); 3,271 females ages 16-21 (young females); 1,130 males ages 22-24 (older males); and 1,098 females ages 22-24 (older females).

This is one of a series of reports from the 1988 YATS. It focuses on expressed awareness of military advertising in the past 12 months, accuracy of matching military slogans used in advertising with the correct service, receipt of unsolicited recruiting literature, images respondents have of the active Services, the number and types of events respondents attended in the past 12 months (roughly 10/87 to 10/88) which featured the military, and the impact of attendance at such events on the probability of enlistment.

Large majorities of respondents in all market groups (60 to 89 percent) reported awareness of military advertising for the four active Services in the past 12 months. The highest awareness (83 to 89 percent) occurred for the Army. A declining trend in the reported awareness of military advertising from 1984 through 1986 stabilized or reversed in 1987 and 1988. The proportion of each market group reporting awareness of military advertising stayed the same or increased from 1986 to 1988 for all Services, but still remained below 1984 levels.

More than 60 percent of all market groups correctly matched the military slogans for the Army, the Air Force, and one of the two for the Marine Corps with the correct Service. Less than 30 percent of respondents correctly matched the Navy or the two Joint Services advertising slogans with the correct Service. The Army was selected most often when misidentification occurred.

More young males (47 percent) than young females (28 percent) reported receiving recruiting literature in the past 12 months. Among young males those receiving such literature were more likely to have negative propensity than positive propensity; there was no relationship to propensity for females. These relationships represent a change from previous years. The Army was cited most frequently as the source of such literature.

Respondents in the four market groups were asked which of the Services they associated with ten image statements related to pay, benefits, training, opportunities, and types of duty. The Army was associated most frequently (or tied for most frequent mention) by approximately a third or more of the respondents with six of the ten statements: educational benefits, teaching valuable skills and trades, opportunities for advancement, equal pay and advancement for men and women, defending one's country, and work in a combat zone. The Air Force was most often associated with the image of working in a high technology environment; the Navy with the image of extended duty away from home; and the Marines with lack of personal freedom.

Between 30 and 43 percent of respondents reported attending one or more events which featured the military during the past year. Most frequently attended events were air shows or demonstrations, drills or parades, and aircraft displays. Of those who attended such events between 9 percent (older females) and 36 percent (young males) reported that attendance increased their likelihood of joining the military.

For selected topics for young males and young females, more detailed analyses were conducted by educational status and AFQT score category. Respondents with higher predicted AFQT scores tended to be more aware of military advertising (both print and broadcast), more accurate in identifying sponsors of the slogans of such advertising, and more likely to receive recruiting literature. Respondents with higher predicted AFQT scores were also more likely to attend an event featuring the military but were less likely than those with lower predicted AFQT scores to report that attending such an event increased their probability of enlistment.

## 1. INTRODUCTION AND METHODOLOGY

Maintaining adequate numbers and quality of personnel in the Armed Forces is a continuing challenge, particularly in times of declining pools of potential recruits and increased competition from the civilian sector. The military seeks high quality young men and women who will successfully adapt to military life, learn the skills of an occupational specialty, and perform their jobs. Effective targeting of recruiting efforts requires that the Department of Defense (DoD) and the individual Services understand the backgrounds, attitudes, and motivations of young men and women, and their intentions to serve in the military. The Youth Attitude Tracking Study (YATS) provides data on these issues for the active Services from 1975 through 1982 (e.g. Market Facts, 1983). The Youth Attitude Tracking Study II (YATS II) has provided data on these issues for the active military and the Reserve Components since 1983 (Bray et al., 1984, 1985, 1986; Ostrove et al., 1987, 1988).

The reporting format for the 1988 wave of the study differs from that of prior years. In the past, YATS data have been reported in a single final report. For the current study, findings are presented in a series of topical reports. Other reports in the series include:

- Patterns and Trends in Propensity to Enlist in the Military: Findings from the 1988 Youth Attitude Tracking Study II (Bray and Curtin, 1989)
- Relationships of Geographic Location and Propensity for Young Males: Findings from the 1988 Youth Attitude Tracking Study II (Bray and Curtin, 1989)

Supplementary Tabulations by Active Service Propensity and Reserve Component Propensity are also published as a companion volume (Bray, Cobb, and Theisen, 1989).

This report focuses on reported awareness of military advertising in the past 12 months, accuracy in the identification of military slogans used in advertising, receipt of unsolicited recruiting literature, images respondents have of the various active Services, the number and types of events respondents attended in the past 12 months which featured the military, and the impact of attendance at such events on the probability of

enlistment. This chapter provides an overview of the 1988 YATS II survey and includes a discussion of main features of the survey, the study objectives, survey methodology, and characteristics of the survey population.

#### A. YATS II Basic Features

The underlying goal of YATS II is to obtain information from young adults that will be useful to the Services in their recruiting practices. This is achieved through the use of state-of-the-art survey technology and sophisticated analyses of the data. Over the course of the survey series, improvements and refinements have been made to the survey methodology. Some of the distinctive features incorporated into the surveys since 1983 are:

- An advanced Computer Assisted Telephone Interviewing (CATI) system for conducting interviews. This system handles screening and interviewing activities, issuing of phone numbers, and control of call-back appointments. It also controls skip patterns in the questionnaire, permits resolution of inconsistent responses for various key items, and creates a data set of high quality information.
- A sophisticated sampling design based on the Waksberg (1978) random digit dialing procedure. The design allocates the sample across 66 Military Entrance Processing Stations (MEPS) to meet DoD-specified precision requirements.
- The inclusion of older age groups. In 1983 an older male group of 22-29 years was included in the study. In 1986 this older male market group was redefined to include only 22-24 year olds. In 1986 a market group of 22-24 year old females (older females) was added.
- The inclusion of analyses targeted at specific market segments. From 1983-1985, analyses used a classification of Recruiting Priority Groups (RPGs) to indicate recruit quality for young males and young females. The 1985 wave of YATS included the RPG analysis and introduced an alternate market segmentation approach based on high school status and predicted Armed Forces Qualification Test (AFQT) scores. The predicted AFQT quality segmentation has continued since 1985.
- The use of multivariate (regression) analyses to increase understanding of the contribution made by combinations of variables in predicting propensity for the young males and young females.

- A focus on propensity as a primary organizing theme. Assessing respondents' positive propensity (i.e., responses that individuals "definitely" or "probably" will join at least one of the Services) is a primary focus for the entire YATS series of surveys.

#### B. 1988 YATS II Objectives

The 1988 wave of YATS II provides current information on the background and attitudes of young adults and their intentions to join the military.

The survey was guided by a number of broad objectives:

- Assess current levels of propensity to enlist in the active military service and in the Reserve Components
- Assess trends since 1976 in propensity to enlist in the military
- Measure attitudes and motivations of potential recruits, especially as these relate to enlistment propensity
- Provide an AFQT-based market segmentation analysis for young males and young females

The 1988 YATS II survey builds upon the 1983-1987 YATS II surveys to provide an integrated understanding of the factors affecting enlistment propensity of men and women.

#### C. Sampling Design

The 1988 YATS II survey was designed to obtain information from four market groups of interest to the military:

- Young Males aged 16-21,
- Older Males aged 22-24,
- Young Females aged 16-21, and
- Older Females aged 22-24.

To be eligible for inclusion in this study, individuals had to reside in the continental United States in households or noninstitutional group quarters with telephones. This includes households of traditional nuclear families, or households of up to 10 unrelated individuals living together

who share the same phone (e.g., roommates in an apartment). Students in college dormitories were included if they had private phones in their rooms but were excluded if they were served only by a central hall phone. Eligible individuals could have completed no more than two years of college. Military personnel, including those in the Delayed Entry Program and those with prior military service (other than high school ROTC) were also excluded.

The sample size and allocation for each of the four markets were determined from DoD specifications of precision requirements for estimates of propensity. Young males were the market of primary interest for YATS II and, accordingly, the sample size was determined by the number of households needed to meet the precision requirements specified for this market group. Since the number of households required for young males produced more eligible individuals than were needed to satisfy the precision requirements for the other three market groups, subsamples of these groups were selected for interview.

The YATS II sampling design is based on the Mitofsky/Waksberg random digit dialing procedure (Waksberg, 1978). Under this procedure, telephone numbers are called in two stages to identify households. First-stage calls are made to randomly selected telephone exchanges. Exchanges yielding a household on the first number called are designated as clusters. In the second stage, numbers within these clusters are generated to find additional households. This approach is efficient because residential telephone numbers are frequently assigned to the same exchange. Thus, once an exchange containing a household (i.e., a cluster) is identified, numbers subsequently called in the same exchange are more likely to be assigned to households than numbers in other exchanges. Further details about the sampling procedures are available from Defense Manpower Data Center.

#### **D. Data Collection and Survey Performance Rates**

Data for the YATS II survey consist of responses to a questionnaire administered in a 30-minute computer assisted telephone interview. The 1988 survey questionnaire for YATS II is similar to the 1987 questionnaire and consists of four sections. Section A contains primarily education and employment items. Sections B and C contain items about propensity toward the active Services and the Reserve Components, and general awareness about

military pay, bonuses, educational benefits, requirements of the Reserve Components, and other selected issues. Section D contains items on advertising, recruiter contact, and respondent demographics.

New items were also added to the 1988 survey questionnaire. The items focus on respondents' participation in selected military events (e.g. band concert, firepower drill, parade, visit to a ship) and attitudes about a national service program. Selected items about family composition found in the 1987 questionnaire were deleted in the 1988 version. A copy of the questionnaire appears in the volume of supplementary tabulations (Bray, Cobb, and Theisen, 1989).

The 1988 YATS II used a Computer Assisted Telephone Interviewing (CATI) system for all phases of the data collection. With this system, questionnaires for screening (eligibility determination), interviewing and verification are programmed, entered, and stored within the computer. Instructions and questionnaire items appear on the screen in the proper sequence and permit the resolution of inconsistent, invalid, and incomplete responses as an ongoing part of the interview.

Data were collected in a two-phased approach from July 24 to November 10, 1988. Phase 1 consisted of dialing to identify households, and Phase 2 consisted of screening households to identify members eligible for the study and then interviewing these individuals. Overall, 263,871 telephone numbers were called to identify 107,786 households. From these households, 13,403 eligibles for the study were identified and selected for interviews. Analyses for the study were based on 10,985 interviews (5,486 for young males, 1,130 for older males, 3,271 for young females, 1,098 for older females).

Interview completion rates and overall response rates were calculated for each of the four market groups to assess the quality of survey field operations and the potential for nonresponse in the data. As shown in Table 1.1, interview completion rates, which were computed as the percentage of completed interviews out of the total number of eligibles selected, were highest among young males and young females followed by older females and older males. Overall response rates, which were computed by multiplying the interview completion rates by the household screening rates, followed the same ranking noted for interview completion rates.



Table 1.1. Survey Performance Rates

Performance Rate	Market Group			
	Young Males	Older Males	Young Females	Older Females
Interview Completion Rate	77.3	66.3	76.4	73.7
Overall Response Rate	74.6	63.9	73.6	70.9

Note: Tabled values are percentages.

Numerous calls and attempts to overcome initial refusals were conducted to complete household screening for all sample numbers and to administer a questionnaire to all selected eligibles. A thorough effort was made to obtain high response rates within the given schedule constraints.

#### E. Measurement Approach

Measurement for analyses reported in the current study focuses on exposure to military advertising, service images, and attendance at events featuring the military. The specific questionnaire items assessing these issues are described in Chapter 2 and 3 of this report in connection with the analyses.

Besides the specific items that are examined, two key reporting variables are used for classification of many of the variables. The variables are the market groups defined above (young males, older males, young females, older females) and the propensity to enlist in the military. In addition some analyses are conducted using a predicted AFQT market segmentation approach. This section describes the measures of propensity and AFQT market segmentation.

##### 1. Measures of Propensity

Propensity for active military service is assessed by four questions asking the likelihood of serving in each of the active Services: the Army, the Navy, the Marine Corps, and the Air Force.

These questions were asked with the following format:

Now, I'm going to read you a list of several things which young (men/women) your age might do in the next few years. For each one I read, please tell me how likely it is that you will be doing that.

How likely is it that you will be serving on active duty in the \_\_\_\_\_  
(Army, Navy, Marine Corps, Air Force)? Would you say

Definitely,  
Probably,  
Probably not, or  
Definitely not?

For each of the Services, positive propensity is defined as having answered "definitely" or "probably"; negative propensity is defined as having answered "probably not," "definitely not," "don't know," or "refuse" to the question.

The four Service-specific propensity items also form the measure of Composite Active Propensity used in this report. Composite Active Propensity is defined as the most positive response given to any of the four questions assessing propensity to join the individual active duty Services. A respondent who indicates that he or she would "probably enlist" in the Army, but "probably not enlist" in the Navy, the Air Force, or the Marine Corps, for example, is assigned a value of "probably enlist" on the Composite Active Propensity measure. Respondents with values of "definitely enlist" or "probably enlist" on the composite measure are considered to have "positive propensity." Respondents with values of "probably not," "definitely not," "don't know," or "refuse" on the composite measure are considered to have "negative propensity."

From the 1988 YATS II survey Reserve propensity is similarly assessed by answers to two questions--one about joining the National Guard and the other about joining the Reserves. They were asked as follows:

How likely is it that you will be serving in the \_\_\_\_\_ (National Guard, Reserves)? Would you say

Definitely,  
Probably,  
Probably not, or  
Definitely not?

The answers to these two questions became the respective measures of propensity to join the National Guard and propensity to join the Reserves. A Composite Reserve Propensity measure was constructed from the answers to these two likelihood items in the same manner as the Composite Active

Propensity measure. This composite measure is also analyzed in this report.

## 2. Predicted AFQT Market Segmentation Approach

Technically sophisticated military equipment and systems require that an increasingly larger proportion of the force possess high aptitudes and educational levels. Enlisting high quality recruits, then, is a high priority for the Services. High quality recruits are defined as high school diploma graduates who score in Categories I-IIIA on the Armed Forces Qualification Test (AFQT). High school graduation and predicted score on the AFQT are examined to provide insights about recruiting difficulties and opportunities among target populations.

The predicted AFQT approach was developed by Orvis and Gahart (1987) of The RAND Corporation. The goal of the segmentation analysis was to develop a series of equations to estimate the probability that any individual would obtain a score at or above the 50th percentile on the AFQT (Categories I-IIIA). The equations were developed using young male respondents from the 1976-1980 fall administrations of YATS who subsequently took the AFQT. The variables used to predict AFQT category included such objective information as age at survey, race, geographic region, father's education, number and type of high school math courses completed, approximate high school grades, current job and educational status, and other information such as general intention to enlist, recruiter contact, perceived ease of finding full-time employment, and having talked with one's parents about enlisting. The application of these equations to both young male and young female data resulted in the following seven groups based on educational status and AFQT-predicted scores.<sup>1</sup>

<sup>1</sup>Note that each of the two AFQT-category subgroups is composed of the entire set of respondents who have achieved the level of educational attainment specified. For example, among male high school seniors, the data for 1,143 individuals were entered into the calculations for both Categories I-IIIA and IIIB-V. This was accomplished by using the probability that each individual would fall into Categories I-IIIA (High Wt.) for the first set of calculations, and then using the probability that that individual would fall into Categories IIIB-V (1-High Wt.) for the second set. In each case, this probability was used to weight the propensity measure.

- High School Diploma Graduates - Category I-IIIA
- High School Diploma Graduates - Category IIIB-V
- High School Seniors - Category I-IIIA
- High School Seniors - Category IIIB-V
- Younger High School Students - Category I-IIIA
- Younger High School Students - Category IIIB-V
- Non-completers.

Non-completers consist of all respondents not currently in high school who do not have regular high school diplomas, including those with GEDs or ABE certificates. Non-completers were not further divided into AFQT groups because of their low recruiting priority.

The mean estimated probability of being in AFQT Categories I-IIIA among young males was .629 for high school graduates, .635 for high school seniors, and .506 for younger high school students. Among young females, the mean estimated probability of being in Categories I-IIIA was .564 for high school graduates, .594 for high school seniors and .524 for younger high school students.<sup>2</sup>

#### F. Characteristics of Survey Population

Estimates of the sociodemographic characteristics of the 1988 survey population are presented in Table 1.2. This table and those in the following chapters often present two numbers in each cell. The first number is an estimate of the percentage of the population with the characteristics that define the cell. The second number, in parentheses,

<sup>2</sup>The female YATS sample in the years measured was too small to develop meaningful equations. Thus, the models developed for the male respondents were used for the females as well. This may account in part for the lower probabilities of females scoring in Categories I-IIIA. Both male and female younger high school students had lower probabilities of scoring in AFQT Categories I-IIIA than seniors. This may be because the younger student group includes individuals with lower AFQT scores who will drop out of school before their senior year. The lower probability for graduates is most likely due to the exclusion of individuals in their third or fourth years of college from the YATS sample.

is the standard error of the estimate. Standard errors represent the degree of variation associated with taking observations on a sample rather than on every member of the population. Unweighted sample sizes indicating the number of interviews on which the estimates are based are presented for each of the tables. Estimates in the tables, however, are based on weighted data.

As shown in Table 1.2, about one-half of both the young male and young female populations are ages 16 or 17. Decreasing percentages of eligible respondents appear as age increases from 18 to 21. Older males and older females show a more even distribution across ages. The large majority of young males, young females, and older females interviewed are white, followed by approximately equal percentages of Blacks and Hispanics. Older males also show a majority of Whites but more Hispanics than Blacks.

Other differences between the groups are primarily a function of age. Most young males (97 percent) and young females (88 percent), for example, have never been married, compared with about two-thirds of older males (65 percent) and slightly over one-third of the older females (39 percent). From 64 to 66 percent of young males and females are currently in school compared with only 13 to 16 percent of older males and females. Fewer than half of the young males (38 percent) and young females (45 percent) completed 12 or more years of school compared with 81 percent of older males and 82 percent of older females. As expected, there is less employment among younger groups than among older groups. Sixty percent of young males and 55 percent of young females are employed either full time or part time, compared with 91 percent of the older males and 67 percent of the older females.

Table 1.2. Estimates of Sociodemographic Characteristics of Survey Population

Characteristic	Young Males (n=5486)	Older Males (n=1130)	Young Females (n=3271)	Older Females (n=1098)
<u>Age<sup>a</sup></u>				
16 (22)	24.4 (0.9)	35.4 (0.8)	22.6 (0.9)	32.4 (1.7)
17 (23)	25.3 (0.8)	32.8 (1.7)	23.8 (0.8)	34.8 (1.7)
18 (24)	17.9 (0.8)	31.8 (1.8)	18.0 (0.8)	32.9 (1.7)
19	15.3 (0.7)		15.6 (0.7)	
20	8.8 (0.5)		10.1 (0.7)	
21	8.3 (0.7)		9.9 (0.6)	
<u>Race/Ethnicity</u>				
White	75.7 (0.9)	76.6 (1.6)	75.6 (0.9)	76.5 (1.5)
Black	10.4 (0.6)	8.2 (1.1)	11.8 (0.7)	10.7 (1.1)
Hispanic	10.8 (0.6)	12.2 (1.3)	9.6 (0.6)	10.4 (1.1)
Other	3.2 (0.3)	3.0 (0.6)	3.0 (0.4)	2.3 (0.5)
<u>Marital Status</u>				
Never married	96.9 (0.3)	64.6 (1.8)	88.2 (0.7)	38.5 (1.8)
Currently married	2.6 (0.3)	32.3 (1.8)	9.9 (0.7)	51.0 (1.8)
Other <sup>b</sup>	0.5 (0.1)	3.2 (0.6)	1.8 (0.3)	10.4 (1.2)
<u>Educational Status<sup>c</sup></u>				
Attend school	66.3 (1.0)	16.0 (1.4)	64.3 (1.0)	13.0 (1.2)
Not attend school	33.2 (1.0)	82.5 (1.4)	35.3 (1.0)	86.0 (1.2)
Don't know	0.5 (0.1)	1.5 (0.4)	0.4 (0.1)	1.0 (0.3)
<u>Years of Education Completed</u>				
Less than 10	10.3 (0.7)	5.3 (0.8)	5.7 (0.5)	6.0 (1.0)
10	23.1 (0.8)	5.6 (0.9)	22.1 (0.8)	4.3 (0.6)
11	28.1 (0.9)	7.0 (0.9)	26.3 (0.9)	6.6 (0.8)
12	28.5 (0.9)	58.5 (1.8)	33.4 (0.9)	56.5 (1.8)
Some vocational school	0.5 (0.1)	2.3 (0.6)	0.8 (0.2)	4.1 (0.6)
Some college	9.6 (0.6)	21.3 (1.6)	11.7 (0.7)	22.5 (1.5)
<u>Employment Status</u>				
Employed full-time	29.8 (1.0)	81.0 (1.4)	21.9 (0.8)	51.6 (1.8)
Employed part-time	30.3 (0.9)	9.5 (1.2)	33.3 (0.9)	15.5 (1.3)
Not employed, looking	20.0 (0.8)	6.2 (0.8)	21.2 (0.8)	9.9 (1.1)
Not employed, not looking	19.9 (0.8)	3.2 (0.7)	23.7 (0.9)	23.0 (1.5)

Note: Tabled values are column percentages with standard errors in parentheses. Percentage distributions may not sum to 100.0 due to rounding.

<sup>a</sup>Ages 22-24 apply to older males and older females.

<sup>b</sup>"Other" includes widowed, divorced, and separated.

<sup>c</sup>Data were collected during August, September, October, and November 1988. The question before October 1 asked about planned status for October; the question after October 1 asked about actual status.

Source: Questions 403, 404, 407, 416, 417, 713C, 714, 715.

## 2. EXPOSURE TO MILITARY ADVERTISING

The major purpose of advertising is to familiarize people with a product or service and to promote a positive image of the product or service. To this end, different media, such as print, radio, television advertising, and direct mailings are used to disseminate objective and subjective information about products and services, such as the military. In this way, advertisers are able to familiarize potential recruits with opportunities offered by the military as well as to enhance the image of the "product" of military service. The goal and expectation of such advertising is to increase the probability of enlistment by increasing individuals' knowledge, awareness, and positive perception of the military.

This chapter focuses on young people's reports of their awareness of all forms of military advertising. We first examine advertising awareness and then assess recognition of advertising slogans. Next, we discuss awareness of print and broadcast advertising. We conclude with a report on the receipt of recruiting literature.

### A. Advertising Awareness

The 1988 YATS questionnaire included two measures of awareness of military advertising. Interviewees were first asked, "For which military Services do you recall seeing or hearing advertising that encouraged people to enlist in one or more of the Services?" Responses to this initial question are considered measures of "unaided awareness." After answering this question, the respondent was then asked, "Do you recall seeing or hearing any advertising for [Service specified by name] recently?" for each Service he or she had NOT mentioned in response to the (unaided) initial question. Positive responses to this latter set of questions are considered "aided awareness."

For both the young and older males, most awareness of advertising for the four active services was elicited without aid, while for the Coast Guard, National Guard/Reserve, and the Joint Services, most males reported that they remembered such advertising only after being specifically asked if they remembered seeing/hearing advertising for that sponsor.

### 1. Awareness Among Males

Table 2.1 presents the responses to these two sets of questions as well as a combined measure indicating the total level of aided and unaided awareness. Among the young males, unaided awareness of advertising by the four active Services ranges from 70 percent for the Army to 46 percent for the Navy. Unaided awareness of Coast Guard, National Guard/Reserve and Joint Services advertising is considerably lower, ranging from 17 percent for the Joint Services to 22 percent for the Coast Guard and 25 percent for the National Guard. Older males show highly similar patterns to young males of unaided awareness of advertising.

Among both the young and older males, similar levels of aided awareness of advertising are noted for the four active Services and the Coast Guard, ranging from 17 to 25 percent. For the active Services, these levels of aided awareness represent one-quarter to one-half the levels of unaided awareness. For the Coast Guard, aided and unaided awareness levels are approximately equal. For both National Guard/Reserve and Joint Services advertising, however, males show higher levels of aided awareness, ranging from 33-35 percent, than they had shown of unaided awareness. In fact, in contrast to the pattern demonstrated for the active Services, levels of aided awareness of advertising by these two sponsors are between one and one-half to over three times the levels of unaided awareness for the same sponsor.

It should be noted that awareness for the joint advertising program must be viewed in a different light than awareness for the individual Services. The purpose of joint advertising is to supplement and complement the advertising efforts of the military Services. Consequently, the relatively low levels of awareness of "Joint Services" advertising apparent in Table 2.1 are not necessarily an indication of ineffectiveness in reaching its target audience or providing a positive image of the Armed Forces. It is indeed likely that some portion of the advertising awareness of the military Services is the result of identifying (or misidentifying) joint advertisements as ads for a specific Service. A respondent may have seen the Army portion of a joint advertisement, for example, and attributed the entire ad to the Army rather than to an ad for all Services.



Table 2.1. Levels of Awareness of Military Advertising

Sponsor/Awareness	Young Males (n=5486)	Older Males (n=1130)	Young Females (n=3271)	Older Females (n=1098)
<b>Army</b>				
Unaided awareness	70.4 (0.9)	68.6 (1.7)	70.4 (0.9)	69.5 (1.6)
Aided awareness	18.7 (0.9)	16.5 (1.4)	17.1 (0.7)	13.9 (1.3)
Aided or unaided	89.1 (0.6)	85.1 (1.3)	87.6 (0.7)	83.4 (1.3)
<b>Navy</b>				
Unaided awareness	45.6 (1.0)	45.6 (1.8)	44.3 (1.0)	42.5 (1.8)
Aided awareness	23.3 (0.9)	18.0 (1.4)	19.8 (0.8)	17.8 (1.4)
Aided or unaided	68.9 (1.0)	63.6 (1.8)	64.1 (1.0)	60.3 (1.7)
<b>Marine Corps</b>				
Unaided awareness	55.0 (1.0)	52.5 (1.8)	49.2 (1.0)	47.0 (1.8)
Aided awareness	23.0 (0.8)	20.7 (1.5)	22.0 (0.8)	19.2 (1.4)
Aided or unaided	78.0 (0.8)	73.2 (1.6)	71.2 (0.9)	66.2 (1.7)
<b>Air Force</b>				
Unaided awareness	52.1 (1.0)	50.8 (1.8)	50.6 (1.0)	47.8 (1.8)
Aided awareness	24.7 (0.9)	20.1 (1.5)	25.7 (0.9)	21.9 (1.5)
Aided or unaided	76.7 (0.8)	71.0 (1.7)	76.3 (0.8)	69.7 (1.6)
<b>Coast Guard</b>				
Unaided awareness	21.6 (0.8)	21.9 (1.6)	15.1 (0.7)	16.2 (1.3)
Aided awareness	22.2 (0.8)	22.6 (1.6)	19.1 (0.8)	20.2 (1.5)
Aided or unaided	43.8 (1.0)	44.5 (1.8)	34.2 (1.0)	36.5 (1.7)
<b>National Guard/Reserve</b>				
Unaided awareness	24.6 (0.9)	29.3 (1.7)	21.0 (0.8)	25.3 (1.6)
Aided awareness	34.9 (1.0)	33.4 (1.8)	27.3 (0.9)	28.1 (1.6)
Aided or unaided	59.5 (1.0)	62.7 (1.8)	48.4 (1.0)	53.4 (1.8)
<b>Joint Services*</b>				
Unaided awareness	16.8 (0.8)	16.7 (1.5)	12.1 (0.7)	14.6 (1.3)
Aided awareness	35.4 (1.0)	33.3 (1.8)	27.7 (0.9)	24.3 (1.6)
Aided or unaided	52.2 (1.0)	49.9 (1.9)	39.8 (1.0)	38.9 (1.8)

Note: Tabled values are percentages with standard errors in parentheses. Aided awareness is somewhat inversely related to unaided awareness in that respondents are only asked about it if they do not report unaided awareness for a given Service.

\*Question refers to "one ad for Joint Services."

Source: Questions 510-513, 601-608.

## 2. Awareness Among Females

As with the males, for both the young and older females, most awareness of advertising for the four active services was elicited unaided, while for the Coast Guard, National Guard/Reserve, and the Joint Services, more females reported that they remembered such advertising only after being specifically asked.

Young females unaided awareness of advertising for the four active Services ranges from 44 percent for the Navy to 70 percent for the Army. Unaided awareness of advertising by the remaining three sponsors is much lower, ranging from 12 percent for the Joint Services to 21 percent for the National Guard/Reserve. Older females show similar levels of awareness of advertising.

For the four active Services, aided awareness ranged from 17 (for the Army) to 26 (for the Air Force) percent for young females and 13 (for the Army) to 22 (for the Air Force) percent for older females, notably less than the unaided awareness. Aided awareness for the Coast Guard, National Guard/Reserve and Joint Services ranged from 19 to 28 percent but was similar for both groups of females.

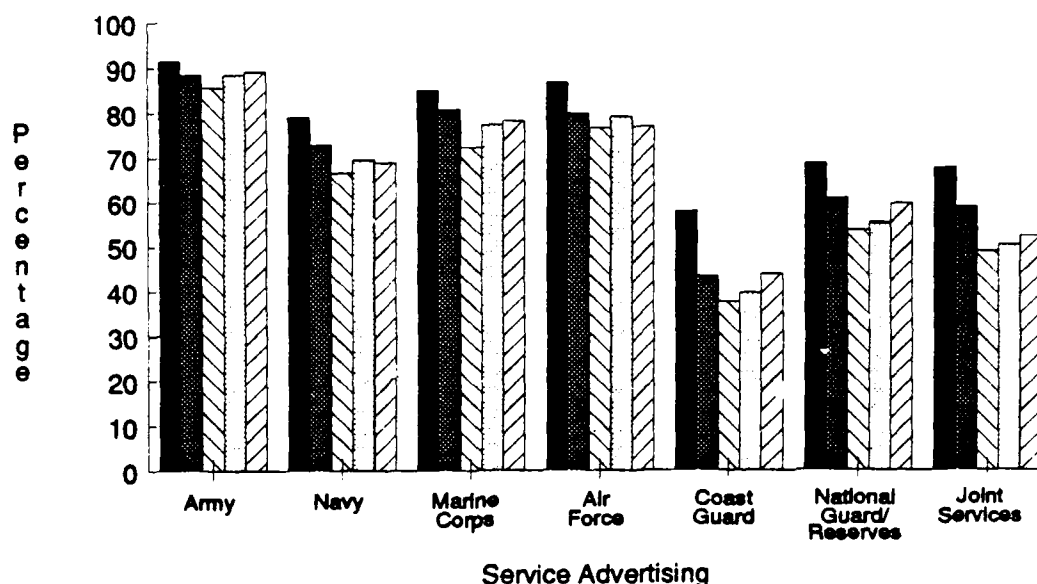
## 3. Composite of Awareness, Young Males and Females

Figures 2.1 and 2.2 present the combined aided and unaided advertising awareness levels for the young males and young females, respectively, for 1985 through 1988. Two basic conclusions can be drawn from examination of these figures. First, it is clear that levels of awareness for the active Services, especially the Army, have remained consistently higher than those for the National Guard/Reserves, Joint Services and the Coast Guard. The second conclusion is that, overall, the trend toward decreasing levels of awareness from 1984 to 1986 appears to have changed, with awareness levels stabilizing or increasing in 1987 and 1988.

## 4. Sequence of Mentions by Service

Table 2.2 presents data on the order in which the individual Services were mentioned in response to the initial, unaided question about advertising awareness. All of the market groups show nearly identical patterns regarding order of mention on the first response, and even the

Figure 2.1. Trends in Young Males' Aided and Unaided Awareness of Advertising, 1984-1988



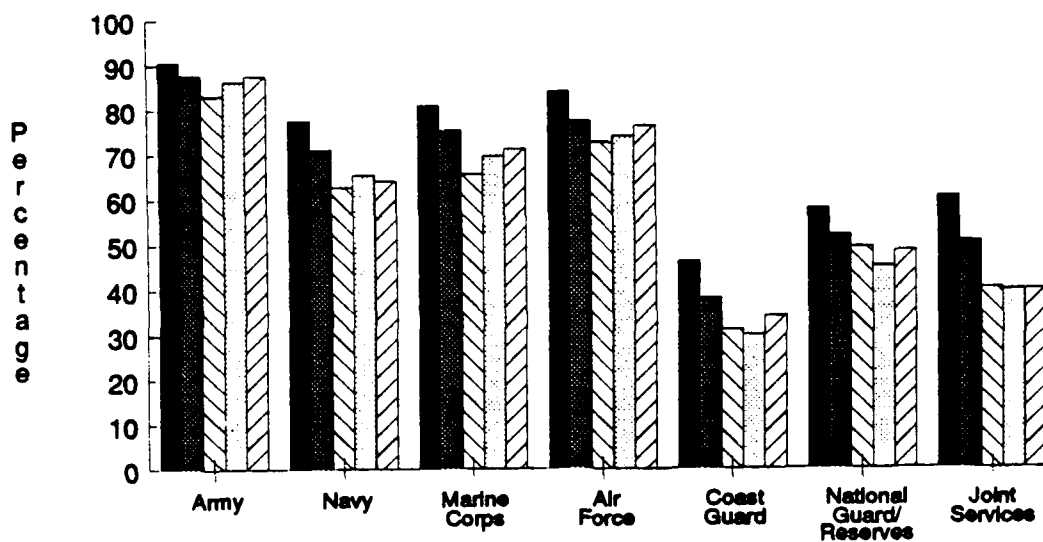
SOURCE: Questions 601-608

percentages citing each service are somewhat similar. For all groups, the Army was most often mentioned first (36-40 percent). For three of the four market groups, the Navy or Air Force was the most frequent second mention (18-21 percent for each). The Marine Corps was most often mentioned third (28-30 percent) for all market groups.

##### 5. Awareness by School Status and Predicted AFQT

Tables 2.3 (for young males) and 2.4 (for young females) present the combined aided and unaided advertising awareness levels for four market subgroups of the 16 to 21 year olds. These groups are high school graduates, high school seniors, younger high school students, and high school drop-outs. The first three subgroups are further cross classified by predicted AFQT category.

Figure 2.2. Trends in Young Females' Aided and Unaided Awareness of Advertising, 1984-1988



Service Advertising

1984	90.6	77.6	80.9	83.9	46.1	57.8	60.4
1985	87.7	71.1	75.3	77.3	38.1	52.0	50.5
1986	83.1	62.7	65.5	72.5	31.2	49.2	40.2
1987	86.3	65.4	69.6	74.0	30.1	45.0	39.8
1988	87.6	64.1	71.2	76.3	34.2	48.4	39.8

SOURCE: Questions 601-608

Examination of AFQT status shows that, in general, those with category I-III A predicted AFQT scores have awareness levels a few percentage points higher than those with category IIIB-V predicted AFQT scores. Not surprisingly, awareness levels tend to be somewhat higher among those closer to completing high school and choosing a career. High school seniors tend to have slightly higher awareness levels than younger high school students, and awareness tends to remain about the same or drop off slightly after one graduates from high school. The percentage of males in each group reporting awareness of advertising for the various Services tends to be similar to, or a few percentage points higher than, comparable females. Finally, for both males and females, those who leave school without graduating tend to have the lowest levels of awareness of any of the 16 to 21 year olds.

Table 2.2. Order of Mention for Recall of Military Advertising

Service	Young Males			Older Males		
	First Response	Second Response	Third Response	First Response	Second Response	Third Response
Army	37.9	40.0	8.1	35.7	43.0	8.6
Navy	5.7	18.5	12.7	5.3	19.5	13.3
Marine Corps	11.0	15.3	29.1	7.9	16.4	27.7
Air Force	25.9	19.0	18.8	28.1	13.2	18.9
Coast Guard	0.9	2.4	25.6	1.5	2.8	27.8
National Guard/Reserve	2.6	3.5	4.3	4.6	4.5	3.6
One ad for all Services	6.7	0.8	1.5	6.8	0.7	0.3
Other*	9.4	0.0	0.0	10.1	0.0	0.0

Service	Young Females			Older Females		
	First Response	Second Response	Third Response	First Response	Second Response	Third Response
Army	40.0	37.5	8.0	36.4	40.4	9.7
Navy	6.0	20.6	16.0	5.7	19.5	14.8
Marine Corps	8.3	16.8	29.4	7.8	15.0	30.2
Air Force	25.5	18.1	21.0	27.0	17.7	14.2
Coast Guard	0.6	1.7	20.8	0.5	1.6	22.5
National Guard/Reserve	3.5	4.4	4.1	5.9	4.5	6.8
One ad for all Services	5.0	0.9	0.7	4.8	1.2	1.9
Other*	11.1	0.0	0.0	11.9	0.0	0.0

Note: Tabled values are column percentages. Data are for unaided mentions. Estimates are based on interviews with 5486 young males, 1130 older males, 3271 young females and 1098 older females.

\*Includes "None" (first response only), don't know, and refused.

Source: Question 601.

Table 2.3. Young Males' Awareness of Military Advertising by AFQT Category

Advertising Sponsor	Predicted AFQT Group									
	High School Graduates (n=1907)			High School Seniors (n=1142)			Younger High School Students (n=1332)			Total (n=5482)
	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	
Army	90.7	89.4	92.4	90.2	91.7	86.9	84.4	89.1		
Navy	72.9	67.4	75.6	68.9	69.5	68.3	62.6	68.9		
Marine Corps	83.2	78.6	79.5	78.1	82.2	75.2	70.4	78.0		
Air Force	79.9	76.1	79.8	76.9	78.9	73.8	72.2	76.7		
Coast Guard	45.6	46.9	50.6	43.3	43.5	38.6	42.9	43.8		
National Guard/Reserve	64.4	60.2	64.6	58.2	59.2	52.1	56.3	59.5		
Joint Services	57.0	52.9	59.1	50.5	53.4	48.0	44.9	52.2		

Note: Tabled values are percentages of each category with aided or unaided awareness.

Source: Questions 510-513, 601-608.

Table 2.4. Young Females' Awareness of Military Advertising by AFQT Category

Predicted AFQT Group							
Advertising Sponsor	High School Graduates (n=1372)		High School Seniors (n=635)		Younger High School Students (n=678)		Total (n=3269)
	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	
Army	88.8	88.5	89.9	87.7	88.6	86.5	87.6
Navy	63.7	61.5	68.3	65.5	66.3	68.4	64.1
Marine Corps	73.2	71.3	76.5	76.7	73.3	76.6	71.2
Air Force	77.3	74.9	86.2	77.6	79.9	77.3	76.3
Coast Guard	33.6	33.1	35.8	37.5	37.5	34.7	34.2
National Guard/Reserve	50.8	48.1	54.7	51.6	45.1	41.9	48.4
Joint Services	41.8	39.6	44.5	46.2	46.9	31.9	39.8

Note: Tabled values are percentages of each category with aided or unaided awareness.

Source: Questions 510-513, 601-608.

## **B. Recognition of Military Advertising Slogans**

Recognition and identification of the sponsor of advertising slogans is a more precise indicator of advertising awareness than simple self-reported exposure data. Respondents were read seven military slogans and were asked to name the sponsor of each. The Army, Navy, and Air Force each had one slogan and the Marine Corps and Joint Services each had two. The overall market group responses to these items are presented in Table 2.5.

### **1. Army Slogan**

The Army slogan ("\_\_\_\_. Be all you can be.") achieved high levels of advertising awareness, in general, and the highest level of correct sponsor attribution within the young female market group. Overall, 81 to 82 percent of both young males and females correctly attributed the slogan to the Army, while 79 percent of older males and 72 percent of older females made the correct attribution. The Army slogan achieved the second highest level of accurate sponsor attribution among the older females and the third highest among the older males. None of the other military branches appeared likely to be incorrectly identified with this slogan. The majority of all four market groups were able to correctly attribute this slogan to the Army.

### **2. Navy Slogan**

The Navy slogan ("\_\_\_\_. It's not just a job, it's an adventure.") showed relatively low levels of correct sponsor identification. It ranked sixth out of the seven slogans for correct sponsor identification. Only 26 to 28 percent of the male groups and 18 to 19 percent of the female groups made the correct attribution. This slogan was more likely to be misidentified as an Army slogan than correctly identified as a Navy slogan by all four of the market groups (36 to 42 percent). The male market groups were somewhat more likely than the female groups to correctly attribute the slogan to the Navy.

### **3. Marine Corps Slogans**

The Marine Corps slogan ("The few, the proud, the \_\_\_\_\_.") was correctly identified by a majority of all market groups (61 to 79 percent). Responses were roughly comparable to those for the Army slogan. Males were



Table 2.5. Correct and Incorrect Sponsor Attributions for  
Military Advertising Slogans

Slogan/Response	Young Males (n=5486)	Older Males (n=1130)	Young Females (n=3271)	Older Females (n=1090)
<b>"Be all you can be."</b>				
<u>Army</u>	82.1 (0.9)	78.7 (1.5)	81.5 (0.8)	72.5 (1.7)
<u>Navy</u>	3.5 (0.4)	4.0 (0.8)	4.0 (0.4)	6.5 (1.0)
<u>Marine Corps</u>	3.6 (0.5)	6.5 (0.9)	3.7 (0.4)	4.6 (0.8)
<u>Air Force</u>	4.4 (0.6)	4.6 (0.7)	3.8 (0.4)	6.4 (0.9)
<u>Joint Services</u>	3.9 (0.6)	3.0 (0.7)	3.5 (0.4)	3.8 (0.7)
Don't know	2.5 (0.3)	3.1 (0.6)	3.4 (0.4)	6.1 (0.9)
<b>"_____. It's not just a job, it's an adventure."</b>				
<u>Army</u>	40.3 (1.0)	41.8 (1.8)	36.0 (1.0)	38.0 (1.7)
<u>Navy</u>	25.8 (0.9)	27.9 (1.7)	17.6 (0.7)	19.2 (1.4)
<u>Marine Corps</u>	12.2 (0.6)	10.9 (1.1)	12.2 (0.6)	12.1 (1.2)
<u>Air Force</u>	8.3 (0.5)	9.2 (1.2)	12.8 (0.7)	12.0 (1.1)
<u>Joint Services</u>	6.7 (0.6)	3.9 (0.7)	8.9 (0.6)	5.8 (0.8)
Don't know	6.8 (0.5)	6.4 (0.8)	12.5 (0.7)	13.0 (1.2)
<b>"The few, the proud, the _____."</b>				
<u>Army</u>	6.0 (0.8)	6.0 (0.8)	7.2 (0.5)	5.9 (0.9)
<u>Navy</u>	4.3 (0.4)	2.3 (0.6)	8.1 (0.5)	4.3 (0.7)
<u>Marine Corps</u>	78.9 (0.9)	83.2 (1.4)	61.3 (1.0)	73.1 (1.7)
<u>Air Force</u>	2.9 (0.3)	2.8 (0.6)	5.5 (0.5)	3.4 (0.7)
<u>Joint Services</u>	1.8 (0.3)	0.9 (0.3)	4.1 (0.4)	3.4 (0.7)
Don't know	6.1 (0.4)	4.8 (0.8)	13.9 (0.7)	10.6 (1.1)
<b>"We're looking for a few good men."</b>				
<u>Army</u>	14.3 (0.6)	15.4 (1.3)	25.4 (0.9)	21.1 (1.4)
<u>Navy</u>	5.7 (0.5)	4.3 (0.7)	10.7 (0.6)	9.6 (1.1)
<u>Marine Corps</u>	69.5 (0.9)	69.0 (1.7)	40.0 (1.0)	44.8 (1.8)
<u>Air Force</u>	2.5 (0.3)	3.4 (0.7)	5.7 (0.4)	6.4 (0.9)
<u>Joint Services</u>	3.7 (0.4)	3.8 (0.8)	5.7 (0.4)	4.7 (0.7)
Don't know	4.3 (0.4)	4.2 (0.7)	12.6 (0.7)	13.4 (1.2)
<b>"Aim high. _____."</b>				
<u>Army</u>	2.9 (0.3)	3.9 (0.8)	7.0 (0.5)	7.3 (0.9)
<u>Navy</u>	1.9 (0.4)	3.6 (0.7)	4.7 (0.4)	5.0 (0.8)
<u>Marine Corps</u>	1.5 (0.2)	3.0 (0.6)	3.2 (0.3)	4.6 (0.8)
<u>Air Force</u>	89.8 (0.7)	82.6 (1.4)	76.3 (0.9)	71.2 (1.7)
<u>Joint Services</u>	0.9 (0.5)	1.6 (0.6)	2.2 (0.3)	1.3 (0.4)
Don't know	2.9 (0.3)	5.2 (0.8)	6.6 (0.5)	10.7 (1.1)
<b>"We're not a company--we're your country."</b>				
<u>Army</u>	20.7 (0.8)	18.3 (1.4)	17.5 (0.8)	16.6 (1.4)
<u>Navy</u>	11.3 (0.6)	10.6 (1.1)	10.4 (0.6)	8.0 (0.9)
<u>Marine Corps</u>	10.8 (0.7)	8.1 (1.0)	10.4 (0.6)	9.6 (1.0)
<u>Air Force</u>	5.9 (0.4)	8.5 (1.1)	6.3 (0.5)	6.0 (0.8)
<u>Joint Services</u>	31.4 (1.0)	20.9 (1.7)	24.6 (0.9)	22.7 (1.5)
Don't know	19.9 (0.8)	25.7 (1.6)	30.8 (0.9)	37.3 (1.7)
<b>"It's a great place to start."</b>				
<u>Army</u>	43.3 (1.0)	40.8 (1.8)	35.2 (1.0)	33.2 (1.7)
<u>Navy</u>	13.2 (0.6)	13.3 (1.2)	13.5 (0.7)	12.7 (1.2)
<u>Marine Corps</u>	6.5 (0.5)	4.9 (0.7)	8.3 (0.5)	7.5 (0.9)
<u>Air Force</u>	9.6 (0.6)	12.2 (1.2)	11.4 (0.6)	10.2 (1.0)
<u>Joint Services</u>	15.6 (0.5)	13.2 (1.2)	12.8 (0.7)	10.1 (1.1)
Don't know	11.9 (0.6)	15.7 (1.4)	19.0 (0.8)	20.3 (0.6)

Note: Tabled values are column percentages with standard errors in parentheses. The sponsor for each slogan is underlined.

Source: Questions 610-615.

more likely to accurately attribute the Marine Corps slogan (79 percent for young males and 83 percent for older males) than were females (61 percent for young females and 73 percent for older females).

The second Marine Corps slogan, ("We're looking for a few good men.") was fourth most likely to be accurately attributed to its sponsor but was less likely than the first slogan to be correctly associated with the Marine Corps. As with the first Marine Corps slogan, the males were much more likely to accurately attribute the slogan (69 percent for both young and older males) than were the females (young females, 40 percent; older females, 45 percent). All four market groups were more likely to incorrectly attribute the slogan to the Army than to any other branch of the military. The female groups were especially likely to make this misidentification.

#### 4. Air Force Slogan

The Air Force slogan ("Aim high. \_\_\_\_\_.") achieved levels of advertising awareness comparable to those achieved by the Army slogan and the first Marine Corps slogan. Among young males, the Air Force slogan received the highest proportion of correct sponsor attributions. Young males also showed a significantly higher level of correct attributions (90 percent) than older males (83 percent) or young females (76 percent). These two latter groups, in turn, were more accurate than older females (71 percent).

#### 5. Joint Services Slogans

The Joint advertising slogan ("We're not a company--we're your country.") was roughly fifth most likely to be accurately attributed to its sponsors. Males were much more likely than the females to identify the sponsor of this Joint Services slogan. Only 29 to 31 percent of males, compared with nearly one-quarter of females, directly identified the slogan. For all groups, this slogan elicited the highest percentages of "don't know" responses. Females, in fact, were more likely to say they didn't know the sponsor of this slogan than to correctly identify it with the Joint Services.

The second Joint Services slogan ("It's a great place to start.") produced the lowest levels of accurate attributions to the sponsor. This

slogan elicited a large percentage of incorrect attributions to the Army, similar to the findings for the Navy slogan. Among both young and older males, more than 40 percent made this mistaken attribution, as did 35 percent of the young females and 33 percent of the older females. Only 13 to 16 percent of the males and young females, and 10 percent of the older females, correctly identified the sponsor of the slogan.

The high percentage of "don't knows" for the Joint Services slogans and the high dispersion of erroneous attribution of the Joint Services slogan to the various Services suggests a fair amount of confusion among respondents with regard to Joint Services advertising. Respondents may recall the slogan but not understand precisely what Service or Services are being discussed. This suggests that Joint Service advertising is not coming across as competing with advertising for the individual Services but is, in fact, "complementing and supplementing" the individual Service campaigns. The Army is the Service most likely to benefit from Joint Service advertising.

#### 6. Recognition of Slogans By School Status and Predicted AFQT

Tables 2.6 (for young males) and 2.7 (for young females) present the percentages making correct sponsor attributions by student status and predicted AFQT category. Consistent with their reporting greater awareness of military advertising, there is a consistent pattern for those with category I-IIIA predicted AFQT scores to identify the correct military sponsor for advertising more often than those with category IIIB-V predicted AFQT scores. However, again, in most cases these differences are small. Similarly, an overall tendency for slightly increased accuracy in the correct identification of sponsors by high school seniors (compared with younger high school students) is consistent with the increased awareness of advertising reported by high school seniors. Accuracy of sponsor identification remains about the same after high school graduation in this age group (16-21).

#### C. Awareness of Print and Broadcast Advertising

Respondents were asked, "Within the last 12 months, do you recall seeing any advertising for the military in magazines, newspapers, or on billboards?" If they answered "yes" to this question, they were then

Table 2.6. Young Males' Correct Sponsor Attributions for Military Advertising Slogans by AFQT Category

Slogan/Sponsor	Predicted AFQT Group							Total (n=5486)
	High School Graduates (n=1986)		High School Seniors (n=1139)		Younger High School Students (n=1332)			
	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V		
"Be all you can be." (Army)	82.5	81.3	87.1	84.3	83.5	81.6	77.9	82.1
"_____. It's not just a job, it's an adventure." (Navy)	28.4	25.6	29.9	24.4	24.7	24.6	22.6	25.8
"The few, the proud, the _____." (Marines Corps)	86.4	81.8	83.7	76.9	77.5	71.2	72.4	78.9
"We're looking for a few good men." (Marine Corps)	77.7	74.9	74.1	68.5	66.4	59.4	62.3	69.5
"Aim high. (Air Force) _____."	91.2	88.9	93.8	87.1	91.7	89.8	86.4	89.8
"It's a great place to start." (Joint Services)	19.3	16.7	16.1	12.1	19.6	13.3	11.7	15.6
"We're not a company--we're Your country." (Joint Services)	38.5	31.7	32.3	27.2	31.9	27.1	26.7	31.4

Note: Tabled values are percentages of respondents correctly identifying the slogan. The sponsor is noted in parentheses.

Source: Questions 618-615.

Table 2.7. Young Females' Correct Sponsor Attributions for Military Advertising Slogans by AFQT Category

Slogan/Sponsor	Predicted AFQT Group							Total (n=3271)
	High School Graduates (n=1373)		High School Seniors (n=636)		Younger High School Students (n=670)			
	Category I-III A	Category IIIB-V	Category I-III A	Category IIIB-V	Category I-III A	Category IIIB-V	Non-Completers (n=691)	
"Be all you can be." (Army)	83.3	82.3	85.0	84.0	84.6	82.8	73.0	81.5
"_____. It's not just a job, it's an adventure." (Navy)	19.0	16.9	18.2	17.0	18.2	16.2	16.9	17.6
"The few, the proud, the _____. " (Marines)	72.8	66.9	64.4	59.6	51.4	46.2	53.7	61.3
"We're looking for a few good men." (Marine Corps)	47.2	43.5	40.6	39.7	35.2	30.6	35.3	40.0
"Aim high. _____. " (Air Force)	80.2	76.5	80.5	80.3	77.0	70.3	69.8	76.3
"It's a great place to start." (Joint Services)	12.8	11.9	13.4	12.1	13.2	11.6	13.9	12.8
"We're not a company--we're your country." (Joint Services)	24.8	22.5	29.1	25.1	27.4	23.1	22.3	24.5

Note: Tabled values are percentages of respondents correctly identifying the slogan. The sponsor is noted in parentheses.

Source: Questions 610-615.

asked, "For which military services did you see this kind of advertising?" Respondents were also asked, "Within the last 12 months, do you recall any television or radio advertising for the military?" If the answer to this question was "yes", respondents were asked the same follow-up question as was used for print advertising. Tables 2.8 (for print advertising) and 2.9 (for broadcast advertising) present the responses to the questions by market group and propensity.

### 1. Print Advertising and Propensity

Table 2.8 shows that young males were most likely to report seeing print advertising for the military in the past 12 months (80 percent). The other three market groups were significantly less likely than young males to report seeing such print advertising (older males, 71 percent; young females, 75 percent; older females, 66 percent). The Army was most likely to be mentioned by all four market groups as the subject of the print advertising seen (44-59 percent). The result is completely consistent with results discussed thus far and is consonant with the Army's large advertising budget. Among all market groups, the Marines and Air Force were the second and third most frequent mentions (29-45 percent and 24-43 percent, respectively), and the Navy was fourth (23-35 percent). Less than 11 percent of any market group reported seeing print advertising for the Joint Services or the National Guard/Reserve.

For the young males and females, there appeared to be only a slightly greater tendency for those with positive propensity to report having seen print advertising compared with their negative propensity counterparts in the past 12 months. For the older males and females, however, those with negative propensity were more likely than those with positive propensity to report having seen print advertising. Such results imply that the young market groups may be influenced more positively than the older groups by the print media advertising.

### 2. Broadcast Advertising and Propensity

Table 2.9 presents analogous data for reports of having seen or heard broadcast advertising in the past 12 months. Overall, somewhat higher percentages of the four market groups reported seeing or hearing broadcast advertising than made such reports for print advertising, ranging

Table 2.8. Awareness of Print Media Advertising

Advertising Mediums/ Sponsor	Young Males			Older Males		
	Positive Propensity (n=1693)	Negative Propensity (n=3773)	Total (n=5466)	Positive Propensity (n=150)	Negative Propensity (n=977)	Total (n=1127)
Saw Print Advertising of:						
Army	61.4	57.4	58.7 (1.0)	33.3	49.9	47.6 (1.9)
Navy	37.9	34.2	35.4 (1.0)	23.0	31.5	30.3 (1.7)
Marine Corps	47.2	43.2	44.5 (1.0)	26.7	38.3	36.6 (1.8)
Air Force	46.9	41.2	43.1 (1.0)	31.4	37.0	36.2 (1.8)
National Guard/Reserve <sup>b</sup>	14.7	8.4	9.7 (0.5)	10.7	8.3	9.6 (0.9)
Joint Services <sup>c</sup>	8.9	11.0	10.3 (0.6)	8.5	11.0	10.6 (1.2)
Don't remember sponsor	1.8	1.8	1.8 (0.3)	0.4	1.1	1.0 (0.3)
Saw any print advertising	82.5	78.9	80.1 (0.9)	67.0	72.0	71.3 (1.7)
Saw Print Advertising of:						
Army	60.4	53.5	54.4 (1.0)	43.9	43.9	43.9 (1.8)
Navy	33.7	24.0	26.7 (0.9)	17.2	22.9	22.6 (1.5)
Marine Corps	37.3	33.2	33.7 (1.3)	18.3	29.6	29.1 (1.7)
Air Force	39.7	31.0	32.0 (1.0)	18.0	24.3	24.0 (1.5)
National Guard/Reserve <sup>b</sup>	9.0	6.1	6.4 (0.5)	6.9	5.9	5.9 (0.8)
Joint Services <sup>c</sup>	6.4	7.1	7.0 (0.5)	3.7	6.8	6.7 (0.8)
Don't remember sponsor	1.0	2.6	2.5 (0.3)	1.8	3.0	2.9 (0.6)
Saw any print advertising	77.5	74.3	74.7 (0.9)	54.7	67.0	66.4 (1.7)

Note: Tabled values are column percentages with standard errors in parentheses.

<sup>a</sup>Refers to past 12 months.

<sup>b</sup>Propensity estimates refer to Composite Reserve Propensity; all other estimates refer to Composite Active Propensity.

<sup>c</sup>Joint Services<sup>a</sup> represents the Joint Recruiting Advertising Program.

Source: Questions 505, 507, 510-513, 616, 617.

Table 2.9. Awareness of Broadcast Media Advertising

Advertising Mediums/ Sponsor	Young Males			Older Males		
	Positive Propensity (n=1692)	Negative Propensity (n=3777)	Total (n=5469)	Positive Propensity (n=151)	Negative Propensity (n=977)	Total (n=1128)
Saw/Heard Broadcast Advertising of:						
Army	76.4	68.7	69.2 (6.9)	64.6	65.6	64.9 (1.7)
Navy	47.2	48.3	48.6 (1.6)	41.8	43.7	43.4 (1.8)
Marine Corps	58.2	50.6	56.7 (1.6)	42.1	56.6	54.1 (1.9)
Air Force	55.6	51.6	52.3 (1.6)	47.6	56.2	49.8 (1.9)
National Guard/Reserve <sup>b</sup>	16.9	14.3	14.8 (6.7)	18.6	16.4	16.6 (1.4)
Joint Services <sup>c</sup>	14.7	19.3	17.8 (6.8)	13.2	19.1	18.3 (1.4)
Don't remember sponsor	6.7	6.9	6.8 (6.2)	6.6	6.8	6.8 (6.3)
Saw any broadcast advertising	88.4	86.4	87.6 (6.6)	85.5	86.5	86.4 (1.2)
Young Females						
Advertising Mediums/ Sponsor	Positive Propensity (n=388)	Negative Propensity (n=2877)	Total (n=3265)	Positive Propensity (n=51)	Negative Propensity (n=1096)	Total (n=1639)
	Positive Propensity (n=388)	Negative Propensity (n=2877)	Total (n=3265)	Positive Propensity (n=51)	Negative Propensity (n=1096)	Total (n=1639)
Saw/Heard Broadcast Advertising of:						
Army	76.6	66.3	66.7 (6.9)	61.3	64.2	64.1 (1.7)
Navy	44.5	37.3	38.2 (1.6)	18.2	36.9	36.6 (1.7)
Marine Corps	51.6	45.7	46.4 (1.6)	32.9	45.4	44.8 (1.8)
Air Force	51.8	44.6	45.4 (1.6)	34.7	46.5	46.2 (1.7)
National Guard/Reserve <sup>b</sup>	15.8	9.9	10.4 (6.6)	12.3	13.6	13.6 (1.2)
Joint Services <sup>c</sup>	16.4	14.2	13.8 (6.7)	4.2	14.7	14.2 (1.2)
Don't remember sponsor	6.8	1.6	1.5 (6.3)	4.9	1.6	1.7 (6.4)
Saw any broadcast advertising	86.8	83.4	83.8 (6.7)	75.5	82.6	82.3 (1.4)

Note: Tabled values are column percentages with standard errors in parentheses.

<sup>a</sup>Refers to past 12 months.

<sup>b</sup>Propensity estimates refer to Composite Reserve Propensity; all other estimates refer to Composite Active Propensity.

<sup>c</sup>Joint Services<sup>a</sup> represents the Joint Recruiting Advertising Program.

Source: Questions 585, 587, 518-513, 618, 619.



from a high of 87 percent for the young males to a low of 82 percent for the older females. The only differences between the groups appeared to be a marginal difference between young males and both the young and older females.

The order of mention for the four active Services was the same as that for print advertising. As with print advertising, advertising for the Army engendered the most positive responses (64-69 percent). Again, among all market groups, the Marines and Air Force were the second and third most frequent mentions (45-57 percent and 40-52 percent, respectively), and the Navy was fourth (36-48 percent). Respondents were unlikely to report having seen broadcast advertising for either the Joint Services or the National Guard/Reserve (10-18 percent).

For the young males and females, those with positive propensity were slightly more likely than their negative propensity counterparts to have seen or heard broadcast advertising. Among older males and females, however, those with a negative propensity were more likely than those with positive propensity to report seeing or hearing such advertising. The differences were most pronounced for the older females.

#### D. Receipt of Recruiting Literature

The young male and young female market groups were asked, "Within the last 12 months, have you received any military recruiting literature in the mail without asking for it?" If the answer was "yes", the respondent was then asked, "Which military services did you get literature about?" Table 2.10 presents the responses to this question by propensity. Young males were considerably more likely to report having received recruiting literature from any Service (47 percent) than were young females (28 percent). Consistent with previous years' results, young males expressing negative propensity were somewhat more likely to have received such literature than their counterparts expressing positive propensity. And, the percentage receiving such literature did not change significantly from 1987.

However, unlike previous years, among young females, propensity was not related to the probability of receiving recruiting literature. Between 27 percent (negative propensity) and 29 percent (positive propensity) of young females reported receiving unsolicited recruiting literature. For young

Table 2.10. Reported Receipt of Recruiting Literature

Advertising Mediums/ Sponsor	Young Males			Young Females		
	Positive Propensity (n=1694)	Negative Propensity (n=3766)	Total (n=5460)	Positive Propensity (n=388)	Negative Propensity (n=2882)	Total (n=3270)
Army	27.4	32.2	30.7 (5.9)	17.8	15.9	16.1 (0.7)
Navy	16.2	26.9	19.4 (6.8)	7.1	4.5	4.8 (0.4)
Marine Corps	28.2	25.1	23.5 (5.9)	5.7	3.8	4.8 (0.4)
Air Force	13.4	16.2	16.3 (6.7)	11.3	9.7	9.9 (0.6)
National Guard/Reserves	4.4	4.3	4.3 (6.4)	3.5	2.8	2.1 (0.3)
Joint Services <sup>a</sup>	1.4	3.6	2.5 (6.2)	1.0	0.7	0.7 (0.2)
Don't remember sponsor	1.1	1.5	1.4 (6.2)	0.5	2.5	2.3 (0.3)
Any recruiting literature	41.1	56.3	47.3 (1.6)	29.1	27.3	27.6 (0.9)

Note: Tabled values are column percentages with standard errors in parentheses.

<sup>a</sup>Propensity estimates refer to Composite Reserve Propensity; all other estimates refer to Composite Active Propensity.

<sup>b</sup>Joint Services<sup>a</sup> represents the Joint Recruiting Advertising Program.

Source: Questions 510-513, 620, 621.

females with positive propensity, this was a major increase in the percentage receiving such literature from 1987: only 16 percent of young females with positive propensity reported receiving recruiting literature in 1987. For young females with negative propensity, there was no significant increase in the percentage receiving unsolicited recruiting literature from 1987 (24 percent).

Both males and females most frequently cited the Army as the source of the recruiting literature (31 percent for males and 16 percent for females). Among the young males, the Marines (24 percent) were the next most frequently mentioned, followed by the Navy (19 percent) and the Air Force (15 percent). Less than five percent said that they had received any literature sponsored either by the National Guard/Reserve or the Joint Services. Among the young females, the Air Force was the second most frequently mentioned (10 percent) source of recruiting literature, followed by the Navy (5 percent) and Marines (4 percent). Among young females, also, less than five percent said that they had received any literature sponsored either by the National Guard/Reserve or the Joint Services.

Table 2.10 also shows the percentages of young males and young females who received recruiting literature. Overall, the results for receipt of recruiting literature parallel findings for awareness of advertising and correct identification of advertising sponsors.

In general, those with predicted AFQT scores in the high range were slightly more likely to receive recruiting literature than those with lower predicted AFQT scores.

There is about a four-fold increase in the percentage who receive recruiting literature as seniors compared with younger high school students. Among younger males and females, about the same percentage of high school graduates as high school seniors report receiving recruiting literature in the past 12 months.

The percentage of males in each category who reported receiving recruiting literature was at least 50 percent greater than comparable females.

Finally, for both males and females, those who leave school without graduating tend to be less likely to receive recruiting literature than either high school seniors or high school graduates but more likely than younger high school students.

#### **E. Awareness of All Advertising by School Status and Predicted AFQT**

Table 2.11 presents young males' and females' awareness of print, broadcast, and recruiting advertising by educational level and AFQT categories. Generally, the findings were similar to those for overall advertising awareness levels. In general, those with predicted AFQT scores in categories I-III A have awareness levels a few percentage points higher than those with predicted AFQT scores in categories IIIB-V, although in most cases these differences are not significantly different.

Awareness levels tend to increase somewhat as one gets closer to completing high school and choosing a career. High school seniors tend to have slightly higher awareness levels than younger high school students. In this age group (16-21), awareness tends to remain about the same or drop off slightly after high school graduation.

For broadcast advertising, the percentage of males in each group reporting awareness of advertising for the various Services tends to be similar to or a few percentage points higher than comparable females. For print advertising, these gender differences tend to increase somewhat.

Finally, for both males and females, those who leave school without graduating tend to have the lowest levels of awareness of any market group.

One additional point is worth noting with regard to these results. One might have predicted that those with lower AFQT scores would read less, and therefore their level of awareness of broadcast advertising would be much more similar to that of those with high AFQT scores than their level of awareness of print advertising. This was not found to be the case: differences in awareness between those with high and low AFQT scores remain about the same for print and broadcast advertising.

#### **F. Summary**

Respondents from the four market groups were asked whether they had seen or heard advertising for the military Services in the past 12 months and were asked to identify the Service referred to in the slogans used in such advertising. Large majorities of respondents in all market groups (60 to 89 percent) reported seeing or hearing advertising for the four active Services. The highest awareness (83 to 89 percent) occurred for the Army. Twenty-five percent or more of respondents in each of the four market groups reported having seen or heard advertising for the Coast Guard and

Table 2.11. Young Males' and Young Females' Awareness of Print, Broadcast, and Recruiting Advertising by AFQT Category

Slogan/Sponsor	Predicted AFQT Group							Total (n=5486)
	High School Graduates (n=1985)		High School Seniors (n=1138)		Younger High School Students (n=1321)			
	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V	Category I-IIIA	Category IIIB-V		
<b>Young Males</b>								
Any print advertising	82.5	79.3	87.0	84.3	83.4	77.2	72.0	80.1
Any broadcast advertising	90.5	88.8	89.2	86.8	86.2	83.6	83.6	87.0
Any recruiting literature	66.0	61.5	68.1	62.6	17.4	16.3	36.6	47.3
<b>Young Females</b>								
Any print advertising	77.9	73.3	78.9	80.0	74.2	69.5	70.1	73.1
Any broadcast advertising	86.5	83.1	84.7	84.7	87.7	82.4	78.6	86.4
Any recruiting literature	38.9	33.4	37.1	36.2	8.0	6.9	22.7	27.6

Note: Tabled values are column percentages of each category.

Source: Questions 505, 507, 510-513, 610-621.

National Guard/Reserve. More respondents reported having seen or heard advertising for the Army than for any of the other active Services.

The Army was also the first Service mentioned when respondents were asked for which Service they had heard or seen advertising. Among males, the rank order of the Services in terms of the percent of respondents reporting awareness of advertising for that Service were: Army, Marines, Air Force, Navy, Joint Services, National Guard/Reserve and Coast Guard. Among females, the order was the same except that the order for Air Force and Marines was reversed.

A declining trend in the reported awareness of military advertising from 1984 to 1986 stabilized or reversed in 1987 and 1988. The proportion of each of the market groups reporting awareness of military advertising for all Services stayed the same or increased from 1986 to 1988, but still remained below 1984 levels.

In general, slightly larger percentages of those with higher AFQT scores reported they had seen or heard military advertising than those with lower AFQT scores. High school seniors were more likely to report seeing or hearing such advertising than younger high school students, high school graduates, or high school drop outs. Similar trends in AFQT score and educational status differences were found in correct identification of sponsors of military advertising slogans. Those with high AFQT scores and both high school seniors and high school graduates were most accurate in identification of sponsors.

More than 60 percent of all market groups correctly matched the sponsor of the slogans for the Army, the Air Force, and one of the two Marine Corps slogans with the correct Service. Fewer individuals in each of the market groups correctly identified the other Marine Corps slogan. For the Army, Air Force, and Marines, the percentages correctly identifying the Service sponsoring the slogan were similar to the percentage who reported hearing or seeing advertising for that Service in the past 12 months. For the Navy and Joint Services, however, less than 30 percent correctly identified the slogan, a much smaller proportion than reported having seen or heard advertising for that sponsor in the past 12 months. In fact, there was a great deal of misidentification of the sponsors of the Navy and Joint Services slogans. The Army was selected most often when misidentification

occurred. In general, young males were the most accurate in identification, and older females were the least accurate.

When broadcast and print advertising were examined separately, a larger proportion of respondents reported seeing or hearing broadcast advertising than print advertising in the past 12 months. Larger proportions of males, high school seniors, and graduates, and those with higher AFQT scores, reported awareness of print and broadcast advertising than did females, younger high school students and high school dropouts, and those with lower AFQT scores. With the exception of the older female market group, propensity appeared to have a slight, positive relationship to awareness of print and broadcast advertising.

More young males than young females reported that they had received recruiting literature. For young males, those receiving such literature were more likely to have negative propensity than positive propensity; there was no relationship to propensity for females, a change from previous years. The Army was cited most frequently as the source of such literature. Those with higher AFQT scores, and both high school seniors and graduates, were more likely to receive such literature than those with lower AFQT scores, younger high school students, or high school drop outs.

### 3. SERVICE IMAGES AND ATTENDANCE AT EVENTS FEATURING THE MILITARY

#### A. Image Statements

Young people have perceptions and impressions about the military services gleaned, in part, from their exposure to advertising and from their own experiences. This chapter examines selected aspects of both information sources. It examines images that are held of the Services and the influence of attendance at events that feature the military on subsequent interest in the military.

A series of questions were asked about the images that respondents have of the four active Services. Specifically, respondents were asked, "Which one Service do you think of when I mention..." followed by each of ten image statements. The ten statements and responses are presented in Table 3.1 for the young market groups and in Table 3.2 for the older market groups.

The response patterns across the four market groups are relatively consistent and suggest that the images of the different Services are generally not a function of either age or gender. The data also indicate that when people think about the Services, the first Service that usually comes to mind is the Army. For example, for both young males and young females, the Army was the first mention (or tied for first mention) of approximately a third or more of respondents for six of the ten statements. These images were:

- Provides money for education
- Teaches valuable skills and trades [for both young males and young females, Air Force approximately equally likely to be the first mention]
- Opportunities for promotion and advancement [for both young males and young females, Air Force approximately equally likely to be the first mention]
- Equal pay and advancement for men and women
- Defending your country [for young males, Marines approximately equally likely to be the first mention]
- Work in or near a combat zone [for young males, Marines approximately equally likely to be the first mention]



**Table 3.1. First Service Mentioned in Response to Service Image Statements for Young Males and Females**

<b>Market/Image Statement</b>	<b>Army</b>	<b>Navy</b>	<b>Marine Corps</b>	<b>Air Force</b>	<b>None/Refused</b>
<b><u>Young Males</u></b>					
Provides money for education	62.1	9.8	8.7	13.5	3.6
Lack of personal freedom	19.8	26.3	39.3	6.5	11.0
Teaches valuable skills and trades	33.8	17.1	14.7	28.9	3.5
Extended duty away from immediate family	26.6	43.5	26.2	9.1	4.6
Opportunities for promotion and advancement	33.9	15.2	13.8	29.3	5.1
Equal pay and advancement for men and women	49.1	14.5	8.3	19.1	5.5
Assignment to work that does not prepare you for a civilian career	23.3	17.6	29.3	11.4	13.6
Defending your country	46.3	6.3	38.4	10.3	2.7
Working in a high-technology environment	12.2	19.9	7.0	57.5	1.9
Work in or near a combat zone	43.8	8.1	39.1	5.6	2.1
<b><u>Young Females</u></b>					
Provides money for education	54.9	12.5	9.6	14.9	5.1
Lack of personal freedom	24.9	19.7	29.9	6.3	13.6
Teaches valuable skills and trades	34.8	15.5	13.1	27.7	5.5
Extended duty away from immediate family	26.1	32.6	21.6	11.8	5.4
Opportunities for promotion and advancement	33.3	16.8	13.8	26.3	5.9
Equal pay and advancement for men and women	45.2	12.6	16.9	18.8	8.0
Assignment to work that does not prepare you for a civilian career	21.8	16.7	23.3	14.3	17.6
Defending your country	58.5	8.6	19.3	8.6	3.4
Working in a high-technology environment	12.9	19.6	11.6	56.8	3.5
Work in or near a combat zone	55.6	9.9	22.6	7.6	2.9

**Note:** Tabled values are cell percentages. Estimates are based on interviews with 5,486 young males and 3,271 young females.

**Source:** Questions 658-659.

Table 3.2. First Service Mentioned in Response to Service Image Statements for Older Males and Females

Market/Image Statement	Army	Navy	Marine Corps	Air Force	None/Refused
<b>Older Males</b>					
Provides money for education	53.6	12.6	7.4	26.1	4.2
Lack of personal freedom	18.4	19.1	41.3	6.8	16.8
Teaches valuable skills and trades	24.8	17.9	13.3	37.1	4.1
Extended duty away from immediate family	21.5	46.1	18.8	8.6	4.2
Opportunities for promotion and advancement	31.2	15.2	12.3	32.4	5.4
Equal pay and advancement for men and women	42.6	15.3	10.6	24.1	5.5
Assignment to work that does not prepare you for a civilian career	22.4	15.7	32.1	11.2	14.1
Defending your country	29.7	7.5	46.1	10.8	4.7
Working in a high-technology environment	8.8	18.1	7.0	61.7	3.1
Work in or near a combat zone	42.1	9.6	39.6	5.1	2.8
<b>Older Females</b>					
Provides money for education	48.8	13.5	9.6	18.4	5.3
Lack of personal freedom	21.2	21.8	31.7	6.8	13.2
Teaches valuable skills and trades	29.5	18.0	12.8	32.6	4.0
Extended duty away from immediate family	23.1	40.3	16.3	11.7	5.6
Opportunities for promotion and advancement	33.2	14.8	15.4	27.6	4.8
Equal pay and advancement for men and women	42.3	13.1	10.7	22.6	7.3
Assignment to work that does not prepare you for a civilian career	25.7	18.2	22.3	11.6	15.4
Defending your country	47.6	6.9	28.1	11.5	4.4
Working in a high-technology environment	11.6	18.4	10.6	53.9	3.6
Work in or near a combat zone	53.5	9.5	23.9	6.4	3.7

Note: Tabled values are cell percentages. Estimates are based on interviews with 1,136 older males and 1,098 older females.

Source: Questions 656-659.

In addition to these six images, among young females, the Army was also tied for first mention for the image "Assignment to work that doesn't prepare you for a civilian career."

The finding that the majority of the images expressed in the survey were associated with the Army may be a result of the higher levels of Army advertising, compared with other Services. The Army, for example, has heavily emphasized its educational benefits over the past few years, thereby reinforcing or developing the image of "provides money for education."

The results for older females (Table 3.2) were similar to the young market groups and parallel to those of the young females. In contrast, older males were not as likely to have the Army as their first (or tied for first) response to the image statements. For only four of the image statements were the older males likely to mention the Army first or tie for first:

Provides money for education

Opportunities for promotion and advancement

Equal pay and advancement for men and women

Work in or near a combat zone

Most of the remaining images were attributed to either the Marines or the Air Force.

The Air Force was mentioned first most often for all market groups for the item about working in a high-technology environment. Older males also mentioned the Air Force first when asked about the Service that teaches valuable skills and trades whereas with the other three market groups, the Air Force tied with the Army for first mention.

For all four market groups the Navy was most often associated with extended duty away from one's immediate family and the Marine Corps received the most first mentions for "lack of personal freedom." In addition, the older males were most likely to mention the Marines first for the image of assignment to work that does not prepare you for a civilian career and for the image of defending one's country.

From 14 to 17 percent of all market groups responded "None" (or refused to answer) to the question that asked with which Service they associated the image of assignment to work that does not prepare one for a civilian career. These percentages were only slightly larger than the percentage of those reporting "None" to the question about lack of personal freedom (11-14 percent).

## **B. Events Featuring the Military**

In 1988 a new series of questions was added which asked about attendance at events featuring the military and the degree to which such attendance increased individuals' propensity to enlist.

### **1. Attendance at Events**

The respondents were first asked what events featuring active duty military they had attended in the past 12 months. Event categories were:

- air show or demonstration;
- firepower demonstration;
- water safety or navigation demonstration;
- drill or parade;
- band or choir concert;
- tour of a military base;
- aircraft display;
- ship visit;
- any other event.

For events that were attended, follow up questions were asked to determine which Services were represented.

Table 3.3 shows the percentage of respondents in the four market groups who attended events featuring the military. Between 30 and 43 percent of respondents reported attending at least one such event. Although the rank ordering varies by market group, the three events attended most frequently by all market groups are:

- air show or demonstration (13-16 percent);
- drill or parade (11-18 percent); and
- aircraft display (12-19 percent).

Table 3.3. Events Attended During Past Year that Featured Active Military

Event	Market Group			
	Young Males (n=5476)	Older Males (n=1128)	Young Females (n=3268)	Older Females (n=1096)
Air show or demonstration	15.7 (0.8)	16.4 (1.4)	13.8 (0.7)	13.0 (1.3)
Firepower demonstration	2.9 (0.3)	2.6 (0.6)	1.5 (0.2)	1.8 (0.5)
Water safety or navigation demonstration	2.6 (0.3)	2.5 (0.6)	1.9 (0.3)	1.1 (0.4)
Drill or parade	17.6 (0.8)	11.2 (1.1)	18.1 (0.8)	12.3 (1.2)
Band or choir concert	11.1 (0.6)	4.8 (0.8)	13.9 (0.7)	6.4 (0.9)
Tour of military base	11.6 (0.6)	6.5 (1.0)	10.2 (0.6)	9.2 (1.1)
Aircraft display	18.7 (0.8)	15.0 (1.4)	13.7 (0.7)	12.4 (1.3)
Ship visit	10.6 (0.6)	6.7 (0.9)	7.6 (0.5)	5.1 (0.9)
Other	3.0 (0.3)	2.2 (0.6)	3.4 (0.4)	2.8 (0.6)
Any event	43.0 (1.0)	34.3 (1.8)	42.2 (1.0)	30.4 (1.7)

Note: Tabled values are percentages indicating attendance at event with standard errors in parentheses.

Source: Questions 619C1\_1--619C1\_9.

In addition, among young females, the frequency of attendance at band or choir concerts (14 percent) was the same as that for air shows and drills/parades. Both age groups of males reported attending such events somewhat more often than comparably aged females, and, in most cases, young males were slightly more likely than older males to report attending the events.

Table 3.4 (for young males and females) and Table 3.5 (for older males and females) presents the Services represented at the attended events. Not surprisingly, the Service most often represented at an event was strongly related to the event: ship visits were reported as most often featuring the Navy; water safety demonstrations were reported as most often featuring the Coast Guard; aircraft displays and air shows were reported as most often featuring the Air Force; and firepower demonstrations, drills or parades, and band or choir concerts were most often reported to feature the Army. Tours of military bases occurred most often for the Army or the Air Force. "Other events" most often featured the Army.

Table 3.4. Service Represented at Military Events Attended During Past Year for Young Males and Young Females

Market/Event	Service Represented at Event					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
<u>Young Males</u>						
Air show or demonstration	9.9	16.7	1.7	50.7	0.6	10.4
Firepower demonstration	56.7	4.1	16.9	11.7	5.0	5.7
Water safety or navigation demonstration	8.3	36.7	7.6	3.2	40.9	3.3
Drill or parade	55.8	7.4	17.6	7.4	2.4	9.5
Band or choir concert	36.3	17.8	17.5	21.2	1.3	6.1
Tour or military base	27.2	18.8	11.2	37.4	2.5	3.1
Aircraft display	8.3	18.1	1.9	65.6	0.4	5.7
Ship visit	0.7	87.2	3.2	1.7	5.7	1.6
Other	45.4	13.6	7.7	19.1	2.3	12.0
<u>Young Females</u>						
Air show or demonstration	13.4	11.5	2.5	65.4	0.5	6.7
Firepower demonstration	30.2	11.4	17.5	27.6	0.0	13.3
Water safety or navigation demonstration	7.0	30.1	21.5	7.0	34.5	0.0
Drill or parade	48.0	10.7	15.9	10.0	3.9	11.5
Band or choir concert	32.4	19.9	11.9	24.0	3.4	8.4
Tour or military base	32.5	20.9	10.3	32.4	1.1	3.0
Aircraft display	17.0	12.5	2.7	60.3	0.8	6.7
Ship visit	3.5	71.9	9.1	5.0	8.6	2.0
Other	38.0	23.6	8.7	14.6	2.8	12.3

Note: Tabled values are row percentages.

Source: Questions 619C1\_1--619C1\_9, 619\_C2A--619\_C2I.

Table 3.5. Service Represented at Military Events Attended During Past Year for Older Males and Older Females

Market/Event	Service Represented at Event					
	Army	Navy	Marine Corps	Air Force	Coast Guard	All Services
<u>Older Males</u>						
Air show or demonstration	7.2	12.4	3.1	67.7	1.4	8.2
Firepower demonstration	53.6	8.3	5.7	33.6	0.0	0.0
Water safety or navigation demonstration	2.4	24.6	0.0	13.5	56.6	3.0
Drill or parade	48.2	3.5	19.0	11.6	2.7	15.0
Band or choir concert	28.7	21.0	14.2	26.2	8.2	1.8
Tour or military base	26.9	12.0	4.2	51.9	1.1	3.8
Aircraft display	8.5	11.8	3.6	59.8	0.5	15.8
Ship visit	1.1	84.6	3.4	3.5	3.1	4.3
Other	31.7	17.1	11.1	12.5	10.2	17.4
<u>Older Females</u>						
Air show or demonstration	13.3	12.8	1.3	61.1	2.9	8.5
Firepower demonstration	69.6	11.4	12.3	2.6	0.0	4.7
Water safety or navigation demonstration	0.0	34.2	0.0	10.8	54.8	0.0
Drill or parade	47.4	12.2	14.9	8.4	3.0	14.2
Band or choir concert	43.2	18.6	8.1	16.2	0.0	13.9
Tour or military base	41.7	22.8	4.8	23.9	0.6	6.2
Aircraft display	22.5	14.3	3.2	53.2	0.0	6.8
Ship visit	4.4	84.3	6.5	0.0	0.0	4.9
Other	47.3	18.0	0.0	18.6	2.7	13.4

Note: Tabled values are row percentages.

Source: Questions 619C1\_1--619C1\_9, 619\_C2A--619\_C2I.

## 2. Event Attendance By School Status and Predicted AFQT

Tables 3.6 (for males) and 3.7 (for females) present attendance by educational level and predicted AFQT score of the respondent. Overall for any event, those with category I-IIIA AFQT scores were more likely to attend an event featuring the military than those with category IIIB-V AFQT scores. However, there does not appear to be any specific event that stands out as being much more likely to attract respondents with high AFQT scores than respondents with low AFQT scores. Overall, younger high school students and high school seniors are more likely to attend events featuring the military than are high school graduates or noncompleters.

## C. Events Increasing Likelihood of Enlisting

Respondents who reported attending one or more events featuring the military were asked whether attendance at those events increased their likelihood of joining the military. If it did, respondents were probed about the Service for which the likelihood increased.

### 1. Effects of Events by Market Group

Table 3.8 shows the percentages of respondents for the four market groups who attended events and who also reported that such attendance increased their likelihood of enlistment and the Service that was affected. Overall, for any Service between 9 percent (older females) and 36 percent (young males) of respondents who attended events reported that such attendance increased their probability of enlisting. (Percentages were 19 percent for older males and 20 percent for young females.)

These findings suggest that strategies to increase contact with the military may positively influence individuals toward military service. The effectiveness of this strategy needs further exploration. Since only a small portion chose to visit military events, it is unclear what affect such visits might have on the large numbers who did not attend.

The Service reported to have benefitted most from these events is the Air Force. Between five percent (older females) and 17 percent (young males) of the respondents attending events reported that their attendance increased their likelihood of enlistment in the Air Force. The proportion of respondents reporting an increase in likelihood of enlistment in the other three active Services ranged from two to ten percent. The Army was



Table 3.6. Young Males' Events Attended During Past Year that Featured Active Military by AFQT Category

Event	Predicted AFQT Group										Total (n=6486)
	High School Graduates (n=1986)			High School Seniors (n=1137)			Younger High School Students (n=1331)			Non-Completers (n=1102)	
	Category I-III A	Category III B-V	Category I-III A	Category III B-V	Category I-III A	Category III B-V	Category I-III A	Category III B-V			
Air show or demonstration	15.1	12.4	19.5	17.9	20.1	15.1	13.0	15.7	13.0	15.7	
Firepower demonstration	2.0	2.7	4.0	2.3	3.2	4.3	2.7	2.9	2.7	2.9	
Water safety or navigation demonstration	1.4	1.2	3.0	3.2	4.3	4.5	2.5	2.0	2.5	2.0	
Drill or parade	15.5	13.9	23.5	20.1	22.2	21.8	12.7	17.6	12.7	17.6	
Band or choir concert	9.3	7.1	15.7	12.2	15.3	13.6	8.5	11.1	8.5	11.1	
Tour or military base	9.5	8.0	13.9	11.3	17.0	14.3	10.1	11.0	10.1	11.0	
Aircraft display	15.4	13.0	22.3	19.0	26.0	21.4	17.5	18.7	17.5	18.7	
Ship visit	9.0	6.8	12.0	10.3	15.8	13.4	9.0	10.0	9.0	10.0	
Other	2.9	2.7	4.0	3.2	3.0	3.2	2.0	3.0	2.0	3.0	
Any event	39.7	35.9	51.7	43.3	54.4	48.8	35.8	43.0	35.8	43.0	

Note: Tabled values are percentages indicating attendance at events.

Source: Questions 619C1\_1 - 619C1\_9.

Table 3.7. Young Females' Events Attended During Past Year that Featured Active Military by AFQT Category

Event	Predicted AFQT Group								Total (n=3271)
	High School Graduates (n=1372)		High School Seniors (n=636)		Younger High School Students (n=676)		Non-Completers (n=596)		
	Category I-III A	Category IIIB-V	Category I-III A	Category IIIB-V	Category I-III A	Category IIIB-V			
Air show or demonstration	14.6	13.2	15.6	14.8	14.2	14.4	12.6	13.9	
Firepower demonstration	1.5	1.9	6.9	1.8	1.2	2.7	1.6	1.5	
Water safety or navigation demonstration	6.9	6.5	2.7	3.3	2.3	2.6	3.3	1.9	
Drill or parade	17.2	15.5	22.9	21.6	22.8	21.1	12.8	18.1	
Band or choir concert	11.5	9.4	26.2	16.3	17.7	26.6	11.3	13.9	
Tour or military base	9.7	9.6	12.2	13.6	9.9	16.9	8.9	16.2	
Aircraft display	12.3	16.7	15.4	14.3	18.3	18.3	12.2	13.7	
Ship visit	7.1	5.2	8.1	8.4	11.2	9.7	7.6	7.6	
Other	2.9	2.3	5.7	4.1	3.6	2.6	4.2	3.4	
Any event	46.7	36.6	47.5	44.8	50.2	48.9	37.2	42.2	

Note: Tabled values are percentages indicating attendance at events.

Source: Questions 619C1\_1 - 619C1\_9.

Table 3.8. Services for Which Attendance at Events Increased Likelihood of Joining the Military

Service for which likelihood increased	Market Group			
	Young Males (N=2351)	Older Males (N=373)	Young Females (N=1345)	Older Females (N=336)
Army	9.5 (0.8)	4.5 (1.3)	6.2 (0.8)	2.3 (0.8)
Navy	8.2 (0.8)	3.1 (1.1)	3.6 (0.6)	2.6 (1.2)
Marine Corps	5.9 (0.7)	4.4 (1.2)	1.8 (0.4)	0.0 (**)
Air Force	16.5 (1.3)	9.1 (1.9)	9.8 (1.0)	4.6 (1.2)
Coast Guard	1.0 (0.2)	0.7 (0.4)	0.6 (0.2)	0.0 (**)
None	0.7 (0.2)	0.6 (0.5)	0.5 (0.2)	0.0 (**)
Any Service	35.9 (1.5)	19.2 (2.6)	20.1 (1.3)	9.0 (1.8)

Note: Tables values are percentages indicating that attendance increased the likelihood of joining the military. Standard errors are in parentheses.

\*\*Informative standard error not available but assumed to be close to zero.

Source: Question Q619\_C3--619\_C4.

the Service second most likely to be mentioned for an increased likelihood of enlistment, and the Navy and Marines were third and fourth (for most market groups). No older females, however, reported an increased likelihood of joining the Marines. One percent or less of all market groups reported that attendance at military featured events increased their likelihood of enlistment in the Coast Guard.

## 2. Effects of Attendance at Events by School Status and Predicted AFQT

Table 3.9 shows the percentage of young males attending events who reported an increased likelihood of enlistment for each educational level and predicted AFQT category. Comparative data are not presented for young females because there were too few cases for analyses.

Overall, high school graduates, high school seniors, and younger high school students with lower AFQT scores are more likely to be positively

Table 3.9. Services for Which Events Attended Increased Young Males' Likelihood of Joining the Military by AFQT Category

Services for Which Likelihood Increased	Predicted AFQT Group								Total (n=5486)
	High School Graduates (n=1986)		High School Seniors (n=1137)		Younger High School Students (n=1331)		Non-Completers (n=1192)		
	Category I-III A	Category IIIB-V	Category I-III A	Category IIIB-V	Category I-III A	Category IIIB-V			
Army	2.3	5.4	6.4	14.5	9.2	20.5	12.9	9.5 (0.8)	
Navy	5.1	4.8	8.1	5.4	10.8	11.1	10.6	8.2 (0.8)	
Marine Corps	2.8	6.9	4.7	9.9	4.8	7.5	7.9	5.9 (0.7)	
Air Force	10.8	10.1	18.9	21.7	24.6	19.6	14.6	16.5 (1.3)	
Coast Guard	0.6	0.6	1.7	2.1	0.8	1.1	0.4	1.0 (0.2)	
None	0.5	0.4	1.2	0.9	0.6	0.6	0.8	0.7 (0.2)	
Any Service	20.1	27.6	33.8	45.6	43.3	50.1	39.8	35.9 (1.5)	

Note: Tabled values are percentages indicating attendance at events.

Source: Questions 619\_C30--619\_C4.

influenced in their decision to enlist by attendance at a military featured event than those with higher AFQT scores. The greater probability of enlistment of those with lower AFQT scores compared to those with higher AFQT scores was most pronounced for the Army and the Marines.

Approximately twice as many respondents with lower AFQT scores reported an increased probability of enlistment in the Army or Marines after attending an event featuring the military than respondents with higher AFQT scores. This was true for both groups of high school students as well as high school seniors. Any differences in likelihood of joining found for the other Services between those with higher and lower AFQT were much smaller.

Thus, even though attendance at military events has a potential for increasing positive propensity toward military service, the impact is likely to be greater among candidates who are of lesser interest to the military than among those who are of greater interest.

#### D. Summary

Respondents in the four market groups were asked which of the Services they associated with ten image statements related to pay, benefits, training, opportunities, and types of duty. The Army was associated most frequently (or tied for most frequent mention) by approximately a third or more of the respondents with six of the ten statements: educational benefits, teaching valuable skills and trades, opportunities for advancement, equal pay and advancement for men and women, defending one's country, and work in a combat zone. The Air Force was most often associated with the image of working in a high technology environment; the Navy with the image of extended duty away from home; and the Marines with lack of personal freedom.

Respondents were also asked whether they had attended an event in the past 12 months which featured the military. If so, they were asked which Services were featured at that/those event(s). Between 30 and 43 percent of respondents reported attending an event which featured the military. The three events attended most often were an air show or demonstration, a drill or parade, and an aircraft display. The Service reported as being represented most often at these events varied with the type of event. For example, ship visits were reported as most often featuring the Navy and air shows as featuring the Air Force.

Overall, those with category I-IIIA predicted AFQT scores were more likely than those with category IIIB-V predicted AFQT scores to attend an event featuring the military, but there was no notable association between AFQT scores and a particular type of event. High school students reported attending events featuring the military more often than did high school graduates or noncompleters.

Respondents who reported attending one or more events featuring the military were asked whether these events increased the likelihood that they would enlist in the military. Between 9 percent (older females) and 36 percent (young males) of respondents who attended events reported that it did. The Air Force was most frequently reported as the Service respondents were more likely to join after attending an event (5 to 17 percent).

Overall, young males with category IIIB-V AFQT scores were more likely to be positively influenced in their decision to enlist than were young males with category I-IIIA AFQT scores. The reported increased probability of enlistment for those with lower AFQT scores was more pronounced for the Army and the Marines than for the other Services.

## REFERENCES

- Bray, R.M., & Curtin, T.R. (1989). Patterns and Trends in Propensity to Enlist in the Military: Findings from the 1988 Youth Attitude Tracking Study II. Research Triangle Park, NC: Research Triangle Institute.
- Bray, R.M., & Curtin, T.R. (1989). Relationships of Geographic Location and Propensity for Young Males: Findings from the 1988 Youth Attitude Tracking Study II. Research Triangle Park, NC: Research Triangle Institute.
- Bray, R.M., Cobb, V.C., & Theisen, A.C. (1989). Youth Attitude Tracking Study II, Supplementary Tabulations of Data Collected in the Fall, 1988. Research Triangle Park, NC: Research Triangle Institute.
- Bray, R.M., Guess, L.L., Marsden, M.E., Mason, R.E., & Smith, D.G. (1984). Youth Attitude Tracking Study II, Fall 1983 (RTI/2622/05-02FR). Research Triangle Park, NC: Research Triangle Institute.
- Bray, R.M., McCalla, M.E., Immerman, F.W., Guess, L.L., & Duntelman, G.H. (1985). Youth Attitude Tracking Study II, Fall 1984 (RTI/2927/05-02FR). Research Triangle Park, NC: Research Triangle Institute.
- Bray, R.M., Ostrove, N.M., Immerman, F.W., McCalla, M.E., & Guess, L.L. (1986). Youth Attitude Tracking Study II, Fall 1985 (RTI/3365/05-02FR). Research Triangle Park, NC: Research Triangle Institute.
- Market Facts. (1983). Youth Attitude Tracking Study, Fall 1982. Arlington, VA: Market Facts.
- Orvis, B.R., & Gahart, M.T. (1987). Development of quality-based analysis capability for national youth surveys. (WD-3280-FMP). Santa Monica, CA: The RAND Corporation. (Draft).
- Ostrove, N.M., Bray, R.M., Guess, L.L., Duntelman, G.H., & Theisen, A.C. (1988). Youth Attitude Tracking Study, Fall 1987 (RTI/3624/26-02FR). Research Triangle Park, NC: Research Triangle Institute.
- Ostrove, N.M., Bray, R.M., Harwood, H.J., Wheelless, S.C., & Cavanaugh, E.R. (1987). Youth Attitude Tracking Study, Fall 1986 (RTI/3624/06-02FR). Research Triangle Park, NC: Research Triangle Institute.
- Waksberg, J. (1978). Sampling methods for random digit dialing. Journal of the American Statistical Association, 73(36), 40-46.