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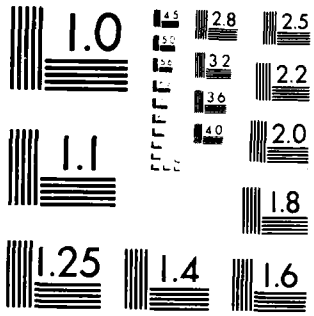

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AN ASSESSMENT OF THE COLLEGE MARKET SPRING - SUMMER 1980

by
Rosina M. Becerra

May 1983

Institute for Social Science Research
University of California, Los Angeles

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Data are presented from a national telephone survey of students in four-year colleges and universities that was conducted to (1) determine the propensity of college students to enter military officer programs; (2) explore the underlying determinants and predictors of a college student's decision to seek (or not to seek) a commission in the military; and (3)

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investigate new recruitment paths that could provide the military with better access to the college market, with particular emphasis on recruitment of target subgroups. These target subgroups, identified by the Department of Defense as of particular interest for recruitment to officer programs, include students with technical majors, women, and racial minorities. The starting point for the survey analysis is a career decision model that involves a number of branching choices for students leaving high school: whether or not to go to college, what major to select, whether to graduate, whether to enter the labor force after graduation or pursue other alternatives, what sector of the economy to work in, and what kind of occupation to pursue. The analysis next considers the respondents interest in a military officer's career and in officer training programs. Survey results indicate that the traditional image of a military officer may not be a sufficient basis for the peacetime recruiting of college men and women. Developing a market strategy that acknowledges the importance of the traditional emphasis while promoting the idea of an officer's career as that of a professional who has abilities more broadly applicable than those of a soldier appears to be worthy of serious consideration.

PREFACE

This report documents a study conducted under Department of Defense Contracts MDA 903-80-C-0227 and MDA 903-82-M-0443 as part of the Joint Market Research Program, sponsored by the Office of the Assistant Secreary of Defense (Manpower, Reserve Affairs, and Logistics)--OASD(MRA&L)--and the Services.

Studies which can contribute to policy formulation and the development of marketing approaches in the recruiting area comprise a key component of the Joint Market Research Program. Service input into the program is provided through the Joint Market Analysis and Research Committee (JMARC).

We express our appreciation to the Office of Accession Policy (OASD)(MRA&L) for their interest in and support for this project, and to Dr. David Boesel at the Defense Manpower Data Center (DMDC) for his comments on the draft reports and patient guidance throughout the project. The comments of Dr. Zahava Doering (DMDC) and Capt. Louise Wilmot, USN, Lt Col Douglas Patterson, USAF, and Maj James Hoskins, USAF (Office of Accession Policy) were also very useful.

For the early assistance in this project, we thank Lt Col Joseph G. Felber (ret.) and Maj Harry J. Bartosik of the Office of Accession Policy who at different times served as the Department of Defense's technical representatives.

The analysis phase of this study benefited from the advice of Dr. Dennis Gensch at the University of Wisconsin, of Col Richard A. Littlestone (ret.), and of the various officers and recruiting officers of the Army, Navy, Air Force and Marine Corps who assisted in the design of the survey instruments.

We are also deeply indebted to the staff of the ISSR. Rita Engelhardt developed the sampling plan and analysis of the early drafts of the report. Col Littlestone and Dr. Jay Summer assisted in project management and inter-institutional liaison. ISSR administrative support was provided by Madelyn De Maria and her staff. In addition, Tom Smith, Nick Fratt, and Dr. Ned Levine were instrumental in the reassessment of the data and the preparation of the final report.

Most of the weight of any survey typically falls on the shoulders of the staff who provide data collection and data reduction services. We thank Vi Dorfman, her field staff, and the dozens of interviewers who worked with diligence and high spirits. For the thousands of interviews which were coded, keypunched, and quality checked we thank Cheryl Groves and her staff.

Supervision for the entire project was provided by Eve Fielder, Director of the Survey Research Center, without whose guidance the project could not have been completed.

Finally, we want to thank the cooperating colleges and universities across the nation who provided the information about their students, and most of all we thank the students themselves who gave of their time to take part in this study.

EXECUTIVE SUMMARY

Chapter I - Introduction

This study assesses the college market for recruitment to military officer training programs - Reserve Officer Training Corps (RTOC), Officers' Candidate School (OCS) and Officer Training School (OTS) - and more broadly to the ranks of military officers. Three subgroups of the college population were identified by DoD as of particular interest for recruitment to these programs - students with technical majors, women, and racial minorities.

The specific objectives of the study were:

1. To determine the propensity of college students to enter military officer programs.
2. To explore the underlying determinants and predictors of a college student's decision to seek (or not to seek) a commission in the military.
3. To investigate new recruitment paths that could provide the military with better access to the college market, with particular emphasis on recruitment of the target subgroups.

Chapter II - An Overview of the Issues

At the outset, the report briefly reviews lieterature on the following subjects:

- Student attitudes toward the armed services
- Recruitment of college students
- Special recruitment problems
- Women in the military
- Minorities in the armed services.

The report then describes the methodology of the study. Data were drawn from a national telephone survey of students in four-year colleges and universities conducted by the Institute for Social Science Research (ISSR) at the University of California at Los Angeles (UCLA). A two-stage sample was employed, involving the selection of colleges, followed by the selection of students within colleges. The sample was stratified by the nine U.S. Census regions, sex of respondent, year in school (sophomore/junior, senior) and type of major (technical, nontechnical). All of the sophomores in the sample attended schools having ROTC programs. The juniors and seniors attended both ROTC and non-ROTC schools, but all could enroll in the OCS and OTS after graduation.

The data were collected in the Spring and Summer of 1980, a fact which should be kept in mind when interpreting the findings of the study. The data collection encountered serious difficulties, most of them related to problems in obtaining student lists from the sample of colleges and the accuracy of the lists received. As a consequence, only 5,171 out of 12,701 qualified respondents (41%) were finally interviewed. While some of the effects of regional nonresponse bias were reduced by judicious weighting of the data, it is probable that some significant biases remain, and the study should therefore be viewed as exploratory rather than definitive. Nevertheless it provides a good deal of interesting and suggestive data on the college market.

Chapter III - Career Choices: A Framework

The starting point for the analysis is a career decision model which involves a number of branching choices for students leaving high school: whether or not to go to college; what major to select (technical/non-technical); whether to graduate; whether to enter the

labor force after graduation or pursue other alternatives; what sector of the economy to work in (private profit/private nonprofit/public); and what kind of occupation to pursue (business/technical/human services). The students in the survey were asked about their current status or plans in each of these areas. All were in college, of course, and almost all (99%) intended to graduate.

In addition:

- Overall, twenty percent were technical majors and 80% were non-technical, the proportion of technical majors declining from sophomore to senior years.
- Sixty-three percent planned to enter the work force upon graduation; 32% planned to continue their education; 2% intended to enter the military; and 3% had other plans.
- Technical occupations were the ones most frequently planned by students (36%), followed by human services (33%) and business (31%). Since only one in five students had a technical major, it is clear that some students intended to go into technical occupations without extensive technical training.
- Approximately three quarters of those intending to enter the work force planned to go into the private sector and 23% into the public sector - half of the latter to work in education. The remainder were uncertain.
- Students pursuing technical majors were more likely to seek employment in the private profit sector (84%), than

nontechnical majors were less likely to do so (68%). Thus, a majority of both groups looked to the private profit sector for post-college employment.

- The majority of those moving towards careers in human services would most likely seek employment in the public sector.

A students' path from college major to sector and occupation is regarded as a "career stream." Combining the possible majors, sectors, and occupations yields 18 possible career streams (2 majors x 3 sectors x 3 occupation types).

The most frequently selected path is from a nontechnical major to a business occupation in the private profit sector, a course selected by 27% of the respondents. The five most frequently selected paths account for the plans of 80% of the respondents, and four of the five involve work in the private profit sector. The sixth, seventh, and eighth most frequently chosen paths, selected by 9% of the students, all involve public sector work; as will be seen, these are of particular interest for recruitment to officer training programs.

After a socio-economic description of the students, the report examines demographic differences among students selecting various career paths. Students who choose technical majors tend to come from middle-income families (those earning $15,001-$35,000 in 1980), while nontechnical majors are more likely to come from families with either higher or lower incomes. A technical career may represent a means of upward mobility for students from middle-income families, lacking ready access to jobs which lead to upper management in business or finance. Men are more likely than women to choose technical majors, plan on technical occupations, and plan

to enter the private-profit sector. Women, on the other hand, are more-likely than men to select human services occupations in the public and non-profit sectors. Racial minorities also show a tendency to enter public sector employment, as do students from lower-income families. Apparently, women, nonwhites, and lower-income students are more likely than their counterparts to perceive the public sector as presenting better employment prospects than the private sector. Public employment appears to represent an important channel of occupational success and social mobility for the college-educated youth of these historically disadvantaged groups.

Because income is an important factor in deciding on a career path, students were asked about their anticipated starting income. The majority (52%) expected between $15,001 and $25,000, the mean falling at $18,540 (in 1980 dollars). Technical majors had the highest average expectations ($21,807), followed closely by those planning technical occupations ($20, 807). Males, nonwhites, and those intending to enter the private profit sector also had higher-than-average expectations. Thus two of the three groups of interest for this study (technical majors and nonwhites) expect rather high starting incomes, a factor to be considered in any efforts the military makes to recruit officer candidates from these groups.

Job features other than salary are also important in the career decision process. Therefore, students in the survey were asked to rate ten job characteristics according to their importance. On a scale of one to five, the most highly rated characteristics were "job security" (4.5) and "personal responsibility" (4.5), followed closely by "promotion opportunities" (4.4) and the "opportunity to help others" (4.4). Lowest on the list were "opportunity for additional education" (3.9) and "having a job with prestige" (3.5). "Pay opportunities" was rank in the middle

range. The relatively low ranking of additional educational opportunities differs markedly from the ratings given by respondents in surveys of the market for enlisted personnel, who consistently place training and education high on the list of reasons for interest in enlisting. Most of the college students in this survey probably think that they will have had enough education by the time they graduate.

The job characteristics were grouped, using cluster analysis, into the following five major career factors, ranked as below:

1. Professionalism, which combines personal responsibility and use of skills previously developed in a specialized field,
2. Organizational Career Security (job security and chance to be a leader), tied with
3. Societal Contribution (contributing to society, helping others), followed by
4. Economic success (pay, promotion, prestige) and
5. Further Education (additional schooling).

(The fifth item, rated highly by a relatively small number of students, was dropped from further analysis.)

Professionalism was rated highest overall and was also rated highly by the groups of particular interest for this study - technical majors, students planning technical occupations, women, and minorities.

Comparing different subgroup data to the mean score for each job characteristic, the study finds that students in the largest potential market of technical personnel (Path 2 - technical major/private sector/technical

occupation) are interested in both economic success and professionalism. Other technically oriented students, especially those in the public and nonprofit sectors, may respond more to opportunities to make a contribution to society.

Because previous research has indicated that young people who are undecided about their career paths are more likely than others to enter the military, a scale was developed to measure a student's likelihood of switching careers. Students who were more likely than their counterparts to switch were:

- Females
- White students
- Seniors (followed by juniors, then sophomores)
- Students from higher income families
- Nontechnical majors
- Students going into the private nonprofit sector
- Students planning occupations in business (rather than in technical or human services work)

Technically oriented students are much more definite about their plans than their non-technical counterparts. Minorities are slightly more definite than whites and men slightly more than women. To the extent that the likelihood of switching careers increases one's disposition to join the military, technically oriented students seem to be among the more difficult to recruit. The difficulty is increased by the fact that most technical students expect high starting salaries, want economic success (as well as professionalism), and plan to go into private profit sector work.

Chapter IV - A Military Officer's Career

Factors and Characteristics Associated with Selection

After discussing the students and their career paths, the study turns to their interest in a military officer's career and in officer training programs. The vast majority of college students surveyed (92%) had heard of ROTC, and 2% were actually enrolled. Some 63% were aware of the special two-year ROTC program available to juniors and seniors. To assess propensity to enroll in an officer training program, sophomores were asked about the likelihood that they would join ROTC, while juniors and seniors were asked similar questions about OCS/OTS. On a five-point scale, 1.8% said they were very likely to enroll, 2.5% said they were somewhat likely, and 8.1% said they were undecided. If the "undecideds" are counted as open to the possibility of enrolling, 12.4% of the sample could potentially be considered as interested in these programs. On another scale, ranging from 0% to 100% probability of enrolling, 2.6% reported a 75%-100% probability of enrolling and an additional 7.4% of the students reported a 50%-74% probability. On this scale, then, approximately 10% of the students (2.6% + 7.4%) have a greater than 50/50 chance of enrolling, and the results of the two scales are comparable.

Among those considering enrollment (those saying they have a 50% or better probability of enrolling), 43% would join the Air Force, 32% the Navy, 17% the Army, and 8% the Marines. Most (63%) would be interested only in a short-term career with the military, though 17% expressed interest in becoming career officers.

Asked the reasons for their interest in joining, a majority (77%) expressed a desire for skill building and professional opportunities. Interestingly, the desire for self-improvement figures prominently among

the reasons college students give for interest in the military, paralleling a similar desire on the part of youth in the enlisted market, who (in other surveys) rate training and education among the chief reasons. In addition, about half of the students (51%) cited economic reasons, and a higher portion (59%) mentioned a range of affective motivations such as "good experiences," "patriotic feelings," and "future travel."

Among the students not likely to join ROTC/OCS/OTS, the largest percentage (52%) were simply "not interested" in the military, presumably because they wanted to pursue other careers. However a sizeable proportion (33%) cited reasons which appear to stem from anti-military values--"negative military feelings," "dislike discipline and regimentation," "don't want to fight" and "negative image of ROTC/OCS/OTC." As of 1980, when these data were collected, college campuses still manifested a substantial amount of anti-military sentiment, in part no doubt a legacy of the Vietnam War, in part due to other causes. Whether opinion has changed since then cannot be ascertained from these data.

The study found some significant differences between various subgroups in their probability of commissioning in ROTC/OCS/OTS. Paralleling the research data on enlisted personnel, students in the Southeast, males, and nonwhites are more likely than their counterparts to consider enrolling in an officer training program. Sophomores have a higher probability than juniors, who in turn are more likely than seniors to enroll, consistent with findings in other studies which indicate that interest in the military declines with age. Students from lower income families are more likely to enroll in an officer training program than those from families with higher incomes, and students planning to go into public sector work also have higher probabilities of enrolling. On the other hand, the father's mili-

tary background does not make much of a difference in enrollment probabilities, nor does a technical major in college. However, students planning a technical occupation, regardless of major, do have a somewhat greater propensity to enroll in ROTC/OCS/OTS than do those planning to go into business or human services.

Students in certain career streams also show a high propensity to enroll in officer training programs. This is especially true of three public sector paths:

	Probability of Enrolling*
#6) nontechnical major - public sector - technical occupation	.24
#7) nontechnical major - public sector - business occupation	.21
#8) technical major - public sector - technical occupation	.25

The mean probability of enrollment among students in these three streams is approximately two times as great as that for students in other career paths.

In addition to entailing public sector work, paths 6, 7, and 8 have a heavy emphasis on technical skills and tend to be selected by women and minorities. Even though the students choosing these paths comprise only 9% of the sample, they appear to be a good market for recruitment to officer training programs.

To measure the compatibility of students' work preferences with the military work environment, a five-point scale was developed which basically distinguishes the more military group-oriented approach to work from an individual approach. Most of the students favored the individual approach (from 52% to 89%, depending on the item), with one exception: two thirds (67%) favored the group-oriented "less pay but higher security," rather than "more pay, but less security." Even in 1980 before the economic downturn, college students clearly valued job security highly.

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*Probability of enrolling, as described by the respondent.

Examination of subgroup scores on the compatibility scale indicates that women, nonwhites, and students from lower-income families are more likely than their counterparts to favor work which is compatible with a military environment.

Because these groups also tend to prefer public sector occupations, we expect, and the data confirm, that students planning on public sector work will have higher compatibility scores than those going into the private profit sector. Students who look toward non-profit organizations also score high on the scale, but are resistent to the military on ideological grounds, and in general are unlikely to be candidates for officer training programs.

In further exploring attitudes toward military work, students were asked to evaluate the likelihood that a military career would satisfy the ten job characteristics which they had earlier rated in importance. Among the top five characteristics in importance, three also ranked highly in the student's perception of officer career characteristics--job security (part of the career security scale), personal responsibility (part of the professionalism scale), and promotion opportunities (part of the economic success scale). The greatest differences between the ideal job and an officer's career were in pay opportunities, use of previously developed skills, and opportunity to make a lasting contribution to society.

Using the job characteristics scale developed earlier, it is possible to compare the importance of major job characteristics with the students' perception of a military career:

Job Characteristics	Perceived Importance	Provided by Officer Career	Difference
Professionalism	4.4	3.8	-.6
Organizational Career Security	4.3	4.4	+.1
Societal Contribution	4.3	3.6	-.7
Economic Success	4.1	3.7	-.4

In the view of the students, the career of a military officer provides at least as much security as they seek, but less economic success and much less professionalism and societal contribution. In some ways the assessments are realistic: the military does provide more security and less opportunity for economic success than the private sector, and it is not primarily devoted to "helping others," as the phase is usually understood. On the other hand, there is a fairly high degree of professionalism among military officers that seems not to be recognized by the students, a fact that deserves attention in policy planning.

The students in the technical career streams of greatest interest to the military (6 and 8) rated professionalism as the job characteristic of most importance to them; they also perceived less professionalism in a military officer's career than they desired. These and related data suggest a number of things:

1. College students in general do not need to be persuaded that the military offers a secure career; they already know it.
2. The military probably cannot raise pay enough to attract many of the students who primarily value economic success.
3. Trying to persuade students that the military is the route to a career of contribution to society, as defined here, would be difficult, and in any case students who value this goal tend to oppose the military on other grounds as well.

4. On the other hand, the career of a military officer probably entails more professionalsim than the students are aware of, and military recruiting policy could be designed to change their views in this area.

In addition to students' perceptions of a military officer's career, the study also examines college students' attitudes toward the military in general. The students' support for the military, as measured by a "national security" ideology scale, ranges from 3.1 to 3.6 on a scale of 1 to 5, depending on the item. Interestingly, there were no substantial differences between subgroups on the scale--the responses of men were roughly the same as those of women, data from nonwhites were the same as those of whites, etc. Apparently the degree of importance attributed to national security is an independent ideological dimension among college students and is not related to any of the subgroups examined.

Turning to a brief examination of military advertising and recruiting contacts among college students, the study finds that a majority of students had seen some advertisement for ROTC/OCS/OTS (55%). Of those having seen an ad, 52% had seen ads for Army programs, 32% for Navy programs, 31% for Air Force programs, and 24% for Marine programs. Thirteen percent of the students had had contact with a military recruiter, the largest number reporting contacts with the Army and the least with the Marines. Those who had contact with recruiters were more likely to enroll, but there is no way of telling how much interest was initiated by the contact and how much the contact was the result of prior interest.

After consideration of many different variables and their relation to the probability of enrollment in ROTC/OCS/OTS, a multiple regression analysis was conducted to assess the effect of each variable, controlling for

all the others. Seventeen different variables were found to contribute significantly to the probability of enrollment. Six of the seventeen had substantial effects. The single factor with the greatest impact was a favorable attitude toward national security, which increases a student's perceived probability of enrollment by .21, a little more than one fifth. While subgroups of students do not differ much, on the average, in the way they view national security, the overall range of campus opinion on this subject does a good deal to explain why some students enroll and others do not. Being nonwhite and male also significantly increases one's likelihood of enrolling, by .19 and .16 respectively. Career stream variables--especially those which involve plans to enter a public sector occupation--increase enlistment probabilities as well. Being in path 6 (nontechnical major/public sector/technical occupation) increases the perceived probability by .18; being in path 7 (nontechnical major/public sector/business related occupation) by .19; and being in path 8 (technical major/public sector/technical occupation) by .16. Other variables have smaller effects. If a student does not expect a high starting salary, and views the military as providing a satisfactory degree of economic success, he or she is more likely to enroll. Enrollment probabilities are also increased by a perception that the military provides the desired amount of career security and will contribute to society. Enrollment probabilities decrease with students' perceptions that a military officers' career does not provide adequate opportunities for professionalism.

Other variables that affect enrollment probabilities are father's having been in the military, a lower-than-average family income, being in a lower class year (sophomore, rather than junior or senior), and being likely to switch courses.

When the 17 variables are grouped according to subject matter, the category with the greatest effect is career stream (e.g., paths 6, 7, 8), followed closely by demographic variables (such as race and sex). Work environment variables (e.g., degree of professionalism), ideological variables (national security ideology), and informational variables (knowledge of ROTC) also play a role in this grouped-variable approach, although the effect of ROTC knowledge is very slight and has a negative sign--the more knowledge a student has, the less liekly he or she is to consider enrolling.

These regression results should be considered suggestive until confirmed by additional research. Because of the likelihood of a high degree of interrelationship among the variables used to predict the probability of enrollment, the estimated relative effects may be very dependent on the exact form of the equation that was estimated or on the specific data sample used in the estimation.

The role of the military in providing a path of upward mobility for some college students is strongly suggested in these data: being non-white and of lower-than-average family income, expecting a lower-than-average starting salary, and viewing the military as an organization which provides a satisfactory degree of economic success and career security all increase the probability of enrollment in an officer training program.

A final analysis in the study focused on college women's perceptions of a career as a military officer. On a scale measuring acceptance of feminism in society, the women in the sample strongly endorsed equality in jobs and rejected traditional female roles. They were ambivalent about the extent to which women officers of a given rank were treated the same as men (3.1 - 3.6 on a scale of 1-5), and they were even less sanguine about opportunities for advancement in the military and the openness of a variety of military careers to women. While they did not see participation in the

military as unfeminine and thought that women could serve in the armed forces and have a family, they tended to think that raising children would be difficult.

On another series of questions measuring attitudes toward different aspects of a miiltary career, college women endorsed the prospect of "supervising an administrative activity," and were moderately positive about such things as "being a navigator," "flying military airplanes," and "having a husband with a career as a commissioned officer." On the other hand, they were very negative about the prospect of serving in combat or living on a military base.

Asked their perception of the way women in officer training programs are regarded by others, the respondents thought that women in these programs were favorably regarded by ROTC/OCS instructors, fellow female students, and fathers; rather neutrally by mothers and friends; and somewhat negatively by fellow male students.

The variables likely to affect the probability that women will enroll in the ROTC/OCS/OTC were entered into a regression equation to permit estimation of the effect of each variable, holding the others constant. Ten variables were found to contribute significantly to the probability of enrolling, and while many of them were the same as for the total sample, there was a marked difference in overall emphasis. The dominant effect for women is ideological. Acceptance of national security increases the probability of enrolling by somewhat more than one fifth (.22), and acceptance of a military career as appropriate for women increases it only a little less (.18). Perceived opportunities for women in the military is also an important contributor to enlistment probabilities (.12). The other major factors are minority status (.21) and intention to enter career path #7,

the nontechnical major--public sector--human services career stream (.19). This regression analysis, however, like the earlier, more general one, may contain a high degree of interrelation among predictor variables.

Implications for Policy

Turning from survey data to policy considerations, it should be stressed that the college market study is exploratory and that consequently the policy suggestions stemming from it should be regarded as tentative until confirmed by more definitive research. Nevertheless there is much useful information in the data set.

In deriving policy implications from the study, it may be helpful to recap the characteristics of the subgroups of particular interest:

- Technical majors are mostly white males from the mid-range of family incomes (among college students). They expect high starting salaries, plan to work in the private profit sector, value economic success, and are unlikely to consider switching careers. These characteristics make them hard to recruit to military officer programs. However there are some technically oriented students (i.e., technical majors and/or those planning technical occupations) whose probability of enrolling is high--those in public sector paths 6 and 8. Professionalism, highly valued by technically oriented students, is particularly appealing to these subgroups.
- College women tend to like kinds of work that are compatible with military occupations and are an upwardly mobile group more likely than men to seek careers in the public sector.

But most believe strongly in equal opportunity for women, and many believe that the military does not provide adequate opportunities or a sufficient variety of military occupations for women. Values and ideology are key to an understanding of different enlistment propensities among women.

- Racial minorities, like women, tend to prefer group-oriented work compatible with military occupations and are an upwardly mobile group more likely than their counterparts to look to the public sector for career opportunities. Unlike women, they tend to come from slightly lower-income families, have a relatively high probability of enrolling in officer training programs, and see the military as a path of career advancement.

The concept which best addresses the career aspirations of these three subgroups, and of college students in general, is that of professionalism. The respondents rated professionalism highly but thought that the career of a military officer did not meet the standards they considered important in their own careers. They appeared not to recognize the substantial degree of professionalism that an officer's career often entails; indeed, they perceived an officer's career as more likely to provide the economic success they wanted than to provide the desired professionalism.

While professional aspirations themselves do not greatly affect the probability of enrolling in officer training programs when other factors are taken into account, the data suggest that professionalism is a proxy for many of those other factors, representing somewhat different things to different groups.

Hence, a viable recruiting approach would be one which emphasized the professionalism of an officer's career as a broad theme and developed a number of subthemes tailored to specific audiences. The appeal to minorities, for example, would focus on an officer's professionalism as the expression of upward social mobility, a motivation which the data indicate is primary for minority students. This approach might also emphasize the security of an officer's career--upward mobility with minimal risk.

The appeal to college women might address their value--related concerns, particularly the desire for open and equal access to a wide range of occupations, with professional status in a variety of occupations representing the achievement of equal career opportunity. Military occupations which emphasized social contribution, which is relatively important to college women, could be worked into this approach, although it would be important to avoid traditional stereotypes of women in doing so.

For technically oriented students, professionalsim represents technical expertise first of all, and the image of the expert could be key to this recruiting approach. In addition, insofar as a case can be made that technically trained students will do well economically serving as military officers (considering pay, bonuses, and benefits), it should be made. A long-term view of compensation, which might include post-military and retirement career options, may be particularly appealing to technical students, whose thinking tends to be systematic and rational.

Because women, minorities, and some technical majors planning to go into public sector work (in paths 6, 7, and 8) showed considerable interest in enrolling in officers' training programs, a recruiting effort which targeted students looking toward the public sector might pay dividends. Professionalism in public service resembles professionalism in the Armed

Services in a number of ways, and many students seem to recognize that public sector and military occupations are compatible.

In view of the data in this study, the traditional image of a military officer as a commander and leader of men may not be a sufficient basis for the peacetime recruiting of college men and women. While a defense ideology is an important factor in the decisions of those who enroll in officer training programs, going beyond this base to attract additional candidates appears to require a strategy which stresses the professionalism of a variety of interesting and challenging occupations in the office and the laboratory. To the extent that those occupations have recognizable civilian counterparts, the appeal may be increased. Developing a market strategy which acknowledges the importance of the traditional emphasis on national defense, while promoting the idea of an officer's career as that of a professional who has expert abilities more broadly applicable than those of the "professional soldier," is itself a challenge for defense policy makers and one worth serious consideration.

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CHAPTER I

INTRODUCTION

As the United States has grown, its enlarged role in world affairs has required the development and expansion of a highly sophisticated technology and competent military organization. In this era of rapid technological changes in all arenas of industry, both military and civilian, the demand for technically trained personnel is growing more acute. In order to maintain a sufficient cadre of highly qualified military personnel, the All Volunteer Force (AVF) must therefore compete with civilian employers. A prime source of this qualified officer manpower is the country's colleges and universities.

Specifically, the armed forces are interested in female career officers and officers with technical training to meet the contemporary needs of a modern military organization. Women and students with particular technical majors are already energetically sought after by civilian industry; thus, the United States military must design programs that can attract and retain this needed resource. To do this the military needs an accurate assessment of the college market. Those factors which will attract officers to the military must be understood in order to develop successful approaches to the recruitment of students for the commissioned officer programs.

PROBLEMS IN GAINING ACCESS TO THE COLLEGE MARKET

For a little over two decades, the American military has been able to meet its enlisted manpower needs by legislated conscription. Further, many joined the officer ranks to avoid the enlisted draft. A large number of American soldiers (officers and enlisted), therefore, were not necessarily

in the military because of any personal motives, but because of the external requirement of the United States government. When the United States changed to an All-Volunteer Force (AVF) in 1973, however, the U. S. Department of Defense had to compete in the marketplace with all sectors of the economy for its share of the available American youth.

Some changes have taken place in American social life in the past two decades which must be considered, however, if the military is to be a professional career option. First is the movement of women into non-traditional work roles, which now makes women a prime target for recruitment. The recruitment of college women as a potential source of skilled personnel requires a careful consideration of their attitudes and values.

Second is the changing expectations of members of the armed forces. The increasing shift of the U. S. economy from production to services and the shift in the military from conscription to the volunteer force have induced a greater awareness within the military of the advantages of a variety of social services in the form of fringe benefits (e.g. recreation facilities, counseling, child care centers, etc.).

Third in the aftermath of the Vietnam War many factors -- hostile media, the Peace Movement, the lack of a victorious withdrawal, etc. -- depreciated the military image. For many young people who grew up in the midst of these attitudes a negative perception of the military prevails, although it appears to be changing with time.

Thus, the issue of recruitment and retention of personnel in the United States military have taken on a new importance because of changes in U.S. society. In sum, these changes have included:

* The elimination of the draft, except for registration.
* The rapid technological changes pervading American life.
* The "women's movement" and the changing roles of women reflected in the labor force.
* The changing expectations of the U.S. labor force.
* The Vietnam War, which has affected the perception of the appropriate role of the military in American society.

These are some of the issues that currently form the background of the society in which the military must market itself. These factors must be considered if the military is to become fully effective in its competition for skilled and committed workers. The key question addressed by this study, then is, are the military services perceived by potential officers as representing viable professional career opportunities?

OBJECTIVES OF THE COLLEGE MARKET (CMS) STUDY

A national sample of college students was interviewed for the College Market Study (CMS), the paramount objective of which was to develop policy recommendations focusing on enhancement of the U.S. military's recruitment and retention of career military officers. Of particular interest is the recruitment potential of female college students and students who are acquiring specific technical skills. There were three specific objectives of the study:

1. Determine the propensity of college students to enter military officer programs.
2. Explore the underlying determinants and predictors of a college student's decision to seek (or not to seek) a commission in a branch of the military services.

3. Investigate new recruitment paths that could provide the U.S. military with a more successfully competitive access to this college market, with particular emphasis on recruitment of the target subgroups.

College Student Recruitment Propensity. Within the national college student population, particular attention is paid to the commissioning probabilities for three important subgroups:

* students planning a career in a scientific or technical area
* women students
* non-white students

The Determinants of Recruitment in Officer Programs. A number of aspects of a student's background, experience and attitudes which could affect his/her decision to join the military officer program were investigated, including:

* Demographic variables
* Career goals and importance of job attributes
* Perception of a military career's ability to meet career goals
* Perception of occupational alternatives
* Exposure to the influence of significant others (family and friends) regarding a military career
* Attitudes toward the military services
* Response to various military recruitment inducements
* Exposure to military advertising
* Exposure to military recruiters

Additionally, for women:

* Anticipated acceptance in the military service
* Perception of sexist barriers in and out of the military services
* Attitudes toward women in the military services.

Approaches to Recruitment. With the advent of the All-Volunteer Force (AVF), the Department of Defense (DOD) has had to devote more resources than before to selling the military as a viable career option to potential officers. This development has pushed the DOD into the competitive world of advertising and forced an appreciation that a military career is a consumable product. Advertising and marketing researchers have strategies for determining how consumption of a particular product can be related to the varying needs of different segments of a population. Once this market segmentation has been accomplished, the product can be positioned to differentially enhance its appeal to the various target segments.

The third major objective of the CMS survey itemized above, then, is to discover which segments of the college market are amenable to recruitment and plot recruitment, i.e., positioning, strategies appropriate for use by the DOD.

ORGANIZATION OF THE REPORT

The report begins with the introduction of the objectives of the study to be examined. Chapter II provides a brief overview of the literature pertaining to the issues to be examined in the report. The literature review is not meant to be inclusive but rather points out some

of the seminal works that have been developed in recent years. The chapter ends with a brief discussion of the research approach.

In Chapters III and IV are the findings derived from the data collected in the College Market Study. In Chapter III a model is developed to provide a framework for assessing the data. This chapter is a general presentation of the characteristics of the total sample which presents the background for Chapter IV. Chapter IV, then, specifically addresses those factors and characteristics that may lead students to the selection of a career as an officer in the military.

CHAPTER II

AN OVERVIEW OF THE ISSUES

Even a cursory review of the literature pertinent to the topic of this report is intrinsically difficult because of the diffuse nature of the subject material, scattered as it is through several bodies of published and unpublished literature. At the same time, finding the most relevant documents is difficult for another reason. Much of the earlier research most central to the research described in this report is contained in limited-distribution-format agency reports, or in unpublished symposium papers. Most of these reports and papers do not reference and build on a cohesive, easily accessed body of literature. Although most reports have been treated as "unclassified" documents, they appear not to have been widely circulated either within the armed services or related agencies themselves, or in the public domain. With these difficulties in mind, the reader may proceed with the cursory summaries of a few of the most relevant topics which follow:

Attitudes Towards the Armed Services

The U.S. Army has recently completed a research effort which interviewed 2131 students, the sample including high school JROTC cadets, college ROTC cadets and high school and college students not in ROTC at schools with and without ROTC program. The research was to provide information on what high school and college students think about the Army Reserve Officer's Training Corps (ROTC), and how ROTC cadets differ from other students (Hicks, Collins and Weldon, 1979). The researchers discovered a positive attitude towards ROTC among cadets' families, a neutral one among their

friends, and a more positive attitude among cadets than non-cadets. Although non-cadets did not have much accurate information about the ROTC, they agreed that military preparedness was necessary and hence, a ROTC program was appropriate. They perceived the main disadvantages to be restrictions on personal behavior and the image of the program on campus. The researchers also reported that more than half of the college ROTC students planned to serve more than their minimum active duty obligation on graduation, that a fourth saw service as an unconditional duty and a majority would serve if needed. Larger proportions of women and non-whites from the study population were undecided about military careers at that time.

Other studies have focused on a more limited sample population and/or focused on fewer, more specific issues. For example Butler's (1979) study analyzed information from 4,923 high school students and 282 of their counselors with reference to their attitudes about West Point. Dr. Butler documented (1) a more favorable image of West Point among counselors than among students, (2) an ordering of program priorities among both groups to stress military, academic, physical and moral/ethical matters in that order and, (3) a lack of information about West Point, although newspapers/magazines and T.V./movies were primary sources of what information had reached the students.

Many studies had attitudinal study components in them, but the major thrust of the reports was to apply this information to specific recruitment problems (see A Research Team 1974; and Armstrong, Farrell and Card, 1979 for examples).

Career Development

A broader context within which to place the process of identifying and developing a career, specifically of electing a military career, is available in a large number of published sources: Grotevant and Durrett, 1980; Rothstein, 1980; and Devany and Saving, 1982 are representative examples. DeVany and Saving used Air Force data to test some theories of educational choice, the most pertinent of which "posits job sequences as the objects of choice and the optimal sequence determines the type of job chosen at each point in the life cycle as well as the duration of employment in each job" (DeVany and Saving 1982: 457).

Between 1973 and 1975 a project funded by the U.S. Army Research Institute for the Behavioral and Social Sciences tested a model of career commitment in the young adult (primarily college) years. Although it was broad enough in scope and the sample large enough (1089 high school seniors, 1633 college students and 634 ROTC-Graduate Army officers in service) to provide insight into the general early career development process, the study was intended to provide management data useful in recruiting and retaining an all-volunteer Army. The report (Card, Goodstadt, Gross and Sharrer,1975) documented substantial differences between ROTC cadets and their classmates (in demographic background, aptitudes, social environments and socio-psychological profile) -- differences which increased with time. The study analyzed variability in military career commitment and offered some explanations for this variability. Important differences were discovered in the development of and commitment to military careers for Black and for white officers. A separate management summary report (Card and Sharre,1976) followed, discussing in some detail implications of the

research for recruitment, selection, and retention of Army officers.

Beginning in 1975 many "waves" (at least 10 by 1980) of the Youth Attitude Tracking Study were completed by the Department of Defense. Executing large samples at 26 tracking areas scattered around the country, these reports carefully monitored the processes of military career development, finding and recommending specific reaction to changes in propensity to enlist and in re-enlistment intentions. Attitudes towards draft registration were recorded in the interviews as an alternative to a return to compulsory draft which was suspended in 1973 by the Secretary of Defense. (See Market Facts 1979 and 1980 for examples of the Youth Attitude Tracking Study Reports.)

Although the National Longitudinal Surveys of Labor Force Experience (NLS) were initiated at Ohio State University in 1966 to understand better the factors affecting youth success in the labor market, there was no military component until many years later. Finally in 1980 five studies of military manpower issues focused on the "characteristics of participants in the armed forces, characteristics of enlistees, factors in enlistment decisions, re-enlistment, and post-military labor market experiences." (See Kim, Nestel, Phillips and Borus, 1980; Kim, 1982a and Kim, 1982b.)

Military Recruitment

A wide variety of recruitment problems has been addressed in publications and in-house papers. The topics of this material range in scope from discussions of diminishing manpower resources (Etzold 1980) to ways to encourage nominees to the nation's military academies.

Another important study was completed nearly a decade ago by Virginia Polytechnic Institute and State University (A Research Team, 1974). The study identified five types of students (non-conformist, collegiate, academic-professional, vocational-security, and self-oriented) and elicited information about their differing concerns with reference to career expression, career recognition, egocentricity, security and societal contribution. Women in particular attracted the attention of this study. The effectiveness of advertising programs, the types of students who were desirable and accessible, and recruitment technology were other major concerns of this research. A large number of reports have been prepared mostly since 1973 to inform or assist service-specific recruitment:

Air Force: Douville, 1979

Army: Brounlee, Carniglia, Cottis and Kim, 1980; Kraft, 1970: McLaughlin, 1970.

Navy: Neumann and Abrahams 1976, 1978 and 1979.

Reserve Components: Associates for Research in Behavior, Inc., 1979; Public Sector Research Group, 1977.

As a group these and similar reports shed some light on ways to enhance the success of recruitment activities, but generally lack explanatory detail or a theoretical structure like some of the research projects described above.

Special Recruitment Problems

The recruitment of highly trained professionals who are well paid in the private sector has posed special problems for all branches of the government, the Armed Services included. Because of the termination of the

draft it was recognized that a doctor shortage in the military would occur by the late 1970's. To alleviate this problem the Armed Forces Health Professions Revitalization Act was passed in 1972, establishing the health professions scholarship program (Anonymous 1978: 62). Accordingly a "Study on the Recruitment of Medical Professionals for the Military Services" (Opinion Research Corp. 1976) followed in a few years. Similar efforts have considered recruitment and retention problems for other technical personnel such as engineers.

Most of the larger studies cited above gathered information about re-enlistment intentions of military personnel, particularly of those enrolled in ROTC programs. There have probably been many more in-house efforts to understand re-enlistment processes than those inventoried here. (Houston,1979; and Gotz and McCall,1980).

Sex Determinants and Women in the Military

Along with the appearance of more women in the work force and with an increased attention to women as a recruiting target for the armed services there has developed a considerable interest in assessing the differences in how the sexes function in the work place. Occupational plans and values and changes through time (Herzog,1982); work motivation and job values (Kaufman and Fetters,1980); achievement, self-confidence and leadership ability (White, De Sarctic and Crino,1981); attitudes and background in males-vs-females dominated jobs (Greenfeld,1980); self-esteem; personal traits and life goals of college women (Zuckerman,1980); -- all these and many other topics have been examined with sex determinants in mind. The substantial sexual differences in approach to and performance of work, although

declining in some respects, render this research of great value in a marketing study, particularly in the formulation of a successful recruiting strategy.

With reference to women only, many reports and papers have been prepared by military personnel and by military contractors. The Brookings Institute published one of the most ambitious efforts to date, entitled Women and the Military (Binkin and Bach, 1977). Chapter topics include: a retrospective of current policies and their implications, women's rights and military benefits, the economics of sex integration, and military effectiveness, women as warriors. One of the most interesting sections of the book, a long appendix, presents brief descriptions of womens' roles in the armed services of twenty-five foreign countries. Blumenson wrote a brief overview article for Army in 1979 which adds a few years of experience to those drawn upon for the Brooking's book.

Several attempts have been made to assess the potential for and intentions of women to join the armed services, for one armed services branch or another (Thomas, 1977; Grey Marketing and Research Dept., 1978; Borack, 1978; Grey Marketing and Research Dept., 1980; etc.). Durning (1977) and Thomas (1978), of the Navy Research and Development Center in San Diego, CA, attempted to define new roles for military women and described their experiences as the matured in those roles. Durning (1978) later looked at the success of women at the Naval Academy, to which they were admitted in the summer of 1976 as they were for the first time to the other service academies and their "tradition-rich male environment(s)" under the mandate of the Stratton Bill.

Minorities in the Armed Services

Until the Vietnam War minorities were underrepresented in the enlisted ranks of the armed services and the opening of doors previously closed is a matter of high priority in the all-volunteer armed services. Moreover, the Civil Rights Act of 1964 and the "affirmative action" Executive Order 11246 made it incumbent upon all agencies of the federal government, including the Department of Defense, as employer, to ensure the absence of discrimination in the workplace. In 1979 a research team from the Wharton School at the University of Pennsylvania examined black and other-minority participation in the U.S. Navy and Marine Corps. The book (Northrup et. al.,1979) considers in some detail the recruitment, deployment, advancement and retention of minorities; it deals with "officer" issues under separate headings. Most of the tracking and market studies from the late '70s onwards had minority components (Card,1976, for example) but Ginter and Goral produced a special minority marketing study in 1976. Students at Black colleges, they discovered not unexpectedly, viewed "the military as more advantageous for most life goals".

THE RESEARCH APPROACH

A national sample survey of 6,750 students was targeted for telephone interviewing. The sample consisted of full-time college students attending four-year colleges and universities. This sample of respondents was stratified by the nine U.S. Census Divisions, year in school (sophomore, junior, or senior), sex, and among males, whether the student's major was identified as technical or nontechnical. (See Appendix for the questionnaires used for the sophomore and the junior and senior samples.)

Because of problems related to time constraints and locating of students a final sample size of 5,171 students representing 66 colleges and universities were interviewed by telephone. In order to assure population representativeness, particularly with regard to sex, year in school, and major, the data were weighted. The weighting of the data brought the sample size to 5,169. (See Appendix for a more complete discussion of the methodology.)

In the data chapters that follow all sample sizes will represent weighted data. Additionally, because of the sample sizes in each analytic cell virtually all differences between subgroups are statistically significant, unless otherwise noted.

CHAPTER III

CAREER CHOICES: A FRAMEWORK FOR ANALYSIS

There are numerous variables which enter into the equation that predicts career choice for each individual. Therefore it is useful to discuss some of the general conditions which affect career choice. In particular, these general conditions will be useful in understanding the pathways that lead to careers among college students. Then, the purpose of this chapter is to develop a normative model of career choice decisions among college students in the United States. This model will provide a context for understanding why some students do choose military careers and many others do not.

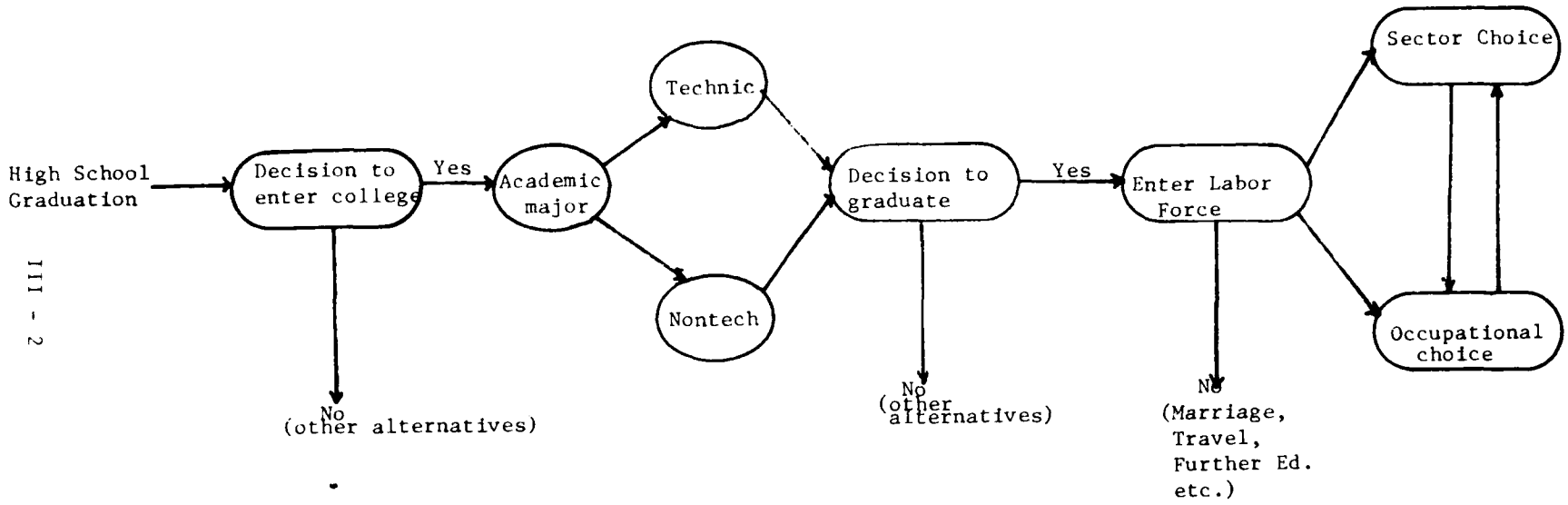
A CAREER CHOICE DECISION MODEL

A career choice for a college student is not a single decision enacted as an isolated event; rather, it involves a number of distinct decisions enacted over a period of time. Thus, at any given moment, a student is at some "stage" along the continuum of the decision-making process. Therefore, if students are asked to reveal what they are thinking about in terms of their future careers, taking one point in time as was done in this survey and accepting that there will be considerable error in trying to predict the course of the next twenty or more years, various career patterns should be distinguishable among students as they individually move through the stages of their own decision-making process. Consequently, it is important to start with a general conceptual model of how these stages progress in order to provide a framework for organizing the data derived from the College Market Survey.

Figure 1 presents a conceptual model of career choice decisions among college students. The first step is the decision of <u>whether or not to go to college</u>, a decision which is known to be dependent on many external factors

Figure 1

CONCEPTUAL MODEL OF CAREER CHOICE DECISION



other than the secondary school grade point average. Clearly, those who decide to go to college (or who can afford to go) are somehow different from those who decide not to go. Although many studies demonstrate how the social milieu, geographical and socio-economic differences distinguish these two groups, this study focuses only on the college students themselves. It should, however, be understood that some career choice decisions have been already made prior to students coming to college.

For those who pursue a college education, a second choice involves the type of course work to be undertaken, coalescing into the academic major. With reference to this study, there is particular interest in the choice of technical as opposed to nontechnical majors (e.g. engineering, medicine, architecture, and the physical and biological sciences). For many different "majors", this choice does not have to be made until the third year of college, the 'Junior' year. For some majors, however, especially technical subjects, the choice is made earlier. Entry into engineering school, for example, is synonomous with entry into the university: students go straight from high school into engineering schools. For the majority of other students, the choice is made between the second and third years of college. Since this sample is made up of students from the second, third and fourth years of college, a certain amount of change is expected to occur, especially between the second (sophomore) and the third (junior) years.

A third choice is the decision about finishing college. While this is partly implicit in the decision to attend college in the first place, some students decide to leave college before finishing and others are asked to leave (e.g., poor grades, etc.). Assuming a student decides to finish his or her college degree, the transition from college to the work force is often

not a direct one. Many students take jobs immediately upon completing their degree, but others do not, preferring to continue their education, travel, or in the case of women, to get married and remain at home. At some point or another, a college graduate will enter the work force, but it may be some time after the completion of the first degree.

Entering the work force involves a general decision as well as a specific one. The general decision involves deciding on whether one wants to work in the private or the public sector. There appears to be a fundamentally different orientation between the private sector, where profitability is the dominant criterion for continuance and success, and the public sector, which involves public service in defense, education, or administration of government. While there is some overlap between the two, most notably in private, non-profit organizations or in government services for the private sector (e.g. public sector banking, the legal profession), one can generally think of these two types of sectors as attracting employees quite different in their orientation toward their work. Within this general decision, there is a specific occupational area which is chosen, representing the type of job and organizational situation which the individual chooses.

In this area, there is a slight shift in the sequencing of choice of economic sector. Some individuals first select an occupation then pursue a sector that is most likely to employ them. Others prefer particular sectors and modify their occupational choices accordingly. One example is industrial social work. While social work has predominately been a public sector occupation, many social workers prefer to practice their skills in the private-profit sector of industry and modify their skills accordingly. The temporal sequencing, however, does tend to move from occupational choice to sector choice

choice most of the time.

The decision chain exhibited in the model is logical to this culture -- it represents a chronology of decision-making events familiar to most American college students. The model itself does not attempt to explain why students select one particular path from several options. It does not enlarge our understanding of why the formulation of career objectives precedes educational curriculum decisions or vice versa. This conceptual model only lays out the series of steps necessary to obtain employment based on one's college degree and allows for organizing the data in a coherent fashion.

CAREER CHOICE AMONG COLLEGE STUDENTS

Academic Major

Using the model developed, the choice to go to college has already been made by the subjects of this study and the course of study to be pursued can therefore be analyzed. Students from this survey are distributed among a number of academic majors. The most frequently chosen academic majors, in rank order, are business (14.4%), engineering (11.7%), economics (10.7%), education (5.6%), biology (4.7%), political science (4.1%), and psychology (3.2%). Each of the other majors has less than 3%. The majority of students is in nontechnical and nonscientific majors.

Since the focus of interest is primarily on technical majors, a technical major category was developed, comprising engineering, physical science, mathematics, architecture, medical and biological sciences, the industrial trades, computer science and related fields. The remaining majors are grouped into a nontechnical major category.

Table 1 shows these academic major groupings by class year.

Table 1 shows that 1 out of 5 students is a technical major; however, there seems to be a decline in the proportion of technical majors between the sophomores and the seniors. Two explanations may account for this change. The first is that when a student enters college he/she may intend to pursue a technical major but change to a nontechnical major later because interests shift or the course work is more difficult than anticipated. Although these shifts also occur among nontechnical majors, the issue of prerequisites for entrance into technical majors does limit movement in that direction. The second is that the current group of entering college students is more likely to select a technical major because of economic trends that offer a more lucrative market for technical majors and a declining market for nontechnical majors. In either case, the issue of college recruitment and retention in technical majors is one clear objective for society as a whole to consider in view of our technological needs.

Graduation and the Decision to Enter the Workforce

The students were asked whether they intended to finish their degrees, and 98.7% indicated that they would. It is unlikely that all these will finish, but the intention is there. The students were then asked what they intended to do after graduation. Table 2 presents the distribution of responses about future plans. Not all students plan to enter the work force immediately: thirty-two percent intend to continue their education in some way and an additional 2% either will travel or will not enter the labor force at all. Thus, approximately two-thirds of the sample expect to enter the work force immediately (62%) or the military (around 2%) after

TABLE 1

ACADEMIC MAJORS BY CLASS YEAR
(%'s based on weighted data)

MAJOR	CLASS YEAR			
	Soph. N(%)	Junior N(%)	Senior N(%)	Total N(%)
Technical	412(22%)	330(19.5%)	291(18.1%)	1033(20%)
Nontechnical	1460(78)	1360(80.5)	1316(81.9)	4136(80)
Total N	1872(100)	1690(100)	1607(100)	5169(100)

TABLE 2

PLANS AFTER GRADUATION
(%'s based on weighted data)

PLANS	CLASS			
	Soph. N(%)	Junior N(%)	Senior N(%)	Total N(%)
Enter Work Force	1131(60.4%)	1004(59.4%)	1098(68.3%)	3233(62.5%)
More Schooling	650(34.7)	598(35.4)	416(25.9)	1664(32.2)
Enlist in Military	41(2.2)	32(1.9)	21(1.3)	94(1.8)
Travel	7(0.4)	24(1.4)	51(3.2)	82(1.6)
Not Enter Labor Force	2(0.1)	7(0.4)	3(0.2)	12(0.2)
Don't Know	41(2.2)	25(1.5)	18(1.1)	84(1.7)
Total	1872(100)	1690(100)	1607(100)	5169(100)

graduation. There are slight changes across the three college years, with seniors being more oriented toward entering the labor force and less likely to continue their education, whereas sophomores are more likely to join the military. These effects would be expected, of course, for the necessity of making choices is greater for seniors than sophomores or juniors. The critical point, however, is that not all of these students will start to work upon completion of college and fully one-third of them will continue their education. The 'pool' of potential candidates who could be recruited for military careers at a later stage then is another question to be examined. Since this survey only concentrates on undergraduates, the questions of what motivates graduate students to enroll in OCS or OTS cannot be answered.

Interestingly, while the probability of selecting the military as a possible career choice decreases from the sophomore to the senior years, there is an increase among seniors in foregoing any work choice. For example, if "travel," "not enter the workforce," and "don't know" are grouped, there appears to be a substantial group of seniors who have not committed themselves to working immediately after graduation. This may suggest a possible area of recruitment, particularly for those seeking or lacking definite plans. This could, however, be transient "burn-out" during the senior year, something more apparent than real.

Specific Occupational Areas

One further delineation is the type of occupational category one will seek. Throughout the sample, business administration is the most frequently mentioned (28%), suggesting an orientation toward management. After this come the two types of technical occupations, physical and

biological, followed by humanities, the social sciences and education.

These occupation distinctions appear to reflect some important differences in career orientation. Occupational area choice has been grouped into three categories: technical, business, and human services occupations. These general occupational categories were selected to more clearly delineate where technical and nontechnical majors may see themselves headed. It provides a closer look at how some nontechnical majors, in particular, may seek to pursue technical job employment such as in the area of computer technology because many nontechnical curricula such as sociology and psychology can also provide students with significant computer skills.

Technical occupations are planned by 36% of the students, human services occupations by 33%, and business occupations by 31%. Table 3 presents the distribution of responses in these three categories, and the changes that occur over three academic years. There is a drop in technical occupations between the sophomore and junior years, while there is a consistent rise in interest in the human services between the sophomore and senior years. There is no consistent pattern for orientation toward business occupations. There is a falling off in interest in technical subjects as indicated in the section on academic major, although over a third of the students still maintain this career orientation.

There is a relationship between the academic major selected and the eventual occupational area where the student intends to direct him or herself. The vast majority of students in technical majors expect to enter technical occupations, whereas the majority of students in nontechnical majors will enter the workforce either in business management or in the human services. There are still, however, approximately 25%

TABLE 3

OCCUPATIONAL AREA BY CLASS YEAR AND ACADEMIC MAJOR
(N's represent weighted data)

Occupational Area	CLASS*			MAJOR**	
	Soph. N(%)	Junior N(%)	Senior N(%)	Tech. N(%)	Nontech. N(%)
Technical	752(40.2)	556(32.9)	551(34.3)	894(92.5)	967(24.7)
Business	545(29.1)	551(32.6)	495(30.8)	72 (7.5)	1510(38.6)
Human Services	575(30.7)	583(34.5)	561(34.9)	---	1432(36.6)
Totals	1872(100)	1690(100)	1607(100)	966(100)	3909(100)

* N's based on total sample.

**N's based on 4875 who specified career paths.

of nontechnical majors who perceive themselves as moving into technical jobs, a factor that should not be overlooked in future recruitment.

Sector Choice

It could be profitable to ask which sectors of the economy these students see themselves moving towards. Approximately three-quarters of the students who will enter the workforce upon graduation intend to enter the private sector, the majority in private industry (60%), with a moderate number intending to be self-employed (12%). On the other hand, 23% intend to enter the public sector, roughly divided equally between government and education, with the remaining 5% uncertain.

Relative to the national work force as a whole, however, the proportion of college students seeking public sector employment is high; nationally, only 14% of the work force were employed in the public sector in 1981 (World Almanac, 1982). The difference between these two rates appears to lie in the sizeable number of students who seek employment in education. With this exception, there is virtually no major difference between national sectoral employment distributions and the intended sector choices of the college students. In this sense, college students appear to have career orientations which are consistent with the actual availability of jobs.

For purposes of additional analysis, government and education were grouped together to form a public sector category; and private industry and self-employed were grouped to form a private, profit sector. The category private, non-profit is kept separate because the characteristics of this category are different from the other two. Table 4 shows the distribution in these categories as well as changes occuring over the three academic years for all students. There are slight decreases in orientation toward

TABLE 4

EMPLOYMENT SECTOR BY CLASS YEAR, ACADEMIC MAJOR, AND OCCUPATIONAL AREA
(%'s based on weighted data)

EMPLOYMENT SECTOR	CLASS*			MAJOR**		OCCUPATIONAL AREA**		
	Soph. N(%)	Junior N(%)	Senior N(%)	Tech. N(%)	Nontech. N(%)	Tech. N(%)	Bus. N(%)	H.S. N(%)
Private-Profit	1390(74.3)	1225(72.5)	1141(71.0)	847(87.7)	2699(69.0)	1468(78.9)	1412(89.3)	636(44.4)
Private-Nonprofit	66 (3.5)	57 (3.4)	72 (4.5)	---	150 (3.8)	67 (3.6)	---	83 (5.8)
Public	416 (22.2)	407(24.1)	394(24.5)	119(12.3)	1060(27.2)	326(17.5)	140(10.7)	713(49.8)
Total	1872 (100)	1690 (100)	1607 (100)	966 (100)	3909 (100)	1861 (100)	1582 (100)	1432 (100)

*N's based on total sample.

**N's based on 4875 who specified career paths.

the "private-profit" sector from the sophomore to the senior year, while there are corresponding slight increases in public and private, non-profit orientations. The changes are very slight, though, indicating the relative stability of these choices. In short, the majority of students intend to seek a career in the private sector, with a minority seeking public-sector employment--and very few change their minds during their college years.

Table 4 also shows the relationship between the academic major pursued and employment sector selection. Students pursuing technical subjects are more likely to seek employment in the "private-profit sector" (88%) whereas nontechnical majors are less likely to seek employment in this sector, though the majority (69%) still are more likely to seek employment in the public or private, non-profit sectors. To a large extent this relationship is a function of the outlets for education. What is critical for this study, however, is that the technical students, on whom the military place a high priority, are largely headed toward the private sector, and the military is placed in the position of competing directly with the private sector for these youths.

The occupational areas also reflect differences in sector choice. Table 4 also presents the relationship between the employment sector and the three occupational groups. Those aiming careers at technical or business occupations will more likely move towards the private-profit sector. Conversely, the majority of those moving toward human services will most likely seek employment in the public sector. The choice of specific occupation then is one determinant of the particular economic sector one will be drawn to.

Thus, as the model presented suggests, once the academic major is selected there can be a forced sector selection as a result of selecting

that major (e.g. engineering), however, again occupational choice can and often does dictate the eventual economic sector selection.

THE DEVELOPMENT OF CAREER

What these data suggest is career streaming. Students are following unique career pathways which start with the selection of an academic major (and probably earlier, though this is not measured). The choice of an academic major is a commitment towards a particular career, then students imagine that they will enter into one of three sectors (public, private-profit or private, non-profit) and within that sector will aim at certain occupations. (Note it is understood that for some individuals this temporal sequencing may be reversed, i.e. occupational area, then sector choice).

Career streaming by a student represents an efficient path that the student creates in selecting a career. It is efficient in that there is good congruence between the type of course work that is taken and the eventual occupation. While there will be a certain amount of career change as the students actually survey the job market and while, even in college, many students are not sure where they are headed, there is still the tendency to relate the academic subject chosen to the specific occupation that is being targeted. This congruence can come about either from a goal-orientation (i.e. the student selects the occupation that he or she desires and then chooses the academic major that will prepare him or her for that occupation) or from a practical orientation (i.e. the student selects a subject of interest to him or her and then chooses an occupation for which the training is appropriate). But there is congruence.

To see this, different career choice pathways have been traced that students select in choosing a major, aiming toward a sector, and at a

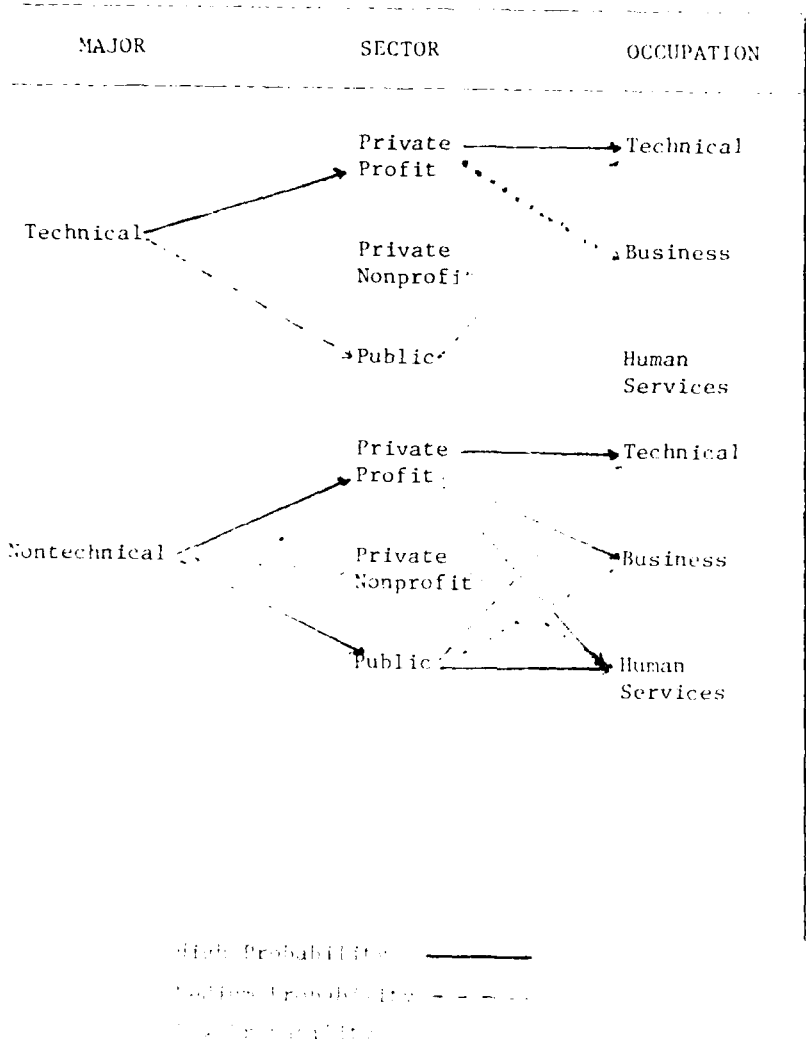
particular occupational area. Even though there are 18 possible pathways (2 academic majors X 3 sectors X 3 occupational areas), the vast majority of students fall in 5 specific pathways. Figure 2 shows that the most frequently chosen pathway is from a nontechnical major to the private-profit sector to a business occupation: 27% select this route. The next most mentioned major is from a technical major to the private-profit sector to a technical occupation: 15% choose this route. Third, there is the route from a nontechnical major to the public sector to a human service occupation (14%), and fourth there is the route from a nontechnical major to the private sector to a technical occupation (13%). Finally, there is the route from a nontechnical major to the private sector to a human services occupation (12.8%). These five pathways account for 80% of the students and represent normative career choice paths; they are normative in that they are typical and logically sequential. If the actual career routes that these students will eventually take when they enter the workforce are traced, undoubtedly there will be many deviations from this normative pattern; changing societal conditions as well as changing needs and interests force all types of adaptations in a person's career. But the perception of a career choice at the stage of being a student is normative. It is from these pathways that a marketing strategy for encouraging military careers must begin. Specifically, it should concentrate on the technical major pathway and nontechnical majors who have sufficient backgrounds to move towards a technical occupation.

WHO TAKES THE DIFFERENT PATHWAYS? DEMOGRAPHIC SELECTION AMONG COLLEGE STUDENTS

How do different types of individuals negotiate these different

FIGURE 2

SPECIFIC CAREER CHOICE PATHWAYS



	MAJOR	SECTOR	OCCUPATION	N (%)
1.	Nontech	- Private --	Business	1370 (26.5)
2.	Tech	- Private --	Technical	775 (15.0)
3.	Nontech	- Public --	Human Service	713 (13.8)
4.	Nontech	- Private --	Technical	693 (13.4)
5.	Nontech	- Private --	Human Service	636 (12.3)
6.	Nontech	- Public --	Technical	207 (4.0)
7.	Nontech	- Public --	Business	140 (2.7)
8.	Tech	- Public --	Technical	119 (2.3)
9.	Nontech	- Nonprofit-	Human Service	83 (1.6)
10.	Tech	- Private --	Business	72 (1.4)
11.	Nontech	- Nonprofit -	Technical	67 (1.3)
12.	Other paths			88 (1.7)
13.	Non-specific (missing data)			206 (4.0)
				5169 (100)

career choice pathways? Additionally, are all pathways open to all students or are many pathways closed to some? There are many sub-groups in the population for whom educational mobility has been limited. The case of minorities and women is the most obvious, although there are other factors to be considered as well (geographical, urban-rural differences, language barriers). Thus, particular attention should be given to those things which restrict access to particular occupations. In this study, particular attention will be given to women and non-white minorities.

The selection of career paths by minorities and women is a reflection as much of the perceived possibilities in the work place as of cumulative expectations carried over from childhood. In the weighted sample, 54.2% of the students were males while 45.8% were females; 90.5% of the students were white while 9.5% were non-white. However, there is also a sex-race relationship (Table 5): of the white students, the majority are males (55.2%) whereas among the non-white students, the majority are females (54.3%). The problems posed by gender are different for white students than for non-white students. Among white students, educational mobility among women has been less than for men, even though the proportion of white students who are females has been increasing rapidly over the last 10 years; nevertheless, parity has not been reached yet. Among non-white students, on the other hand, especially Black students, educational opportunities appear greater for women than for men, in part because of the greater numbers of Black women who complete high school. Whatever the reason for this, awareness of this relationship is important, and simple generalizations about women in general or non-whites in general should not be made; rather it is critical that this interaction be understood for every relationship examined. The following sections, beginning with that on socioeconomic differentials examine this relationship.

TABLE 5

DISTRIBUTION OF COLLEGE STUDENTS
BY GENDER AND RACE

Gender	RACE		Total
	White N(%)	Nonwhite N(%)	N(%)
Male	2578 (55.2)	226 (45.7)	2804 (54.3)
Female	2097 (44.8)	268 (54.3)	2365 (45.8)
Total	4675 (90.4)	494 (9.6)	5169 (100)

Socioeconomic Differentials

Table 6 shows the family income distribution of the students surveyed. The students come from family backgrounds of varying socioeconomic character, although student family socioeconomic levels are somewhat higher than are those for the population of the United States as a whole. The family incomes of the students vary from a low of below $10,000 a year in 1979-80 to a high of greater than $50,000 in 1979-80. The mean is approximately $32,394 and the median is $30,588.

But there are also sizeable racial differences in socioeconomic background as well as sex-race relationship differences (Table 6A). Whites generally come from higher-incomed families than non-whites; the racial differences in mean and median family incomes are around $9,000 in 1979-80. Thus, built into the racial comparisons are some fundamental differences in economic background which, presumably, are correlated with some basic differences in exposure to job opportunities that accompany parental education level, occupation and organizational linkages. Thus, for non-white students, a college education represents upward mobility to a much greater extent than for white students, in general. Overall, Table 6A shows that white students tend to be from families that are much more highly affluent than their non-white counterparts, although there is little income difference within race with regard to gender.

TABLE 6

FAMILY INCOME OF COLLEGE STUDENTS
(%'s based on N=5169)

Family Income	Frequency	Percentage
Less than $10,000	230	4.4
10,001 - 15,000	373	7.2
15,001 - 25,000	1141	22.1
25,001 - 35,000	1208	23.4
35,001 - 50,000	1201	23.2
50,001 and over	886	17.1
Missing data	130	2.6

TABLE 6A

FAMILY INCOME BY RACE AND GENDER
Mean and (Median) Incomes

Gender	RACE		Group Total
	White	Non-white	
Male	$36,856 (31,346)	$28,624 (22,125)	$32,517 (30,637)
Female	36,831 (31,636)	27,134 (21,825)	32,250 (30,508)
Group Total	36,844 (31,477)	27,879 (22,007)	32,394 (30,588)

In a sense the familial income differentials tend to suggest two completely different orientations among the white and non-white students. Among the white students, the barriers that women students face and must negotiate in their career choices are more cultural than socioeconomic; they are dealing with "new" as opposed to "traditional" roles. But among non-white students, college education means upward mobility for the majority; and this mobility is more likely to occur for minority women than for men because of the slightly larger numbers of minority women in higher education. This difference in mobility orientation may be very critical in predicting the success of recruiting students to enter a military career because it is possible that non-white women will be more receptive to a military career than white women, for reasons which will be outlined in the remaining sections.

Differences in the Choice of Academic Majors

The socioeconomic differentials are carried over into the selection of courses of study. Table 7 shows that students from middle-income families are more likely to take technical subjects than students who are from either lower or upper income families. Why this happens may be because a technical education represents a means of mobility for middle-income families; access to upper management, finance or administrative jobs may be limited, so that a technical route is chosen. But without studying the meanings of a technical education, it is only speculation. Table 8 shows a strong relationship between gender and major, with males more likely to choose technical majors than females. The data show that some differentiation in the choice of academic majors is seen primarily because of sex-role selection.

TABLE 7

ACADEMIC MAJOR BY ANNUAL FAMILY INCOME

MAJOR	INCOME		
	Less than $15,000 N(%)	$15,001 to $35,000 N(%)	Greater than $35,000 N(%)
Technical	105(17.4)	507(21.6)	403(19.3)
Nontechnical	498(82.6)	1842(78.4)	1684(80.7)
Total	603(100)	2349(100)	2087(100)

130 responses are don't know/refused

TABLE 8

GENDER DIFFERENCES IN ACADEMIC MAJOR, CHOICE OF OCCUPATIONAL AREA AND ECONOMIC SECTOR
(Data based on weighted data, N=5169)

	Males (N=2804)	Females (N=2365)
	N(%)	N(%)
Academic Major		
Technical	757(27.0)	277(11.7)
Nontechnical	2047(73.0)	2088(88.3)
Occupational Areas		
Technical	1197(42.7)	759(32.1)
Business	970(34.6)	719(30.4)
Human Services	637(22.7)	887(37.5)
Employment Sector		
Private-Profit	2198(78.4)	1490(63.0)
Private-Nonprofit	53(1.9)	142(6.0)
Public	552(19.7)	733(31.0)

Differences in Sector Choice and Occupational Area

These sex-role differences become particularly strong in the choice of employment sectors (Table 8). Males are more likely than females to orient themselves toward the private-profit sector, whereas females orient themselves toward both the public sector and the private-profit sector, perhaps because they are similar to the traditional nurturing roles for females. This orientation carries over into the selection of occupational areas. Males are more likely than females to want to work in technical and business jobs, whereas females are more likely to seek work in human services. Whether females select human services because of preference or whether they perceive these institutions as more open to them is difficult to assess.

In short, differences between men and women are found in career selection strategy which may reflect both sex-role typing as well as the assessment of the likelihood of success in a particular career. The sex-role typing element (beliefs about womens' abilities with mechanical and mathematical things) shows itself especially in the low selection of technical majors by women. But there may also be an appreciation of the difficulties women would face in selecting technical occupations, as well as business occupations. It is generally accepted, though it hasn't been unequivocally demonstrated, that there is discrimination against women in business and technology-based industries in the private sector. The more customary choice of public or non-profit sector employment by women may be a recognition of these barriers. In other words, for women the choice of the public sector or non-profit employment may represent greater job security and opportunity for responsible positions or professionalism, though the majority of women intend to work in the

private sector.

Differential occupational selection can also be seen in the choice of sectors that whites and non-whites make. Whites are more likely to choose the private-profit sector than non-whites, who in turn are more likely to choose public sector employment; there are no differences in the choice of non-profit employment. These differences may be attributed to the impact of affirmative action programs more pervasive in the public sector. These differences combine with gender to lead to a greater differentiation in the choice of sector (i.e. there are no sex-race interactions). White males are most likely to choose the private-profit sector (79%) whereas non-white females are more likely to choose the public sector (37%). The sector choice is basically the most fundamental decision and probably reflects a basic perception of career possibilities. For example, there are no differences between the occupational areas that are selected; in fact, non-whites choose technical occupations slightly more than whites (42% compared to 37%) and there are no differences in the choice of human services (29% compared to 30%).

In other words, the public sector may be more open than the private sector to groups who have historically had disadvantages (women and minorities). When the differentials in race and gender are traced for the 5 major career choice pathways developed in Figure 2, the two most frequently selected paths (nontechnical education, private sector, business occupation; and technical education, private sector, technical occupation) selected by students are much more heavily selected by males and by whites than the third most frequently selected path (nontechnical education, public sector, human services occupation) where the majority of students are women, and where a sizeable number of these are non-

whites (see Table 9). The technical occupations are differentiated primarily by their sector, especially with respect to race. Whites are more likely to go through the private sector (path 2) whereas non-whites with technical majors are more likely to go through the public sector. Finally, the use of non-profit organizations as a vehicle for human service occupation or technical occupation is used almost exclusively by women.

These differences reflect as much socioeconomic differences as historical prejudice towards women and minorities. Students from higher income families are more likely than students from lower-income families to enter private-profit organizations. Students from poorer families tend to enter public or non-profit sector organizations. Further, the choice of business occupations is more typical of students from higher income families, whereas the choice of human services occupations is more typical of students from poorer families. Technical occupations are choosen more often by students from both low and medium-income families.

Access to jobs is as much through personal contacts as it is through having the necessary skills. Aside from highly technical subjects, where there are objective criteria for selection, most middle-class jobs require more general skills. Employment in management, administration, policy formulation, sales and even in fairly technical subjects like finance does not depend as much on particular education skills -- for most skills are learned on the job. The important point is that the pool of people for many private sector jobs is very large (anyone with a bachelor's degree with a number of courses in the relevant industrial area) so that contacts and familiarity with the

TABLE 9

MAJOR CAREER CHOICE PATHS OF
WOMEN AND NONWHITES

PATH Major	-	Sector	-	Occupational Area	Women* (N=2365)	Nonwhite (N=494)
1. Nontechnical	-	Private	-	Business	567** (41.4)	111 (8.1)
2. Technical	-	Private	-	Technical	187 (24.1)	63 (8.1)
3. Nontechnical	-	Public		Human Services	475 (66.6)	74 (10.4)
4. Nontechnical	-	Private	-	Technical	337 (48.6)	80 (11.6)
5. Nontechnical	-	Private	-	Human Services	313 (49.2)	57 (9.0)
6. Other Paths					486	109

*Included in Women are 268 nonwhite women to give a fuller view of women as a total. Nonwhites includes men and women as a total.

**The first figure is the total weighted N of those selecting that path. The figure in parentheses is the percentage in that path representing women and/or nonwhites.

employment area are also important. In this respect, students from higher income families who have many more contacts in the moneyed private sector have a much greater advantage than students from moderate or low income families. It is not surprising, therefore, that public sector employment becomes much more a means for mobility for those from disadvantaged or poorer backgrounds. Even though contacts in the public sector are also important, many entry level jobs are based on examinations and educational criteria, promoting a greater sense of equal opportunity. This point becomes important in understanding why certain individuals choose military careers.

THE CHARACTERISTICS ASSOCIATED WITH EMPLOYMENT CHOICE

The purpose of a career choice pathway is, of course, to obtain employment and income, a basic fact of social existence. Yet income is not the only goal of a career, though it is important. Other characteristics of jobs can be important as well. It is useful, therefore, to discuss briefly some of the characteristics of employment that the students value in order to understand how their career choices are linked to their desires. The goals of employment, however, are not the focus but rather the perceived characteristics of the job. For some students, the characteristics associated with a job may be a goal to which their career choices are a means, but for many others the choices they have made will determine the characteristics associated with the employment. This is important because some of the characteristics chosen appear to have a certain amount of idealization associated with them, characteristics which may or may not turn out to be

important when they enter the actual workforce.

Expected Starting Income

Students were asked what their expected starting income would be when they entered the workforce for the first time. Table 10 shows that the vast majority of students (84.3%) place themselves between $10,000 and $25,000, with the bulk of these falling between $15,000 and $25,000. Fewer than 5% see themselves earning less than $10,000 and fewer than 3% see themselves earning more than $35,000. The mean for the sample as a whole is approximately $18,540 which is greater than the national average for 1979-80 of $16,000 (statistically significant $p \leq .001$). As can be seen there is a certain amount of idealization that occurs among sophomores which becomes modified as time passes; 12% of sophomores expect to be starting with an income greater than $25,000 compared to 11% for juniors and 10% for seniors.

Table 11 shows the average expected starting incomes of the sample by various subgroupings. As can be seen, males have higher estimates of starting income than females. This is, of course, congruent with actual wage levels nationally and indicates that women are aware of the likelihood of lower salaries. Non-whites, however, give slightly higher estimates than whites, estimates which are not congruent with the actual distributions of income nationally, even among college graduates. Part of this may be an artifact of distribution across the three years - there are proportionately more non-white students in the sophomore class than in the junior or senior classes, and sophomores give higher estimates; but part may also be higher expectations by non-whites of what an education actually means in the job market. Nonwhites

TABLE 10

EXPECTED STARTING INCOME
BY CLASS YEAR

EXPECTED INCOME	CLASS			
	Soph. (N=1872)	Junior (N=1690)	Senior (N=1607)	Total (N=5169)
	N(%)	N(%)	N(%)	N(%)
$10,000 or less	82(4.4)	64(3.8)	71(4.4)	217(4.2)
10,001 - 15,000	629(33.6)	463(27.4)	554(34.5)	1646(31.8)
15,001 - 25,000	949(50.7)	955(56.5)	797(49.6)	2701(52.2)
25,001 - 35,000	172(9.2)	164(9.7)	162(10.1)	498(9.6)
35,001 - 50,000	30(1.6)	30(1.8)	18(1.1)	78(1.5)
Over 50,000	10(.5)	14(.8)	5(.3)	29(.6)

TABLE 11

AVERAGE EXPECTED STARTING INCOME* BY SELECTED CHARACTERISTICS
(N's represent weighted data)

Characteristic	N=5169	Average Expected Starting Income
Gender		
Male	2804	$19,821
Female	2365	16,023
Race		
White	4675	18,479
Nonwhite	494	19,192
Class Year		
Sophomore	1872	18,932
Junior	1690	18,521
Senior	1607	18,210
Academic Major		
Technical	1034	21,807
Nontechnical	4135	17,174
Sector		
Private-Profit	3546	19,467
Private-Nonprofit	150	14,643
Public	1179	15,904
Occupational Area		
Technical	1861	20,596
Business	1582	18,098
Human Services	1432	15,538

*Expected income for each respondent was developed by selecting the midpoint of the income category which each selected as the range expected upon graduation. For example, if expected income was in the category $10,001 to 15,000, the specific expected income was calculated as $12,500.

are expressing unrealistic expectations when compared to what the job market will actually provide; to some extent, there are unrealistic expectations for the majority of white students as well.

But even if these estimates are considered as expected goals rather than realistic estimates, these basic differences are found according to career choice decisions. With respect to the academic major, there is an average difference of over $4000 in expected starting income between students in technical majors and students in non-technical majors. Again, part of this is artifactual because there are proportionately more sophomores who are technical majors, thus inflating the difference, but even controlling for this the difference remains. Technical students expect to earn higher salaries upon entering the job market, an expectation borne out by studies of income levels by different fields. Similarly, students who intend to enter the private-profit sector have higher income expectations than students in either the public sector or in the private, non-profit sector; the latter, in fact, is in reality lower than even the public sector, an estimate which intuitively appears correct. The same differences show up in the occupational area comparisons. Students who intend to take technical jobs have higher expectations than students who intend to enter business jobs, and these in turn have higher expectations than students who intend to enter human service occupations.

To estimate the effects of these variables (gender, race, family income and class year) in interaction, a regression equation of expected starting income against the demographic variables and variables representing the different career streams was run (Table 12). The basic frame of

TABLE 12

PREDICTION OF EXPECTED STARTING INCOME
(R^2 = 0.17)
Intercept A = $15,347

Variable	Coefficient ($)	F	P-Value
Demographic			
Sex	2349	157.1	.001
Race	1553	25.2	.001
Family Income	0.05	58.2	.001
Class Year	-492	19.8	.001
Career Streams			
Stream 2 (T-PR-TO)	4327	214.4	.001
Stream 10 (T-PR-B)	4095	27.2	.001
Stream 8 (T-PUB-TO)	3058	25.2	.001
Stream 4 (N-PR-TO)	2937	94.8	.001
Stream 1 (N-PR-B)	633	6.4	.05
Stream 3 (N-PUB-HS)	-2207	52.8	.001
Stream 9 (N-NP-HS)	-3220	19.6	.001

Key to Symbols

T technical major

N nontechnical major

PR private sector

PUB public sector

NP nonprofit

TO technical occupation

B = business

HS human services

reference is the intercept, which is $15,347. That is, every student 'starts' with $15,347. Within the demographic variables, if the student is a male, he expects to receive an additional $2,349. Similarly, if the student is non-white, he/she expects to receive an additional $1,553. The consistently higher estimates of expected incomes by non-whites may represent a response set bias. Family income and class year show much smaller effects than sex and race. For every additional $1000 of family income, the student expects an increase of $50. Conversely, sophomores have higher expectations than either juniors or seniors in terms of expected starting income; there is an expected decrease in expectation of $492 with each additional year of education from the sophomore to the senior year. Realism slowly takes over.

Within the career stream (developed in Figure 2) variables, stream 2 (the "pure" technical route - technical major, private sector, technical occupation) students can expect an additional $4,327 for their starting income. Stream 10 students (technical major, private sector, business occupation) can expect almost as much additionally ($4,095). Stream 8 and stream 4 students also expect more than the reference intercept. Stream 1 students, the most popular career stream, expect slightly higher than the reference point (an additional $633). At the other extreme, students who take the human services non-profit "route" (stream 9 - nontechnical major, non-profit organization, human services) expect much less than the reference point (subtract $3,220, on average). Finally, stream 3 students (the major public sector route - nontechnical major, public sector, human services) can expect $2,207 less than the reference point.

The model, while not perfect (R^2 = 0.17), does reveal how students

perceive their expected starting income. Independent of particular career streams, males and non-whites expect higher incomes. Similarly, students who are studying a technical subject (streams 2, 10, and 8) have higher expectations than students studying nontechnical majors. What is possibly most interesting is that students taking the most popular route -- stream 1 -- only have slightly higher expectations than the reference norm. In both the single comparisons and in the regression model, the choice of a business career yields lower expected starting income than the choice of a technical career. Several studies have supported this expectation, indicating that technically-trained individuals have higher initial salaries. The salary levels of business occupations may however, rise much faster over the course of a career, especially as individuals attain upper-level management jobs in large companies. Aside from the medical profession, few other technical jobs yield as high career incomes as corporate business occupations. Thus, students who are entering business may be deferring their income expectation until later in their career when they expect it will be much higher than for technical occupations.

Desired Characteristics of Jobs

Income isn't the only characteristic of a career choice, although it is important. Students were asked to rate ten characteristics of employment on a five-point scale of importance for an ideal job, with '5' being "very important" and '1' being "very unimportant". Table 13 presents the mean scores for the sample as a whole.

Even though all characteristics are rated highly, the most important are job security and personal responsibility, followed by promotion oppor-

TABLE 13

IDEAL JOB CHARACTERISTICS

Characteristic	Mean	Rank-Order
Job Security	4.5	1
Personal Responsibility	4.5	1
Promotion Opportunities	4.4	3
Opportunity to Help Others	4.4	4
Pay Opportunities	4.3	5
Use of Previously Developed Skills in Specialized Field	4.3	6
Opportunity to Make Lasting Contribution to Society	4.2	7
Chance to be a Leader	4.0	8
Opportunity for Additional Education	3.9	9
Having Job with Prestige	3.5	10

tunities and the opportunity to help others. Pay opportunities, the use of previously developed skills and the opportunity to make a lasting contribution to society fall in the middle of the relative rankings. At the bottom of the list are the chance to be a leader, the opportunity for additional education, and the amount of prestige associated with the job. What is most interesting is the relative lack of importance of these last characteristics. Students want responsibility in their job and security of employment, factors which are possibly less 'dramatic' than leadership, prestige or additional education. To some extent the desire for personnel responsibility may suggest more personal authority, a characteristic that is closely linked to the opportunity for higher promotion, another highly ranked characteristic. Given that this data collection was carried out during 1980, when the unemployment rate was much lower than it is today (1983), job security probably continues to be placed at the top in terms of a desired characteristic.

In order to simplify analysis, these ten characteristics were examined using the technique of multidimensional scaling. Figure 3 displays the results of the ten individual career characteristic items. (This solution explains 87.4% of the data's variance.) Five clusters can be identified and have been circled. Each cluster is labelled in order to identify ways in which individuals in the sample tend to rate desired career characteristics. The five career factors are:

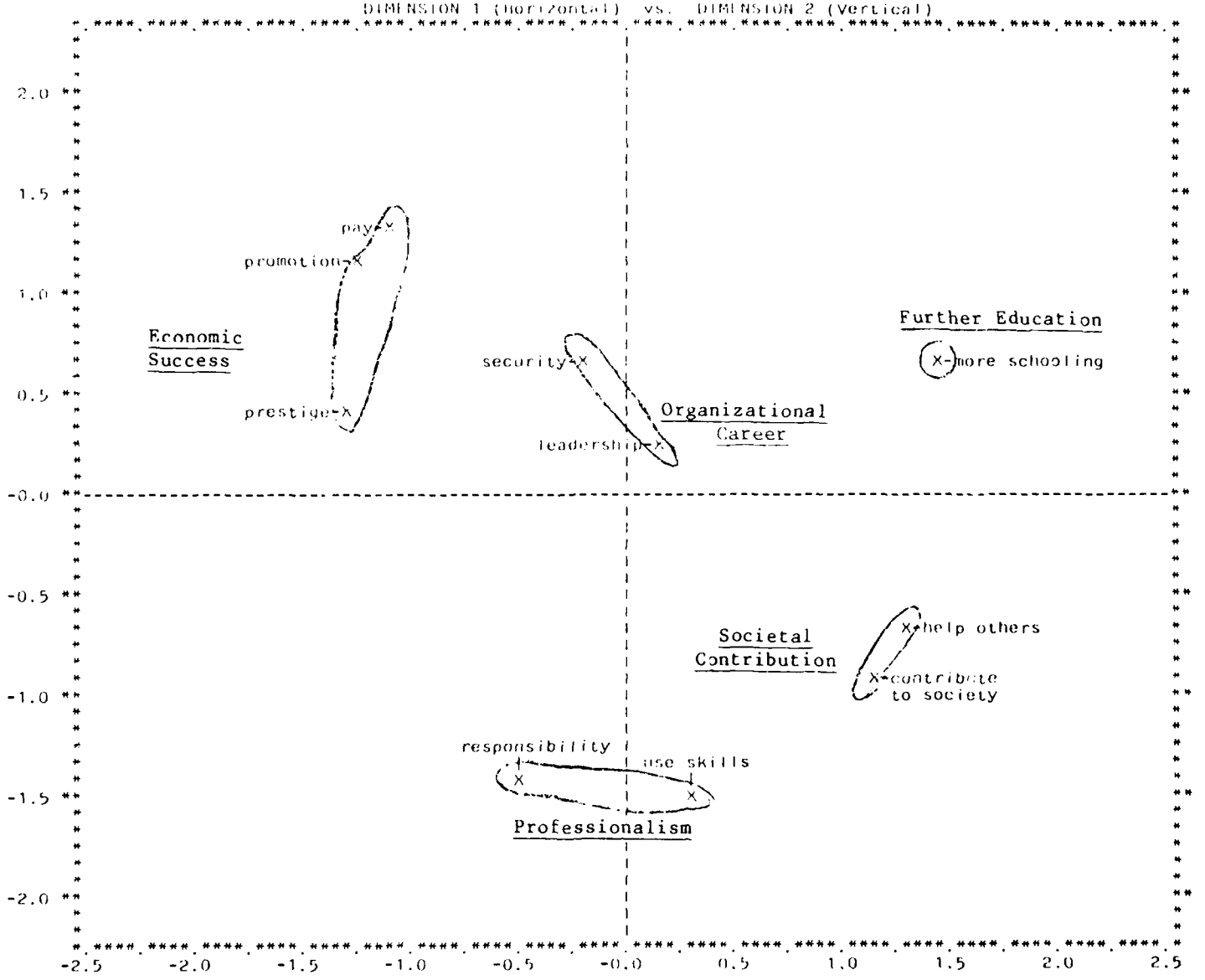
1. Economic Success (pay, promotion, prestige);
2. Organizational Career Security (security, leadership);
3. Professionalism (using skills, responsibility);
4. Societal Contribution (contributing to society, helping others); and
5. Further Education (additional schooling).

Figure 3

COLLEGE MARKET STUDY

MULTIDIMENSIONAL SCALING OF PREFERRED CAREER CHARACTERISTICS

DIMENSION 1 (Horizontal) vs. DIMENSION 2 (Vertical)



These career factors suggest that individuals place importance on different job characteristics which enter into the equation that determines career paths. Economic success is the evaluation of a career in terms of monetary benefits and social prestige. Organizational career security is the evaluation of a career in terms of the security of the job and the chance for leadership; it is organizational in focus because both security and leadership are properties of large organizations. Professionalism is an evaluation of a career in terms of being able to use the skills that have been developed in a specialized field which are viewed as best put to use through a high degree of personal responsibility. Societal contribution is an evaluation of a career in terms of how others are affected, both in terms of the opportunity to make a lasting contribution to society and the opportunity to help others. Finally, further education represents an evaluation of a career in terms of the opportunity to obtain additional formal schooling. Since the primary interest is in employment in the work force, this cluster has been dropped because it really is an extension of the educational process. There are, therefore, four different clusters of job characteristics that influence occupational selection.

Job Characteristics and Their Importance to Subgroups

The respondent's score on each item of those making up a job characteristics cluster were added to make up a scale and then were standardized on a five-point metric (from a low of 1.0 to a high of 5.0).

Overall the professionalism scale is rated as most important (a mean of 4.4), followed by organizational career security and societal contribution (both with a means of 4.3), and finally economic success (mean of 4.1). Professionalism is also rated highest by the groups of most interest for this study--technical majors, students planning technical occupations, women, and minorities. (Women and minorities gave equally high ratings to societal contribution.)

Table 14 shows the deviation from the mean scores for the student characteristics previously discussed in this chapter. Because of the sample sizes all differences are statistically significant, so that only those of most interest (difference scores of at least $\pm$ 2) will be highlighted.

Examining Table 14 vertically, down the columns of job characteristics clusters, economic success is a characteristic least sought by persons entering the private-nonprofit and public sectors. Occupationally economic success is least sought by those entering human services and most desired by those individuals in seeking a business career. This finding is in accord with the belief that business management and leadership is a highly remunative occupation.

With respect to organizational career security the only outstanding outcome appears to be that those who seek employment in the private-nonprofit sector are less job-security-conscious and less seeking of leadership jobs.

The preference of an occupation that presents an opportunity to make a societal contribution seems most sought by females, private-nonprofit and public sector employees and human service occupations. Technical majors and those seeking business occupations seem the least oriented towards the need for a job that offers a chance to make a societal contribution.

TABLE 14

COMPARISONS OF JOB CHARACTERISTICS BY
SELECTED STUDENT CHARACTERISTICS
(Mean Scale Scores, 1 to 5)

Student Characteristics (Sample size in parenthesis*)	Job Characteristic Clusters			
	Economic Success ($\bar{x}$=4.1)	Organizational Career ($\bar{x}$=4.3)	Societal Contribution ($\bar{x}$=4.3)	Profes-sionalism ($\bar{x}$=4.4)
Gender				
Males (2804)	---	-.1	-.1	-.1
Females (2365)	-.1	-.1	+.2	+.1
Race				
White (4675)	---	-.1	---	---
Non-white (494)	+.1	+.1	+.1	---
Class Year				
Sophomore (1872)	---	---	---	---
Junior (1690)	---	-.1	---	-.1
Senior (1607)	---	-.1	---	---
Family Income				
Less Than $15,000	---	-.1	---	---
$15,001 - 35,000	-.1	-.1	---	---
More Than $35,000	---	-.1	-.1	---
Academic Major				
Technical (1033)	---	-.1	-.2	-.1
Nontechnical (4136)	---	+.1	---	---
Sector				
Private-Profit (3546)	---	-.1	-.1	-.1
Private-Nonprofit (150)	-.4	-.3	+.3	+.1
Public (1179)	-.2	---	+.2	+.1
Occupational Area				
Technical (1861)	-.1	-.1	---	---
Business (1582)	+.2	+.1	-.2	-.2
Human Services (1432)	-.2	-.1	+.2	+.1

*Sample sizes makes all comparisons statistically significant with t-test and ANOVA. Differences are all significant at at least .01.

Professionalism as a job characteristic is important to everyone but least important to persons seeking business occupations.

What emerges seems to set a pattern that says students with a technical major are more interested in economic success and least interested in making a societal contribution as one views the deviation scores horizontally, whereas females are least interested in economic success and most interested in making a societal contribution as are students oriented to a human services occupation and public sector jobs. While all of the job characteristics clusters are important, the inference is that that grouping of students -- technical males headed toward the private-profit sector in technical occupations -- for which the military is targeted seek jobs which will provide economic success. To more clearly evaluate these relationships, career paths should be investigated.

Job Clusters and Career Streaming

These clusters of job characteristics are most clearly distinguished when the different career streams or paths are examined. Table 15 presents the deviation scale scores for each of the major career paths chosen. Focusing on paths for which the military may have the most interest, for example career paths 2, 4, 6, 8, and 11, these paths are taken by students who either have technical majors or perceive themselves seeking occupations in technical areas. Path 2 (technical-private-technical) is the most important pathway since these students are those that the military is most likely to be seeking. Examining the deviation scores shows that these students are more likely to desire economic success and professionalism over making a societal contribution. The absolute mean scores suggest there is no difference between the desire for economic success and making a societal contribution, however, it is more meaningful to compare the scoring with

TABLE 15

MAJOR CAREER PATHS AND JOB CHARACTERISTICS

CAREER PATHS		DEVIATION SCALE SCORES			
Major-Sector-Occupational Area	N (N=5169)	Economic Success	Organi-zational Career	Societal Contri-bution	Profes-sionalism
1. Nontechnical-Private-Business	(1370)	+.2	+.1	-.2	-.2
2. Technical-Private-Technic.	(775)	---	-.1	-.2	---
3. Nontechnical-Public-Human Services	(713)	-.3	---	+.4	+.1
4. Nontechnical-Private-Technical	(693)	---	---	+.2	+.1
5. Nontechnical-Private-Human Services	(636)	---	-.1	+.1	---
6. Nontechnical-Public-Technical	(207)	-.2	---	+.2	+.1
7. Nontechnical-Public-Business	(140)	+.1	---	+.1	-.1
8. Technical-Public-Technical	(119)	-.1	-.2	+.1	---
9. Nontechnical-Nonprofit-Human Services	(83)	-.6	-.2	+.5	+.2
10. Technical-Private-Business	(72)	+.1	---	-.3	-.4
11. Nontechnical-Nonprofit-Technical	(67)	-.2	-.1	+.4	+.2
12. All Other Paths	(294)				
Mean Score For All Students		4.1	4.3	4.3	4.4

All differences are statistically significant .01 or better.

the total sample to more fully understand how groupings of students rank these characteristics. In contrast, path 4 (nontechnical-private-technical) shows students to be seeking occupations that will lend themselves to making a societal contribution and an opportunity to have a profession. Similarly, career paths 6, 8, 11 are more oriented towards making a societal contribution and least concerned with economic success. These differences may be explained by the fact that those desiring a technical occupation in paths 4, 6, and 11 are nontechnical majors where the orientation in the humanities and social sciences is more people-oriented than is the technical majors. Moreover, as in path 8, the sector choice of public or private-nonprofit is also more people-oriented and less profit oriented. Thus, path 2 (technical-private-technical), is the career path that is both of the most interest to the military and also the most conducive to military recruitment. These data suggest that economic inducements and an opportunity to strenthen professional skills would be strong marketing strategies for this target group. Conversely, for others seeking technical careers, professionalism and an opportunity to make a societal contribution would be a second marketing strategy.

The Likelihood of Switching Careers

The thinking about a career is a complicated business, continuing throughout one's working life. Personal and professional objectives change, a process often culminating in a complete change of careers. Moreover, for some individuals, students included, the thinking about the career is never very clear from the beginning. These individuals are of special interest in developing a military recruitment strategy

because students who have not made final career decisions are good recruitment candidates. This research, therefore, attempted to determine to what extent career decisions may be subject to change in the study population, and even more usefully, to discover which demographic and career path variables are related to predisposition to career change.

A scale measuring likelihood of switching careers was developed. The scale was made up of items representing critical thresholds that predispose some students to be receptive to changing careers and possibly joining the military. Table 16 presents the items making up the scale, the particular criteria used to allocate students to the scale and the percent of the sample agreeing with each item. Approximately 6% are planning to enter volunteer service, plan to join the military, or look for a job in another field. Another 2.5% feel that they are unlikely to secure jobs in their occupation of choice so they too are subject to switching careers. About 7% believe that their college education has not prepared them sufficiently to secure a job in the occupation of their choice. Similarly, 9% are "somewhat uncertain" or "undecided" about pur uing their occupational choice after college, while an additional 2% are "very uncertain". Finally, 34% feel they are "somewhat likely" or "very likely" to change careers within 5 years after college.

Many of the respondents answered multiple items, so that the proportion of students who have scores on the "likelihood to switch careers" scales is actually very small, with the exception of the last item on changing careers within 5 years. In fact, the last item do inates the scale completely.

Comparing the different demographic characteristics and career

TABLE 16

THE "LIKELIHOOD TO SWITCH CAREER" SCALE

Item	% of Sample Passing Criteria
1. Plan to Enter Volunteer Service After College	0.3%
2. Plan to Enlist in Military After College	1.8%
3. Plan to Look for Job in Another Field After College	3.7%
4. "Somewhat Unlikely" or "Very Unlikely" to Secure Job in Occupation of Choice	2.5%
5. Education Has Not Prepared Student Sufficiently to Secure Job in Occupation of Choice	7.3%
6. "Somewhat Uncertain" or "Undecided" to Pursue Occupational Choice After College	9.4%
7. "Very Uncertain" to Pursue Occupational Choice After College	1.9%
8. "Somewhat Likely" or "Very Likely" to Change Career Within 5 Years After College	34.1%

stream variables on the "likelihood to switch careers" scale, some interesting differences (Table 17) emerge. The likelihood of switching careers increases with class years, suggesting that students start to doubt their career choices or develop alternatives with more education. There is also an income effect, with students from upper income backgrounds being more likely to consider switching careers than students from middle or poorer backgrounds. Being open to switching careers is not necessarily a bad thing: it can indicate new awareness and curiosity as much as it might indicate indecisiveness or lack of goals. Students with technical majors are much less likely to be open to switching careers, as expected. The degree of commitment required to a technical subject would encourage the maintenance of that career orientation. Similarly, students aiming at the public or the non-profit sectors are more open to switching than students aiming at the private sector. Finally, students planning business careers are slightly more open to switching than students planning human services careers; and both are much more open than students planning technical careers.

These effects accumulate so that when the openness to switching is compared across the different career streams, there are some large differences (Table 18). What is key to the issue of officer recruitment of technical majors or those seeking a technical occupation is that they are also the least likely to be open to switching careers. For example, students following the "pure" technical route (path 2) are the least likely to switch careers. Additionally, those students who intend to seek occupations in a technical area (paths 4, 6, 11) are also less likely compared to the other career pathways to be open to switching careers. The technical route through the public sector (path 8) is the most

TABLE 17

LIKELIHOOD TO SWITCH CAREER BY SELECTED VARIABLES
(Scale - 0-2)

Characteristic	Mean Likelihood to Switch Career Score
Gender	
Males	1.1
Females	1.2
Race	
White	1.2
Non-white	1.1
Class Year	
Sophomores	1.0
Juniors	1.2
Seniors	1.3
Family Income	
Less Than $15,000	1.1
$15,001 - 35,000	1.1
$35,001 or More	1.3
Academic Major	
Technical	0.9
Nontechnical	1.3
Sector	
Private Profit	1.1
Private-Nonprofit	1.4
Public	1.3
Occupational Area	
Technical	0.9
Business	1.5
Human Services	1.3

*All differences statistically significant at $\leq$ .01

TABLE 18

LIKELIHOOD TO SWITCH CAREER BY CAREER STREAMS
(0 least likely to 2 most likely)

CAREER STREAM						
Major	-	Sector	-	Area		Mean Likelihood to Switch Career Score
1. Nontechnical	-	Private	-	Human Services		1.5
2. Technical	-	Private	-	Technical		0.8
3. Nontechnical	-	Public	-	Human Services		1.2
4. Nontechnical	-	Private	-	Technical		0.9
5. Nontechnical	-	Private	-	Human Services		1.4
6. Nontechnical	-	Public	-	Technical		1.2
7. Nontechnical	-	Public	-	Business		2.1
8. Technical	-	Public	-	Technical		1.5
9. Nontechnical	-	Nonprofit	-	Human Services		1.8
10. Technical	-	Private	-	Business		1.2
11. Nontechnical	-	Nonprofit	-	Technical		0.9

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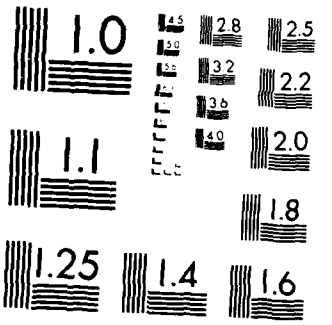

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963 A

amenable among the technically oriented occupational pathways to switching careers, which suggests a possible area for recruitment of military officers.

Reviewing the other career pathways, path 7 (nontechnical-public-business) is the most likely to be open to switching careers, as are those students intending to seek employment in the public sector.

Of the five major pathways (1-5), two reflect a very clear commitment (paths 2 and 4), while two are more open to change (paths 1 and 5). The relative openness of some streams should be noted in developing an effective marketing strategy for military officer careers. But as will be demonstrated in the next chapter, other conditions are necessary and more critical.

SUMMARY COMMENTS: CHAPTER III

In summary, there are distinctly different career paths that have been chosen by students. Five pathways, in particular, account for over 80% of the students. These are:

1. From a nontechnical major to the private sector to employment in business;
2. From a technical major to the private sector to employment in a technical ocupation;
3. From a nontechnical major to the public sector to employment in the human services;
4. From a nontechnical major to the private sector to employment in a technical occupation (or organization); and
5. From a nontechnical major to the private sector to employment in the human services.

Associated with these distinct pathways are relatively different valuations of job characteristics associated with type of employment. Economic success and career security are values most often expressed by students who choose the business route (path 1), whereas professionalism and societal conciousness are expressed most often by those headed toward human services occupations, especially through nonprofit organizations (paths 3 and 9, but also path 11). Whereas there is some overall agreement across all students (on the importance of professionalism, for example), there appears to be significant differentiation in work values across the different students.

To specifically address the central issue of interest, students planning a career in a scientific or technical area, these key factors emerge:

* 1 out 5 students has a technical major
* 85% of the technical majors will seek employment in the private sector
* More technical majors are from middle-income homes than any other income group
* Most technical majors are white males
* Technical majors have the highest expected starting income of all groups of students
* Economic success and professionalism are the job characteristics most sought by students seeking a technical career
* Technically oriented students are the least likely to switch careers
* Technically oriented students moving through the public sector are more amenable to switching careers

CHAPTER IV

A MILITARY OFFICER CAREER: FACTORS AND CHARACTERISTICS ASSOCIATED WITH SELECTION

In order to understand how college students think about careers, the previous chapter attempted to provide a context against which to display some general conditions which affect all career choices. The paramount purpose, however, was to ask and attempt to answer why some students do choose military careers and many others do not.

This chapter will address specifically the characteristics associated with favoring a military career, with the subsequent likelihood of joining the Reserved Officers Training Corps (ROTC), Officers Candidate School (OCS), or Officers Training School (OTS) programs, as well as the general perceptions of the work conditions associated with a military career. In addition, the attitudes towards military careers by students who are headed into different types of career streams will be investigated, suggesting an approach to future marketing. Finally, the role of women as career officers in the military will be examined.

ENROLLMENT IN AN ROTC/OCS/OTS PROGRAM AMONG COLLEGE STUDENTS

In this section, the perceptions college students have of a career as a commissioned officer in the United States Armed Forces are examined. In particular, their perceptions of the factors affecting whether they would consider such a career will be discussed. This chapter will show how the career choice model developed in the last section is a useful organizing schema for understanding the differences among college students in their perceptions of a military career.

The Possibility of Enrollment in an ROTC/OCS/OTS Program

Students were asked questions about their likelihood of enrolling in a career officer training program sometime in the future. The sophomore students were asked questions about the ROTC program, which is available during the third and fourth college years, whereas the junior and senior students were asked questions about the OCS or OTS programs which are available upon completion of their college degree. The questions about the two types of programs were generally similar, thus, the answers for both types of questions were combined for the purpose of analysis. Where there are differences between the two series of questions, these will be noted.

The vast majority of college students is aware of ROTC programs. Ninety-two percent indicated that they had heard of the ROTC program and 2% were actually enrolled in such a program. However, only 62.8% were aware of the special two-year ROTC program available during the junior and senior years. In order to gauge the receptivity of the students toward enrolling in such a program (if they were sophomores) or in an equivalent OCS/OTS program (if they were juniors or seniors), two questions were asked to assess the possibility of enrollment. First, students were asked to indicate on a 5-point likelihood scale their likelihood of enrolling in an ROTC/OCS/OTS program. Second, they were asked to indicate their perceived probability of joining an ROTC/OCS/OTS program on a 100-percent scale (from 0% probability to 100% probability). Table 1 presents the distributions of responses to the two questions (the probability data have been grouped together).

The distributions for the two questions are generally similar. The majority of college students are unlikely to enroll in an officer career

TABLE 1

TWO MEASURES OF POSSIBILITY OF
ENROLLMENT IN ROTC/OCS/OTS PROGRAMS
(Weighted N = 5169)

Likelihood of Enrolling (5 Point Scale)	N	(%)	Probability of Joining (0% - 100% Scale)	N	(%)
Very Unlikely	3654	(70.7)	0% Probability	1831	(35.5)
Somewhat Unlikely	915	(17.7)	1% - 24%	2096	(40.7)
Undecided	419	(8.1)	25% - 49%	711	(13.8)
Somewhat Likely	129	(2.5)	50% - 74%	383	(7.4)
Very Likely	52	(1.0)	75% - 100%	134	(2.6)
Total	5169	(100.0)	Total	5155*	(100)

*Missing data, N=14

training program, and only a very small minority are highly likely to do so. The two scales are also similar in terms of selecting out the most potential students. Using the likelihood of joining scale, if the responses to the "undecided" category are grouped with those in the "somewhat" or "very likely" categories, then 11.6% are receptive to joining the military. On the probability scale, if those students who are 50% or more probable to join a career officer training program are grouped, then a similar percentage of 10.0% is obtained of those who are receptive to joining. In short, approximately one student in ten sees him/herself as a possible candidate for enrollment in an ROTC/OCS/OTS program. For the remainder of the analysis, the probability rather than the likelihood scale will be used because probability responses have slightly better statistical properties (a 100-point scale has better sensitivity than a 5-point scale).

For those considering enrollment (those who are 50% or more probable), the most popular program is that of the Air Force (42.7%), followed closely by the Navy (31.9%). There is less interest in the Army (16.6%) or the Marines (8.1%). (These are multiple answers.) The students were then asked whether they were interested in an officer's commission as a career or a short-term experience, and the majority of those who were 50%-or-more-probable indicated that it was a short-term tenure (63%). Given the importance the military places on attracting career officers, the low percentage of students interested in a military career becomes a serious problem. Of the original 50% or more probable interested in the military, only 2% are interested in becoming career officers. This problem, however, is no different for the private sector because most college graduates plan to switch companies several times in their careers, and often times change occupations.

The reasons behind these choices are complex. Those students who expressed interest in enrollment were asked their reasons for their choice, and the pattern of answers indicated a relatively mixed set of responses (Table 2). The answers can be divided into three general types. First, there are those expressing a desire for training, the learning of skills and general professional advancement, as exemplified by "continuing education", "leadership or management training", or "opportunity for advancement", "career opportunities", and "officer's commission". Approximately 77% responded positively to these types of reasons. Then, second were answers which were broader in scope such as "good experiences", "patriotic feelings", and "future travel" which 59% mention as reasons for enrollment. Finally, there were those who expressed some kind of economic rationale such as "financial incentives", "doing better financially in the service", or "job security after graduation". Approximately 51% mentioned such an economic reason. In effect, a hierarchy of responses is generated with skill building and professional opportunities being the most common, and finally followed by economic reasons.

Table 3 shows that students who are not interested in enrolling in such programs have somewhat different reasons for justifying their negative decisions about military enrollment. Approximately 52% of those not likely to enroll were simply "not interested," presumably because they wanted to pursue other kinds of careers. However, a large portion (33%) gave such reasons as "negative military feelings," "dislike discipline and regimentation," "don't want to fight," and "negative image of officer training program." Economic reasons are much less common: "better opportunity for advancement in civilian life,"

TABLE 2

REASONS FOR POTENTIAL ENROLLMENT
(Multiple Responses)

Reasons	N	% of Those Considering Program
Good Experiences	220	35.0
Career Opportunities	166	26.4
Job Security After Graduation	129	20.5
Financial Incentives	71	19.6
Continuing Education	114	18.1
Leadership/Management Training	84	13.4
Patriotic Feelings	80	12.7
Can Do Better Financially in Service	71	11.3
Future Travel	69	11.0
Opportunity for Advancement	67	10.7
Officer's Commission	55	8.7

These responses are from those who expressed an interest in enrollment in a ROTC/OCS/OTS program. Approximately 10% of the total sample.

TABLE 3

REASONS FOR NOT CONSIDERING
ENROLLMENT IN PROGRAM
(Multiple Responses)

Reasons	N	% of Those Not Considering Program
Not Interested in Military Career	2287	51.9
Another Obligation After College	772	17.5
Negative Military Feelings	599	13.6
Military Career Choice Not Available	579	13.2
Better Opportunity for Advancement in Civilian Life	564	12.8
Will Do Better Financially in Civilian Life	556	12.6
Dislike Discipline/Regimentation	462	10.5
Too Much Time Required For Program	358	8.1
Don't Want to Fight	216	4.9
Financial Incentives Not Enough	196	4.5
Negative Image of ROTC/OCS/OTC	178	4.0
Need More Information	216	3.5
Marital Plans/Married	126	2.9
Can't Choose Location	74	1.7

"will do better financially in civilian life," and "financial incentives not enough" account for about 25% of the responses. Finally, about 20% of the students have responses which are vaguely informational or related to educational commitment, such as "military career choice is not available at that college," "too much time required for program," and "need more information.

Two inferences emerge from these data. First, while those interested in the military seem to have the usual mix of professional, economic and personal reasons for their interest, a sizeable percentage of those who have not considered a military career have a definite dislike of the military. The extent to which this dislike is a legacy of Vietnam or a manifestation of broader social forces is not clear from these data.

A second point is that "reasons" are not explanations, and may really only be rationalizations of choices determined by other factors. A student committed to a particular career path will give reasons for a choice when asked, but, more often than not, the reasons are created after the choice has been made rather than before. Based on the findings in the last chapter, many students appear to have chosen career paths which they perceive are open to them. Sex-role, minority status, family background, as well as inherent abilities all affect the type of choice that is made and a path is often determined well before the college education begins. Students may not be aware of the direction that has been selected, but may discover the choices as they happen; thus, 'reasons' become verbalizations of these choices, rather than the rational cause of the behavior. In the same way, the choice of a military career

(or not) may also be the result of a number of social factors which are beyond the immediate consciousness of a student, yet which affect an individual as if he or she had sat down and made a conscious rational decision. Thus, in order to understand why so few students consider a career in the military, some understanding about who does make these choices is required. For this analysis the career choice model is used to give insights into the criteria that are used to evaluate a career. The logic will be to examine which types of students are more open to military careers, and which types are not, and to examine the match between their career preferences and their perception of the likelihood that a military career can satisfy such preferences. Whether their perceptions are correct or not, their decision is congruent with the perceived match and follows logically from it.

Sociodemographic Correlates of Commissioning Probability

Geographically, there are slight differences in student receptivity toward a military career. Students from the East South Central region of the United States show the highest interest toward enrolling in an officer training program (15% express a probability of 50% or greater) whereas students from the West North Central and Mid-Atlantic regions show the least interest (for both regions, 8% give a probability rating of 50% or more). The tendency of the South to produce more interest in and support of the military than do other regions is, of course, widely recognized.

There are some social differences associated with commissioning probability (Table 4). As expected, males are more likely to join than females. Non-whites are much more likely to join than whites, supporting the generally higher enrollment selectivity of non-whites. There is

TABLE 4

PROBABILITY OF JOINING AN ROTC/OCS/OTS PROGRAM

Selected Variables	N*	Mean** Probability Score (based on 100)
Gender		
Male	2804	15.4
Female	1649	12.7
Race		
White	4055	13.6
Non-white	398	23.4
Class Year		
Sophomore	1647	18.1
Junior	1199	14.7
Senior	1607	11.1
Family Income (1979-80)		
Less Than $15,000	549	17.6
$15,001 - 35,000	2265	14.9
$35,001 or More	1639	12.9
Father's Military Background		
Not in Military	1595	13.7
Enlisted Man	2069	14.9
Officer	789	14.6
Academic Major		
Technical	1003	14.7
Nontechnical	3450	14.3
Sector		
Private-Profit	3218	13.3
Private-Nonprofit	150	11.3
Public	1081	19.0
Occupational Area		
Technical	1861	15.6
Business	1339	13.7
Human Services	1161	13.2

*716 missing responses

**All differences between mean probability scores in each category are statistically significant at .01 or better using t-tests and ANOVAS.

also a slight gender-race interaction in that non-white women are almost as likely to join as non-white males. The race effect is the strongest single variable differentiating joining probability. There is also a class year effect with sophomores being more likely to join than juniors or seniors. The decrease over the course of college education is one indicator of students withdrawing their interest from the military. There are two other variables which distinguish students who are more likely to join from those less likely. Students from lower socioeconomic backgrounds are much more likely to want to join than students from higher socioeconomic families. Finally, students whose fathers were in the military (either as an officer or as an enlisted man) are more likely to want to join than students whose fathers were never in the military.

When career choice characteristics are reviewed, they also reveal a significant difference in terms of academic major. Moreover, there also a strong sector effect; students intending to enter the public sector are much more likely to want to join an officer training program than students who intend to enter the private sector, and these in turn are slightly more likely to join than students who intend to enter non-profit employment. This probability suggests that technical majors moving toward the public sector may also be more likely to be favorable to the military. This inference coincides with the finding in the previous chapter that this group (technical-public-technical) was the most likely to switch careers. Finally, there is a slight occupational effect with students oriented toward a technical occupational area more likely to want to join than students headed toward business or the human services. It appears that these technical majors are those who indicated they would move towards the public sector employment.

The sector effect is interesting since students intending to work in the public sector are more receptive to military officer careers, possibly because of the analogues between the two types of economic structures. The military is, after all, a public-sector organization with a mandate to serve the society in which it is one unit. The students headed toward a non-profit organization are least likely to want to enter a military career.

Career Streams and the Probability of Enrollment

These comparisons are **single-variable** comparisons and have limited explanatory value. When all the variables (race, region, class year, gender, sector, and family income) are regressed against the probability of joining a career officer training program, all six variables are significantly related. However, the total effect is very small, with an R^2 of only .04. The variables are all consistent with the single variable comparisons. The race effect is strongest, followed by the geographical effect (the East South Central region is highest), and then sex, sector and finally family income.

When the unique career streams that students have chosen are considered, however, a greater differentiation is found (Table 5). Among the top 5 career streams, there is little interest in joining a career officer training program. Paths 6, 7, and 8 have relatively high interest shown, however. All three of these paths involve public sector employment, and two of them are directed toward technical occupational settings. Moreover, more students who choose paths 6 and 7 are female and non-white (17% and 18% respectively of the totals selecting these routes). Path 8, which is the public sector technical-route, is made up of 70% males, but again has a high non-white representation (13%). If the

TABLE 5

PERCEIVED PROBABILITY OF JOINING AN ROTC/OCS/OTS
BY MAJOR CAREER STREAMS

CAREER STREAM Major - Sector - Area	N	Mean* Probability of Joining an ROTC/OCS/OTS
1. Nontechnical - Private - Business	1196	13.1
2. Technical - Private - Technical	775	13.2
3. Nontechnical - Public - Human Services	591	14.3
4. Nontechnical - Private - Technical	597	15.6
5. Nontechnical - Private - Human Services	523	11.3
6. Nontechnical - Public - Technical	169	24.3
7. Nontechnical - Public - Business	113	21.3
8. Technical - Public - Technical	119	24.7
9. Nontechnical - Nonprofit - Human Services	66	9.7
10. Technical - Private - Business	72	13.2
11. Nontechnical - Nonprofit - Technical	59	11.0
All Students	4280	14.6

*Probability of total N in the career stream indicating receptivity to ROTC/OCS/OTS program.

military wants to increase both the proportion of women in its ranks as well as the proportion of technically-trained students, there is a 'natural' selection from the students in these three streams. Even though these students represent only 9% of all college students, they are a more receptive sub-population to which the military should direct special attention.

At the other end of the spectrum are students headed into non-profit organizations. These are mostly women with stream 9 representing almost exclusively white women, while stream 11 represents proportionately more non-white women. In between these two types of student are the vast majority of other students who are not very inclined towards joining a career officer training program.

In other words, even though overall it is found that students headed toward the public sector are more open to becoming military officers, the particular career path that is chosen appears to effect the receptivity towards joining. Students from several technically-oriented pathways (path 6 and path 8) appear to be more open to such a career, whereas students from other technically-oriented pathways (paths 2 and 11) are much less receptive. The uniqueness of the career streams makes certain paths more open to a military officer career than others, and for this a successful marketing strategy must be considered.

Compatibility of Work Preferences with Military Work Environment

In order to understand why certain streams lead to more military careers than others, an examination of the desired work characteristics that students want in their employment is needed. This will help in understanding how students perceive military career employment and the extent to which they feel their needs will or will not be met by such a career.

A scale of compatibility of work preferences with the military work environment was developed. The scale is made up of 5 items which appear to distinguish people who subscribe to the type of work situation found in most military officer employment from people who are less likely to subscribe to the military work environments. Table 6 presents the choices and the percentages of all college students who subscribe to each choice. The scale basically distinguishes a group-oriented approach to work from an individual-oriented approach. With the exception of item 3 in Table 6, the majority of students favor an individual-oriented approach. The one exception is interesting. As discussed in the previous chapter, the most desired work characteristic selected by students is job security. When given a choice between higher pay and less security versus higher security and less pay, the majority of students opt for the security, rather than the financial incentives. Since this survey was conducted in 1980 before the major recession of 1981-83, the high value placed on security by students is in stark contrast to the strong individualism expressed in the other items. It is almost as if students are struggling with competing views of reality. On the one hand, the American dream is that of 'rugged individualism', with the individual pitted against the world and acting on his or her own. On the other hand, an insecurity about employment for college students is quite pervasive. Given the recent discussion about the difficulties of college students finding employment in the late 1970s, as well as some objective evidence that there were difficulties, it is possible these college students are experiencing anxiety about future employment. As will be demonstrated, such feelings work in favor of increased military enrollment, if some other needs can also be satisfied.

TABLE 6

COMPATIBILITY WITH MILITARY WORK ENVIRONMENT
(% Desiring Job Characteristic)

Military Pattern	Vs.	Non-Military Pattern
1. Promotion on Basis of Seniority and Meeting Series of Requirements (11.1%)	vs.	Promotion Based Entirely on Performance (88.9%)
2. Decision-making on Job is Group Process with Input From Supervisor (44.7%)	vs.	Decision-making is Individually Made (55.3%)
3. Less Pay But Higher Security (68.8%)	vs.	More Pay But Less Security (31.2%)
4. Tasks Are Accomplished by Group Process (48.3%)	vs.	Tasks Are Accomplished Alone (51.7%)
5. Work as Member of Group (42.0%)	vs.	Be Leader of the Group (58.0%)

Each item set is based on an N of 516[illegible]. Due to sample size slight differences are statistically significant.

These five items in Table 6 were combined into a five-point scale measuring a general tendency to accept (or not to accept) a work environment which is compatible with the military work environment. Examining the differences noted in Table 7, a number of interesting relationships emerge. First, women are higher than men in their preference for work which is compatible with military work environments. Thus, in spite of the fact that men are more likely to want to join an officer career training program, women would fit in better with a military environment primarily because they are more compatible to group processes. The type of group interaction and consensual processes which are found in the military would relate well with the social skills that women seem to have more than men. Therefore, compatibility with a military work environment is not a factor preventing women from joining career officer programs, and other reasons must be sought to explain their resistance to a military career.

Second, non-whites are higher on the compatibility scale than are whites, paralleling the higher tendency to want to join. Thus, these findings suggest a congruence between receptivity to joining and a preference for the type of work situations found in the military. This may in part account for the higher actual commissions in programs among non-whites than among whites. There is also a slight sex-race interaction in that non-white males are almost as high on the compatibility scale as non-white females (51% and 47% respectively have probabilities greater than 50%), whereas there is a statistically significant difference between white females and white males (46% and 34% respectively have probabilities greater than 50%).

Sex and race are the two most important demographic variables. While there are statistically significant differences with regard to

TABLE 7

COMPATIBILITY WITH MILITARY WORK ENVIRONMENT
(5 point scale, 1 = least compatible, 5 = most)

Selected Variable	N*	Mean Compatibility** With Military Score
Gender		
Male	2804	2.0
Female	1834	2.3
Race		
White	4252	2.1
Non-white	390	2.4
Class Year		
Sophomore	1650	2.2
Junior	1385	2.1
Senior	1607	2.0
Family Income 1979-80		
Less Than $15,000	549	2.4
$15,001-35,000	2269	2.2
$35,001 or More	1824	1.9
Father's Military Background		
Not in Military	1600	2.1
Enlisted Man	2074	2.2
Officer	968	2.0
Academic Major		
Technical	1033	2.2
Nontechnical	3609	2.1
Sector		
Private Profit	3486	2.0
Private Nonprofit	154	2.5
Public	1002	2.3
Occupational Area		
Technical	1956	2.2
Business	1342	1.9
Human Services	1344	2.1

*Missing data, N = 527

**All differences are statistically significant at .01 or better using t-tests and/or ANOVA.

class year and father's military background, the actual numerical difference is slight and statistical significance becomes an artifact of sample size in these cases. Thus, in general there are few differences in these areas. There does seem to be some income effect, with students from lower socioeconomic backgrounds having higher compatibility scores than students from higher socioeconomic backgrounds.

When career choice comparisons are examined, students with technical majors are only slightly more compatible with military work environments than students with non-technical majors. But students headed into business occupations are clearly less compatible than students headed into either technical or human services occupations. More importantly, students headed into non-profit organizations are significantly higher than students headed into the public sector, and these in turn are significantly higher than students headed into the private sector. In spite of the fact that students headed toward non-profit organizations are the least likely to want to join a career officer training program, they are significantly more compatible than other students with the type of work situation found in the military. To some extent, this is a function of sex balance, for the vast majority of students headed into non-profit organizations are females, and females are more compatible with military work situations than males. But there are some other considerations as well. Students headed into non-profit organizations are more socially conscious and less concerned with economic well-being than are students headed into either the public or private-profit organizations, as was noted in the last section. Their reluctance to elect a military career seems to stem less from incompatibility with the work environment than from a

TABLE 8

COMPATIBILITY WITH MILITARY WORK ENVIRONMENT
BY MAJOR CAREER STREAMS

CAREER STREAM Major - Sector - Occupational Area	N	Mean Compatibility With Military Score
1. Nontechnical - Private - Business	1199	1.9
2. Technical - Private - Technical	775	2.3
3. Nontechnical - Public - Human Services	591	2.3
4. Nontechnical - Private - Technical	597	2.1
5. Nontechnical - Private - Human Services	524	1.9
6. Nontechnical - Public - Technical	170	2.4
7. Nontechnical - Public - Business	113	2.5
8. Technical - Public - Technical	119	2.5
9. Nontechnical - Nonprofit - Human Services	66	2.8
10. Technical - Private - Business	72	2.1
11. Nontechnical - Nonprofit - Technical	59	2.4
All Students		2.1

perception that the military is less socially useful than other types of employment. Rightly or wrongly, they have a resistance toward the military that overrides their perceptions of the type of work they would be doing.

When the degree of compatibility with a military work environment across the different career streams is examined, those paths of most interest to the military (paths 2, 4, 6, 8, and 11) show compatibility scores that are generally higher than the mean compatibility score for the total sample. As has emerged previously, path 8 students (technical-public-technical) are very compatible with the military work environment. Both path 6 and 11 also rate the military work environment highly. It appears that those seeking technical jobs through the public or private-non-profit sector are the most compatible with the military work environment while in comparison those students expecting to seek employment through the private sector are the least compatible with that environment. Again, the similarity of the work environment of the public civilian and military organization probably makes these groups more receptive to the military. In other words, of the five paths of most interest to the military (2, 4, 6, 8, 11), three are receptive and two are unreceptive to joining a career officer training program. Among the five mainstream paths (1-5), both the "pure" technical career path (path 2) and the public sector, human services route (path 3) are relatively compatible

with the military work environment. The most popular private-sector, business route students (path 1) are much less compatible with the military work environment; these students are very individualistic and are motivated primarily by economic success, values which are not appropriate to membership in a military organization.

In short, compatibility with a military work environment is an important component in the desire of a student to join the military, but it is not the most critical component. Both social mobility for groups with restricted access to economic success (females and non-whites) as well as the match between personal needs and satisfaction within the military become just as important in opening up a military career for a student. It is this latter point that must be examined more carefully.

Perceived Characteristics of Military Work Environments

In the previous chapter, the college students' desired work characteristics in their ideal job were investigated. It was found that of all characteristics mentioned, professionalism was the most important characteristic, followed by organizational career security and societal orientation. Least valued was the importance of economic success (though it was still considered quite important). Groups differed on these dimensions, however, with private-sector career streams placing greater importance on economic success and organizational security, technical streams placing higher importance on professionalism, public sector streams placing more importance on both professionalism and societal contribution, and non-profit streams placing higher importance on societal contribution.

To what extent would these preferences be fulfilled by a career as a military officer? In order to assess this, students were asked to evaluate

TABLE 9

COMPARISON OF IDEAL JOB CHARACTERISTICS
AND OFFICER CAREER CHARACTERISTICS
(5 = Very Likely to "1" Very Unlikely)

	Mean Scale Scores		
	Ideal Job Characteristic	Officer Career Characteristic	Deviation Scores
Job Security	4.5	4.5	--
Personal Responsibility	4.5	4.0	-.5
Promotion Opportunities	4.4	4.1	-.3
Opportunity to Help Others	4.4	3.9	-.5
Pay Opportunities	4.3	3.4	-.9
Use of Previously Developed Skills in Specialized Field	4.3	3.6	-.7
Opportunity to Make Lasting Contribution to Society	4.2	3.4	-.8
Chance to be a Leader	4.0	4.3	+.3
Opportunity for Additional Education	3.9	4.2	+.3
Having Job with Prestige	3.5	3.7	+.2

the likelihood that a military career would satisfy the 10 comparable work characteristics; items were scaled on a 5-point likelihood scale from '5' being "Very Likely" to '1' being "Very Unlikely". Table 9 presents the results. A career as a commissioned officer is seen as relatively likely to fulfill needs of job secruity, providing leadership opportunities and possibilities for additional education. It is seen as moderately likely to provide promotion opportunities, allow sufficient personal responsibility, and the opportunity to help others. But it is seen as much less likely to provide prestige, adequate pay, the opportunity to make a lasting contribution to society, or to promote the use of previously developed skills.

The pattern becomes clearer when the scores for each item are compared between the ideal job characteristics and those characteristics attributed to an officer career. Clearly, an officer career will provide a key characteristic sought by all students from any job--job security. Among the top five characteristics perceived as desired in the ideal job, three are also ranked among the top five in the perception of officer career characteristics: job security, personal responsibility, and promotion opportunities. The greatest deviations are found in pay opportunities, use of previously developed skills, and opportunity to make a lasting contribution to society. In effect, the military is seen as enhancing an organizational career but somewhat less satisfying as a vehicle for enhancing professional skills, economic success, or making a societal contribution. It is these latter points that a marketing strategy must take into account.

Career Stream and Military Work Characteristics

In the previous chapter, the ten job characteristics were developed into four major scales: professionalism, economic success, organizational

career, and societal contribution. When the ratings of perceived officer career characteristics are expressed in terms of these scales, the following mean scores emerge: organizational career (4.4), professionalism (3.8), economic success (3.7), and societal contribution (3.6). Table 9A compares these scores with the earlier importance ratings which respondents gave to job characteristics.

TABLE 9A

JOB CHARACTERISTICS: THEIR IMPORTANCE
TO STUDENTS AND PRESENCE IN THE MILITARY
(Scale 1 = Low 5 = High)

	Perceived Importance	Provided by Officer Career	Difference
Professionalism	4.4	3.8	-.6
Organizational Career Security	4.3	4.4	+.1
Societal Contribution	4.3	3.6	-.7
Economic Success	4.1	3.7	-.4

The students see the career of a military officer providing at least as much security as they want, but less economic success and much less professionalism and societal contribution. The most surprising difference in the scores is that for professionalism. The military is usually regarded as offering greater security in exchange for somewhat lower salaries, and the data reflect this perception. Also in conformance with the data, the military is not regarded as an organization dedicated primarily to helping others, as that phrase is usually understood, nor is it likely to be. But the career of a military officer does entail a good deal of professionalism, and this fact seems not to be widely recognized by college students.

At least their perception of professionalism in an officer's career falls substantially short of what they want for themselves. This apparent misperception deserves the attention of recruitment policymakers.

Table 10 attempts to bring together the major issues discussed thus far in this chapter by linking the career streams, the job characteristics cluster most valued by that career stream, the ratings given to that job characteristics cluster from the perceptions of the students of the ideal job and their perceptions of the job characteristic as it is perceived to exist in the military officer career. Additionally, the last column indicates the probability of those students in a particular career stream of joining ROTC, OCS or OTS.

Several key factors should be noted from the table. First, those career streams of most importance to the military (2, 4, 6, 8) rate professionalism as the most important job characteristic they seek. Secondly, students in paths 6 and 8 have the highest probability of joining ROTC, OCS or OTS. While the most technical route (path 2) is a major target and those students are less receptive to the military, the appeal to professionalism in the military may increase their probability of joining. The three career paths (5, 9, 11) least probable of joining the military are also among those less sought by the military. Thirdly, the perception of the military as being able to offer professionalism to students with technical majors or those seeking a technical occupation is not as highly rated as that provided by the ideal job, but it is, nonetheless, within a range that lends itself well to a key recruitment focus.

TABLE 10

CAREER STREAM JOB ORIENTATIONS AND PERCEPTIONS OF OFFICER CAREER CHARACTERISTICS

STREAM Major - Sector - Occupational Area	Highest Rated Job Scale	Mean Ideal Job Score	Corresponding Officer Career Score	Probability Of Joining ROTC/OCS/OTS
1. Nontechnical - Private - Business	Organizational Career	4.4	4.4	13.1
2. Technical - Private - Technical	Professionalism	4.4	3.8	13.2
3. Nontechnical - Public - Human Services	Societal	4.7	3.8	14.3
4. Nontechnical - Private - Technical	Professionalism	4.5	3.8	15.6
5. Nontechnical - Private - Human Services	Professionalism	4.4	3.7	11.3
6. Nontechnical - Public - Technical	Professionalism	4.5	4.1	24.3
7. Nontechnical - Public - Business	Organizational Career	4.3	4.3	21.3
8. Technical - Public - Technical	Professionalism	4.4	4.0	24.7
9. Nontechnical - Nonprofit - Human Services	Societal	4.8	3.4	9.7
10. Technical - Private - Business	Organizational	4.3	4.5	13.2
11. Nontechnical - Nonprofit - Technical	Societal	4.7	3.6	11.0
All Students	Professionalism	4.4	3.8	14.6

ADDITIONAL FACTORS AFFECTING ROTC/OCS/OTS ENROLLMENT

Military Ideology

The reluctance on the part of non-profit-oriented students, and to a lesser extent public sector human services students (path 3), may stem from ideological resistance to the military. Students were asked about the extent of their agreement with six attitudes about national security. Each statement was rated on a 5-point scale of agreement from '5' for "Strongly Agree" to '1' for "Strongly Disagree", with '3' being "Neutral". Table 11 presents the results. There is moderate agreement with a belief that resources should be spent on national concerns rather than international ones, and that the military should be strengthened to protect the American way of life. There is considerably less agreement with the belief that some wars are inevitable or, most importantly, whether it is an individual's duty to serve in the armed forces. Between these two types of attitudes lies a general agreement that military officers represent a high level of professionalism and patriotism.

Using the 6 items in Table 11, a scale of acceptance of national security was developed and examined with regard to gender, race, class year, family income, father's military background, academic major, work sector and occupational area. There were few differences across these groups. Males tended to accept national security slightly more than females, while students headed toward non-profit organizations accept national security slightly less than students going into the public or private sectors.

In short, the acceptance of the importance of national security represents an independent ideological dimension, with few social correlates. Some students accept the need for national security, while other

TABLE 11

ATTITUDES TOWARD NATIONAL SECURITY
(5-Point Scale of Agreement, Scores Based on Weighted N of 5169)

Attitudes	Mean Agreement Score
1. Our Country Should Spend Resources on National Concerns Rather Than International	3.6
2. Our Military Must Be Strengthened to Protect Our Way of Life	3.6
3. Military Officers Represent a Very High Level of Professionalism	3.4
4. Military Officers Represent a Very High Level of Patriotism	3.4
5. Some Wars Are Inevitable	3.2
6. It Is My Duty to Serve in the Armed Services	3.1

students do not. This dimension seems to represent an important variable of the likelihood of enrolling in an ROTC, OCS, or OTS program. Thus, students who resist joining in spite of compatibiity with the military work environment do so primarily because they do not place a high value on national security. These results are consistent with the finding, discussed earlier in this chapter, that a sizeable proportion of students who do not consider enrolling in officer training programs often cite a dislike of the military as their reason.

Information - Is It Important?

The choice of a military career is not a 'rational' choice, in the sense that the individual sits down and weighs consciously all the advantages and disadvantages. Upward social mobility appears to be a strong positive motive for those interested in a military officer's career and dislike of the military appears to be a strong negative motive in affecting why some won't enroll in a program. Informaton, on the other hand, is probably much less important. People don't make a career choice solely on the basis of information. They choose career options on the basis of interest, skills, and opportunities which are perceived as being open to them. If people need more information they will seek it.

What is possibly more important for a marketing approach is whether people can find information when they need it. Several questions were asked about awareness of media advertising for officer career programs. First, they were asked whether they had seen an advertisement about either ROTC, OCS or OTS. Fifty-five percent indicated that they had seen such an advertisement. Of those responding, more had seen ads about Army programs (52%) than about Navy (32.4%), Air Force (30.5%), or Marine Corps programs (23.5%). Next, they were asked whether they had any contact with a military recruiter for an officer's training program within the past year, and 13% indicated that they had. Again, more persons had contact with an Army recruiter (41.7%) than with a Navy (31.0%), Air Force (28.0%) or Marine Corps recruiter (20.3%). The percentage who had contact with a recruiter is approximately the same percentage who indicated that they were open to enrolling (those with greater than 50% probability of joining - 10.0%). Thus, there appears to be a close relationship between an openness to a decision to join and any contact with a military recruiter. What was not asked was whether the receptivity to joining came before or after the contact with the recruiter, but it is probable that it came before, since a decision often precedes a strategy for obtaining information and the individual will seek information when he or she is ready to make a decision. For those who did contact a military recruiter, the majority were satisfied with the information received. Thus, it appears highly likely that an individual who is receptive to joining a military career officer's training program searches for information which would help him or her make a decision, rather than coming across the information and suddenly being receptive to such a career.

Multiple Determinants of the Tendency to Join an ROTC/OCS/OTS Program

To understand how these different components interact to affect the likelihood of joining an ROTC/OCS/OTS program, the probability of joining was regressed against all of the demographic variables, the career stream variables, the desired work characteristics, the perceptions of these work characteristics being satisfied as a commissioned officer, any discrepancies between desired work characteristics and their corresponding military officer rating, the likelihood of a student switching careers, the tendency to accept national security, and the student's awareness of the ROTC program. The results are presented in Table 12.

Seventeen variables have significant coefficients and enter the model to predict the probability of joining an officer's training program. Even though the degree of predictability is not high ($R^2 = 0.15$), the pattern of relationships is interesting and illustrates the complex nature of deciding on a military officer's career. Across all variables, the strongest effect is ideological, the acceptance (or non acceptance) of the importance of national security. Students who have a higher acceptance of national security are much more likely to want to enroll in an officer's training program than are others. Non-whites are more likely to want to enroll in an officer's training program than are whites; being non-white increases one's probability of joining by .19. Similarly, males are more likely to want to join than females; the increased likelihood is .16. These are fairly obvious effects. But students following career streams 6, 7, and 8 are much more likely to enroll in a program than are students from other paths. These career paths all have the public sector in common, and are made up of higher-than-average proportion of non-white students.

TABLE 12

PREDICTORS OF PROBABILITY OF JOINING AN ROTC OCS OTS
(N 4806)
(R^2 = .15, Intercept = 0.16)

Probability of Enlistment (Log)

Variable	Coefficient	F	P Value
Demographic			
Race (Non-white)	0.19	39.7	.0001
Sex (Male)	0.16	71.3	.0001
Father's Military Background	0.04	9.1	.01
Family Income	.03	19.1	.0001
Class Year	.08	56.1	.0001
Career Streams			
Stream 7 (NT-P-B)	0.19	11.5	.001
Stream 6 (NT-P-I)	0.18	15.3	.0001
Stream 8 (T-P-B)	0.16	7.5	.01
Stream 4 (NT-Pr-I)	0.07	6.3	.05
Likelihood of Switching Careers	[illegible]	14.[illegible]	.001
Desired Work Characteristics			
Expected Starting Income	.05	18.4	.0001
Organizational Career Security	0.04	10.1	.01
Military Work Satisfaction			
Economic Success Satisfaction	0.06	19.5	.0001
Societal Contribution Satisfaction	0.06	23.6	.0001
Discrepancy Between Professional Needs and Perception of Military Professional Work Satisfaction	.04	13.4	.001
Ideological			
Acceptance of National Security	0.21	170.7	.0001
Informational			
Knowledge of ROTC	.02	7.4	.01

NT = nontechnical

T = technical

P = public

Pr = private

B = Business

After these 6 main variables, all other variables have only minor effects. Within the demographic variables, students whose fathers were in the military are slightly more likely to want to join an officer's training program, but the effect is not particularly strong. Similarly, students from higher socioeconomic backgrounds are less likely to want to enroll. Sophomores are more likely to want to enroll than juniors, who in turn are more likely to enroll than seniors. Within the career streams, students from path 4 (non-technical major, private sector, technical occupational area) are slightly more likely to enroll than the remaining paths (excluding paths 6, 7, and 8). Students who are more likely to switch careers are also more likely to enroll, but the effect is very small. In terms of desired work characteristics and the extent to which a military officer's career is seen as satisfying these characteristics, students who expect a lower starting salary, who place a greater emphasis on organizational security, who see the military as satisfying economic success and societal needs and who see less [illegible] between their desires for professionalism and what an officer's career is capable of satisfying are more likely to join than students who don't have these characteristics. Finally, students who are aware of the ROTC program are less likely to want to join than students who are not aware. Clearly, information about the military programs is not critical in determining acceptance of a military career.

One way to assess this model is by examining the relative weights given to the different types of factors (the coefficients). By ignoring the signs of the coefficients, adding their effects, and taking the proportion of that category to the whole, the model is determined far more by demographic and career stream variables than by other factors (Table 13).

Table 13

Relative Weights Given to Different Factors in Predicting Probability of Joining an ROTC/OCS/OTS Program

	% of All Coefficients Accounted For By
Career Stream Variables	38.8%
Demographic Variables	31.3%
Work Environment Variables	15.6%
Ideological Variables	13.9%
Informational Variables	1.3%
	100.0%

Even granting that these comparisons are relative and could be altered by adding more varibles, it is clear that career stream and demographic factors are far more important than others.

Career stream variables are important because, as was argued in the last chapter, students do not make haphazard decisions about their careers but make decisions long before they enter college. Even though a certain amount of change is possible, the decision to enter a certain field of study to a large extent restricts the types of occupational choices that will be available. There is a very strong logic existing in career choice decisions and this 'logic' precludes a military career for the vast majority of students. For some other students, however,--those from career streams 6, 7, 8 or even 4--a military officer's career is a possible path.

The second most important set of factors, the demographic variables, show that non-whites are far more likely to want to enroll in the military than whites, and males far more than females. For non-whites, the

military represents upward mobility, a chance to overcome historical impediments to economic success. The military also has traditionally recruited males, so that it is not surprising that males are more likely to want to enroll than females. The key results suggest that both tradition and concerns for upward mobility are central to signing up for a military career. Career streams 6, 7, and 8 also fit this perspective. These streams are made up of students who are proportionally more likely to be non-white and who all head toward the public sector in pursuing their occupations. The desire for upward mobility through a military career appears to determine whether a military career is a feasible alternative or not.

Compatibility with the military work environment, the ideological acceptance of the importance of national security, and knowledge about ROTC are of less importance to military recruitment.

Can One Induce Students to Join an Officer's Training Program Through Benefits?

An emphasis on improved salary, better retirement benefits, incentives for higher education and the like, it has been argued, will encourage more students to want to enroll in the military. As was demonstrated, students find the military wanting in terms of satisfying needs of economic success. But more importantly, students don't value economic success as highly as they do professionalism. Improving benefits for career officers is only one factor in the decision of students to enroll or not enroll, and according to these data, it is by no means the most important. While additional economic incentives may improve overall enrollment marginally, and may be helpful in recruiting technical majors, they should be coupled with a more valued preference for professionalism in the military to be broadly effective.

To further explore the hypothesis that economic inducements could increase enrollment, students were presented with pairs of inducements that might encourage them to enroll in an officer's training program and asked to indicate which one they would prefer. The sophomores were given a list different from the one given to the juniors or seniors. Table 14 presents the mean number of times, for sophomores and juniors/seniors separately, where each choice was made over the others. The scale runs from 0 (where an inducement was never chosen over the others) to 5 (where an inducement was chosen over each of the five other inducements).

The addition of different inducements affects the results. For the sophomores, the most desired inducement is increasing the starting commission salary, followed closely by reducing active duty. For the juniors and seniors, the most preferred inducement is the option to terminate after one year, followed by increasing the starting commission salary. Aside from the two different items for the sophomores and juniors/seniors, the relative rankings of the remaining items is the same. An increase in starting commission salary is preferred over the reduction of active duty, which in turn is preferred over the guarantee of six months of post-graduate education. Least preferred by both groups are bonuses, for either receiving a commission or completing active duty.

It is very clear that the commitment involved in enrolling in an officer's training program is important. If sophomores would have been given the choice of an option to terminate after one year, presumably they would have preferred this over the other inducements as well. Similarly, the reduction of active duty is relatively important for both groups. Aside from the nature of a commitment to a military officer's

TABLE 14

PREFERRED INDUCEMENTS TO ENROLL IN
ROTC/OCS/OTS PROGRAM
(Mean Number of Times Choice Selected
in Paired Comparison)

Inducements	CLASS YEAR	
	Sophomores (N=1650)	Juniors/ Seniors (N=2992)
Option to Terminate After 1 Year	--	4.1
Increasing Starting Commission Salary From $14,000 to $18,000	3.6	3.3
Reducing Active Duty From 4 to 3 Years	3.5	2.6
Guarantee of Six Months Post-Graduate Education	2.2	2.0
Increasing Monthly Allowance From $100 to $200	2.0	--
Bonus of $5,000 Upon Completion of Active Duty	2.0	1.7
Bonus of $3,000 Upon Receiving Commission	1.5	1.3

training program (which is by its nature much more serious than the taking of any job where, presumably, one can always leave), salary is important, too. Bonuses, on the other hand, are not.

Students were asked whether any inducement would affect their probability of joining, and 47.9% indicated that it would. Of those indicating an effect of an inducement, they were asked which inducement would have the greatest effect. For the sophomores, the reduction of active duty is preferred most (45%), followed by the increase in starting commission salary (27.2%). For the juniors and seniors, the option to terminate after one year is preferred by the vast majority (66.3%), followed by an increase in starting commission salary (17.3%). In other words, students appear to be concerned about the commitment involved, and presumably the degree of personal freedom given up by this, and will consider the military as a career as long as they can get out easily if they find they don't like it (an 'escape hatch'). Aside from this, a higher salary appears to be far more important than bonuses, which relates as much to the continuity of the economic incentive as it does to the amount. A higher salary of $4,000 translates itself into $333 extra a month or $16,000 over the course of a four-year term of active duty. All the other incentives are much less. Thus, it is not surprising that students prefer this route.

WOMEN'S PERCEPTIONS OF WOMEN CAREER OFFICERS IN THE MILITARY

In this section women students' perceptions of the role of women as career officers in the military will be examined. The historical tendency for women to avoid the military as a career has both a structural as well as a psychological dimension to it. Structurally, the military

has been closed to women or has limited participation by role ascription. But, psychologically, women have resisted breaking down the barriers as fast as they might have. Circumstances, however, have changed and the modern American military is able to provide a greater role for women, not only in terms of providing support services but also as an active part of military units. It is, important, therefore, to understand how female college students perceive a career in the military.

The data have shown major differences between female and male students in terms of career choices, desired work characteristics, and receptivity to joining officer training programs. Female students have tended to avoid technical subjects and have instead concentrated on majors which led them into human services occupations, such as teaching. Female students are more likely to seek employment in the public sector or in non-profit organizations, and to choose career streams which maximize these choices. In their preferences for work characteristics, female students emphasize professionalism and societal contribution more than men, and economic success slightly less than men. They also expect to receive a starting salary much less than males (an average of $3,500 less than males).

Thus, with regard to openness to joining an officer training program, women students are less open than males. Yet, women are more likely than men to perceive that the military can satisfy their career goals. Women see the miitary as providing greater economic success, greater professionalism, and a greater societal contribution than men. Therefore, why don't more women seek the military as a means for social mobility? Or, under what conditions would women be more likely to enter the military in order to form a career as an officer? In this section, partial answers to that question will be provided.

In order to explore how women perceive a career in the military, several specific questions were asked only of women students. From these questions, six scales were constructed using factor analysis which explored different dimensions of women in the military. Each of the six scales will be discussed to show how they contribute to an understanding of women's perceptions of a possible role in the military.

Feminism, Equality, Compatibility and Opportunity in the Military

The first scale (Table 15), "Acceptance of Feminism in Society", examines the extent to which women perceive that there should be social equality in society for women. There is general agreement that job appointments should be based on a strict merit system without regard to sex and that women should assume a place in business and the professions along with men. There is less acceptance that women should take a supportive position in society, marriage, and the world of work and that certain jobs are so unfeminine that women should be excluded from performing them. This dimension shows a strong feminist attitude among female students.

The remaining scales in Table 15 were concerned with women's roles in the military. On the "Perceived Equality in the Military for Women" scale there seems to be greater ambivalence reflected about the military's acceptance of women. Female officers are perceived as being respected by fellow officers by most women students; however that perception is not strong.

The "Perceived Opportunity for Women in the Military" scale indicates women tend not to perceive the military as an organization that

TABLE 15

WOMEN'S SCALES: FEMINISM, EQUALITY, COMPATIBILITY, AND OPPORTUNITY
(5 = Strongly Agree ---- 1 = Strongly Disagree)
N=2365

Scale and Items	Mean Scale Score
Acceptance of Feminism in Society	
1. There should be a strict merit system in job appointments without regard to sex.	4.5
2. Women should assume a place in business and the professions along with men.	4.4
3. Women should take supportive position in society, marriage, and the world of work.	1.2
4. Certain jobs are so unfeminine that women should be excluded from performing them.	1.2
Perceived Equality in Military for Women	
1. Female officers are respected by fellow officers.	3.6
2. Female officers are treated as equals with male officers in terms of promotion.	3.3
3. Female officers are treated as equals with male officers in terms of responsibility.	3.3
4. Female officers are respected by enlisted men.	3.1
5. Female officers are less respected by their superiors than male officers.	3.1
Perceived Opportunity for Women in the Military	
1. Female officers have better opportunity to obtain responsible managerial positions in the military than in civilian jobs.	2.8
2. A greater variety of careers are available to women in the military than civilian jobs.	2.5
Perception of Compatibility of Women's Role in Military	
1. Women in the military are as feminine as women in civilian jobs.	3.7
2. Women can serve in the military and have a family.	3.6
3. A woman pursuing a career as an officer would not have enough time to raise children.	2.7
4. Having a career as a female officer is not compatible with having a husband with a civilian career.	2.9

will provide them with a variety of career opportunities or responsible managerial positions. Therefore, the military is not perceived as offering women substantial opportunities for a significant career.

With regard to women's roles, while there is still some indication that women feel that a career in the military might not be compatible with her role as wife and mother, this attitude is changing and the scores show a movement toward the compatibility of a military career and the traditional role of women.

The data show that college women have strong feminist views about the equality of women in society and do not perceive the military as offering them adequate career opportunities. Their views on the equality of treatment in the military and on the compatibility of the roles of wife, mother, and officer are mixed.

Acceptance of a Military Career for Women

The acceptance scale of military life contains 12 items scored on a five-point like-dislike metric (Table 16). Women students tend to like supervising an administrative activity. There is less liking of serving their military obligation, being a navigator, having a husband with a career as a commissioned officer, flying military airplanes, and combining a career as a commissioned officer with getting married and having a family. There is a decidedly neutral rating for being assigned to sea duty, being given an opportunity for sea duty, flying status and combat duty, and for supervising a maintenance activity. There is a general dislike for being properly trained for and expected to serve in combat on the front line and for living on a military base rather than in civilian housing. In general, women tend to be somewhat neutral

TABLE 16

ACCEPTANCE OF A MILITARY CAREER FOR WOMEN
(5-Point Like/Dislike Scale)
N=2365

Items	Mean Like Score
1. Supervising an administrative activity	3.8
2. Serving military obligation and then joining service unit in civilian life	3.3
3. Being a navigator	3.3
4. Having a husband with a career as a commissioned officer	3.3
5. Flying military airplanes	3.3
6. Combining career as commissioned officer with getting married and having a family	3.2
7. Being assigned to sea duty	3.0
8. Be given opportunity for sea duty, flying status, and combat duty	3.0
9. Supervising a maintenance activity	2.9
10. Having military recognize there are tasks for which women are not suited	2.7
11. Being properly trained for and expected to serve in combat or front line	2.1
12. Living on a military base rather than in civilian housing	1.9
Overall Scale Score	2.98

about a military career except for the opportunity to engage in skills that would provide experience in a managerial role. In the previous scale, however, women did not perceive the military as very likely to provide those opportunities for them.

Perception of Positive Regard for Women in an Officer Training Program

The final scale (Table 17) involves the perception by others of joining an officer training program. This scale indicates how the female students perceive different persons reacting to women joining an officer training program. There is general agreement that an ROTC/OCS instructor would view a female participant in the program as favorable and also that a professor would be favorable. Fellow female students, however, are perceived as being more favorable than fellow male students. At the same time, fathers are seen as more favorable than mothers. Finally, friends are seen as being neutral, on average.

The fact that other female students are seen as being more favorably disposed than male students might be because a female student who enters an officer training program is perceived as breaking down stereotypes. The male student perceptions, however, may serve as a discouragement for females to join the military as an officer. Beyond this, there is a movement towards a favorable perception by others, but not a strong one.

TABLE 17

PERCEPTION OF POSITIVE REGARD FOR WOMEN
IN AN ROTC/OCS/OTS PROGRAM
(5-Point Favorable/Unfavorable Scale)
(Weighted N = 2365)

Items	Mean Favorable Regard Score
Regarded By:	
ROTC/OCS instructor	3.8
Professor	3.6
Fellow female students	3.4
Father	3.4
Mother	3.1
Friends	3.0
Fellow male students	2.9
Overall Scale Score	3.3

Subgroup and Career Stream Differences Based on Women's Scales

The total scale scores for the six scales discussed--feminism in society, equality, opportunity, role compatibility, military career, and positive regard--were calculated for women in the categories of race, class year, family income, father's military background, academic major, sector employment choice, and occupational choice. There was general consensus among women across all subgroups; that is, regardless of subgroup breakdown, women tended to agree with the findings derived for the total group of women. The only slight difference was that non-white women are less feminist oriented and view the military as offering more opportunity and being more compatible with women's roles as they view them. The difference can be a sex-race interaction. Since racial discrimination is of greater concern to non-white women than is equality for women, their concern for women's rights is often less pronounced. Moreover, since coping with discrimination is often a way of life, whatever discrimination against women may be present in the military is not perceived as a barrier as long as there is job security, opportunity for a career, and the chance to be both a military officer and have a family. These data generally suggest that strong feminist views may act as a barrier to joining the military for some women because historically the military is viewed as a male-dominated institution whose structure is not conducive to female equality.

When the career streams are viewed across the six women's scales, slightly more variability is seen (Table 18); however, no statistical significance was found. The paths of most interest are 2, 4, 6, 8, and 11; however, among these five paths most women are in paths 2 and 4. What is notable about these women is that they are moderate feminists,

TABLE 18

WOMEN IN THE MILITARY SCALES BY CAREER STREAMS

CAREER STREAM		MEAN SCALE SCORES FOR WOMEN					
Major - Sector - Occupational Area	N	Feminism in Society	Equality	Opportunity	Role Compatibility	Military Career	Positive Regard
1. Nontechnical - Private - Business	392	3.4	2.7	2.4	3.4	[illegible]	[illegible]
2. Technical - Private - Technical	158	3.5	2.8	2.4	3.5	[illegible]	[illegible]
3. Nontechnical - Public - Human Services	328	3.4	2.7	2.8	3.5	[illegible]	[illegible]
4. Nontechnical - Private - Technical	254	3.5	2.7	2.6	3.5	[illegible]	[illegible]
5. Nontechnical - Private - Human Services	239	3.5	2.8	2.6	3.5	[illegible]	[illegible]
6. Nontechnical - Public - Technical	82	3.4	2.5	2.7	3.5	3.1	3.4
7. Nontechnical - Public - Business	52	3.5	2.8	2.6	3.4	3.1	3.4
8. Technical - Public - Technical	22	3.5	2.9	2.7	3.2	3.0	3.4
9. Nontechnical - Nonprofit - Human Services	40	3.6	2.8	2.6	3.5	2.9	3.3
10. Technical - Private - Business	18	3.5	2.8	2.4	3.4	3.0	3.6
11. Nontechnical - Nonprofit - Technical	46	3.4	2.7	2.7	3.4	2.9	3.2
All Students	1631	3.5	2.7	2.6	3.5	3.0	3.3

No statistical significant differences between or within columns.

have a moderate sense that their roles as women are compatible with military life, but are less sure that career opportunities are available to them in a military career. For these technically minded women, professionalism and equal treatment from a military career are important marketing issues to be addressed.

Determinants of Probability for Enrollment of Women in an Officer's Training Program

These perceptions described above affect women students' tendency to enroll in an officer's training program. When these scales are combined with the other items affecting the probability of joining an ROTC/OCS/OTS program, two scales show significant effects on the likelihood of enrollment, perceived opportunities for women and acceptance of a military career for women (Table 19).

As with the general predictive equation, the acceptance of national security and race are the two strongest predictors, followed by career stream 7 (non-technical major, public sector, business). However, the acceptance of a military career for women is the fourth strongest effect, followed by the perception of opportunities for women in the military. The remaining variables are similar in their effect to the general equation.

In comparing the relative effects of the different types of variables (by adding the absolute value of the coefficients and expressing each category as a percent of this sum), however, the female students' model is decidedly different from the total regression model (Table 20). For the women students, the dominant effect is ideological, followed by demographic and career stream. Compared to the model constructed from all the students, women students place much more emphasis on ideological

TABLE 19

PREDICTORS OF PROBABILITY OF ENROLLMENT IN ROTC/OCS/OTS
FOR WOMEN ONLY
$R^2 = 0.17$, Intercept = -.73
Weighted N = 1696

Variable	Coefficient	F	P-Value
Demographic			
Race (non-white)	0.21	19.0	<.0001
Family Income	-.03	7.4	<.01
Class Year	-.06	10.0	<.01
Career Streams			
Stream 7	0.19	5.6	<.05
Likelihood to Switch Careers	0.03	11.0	<.001
Military Work Satisfaction			
Societal Contribution Satisfaction	0.04	5.7	<.05
Perceived Opportunities for Women in the Military	0.12	34.8	<.0001
Ideological			
Acceptance of National Security	0.22	59.6	<.0001
Acceptance of Military Career for Women	0.18	40.8	<.0001
Informational			
Knowledge of ROTC	-.05	12.3	<.001

TABLE 20

RELATIVE WEIGHTS GIVEN TO DIFFERENT FACTORS IN PREDICTING PROBABILITY OF ENROLLMENT IN ROTC/OCS/OTS PROGRAM BY WOMEN ONLY

	WOMEN	ALL STUDENTS
	% of All Coefficients Accounted For By	% of All Coefficients Accounted For By
Career Stream Variables	19.5%	38.8%
Demographic Variables	26.6%	31.3%
Work Environment Variables	14.2%	15.5%
Ideological Variables	35.4%	13.1%
Informational Variables	4.3%	1.3%
	100.0%	100.0%

variables which includes a concern for national security and much less on career stream choices; the remaining differences are slight.

In sum, women appear to be more sensitive to the perception of opportunities for women in the military and to the acceptance of a military career (men, of course, were not asked these items, so the difference may be illusory). But the definite lack of importance of economic success items, compared to the general equation, strongly suggests a greater ideological orientation by women than by men. Women place more emphasis on societal contribution and professionalism than men, and are more likely to perceive the military as satisfying these preferences than men. Women, then, place greater emphasis on ideology and values than men and less emphasis on career choice decisions.

SUMMARY COMMENTS: CHAPTER IV

From this chapter, a number of conclusions can be drawn that can aid in the development of an approach to marketing a career in the military as an officer. First, males are far more likely to consider the military than females. This has historical as well as functional roots, though the situation is changing. Second, many people choose the military as a means for social mobility or as part of a committment to public service. A high proportion of nonwhites choose this path for social mobility reasons. People who are headed into the private sector and are business-oriented students are much less likely to choose the military as a career. In the past, as well as today, the military has facilitated social mobility. Third, people who are open to join the military are ideologically more receptive to the importance of defense spending and the value of national security. Conversely, people who are against large defense spending and who have doubts about the extent to which the military is contributing

to society are much less receptive. Fourth, people who are compatible with the military work environment are more open, in general, to a career in the military than people who are less capatible.

There are two basic conclusions from this study which can be drawn from the above. First, not everyone is open to a military career. People who have access to various options, people who do not see structural impediments to social mobility, people who are ideologically opposed to the military, and people who are not compatible with the military work environment are not open, nor would they be good candidates for officers in the military. But, second, the pool of candidates who would be open to such a career is much larger than the proportion of students who indicated they might join. There are many students for whom social mobility is important, for example women and minorities. Similarly, there are many students who are compatible with a military work environment.

Specifically, the following key findings emerged from the study:

1. One student in 10 is a possible candidate for enrollment in an ROTC/OCS/OTS program.

2. Students intending to enter the public sector are more likely to want to join the program than students intending to enter the private sector.

3. While men are more likely to want to join an officer career training program than women, women are more compatible with the military work environment of group processes.

4. Technical majors are slightly more compatible with military work environments than nontechnical majors.

5. Among the top five characteristics desired in the ideal job, three are also ranked among the top five in the perception of officer career characteristics: job security, personal responsibility, and promotion opportunities.

6. College students perceive a military officer's career as less professional than they desire.

7. The characteristic an officer career is mostly likely to enhance is organizational skills.

8. The acceptance of the importance of national security represents an important ideological dimension. This dimension seems to represent an important variable of the likelihood of enrolling in an ROTC/OCS/OTS program. Women seem to place more importance on national security than men.

9. Information about the military programs is not as important to making the individual receptive to a career as an officer as it is to helping finalize a decision for those who are already receptive.

10. The two major predictors of the probability of joining the ROTC/OCS OTS programs for the total sample are career goals and the demographic characteristics of the individuals, whereas for women, ideological variables (e.g. national security) and demographic variables are the most important predictors of joining the programs.

11. The major feasible financial inducement to joining the military as a career officer is to increase the starting commission salary.

12. Women generally feel that equal treatment of women in the military is a problem, but this seems to be changing.

13. Women are most interested in opportunities for the development of management skills offered by the military officer career.

14. Overall, an opportunity for "professionalism" (e.g. opportunity to use skills, development of additional skills, etc.) is the key characteristic that ALL students feel is desired in any job, military or civilian.

In sum, a marketing approach that would best reach the target population sought by the military should be focused on the professional opportunties provided by the military. Specifically, the opportunity to use the education from their college experience could provide the young career officer with the experience needed to later apply in the civilian world or to allow him/her to be promoted through the officer ranks.

APPENDIX

APPENDIX

METHODOLOGY

OVERVIEW

A national sample of 6,750 students was targeted for telephone interviewing from the central interviewing facility at UCLA's Institute for Social Science Research (ISSR). The sample consisted of full-time college students attending four-year colleges and universities, excluding military service academies and seminaries. This sample of respondents was stratified by the nine U.S. Census Divisions, year in school, sex, and, within males, whether the student's major was identified as technical or non-technical. To identify the target sample of students, information was obtained from colleges and universities. Telephone interviews were then conducted with selected students.

The CMS survey targeted a large national sample of college students as potential respondents because this population is hard to interview due to the extreme mobility of students and the errors in the records that help identify the sample's members. To better understand how these problems and other aspects of the survey methodology can threaten the validity of the CMS results, the sampling plan and procedures and data collection procedures are reviewed here.

SAMPLING

The results of any study can be generalized only to the extent that its sample of respondents is representative of the desired, identifiable target population. In order to distinguish clearly between the two types of officer training options available to students already

beyond their first year of college, the College Market Study targeted two populations of college students in its investigation of their military enlistment/recruitment potential.

The targeted groups are differentiated by year-in-school and thus, there is a focus on different officer training programs to which students have access. These two subpopulations are:

1. College students in their second year (Sophomores) at four-year colleges and universities where two-year Reserve Officers Training Corps (ROTC) programs exist. (These students can pursue a military commission by electing to enter the ROTC program in their Junior and Senior years.)
2. Third- and fourth-year students (Juniors and Seniors) at four-year colleges and universities. (Upon graduation, all can pursue commissions in Officer Candidate School (OCS) or Officer Training School (OTS.)

To select the CMS sample, a multi-stage sampling strategy was employed within a stratified survey sample design. The key description of the targeted CMS respondents necessarily reflects attributes of the students' schools as well as their individual characteristics. The sample was thus selected in two stages:

* First, representative samples of educational institutions, colleges and universities meeting the criteria for either the Junior/Senior (OCS/OTS) subpopulation of the Sophomore (ROTC) group were selected from the universe of qualifying schools. Seminaries and military service academies were excluded from consideration.

* Second, from each list of sampled institutions, samples of qualifying individual students were identified and targeted for interviewing. Qualifying students had to be U.S. citizens and at least 18 years old, but not older than 21 years if a sophomore, or 23 years, if a junior or senior.

The sample was then stratified on the basis of U.S. Census Division, class size per school within each division, ratio of women to men in each school class, and ratio of technical to non-technical academic majors among male students in each class.

Selecting Schools

In the first stage of sampling, a list of all the colleges and universities in the United States with four-year undergraduate programs was prepared for each of the nine U.S. Census Divisions. (The states that make up each Division are noted in Table 1.)

Within each census division the schools were sorted according to total undergraduate enrollment. The source of enrollment data was The Hammond Almanac--1980 (Bachellor, 1980). With figures for 1978, this source provided total undergraduate enrollment for each college, as well as an indication of whether the school offered ROTC programs. These data were correlated with information later received from the National Center for Educational Statistics (NCES), which provided only full-time undergraduate counts for 1978. Using the sampled schools as data points, the resulting Pearson correlation between the enrollment data from the Almanac and that from NCES was .973. This high correlation provides assurance that the sample was drawn from the best available data bases.

TABLE 1

DISTRIBUTION OF COLLEGES AND STUDENT POPULATION

States within Census Division	STUDENT POPULATION		2-YEAR ROTC PROGRAM	
	Undergraduate Enrollment	# of Colleges	Undergraduate Enrollment	# of Colleges
East North Central (Ill., Ind., Mich., Ohio, Wisc.)	1,021,266	238	584,924	50
East South Central (Ala., Ky., Miss., Tenn.)	353,248	102	258,414	33
West North Central (Iowa, Ka., Minn., Mo., Neb., N.D., S.D.)	469,327	157	263,674	30
West South Central (Ark., La., Okla., Tex.)	556,446	123	429,116	52
Middle Atlantic (N.J., N.Y., Pa.,)	867,265	249	260,268	43
Mountain (Ariz., Colo., Idaho, Mont., Nev., N.M., Utah, Wy.)	310,220	57	222,124	21
New England (Conn., Me., Ma., N.H., R.I., Vt.,	359,085	133	106,866	13
Pacific (Alas., Ca., Hi., Ore., Wash.)	581,146	143	279,597	26
South Atlantic (Del., Fla., Ga., Md., N.C., S.C., Va., Wash. D.C., W. Va.)	723,420	224	421,143	61
TOTALS	5,241,423	1,426	3,084,540	329

The compiled list of colleges and universities was verified in two ways. First, the almanac list was compared to several other lists to ensure that all colleges were included. Second, the ROTC involvement of each university was compared to lists published by the various ROTC programs.

Table 1 also lists the total undergraduate enrollment and the number of colleges and universities in each census division as well as the undergraduate enrollment and the number of institutions with ROTC programs. These master lists comprise the universe from which respondents in the College Market Study were drawn.

Two subsamples were drawn from these lists -- an ROTC (Reserved Officers Training Corps) and an OCS (Officers Candidate School), OTS (Officers Training School) sample. For the OCS/OTS sample, four colleges were randomly selected from each census division with the probability for their selection being proportional to their size of undergraduate enrollment. That is, the larger the college, the greater the likelihood of selection. Thus, thirty-six colleges (9 divisions x 4 colleges) made up the target sample of institutions from which individual respondents were to be drawn for the OCS/OTS questionnaire administered to juniors and seniors. Of these original thirty-six institutions, seven were replaced because of student data unavailability.

For the ROTC sample, the sublist of colleges with ROTC programs was used. Thirty-six colleges were sampled from this sublist; four for each division, with probabilities for selection proportional to undergraduate enrollment. These schools are the original targeted schools from which respondents to the ROTC questionnaire, administered to sopho-

mores, were to have been drawn. Five were replaced because of unavailability of student data. Because some colleges had both program types they were eligible for both samples. In the two original samples, six universities appeared twice. Thus, the 72 colleges apparent in the sample were actually 66 colleges requiring contact.

Of course, the screening criteria for individual respondent selection varied with the class year of the targeted student and, for those schools appearing on both sampling lists, care was taken to assure that the correct school-level sample was the source of the targeted individual.

Quotas were established for the primary subgroups intended for close scrutiny in the CMS survey: females, males with technical majors, and, for comparative purposes, males with non-technical academic majors.[1] This was done to assure the minimal data analytic stability of each subgroup and increase the precision of each group's derived sampling estimates (Hansen, Hurwitz, & Madow, 1953; Kish, 1965). Generally, the error variance of data within a subgroup decreases as the sample size of the group increases.

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[1]Since nonwhite minorities were not a major subgroup of the study they were not included as a group to be sampled, however, they were included in the analysis, drawn from the total sample as they naturally occurred. They were included in the analysis as an additional subgroup for study because it was deemed important to at least provide some indicators of the role of race in the total sample.

A goal of 6,750 respondents was set with the following distribution of individuals across the three targeted subgroups and within the three class years:

	Females	Technical Males	Non-Technical Males	Totals
Sophomore:	750	750	750	2,250
Junior:	500	500	500	1,500
Senior:	1,000	1,000	1,000	3,000
TOTALS:	2,250	2,250	2,250	6,750

Soliciting Institutional Cooperation

Letters were sent to the presidents of the 66 selected schools requesting a complete list of their full-time students (sophomores in the ROTC sample and juniors and seniors for the OCS/OTS colleges) along with name, address, telephone number, class level, sex, and major. These data were requested in machine-readable formats when possible. Within the time constraints of the study, exhaustive measures were taken to get information from all schools in the original samples. Nonresponding schools were contacted every two weeks, and when schools had declined participation or were slow in responding, an attempt was made to obtain student directories.

Twenty-five schools initially refused to participate. The reason cited for refusing in the majority (roughly 80%) of the cases was possible violation of the Buckley Amendment regarding student privacy. In a few instances, a change-over or installation of computer systems was cited. For twelve of these refusals, lists of students or student directories were obtained from alternative sources. However, seven of the remaining

thirteen schools published no directory or had any printed central lists. Replacement schools were selected for these thirteen persisting refusals. After replacement, six institutions appeared in both subsamples.

Of the 72 selected colleges (counting each of the duplicates twice, once for each subsample) only 16 sent data on computer tape. Seventeen schools sent lists of students, primarily generated by the registrar's data processing department. Thirty-eight colleges sent only the student telephone directory, which proved a particularly poor data source because the directory rarely specified major and, for some schools, did not designate class level. One school failed to respond entirely, despite numerous coaxings.

In the initial request made to each school, the class level, major, and sex of each student was requested. Of the seventy-one responding schools, twenty-one sent all the requested data; eighteen excluded sex but released major and class; three sent class and sex; nine sent class only; one sent major but no class or sex; and nine gave no sampling information at all.

Selecting Student Respondents

Student selection techniques varied according to the data source. For example, when computerized data were available from a college, the records were first sorted into analytic cells (male technical, male nontechnical, and female, within each class level). By noting the size of the schools' enrollment, a sampling interval was then computed so as to yield the appropriate number of students from that school, and a systematic sample was drawn using a random starting position within the population. The selected records were finally passed in random order

to a computerized subroutine which produced questionnaire labels and contact record sheets for each potential respondent.

Small- to moderate-sized lists were handled in a way similar to the computerized data. Statistical clerks did the cell sorting and systematic selection. The selected names were keypunched and randomized before being put through the label generation sequence.

Large lists and directories could not be completely sorted into analytic cells. Most did not have the requisite information, all were too large to be sorted by hand, and keypunching large directories was prohibitively time consuming. Therefore, randomly selected sub-units of the directory or list (for example, two pages of a directory or 100 lines from a list) were identified and students sampled from these sub-units.

Because a student's "technical" major was strictly defined to exclude, in particular, life science majors, this cell was hard to fill in even large universities. In small colleges without a school of engineering, technical majors were extremely rare. In several schools an attempt was made to contact a majority of students with specified technical majors.

The most problematic sampling issue was the lack of major in 31 (44%) of the schools. In these institutions, hundreds of screening calls had to be made to locate each technical major. This process was both time consuming and costly, resulting ultimately in the only partial filling of these important cells in the final sample.

The end of the 1980-1981 school year necessitated closing the sample screening phase of the interview process before the subgroup quotas

were achieved. Across the specified groups, and within each cell, the final rates at which the quotas were reached are as follows:

	Females	Technical Males	Non-Technical Males	Totals
Sophomore:	709(94.5)	521(69.5)	645(86.0)	1,875(83.3)
Junior:	418(83.5)	324(64.8)	459(91.8)	1,201(80.1)
Senior:	724(72.4)	564(56.4)	807(80.7)	2,095(69.8)
TOTALS:	1,851(82.3)	1,409(62.6)	1,911(84.9)	5,171(76.6)

WEIGHTING THE DATA

This study's sample design required that the sample be distributed proportionally across the nine census divisions according to full-time undergraduate enrollment. Additionally, within each division the sample was to be equally distributed among various school sizes.

When estimates of national parameters are desired, it is necessary to differentially weight individual cases to correct for problems of data collection that vary across the population. Weighting is a post hoc operation that adjusts the obtained sample to the targeted sample.

At the onset of the study, sample groups were defined by class, sex, and major. Under ideal conditions in which no other complicating circumstances had arisen, weighting requirements for that resulting sample would include knowing the percentage of the undergraduate enrollment in each class, the percentage of males in each class, and within the males of each class the percentage with technical majors. These three variable data items were needed to define the weight function.

However, a problem arose late in the planning stage when an age maximum per class level and a requirement of U.S. citizenship were added to the criteria for respondent eligibility. Because this was not planned during the sample design stage, the sampled schools were not requested to provide this information. Only one school gave a residency code. Discouragingly, this school had a very high enrollment of citizens from Arab countries who were subsequently excluded from the sample and the weight computation. Two more schools provided age statistics which were used to adjust respondent selection and weighting procedures. For all other schools, there was assumed to be a constant loss due to non-citizen and over-age enrollment and so these factors did not further explicitly enter the weighting considerations.

In computing the weight function associated with college major, the task was made difficult when most colleges did not provide the student major. This problem was anticipated somewhat, although not to the actual degree of its occurrence. The plan for weight computation was to estimate the ratio of technical to non-technical majors from sampled students rather than from school records. This time-consuming iterative procedure would determine the degree to which technical majors must be oversampled to complete the desired number of technical major interviews from each college.

This plan of data collection worked only for those schools from which a sufficient number of completed interviews were gathered early in the data collection process. Some of the schools did not become accessible to interviewers until too late in their school years for this two-stage interviewing technique to be feasible. In the circumstances students were asked for telephone numbers where they could be reached during the summer and interviewing continued away from the students' school residences.

However further consideration of the possibility of conducting summer interviewing raised many issues of potential bias. For example, it is not known whether students reached during their summer break are as representative as those contacted at school. Therefore, collection of data from respondents was stopped at the end of the school year before the targeted sample size was achieved because of the possible damage that could have been done to the sample's integrity due to student mobility at school year end.

The impact of the weighting process on the key demographic and sampling variables is demonstrated in Tables 2 and 3, presented here as

TABLE 2

UNWEIGHTED AND (WEIGHTED)* SAMPLE DISTRIBUTION
BY CLASS, YEAR, SEX AND ACADEMIC MAJOR

No. of Respondents and (Percent of Total)

Sex and Major	YEAR			Total %
	Sophomore	Junior	Senior	
Females	709 (841)	418 (771)	724 (753)	35.8 (45.8)
Technical Males	521 (310)	324 (231)	564 (215)	64.2 (54.2)
Non-Technical Males	645 (721)	459 (688)	807 (639)	
TOTAL %	36.6 (36.2)	23.2 (32.7)	40.5 (31.1)	5171 (5169)**

* Values in parentheses note weighted values.

** Rounding to integer values during the weighting process accounts for the 2 respondent discrepancy between the total sample sizes of the weighted and nonweighted samples.

TABLE 3

UNWEIGHTED AND WEIGHTED SAMPLE DISTRIBUTION
BY CENSUS DIVISION

(Percent of Total)

CENSUS DIVISION	Unweighted	Weighted
East North Central	19.0%	17.5%
East South Central	5.4	5.6
West North Central	9.3	7.8
West South Central	9.2	9.4
Middle Atlantic	16.2	17.8
Mountain	5.8	5.6
New England	7.4	7.6
Pacific	13.6	14.8
South Atlantic	14.1	13.8

a point of basic sample description. The weighting distributed responses across class year and across sex more equally. Without weighting the sample would have been heavily skewed towards senior males.

DATA COLLECTION

The data were gathered through a telephone interview using a structured questionnaire format. Two versions of the questionnaire were developed -- one for sophomores and one for the juniors/seniors.

Telephone interviews were conducted by trained, professional interviewers. In choosing its interviewing staff for the College Market Study, ISSR selected persons who had demonstrated skill in tracking respondents to the successful completion of interviews. All interviewing was conducted under the close and continuous scrutiny of senior ISSR staff.

Interviews, when conducted over the telephone, are a valid source of data collected in the most expedient manner available. Careful comparisons of a sample of respondents interviewed face-to-face with a sample interviewed over the telephone (Campbell & Converse, 1978) have demonstrated:

- The telephone interview is as comprehensive as a careful face-to-face interview because the vast majority of U.S. households have telephones and, thus, virtually none of a survey's potential respondents are unreachable for lack of a telephone.
- The telephone interview, conducted from a central facility, provides certain control of all aspects of the interview situation and thereby assures data quality.

- Telephone interviews are more cost effective than face-to-face interviews because they are much less labor intensive.
- The straightforward logistics of the telephone interview permit the collection of large quantites of data in a short time.
- Interviews conducted over the telephone actually enhance access to potential respondents who might be too difficult to contact in person--such as those in secured buildings or those unwilling to give the interviewing stranger access to their homes.

Interviewing of respondents was contrained at both ends of the data collection period. Startup of the actual interviewing of respondents was slowed due to several factors that demanded more time be spent on sample screening and selection:

- Delay in schools' providing student information
- Incomplete and poor quality information provided by the schools
- Last minute additions (a maximum age and U.S. citizenship) to the criteria for respondent selection by the Department of Defense

Cessation of interviewing occurred before the desired final sample size of 6750 was reached. The end of the school year and the resulting shift in the living situations of the U.S. student population necessitated early termination. For all practical purposes, with the end of the school year came the dissolution of the CMS target sample. Students who had previously been contacted and with whom appointments had been made were carefully followed into the summer until interviews were complete. Even after termination of the effort to contact new respondents, every attempt was made to contact and interview students who were previously unreachable or who had previously refused to participate.

All current Federal regulations concerning privacy, confidentiality, and the protection of human subjects were heeded. Respondents to the CMS survey were assured that their participation was voluntary. Identifying information from interview schedules has been stripped and stored so that the information contained in the interviews cannot be linked to specific respondents.

The Pattern of Nonresponse

As the sample of student respondents was generated from the lists provided by the colleges and universities in the sample of institutions, the final dispensation of each attempt to contact a student was recorded. Table 4 shows the total selected from each region through directories, computer tapes, and print-outs sent by the schools. A variety of outcomes are also recorded.

Many students did not qualify for inclusion in the sample because of age, U.S. citizenship, or because of major, in cases where technical majors were sought. Table 4 shows that the central states had the highest proportion of students who did not qualify. As noted, many of these students were foreign-born students, the quota of nontechnical majors was filled and technical majors were sought, or sex was a sampling focus. New England and the Mid-Atlantic states were the lowest in students who did not qualify, but these states also have a large number of technical schools.

The nonresponse category includes students who could not be located because of poor addresses and/or telephone numbers, the student simply could never be found at home, or the student refused to be questioned. It should be noted that actual refusals were low in numbers and is estimated

TABLE 4

RESPONSE RATES OF THE SAMPLE

REGION	Total Selected	Not Qualify	Nonresponse/ Nonlocation	Interview
E. No. Central	2510	650(25.9)	780(31.1)	1080(43.0)
E. So. Central	1260	475(37.7)	500(39.7)	285(22.6)
W. No. Central	1260	480(38.1)	300(23.8)	480(38.1)
W. So. Central	1860	750(40.3)	575(30.9)	535(28.8)
Mid-Atlantic	1985	275(13.9)	875(44.1)	835(42.1)
Mountain	960	300(31.3)	480(50.0)	180(18.8)
New England	1690	240(14.2)	980(58.0)	470(27.8)
Pacific	3310	1125(34.0)	1390(42.0)	795(24.0)
South Atlantic	2736	575(21.0)	1650(60.0)	511(18.7)
TOTAL	17571 100%	4870 27.7%	7530 42.9%	5171 29.4%

Total Qualified Respondents = 12,701
Total Respondents Interviewed = 5,171
Response Rate = 40.7%

at about 6% of all those who are now included in the nonresponse category. The nonresponse rate varied widely among regions. The South Atlantic had the highest nonresponse rate, followed by New England, and the Mountain regions. Several reasons accounted for differences in nonresponse rates. Some of these included the poor information about students provided by the schools, resulting in high rates of nonlocation, and the early school breaks in some of these states at the end of the academic terms. It should be noted that once the student was located by telephone, few actually refused to be interviewed.

The actual interview rate was about 41% of qualified respondents. The location problem affected the rates of the South Atlantic and the Mountain regions for the reasons already noted. There is a slight over-representation of the East North Central and the Mid-Atlantic regions because of the higher proportion of technical schools in those areas, however, judicious weighting of the data took these factors into account to provide a more representative sample.

SELECTED REFERENCES

Andes, Steven and Raymond W. Kulhavy
1971 Political Attitudes and Scholastic Achievements in ROTC Students. Psychological Reports, 28, 878.

Anonymous
1978 University for Military Physicians. Army, June 1978.

Armstrong, T.R., W.S. Farrell and J.J. Card
1979 Subgroup Differences in Military-Related Perceptions and Attitudes: Implications for ROTC Recruitment. Palo Alto, CA.: American Institutes for Research.
[AR/-Alexandria; Co. No. MDA 903-78-C-2050, Rep. No. AIR-76501-4/79-TR]

Associates for Research in Behavior, Inc.
1979 A Tracking Study Regarding Issues Related to Recruitment of Enlisted Personnel for the Reserve Components, Volume 1. Philadelphia, PA.
[OASD; Co. No. MDA903-78-C-0298]

Binkin, Martin, and Shirley J. Bach
1977 Women and the Military. Washington, D.C.: Brookings Institution.

Blumenson, Martin
1979 Women in the Army: An Update. Army, May 1979.

Borack, Jules I.
1978 Intentions of Women (18-25 years old) to Join the Military: Results of a National Survey. San Diego, CA.: NPRDC.
[Rep. No. NPRDC TR 78-34]

Brownless, David, William Carniglia, David Cottis and Kichoong Kim
1980 A Study of Methods to Improve the ROTC Marketing Program for the UCLA Department of Military Science. Los Angeles, CA.: UCLA Graduate School of Management.

Butler, Richard P.
1979 **West Point's** Reputation Among High School Students and Guidance Counselors. West Point, NY: U.S. Military Academy, Office of Director of Instituional Research.
[MA; Rep. No. 79-009, Pr. No. 287A]

Card, J.J.
1976 Subgroup Differences in ROTC/Army Career Commitment and in Commitment-Related Attitudes; Technical Report. Palo Alto, CA.: American Institutes for Research.
(AR/-Arlington; Co. No. DAHC 19-74-C-0017, Rep. No. AIR-43303-7/76-TR]

Card, J.J., B.E. Goodstadt, D.E. Gross and W.M. Shanner
1975 Development of a ROTC/Army Career Commitment Model; Final Report, Volume I and Volume II (Appendices). Palo Alto, CA.: American Institutes for Research.
[ARI-Alexandria; Co. No. DAHC-19-74-C-0017]

Card, J.J., and W.M. Shanner
1976 Development of a ROTC/Army Career Commitment Model; Management Summary Report. Palo Alto, CA.: American Institutes for Research.
[ARI-Arlington; Co. No. DAHC 19-74-C-0017]

Defense Logistics Agency
ND College Market Study - 3; A Report Bibliography. Alexandria, VI: Defense Documentation Center.
[DDC; Search Control No. CLP45F]

DeVany, Arthur S., and Thomas R. Saving
1982 Life-Cycle Job Choice and the Demand and Supply of Entry Level Jobs: Some Evidence from the Air Force. Review of Economics and Statistics, 64, 457-465.

Douville, Douglas Eugene, Maj., USAF
1979 Can the Air Force Reserve Officer Training Corps (AFROTC) Meet its Future Commissioning Objectives in the All-Volunteer Force Environment?
[National Defense University; Washington, D.C.]

Durning, Kathleen P.
1977 Women's Experiences in Male-Dominated Career Fields and Work Groups. Paper presented at Annual Meeting of the Western Psychological Association, Seattle, Washington, 4/22/77.
[Copy available from NPRDC]

Durning, Kathleen P.
1978 Women at the Naval Academy: The First Year of Integration. San Diego, CA.: NPRDC.
(Rep. No. NPRDC TR78-12]

Etgold, Thomas H.
1980 Our Diminishing Manpower Resources. Army, Jan. 1980

Ginter, James L., and John R. Goral
1976 Minority Market Study. Earl G. Graves Marketing and Research, Inc.
(OASD)

Gotz, Glenn A., and John J. McCall
1980 Estimating Military Personnel Retention Rates: Theory and Statistical Method. Santa Monica, CA.: Rand Corp. [USAF; Co. No. F49620-77-C-0023, Rep. No. R-2541-AF]

Greenfield, Sue
1980 The "Feminine Mystique" in Male-Dominated Jobs: A Comparison of Attitudes and Background Factors of Women in Male-Dominated versus Females-Dominated Jobs. Journal of Vocational Behavior, 17, 291-309.

Grey Marketing and Research Dept.
1978 Women's Intentions to Join the Armed Services under Current Conditions, Volume 1. [NPRDC; Job No. 36400-601-April 1978-AM/JA/JK N99-123-77-C-1-70]

Grey Marketing and Research Dept.
1980 A Study of the Market Potential for Recruiting Non-Prior Service Females for Military Service. [DID; Job No. 07831-601BK May 1980 HE/LL/GS/LD/KW]

Grotevant, Harold D., and Mary Ellen Durrett
1980 Occupational Knowledge and Career Development in Adolescence. Journal of Vocational Behavior, 17, 171-182.

Herzog, A. Regula
1982 High School Seniors' Occupational Plans and Values: Trends in Sex Differences 1976 through 1980. Sociology of Education, 55, 1-13.

Hicks, Jack M., Terry Collins and John I. Weldon
1979 Youth Aspirations and Perceptions of ROTC/Military: A Comparison; Research Problem Review 79-2. Alexandria, VI: U.S. Army Research Institute for the Behavioral and Social Sciences. [ARI-Alexandria; Res. Pr. Rev. 79-2]

Houston, John W.
1979 New Cadets and Other College Freshmen. Class of 1982. West Point, NY: U.S. Military Academy, Office of Director of Institutional Research. [MA; Rep. No. 79-007, Pr. No. 273]

Kaufman, Debra and Michael L. Fetters
1980 Work Motivation and Job Values Among Professional Men and Women: A New Accounting. Journal of Vocational Behavior, 17, 251-262.

Kim, Chongsoo
1982a The All-Volunteer Force: 1979 NLS Studies of Enlistment, Intention to Serve and Intentions to Re-enlist; National Longitudinal Survey of Youth Labor Market Experience, Military Studies. OH: Center for Human Resource Research, Ohio State University. [DMDC]

Kim, Chongsoo
1982b Youth and the Military Service: 1980 National Longitudinal Survey Studies of Enlistment Intentions to Serve: Reenlistment and Labor Market Experiences of Veterans and Attriters; National Longitudinal Survey of Youth Labor Market Experience. Military Studies. Columbus, OH: Center for Human Resource Research, Ohio State University.
[DMDC]

Kim, Chongsoo, Gilbert Nestel, Robert L. Phillips and Michael E. Borus
1980 The All-Volunteer Force: An Analysis of Youth Participation, Attrition and Re-enlistment. National Longitudinal Survey of Youth Labor Market Experience, Military Studies. Columbus, OH: Center for Human Resource Research, Ohio State University.
[DMDC]

Kraft, John D.
1970 Sources of Influence to Seek a Nomination to USMA for Class of 1973. West Point, NY: U.S. Military Academy.

McLaughlin, Cpt. Gerald W., Jr.
1970 A Multidimensional View of Cadets' Decision to Seek a USMA Nomination. West Point, NY: United States Military Academy, Office of Research.

Neumann, Idell, and Norman M. Abrahams
1976 Empirical Weighting of Predictors for the Naval Academy Selection Program. San Diego, CA: NPRDC.
[Rep. No. NPRDC TR76-37]

Neumann, Idell, and Norman M. Abrahams
1978 Indentification of NROTC Applicants with Engineering and Science Interests. San Diego, CA: NPRDC.
[Rep. No. NPRDC TR78-31]

Neumann, Idell, and Norman M. Abrahams
1979 Validation of NROTC Selection Procedures. San Diego, CA: NPRDC
[NPRDC Special Report 79-12]

Northrup, Herbert R., Steven M. DiAntonio, John A. Brinker and Dale E. Daniel
1979 Black and Other Minority Participation in the All-Volunteer Navy and Marine Corps. Philadelphia: The Wharton School, University of Pennsylvania.

Opinion Research Corp.
1976 Study on the Recruitment of Medical Professionals for the Military Services. Princeton, New Jersey: Opinion Research Corp.
[DOD; Co. No. MDA 903-75-C-0221]

Public Sector Research Group
1977 Conjoint Analysis of Values of Reserve Component Attributes. Chicago, IL: Market Facts, Inc.
[DOD; Job No. 9276, OMB#225-77006]

Public Sector Research Group
1979 Youth Attitude Tracking Study. Washington, D.C.: Market Facts, Inc.
[DOD; Job No. 9344, OMB#22-R-0339]

Public Sector Research Group
1980 Youth Attitude Tracking Study. Washington, D.C.: Market Facts, Inc.
[DOD; Job No. 6323, OMB#22-R-0339]

Research Team
1974 Attitudes of H.S. Seniors, College Students, and ROTC Cadets on Army ROTC. Blacksburg, VI: Virginia Polytechnical Institute and State University.
[ROTC-TDC]

Rothstein, William G.
1980 The Significance of Occupations in Work Careers: An Empirical and Theoretical Review. Journal of Vocational Behavior 17, 328-343.

Thomas, Patricia J.
1977 Why Women Enlist: The Navy as an Occupational Choice. San Diego, CA: NPRDC
[Rep. No. NPRDC TR 77-20]

Thomas, Patricia J.
1978 Symposium: New Roles for Military Women. The Female Naval Officer: What is Her Role? Paper presented at 86th Annual Convention of the American Psychological Association, Toronto, Ontario, Canada (8/29/78)
[Copy available from NPRDC]

White, Michael C., Geraldine De Sanctis and Michael D. Crino
1981 Achievement, Self-Confidence, Personality Traits, and Leadership Ability: A Review of Literature on Sex Differences. Psychological Reports, 48, 547-569.

Zuckerman, Diana M.
1980 Self-Esteem, Personal Traits, and College Women's Life Goals. Journal of Vocational Behavior, 17, 310-319.

#1010 - 2/80

DECK 01

I.D.# _____ (1-4)

SCREENER

Log#: _____ (8-11)

	DATE	INIT
LOG 1		
LOG 2		
EDIT		
VAL		
CLN		

COLLEGE MARKET STUDY

ROTC

SOPHOMORE SAMPLE

SAMPLED NAME: _____ TELEPHONE #: ____ / _____
AREA CODE

INTERVIEWER NAME: _____ I.D.#: _____ (12-14)

DATE	DAY	TIME	RESULT	COMMENTS
1.		AM PM		
2.		AM PM		
3.		AM PM		
4.		AM PM		
5.		AM PM		
6.		AM PM		
7.		AM PM		
8.		AM PM		
9.		AM PM		
10.		AM PM		
11.		AM PM		
12.		AM PM		
13.		AM PM		
14.		AM PM		
15.		AM PM		

NO ANSWER.....01
R NOT AVAILABLE.....02
LINE BUSY.....03
WRONG NUMBER.....04
ANSWERING SERVICE/RECORDED MESSAGE..05
LANGUAGE BARRIER.....06
CALL BACK ARRANGED.....07
DISCONNECTED/NOT IN SERVICE.....08
NONRESIDENTIAL #.....09
COMPLETED.....10
INITIAL CONTACT REFUSED.....11
R REFUSED.....SPECIFY ABOVE...12
TERMINATED.....SPECIFY ABOVE...13
INCAPABLE.....SPECIFY ABOVE...14
OTHER.....SPECIFY ABOVE...15

FOR OFFICE USE ONLY:

FINAL RESULT - [ ] [ ]

SCHOOL ID TYPE:
R.I.D.#:_____

INTERVIEWER:_____ I.D.#:_____

TIME BEGINNING:_____ AM/PM TIME ENDING:_____ AM/PM # OF MINUTES:_____

Good morning/afternoon/evening. I'm (...) from the Institute for Social Science Research of the University of California, Los Angeles.

1. Is this (REPEAT AREA CODE AND # DIALED)?

YES.....ASK a..... 1

NO.....TERMINATE
DIAL AGAIN..... 2

a. May I speak to (RESPONDENT)?

AVAILABLE.....SKIP TO Q4..... 1

NOT AVAILABLE.....ASK Q2..... 2

2. When would be a good time for me to call back to talk to (RESPONDENT)?

DAY:_____

DATE:_____

TIME:_____

NO LONGER AT
THIS NUMBER.....ASK Q3..... 90

3. Could you give me the new telephone number and address I can reach him/her at or how I can contact (...)(RESPONDENT)?

RECORD: NEW PHONE: ( )_____
AREA CODE

NEW ADDRESS:_____

_____
ZIP CODE

DON'T KNOW..... 8

IF NEW PHONE NUMBER...RETURN TO Q1.....	1
IF NEW ADDRESS ONLY...SUPERVISOR HOLD...	2
IF NO INFORMATION.....TERMINATE.....	3

4. Respondent Sex (VERIFY). SEE ASSIGNMENT.

SAME..... 1

DIFFERENT.....TERMINATE..... 2

5. We are conducting a College Market Study and would like to ask you a few questions. Your name has been randomly selected from your school's student registry. First I need to be sure that I am interviewing the the right person. What college are you attending at the present time?

RECORD NAME:_____

NOT ATTENDING
SAMPLED COLLEGE.....TERMINATE..... 90

NOT ATTENDING
AT PRESENT.....TERMINATE..... 91

a. Are you a full or part-time student?

FULL-TIME..... 1

PART-TIME.....TERMINATE..... 2

6. What is your present major? SEE ASSIGNMENT.

SAME AS SAMPLE.....SKIP TO Q7..... 1

DIFFERENT..... 2
→SPECIFY:_____

a. IS MAJOR TECHNICAL/NONTECHNICAL?

TECHNICAL MAJORS
- ANY ENGINEERING MAJOR
- PHYSICS
- CHEMISTRY
- COMPUTER SCIENCE
- MATHEMATICS
- MATHEMATICAL STATISTICS

UNDECLARED IS NONTECHNICAL

MAJOR STAYS.....GO TO Q7..... 1

FEMALE MAJOR
CHANGE.....GO TO Q7..... 2

MALE MAJOR CHANGES
TO OTHER CATEGORY...TERMINATE..... 3

What is your present class year? SEE ASSIGNMENT.

SAME..... 1

DIFFERENT.....TERMINATE..... 2

CONTINUE WITH INTRODUCTION OF QUESTIONNAIRE

R.I.D.#: _____

As I mentioned, I'm calling from the University of California at Los Angeles. We are conducting a study to determine students' continuing educational plans, career goals and objectives. Your college and your name have been chosen at random. Any information you give us will be kept confidential by our Institute to the extent that the law enables us to do so. Your name will not appear in our analysis of the data.

You may also be interested to know that I'm entering your answers directly into a computer so if you hear a clicking sound after each answer that's what it is.

There is a possibility that our conversation will be monitored by my supervisor to confirm that I am conducting this interview.

1. First, do you plan to complete the Bachelor's degree?

YES..... 1

NO..... 2

2. What do you plan to do after (leaving school/completing your Bachelor's degree)? Will you look for a job in your field, or do you have other plans?

TRAVEL/(PROBE).....01

CONTINUE EDUCATION.....02

→SPECIFY DEGREE: _____

GO INTO BUSINESS.....03

LOOK FOR OR SECURE JOB IN FIELD.....04

LOOK FOR OR SECURE JOB IN OTHER FIELD...05

SCHOOL/WORK IN FIELD.....06

SCHOOL/WORK OTHER FIELD.....07

ENLIST IN MILITARY.....08

VOLUNTEER SERVICE (PEACE CORPS/VISTA)...09

DO NOT PLAN TO ENTER LABOR FORCE.....10

→SPECIFY: _____

OTHER.....11

→SPECIFY: _____

3. On completion of your education, what occupational area are you most likely to pursue? PROBE FOR ONE.

ENGINEERING, PHYSICAL SCIENCE, MATHEMATICS, ARCHITECTURE..... 1

MEDICAL AND BIOLOGICAL SCIENCES..... 2

BUSINESS ADMINISTRATION..... 3

GENERAL TEACHING AND SOCIAL SCIENCE..... 4

HUMANITIES, LAW, SOCIAL AND BEHAVIORAL SCIENCES..... 5

FINE ARTS, PERFORMING ARTS..... 6

TECHNICAL JOBS..... 7

PROPRIETORS, SALES..... 8

MECHANICS, INDUSTRIAL TRADES..... 9

CONSTRUCTION TRADE.....10

SECRETARIAL-CLERICAL, OFFICE WORKERS....11

A. In what area, field or type of work do you plan to specialize in? INSERT ANSWER FROM Q3.

RECORD:_____

_____

_____

NO SPECIALTY.....97

DON'T KNOW.....98

B. Can you tell me what percentage of students in your major graduating from your college obtain employment in the following areas? READ a-e. RECORD %.

	%
a. Private industry	_____
b. Government	_____
c. Education	_____
d. Non-Profit Organizations	_____
e. Self-Employed	_____

C. In which of these sectors do you think you will secure employment when you complete your education? Will it be:

Private industry,..... 1

Government,..... 2

Education,..... 3

Non-Profit Organizations, or..... 4

Self-Employed?..... 5

The following questions are about your future job expectations and your career plans.

4. People accept job offers for a variety of reasons. As I read each of the following job characteristics please tell me how important it would be in your choosing the ideal job. Tell me if it would be Very Important, Somewhat Important, Somewhat Unimportant, Very Unimportant or would it be Not Important or Unimportant. READ A-J AND CODE.

	VERY IMPORTANT	SOMEWHAT IMPORTANT	NOT IMPORTANT OR UNIMPORTANT	SOMEWHAT UNIMPORTANT	VERY UNIMPORTANT
A. Pay opportunities	5	4	3	2	1
B. Promotion opportunities	5	4	3	2	1
C. Amount of prestige associated with the job	5	4	3	2	1
D. Amount of personal responsibility	5	4	3	2	1
E. Use of previously developed skills in a specialized field	5	4	3	2	1
F. Opportunity to make a lasting contribution to society	5	4	3	2	1
G. Opportunity to obtain additional formal schooling	5	4	3	2	1
H. Chance to be a leader	5	4	3	2	1
I. Job security	5	4	3	2	1
J. Opportunity to help others	5	4	3	2	1

5. Now I'm going to read you a few sets of statements which describe various working situations. I would like you to tell me which one of two statements most appeals to you. First:

I want a job where my promotion is merited on seniority and meeting a series of requirements, or..... 1

I want a job where my promotion is based entirely on performance without regard to length of service?.... 2

I want a job where I assume the risks and rewards of making my own decisions, or..... 1

I want a job where decision making is a group process with input from my supervisors?..... 2

I would rather have a higher paying job with less security than,..... 1

A job paying less but with good security?..... 2

I would rather have a job where tasks are accomplished by a group process, or..... 1

A job where I accomplish tasks alone?..... 2

I would rather work as a member of a group, or..... 1

I would rather be the leader of the group?..... 2

6. People are not always firmly committed to their occupational choice. How certain are you that you will pursue this occupation after completing your education? Would you say:

Very certain,..... 1

Somewhat certain,..... 2

Somewhat uncertain, or..... 3

Very uncertain?..... 4

UNDECIDED..... 5

7. Some people attend college to prepare for a specific employment career, others attend college to get a well-rounded education, and yet others attend with the idea of finding a career interest while in school. Which of these best describes yourself?

SPECIFIC CAREER..... 1

ALL ROUND EDUCATION..... 2

FIND CAREER IN SCHOOL..... 3

8. Do you think your education will have prepared you sufficiently to secure a job in the occupation of your choice?

YES..... 1

YES, ADDITIONAL STUDIES/TRAINING..... 2

NO..... 3

9. What is the likelihood of your securing a job in the occupation of your choice after completing your education? Would you say:

Very likely,..... 1

Somewhat likely,..... 2

Not sure,..... 3

Somewhat unlikely, or..... 4

Very unlikely?..... 5

10. In selecting an occupation, people are often influenced by the opinions of their family and friends. Thinking of your own decision, which of the following people has had the most influence in your choice of occupation? Would you say it was: RECORD IN COLUMN A.

	COLUMN A	COLUMN B	COLUMN C
Your father,.....	1	1	1
Your mother,.....	2	2	2
Other family members,..... →SPECIFY:_____	3	3	3
Your friends, or.....	4	4	4
Someone else?..... →SPECIFY:_____	5	5	5
NO ONE.....	6	6	6

A. Who was the next most influential person in your decision? RECORD IN COLUMN B.

B. And who had the next most influence? RECORD IN COLUMN C.

11. Thinking ahead to your first full time position after you have completed your education, which of these categories represents your expected yearly salary upon entry? Would you say:

$10,000 or less..... 1
10,001 - 15,000,..... 2
15,001 - 25,000,..... 3
25,001 - 35,000,..... 4
35,001 - 50,000, or..... 5
50,001 and over?..... 6

12. People sometimes make career changes in their working histories. How likely do you think it will be that you will make a career change within 5 years after leaving school? Would you say:

Very likely,..... 1
Somewhat likely,..... 2
Not sure,..... 3
Somewhat unlikely, or..... 4
Very unlikely?..... 5

13. How are your educational expenses being financed? CODE ALL MENTIONS.

A. PARENTS/RELATIVES.....01
B. SELF/WORKING.....02
C. SAVINGS.....03
D. SCHOLARSHIPS.....04
E. STUDENT LOANS/LOANS.....05
F. G.I. BILL.....06
G. SOCIAL SECURITY.....07
H. ROTC.....08
I. GRANT.....09
J. OTHER.....10
→SPECIFY:_____

REFER TO Q13

IF MORE THAN ONE MENTION.....ASK A.....	1
IF ONLY ONE MENTION.....SKIP TO Q14.....	2

A. Which one provides the most financing for your education?

RECORD LETTER:_____

14. We are interested in college students attitudes toward national security. As I read the following statements, please tell me if you Strongly Agree, Agree, Disagree, Strongly Disagree or Neither Agree nor Disagree with each. READ A-F. CODE IN APPROPRIATE COLUMN.

	STRONGLY AGREE	AGREE	NEITHER AGREE/ DISAGREE	DISAGREE	STRONGLY DISAGREE
A. Some wars are inevitable	1	2	3	4	5
B. I feel that it is my duty to serve in the armed services.....	1	2	3	4	5
C. Military officers represent a very high level of patriotism	1	2	3	4	5
D. Our military must be strengthened to protect our way of life.....	1	2	3	4	5
E. Our country should spend resources on national concerns rather than international.....	1	2	3	4	5
F. Military officers represent a very high level of professionalism.....	1	2	3	4	5

Now I would like to ask some questions about ROTC.

15. Have you heard of the college ROTC program?

YES..... 1

NO.....SKIP TO Q23..... 2

16. From what sources did you get most of your information about college ROTC? CODE ALL MENTIONS.

FAMILY.....01

FRIENDS.....02

TEACHERS/COUNSELORS.....03

ROTC RECRUITERS/PERSONNEL.....04

MILITARY PERSONNEL.....05

PAMPHLETS.....06

RADIO/TV.....07

MAGAZINE/NEWSPAPER.....08

BILLBOARDS.....09

OTHER.....10

→SPECIFY:_____

A. Have you heard of the two-year ROTC programs available to a student in his/her junior and senior years?

YES..... 1

NO..... 2

17. Are you enrolled in an ROTC program?

YES.....ASK Q17A..... 1

NO.....SKIP TO Q18..... 2

A. In which program are you enrolled?

SCHOLARSHIP..... 1

LIVING ALLOWANCE ONLY..... 2

OTHER..... 3

→SPECIFY:_____

18. (If you were to consider enrolling/when you enrolled) in an ROTC program from whom would/did you seek advice before making a decision?

A. FATHER..... 1

B. MOTHER..... 2

C. OTHER RELATIVES..... 3

→SPECIFY:_____

D. SPOUSE/FIANCE(E)..... 4

E. FRIENDS..... 5

F. ROTC COUNSELOR..... 6

NO ONE.....SKIP TO Q19..... 7

IF MORE THAN ONE MENTION ASK:

A. Which one of these persons would have/had the greatest amount of influence on your decision to enroll?

RECORD LETTER FROM Q18:_____

19. What are the chances that you will enroll in a 2-year college ROTC program/continue in ROTC during your junior and senior year? Would you say:

Very likely,.....ASK A..... 1

Somewhat likely,.....ASK A..... 2

Undecided,.....ASK A..... 3

Somewhat unlikely, or....SKIP TO Q20.... 4

Very unlikely?.....SKIP TO Q20.... 5

A. Which service (do you plan to/did you) apply to?

ARMY..... 1

NAVY/MARINE CORPS..... 2

AIR FORCE..... 3

IF YES TO Q17.....ASK B
IF CODE 1, 2, OR 3 TO Q19.....ASK B
ALL OTHERS.....SKIP TO Q20

B. Are you interested in ROTC and a subsequent commission in the armed forces as a career or as a short term experience?

CAREER..... 1

SHORT TERM..... 2

UNDECIDED..... 3

20. Has the request for registration for a possible draft in this country influenced your decision to enroll or not to enroll in ROTC?

YES..... .....ASK A..... 1

NO.....SKIP TO BOX ABOVE Q21..... 2

A. How has it influenced your decision?

AVOID DRAFT/COMPLETE EDUCATION..... 1

SERVE WITH OFFICER'S COMMISSION..... 2

FEEL IT'S MY DUTY/PATRIOTIC..... 3

INEVITABLE/GET ME ANYWAY..... 4

CHANCE TO PICK SERVICE..... 5

OTHER..... 6

→SPECIFY: _____

_____

_____

IF YES TO Q17	ASK Q21	1
IF Q19 IS CODED 1-2-3	ASK Q21	2
ALL OTHERS	SKIP TO Q22	3

21. You mentioned you might enroll in ROTC/are enrolled in ROTC. What are/were your reasons for (considering) enrolling in ROTC? CODE ALL MENTIONS.

DO BETTER FINANCIALLY IN SERVICE.....01

AVOID THE DRAFT.....02

OPPORTUNITY FOR ADVANCEMENT.....03

FINANCIAL INCENTIVE.....04

OFFICER'S COMMISSION FOR MILITARY CAREER.....05

LEADERSHIP/MANAGEMENT TRAINING.....06

JOB SECURITY AFTER GRADUATION.....07

SELF DISCIPLINE.....08

PEOPLE IN ROTC.....09

GOOD EXPERIENCES.....10

CAREER OPPORTUNITIES.....11

PATRIOTIC FEELINGS.....12

UNIFORMS/MARCHING/MANEUVERS/ FLYING/SAILING.....13

EASY COURSES.....14

PARENTS/FRIENDS.....15

FUTURE TRAVEL.....16

CONTINUE EDUCATION.....17

SPECIFIC SERVICE.....18

→SPECIFY: _____

OTHER.....19

→SPECIFY: _____

_____

_____

SKIP TO Q23

AD-A185 430 AN ASSESSMENT OF THE COLLEGE MARKET SPRING-SUMMER (1980)(U) CALIFORNIA UNIV LOS ANGELES INST FOR SOCIAL SCIENCE RESEARCH R M BECERRA MAY 83 DMDC/SMAD-TR-15 3/3

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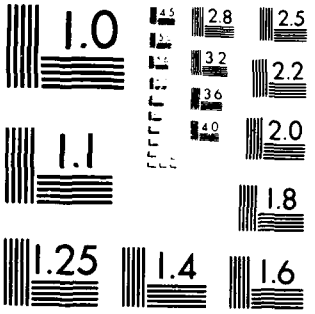

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963 A

22. What are your reasons for <u>not</u> considering enrolling in ROTC?

DO BETTER FINANCIALLY IN CIVILIAN LIFE.....01

OPPORTUNITY FOR ADVANCEMENT BETTER IN CIVILIAN LIFE.....02

UNIFORMS/MARCHING/MANEUVERS/ FLYING/SAILING.....03

OBLIGATION AFTER COLLEGE.....04

DISCIPLINE/REGIMENTATION.....05

TIME REQUIRED (EXTRA COURSES/ SUMMER CAMP).....06

IMAGE OF ROTC.....07

NEGATIVE MILITARY FEELINGS.....08

NOT INTERESTED IN MILITARY CAREER.....09

FINANCIAL INCENTIVE NOT ENOUGH.....10

CAREER CHOICE NOT AVAILABLE.....11

MARITAL PLANS/MARRIED.....12

DON'T WANT TO FIGHT.....13

PARENTS/FRIENDS.....14

PEOPLE IN ROTC.....15

OTHER.....16

→SPECIFY: _____

_____

_____

23. Do you think the present registration of 18 and 19 year olds will lead to reinstituting the draft?

YES..... 1

NO..... 2

24. If a draft is instituted by the time you graduate from college and you are selected at that time, would you:

Go to Officer's Candidate School,.....01

Go in as an enlisted man,.....02

Not comply by leaving the country,.....03

Not comply and go to prison,.....04

Try to get an exemption through the Courts,.....05

Are you not draftable due to medical or other reasons, or.....06

Would you do something else?.....07

→SPECIFY:_____

DEPENDS ON SITUATION.....97

DON'T KNOW.....98

And now I have a few questions about your opinion of a military career.

25. First, how likely do you think it is that a career as a commissioned officer would fulfill each of the following job characteristics: Would you say Very Likely, Somewhat Likely, Somewhat Unlikely, Very Unlikely or is it Neither Likely or Unlikely?

	VERY LIKELY	SOMEWHAT LIKELY	NEITHER LIKELY OR UNLIKELY	SOMEWHAT UNLIKELY	VERY UNLIKELY
A. Pay opportunities	5	4	3	2	1
B. Promotion opportunities	5	4	3	2	1
C. Amount of prestige associated with the job	5	4	3	2	1
D. Amount of personal responsibility	5	4	3	2	1
E. Use of previously developed skills in a specialized field	5	4	3	2	1
F. Opportunity to make a lasting contribution to society	5	4	3	2	1
G. Opportunity to obtain additional formal schooling	5	4	3	2	1
H. Chance to be a leader	5	4	3	2	1
I. Job security	5	4	3	2	1
J. Opportunity to help others	5	4	3	2	1

A. Some people think a career as a military officer and having a family pose no problem, while other people think a career as a military officer and having a family are not compatible. What about you? Do you think that:

A military career and a family life are no problem, or..... 1

A military career and a family life are not compatible?..... 2

DEPENDS..... 3

DON'T KNOW..... 8

26. A person serving as a commissioned officer in the military gets management experience with people, equipment, and administering funds as well as supervisory and leadership skills. Do you think this management experience is worth the time spent in the service?

YES..... 1

NO..... 2

27. Assume that after service as a commissioned officer a person secured a civilian job. How likely do you think it would be that this person would eventually be able to capitalize on this management experience and advance to a higher position on the job than his or her peers? Would you say:

Very likely,..... 1

Somewhat likely,..... 2

Somewhat unlikely, or..... 3

Very unlikely?..... 4

DEPENDS..... 5

DON'T KNOW..... 8

28. Now I am going to read a list of attributes, some of which ROTC does offer a student and others it does not. As I read each one please tell me if it is an ROTC benefit or not. First:

	ROTC OFFERS		
	YES	NO	DON'T KNOW
A. Scholarship (includes full tuition, books, fees, plus $100 month).....	1	2	8
B. Leadership/management training and experience...	1	2	8
C. With a degree, officer's commission in the military.....	1	2	8
D. A cross-enrollment program (attending an ROTC program at a college other than the one at which enrolled).....	1	2	8
E. Postgraduate educational opportunity.....	1	2	8
F. Medical care at the Veteran's Administration....	1	2	8
G. Allowance of $100 each month during jr. and sr. year of college with nonscholarship.....	1	2	8
H. Eligible for concurrent enrollment in the National Guard or Reserve to earn additional service credit and money while in ROTC.....	1	2	8
I. Access to military exchanges and commissaries for shopping.....	1	2	8
J. Medical and dental care at military hospitals...	1	2	8
K. Develops self-discipline.....	1	2	8
L. Builds character and confidence.....	1	2	8
M. Pay and benefits offered such as starting salary with commission of approximately $14,000.	1	2	8
N. Summer training with pay/expenses paid.....	1	2	8
O. The opportunity to withdraw from the program at the end of junior year of college.....	1	2	8
P. A maximum obligation of 6 years of active service in return for a full 2-year scholarship.	1	2	8
Q. Other..... → SPECIFY: _____	1	2	8

29. At present a student with a 2-year ROTC scholarship receives full tuition, cost of books and fees plus $100 a month allowance. Upon completion of the Bachelor's degree that student enters the service with an officer's commission at a starting salary of approximately $14,000 a year. The typical length of active service obligation is four years. In the junior and senior year the student is obligated to take one military science course per term in addition to the requirements for the degree and must spend 6 weeks in summer training each year.

Now I would like you to imagine you are considering enrolling in an ROTC program such as the one I just described. As I read the following alternatives please tell me which one of the two would have the most influence on your decision to enroll in an ROTC program.

Increase the monthly allowance from $100 to $200 a month, or..... 1

Reduce the active duty service obligation from 4 years to 3 years?..... 2

Increase the monthly allowance from $100 to $200 a month, or..... 1

A starting commission salary of $18,000 a year instead of $14,000?..... 2

Increase the monthly allowance from $100 to $200 a month, or..... 1

A bonus of $3,000 upon commission in the service?..... 2

Increase the monthly allowance from $100 to $200 a month, or..... 1

A bonus of $5,000 upon completion of active duty?..... 2

Increase the monthly allowance from $100 to $200 a month, or..... 1

A guarantee of six months of post-graduate education?.. 2

Reduce the active duty service obligation from 4 years to 3 years, or..... 1

A starting commission salary of $18,000 a year instead of $14,000?..... 2

Reduce the active duty service obligation
from 4 years to 3 years, or..... 1

A bonus of $3,000 upon commission in the service?..... 2

Reduce the active duty obligation
from 4 years to 3 years, or..... 1

A bonus of $5,000 upon completion of active duty?..... 2

Reduce the active duty obligation
from 4 years to 3 years, or..... 1

A guarantee of six months of post-graduate education?.. 2

A starting commission salary of $18,000
a year instead of $14,000, or..... 1

A bonus of $3,000 upon commission in the service?..... 2

A starting commission salary of $18,000
a year instead of $14,000, or..... 1

A bonus of $5,000 upon completion of active duty?..... 2

A starting commission salary of $18,000
a year instead of $14,000, or..... 1

A guarantee of six months of post-graduate education?.. 2

A bonus of $3,000 upon commission in the service, or... 1

A bonus of $5,000 upon completion of active duty?..... 2

A bonus of $3,000 upon commission in the service, or... 1

A guarantee of six months of post-graduate education?.. 2

A bonus of $5,000 upon completion of active duty, or... 1

A guarantee of six months of post-graduate education?.. 2

In this section I'd like to ask about the media and advertising.

30. Can you recall seeing or hearing any advertising or promotional material about ROTC?

YES..... .....ASK A..... 1

NO.....SKIP TO Q31..... 2

A. Please tell me everything you can remember about these ads and promotional material? PROBE "What else"? RECORD VERBATIM.

_____

_____

_____

_____

_____

_____

31. In the past year, have you had any contact with a military recruiter concerning ROTC?

YES.....ASK A..... 1

NO.....SKIP TO Q32..... 2

A. Which service or services did they represent? CODE ALL MENTIONS.

AIR FORCE..... 1

ARMY..... 2

NAVY..... 3

MARINE CORPS..... 4

OTHER.....

SPECIFY: _____ 5

_____ 6

DON'T KNOW..... 8

FOR EACH SERVICE REPRESENTED BY RECRUITER, Q31A, ASK:

B. How satisfied were you with the information you received from the (...) recruiter? INSERT SERVICE FOR (...) FROM Q31A. CODE IN APPROPRIATE COLUMN.

	VERY SATISFIED	SOMEWHAT SATISFIED	NEITHER SATISFIED NOR DIS-SATISFIED	SOMEWHAT UN-SATISFIED	VERY UN-SATISFIED
AIR FORCE.....	1	2	3	4	5
ARMY.....	1	2	3	4	5
NAVY.....	1	2	3	4	5
MARINE CORPS...	1	2	3	4	5

IF RESPONDENT IS FEMALE.....ASK Q'S 32-34
IF RESPONDENT IS MALE.....SKIP TO Q35

32. The following statements relate specifically to current perceptions of women's role in society in general and in military careers specifically.

As I read the following statements about women please tell me if you Strongly Agree, Agree, Disagree, Strongly Disagree or Neither Agree Nor Disagree with each. READ A-O.

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
A. There should be a strict merit system in job appointment without regard to sex.	1	2	3	4	5
B. Women should take a supportive position in society, marriage, and the world of work rather than trying to be the leaders.	1	2	3	4	5
C. Women should assume a place in business and all the professions along with men.	1	2	3	4	5
D. Certain jobs are so unfeminine that women should be excluded from performing them.	1	2	3	4	5
E. Female officers are treated as equals with male officers in terms of promotion.	1	2	3	4	5
F. Female officers are treated as equals with male officers in terms of responsibility.	1	2	3	4	5
G. Female officers are respected by enlisted men.	1	2	3	4	5
H. Female officers are respected by fellow officers.	1	2	3	4	5

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
I. Female officers are less respected by their superiors than are male officers.	1	2	3	4	5
J. Women in the military are as feminine as women in civilian job roles.	1	2	3	4	5
K. Women can serve in the military and have a family.	1	2	3	4	5
L. A greater variety of careers are available to women in the military than civilian jobs.	1	2	3	4	5
M. Female officers have better opportunities to obtain responsible managerial positions in the military than in civilian jobs.	1	2	3	4	5
N. Having a career as a female officer is not compatible with having a husband with a civilian career.	1	2	3	4	5
O. A woman pursuing a career as a female officer would not have enough time for raising children.	1	2	3	4	5

33. Now I would like you to imagine you are going to pursue a career as a commissioned officer. As I read the following statements please tell me if you would Strongly Like, Like, Dislike, Strongly Dislike, or Neither Like nor Dislike each one. READ A-G. First:

	STRONGLY LIKE	LIKE	NEITHER LIKE NOR DISLIKE	DISLIKE	STRONGLY DISLIKE
A. Living on a military base rather than in civilian housing.	1	2	3	4	5
B. Having a husband with a career as a commissioned officer.	1	2	3	4	5
C. Having the military recognize there are tasks for which women are not suited and work only on those tasks for which women are suited.	1	2	3	4	5
D. Serving my military obligation and then joining a reserve unit in civilian life.	1	2	3	4	5
E. Combining my career as a commissioned officer with getting married and having a family.	1	2	3	4	5
F. Be given the opportunity for sea duty, flying status and combat duty.	1	2	3	4	5
G. Being properly trained for and expected to serve in combat on the front line.	1	2	3	4	5

34. Do you think a female student enrolled in an ROTC program in college would be regarded Very Favorably, Favorably, Unfavorably, Very Unfavorably, or Neither Favorably nor Unfavorably by her: READ A-G.

	VERY FAVOR-ABLY	FAVOR-ABLY	NEITHER FAVOR-ABLY NOR UNFAVOR-ABLY	UNFAVOR-ABLY	VERY UNFAVOR-ABLY
A. Fellow female students	1	2	3	4	5
B. Fellow male students	1	2	3	4	5
C. Professors	1	2	3	4	5
D. ROTC Instructors	1	2	3	4	5
E. Father	1	2	3	4	5
F. Mother	1	2	3	4	5
G. Friends	1	2	3	4	5

Now, a few background questions.

35. What month, day and year were you born?

_____ / _____ / _____
MONTH DAY YEAR

36. What is your present employment status? Are you:

Working full-time,..ASK A..... 1

Working part-time,..ASK A..... 2

Unemployed and
looking for work,...ASK A..... 3

In school, not
working, or.....SKIP TO Q37..... 4

Something else?..... 5
→SPECIFY:_____

A. What kind of work do you do?

_____

37. What is your present marital status? Are you:

Married,.....SKIP TO Q38..... 1

Divorced,.....ASK A..... 2

Separated,.....ASK A..... 3

Widowed, or.....ASK A..... 4

Have you never
been married?.....ASK A..... 5

A. Do you currently have a regular relationship with one person?

YES..... 1

NO..... 2

B. Do you have plans to get married within:

The next 2 years,..... 1

2-4 years,..... 2

More than four years from now, or..... 3

Do you have no plans to marry at the moment?..... 4

C. How important is getting married or having a serious committed relationship to you? Is it:

Very important,..... 1

Somewhat important,..... 2

Not very important, or..... 3

Not at all important?..... 4

NOT SURE..... 5

SKIP TO Q39

38. What is your spouse's present employment status? Is he/she:

Working full-time,..... 1

Working part-time,..... 2

Unemployed and looking for work,..... 3

Not working, in school,..... 4

Retired, or..... 5

Something else?..... 6

SPECIFY:_____

39. How would you describe your racial background or heritage? Is it:

American Indian or Alaskan Native,..... 1
Asian or Pacific Islander,..... 2
Black,..... 3
White, or..... 4
Another group?..... 5
→SPECIFY:_____

A. Do you consider yourself to be of Hispanic origin?

YES..... 1
NO..... 2
REFUSED..... 7

40. What was your grade point average or overall grade in high school?

RECORD:_____

IF GPA GIVEN, ASK:

A. What was the grade point system in your high school?

RECORD:_____

41. What is your grade point average or overall grade now, in College?

RECORD:_____

A. What grade system is used in your college?

RECORD:_____

42. Did you enter college:

Directly from high school,..... 1
Transferring from a Junior
or Community College, or..... 2
After working for a while?..... 3
OTHER..... 4
→SPECIFY:_____

A. Were you in JROTC in high school?

YES..... 1
NO..... 2

43. What type of area did you spend most of your childhood in up to the age of 16? Was it:

Open country, but not a farm,..... 1

On a farm,..... 2

A small city or town (under 50,000)..... 3

A medium city (50,000 - 250,000)..... 4

A suburb near a large city, or..... 5

A large city (over 250,000)..... 6

A. What state was that?

RECORD:_____
STATE

B. How many times did you move from one city or town to another during your childhood, up to the age of 16?

RECORD:_____

44. How many brothers and sisters do you have?

RECORD #:_____

A. How many are older than yourself?

RECORD #:_____

Now I'd like to ask you a few questions about your parents.

45. What is(was) your father's/male guardian's occupation? AT PRESENT TIME.

ENGINEERING, PHYSICAL SCIENCE, MATHEMATICS, ARCHITECTURE..... 1

MEDICAL AND BIOLOGICAL SCIENCES..... 2

BUSINESS ADMINISTRATION..... 3

GENERAL TEACHING AND SOCIAL SCIENCE..... 4

HUMANITIES, LAW, SOCIAL AND BEHAVIORAL SCIENCES..... 5

FINE ARTS, PERFORMING ARTS..... 6

TECHNICAL JOBS..... 7

PROPRIETORS, SALES..... 8

MECHANICS, INDUSTRIAL TRADES..... 9

CONSTRUCTION TRADE.....10

SECRETARIAL-CLERICAL, OFFICE WORKERS....11

OTHER.....12

→SPECIFY:_____

NO FATHER/MALE GUARDIAN.....13

A. What type of business or industry is/was that?

_____

_____

_____

46. What is/was your mother's/female guardian's occupation?

ENGINEERING, PHYSICAL SCIENCE, MATHEMATICS, ARCHITECTURE..... 1

MEDICAL AND BIOLOGICAL SCIENCES..... 2

BUSINESS ADMINISTRATION..... 3

GENERAL TEACHING AND SOCIAL SCIENCE..... 4

HUMANITIES, LAW, SOCIAL AND BEHAVIORAL SCIENCES..... 5

FINE ARTS, PERFORMING ARTS..... 6

TECHNICAL JOBS..... 7

PROPRIETORS, SALES..... 8

MECHANICS, INDUSTRIAL TRADES..... 9

CONSTRUCTION TRADE.....10

SECRETARIAL-CLERICAL, OFFICE WORKERS....11

HOUSEWIFE.....12

OTHER.....13

→SPECIFY:_____

NO MOTHER/FEMALE GUARDIAN.....14

A. What type of business or industry is/was that?

_____

_____

_____

47. What was the highest grade or degree in school your father completed and received credit for?

8TH GRADE OR LESS..... 1

SOME HIGH SCHOOL..... 2

HIGH SCHOOL DIPLOMA..... 3

SOME COLLEGE..... 4

UNDERGRADUATE COLLEGE DEGREE..... 5

GRADUATE SCHOOL DEGREE..... 6

48. Was your father ever in the military?

YES.....ASK A..... 1

NO.....SKIP TO E..... 2

A. At the time of his discharge was he:

An enlisted man, or..... 1

An officer?..... 2

B. How long did he serve?

RECORD # YRS:_____

C. How do you think he would rate his military service? Would he say he was:

Very satisfied,..... 1

Somewhat satisfied,..... 2

Neither satisfied nor dissatisfied,..... 3

Somewhat dissatisfied, or..... 4

Very dissatisfied?..... 5

DON'T KNOW..... 8

D. In which service was your father?

ARMY..... 1

NAVY..... 2

AIR FORCE..... 3

MARINE CORPS..... 4

COAST GUARD..... 5

U.S. PHS..... 6

E. Was your father ever enrolled in:

JROTC (High School),..... 1

College ROTC,..... 2

OCS, OTS, or a..... 3

Service Academy?..... 4

NO..... 5

DON'T KNOW..... 8

49. How about your mother's military experience? Was she:

Never in the service,..... 1

An enlisted woman, or..... 2

An officer?..... 3

50. As I read the following, please tell me which of your relatives or friends have had or are presently in military service, ROTC, OCS or OTS or a Service Academy? READ A-E. FOR EACH MENTION ASK: How many are/were in:

	MILITARY		ROTC		OCS/OTS		SERVICE ACADEMY	
	HAD	PRES-ENTLY	HAD	PRES-ENTLY	HAD	PRES-ENTLY	HAD	PRES-ENTLY
	#	#	#	#	#	#	#	#
A. Brothers?								
B. Sisters?								
C. Close friends?								
D. Uncles?								
E. Grandparents?								

51. What is the approximate income level of your family? Is it:

$10,000 or less,..... 1

$10,001 to $15,000,..... 2

$15,001 to $25,000,..... 3

$25,001 to $35,000,..... 4

$35,001 to $50,000, or..... 5

Over $50,001 per year?..... 6

52. Some people are involved in college activities, others are not. How about you? Have you joined or are you planning to join: READ A-F AND CODE.

	I NO	BELONG	PLAN	II NAME
A. A social fraternity/ sorority?.....	1	2	3	
B. A campus religious group?....	1	2	3	
C. A service oriented group or club?.....	1	2	3	
D. A campus political party?....	1	2	3	
E. A professional group - career oriented?.....	1	2	3	
F. Any other group?.....	1			
SPECIFY: _____		2	3	
_____		2	3	
_____		2	3	
_____		2	3	

A. FOR EACH "BELONG" OR "PLAN" ASK: What is the name(s) of (...)? RECORD IN COLUMN II OF CHART ABOVE.

Thank you for your time and cooperation. The armed forces are interested in increasing participation in programs such as OCS and OTS by college students. Are there any recommendations or ideas you would like to add that have not been covered by this interview?

DECK 01

I.D.# _____ (1-4)

SCREENER

Log#: _____ (8-11)

	DATE	INIT
LOG 1		
LOG 2		
EDIT		
VAL		
CLN		

COLLEGE MARKET STUDY

OCS/OTS

JUNIORS/SENIORS

RESPONDENT NAME: _____ TELEPHONE #: _____/_____
AREA CODE

INTERVIEWER NAME: _____ I.D.#: _____ (12-14)

DATE	DAY	TIME	RESULT	COMMENTS
1.		AM PM		
2.		AM PM		
3.		AM PM		
4.		AM PM		
5.		AM PM		
6.		AM PM		
7.		AM PM		
8.		AM PM		
9.		AM PM		
10.		AM PM		
11.		AM PM		
12.		AM PM		
13.		AM PM		
14.		AM PM		
15.		AM PM		

NO ANSWER.....01
R NOT AVAILABLE.....02
LINE BUSY.....03
WRONG NUMBER.....04
ANSWERING SERVICE/RECORDED MESSAGE..05
LANGUAGE BARRIER.....06
CALL BACK ARRANGED.....07
DISCONNECTED/NOT IN SERVICE.....08
NONRESIDENTIAL #.....09
COMPLETED.....10
INITIAL CONTACT REFUSED.....11
R REFUSED.....12
TERMINATED.....13
INCAPABLE.....14
OTHER.....15

FOR OFFICE USE ONLY:

FINAL RESULT - [ ] [ ]

SCHOOL ID TYPE:
R.I.D.#:_____

INTERVIEWER:_____ I.D.#:_____

TIME BEGINNING:_____ AM/PM TIME ENDING:_____ AM/PM # OF MINUTES:_____

Good morning/afternoon/evening. I'm (...) from the Institute for Social Science Research of the University of California, Los Angeles.

1. Is this (REPEAT AREA CODE AND # DIALED)?

YES.....ASK a..... 1

NO.....TERMINATE
DIAL AGAIN..... 2

a. May I speak to (RESPONDENT)?

AVAILABLE.....SKIP TO Q4..... 1

NOT AVAILABLE.....ASK Q2..... 2

2. When would be a good time for me to call back to talk to (RESPONDENT)?

DAY:_____

DATE:_____

TIME:_____

NO LONGER AT
THIS NUMBER.....ASK Q3..... 90

3. Could you give me the new telephone number and address I can reach him/her at or how I can contact (...)(RESPONDENT)?

RECORD: NEW PHONE: ( )_____
AREA CODE

NEW ADDRESS:_____

_____
ZIP CODE

DON'T KNOW..... 8

IF NEW PHONE NUMBER...RETURN TO Q1.....	1
IF NEW ADDRESS ONLY...SUPERVISOR HOLD...	2
IF NO INFORMATION.....TERMINATE.....	3

4. Respondent Sex (VERIFY). SEE ASSIGNMENT.

SAME..... 1

DIFFERENT.....TERMINATE..... 2

5. We are conducting a College Market Study and would like to ask you a few questions. Your name has been randomly selected from your school's student registry. First I need to be sure that I am interviewing the the right person. What college are you attending at the present time?

RECORD NAME:_____

NOT ATTENDING
SAMPLED COLLEGE.....TERMINATE..... 90

NOT ATTENDING
AT PRESENT.....TERMINATE..... 91

a. Are you a full or part-time student?

FULL-TIME..... 1

PART-TIME.....TERMINATE..... 2

6. What is your present major? SEE ASSIGNMENT.

SAME AS SAMPLE.....SKIP TO Q7..... 1

DIFFERENT..... 2

→SPECIFY:_____

a. IS MAJOR TECHNICAL/NONTECHNICAL?

TECHNICAL MAJORS
- ANY ENGINEERING MAJOR
- PHYSICS
- CHEMISTRY
- COMPUTER SCIENCE
- MATHEMATICS
- MATHEMATICAL STATISTICS

UNDECLARED IS NONTECHNICAL

MAJOR STAYS.....GO TO Q7..... 1

FEMALE MAJOR
CHANGE.....GO TO Q7..... 2

MALE MAJOR CHANGES
TO OTHER CATEGORY...TERMINATE..... 3

7. What is your present class year? SEE ASSIGNMENT.

SAME..... 1

DIFFERENT.....TERMINATE..... 2

CONTINUE WITH INTRODUCTION OF QUESTIONNAIRE

R.I.D.#:_____

As I mentioned, I'm calling from the University of California at Los Angeles. We are conducting a study to determine students' continuing educational plans, career goals and objectives. Your college and your name have been chosen at random. Any information you give us will be kept confidential by our Institute to the extent that the law enables us to do so. Your name will not appear in our analysis of the data.

You may also be interested to know that I'm entering your answers directly into a computer so if you hear a clicking sound after each answer that's what it is.

There is a possibility that our conversation will be monitored by my supervisor to confirm that I am conducting this interview.

1. First, do you plan to complete the Bachelor's degree?

YES..... 1

NO..... 2

2. What do you plan to do after (leaving school/completing your Bachelor's degree)? Will you look for a job in your field, or do you have other plans?

TRAVEL/(PROBE).....,01

CONTINUE EDUCATION.....02

→SPECIFY DEGREE:_____

GO INTO BUSINESS.....03

LOOK FOR OR SECURE JOB IN FIELD.....04

LOOK FOR OR SECURE JOB IN OTHER FIELD...05

SCHOOL/WORK IN FIELD.....06

SCHOOL/WORK OTHER FIELD.....07

ENLIST IN MILITARY.....08

VOLUNTEER SERVICE (PEACE CORPS/VISTA)...09

DO NOT PLAN TO ENTER LABOR FORCE.....10

→SPECIFY:_____

OTHER.....11

→SPECIFY:_____

3. On completion of your education, what occupational area are you most likely to pursue? PROBE FOR ONE.

ENGINEERING, PHYSICAL SCIENCE, MATHEMATICS, ARCHITECTURE..... 1

MEDICAL AND BIOLOGICAL SCIENCES..... 2

BUSINESS ADMINISTRATION..... 3

GENERAL TEACHING AND SOCIAL SCIENCE..... 4

HUMANITIES, LAW, SOCIAL AND BEHAVIORAL SCIENCES..... 5

FINE ARTS, PERFORMING ARTS..... 6

TECHNICAL JOBS..... 7

PROPRIETORS, SALES..... 8

MECHANICS, INDUSTRIAL TRADES..... 9

CONSTRUCTION TRADE.....10

SECRETARIAL-CLERICAL, OFFICE WORKERS....11

A. In what area, field or type of work do you plan to specialize in? INSERT ANSWER FROM Q3.

RECORD:_____

_____

_____

NO SPECIALTY.....97

DON'T KNOW.....98

B. Can you tell me what percentage of students in your major graduating from your college obtain employment in the following areas? READ a-e. RECORD %.

		%
a.	Private industry	_____
b.	Government	_____
c.	Education	_____
d.	Non-Profit Organizations	_____
e.	Self-Employed	_____

C. In which of these sectors do you think you will secure employment when you complete your education? Will it be:

Private industry,..... 1

Government,..... 2

Education,..... 3

Non-Profit Organizations, or..... 4

Self-Employed?..... 5

The following questions are about your future job expectations and your career plans.

4. People accept job offers for a variety of reasons. As I read each of the following job characteristics please tell me how important it would be in your choosing the ideal job. Tell me if it would be Very Important, Somewhat Important, Somewhat Unimportant, Very Unimportant or would it be Not Important or Unimportant. READ A-J AND CODE.

	VERY IMPORTANT	SOMEWHAT IMPORTANT	NOT IMPORTANT OR UNIMPORTANT	SOMEWHAT UNIMPORTANT	VERY UNIMPORTANT
A. Pay opportunities	5	4	3	2	1
B. Promotion opportunities	5	4	3	2	1
C. Amount of prestige associated with the job	5	4	3	2	1
D. Amount of personal responsibility	5	4	3	2	1
E. Use of previously developed skills in a specialized field	5	4	3	2	1
F. Opportunity to make a lasting contribution to society	5	4	3	2	1
G. Opportunity to obtain additional formal schooling	5	4	3	2	1
H. Chance to be a leader	5	4	3	2	1
I. Job security	5	4	3	2	1
J. Opportunity to help others	5	4	3	2	1

5. Now I'm going to read you a few sets of statements which describe various working situations. I would like you to tell me which one of two statements most appeals to you. First:

I want a job where my promotion is merited on seniority and meeting a series of requirements, or..... 1

I want a job where my promotion is based entirely on performance without regard to length of service?.... 2

I want a job where I assume the risks and rewards of making my own decisions, or..... 1

I want a job where decision making is a group process with input from my supervisors?..... 2

I would rather have a higher paying job with less security than,..... 1

A job paying less but with good security?..... 2

I would rather have a job where tasks are accomplished by a group process, or..... 1

A job where I accomplish tasks alone?..... 2

I would rather work as a member of a group, or..... 1

I would rather be the leader of the group?..... 2

6. People are not always firmly committed to their occupational choice. How certain are you that you will pursue this occupation after completing your education? Would you say:

Very certain,..... 1

Somewhat certain,..... 2

Somewhat uncertain, or..... 3

Very uncertain?..... 4

UNDECIDED..... 5

7. Some people attend college to prepare for a specific employment career, others attend college to get a well-rounded education, and yet others attend with the idea of finding a career interest while in school. Which of these best describes yourself?

SPECIFIC CAREER..... 1

ALL ROUND EDUCATION..... 2

FIND CAREER IN SCHOOL..... 3

8. Do you think your education will have prepared you sufficiently to secure a job in the occupation of your choice?

YES..... 1

YES, ADDITIONAL STUDIES/TRAINING..... 2

NO..... 3

9. What is the likelihood of your securing a job in the occupation of your choice after completing your education? Would you say:

Very likely,..... 1

Somewhat likely,..... 2

Not sure,..... 3

Somewhat unlikely, or..... 4

Very unlikely?..... 5

10. In selecting an occupation, people are often influenced by the opinions of their family and friends. Thinking of your own decision, which of the following people has had the most influence in your choice of occupation? Would you say it was: RECORD IN COLUMN A.

	COLUMN A	COLUMN B	COLUMN C
Your father,.....	1	1	1
Your mother,.....	2	2	2
Other family members,..... →SPECIFY:_____	3	3	3
Your friends, or.....	4	4	4
Someone else?..... →SPECIFY:_____	5	5	5
NO ONE.....	6	6	6

A. Who was the next most influential person in your decision? RECORD IN COLUMN B.

B. And who had the next most influence? RECORD IN COLUMN C.

11. Thinking ahead to your first full time position after you have completed your education, which of these categories represents your expected yearly salary upon entry? Would you say:

$10,000 or less..... 1
10,001 - 15,000,..... 2
15,001 - 25,000,..... 3
25,001 - 35,000,..... 4
35,001 - 50,000, or..... 5
50,001 and over?..... 6

12. People sometimes make career changes in their working histories. How likely do you think it will be that you will make a career change within 5 years after leaving school? Would you say:

Very likely,..... 1
Somewhat likely,..... 2
Not sure,..... 3
Somewhat unlikely, or..... 4
Very unlikely?..... 5

13. How are your educational expenses being financed? CODE ALL MENTIONS.

A. PARENTS/RELATIVES.....01
B. SELF/WORKING.....02
C. SAVINGS.....03
D. SCHOLARSHIPS.....04
E. STUDENT LOANS/LOANS.....05
F. G.I. BILL.....06
G. SOCIAL SECURITY.....07
H. ROTC.....08
I. GRANT.....09
J. OTHER 10
→SPECIFY:_____

REFER TO Q13

IF MORE THAN ONE MENTION.....	ASK A.....	1
IF ONLY ONE MENTION.....	SKIP TO Q14.....	2

A. Which one provides the most financing for your education?

RECORD LETTER:_____

14. We are interested in college students attitudes toward national security. As I read the following statements, please tell me if you Strongly Agree, Agree, Disagree, Strongly Disagree or Neither Agree nor Disagree with each. READ A-F. CODE IN APPROPRIATE COLUMN.

	STRONGLY AGREE	AGREE	NEITHER AGREE/ DISAGREE	DISAGREE	STRONGLY DISAGREE
A. Some wars are inevitable	1	2	3	4	5
B. I feel that it is my duty to serve in the armed services.....	1	2	3	4	5
C. Military officers represent a very high level of patriotism	1	2	3	4	5
D. Our military must be strengthened to protect our way of life.....	1	2	3	4	5
E. Our country should spend resources on national concerns rather than international.....	1	2	3	4	5
F. Military officers represent a very high level of professionalism.....	1	2	3	4	5

Now I would like to ask some questions about opportunities for college students in the Armed Forces.

15. Are you aware of the college ROTC programs?

YES..... 1

NO.....SKIP TO Q18..... 2

16. Are you aware of the two-year ROTC programs available to a student in his/her junior and senior years?

YES.....ASK A..... 1

NO.....SKIP TO Q17..... 2

A. Can you tell me the various financial aids offered to juniors and seniors enrolled in ROTC?

SCHOLARSHIP PROGRAM..... 1

LIVING ALLOWANCE ONLY..... 2

OTHER..... 3

→SPECIFY:_____

17. Are you enrolled in an ROTC program?

YES.....ASK A..... 1

NO.....SKIP TO Q18..... 2

A. In which program are you enrolled?

SCHOLARSHIP..... 1

LIVING ALLOWANCE ONLY..... 2

OTHER..... 3

→SPECIFY:_____

18. Are you aware of the Officer's Candidate and training programs offered by the Armed Forces to college graduates?

YES.....ASK A..... 1

NO.....SKIP TO Q19..... 2

A. Can you tell me which of the services offer OCS/OTS programs?

ARMY..... 1

NAVY..... 2

MARINE CORPS..... 3

AIR FORCE..... 4

19. As you may know, college graduates can earn commissions in the various services without ROTC or other military training. Upon completion of the Bachelor's degree a graduate can apply to one of the services for OCS/OTS. There is a basic training course of 14 weeks for OCS or 12 weeks for OTS. At the end of this training period the candidate is commissioned into the service as an officer at the 2nd Lieutenant level with a starting salary of $14,000. The average active duty obligation is 4 years. Whenever possible an officer is assigned to a duty which is relevant to his/her field of study. Upon completion of your degree what are the chances you will apply to an Officer's Candidate or Officer's Training program? Would you say it is:

Very likely,.....ASK A 1

Somewhat likely,.....ASK A..... 2

Undecided,.....ASK A..... 3

Somewhat unlikely, or....SKIP TO Q20.... 4

Very unlikely?.....SKIP TO Q20.... 5

A. To which service do you plan to apply?

ARMY..... 1

NAVY..... 2

MARINE CORPS..... 3

AIR FORCE..... 4

B. Are you interested in OCS/OTS and a subsequent commission in the service as a career or as a short term experience?

CAREER..... 1

SHORT TERM..... 2

UNDECIDED..... 3

20. (If you were to consider applying/When you considered applying) to an OCS/OTS program from whom would/did you seek advice before making a decision?

A. FATHER..... 1

B. MOTHER..... 2

C. OTHER RELATIVES..... 3
→ SPECIFY: _____

D. SPOUSE/FIANCE(E)..... 4

E. FRIENDS..... 5

F. ROTC COUNSELOR..... 6

NO ONE.....SKIP TO Q21..... 7

A. Which one of these persons would have/had the greatest amount of influence on your decision to apply?

RECORD LETTER FROM Q20: _____

21. Has the request for a registration for a possible draft in this country influenced your decision to apply or not apply to an OCS/OTS program?

YES.....ASK A..... 1

NO.....SKIP TO BOX ABOVE Q22..... 2

A. How has it influenced your decision?

AVOID DRAFT/COMPLETE EDUCATION..... 1

SERVE WITH OFFICER'S COMMISSION..... 2

FEEL IT'S MY DUTY/PATRIOTIC..... 3

INEVITABLE/GET ME ANYWAY..... 4

CHANCE TO PICK SERVICE..... 5

OTHER..... 6
→ SPECIFY: _____

_____

_____

IF Q19 IS CODED 1-2-3.....ASK Q22.....	1
ALL OTHERS.....SKIP TO Q23.....	2

22. You mentioned you might apply to an OCS/OTS program. What are your reasons for OCS/OTS? CODE ALL MENTIONS.

DO BETTER FINANCIALLY IN SERVICE.....01

AVOID THE DRAFT.....02

OPPORTUNITY FOR ADVANCEMENT.....03

FINANCIAL INCENTIVE.....04

OFFICER'S COMMISSION FOR MILITARY CAREER.....05

LEADERSHIP MANAGEMENT TRAINING.....06

JOB SECURITY AFTER GRADUATION.....07

SELF DISCIPLINE.....08

PEOPLE IN MILITARY.....09

GOOD EXPERIENCES.....10

CAREER OPPORTUNITIES.....11

PATRIOTIC FEELINGS.....12

UNIFORMS/MARCHING/MANEUVERS/ FLYING/SAILING.....13

PARENTS/FRIENDS.....14

FUTURE TRAVEL.....15

CONTINUE EDUCATION.....16

SPECIFIC SERVICE.....17

→SPECIFY:_____

OTHER.....18

→SPECIFY:_____

_____

_____

SKIP TO Q24

23. What are your reasons for not considering applying to an OCS/OTS program?

DO BETTER FINANCIALLY IN CIVILIAN LIFE..01

OPPORTUNITY FOR ADVANCEMENT BETTER IN CIVILIAN LIFE.....02

UNIFORMS/MARCHING/MANEUVERS/ FLYING/SAILING.....03

OBLIGATION AFTER COLLEGE.....04

DISCIPLINE REGIMENTATION.....05

TIME REQUIRED (EXTRA COURSES/ SUMMER CAMP).....06

IMAGE OF MILITARY.....07

NEGATIVE MILITARY FEELINGS.....08

NOT INTERESTED IN MILITARY CAREER.....09

FINANCIAL INCENTIVE NOT ENOUGH.....10

CAREER CHOICE NOT AVAILABLE.....11

MARITAL PLANS.....12

DON'T WANT TO FIGHT.....13

PARENTS/FRIENDS.....14

PEOPLE IN MILITARY.....15

OTHER.....16

SPECIFY: _____

_____

_____

24. Do you think the present registration of 18 and 19 year olds will lead to reinstituting the draft?

YES..... 1

NO..... 2

25. If a draft is instituted by the time you graduate from college and you are selected at that time, would you:

Go to Officer's Candidate School,.....01

Go in as an enlisted man,.....02

Not comply by leaving the country,.....03

Not comply and go to prison,.....04

Try to get an exemption through the Courts,.....05

Are you not draftable due to medical or other reasons, or.....06

Would you do something else?.....07

→SPECIFY:_____

DEPENDS ON SITUATION.....97

DON'T KNOW.....98

26. And now I have a few questions about your opinion of a military career. First, how likely do you think it is that a career as a commissioned officer would fulfill each of the following job characteristics: Would you say Very Likely, Somewhat Likely, Somewhat Unlikely, Very Unlikely or is it Neither Likely or Unlikely?

	VERY LIKELY	SOMEWHAT LIKELY	NEITHER LIKELY OR UNLIKELY	SOMEWHAT UNLIKELY	VERY UNLIKELY
A. Pay opportunities	5	4	3	2	1
B. Promotion opportunities	5	4	3	2	1
C. Amount of prestige associated with the job	5	4	3	2	1
D. Amount of personal responsibility	5	4	3	2	1
E. Use of previously developed skills in a specialized field	5	4	3	2	1
F. Opportunity to make a lasting contribution to society	5	4	3	2	1
G. Opportunity to obtain additional formal schooling	5	4	3	2	1
H. Chance to be a leader	5	4	3	2	1
I. Job security	5	4	3	2	1
J. Opportunity to help others	5	4	3	2	1

A. Some people think a career as a military officer and having a family pose no problem, while other people think a career as a military officer and having a family are not compatible. What about you? Do you think that:

A military career and a family life are no problem, or..... 1

A military career and a family life are not compatible?..... 2

DEPENDS..... 3

DON'T KNOW..... 8

27. A person serving as a comissioned officer in the military gets management experience with people, equipment, and administering funds as well as supervisory and leadership skills. Do you think this management experience is worth the time spent in the service?

YES..... 1

NO..... 2

28. Assume that after service as a commissioned officer a person secured a civilian job. How likely do you think it would be that this person would eventually be able to capitalize on this management experience and advance to a higher position on the job than his or her peers? Would you say:

Very likely,..... 1

Somewhat likely,..... 2

Somewhat unlikely, or..... 3

Very unlikely?..... 4

DEPENDS..... 5

DON'T KNOW..... 8

29. Now I am going to read a list of attributes, some of which a career as a commissioned officer has to offer a person and others it does not. As I read each one please tell me if it is benefit offered or not. First:

	OCS/OTS OFFERS		
	YES	NO	DON'T KNOW
A. Leadership/Management training and experience.....	1	2	8
B. Postgraduate educational opportunity.....	1	2	8
C. Challenge of a new experience.....	1	2	8
D. Adventure and travel.....	1	2	8
E. A military career/security.....	1	2	8
F. Develops self-discipline.....	1	2	8
G. Builds character and confidence.....	1	2	8
H. Pay and benefits offered such as starting salary with commission of approximately $14,000.....	1	2	8
I. Good retirement benefits.....	1	2	8
J. Regular performance review and advancement.....	1	2	8
K. 30 days vacation each year.....	1	2	8
L. G.I. education opportunity.....	1	2	8
M. Veteran's benefits for health.....	1	2	8
N. Upon discharge, assistance in job placement in the civilian market.....	1	2	8
O. Opportunity to retire after 15 years service.....	1	2	8
P. A lump sum bonus upon discharge from service.....	1	2	8
Q. Upon retirement after 30 years service 100% of total salary at time of discharge.....	1	2	8

30. At present a college graduate with a Bachelor's degree can apply to Officer's Candidate School. As I mentioned earlier, after a training period of 14 weeks for OCS or 12 weeks for OTS the candidate is commissioned at the level of 2nd Lieutenant with a starting salary of approximately $14,000. The typical length of active service obligation is 4 years.

Now I would like you to imagine you are considering applying to Officer's Candidate School to seek a career as a commissioned officer. As I read the following alternatives please tell me which one of the two would have the most influence on your decision to apply to OCS/OTS.

Reduce the training period for OCS from 14 weeks to 10 weeks and for OTS from 12 weeks to 9 weeks, or..... 1

Reduce the active duty service obligation from 4 years to 3 years?..... 2

Reduce the training period for OCS from 14 weeks to 10 weeks and for OTS from 12 weeks to 9 weeks, or..... 1

A starting commission salary of $18,000 a year instead of $14,000?..... 2

Reduce the training period for OCS from 14 weeks to 10 weeks and for OTS from 12 weeks to 9 weeks, or..... 1

A bonus of $3,000 upon commission in the service?..... 2

Reduce the training period for OCS from 14 weeks to 10 weeks and for OTS from 12 weeks to 9 weeks, or..... 1

A bonus of $5,000 upon completion of active duty?..... 2

Reduce the training period for OCS from 14 weeks to 10 weeks and for OTS from 12 weeks to 9 weeks, or..... 1

A guarantee of six months of post-graduate education?.. 2

Reduce the active duty service obligation from 4 years to 3 years, or..... 1

A starting commission salary of $18,000 a year instead of $14,000?..... 2

Reduce the active duty service obligation from 4 years to 3 years, or..... 1

A bonus of $3,000 upon commission in the service?..... 2

Reduce the active duty service obligation
from 4 years to 3 years, or..... 1

A bonus of $5,000 upon completion of active duty?..... 2

Reduce the active duty service obligation
from 4 years to 3 years, or..... 1

A guarantee of six months of post-graduate education?.. 2

A starting commission salary of $18,000
a year instead of $14,000, or..... 1

A bonus of $3,000 upon commission in the service?..... 2

A starting commission salary of $18,000
a year instead of $14,000, or..... 1

A bonus of $5,000 upon completion of active duty?..... 2

A starting commission salary of $18,000
a year instead of $14,000, or..... 1

A guarantee of six months of post-graduate education?.. 2

A bonus of $3,000 upon commission in the service, or... 1

A bonus of $5,000 upon completion of active duty?..... 2

A bonus of $3,000 upon commission in the service, or... 1

A guarantee of six months of post-graduate education?.. 2

A bonus of $5,000 upon completion of active duty, or... 1

A guarantee of six months of post-graduate education?.. 2

In this section I'd like to ask about the media and advertising.

31. Can you recall seeing or hearing any advertising or promotional material about Officer's Candidate School or Officer's Training School?

YES.....ASK A..... 1

NO.....SKIP TO Q32..... 2

A. Please tell me everything you can remember about these ads and promotional material? PROBE "What else"? RECORD VERBATIM.

_____

_____

_____

_____

_____

_____

32. In the past year, have you had any contact with a military recruiter concerning OCS/OTS?

YES.....ASK A..... 1

NO.....SKIP TO Q33..... 2

A. Which service or services did they represent? CODE ALL MENTIONS.

AIR FORCE..... 1

ARMY..... 2

NAVY..... 3

MARINE CORPS..... 4

OTHER.....

SPECIFY: _____ 5

_____ 6

DON'T KNOW..... 8

FOR EACH BRANCH REPRESENTED BY RECRUITER, Q32A, ASK:

B. How satisfied were you with the information you received from the (...) recruiter? INSERT BRANCH OF SERVICE FOR (...) FROM Q32A. CODE IN APPROPRIATE COLUMN.

	VERY SATISFIED	SOMEWHAT SATISFIED	NEITHER SATISFIED NOR DIS-SATISFIED	NOT VERY SATISFIED	NOT AT ALL SATISFIED
AIR FORCE.....	1	2	3	4	5
ARMY.....	1	2	3	4	5
NAVY.....	1	2	3	4	5
MARINE.....	1	2	3	4	5

IF RESPONDENT IS FEMALE.....ASK Q'S 33-35
IF RESPONDENT IS MALE.....SKIP TO Q36

33. The following statements relate specifically to current perceptions of women's role in society in general and in military careers specifically.

As I read the following statements about women please tell me if you Strongly Agree, Agree, Disagree, Strongly Disagree or Neither Agree Nor Disagree with each. READ A-O.

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
A. There should be a strict merit system in job appointment without regard to sex.	1	2	3	4	5
B. Women should take a supportive position in society, marriage, and the world of work rather than trying to be the leaders.	1	2	3	4	5
C. Women should assume a place in business and all the professions along with men.	1	2	3	4	5
D. Certain jobs are so unfeminine that women should be excluded from performing them.	1	2	3	4	5
E. Female officers are treated as equals with male officers in terms of promotion.	1	2	3	4	5
F. Female officers are treated as equals with male officers in terms of responsibility.	1	2	3	4	5
G. Female officers are respected by enlisted men.	1	2	3	4	5
H. Female officers are respected by fellow officers.	1	2	3	4	5

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
I. Female officers are less respected by their superiors than are male officers.	1	2	3	4	5
J. Women in the military are as feminine as women in civilian job roles.	1	2	3	4	5
K. Women can serve in the military and have a family.	1	2	3	4	5
L. A greater variety of careers are available to women in the military than civilian jobs.	1	2	3	4	5
M. Female officers have better opportunities to obtain responsible managerial positions in the military than in civilian jobs.	1	2	3	4	5
N. Having a career as a female officer is not compatible with having a husband with a civilian career.	1	2	3	4	5
O. A woman pursuing a career as a female officer would not have enough time for raising children.	1	2	3	4	5

34. Now I would like you to imagine you are going to pursue a career as a commissioned officer. As I read the following statements please tell me if you would Strongly Like, Like, Dislike, Strongly Dislike, or Neither Like nor Dislike each one. READ A-G. First:

	STRONGLY LIKE	LIKE	NEITHER LIKE NOR DISLIKE	DISLIKE	STRONGLY DISLIKE
A. Living on a military base rather than in civilian housing.	1	2	3	4	5
B. Having a husband with a career as a commissioned officer.	1	2	3	4	5
C. Having the military recognize there are tasks for which women are not suited and work only on those tasks for which women are suited.	1	2	3	4	5
D. Serving my military obligation and then joining a reserve unit in civilian life.	1	2	3	4	5
E. Combining my career as a commissioned officer with getting married and having a family.	1	2	3	4	5
F. Be given the opportunity for sea duty, flying status and combat duty.	1	2	3	4	5
G. Being properly tarined for and expected to serve in combat on the front line.	1	2	3	4	5

35. Do you think a female candidate in an OCS/OTS program would be regarded Very Favorably, Favorably, Unfavorably, Very Unfavorably, or Neither Favorably nor Unfavorably by her: READ A-F.

	VERY FAVOR-ABLY	FAVOR-ABLY	NEITHER FAVOR-ABLY NOR UNFAVOR-ABLY	UNFAVOR-ABLY	VERY UNFAVOR-ABLY
A. Fellow female friends	1	2	3	4	5
B. Fellow male friends	1	2	3	4	5
C. OCS Instructors	1	2	3	4	5
D. Father	1	2	3	4	5
E. Mother	1	2	3	4	5
F. Boyfriend/spouse	1	2	3	4	5

Now, a few background questions.

36. What month, day and year were you born?

_____ / _____ / _____
MONTH DAY YEAR

37. What is your present employment status? Are you:

Working full-time,..ASK A..... 1

Working part-time,..ASK A..... 2

Unemployed and
looking for work,...ASK A..... 3

In school, not
working, or.....SKIP TO Q38..... 4

Something else?..... 5
→SPECIFY:_____

A. What kind of work do you do?

_____

38. What is your present marital status? Are you:

Married,.....SKIP TO Q39..... 1

Divorced,.....ASK A..... 2

Separated,.....ASK A..... 3

Widowed, or.....ASK A..... 4

Have you never
been married?.....ASK A..... 5

A. Do you currently have a regular relationship with one person?

YES..... 1

NO..... 2

B. Do you have plans to get married within:

The next 2 years,..... 1

2-4 years,..... 2

More than four years from now, or..... 3

Do you have no plans to marry
at the moment?..... 4

C. How important is getting married or having a serious committed relationship to you? Is it:

Very important,..... 1

Somewhat important,..... 2

Not very important, or..... 3

Not at all important?..... 4

NOT SURE..... 5

SKIP TO Q40

39. What is your spouse's present employment status? Is he/she:

Working full-time,..... 1

Working part-time,..... 2

Unemployed and looking for work,..... 3

Not working, in school,..... 4

Retired, or..... 5

Something else?..... 6

→SPECIFY: _____

40. How would you describe your racial background or heritage? Is it:

American Indian or Alaskan Native,..... 1
Asian or Pacific Islander,..... 2
Black,..... 3
White, or..... 4
Another group?..... 5
→SPECIFY:_____

A. Do you consider yourself to be of Hispanic origin?

YES..... 1
NO..... 2
REFUSED..... 7

41. What was your grade point average or overall grade in high school?

RECORD:_____

IF GPA GIVEN, ASK:

A. What was the grade point system in your high school?

RECORD:_____

42. What is your grade point average or overall grade now, in College?

RECORD:_____

A. What grade system is used in your college?

RECORD:_____

43. Did you enter college:

Directly from high school,..... 1
Transferring from a Junior
or Community College, or..... 2
After working for a while?..... 3
OTHER..... 4
→SPECIFY:_____

A. Were you in JROTC in high school?

YES..... 1
NO..... 2

44. What type of area did you spend most of your childhood in up to the age of 16? Was it:

Open country. but not a farm,..... 1

On a farm,..... 2

A small city or town (under 50,000)..... 3

A medium city (50,000 - 250,000)..... 4

A suburb near a large city, or..... 5

A large city (over 250,000)..... 6

A. What state was that?

RECORD:_____
STATE

B. How many times did you move from one city or town to another during your childhood, up to the age of 16?

RECORD:_____

45. How many brothers and sisters do you have?

RECORD #: _____

A. How many are older than yourself?

RECORD #: _____

Now I'd like to ask you a few questions about your parents.

46. What is(was) your father's/male guardian's occupation? AT PRESENT TIME.

ENGINEERING, PHYSICAL SCIENCE, MATHEMATICS, ARCHITECTURE..... 1

MEDICAL AND BIOLOGICAL SCIENCES..... 2

BUSINESS ADMINISTRATION..... 3

GENERAL TEACHING AND SOCIAL SCIENCE..... 4

HUMANITIES, LAW, SOCIAL AND BEHAVIORAL SCIENCES..... 5

FINE ARTS, PERFORMING ARTS..... 6

TECHNICAL JOBS..... 7

PROPRIETORS, SALES..... 8

MECHANICS, INDUSTRIAL TRADES..... 9

CONSTRUCTION TRADE.....10

SECRETARIAL-CLERICAL, OFFICE WORKERS....11

OTHER.....12

→SPECIFY: _____

NO FATHER/MALE GUARDIAN.....13

A. What type of business or industry is/was that?

_____

_____

_____

47. What is/was your mother's/female guardian's occupation?

ENGINEERING, PHYSICAL SCIENCE, MATHEMATICS, ARCHITECTURE..... 1

MEDICAL AND BIOLOGICAL SCIENCES..... 2

BUSINESS ADMINISTRATION..... 3

GENERAL TEACHING AND SOCIAL SCIENCE..... 4

HUMANITIES, LAW, SOCIAL AND BEHAVIORAL SCIENCES..... 5

FINE ARTS, PERFORMING ARTS..... 6

TECHNICAL JOBS..... 7

PROPRIETORS, SALES..... 8

MECHANICS, INDUSTRIAL TRADES..... 9

CONSTRUCTION TRADE.....10

SECRETARIAL-CLERICAL, OFFICE WORKERS....11

HOUSEWIFE.....12

OTHER.....13

→SPECIFY: _____

NO MOTHER/FEMALE GUARDIAN.....14

A. What type of business or industry is/was that?

_____

_____

_____

48. What was the highest grade or degree in school your father completed and received credit for?

8TH GRADE OR LESS..... 1

SOME HIGH SCHOOL..... 2

HIGH SCHOOL DIPLOMA..... 3

SOME COLLEGE..... 4

UNDERGRADUATE COLLEGE DEGREE..... 5

GRADUATE SCHOOL DEGREE..... 6

49. Was your father ever in the military?

YES.....ASK A..... 1

NO.....SKIP TO E..... 2

A. At the time of his discharge was he:

An enlisted man, or..... 1

An officer?..... 2

B. How long did he serve?

RECORD # YRS:_____

C. How do you think he would rate his military service? Would he say he was:

Very satisfied,..... 1

Somewhat satisfied,..... 2

Neither satisfied nor dissatisfied,..... 3

Somewhat dissatisfied, or..... 4

Very dissatisfied?..... 5

DON'T KNOW..... 8

D. In which service was your father?

ARMY..... 1

NAVY..... 2

AIR FORCE..... 3

MARINE CORPS..... 4

COAST GUARD..... 5

U.S. PHS..... 6

E. Was your father ever enrolled in:

JROTC (High School),..... 1

College ROTC,..... 2

OCS, OTS, or a..... 3

Service Academy?..... 4

NO..... 5

DON'T KNOW..... 8

50. How about your mother's military experience? Was she:

Never in the service,..... 1

An enlisted woman, or..... 2

An officer?..... 3

51. As I read the following, please tell me which of your relatives or friends have had or are presently in military service, ROTC, OCS or OTS or a Service Academy? READ A-E. FOR EACH MENTION ASK: How many are/were in:

	MILITARY		ROTC		OCS/OTS		SERVICE ACADEMY	
	HAD	PRES-ENTLY	HAD	PRES-ENTLY	HAD	PRES-ENTLY	HAD	PRES-ENTLY
	#	#	#	#	#	#	#	#
A. Brothers?								
B. Sisters?								
C. Close friends?								
D. Uncles?								
E. Grandparents?								

52. What is the approximate income level of your family? Is it:

$10,000 or less,..... 1

$10,001 to $15,000,..... 2

$15,001 to $25,000,..... 3

$25,001 to $35,000,..... 4

$35,001 to $50,000, or..... 5

Over $50,001 per year?..... 6

53. Some people are involved in college activities, others are not. How about you? Have you joined or are you planning to join: READ A-F AND CODE.

	I NO	BELONG	PLAN	II NAME
A. A social fraternity/ sorority?.....	1	2	3	
B. A campus religious group?....	1	2	3	
C. A service oriented group or club?.....	1	2	3	
D. A campus political party?....	1	2	3	
E. A professional group - career oriented?.....	1	2	3	
F. Any other group?.....	1			
SPECIFY: _____		2	3	
_____		2	3	
_____		2	3	
_____		2	3	

A. FOR EACH "BELONG" OR "PLAN" ASK: What is the name(s) of (...)? RECORD IN COLUMN II OF CHART ABOVE.

Thank you for your time and cooperation. The armed forces are interested in increasing participation in programs such as OCS and OTS by college students. Are there any recommendations or ideas you would like to add that have not been covered by this interview?

DATE
FILMED
2 8