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VALUES, PREFERENCES AND PERCEPTIONS  
CONCERNING MILITARY SERVICE:

PART II

Jerald G. Bachman  
February, 1974

Survey Research Center  
Institute for Social Research  
The University of Michigan  
Ann Arbor, Michigan

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VALUES, PREFERENCES AND PERCEPTIONS CONCERNING MILITARY SERVICE  
PART 2

Jerald G. Bachman

February, 1974

Institute for Social Research  
University of Michigan  
Ann Arbor, Michigan

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## PREFACE

This report presents a further analysis of data, collected in late 1972 and early 1973, dealing with people's perceptions and attitudes about the military services. Such research seems particularly relevant at a time when the nation is returning to an all-volunteer system for staffing the military services.

We will not summarize the findings here, since the abstract and the introductory chapter provide summary information. The reader who seeks a relatively short overview will find that the first chapter can be read as a self-contained review of the research, complete with references to relevant tables and figures that appear in subsequent chapters.

This study of perceptions and attitudes about military service is one portion of a larger project which includes an examination and comparison of Navy and civilian work role experiences. Much of the work in this area has already been completed and reported by Bowers and his colleagues.

The present report has been written as a companion to an earlier report carrying the same title. Although the first report is not required for an understanding of the present one, anyone interested in a thorough review of the material will want to have both parts available.

## ACKNOWLEDGEMENTS

A number of colleagues collaborated in the design of the items and indexes presented here, and several of them also read and commented on portions of an early draft of this report. Thanks are due to David Bowers, Lloyd Johnston, Jerome Johnston, and Patrick O'Malley.

Once again Donna Ando carried much of the responsibility of report preparation, including data analysis, construction of tables and figures, and coordination of typing and duplicating. Her efforts are greatly appreciated. Cathy Clough, Ellen Dixon and Terry Gellerman all contributed to typing and proofreading the final copy.

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## CHAPTER 1

### INTRODUCTION AND SUMMARY OF FINDINGS

In an all-volunteer system, adequate staffing of the armed forces depends upon the perceived attractiveness of military service as a work role. Such perceptions include views on working conditions in the services, levels of compensation, fringe benefits, and the like; but they also include broader considerations of what the nation's military policies are--and what they ought to be. (Bachman, 1973, p. 1)

An earlier technical report, from which the above statement is drawn, presents data on a wide range of perceptions and attitudes concerning military service, and the way they are linked to views about enlistment. The findings are based on a sixteen-page self-completed questionnaire administered to a national sample of civilians and a cross-section of Navy personnel. The present report extends and elaborates some of the analyses in the initial report. It is assumed that the reader wishing more detail about questionnaire items and responses will make use of the earlier report.

The present chapter begins with a brief description of the Navy and civilian samples and data collection techniques.\* The remainder of the chapter is devoted to a summary of findings and some consideration of policy implications. Subsequent chapters present the analyses in detail, and several appendixes provide further data.

#### NAVY SAMPLE

Data from the Navy sample were collected from both ship and shore stations between November 1972 and February 1973. The questionnaires were personally administered by the Institute for Social Research personnel.

Ships were included from both the Atlantic and Pacific Fleets. Individuals in the sample were chosen in proportion to the number of personnel assigned to each ship type. For example, if 35 percent of

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\*A detailed description of sampling techniques as well as a description of the fit of the samples to their respective populations has been provided in an earlier technical report in this series (Michaelsen, 1973).

the personnel assigned to ships were aboard destroyers, 35 percent of the individuals in the sample were selected so as to come from destroyers. Ships themselves were chosen largely on the basis of availability, with the specific ship selection occasionally influenced by the logistics of moving Organizational Research Program staff from one ship to another. As may be imagined, weather was also an occasional element in determining whether the necessary connections between two selected ships could be made.

For at least two reasons, an effort was made to maximize in the sample as many ships as possible currently deployed away from their home ports. First, larger proportions of the billets are in fact filled on deployed ships than on ships in port. Second, personnel aboard deployed ships are more likely to have had a period of exposure to the organizational variables being measured. For these reasons, more than half of the ships sampled were deployed at the time of the administration of the survey.

Shore stations were included from eight shore station commands (Atlantic Fleet, Pacific Fleet, Training, Material, Personnel, Medicine and Surgery, Security, and Communications) and from the CNO staff. Individuals in the sample were chosen in proportion to the number of personnel assigned to each command. Specific shore stations were randomly selected from those available in four geographical areas - East Coast, Memphis-Pensacola, San Diego, and Hawaii.

Personnel actually surveyed aboard a particular site were members of intact organizational subunits, consisting of work groups related to one another through supervisors who are, at the same time, a superior of the group they supervise and a subordinate in the group immediately above. In this fashion, one may conceive of the organization as a structure of such overlapping groups, a pyramid of interlaced pyramids. For purposes of identifying and selecting intact units for the study's analytic aims, the sampling basis was designated as a "module," by which is meant a "pyramid" of groups three echelons tall. Thus, members from four adjacent levels were included, with the module head defined as the person at the apex of that particular three-tier pyramid. Yet another criterion for the selection of a module was that the person at the apex (the module head) had been at his current assignment for at least three months.

A list of all personnel at a site who met the criteria for module head was obtained from manpower authorization documents and from organizational charts, and from these rosters an appropriate number of module heads were randomly selected. If a particular module did not provide a large enough sample of personnel required for the particular site, another module head was selected by the same method.

Thus, the sample from a site consisted of one or more modules.

This sampling procedure resulted in data collection from 38 different Navy sites in a total sample size of 2522 Navy personnel.

#### CIVILIAN SAMPLE

The civilian data collection was conducted during February and March of 1973, as part of a larger interview study conducted by the Survey Research Center. The sample included 1327 dwelling units, selected by a multistage sampling system so as to be representative of all dwellings in the conterminous United States exclusive of those on military reservations.

At each housing unit, a trained interviewer from the Survey Research Center conducted an interview with a specifically designated respondent, male or female, age 18 or older. The final segment of the interview consisted of questions related to the all-volunteer force. Following this personal interview, respondents were asked to complete the pencil-and-paper questionnaire. In addition, copies of the questionnaire were administered to a supplementary sample consisting of all other individuals age 16 or older who were present in each household at the time an interview was taken. Interviewers waited until all questionnaires in a household were completed; none were left behind.

The 1327 interviews obtained represent a response rate of 75 percent. About 90 percent of those interviewed also filled out questionnaires. These, plus the supplementary sample (those who were not interviewed but did complete questionnaires), provided a total of about 1855 civilian questionnaires.

An examination of the interview sample and the supplementary sample, reported elsewhere, showed no systematic differences between the two, except for the fact that the supplementary sample included individuals aged 16 and 17. Because of several advantages from a statistical standpoint, we have chosen to treat the civilian interview and supplementary samples as a single, unweighted sample of people age 16 or older throughout the United States.

#### SUMMARY OF FINDINGS

Our analyses in this report, as in the previous one, concentrated on Section C of the questionnaire--the portion dealing with values, preferences and perceptions concerning military service. The first stage involved a series of correlational and factor analytic studies which led to a consolidation of the questionnaire items into a set

of 17 dimensions (shown in Table 1 and described in Appendix A).<sup>\*</sup> The analyses were conducted separately for five groups: Navy officers, first-term enlisted men, later-term enlisted men, civilian men, and civilian women. The patterns of correlations observed for each of these groups are basically quite similar, suggesting that the items and indexes are broadly applicable and do not mean different things to different subgroups.

Our examination of intercorrelations among items suggested that there is a general factor of pro-military (or anti-military) sentiment contributing to most of our measures. Factor analyses (summarized in Table 2) confirmed this view. Those highest in pro-military sentiment rate our military leaders as quite competent, give the services high marks for job opportunity and fair treatment, state a preference for higher levels of military spending and influence, and see the role of the military in society as predominantly positive. Their foreign policy views are rather "hawkish"--they are relatively supportive of U.S. military intervention in other countries, they prefer a position of military supremacy (rather than parity with the U.S.S.R.), they are most likely to support past U.S. involvement in Vietnam, and they are strongly opposed to amnesty for those who refused to serve in Vietnam. Finally, they place a high value on obedience to military authority--they tend to agree with the statement that "servicemen should obey orders without question."

A guiding assumption in this research has been that general attitudes about the military services will influence more specific attitudes about enlistment and re-enlistment. Our analyses strongly support that assumption (see Table 4). We asked all respondents, both Navy and civilian, how they would feel if they had a son who decided to enter military service. The same dimensions which contribute most strongly to a general factor of pro-military sentiment are also linked to positive feelings about the possibility of a son's enlistment. Among Navy respondents, the perception of favorable job opportunities in the service is a particularly strong predictor of pro-enlistment views (Figure 1). Other strong predictors for both Navy men and civilians are perceptions that military leaders are quite competent (Figure 2), a tendency to support past U.S. actions in Vietnam (Figure 3), strong opposition to amnesty for those who refused to serve in Vietnam, and support for the idea that servicemen should obey orders without question (Figure 4). Among first-term enlisted men, these same dimensions also relate strongly to plans for their own re-enlistment in the Navy.

The correlations described above are basically quite similar for Navy officers, first-term enlisted men, later-term enlisted men, and civilian men and women. On the other hand, the mean scores of these

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<sup>\*</sup>Tables and figures are located in subsequent chapters. They are cited here for the benefit of those who wish an early look at the data. Others may prefer to read this summary first and then review tables and figures as a part of the chapters in which they appear.

groups reveal some large and important differences in views of the military services and their mission (see Table 5 and Figure 5). One of the clearest findings is that the average scores for later-term enlisted men are almost more "pro-military" than the scores for any other group, Navy or civilian. Average scores for first-term enlisted men are quite different, and in many respects they appear rather critical of the military. Along most dimensions, the mean scores for officers lies somewhere between those for first-term and later-term enlisted men.

The statement that first-term enlisted men tend to be critical of the military does not hold true for one important sub-group of first-termers--those who plan to re-enlist in the Navy. In most respects, the first-termers who plan to re-enlist are quite similar to later-term enlisted men in holding much more positive views about the military. Those not planning to re-enlist, on the other hand, are more similar to civilians the same age (see Table 6). Not only are first-termers who plan to re-enlist similar ideologically to later-termers, but also it appears that this pattern is just as strong among those with only one year of service as among those with three or four years of Navy experience (see Figures 6 through 10).

One explanation of these findings is that re-enlistment is heavily influenced by deeply-rooted perceptions and ideology related to the military--feelings that were largely present prior to enlistment. An alternative explanation is that some individuals during their first tour of duty undergo attitude changes in a pro-military direction--perhaps through exposure to positive experiences in the Navy, or as a result of exposure to more experienced Navy men who tend to hold such views, or both--and these individuals are the ones most likely to re-enlist. Of course, both explanations could be true to some degree. Whatever the pattern of causation, our analyses in this area demonstrate that it does not require years and years of service experience for later-term enlisted men to develop the strongly pro-military attitudes noted earlier. For those who plan to re-enlist, the same attitudes are clearly evident as early as the first year of service.

When we turn to civilians, we find that contacts with the services--both first-hand and second hand--show some impact on attitudes about the military. A comparison between veterans and non-veterans shows few differences along our attitude dimensions (see Table 7, Column A). One difference worth noting is that veterans perceive the military as somewhat less influential than do non-veterans. The veterans' scores in this respect are quite similar to scores of first-term enlisted men in the Navy. It may be that one of the more consistent results of past or present experience in military service is a lowered assessment of the amount of influence military leaders actually



have over a range of decisions affecting national security.

When asked to rate their own feelings about having served in the military, most veterans choose the positive side of the scale (Table 9). But there is some variation in such feelings, and the variation is related to our more general measures of attitudes about the military (see Table 7, Column B). Perhaps largely as a result of their own experiences in the military, those who are most positive about past service are also most "pro-military" in their responses to other questions. In addition, those veterans who served more than four years are especially favorable in their attitudes toward the military--a finding that closely parallels our results in the Navy sample.

Only about half of the civilian men in our sample are veterans, but about eighty percent report at least one relative who has served in the armed forces. When asked to rate their relatives' feelings about having served, most use the positive side of the scale (Table 10). Moreover, these perceptions of relatives' satisfaction with their military service show a substantial relationship with more general attitudes about the military--especially among those civilian men who have no first-hand experience in the service. Veterans, of course, rely more heavily on their own experience in forming broader views about the military. But for non-veterans--including those young men from whom the services must recruit their volunteers--the second-hand contact offered by relatives who have served seems to be an important factor in forming attitudes about the military.

#### CONCLUSIONS AND POLICY IMPLICATIONS

The broadest finding of the research summarized here is that attitudes about enlistment, and also plans for re-enlistment among Navy men, are closely linked to a wide range of other views about the military services and their mission. This is reflected in the following general pattern of "pro-military sentiment": positive views of military opportunities and leadership, support for higher levels of military spending and influence, a somewhat "hawkish" view of foreign policy, and a high value placed on "obeying orders without question." This pattern of attitudes is relatively strong among respondents who say they would feel positive about a son's enlistment, among later-term enlisted men in the Navy, and among first-termers who plan to re-enlist in the Navy. Several further conclusions and policy implications build upon this basic finding:

1. Under present conditions, an all-volunteer force is likely to recruit and retain personnel from only part of the ideological range found in the civilian population. The very individuals who are needed to broaden the ideological balance in the Navy (and presumably the other

branches of service as well) are the least likely to enlist--or re-enlist. Present conditions in the services are changing, and such changes may help to obtain a representative cross-section of volunteers. But if the nation's leaders value the concept of the citizen soldier or sailor, they would do well to broaden the incentives in ways that are especially attractive to those presently underrepresented among volunteers. And, in spite of the additional costs involved, it would be wise to seek out some kinds of enlistees who are likely to serve for one term only and then return to civilian life. We have argued elsewhere that increased educational incentives (aid in attending colleges and universities either before or after military service) would be one valuable method for accomplishing these aims (Johnston and Bachman, 1972).

2. Among civilians, personal experiences in military service or second-hand impressions gained from relatives seem to play a part in shaping views about the military. If this is so, then we can expect that recent changes in military life will come to affect not only the current group of servicemen themselves, but also their relatives and presumably their friends and acquaintances. Similarly, any future changes are likely to have an impact far wider than the servicemen immediately involved.

3. In the recent past, the most important factor influencing views about the military has been the nation's involvement in Vietnam. Our research clearly supports what many have suspected--a disapproval of the Vietnam involvement goes hand-in-hand with relatively negative views about the military as a whole. This finding has several implications. On the one hand, it suggests that people will have fewer negative feelings about the military now that U.S. forces have left Vietnam. There is evidence in at least one recent survey that this is so. On the other hand, the negative impact of Vietnam on views about the military reminds us that an all-volunteer force was not considered feasible so long as we were actively engaged in fighting in Vietnam. Our research here and elsewhere (Bachman, 1973; Johnston and Bachman, 1972) suggests that any future Vietnam-type involvement could not be sustained under all-volunteer conditions, because the supply of volunteers would quickly wither away.\*

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\*I suspect this opinion is shared by most military and civilian leaders. And this, in my view, represents one of the greatest advantages of an all-volunteer force for the U.S. It means that we cannot slip gradually into the kind of large-scale military entanglement experienced in Southeast Asia. Instead, any future effort on that scale will first require nationwide debate and consent necessary to reinstitute conscription.





## CHAPTER 2

### INTERRELATIONSHIPS AMONG MILITARY VALUES, PREFERENCES AND PERCEPTIONS

This chapter is concerned with the ways in which values, preferences and perceptions about military matters are interrelated. We begin by outlining the process of data reduction and describing the resulting dimensions. Then we explore some of the ways in which these dimensions are intercorrelated, looking separately at a number of different analysis groups in the Navy and among civilians. We review evidence to support our conclusion that the scales are interrelated in basically similar ways for the several groups. It should be added, however, that there are substantial differences in the way the groups are positioned along some of the scales; we review some of these differences in a later chapter.

#### THE MEASURES OF VALUES, PREFERENCES AND PERCEPTIONS

The questionnaire segment dealing with military values, preferences and perceptions (Section C) includes 57 items, designed to measure a considerable number of different, but interrelated, concepts. An important phase of our analysis involved the consolidation of these items into a smaller number of indexes. This data reduction effort served two purposes: first, it produced multi-item variables, which are generally more stable and reliable than single items; second, it reduced the complexity of the material to a more manageable level. A number of indexes had been constructed on an a priori basis, and some of these were presented in the first technical report. Other indexes were planned, contingent upon finding that the items were satisfactorily intercorrelated. A few others were not anticipated in advance, but were developed out of our analysis of the intercorrelations among items.

An early stage in our efforts toward data reduction involved a number of factor analyses including nearly all of the items in Section C of the questionnaire. These analyses confirmed most of our prior expectations about sets of variables to be combined into indexes; in a few other cases the analyses enabled us to locate items which did not meet our expectations.

It is not necessary for our present purposes to report the details of the preliminary analyses which led to further data reduction. It is worth noting, however, that these analyses were conducted separately for civilians, the Navy sample taken as a whole, and the three sub-groups within the Navy sample (officers, first-term enlisted men, later-term enlisted men). The patterns of factors which emerged from these several groups were quite similar; thus we felt confident that the indexes we were developing were applicable across all the groups examined in this report.

Table 1 summarizes the measures of values, preferences and perceptions concerning military service which resulted from our data reduction efforts. As a matter of convenience, the measures are organized in the table according to the conceptual categories followed in our preceding report (Bachman, 1973). A more detailed description of the measures, including a listing of items and rules for index construction, may be found in Appendix A. Additional descriptive information concerning many of the items is contained in the preceding report. The reader is urged to refer to these sources for a clearer understanding of what the measures contain.

Most of the measures shown in Table 1 are indexes based on two or more items. Three one-item measures are included because they are conceptually important but do not lend themselves to combination into indexes. Of the 57 items in Section C of our basic instrument, 42 are included in the 17 measures shown in Table 1.\*

A word is in order concerning the names given to the measures in Table 1. An effort was made to capture the essence of an item or index in relatively few words, while at the same time conveying a good deal of the meaning. Some of the measures were better suited to this effort than others; in a few cases the names may seem a bit strained. In all cases, the name corresponds to a high score on the measure.\*\*

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\* The 17 measures in Table 1 contain one instance of redundancy. The indexes of Perceived Military Influence and Preferred Military Influence are ingredients for a single discrepancy measure (Perceived minus Preferred) which indicates the extent to which a respondent thinks the level of actual military influence exceeds, or falls short of, what he would consider ideal. In our factor analyses the separate Perceived and Preferred measures are excluded, thus leaving a set of 15 measures in which each item appears no more than once.

\*\* This requirement that the name of a measure match a high score resulted in a few awkward or negative-sounding wordings. For example, Item C27 asks whether the role of the military services since World War II has been mostly positive or negative, but since a high score of "4" is attached to the "strongly negative" response alternative it was necessary to label this measure: "Role of Military in Society Perceived as Negative." For the same reason it was necessary to label two measures as "Opposition to Obedience..." It would have been possible, of course, to reverse the coding of these items, but we felt that the resulting risk of error or confusion outweighed the awkwardness of a few negative-sounding names.

TABLE 1

## Summary of Military Value, Preference and Perception Measures

## THE MILITARY WORK ROLE

Perceived Military Job Opportunities

Perceived Fair Treatment in Services

Perceived Discrimination Against Women and Blacks

## MILITARY LEADERSHIP

Perceived Competence of Military Leaders

## MILITARY INFLUENCE OVER NATIONAL POLICY

Preference for Higher Military Spending and Influence

\* Role of Military in Society Perceived as Negative

Perceived Military (Versus Civilian) Influence

Preferred Military (Versus Civilian) Influence

Adequacy of Military Influence (Perceived Minus Preferred)

## FOREIGN POLICY AND MILITARY POWER

Support for Military Intervention

Preference for U. S. Military Supremacy

Vietnam Dissent

## ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE

Support for Amnesty

\* Opposition to Unquestioning Military Obedience

\* Opposition to Obedience in My Lai-type Incident

Preference for "Citizen Soldiers" (Versus "Career Men")

Preference for Wide Range of Political Views Among Servicemen

NOTES: Measures marked with an asterisk (\*) are single items. All others are indexes based on two or more items. A complete listing of items included in each measure appears in Appendix A.

### A GENERAL FACTOR OF PRO-MILITARY SENTIMENT

Our earlier explorations of the data, and some examination of the correlation matrices described above, led us to feel that there is a "general factor" of pro-military (or anti-military) sentiment underlying most of the measures we have been discussing. In an effort to test this notion we performed a set of factor analyses.

As a first step, product-moment correlations were computed among all of the measures in Table 1. The correlations were computed for each of the following analysis groups separately:

- Navy first-term enlisted men
- Navy later-term enlisted men
- Navy officers
- Civilian men
- Civilian women

The complete correlation matrices are presented in Appendix B. A bit later in this chapter we will comment on selected portions of the matrices, but first we turn to factor analyses based on them.

Our purpose in this series of factor analyses was not to find a number of separate orthogonal factors (since that had already been done in the earlier stages of analysis and index development). Rather, we were looking for the largest and most general single factor underlying the military value, preference and perception measures. Accordingly, we used the principal components method and focused attention on the first factor (unrotated). The factor loadings for each of the five analysis groups are displayed in Table 2.

The results shown in Table 2 clearly confirm our view that there is a rather substantial general factor of "pro-military sentiment" which contributes to our measures of military views. It accounts for or "explains" between 23 percent and 30 percent of the variance in these measures for Navy enlisted men and civilians. (It accounts for 36 percent of the variance for Navy officers, and the factor loadings for this group tend to be somewhat higher than is true for the other groups. We will shortly consider a likely explanation for this pattern of stronger intercorrelations for the officer group.)

There is a considerable degree of similarity in the patterns of factor loadings for all five analysis groups. Without exception, the direction of loading is the same for all analysis groups--i.e., a measure is either positively loaded for all groups or negatively loaded for all. Moreover, those measures which load most strongly are the same across all groups.

Let us consider what it means to be high in our general factor of pro-military sentiment. Not surprisingly, those highest in pro-military sentiment

TABLE 2  
Loadings on a General Factor of "Pro-Military Sentiment"

	Factor Loadings* For:				
	Navy Sample			Civilian Sample	
	1st-term Enlisted Men (N=1194)	later-term Enlisted Men (N=834)	Offi- cers (N=310)	Men (N=753)	Women (N=1053)
THE MILITARY WORK ROLE					
Perceived Military Job Opportunities	.6088	.5830	.7212	.4225	.4030
Perceived Fair Treatment in Services	.5727	.5665	.6997	.5015	.4982
Perceived Discrimination Against Women and Blacks	-.2142	-.3715	-.4677	-.3996	-.3772
MILITARY LEADERSHIP					
Perceived Competence of Military Leaders	.6909	.6491	.7739	.6661	.6924
MILITARY INFLUENCE OVER NATIONAL POLICY					
Preference for Higher Military Spending and Influence	.6542	.4486	.7707	.7270	.6951
Role of Military in Society Perceived as Negative	-.5786	-.3236	-.5351	-.5421	-.5778
Adequacy of Military Influence (Perc. Minus Pref.)	-.5225	-.3295	-.6630	-.6274	-.5149
FOREIGN POLICY AND MILITARY POWER					
Support for Military Intervention	.4572	.4945	.5689	.4127	.2626
Preference for U. S. Military Supremacy	.5810	.4368	.6479	.6032	.5886
Vietnam Dissent	-.7195	-.6928	-.7749	-.6919	-.6832
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE					
Support for Amnesty	-.5855	-.6045	-.7273	-.6464	-.6067
Opposition to Unquestioning Military Obedience	-.5508	-.5079	-.4293	-.5607	-.5710
Opposition to Obedience in My Lai-type Incident	-.5232	-.3235	-.3289	-.5398	-.4823
Preference for "Citizen Soldiers" (Vs. "Career Men")	-.0804	-.3197	-.4203	-.1301	-.1203
Preference for Wide Range of Views Among Servicemen	-.0854	-.2852	-.3019	-.3515	-.2025
Variance explained (by first factor)	28.4%	23.1%	36.1%	29.5%	26.5%

\* Table entries are loadings on the first factor (unrotated) resulting from factor analyses using the principal components method.

rate our military leaders as quite competent, give the military services high marks for job opportunity and fair treatment, state a preference for higher levels of military spending and influence, and see the role of the military in society as predominantly positive. Their foreign policy views are rather "hawkish"--they are relatively supportive of U.S. military intervention in other countries, they prefer a position of military supremacy (rather than parity with the U.S.S.R.), they are most likely to support past U.S. involvement in Vietnam, and they are strongly opposed to amnesty for those who refused to serve in Vietnam. Finally, they place a high value on obedience to military authority--they tend to agree that "servicemen should obey orders without question" (question C53) and some maintain this position even when faced with a My Lai-type incident (question C54).

Among all the dimensions summarized above, the measure of Vietnam Dissent has a particularly strong loading on the general factor of military sentiment. One possible interpretation for this relationship is that those who are generally supportive of the military establishment have, as a result, been least critical of our past involvement in Vietnam. In other words, Vietnam views are shaped by broader attitudes about the military. An alternative interpretation is that views about the Vietnam involvement are generalized to the larger military establishment, so that negative feelings about Vietnam lead to negative views about military spending, influence, leadership, and the like. These two interpretations are not mutually exclusive--indeed, it is likely that both patterns of causation are at work. But it is surely worth emphasizing that, as of early 1973, feelings about Vietnam were a very central ingredient in overall sentiment toward the military services.

Two measures which show little association with the general factor of military sentiment are the dimensions most closely linked to the debate about the draft versus the all-volunteer force--Preference for Citizen Soliders (Versus "Career Men") and Preference for Wide Range of Political Views Among Servicemen. These two dimensions seem to stand somewhat apart from most of the other measures and are less integrated into an overall pro-military or anti-military continuum. It is perhaps worth noting that the rather small loadings for these dimensions are in a negative direction, suggesting that those with the most favorable feelings toward the military services are a bit less likely to prefer "citizen soliders" or a wide range of political views among servicemen. Nevertheless, our more basic conclusion is that our respondents show little "polarization" along these dimensions--perhaps indicating that most people have not given much thought to the issues they represent.

Up to this point we have been concentrating upon relationships which are consistent across the several Navy and civilian analysis groups. Now let us turn to some differences among groups that are of interest. We noted in our previous report that the measure of Military Job Opportunity is a stronger correlate of pro- or anti-enlistment views among Navy men than among civilians. In the present factor analyses we see a parallel tendency reflected in the



higher factor loadings for Military Job Opportunity among each of the three Navy groups. A similar pattern, though not so strong, appears for the measure of Perceived Fair Treatment in the Services. It seems quite reasonable that military job opportunities and fair treatment would play a relatively large part in the overall military sentiment of those presently in the Navy; it is interesting also to note that the finding is fully as strong for officers as for enlisted men.

Another difference of interest is one mentioned earlier--the tendency for Navy officers to show generally stronger correlations than do the other Navy or civilian groups. These stronger correlations can be observed in Appendix B, and they are also reflected in the factor analysis loadings and explained variance shown in Table 2. When we first became aware of this pattern of stronger relationships for Navy officers, we thought it might reflect their deep personal involvement and the fact that they, more than civilians or enlisted men, have thought about the issues treated here and tried to place them in a consistent perspective.

But it also occurred to us that consistency in questionnaire responses is sometimes related to intelligence or education. Since the great majority of Navy officers are college graduates, it seemed quite possible that the pattern of relatively stronger correlations among officers is simply due to their higher average level of education. This suspicion was confirmed when we compared Navy officers with the subgroup of civilian men who had completed college (N=133). The results of the factor analysis, shown in Table 3 along with the results for Navy officers, show a striking similarity in overall strength of relationships. A few differences may be noted: factor loadings for Perceived Military Job Opportunities and Perceived Fair Treatment in Services remain higher for the Navy officers than for the civilian college graduates, whereas factor loadings for the obedience items are relatively higher for the civilian group. On the whole, however, the two groups show rather similar patterns of relationships, and this leads us to conclude that the high pattern of correlations among Navy officers is more a reflection of their education than their special interest in the topics covered.





### CHAPTER 3

#### VALUES, PREFERENCES AND PERCEPTIONS RELATED TO ENLISTMENT VIEWS

It has been a guiding assumption in this research that general attitudes about the military services will influence attitudes about enlistment (and also, as we discuss in a later chapter, re-enlistment). In order to ascertain attitudes toward enlistment in a form that would be applicable to all respondents, we asked the following hypothetical question (Item C10): "If you had a son in his late teens or early twenties who decided to enter the military service, how would you feel about his decision?" Four response categories were provided: "strongly positive, mostly positive, mostly negative, strongly negative." A neutral point was deliberately omitted from the scale because we wished to have respondents "take sides" on the matter.

As we noted in our earlier report, civilian responses are mostly positive about a son's decision to enlist, responses for Navy officers and later-term enlisted men are quite positive, but first-term enlisted men show somewhat less enthusiasm on the average. We also noted that responses to the question about a son's enlistment are strongly correlated with re-enlistment intentions, satisfaction with military service experiences, and other indicators of positive feelings about the services (see Bachman, 1973, pp. 12-13, 56-57).

Now let us consider the extent to which our measures of military values, preferences and perceptions are correlated with pro-enlistment views--i.e., with attitudes toward a son's enlistment. Table 4 displays the product-moment correlations for each of our analysis groups. The correlations show very much the same pattern as do the factor loadings displayed in Tables 2 and 3, thus indicating that the same dimensions which are strongly related to a general factor of pro-military sentiment are also strongly related to positive feelings about a son's enlistment.

Once again we find that the direction of relationship is the same across all groups--factors which relate positively and negatively to enlistment views are largely the same for the different Navy groups and for civilian men and women. There are overall differences in strength of relationship, reflected especially in the higher correlations for Navy officers (and also civilian men who completed college), but the similarities in patterns continue to support our view that the value, preference and perception scales have basically similar meanings and impacts for the several analysis groups. Thus, as we review the correlates of pro-enlistment views, we will be referring to all groups of respondents; in only a few instances will we note distinctions among analysis groups.

TABLE 3  
Factor Loadings Compared for Navy Officers and Civilian College Graduates

	Factor Loadings* For:	
	Navy Officers (N=310)	Civilian Male College Graduates (N=133)
THE MILITARY WORK ROLE		
Perceived Military Job Opportunities	.7212	.5271
Perceived Fair Treatment in Service	.6997	.5469
Perceived Discrimination Against Women and Blacks	-.4677	-.5856
MILITARY LEADERSHIP		
Perceived Competence of Military Leaders	.7739	.7198
MILITARY INFLUENCE OVER NATIONAL POLICY		
Preference for Higher Military Spending and Influence	.7707	.8466
Role of Military in Society Perceived as Negative	-.5351	-.6265
Adequacy of Military Influence (Perc. Minus Pref.)	-.6630	-.7402
FOREIGN POLICY AND MILITARY POWER		
Support for Military Intervention	.5689	.5772
Preference for U. S. Military Supremacy	.6479	.6387
Vietnam Dissent	-.7749	-.7468
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE		
Support for Amnesty	-.7273	-.7566
Opposition to Unquestioning Military Obedience	-.4293	-.5718
Opposition to Obedience in My Lai-type Incident	-.1289	-.6231
Preference for "Citizen Soldiers" (Vs. "Career Men")	-.4203	-.2379
Preference for Wide Range of Views Among Servicemen	-.3019	-.5133
Variance explained (by first factor)	36.1%	40.1%

\* Table entries are loadings on the first factor (unrotated) resulting from factor analyses using the principal components method.

TABLE 4  
Correlates of Pro-Enlistment Views

	Correlations* With Positive Feelings About a Son's Possible Enlistment:					
	Navy Sample			Civilian Sample		
	1st-term Enlisted Men (N=1194)	later-term Enlisted Men (N=834)	Offi- cers (N=310)	Men (N=753)	Women (N=1053)	College Graduate Men Only (N=133)
THE MILITARY WORK ROLE						
Perceived Military Job Opportunities	.45	.37	.54	.29	.22	.35
Perceived Fair Treatment in Services	.43	.41	.43	.34	.30	.48
Perceived Discrimination Against Women and Blacks	-.12	-.21	-.15	-.25	-.14	-.45
MILITARY LEADERSHIP						
Perceived Competence of Military Leaders	.47	.38	.51	.41	.31	.53
MILITARY INFLUENCE OVER NATIONAL POLICY						
Preference for Higher Military Spending and Influence	.33	.13	.52	.34	.32	.51
Role of Military in Society Perceived as Negative	-.34	-.20	-.37	-.34	-.25	-.35
Perceived Military (Versus Civilian) Influence	-.14	-.02	-.30	-.19	-.12	-.17
Preferred Military (Versus Civilian) Influence	.27	.11	.37	.29	.22	.46
Adequacy of Military Influence (Perc. Minus Pref.)	-.26	-.09	-.43	-.34	-.24	-.43
FOREIGN POLICY AND MILITARY POWER						
Support for Military Intervention	.24	.20	.29	.20	.14	.20
Preference for U. S. Military Supremacy	.26	.11	.33	.24	.22	.24
Vietnam Dissent	-.38	-.33	-.42	-.34	-.34	-.37
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE						
Support for Amnesty	-.36	-.30	-.43	-.34	-.33	-.42
Opposition to Unquestioning Military Obedience	-.34	-.23	-.26	-.35	-.24	-.32
Opposition to Obedience in My Lai-type Incident	-.25	-.08	-.15	-.25	-.24	-.30
Preference for "Citizen Soldiers" (Vs. "Career Men")	-.04	-.11	-.18	-.08	-.08	-.11
Preference for Wide Range of Views Among Servicemen	.06	-.02	-.10	-.12	-.03	-.29

\* Entries are product-moment correlations. Correlations of .11 or higher are considered statistically significant for Navy enlisted men and civilian men and women; the significance level for officers is .18, and the level for college graduate civilian men is .27. (The criterion is .001, two-tailed, using the test for random samples. See footnote in Chapter 4 for a further discussion of significance tests.)

Those who hold positive perceptions of the military work role tend to be favorable toward a son's enlistment. Figure 1 shows the effect quite clearly. The figure also indicates that Perceived Military Job Opportunities show somewhat stronger effects for Navy men than for civilians (reflected in steeper trend lines for the Navy groups).

The shaded area at the bottom of each figure in this chapter indicates the proportion of first-term enlisted men who say they plan to re-enlist. A dramatic relationship between re-enlistment plans and Perceived Military Job Opportunities is shown in Figure 1: only five percent of those who see limited opportunities plan to re-enlist, whereas nearly half of those who see very good job opportunities plan re-enlistment.\*

Another view of the military work role, Perceived Fair Treatment in the Services, shows strong effects for Navy men and fairly strong effects for civilians. On the other hand, Perceived Discrimination Against Women and Blacks shows weaker relationships to views about a son's enlistment; the correlations are roughly similar for Navy men and civilians, except for the rather strong relationship found among civilian male college graduates (see correlations in Table 4).

Perceived Competence of Military Leaders shows substantial correlations with views about a son's enlistment, as Figure 2 indicates. In this case, the relationships for Navy and civilian men are roughly the same. Note in the lower portion of the figure the strong association between perceptions of leadership competence and first-termers' intentions to re-enlist.

Those who are more positive about a son's enlistment also tend to prefer relatively high levels of military influence over national policy, and they tend to view the role of the military in society as positive. These relationships are not as strong as some of the others we have noted (see Table 4), but they do conform to the general pattern that those with favorable views toward the military establishment are more supportive of a son's enlistment.

When it comes to foreign policy and military power, we find moderate tendencies for those who favor a son's enlistment to support foreign intervention that would "protect the rights of other countries" and to favor a position of U.S. military supremacy over the Soviet Union (see Table 4). As Figure 3 indicates, disagreement with past U.S. actions in Vietnam shows a fairly strong association with feelings about a son's enlistment--the greater

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\* There is strong evidence for the validity of our measure of re-enlistment intentions; Bowers (1973) has reported that it correlates highly with actual re-enlistment rates for the ships in our sample ( $r=.76$  using ship mean scores as the unit of analysis).

FIGURE 1

Pro-Enlistment Views Related to Perceived  
Military Job Opportunities

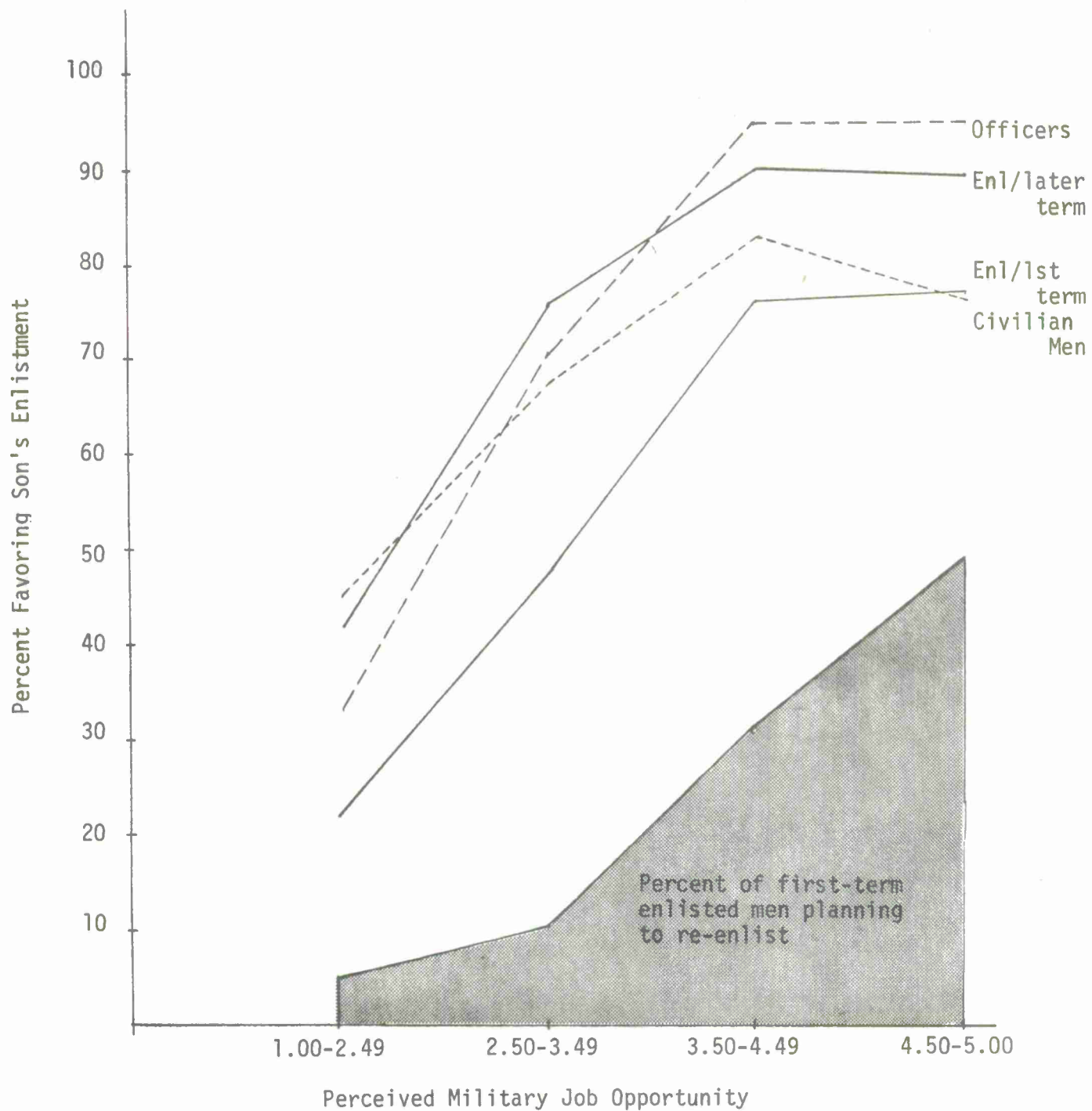
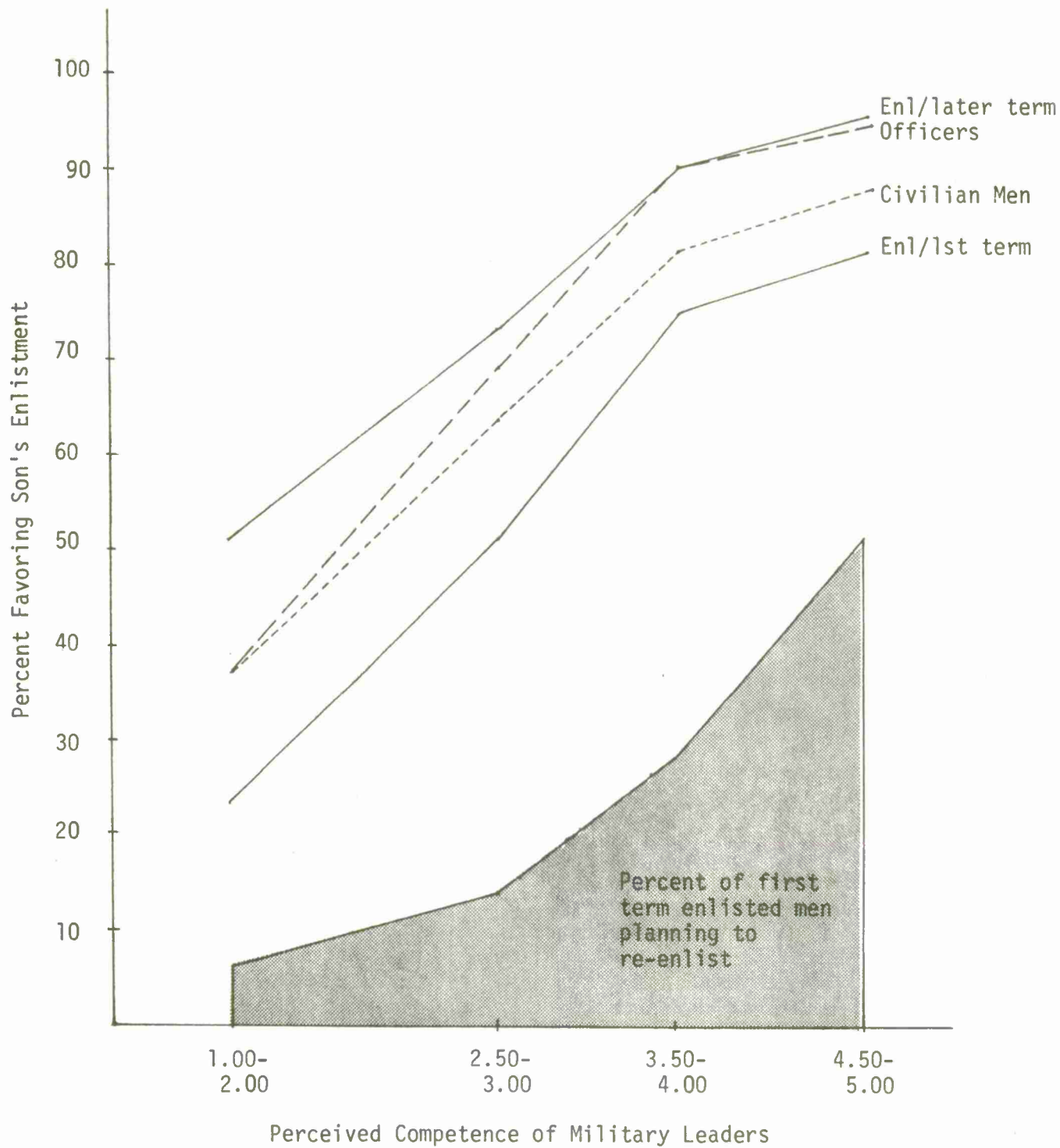


FIGURE 2

Pro-Enlistment Views Related to  
Perceived Competence of Military Leaders



the dissent about Vietnam, the more negative the feelings about enlistment. Re-enlistment intentions also shows a strong relationship to Vietnam views.

As might be expected, people's feelings about amnesty for those who went to Canada to avoid fighting in Vietnam are correlated with their general level of dissent about Vietnam (correlations range from .36 to .39 for civilian men who completed college). Feelings about amnesty are also related to views about a son's enlistment, and the pattern is quite similar to that shown for Vietnam Dissent in Figure 3. The greater the support for enlistment, the stronger the opposition to amnesty (see Table 4).

Support for a son's enlistment is related to feelings about military obedience, as indicated in Figure 4. Those who agree with the statement that "Servicemen should obey orders without question" are more positive about a son's enlistment than those who disagree with the statement. And first-term enlisted men who agree with the idea of unquestioning obedience are much more likely to re-enlist than those who disagree.

The question about obedience in a My Lai-type situation also shows some relationship to feelings about enlistment, especially among first-termers and civilians (see correlations in Table 4). The question asks what soldiers in Vietnam should do if they were "...ordered by their superior officers to shoot all inhabitants of a village suspected of aiding the enemy including old men, women and children." About one in five first-termers answer that the soldiers should "follow orders and shoot;" this group is most positive about a son's enlistment, and 26 percent of them personally plan to re-enlist in the Navy. About two in five first termers say they do not know what the soldiers should do; this group is also fairly positive about a son's enlistment, and 17 percent plan to re-enlist in the Navy. The remaining two out of five first-termers say that the soldiers should "refuse to shoot;" this group is least positive about a son's enlistment, and only 10 percent plan to re-enlist in the Navy.

We noted in the preceding chapter that two dimensions show rather weak association with the general factor of military sentiment--Preference for Citizen Soldiers and Preference for Wide Range of Political Views Among Servicemen. On the whole, these dimensions also fail to show much association with views about a son's enlistment. Perhaps one exception is worthy of mention--among college graduate civilian men there is a negative correlation ( $r = -.29$ ) between support for a son's enlistment and Preference for a Wide Range of Political Views Among Servicemen. (Unlike most other instances of higher correlations for the college graduate group, there is not a corresponding high relationship among Navy officers.) The finding for civilian college graduates presents a troublesome paradox: those individuals who prefer a wider range of political views in the military are less likely to want a son

FIGURE 3

## Pro-Enlistment Views Related to Vietnam Dissent

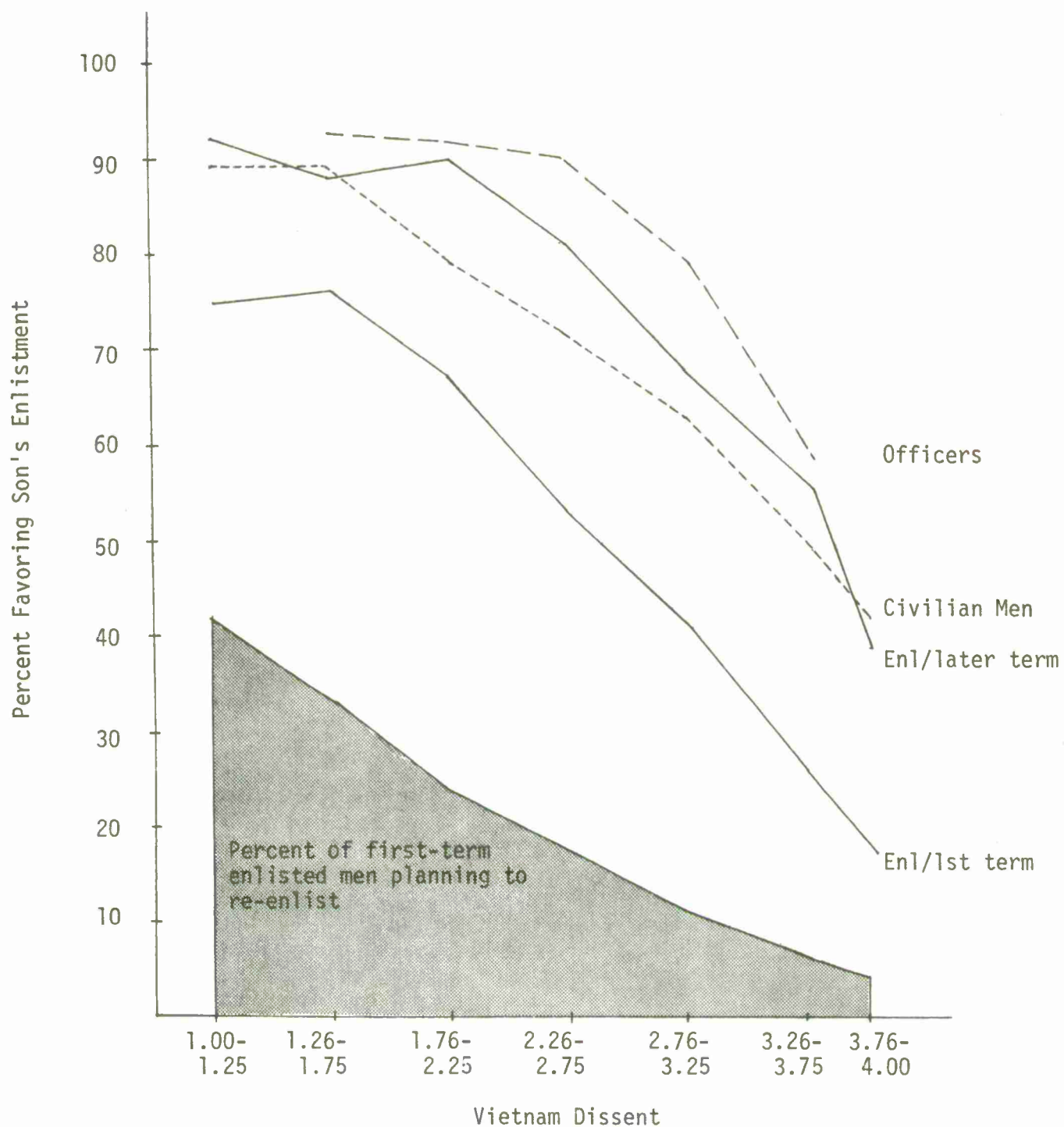
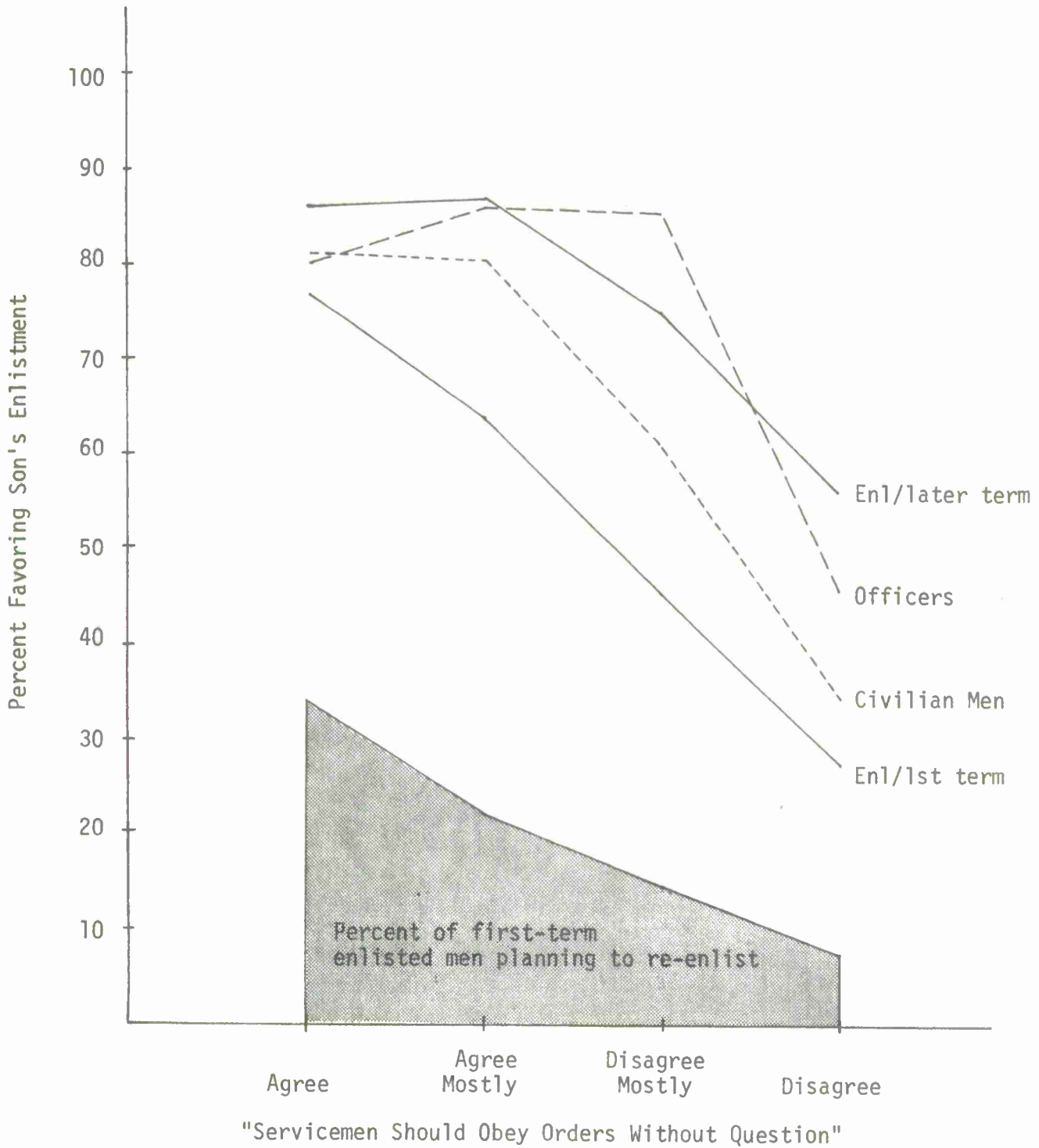




FIGURE 4

Pro-Enlistment Views Related to Views on Military Obedience



to enlist (although the sons of such individuals would probably help to widen the range of political views in the services). On the other hand, a more positive reading of these results might be that some college graduates would be less hesitant about sons' enlistment (or their own enlistment) if the services were perceived to be tolerant of a wide range of political views.

The findings presented in this chapter can be summarized quite briefly. We find that the same dimensions which contribute most strongly to a general factor of pro-military sentiment are also linked to positive feelings about the possibility of a son's enlistment in the military service. Among Navy respondents, the perception of favorable job opportunities in the service is a particularly strong predictor of pro-enlistment views. Other strong predictors for both Navy men and civilians are perceptions that military leaders are quite competent, a tendency to support past U.S. actions in Vietnam, strong opposition to amnesty for those who refused to serve in Vietnam, and support for the idea that servicemen should obey orders without question.

Among first-term enlisted men, the factors outlined above relate not only to feelings about a son's enlistment but also to plans for their own re-enlistment in the Navy. This lends a further note of reality to our view that general attitudes about the military services and their mission do have a bearing on enlistment behaviors.

## CHAPTER 4

### DIFFERENCES AMONG NAVY AND CIVILIAN GROUPS

The preceding chapters have concentrated first on patterns of correlations among the measures of military values, preferences and perceptions, and then on their relationship to views about enlistment. We found that while there were some differences in overall strength of relationship, the patterns of correlations were quite similar for Navy officers, first-term enlisted men, later-term enlisted men, and civilian men and women.

But while the relationships for the several groups are similar, their average scores are not. On the contrary, there are some consistent and substantial differences among the groups in their views of the military services and their mission. Many of these differences have been noted and discussed in the previous report (Bachman, 1973), although some of the items treated before have since been combined into new indexes. Rather than repeat the earlier treatment, our purpose here is to provide a brief review and summary of the ways in which the groups differ.

Table 5 provides the mean scores on our measures for all five analysis groups, plus the additional subgroup of civilian men who completed college. Also included in the table, as an aid in interpreting the sizes of differences between groups, are the standard deviations for civilian men.

If we compare civilian men and women in Table 5, we find that for most dimensions their mean scores are quite similar--i.e., they differ by less than one-tenth of a standard deviation. What differences do exist--all less than two-tenths of a standard deviation--suggest that women are a bit less likely to support foreign military intervention, less likely to favor unquestioning obedience by servicemen, less strongly opposed to amnesty, and more supportive of the concept of citizen soldiers.\*

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\* We have not in this report chosen to speak in terms of "statistically significant" differences for two reasons. Most important, with the large numbers of cases found in most of our analysis groups, small and unimportant effects can reach high levels of statistical significance. Thus we prefer to report the size of effects so that their substantive significance will be evident to the reader.

In addition, the usual significance tests have been developed for strict random samples, whereas our civilian and Navy groups are based on multi-stage stratified probability samples with some degree of clustering. There exist some rather complex methods for estimating significance levels with such samples (see, for example, Kish and Frankel, 1970; Frankel, 1971); however, for our present purposes it will be quite adequate to use the significance tests for random samples, setting a criterion more strict than the usual .05 level. Using the .001 criterion (two-tailed), a difference between officers and any other group in Table 5 can be considered statistically significant if it exceeds .20 standard deviation units; a difference involving any other pair of groups can be considered statistically significant if it exceeds .15 standard deviation units.

TABLE 5  
Differences Among Navy and Civilian Groups

	MEAN SCORES						Standard Deviation For Civilian Men*
	Navy Sample			Civilian Sample			
	1st-term Enlisted Men (N=1194)	later-term Enlisted Men (N=834)	Offi- cers (N=310)	Men (N=753)	Women (N=1053)	College Graduate Men Only (N=133)	
THE MILITARY WORK ROLE							
Perceived Military Job Opportunities	3.05	3.70	3.64	3.45	3.36	3.27	.89
Perceived Fair Treatment in Services	2.05	2.92	3.00	2.48	2.47	2.21	.93
Perceived Discrimination Against Women and Blacks	2.36	2.24	2.43	2.49	2.54	2.82	1.05
MILITARY LEADERSHIP							
Perceived Competence of Military Leaders	2.72	3.46	3.56	3.35	3.43	3.20	1.01
MILITARY INFLUENCE OVER NATIONAL POLICY							
Preference for Higher Military Spending and Influence	2.88	3.47	2.99	2.67	2.74	2.57	.79
Role of Military in Society Perceived as Negative	2.42	2.16	2.18	2.29	2.27	2.42	.73
Perceived Military (Versus Civilian) Influence	2.98	2.03	2.11	3.14	3.25	3.00	1.03
Preferred Military (Versus Civilian) Influence	3.33	3.68	3.04	3.15	3.20	2.78	.88
Adequacy of Military Influence (Perc. Minus Pref.)	3.66	2.35	3.07	3.99	4.05	4.22	1.32
FOREIGN POLICY AND MILITARY POWER							
Support for Military Intervention	2.27	2.81	2.78	2.32	2.19	2.35	.79
Preference for U. S. Military Supremacy	2.72	3.16	2.72	2.80	2.89	2.43	.90
Vietnam Disaent	2.64	2.19	2.50	2.47	2.45	2.67	.74
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE							
Support for Amnesty	2.53	1.46	1.65	1.94	2.13	2.17	1.08
Oppoaiton to Unqueationing Military Obedience	2.78	2.10	2.28	2.10	2.26	2.36	.96
Opposition to Obedience in My Lai-type incident	2.19	2.02	2.44	2.11	2.21	2.24	.81
Preference for "Citizen Soldiers" (Vs. "Career Men")	2.64	2.12	2.19	2.50	2.66	2.41	.85
Preference for Wide Range of Views Among Servicemen	2.78	2.75	3.13	2.79	2.76	2.99	.81
Views About a Son's Enlistment (1=Strongly positive;4=Strongly negative)	2.61	1.83	2.00	2.13	2.23	2.34	0.90
Percent Positive about Son's Enlistment	49%	82%	78%	71%	67%	--	--

\* Standard deviations for all groups appear in Appendix B.

✓  
.6867

When we turn to an examination of Navy groups, the ways in which they differ from each other and from civilians are larger and more important. As an aid in examining these differences, much of the material presented in Table 5 is also displayed in Figure 5. Mean scores for the three Navy groups have been charted according to the extent to which they differ from the mean scores for civilian men. The differences are expressed as proportions of the standard deviation for civilian men. (We considered civilian men to be the most appropriate comparison group for the several groups of Navy men, but the results would be essentially the same had we included women in the civilian comparison group.) In addition, the scales have been reversed in some cases so that the right-hand side always corresponds to the high loading on our general factor of pro-military sentiment (see Table 2 for the loadings). In other words, the figure has been arranged so that the further a group appears to the right of the center-line of Figure 5 (the mean for civilian men), the more strongly "pro-military" that group seems to be along the dimension in question.

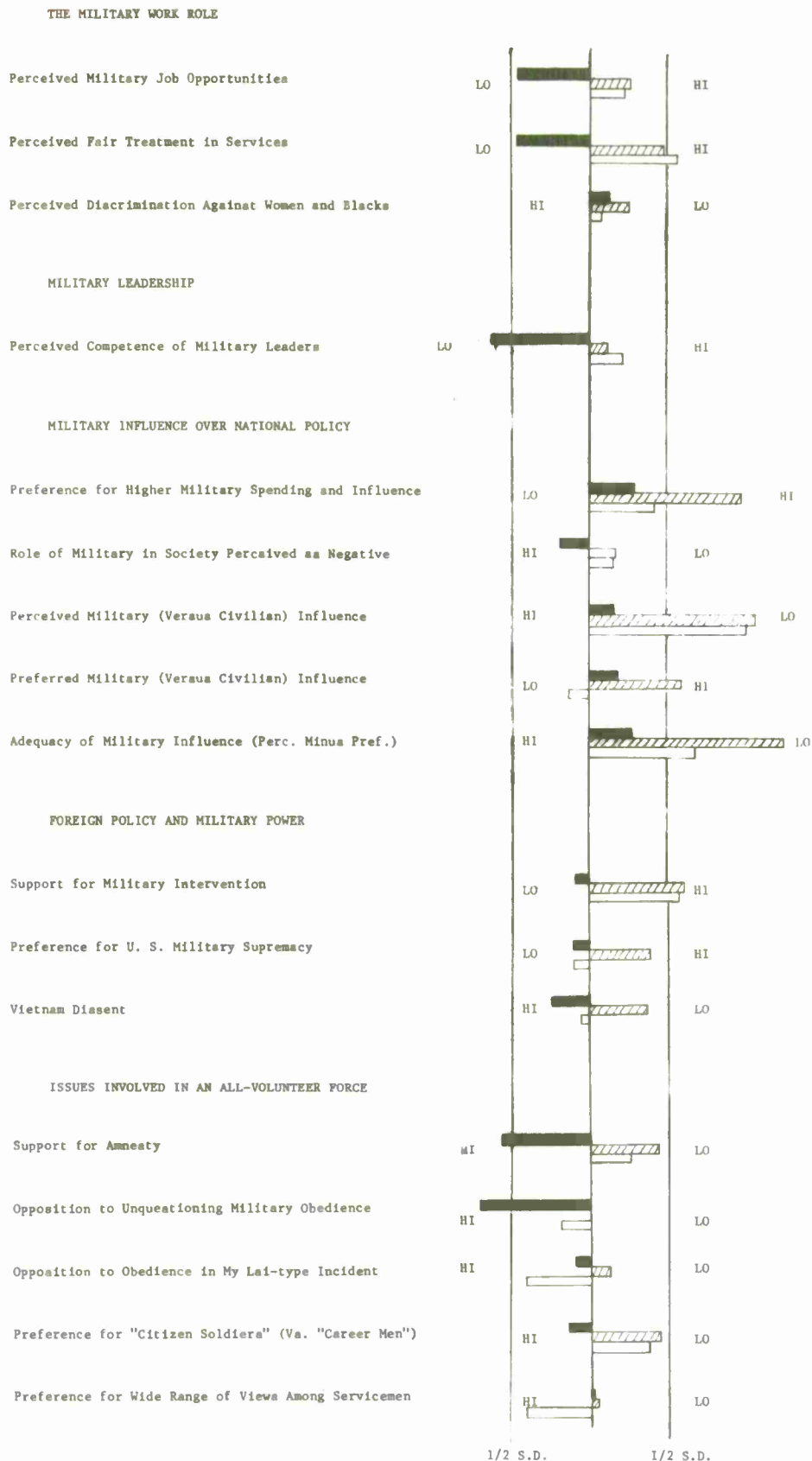
Perhaps the clearest finding shown in Figure 5 is that the average scores for later-term enlisted men are almost always more "pro-military" than the scores for any other group, Navy or civilian. These later-termers see the services as providing fair treatment and good job opportunities, they feel that the military should have higher levels of spending and influence, they prefer a position of U.S. military supremacy over the Soviet Union, they defend our past actions in Vietnam, and they are strongly opposed to amnesty.

While later-term enlisted men are consistently "pro-military," first-termers in the Navy surely are not. Their average scores are in most respects quite different from those of their later-term servicemates, and often they seem rather critical of the military. They are less positive about military job opportunities than civilian men, and most think that they would receive fairer treatment as civilians than in the military service. Their trust in military leadership to "...know what they are doing..." or "...do what is right..." lies between "a little extent" and "some extent" on the average--scores far lower than the average for the other Navy groups or civilians. The first-termers would prefer that military influence be a bit higher, but they are not strongly different from civilians (most of whom like things pretty much as they are).

Compared with the averages for other groups, first-term enlisted men are much more willing to consider amnesty for those who went to Canada rather than go to Vietnam. It may be worth noting, in this connection, that perhaps a goodly number of these first-termers themselves chose enlistment in the Navy as a means of avoiding combat roles in Vietnam. First-termers also show greater than average opposition to the idea of unquestioning military obedience. The majority of them disagree or "disagree mostly" with the statement "Service-men should obey orders without question," whereas the majority of respondents in other groups agree or "agree mostly." It should be noted, however, that

FIGURE 5

## Navy Groups Contrasted With Civilian Men



First-term enlisted men
  Later-term enlisted men
  Officers

Center line shows mean scores for civilian men, other lines show 1/2 S.D. for civilian men.



when first-termers are compared with civilians in their late teens and early twenties, there are no substantial differences in views about amnesty or obedience (see Bachman, 1973, pp. 45, 52).

Navy officers' mean scores along most dimensions lie somewhere between the scores for first-term and later-term enlisted men. In their ratings of job opportunities, fair treatment, and quality of leadership, the officers match later-term enlisted men in their enthusiasm for the military services. On the other hand, the officers take a more moderate view on the topic of military versus civilian influence. Unlike later-term enlisted men, the officers show a preference for roughly equal military and civilian influences over a number of areas, on the average; however, they share the later termers' view that at present military influence is rather low, and thus their preference is for some increase in the voice of the military.

The officers are not much different from later-termers or civilians in their responses to the abstract statement about servicemen obeying orders without question. On the other hand, when faced with the more specific example based on the My Lai massacre, the officers are more likely than others to say that under such conditions soldiers should refuse an order to shoot.

To summarize, we find some fairly large differences in average scores when we compare the three Navy groups. In particular, the first-term and later-term enlisted men are often at opposite ends of the spectrum. But we have thus far overlooked a very important distinction to be made within the ranks of first-term enlisted men--the distinction between those who plan to re-enlist and those who do not. The conclusions about first-term enlisted men presented in this chapter really apply only to the majority who do not plan to re-enlist. As the next chapter shows, those planning to re-enlist hold quite a different set of views about the military.





## CHAPTER 5

### MILITARY VIEWS LINKED TO RE-ENLISTMENT PLANS

One set of findings displayed in Figure 1 through 4 (in Chapter 3) involves the re-enlistment plans of first-term Navy enlisted men. As the figures indicate, those with more positive perceptions of military job opportunities, mission, and the like, are more likely to plan on re-enlistment. This means, of course, that the "attitude profile" for those first-termers planning to re-enlist is quite different from the profile for that larger group of first-termers who plan to leave the Navy at the end of their present tour of duty. This chapter documents those differences, and then explores two alternative explanations of how the differences arise.

Table 6 presents the mean scores on value, preference and perception measures for first-termers who plan to re-enlist and those who do not. Also included in the table are the mean scores for two comparison groups--later-term enlisted men and civilian men age 19 through 24. There are substantial differences between the two groups of first-termers, especially in perceptions of military job opportunities, fair treatment in military service, and the competence of military leaders. But in these same areas, those first-termers planning to re-enlist have average scores almost identical to later-term enlisted men. The similarities are not equally strong in all areas, but we can certainly say that in general the first-termers who plan re-enlistment are rather similar to later-termers in their outlook on the military. Those not planning to re-enlist, on the other hand, are more similar to civilians the same age.

What are we to make of these findings? Well for one thing, it suggests that it does not take long years of service to "socialize" Navy men to a point where their viewpoints reflect a pro-military stance. On the contrary, this point of view is evident to a large degree among men in their first tour of duty who plan to re-enlist. In other words, these first-termers have already joined the ideological ranks of the later-term enlisted men.

But how does this occur? Let us consider two alternative explanations for the more favorable views of those first-termers who plan to re-enlist:

Hypothesis 1: Attitude change during the first tour of duty. During the first tour of duty those individuals most likely to re-enlist undergo attitude changes in a more pro-military direction. This may occur through processes of "socialization" as a result of exposure to more experienced Navy men who tend to hold such views, or through exposure to positive experiences in the Navy, or both.

Hypothesis 2: Self-selection influenced by stable differences in attitudes. By the time they reach their late teens or early twenties, some

TABLE 6

Contrasting Attitudes of First-term Enlisted Men Who Do and Do Not Plan to Re-enlist

	Mean Scores for:			Civilian Men Age 19-24
	First-term Enlisted Men		All Later-term Enlisted Men	
	Not Planning to Re-enlist	Planning to Re-enlist		
THE MILITARY WORK ROLE				
Perceived Military Job Opportunities	2.92	3.70	3.70	3.30
Perceived Fair Treatment in Service	1.90	2.91	2.92	2.27
Perceived Discrimination Against Women and Blacks	2.37	2.31	2.24	2.64
MILITARY LEADERSHIP				
Perceived Competence of Military Leaders	2.61	3.32	3.46	2.75
MILITARY INFLUENCE OVER NATIONAL POLICY				
Preference for Higher Military Spending and Influence	2.79	3.36	3.47	2.38
Role of Military in Society Perceived as Negative	2.48	2.10	2.16	2.64
Perceived Military (Versus Civilian) Influence	3.04	2.69	2.03	3.47
Preferred Military (Versus Civilian) Influence	3.25	3.72	3.68	2.91
Adequacy of Military Influence (Perc. Minus Pref.)	3.79	2.96	2.35	4.55
FOREIGN POLICY AND MILITARY POWER				
Support for Military Intervention	2.21	2.53	2.81	2.10
Preference for U. S. Military Supremacy	2.64	3.13	3.16	2.44
Vietnam Disaent	2.71	2.29	2.19	2.77
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE				
Support for Amnesty	2.63	1.04	1.46	2.68
Opposition to Unquestioning Military Obedience	2.87	2.31	2.10	2.74
Opposition to Obedience in My Lsi-type Incident	2.24	1.92	2.02	1.37
Preference for "Citizen Soldiers" (Vs. "Career Men")	2.68	2.43	2.12	2.67
Preference for Wide Range of Views Among Servicemen	2.77	2.80	2.75	2.97

individuals are more favorable than others in their view of the military services and mission. These differences, which exist prior to enlistment, are among the factors influencing the "self-selection" process involved in the decision to re-enlist.

The only really adequate test of these two competing hypotheses would involve a longitudinal design, examining individuals before they enter the service and then again after one or more periods of exposure to military duty. But in the absence of true longitudinal data, we can gain some leverage on the problem through what might be called a "psuedo-longitudinal analysis." Our approach will be to look separately at first-termers in their first year of duty, those in their second year, those in their third year, and those in their fourth year. If the self-selection hypothesis is correct, we should find consistent differences in attitudes between those who do and do not plan to re-enlist--i.e., the differences for those in their first year should be just as large, on the average, as the differences for those in their second, third, or fourth year. On the other hand, if the attitude change hypothesis is correct, we might expect to see smaller differences among those in their first year, provided we make the assumption that the process of attitude change requires more than a few months to be completed. It should be clear that the test is not completely air-tight. If we find that the differences are smallest among those in their first year and largest among those in their third and fourth years, then we can fairly safely reject the self-selection hypothesis. However, if we fail to find such a pattern of increasing differences, it does not permit us to reject the attitude change hypothesis entirely; the possibility would still exist that the attitude changes occur rather quickly in the first few months of service.

Before turning to the results of this analysis, let us take note of some methodological limitations. About 16 percent of all first-term enlisted men state an intention to re-enlist, but the proportion is by no means the same for those in the service for different lengths of time. Among those in our sample reporting one year of active duty (rounded to the nearest year), 88 (24 percent) plan to re-enlist; but for those reporting two, three or four years of active duty the numbers are, respectively, 27 (11 percent), 14 (6 percent), and 19 (12 percent).<sup>\*</sup> Such small numbers provide rather unstable estimates; thus any particular mean score must be viewed with a good deal of caution. On the other hand, our two hypotheses are fairly specific in their predictions, and it seems unlikely that findings clearly consistent with one or the other hypothesis would result due to the instability of our estimates. Thus, we elected to go ahead with the analyses in spite of the difficulties noted here.

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\* These differences in proportions planning to re-enlist no doubt reflect real differences in the cross-sections of young men who enlisted in the Navy in 1969, 1970, 1971 and 1972.

The analyses comparing first-term enlisted men with one, two, three and four years of active duty were carried out for a number of the dimensions shown in Table 6. Five of the most important have been summarized in Figures 6 through 10. Each figure presents mean scores for those who plan to re-enlist and those who do not, taken separately for each year of active duty. Also included in each figure are two reference points, one showing the mean score for later-term enlisted men and the other showing the mean score for civilian men age 19 through 24. As we noted earlier, those planning to re-enlist are rather similar to later-term enlisted men, while those not planning to re-enlist tend to be more like civilians of the same age.

As Figure 6 indicates, those planning to re-enlist score consistently higher in Perceived Military Job Opportunities. There is a slight decline in ratings as years of service increase, but this holds for both those who plan to re-enlist and those who do not. Note that first-termers planning to re-enlist are quite close to later-termers in their ratings of job opportunities, whereas those who do not plan re-enlistment are a bit more negative than their civilian counterparts.

The results for Perceived Competence of Military Leaders, shown in Figure 7, tell a fairly similar story. Although there is some fluctuation in scores for those planning re-enlistment, their views of military leadership come rather close to the views of later-term enlisted men. Those not planning re-enlistment give consistently lower ratings to military leadership.

Figure 8 presents scores on the measure of Preference for Higher Military Spending and Influence. Again we find that first-termers planning to re-enlist are very similar to later-term enlisted men--both groups show some tendency to think that present levels of spending and influence may be too low. Young civilian men, on the other hand, tend to see spending and influence as too high. First-termers not planning to re-enlist fall in between; their average score is close to a value of 3 on the scale, indicating that spending and influence are considered to be "just about right." Once again, the differences between those who do and do not plan to re-enlist are just as strong for those with one year of service as for those with longer experience.

The same basic pattern is repeated in Figure 9, this time along the dimension of Vietnam Dissent. First-termers planning to re-enlist, like later-term enlisted men, are less critical of past Vietnam policy than are young civilian men and first-termers not planning re-enlistment. The differences fluctuate a bit as we go from first to second, third and fourth years of service; nevertheless, the difference for those with one year of service is just as large as the average of the differences for those in the later years.

FIGURE 6

Perceptions of Military Job Opportunities Linked to  
Re-enlistment Intention

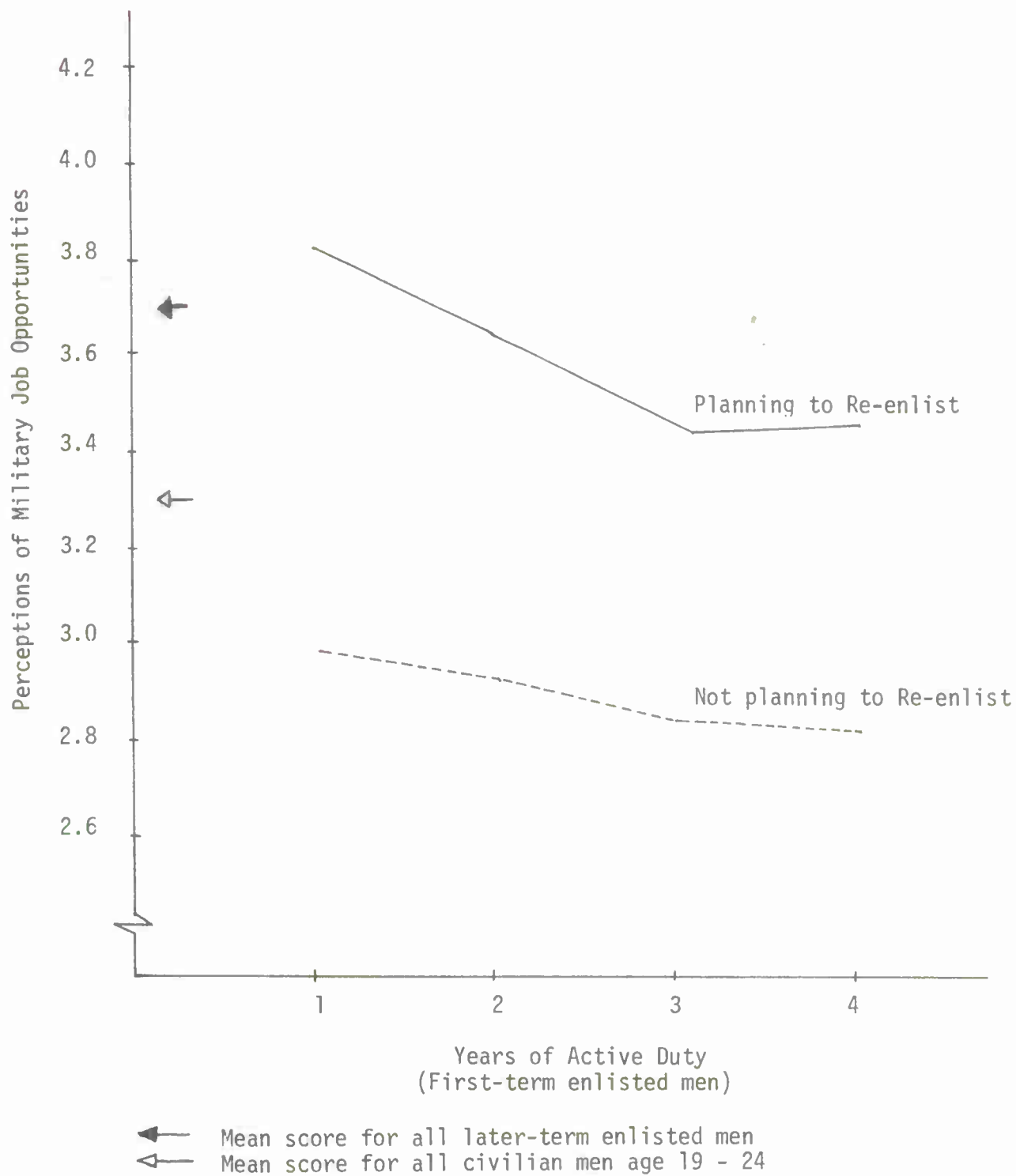


FIGURE 7

Perceived Competence of Military Leaders  
Linked to Re-enlistment Intention

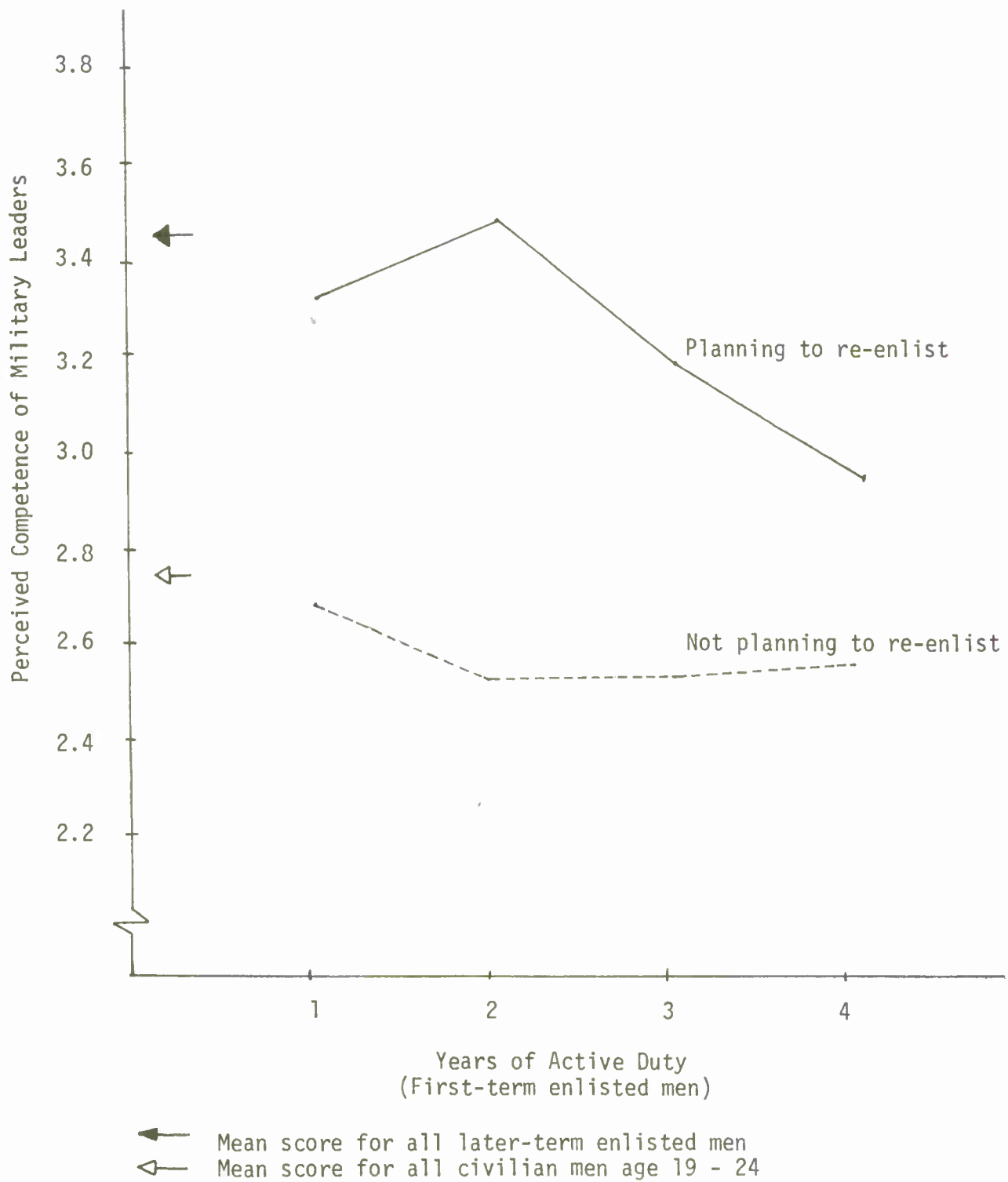
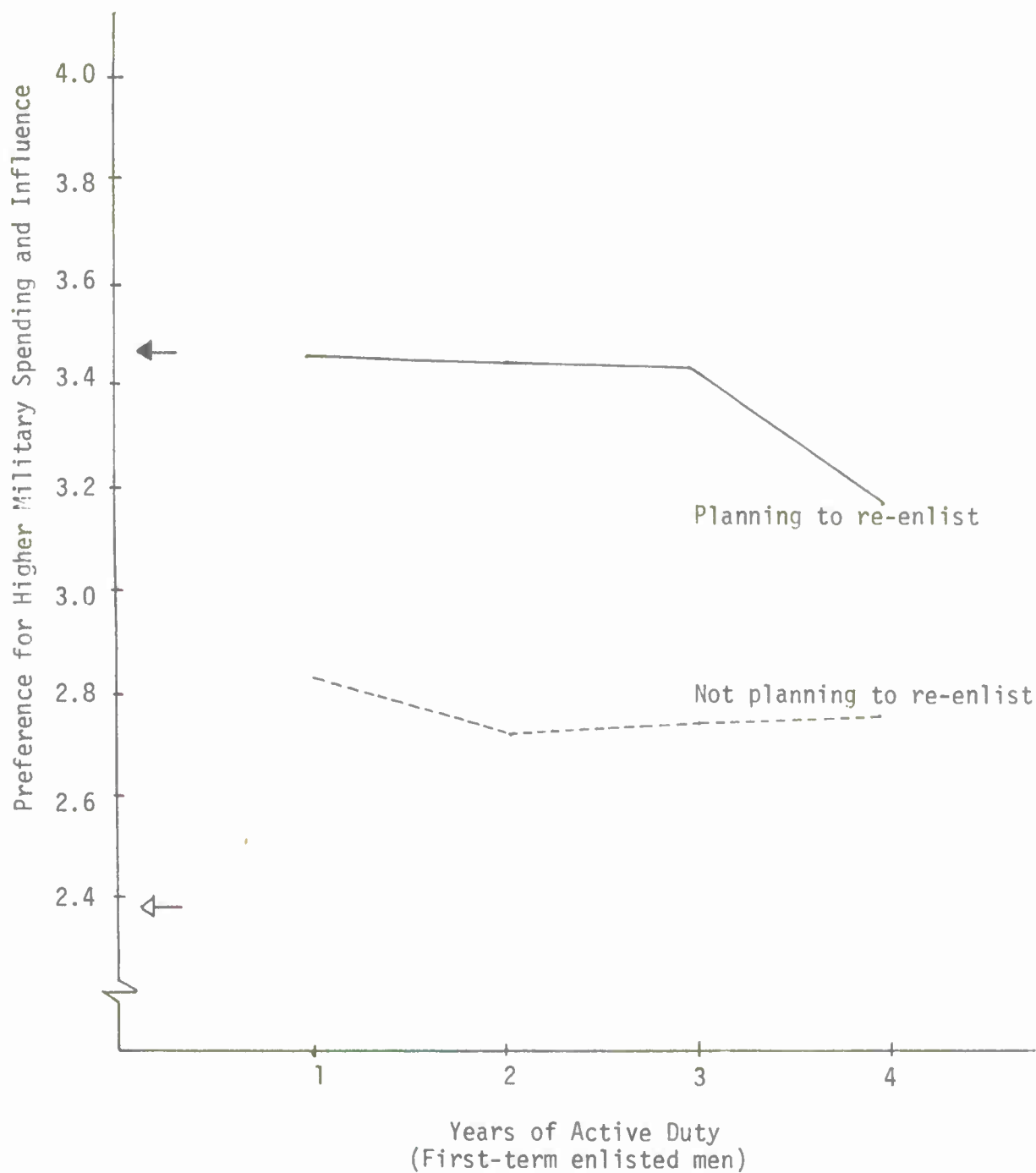


FIGURE 8

Preference for Higher Military Spending and Influence  
Linked to Re-enlistment Intention

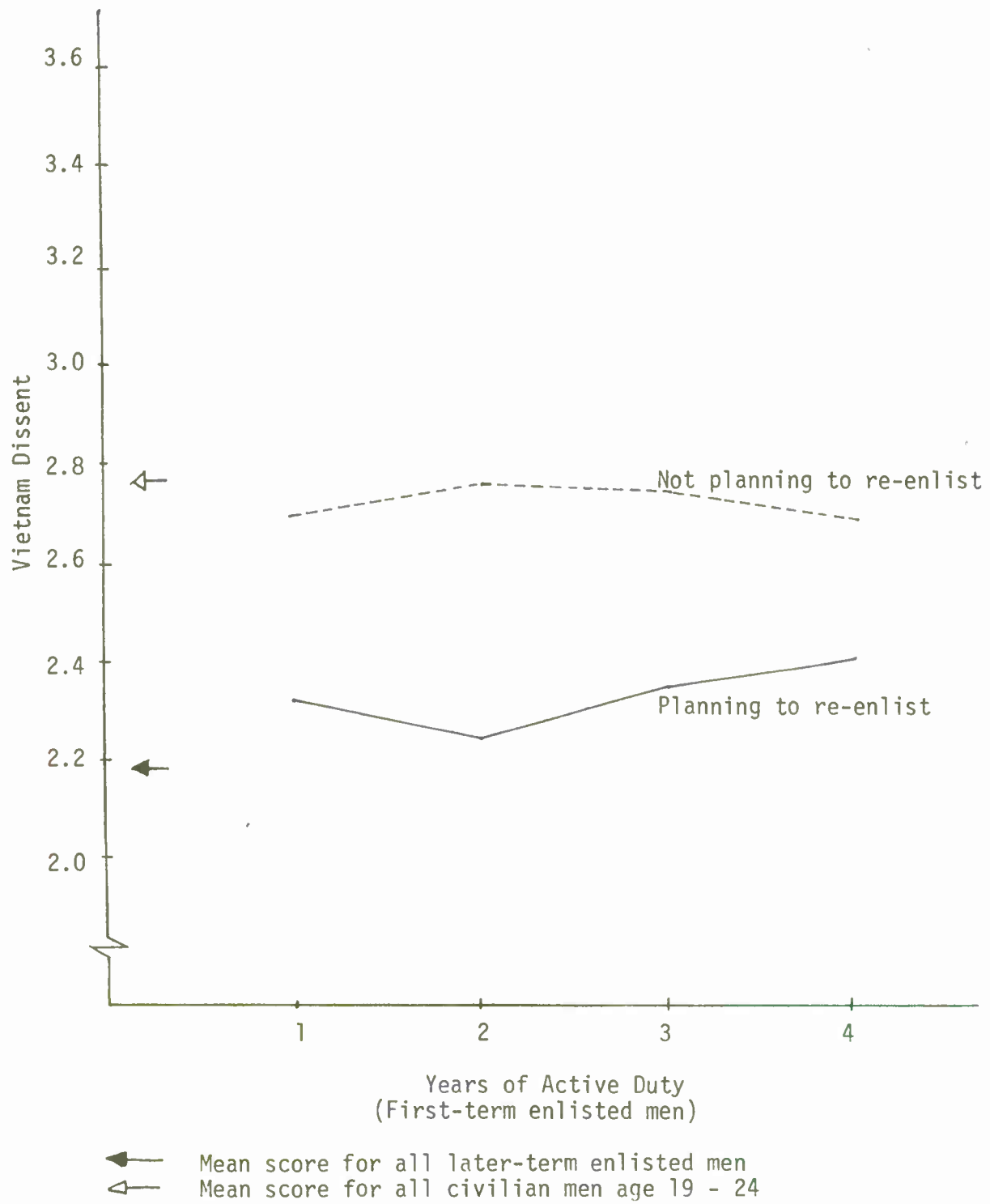


- ← Mean score for all later-term enlisted men  
← Mean score for all civilian men age 19 - 24



FIGURE 9

## Vietnam Dissent Linked to Re-enlistment Intention



One more dimension is presented in Figure 10. When asked whether servicemen should obey orders without question, the average later-term enlisted man in the Navy says that he "agrees mostly." Those first-termers planning to re-enlist lean in this direction, but not so strongly as the later-termers. Those not planning to re-enlist, however, tend mostly to the disagreement side of the statement about unquestioning obedience. Young civilian men also tend more toward this view. The differences among first-termers are again fairly stable from the first year to the fourth.

The basic finding repeated in Figures 6 through 10 is that the difference between first-termers who plan to re-enlist and those who do not are evident quite early. Those who have served one year (strictly speaking, a range of seven to eighteen months) show differences just as large, on the average, as those who have served several years longer. Such a finding is fully consistent with the self-selection hypothesis--the view that re-enlistment is heavily influenced by rather deeply-rooted perceptions and ideology related to the military life-style and mission.

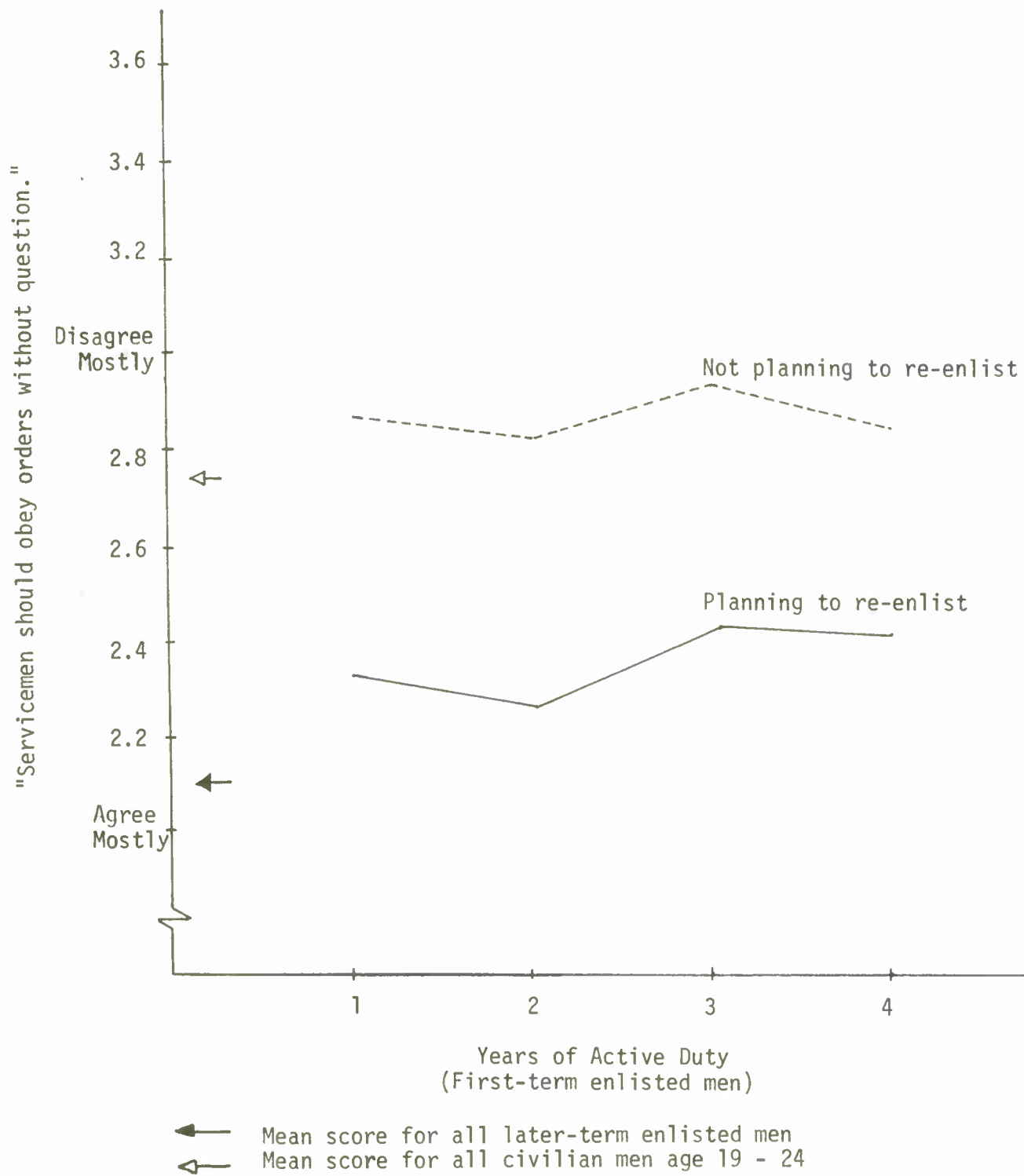
The alternative explanation, based on attitude changes during the first tour of duty, is not ruled out entirely. But the present findings suggest that if the differences between the re-enlistment and non-re-enlistment groups are to be explained in terms of changes in attitudes, such changes have to occur during the first few months of service. For some of the dimensions we have examined this seems quite possible. The service environments and resulting experiences may be rather different from one unit or work group to another, as Bowers' (1973) analyses suggest; thus, early experiences might have an important formative influence on perceptions of the military work role and military leadership, as well as on thoughts about re-enlistment.

It should be added here that the type of analysis shown in Figures 6 through 10 was also applied to several of the most important dimensions in Bowers' analyses--Human Resources Primacy, Satisfaction, and Opportunity to Control Personal Life. These measures include ratings of present working conditions, supervision, work group members, pay, and the like--dimensions which might very well reflect experiences in the early months of Navy duty. The same general pattern of findings emerged. Those who plan to re-enlist show fairly similar ratings of their Navy job, no matter whether they are in their first, second, third or fourth year; and these ratings are substantially more positive than the ratings by those not planning to re-enlist.

Thus, insofar as perceptions and reactions involving present working conditions in the Navy are concerned, it does seem possible that new attitudes would be formed during the first few months of duty. On the other hand, when we consider the other broadly ideological dimensions--military versus civilian influence, evaluation of past Vietnam policy, or views about unquestioning military obedience--then the notion of attitude change during the first few months of duty seems somewhat less plausible.

FIGURE 10

Views on Military Obedience Linked  
to Re-enlistment Intention



We stated earlier that the only really adequate test of the attitude change versus self-selection hypotheses would require a longitudinal study. Some evidence bearing on this issue is available from our own earlier longitudinal study of young men (Johnston and Bachman, 1972). Of a sample of young men in the high school class of 1969, those who later entered the military service were already (in 1969) a bit more likely than their classmates, on the average, to support United States policy in Vietnam. This fits our view that differences in ideology help to predispose some individuals to enter, or remain in, military service. On the other hand, the same study of the class of 1969 showed that a year later the differences in Vietnam views between those who did and did not enter the service had grown larger. And this may be seen as supporting the attitude change hypothesis.\*

We are forced to conclude that the data presently at hand will not permit a definitive choice between the attitude change and the self-selection interpretations of the differences in viewpoints between those who do and do not plan to re-enlist in the Navy. Nor is it necessary that only one interpretation be correct; both could be contributing to the pattern of findings we have seen. What we have done, however, is demonstrate that these differences in viewpoint are firmly established before the first year of service has ended. It does not require years and years of service experience for later-term enlisted men to develop the strongly pro-military attitudes summarized in the previous chapter; among those planning to re-enlist, the same attitudes are clearly evident as early as the first year of service.

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\* Further data from this and another longitudinal study will be reported in a forthcoming article in the Journal of Social Issues; additional follow-up data from the sample of young men in the high school class of 1969 will be collected during 1974.



## CHAPTER 6

### IMPACT OF PERSONAL CONTACT WITH THE MILITARY SERVICES

There are a number of ways of forming attitudes about the military services. Reports in the media are widely available, and may provide much current information. And, of course, the advertising efforts sponsored by the services add to the material available in the media. But first-hand, or even second-hand, personal contacts may have a much greater impact and credibility. Thus it seemed useful to explore the degree to which the various perceptions and attitudes about the military and its mission are linked to such personal contacts.

In this chapter we will explore both first-hand and second-hand military contacts among the civilian men in our sample. First, we will see to what extent civilian men who have served in the armed forces differ from those who have not; and we will also explore the extent to which positive or negative feelings about past military service are related to present military attitudes and perceptions. Second, we will see whether these military views are related to perceptions about relatives' experiences in the armed forces.

#### VETERANS' VIEWS OF THE MILITARY

Is the average veteran more supportive of the military than the average non-veteran? Our data, summarized in Column A of Table 7, suggest that there are few differences between the average veteran and non-veteran along our dimensions, and those differences which do appear are not very large. When asked how they would feel about a son's enlistment, 29 percent of the veterans checked "strongly positive," compared with 23 percent of the non-veterans; those responding "mostly positive" were 45 percent and 46 percent, respectively. Differences this small are neither statistically trustworthy nor substantively important (they correspond to a point-biserial correlation of .08).

Reviewing the figures in Column A of Table 7, we find that there are no average differences between veterans and non-veterans in their perceptions of the military work role or the competence of military leaders, and no substantial differences in their views about foreign policy and military power. In rating ideal levels of military versus civilian influence, there is little difference between the two groups; both veterans and non-veterans prefer a roughly equal sharing of influence by military and civilian leaders. On the other hand, there is a difference in perceptions of actual levels of military influence; veterans perceive the military as somewhat less influential than do non-veterans. As a result, the two groups differ along our dimension of adequacy of military influence; veterans would prefer a bit more military influence than they think is actually the case, whereas non-veterans would prefer slightly less.

TABLE 7

## Impact of Past Military Service on Attitudes of Civilian Men

	Correlations* With:	
	A. Past Military Service** (All civilian men--N=719)	B. Positive Feelings About Having Served*** (Veterans only-- N=349)
THE MILITARY WORK ROLE		
Perceived Military Job Opportunities	.00	.18
Perceived Fair Treatment in Services	.02	.33
Perceived Discrimination Against Women and Blacks	-.06	-.22
MILITARY LEADERSHIP		
Perceived Competence of Military Leaders	.02	.31
MILITARY INFLUENCE OVER NATIONAL POLICY		
Preference for Higher Military Spending and Influence	.07	.11
Role of Military in Society Perceived as Negative	-.05	-.34
Perceived Military (Versus Civilian) Influence	-.23	-.17
Preferred Military (Versus Civilian) Influence	.07	.25
Adequacy of Military Influence (Perc. Minus Pref.)	-.23	-.30
FOREIGN POLICY AND MILITARY POWER		
Support for Military Intervention	.10	.18
Preference for U. S. Military Supremacy	.07	.18
Vietnam Dissent	-.07	-.32
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE		
Support for Amnesty	-.19	-.36
Opposition to Unquestioning Military Obedience	-.04	-.35
Opposition to Obedience in My Lai-type Incident	-.09	-.29
Preference for "Citizen Soldiers" (Vs. "Career Men")	-.16	-.08
Preference for Wide Range of Views Among Servicemen	.06	-.10

\* The correlations are product-moment; however, the "past military service" variable is a dichotomy, and thus the correlations in column A are also termed point-biserial. (The point-biserial is a special case of the product-moment correlation; in the present instance it can be interpreted in essentially the same way as the more typical product-moment correlation involving continuous distributions along both dimensions--see Nunally, 1967, pp. 120-133.) Correlations in Column A may be considered statistically significant if they exceed .11, those in Column B if they exceed .16 ( $p < .001$ , two-tailed, assuming a simple random sample).

\*\* Past Military Service is based on responses to Question D14, but scoring has been reversed so that a positive correlation means that veterans have higher scores on the dimension than do non-veterans.

\*\*\* Positive Feelings About Having Served is based on responses to Question D20, with scoring reversed so that a positive correlation means that the dimension is associated with positive feelings about having served.



It is interesting to note that the veterans' scores along the military versus civilian influence dimensions are quite similar to those of first-term enlisted men in the Navy. (A look back at Figure 5 will serve as a reminder that these are almost the only dimensions which show first-termers as more "pro-military" than civilians; in many respects, the average first-termer is relatively critical of the military.) It may be that one of the more consistent results of past or present experience in military service is a lowered assessment of the amount of influence military leaders actually have over a range of decisions affecting national security.

Veterans and non-veterans differ little in their evaluation of past U.S. actions in Vietnam--both groups are split nearly equally between those who tend toward support and those who tend to be critical. In their feelings about amnesty, on the other hand, the groups differ noticeably. While 36 percent of non-veterans agree or agree mostly that the men who went to Canada to avoid fighting in Vietnam were doing what they felt was right and should not be punished, only 18 percent of the veterans agree or agree mostly. In answer to the companion question stating that going to Canada was wrong and those who did so should be punished, 78 percent of veterans agree or agree mostly, compared with 61 percent of non-veterans. It is perhaps understandable that most civilians who once served in the armed forces themselves would have little tolerance for those who avoided service by going to Canada.

One other difference is worth noting between veterans and non-veterans. The veterans show greater support for the idea of "career men" in the military rather than "citizen soldiers," whereas the opposite is true for non-veterans. The data are summarized in Table 8.

TABLE 8

## Preference for "Citizen Soldiers" Versus "Career Men"

	Veterans (N=324)	Non-veterans (N=386)
Scores on the index:		
Preference for "Citizen Soldiers" (Versus "Career Men")		
1.0 -- 2.0 Prefer "Career Men"	46%	31%
2.5 Mixed feelings	24%	26%
3.0 -- 4.0 Prefer "Citizen Soldiers"	30%	43%
	<hr/> 100%	<hr/> 100%

Let us turn next to an exploration of veterans' feelings about having served in the armed forces, and the ways these feelings are related to other views about the military. Table 9 displays two questions which deal with veterans' reactions to their military service, and their perceptions of family reactions. Most veterans report their own feelings as positive; nevertheless, there is room for variation, with some strongly positive, others mostly positive, and about one in five on the negative side of the scale. As we shall see in a moment, this variation in feeling about one's own military experience is strongly associated with other attitudes about military matters.

Perceptions about family reactions, shown in the lower part of Table 9, are more balanced between positive and negative views. The two items shown in Table 9 are only modestly correlated ( $r = .23$ ); this finding, coupled with the different levels of positive feeling shown in the two items, indicates that some veterans presently hold positive feelings about their military experience in spite of a perception that their entry into the service was not especially favored by family members.

TABLE 9

## Veterans' Feelings About Having Served

Question D20. Would you say your feelings about having been in the military are:

(1) Strongly positive .....	38%
(2) Mostly positive .....	43%
(3) Mostly negative .....	14%
(4) Strongly negative .....	5%
	<hr/>
	100%

Question D21. Which of the following best describes the feelings of your family when they first learned you were going to enter the service?

(1) They were very much in favor of it ..	20%
(2) Somewhat in favor .....	26%
(3) Neutral or indifferent .....	25%
(4) Somewhat dissatisfied .....	22%
(5) Very much dissatisfied .....	8%
	<hr/>
	101%

Veterans' own feelings about having served are strongly correlated with feelings about the possibility of a son's enlistment ( $r = .53$ ). These feelings about having served are also related to a number of other dimensions, as shown in Column B of Table 7. The pattern of correlations is similar to the factor loadings shown in Table 2--those items which are most positively or negatively associated with a general factor of pro-military sentiment are also most strongly linked to veterans' feelings about their own military experience. An even closer match may be found by comparing Column B of Table 7 with the data for all civilian men in Table 4, showing the extent to which each of our measures is correlated with feelings about a son's enlistment. Thus it appears that the same values, preferences and perceptions about military service which predict feelings about a son's enlistment are also correlated with veterans' satisfaction with their own military experience.

By now the list of relationships is likely to be familiar, so we will review the findings in Column B of Table 7 only briefly. Veterans' positive feelings about their military service are correlated with perceptions that the present U.S. armed forces offer fair treatment and competent leadership. Veterans with positive feelings about their past service are also likely to prefer fairly high levels of military influence, view the role of the military in our society as being predominantly positive, support past U.S. actions in Vietnam, show above-average opposition to amnesty, and state that servicemen should obey orders without question.

We explored several other dimensions of veterans' experiences to see if they are correlated with our measures of military attitudes. No substantial or consistent differences are associated with branch of service (Army, Navy, Air Force, Marines). Somewhat to our surprise, there also appear to be no clear differences in attitudes between those veterans who had been drafted and those who had enlisted--although it should be added that most of the veterans who had enlisted thought they would have been drafted otherwise.

One dimension which does show some consistent differences is length of past military service. Most of our civilian respondents who served in the military remained in the service no more than four years. But those who had served longer tend to show attitudes more favorable to the military. In particular, the greater the length of service among these veterans, the higher their ratings of fair treatment and competent leadership in the military.

#### ATTITUDES ABOUT RELATIVES' MILITARY EXPERIENCE

Eighty percent of the civilian men reported at least one relative who had served in the armed forces. They were then asked to describe (a) their relatives' feelings about having served, and (b) their own feelings about their relatives having been in the service. The questions and responses are summarized in Table 10. Responses to the two questions are closely related ( $r = .68$ ), and also quite positive. Most civilian men think of their relatives' military experiences in favorable terms.

TABLE 10

## Civilian Men's Views of Relatives' Military Experience

Question D23. What were their feelings about having been in the military service?

(1) Strongly positive .....	23%
(2) Mostly positive .....	59%
(3) Mostly negative .....	14%
(4) Strongly negative .....	4%
	<hr/>
	100%

Question D24. What are your feelings about their having been in the military service?

(1) Strongly positive .....	27%
(2) Mostly positive .....	55%
(3) Mostly negative .....	15%
(4) Strongly negative .....	4%
	<hr/>
	101%

(MTR 506)

As we shall soon see, the responses about relatives' military experience are correlated with the broader range of military attitudes we have been examining in this report. But do such correlations really mean that relatives' experiences in military service make a genuine contribution to the way an individual feels about the armed forces and their mission? Or does it simply mean that an individual's own feelings about the military are generalized or projected onto relatives? Does someone assume--perhaps without realizing it--that because he himself has positive or negative feelings about the armed services, his relatives' feelings must be somewhat the same? This latter explanation seems quite possible, at least to some degree; indeed, it might be that such a process of projection is the only basis for finding a correlation between perceived feelings of relatives and own attitudes toward the military.

Such problems of intercorrelated attitudes and perceptions often occur in survey research, and sometimes it is impossible to get any leverage to determine which of the alternative explanations is most plausible. Fortunately, in the present case we have several bases for testing out alternative explanations. First, as noted earlier, we have two different questions about relatives' military experience--Question D23 dealing with how the relatives seemed to feel

about being in the service and Question D24 asking the respondent to indicate "what are your feelings about their having been in the military service?" If responses to both questions are valid, then it seems likely that the latter question would correlate more highly with a respondent's personal values and attitudes about the military, as reflected in our other measures. On the other hand, if the statements about relatives' feelings (D23) are nothing more than projections of the way respondents feel, then both questions might be expected to be equal in their correlations with other military attitudes. Thus, one of our tests is to compare Questions D23 and D24 when they are correlated with our measures of military attitudes.

Another basis for deciding whether the ratings of relatives' military experiences represent something more than projections of the respondents' own feelings lies in the distinction between veterans and non-veterans. It seems reasonable to suppose that veterans have a good deal of first-hand experience on which to base their assessments of military life, mission, etc. They might be influenced by relatives' reports and feelings, of course, but such influences would have to be balanced against their own experience. On the other hand, those who never served would have to rely more heavily on second-hand sources of information, including relatives with military experience. If this line of reasoning is correct, we should find that perceptions of relatives' military experiences are correlated with military values and attitudes more strongly among non-veterans than among veterans.

Table 11 presents the information we need. It relates each of our dimensions of military attitudes to Question D23 (perceptions of relatives' feelings about having been in the service) and Question D24 (respondents' own feelings about their relatives having been in the service), and shows these relationships separately for veterans and non-veterans. There are three observations to be made about the results shown in the table.

First, the correlations for Question D24 are consistently stronger than those for Question D23, thus indicating that a respondent's own feelings about relatives having served are more strongly correlated with his general military attitudes than are his perceptions of how the relative(s) felt about having served. This suggests that perceptions of relatives' feelings about the service involve something other than simply projections of one's own values.

Second, the relationships for veterans are generally smaller than those for non-veterans. While the differences are not large, the overall pattern of findings is consistent with our interpretation that veterans rely less on second-hand experiences in forming their attitudes about the military.

Third, it is interesting to note that non-veterans' perceptions of relatives' feelings about serving have nearly as strong an impact on military attitudes (Column B in Table 11) as do veterans' feelings about their own military experience (Column B of Table 7). This further supports the notion that non-veterans use their relatives' experiences in the military as a substitute for first-hand contact with life in the service.

TABLE 11  
Veterans' and Non-Veterans' Views About Relatives in Military Service

	Correlations* With:			
	Question D23 (How relatives felt about having been in service)		Question D24 (Respondents' feelings about relatives having served)	
	A. Veterans (N=275)	B. Non-Veterans (N=245)	C. Veterans	D. Non-Veterans
THE MILITARY WORK ROLE				
Perceived Military Job Opportunities	.10	.17	.16	.31
Perceived Fair Treatment in Services	.19	.18	.24	.31
Perceived Discrimination Against Women and Blacks	-.18	-.11	-.29	-.32
MILITARY LEADERSHIP				
Perceived Competence of Military Leaders	.15	.28	.28	.40
MILITARY INFLUENCE OVER NATIONAL POLICY				
Preference for Higher Military Spending and Influence	.16	.29	.30	.38
Role of Military in Society Perceived as Negative	-.17	-.24	-.32	-.39
Perceived Military (Versus Civilian) Influence	-.13	-.12	-.23	-.21
Preferred Military (Versus Civilian) Influence	.11	.15	.33	.34
Adequacy of Military Influence (Perc. Minus Pref.)	-.17	-.20	-.39	-.38
FOREIGN POLICY AND MILITARY POWER				
Support for Military Intervention	.27	.01	.19	.20
Preference for U. S. Military Supremacy	.10	.24	.19	.35
Vietnam Dissent	-.24	-.26	-.29	-.41
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE				
Support for Amnesty	-.12	-.21	-.25	-.43
Opposition to Unquestioning Military Obedience	-.13	-.24	-.24	-.29
Opposition to Obedience in My Lai-type Incident	-.11	-.14	-.20	-.18
Preference for "Citizen Soldiers" (Vs. "Career Men")	.03	-.08	-.08	-.19
Preference for Wide Range of Views Among Servicemen	-.03	-.03	-.12	-.06

\* Scoring has been reversed for Questions D23 and D24 so that a positive relationship means that a high score on the attitudes dimension is associated with positive feelings about relatives' service. (Numbers of cases are somewhat smaller than usual because not all respondents reported having relatives who had been in military service.)



In sum, although the case is far from air-tight, we are inclined to attach some credibility to ratings of relatives' military experience--the data seem to be more than simply projections of the respondents' own feelings. Moreover, these perceptions of relatives' satisfaction with their military service show a substantial relationship with more general attitudes about the military--especially for those civilian men who have not served in the armed forces. Veterans, of course, rely more heavily on their own first-hand experience in forming their broader views about the military. But for non-veterans--including those young men from whom the services must recruit their volunteers--the second-hand contact offered by relatives who have been in the service seems to be an important factor in forming their attitudes about the military.





## APPENDIX A

### Item Ingredients for Military Value, Preference and Perception Measures

#### THE MILITARY WORK ROLE

##### Perceived Military Job Opportunities

All items share the following introduction:

To what extent do you think the following opportunities are available to people who work in the military services? (1=very little extent; 5=very great extent)

- C1. A chance to get ahead
- C2. A chance to get more education
- C3. A chance to advance to a more responsible position
- C4. A chance to have a personally more fulfilling job
- C5. A chance to get their ideas heard

(One item of missing data allowed in index construction.)

##### Perceived Fair Treatment in Services

- C6. To what extent is it likely that a person in the military can get things changed and set right if he is being treated unjustly by a superior? (1=very little extent; 5=very great extent)
- C9R. Do you personally feel that you would receive more just and fair treatment as a civilian or as a member of the military service? (Reversed: 1=much more fair as civilian; 5=much more fair in service; 6, "question not appropriate for me" treated as missing data)

NOTES: This table displays each major measure (underlined) along with its item(s) listed by question number. The response scale for each item is indicated by its end points, and the scoring shown is that used to construct the measure. Those items marked with an "R" had to be recoded in reverse for index purposes; in such cases the response scale shown in this table is the recoded (reversed) version. Unless otherwise indicated, indexes are means of the items shown, with no missing data allowed.

Perceived Discrimination Against Women and Blacks

- C7. To what extent do you think there is any discrimination against women who are in the armed services? (1=very little extent; 5=very great extent)
- C8. To what extent do you think there is any discrimination against black people who are in the armed services? (1=very little extent; 5=very great extent)

MILITARY LEADERSHIP

Perceived Competence of Military Leaders

- C19. To what extent do you think our military leaders are smart people who know what they are doing? (1=very little extent; 5=very great extent)
- C24. To what extent do you think you can trust our military leadership to do what is right? (1=very little extent; 5=very great extent)

MILITARY INFLUENCE OVER NATIONAL POLICY

Preference for Higher Military Spending and Influence

- C25. All things considered, do you think the armed services presently have too much or too little influence on the way this country is run? (1=far too much; 5=far too little)
- C26. Do you think the U.S. spends too much or too little on the armed services? (1=far too much; 5=far too little)

Role of Military in Society Perceived as Negative

- C27. Overall, how do you feel about the role of the military services in our society during the time since World War II -- has it been mostly positive or mostly negative? (1=strongly positive; 4=strongly negative)

### Perceived Military (Versus Civilian) Influence

- C28. Who has most influence over whether to involve U.S. servicemen in foreign conflicts? (see note below)
- C30. Who has most influence over what tactics to use on the battlefield?
- C32. Who has most influence over which new weapon systems to develop?
- C34. Who has most influence over levels of pay and fringe benefits in the armed services?
- C36. Who has most influence over whether to use nuclear weapons?

Each question above is followed by the statement: This is how I think it is now: (1=civilians much more; 5=military much more)

(One item of missing data allowed in index construction.)

### Preferred Military (Versus Civilian) Influence

C29, C31, C33, C35, C37.

The questions are the same as C28 through C36 above, with each question followed by the statement: This is how I'd like it to be: (1=civilians much more; 5=military much more)

(One item of missing data allowed in index construction.)

### Adequacy of Military Influence (Perceived Minus Preferred)

This measure consists of the discrepancy or difference between the two indexes above. Specifically, the measure is computed as follows:

$$\text{Adequacy of Military Influence} = \left[ \begin{array}{c} \text{Perceived} \\ \text{Influence} \end{array} \right] - \left[ \begin{array}{c} \text{Preferred} \\ \text{Influence} \end{array} \right] + 4$$

The constant 4 is added to avoid negative numbers. A score on this measure larger than 4 indicates that perceived military influence is greater (more "adequate") than the respondent would prefer; a score lower than 4 indicates the reverse -- military influence less adequate than the respondent would prefer.

## FOREIGN POLICY AND MILITARY POWER

Support for Military Intervention

- C39R. There may be times when the U.S. should go to war to protect the rights of other countries. (Reversed: 1=disagree; 4=agree)
- C41. The only good reason for the U.S. to go to war is to defend against an attack on our own country. (1=agree; 4=disagree)

Preference for U.S. Military Supremacy

- C42. The U.S. does not need to have greater military power than the Soviet Union. (1=agree; 4=disagree)
- C43R. The U.S. ought to have much more military power than any other nation in the world. (1=disagree; 4=agree)

Vietnam Dissent

- C45R. Fighting the war in Vietnam has been damaging to our national honor or pride. (Reversed: 1=disagree; 4=agree)
- C46R. Fighting the war in Vietnam has not really been in the national interest. (Reversed: 1=disagree; 4=agree)
- C47. Fighting the war in Vietnam has been important to fight the spread of Communism. (1=agree; 4=disagree)
- C48R. Fighting the war in Vietnam has brought us closer to world war. (Reversed: 1=disagree; 4=agree)
- C49. Fighting the war in Vietnam has been important to protect friendly countries. (1=agree; 4=disagree)
- C50. Fighting the war in Vietnam has been important to show other nations that we keep our promises. (1=agree; 4=disagree)

(One item of missing data allowed in index construction.)

## ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE

Support for Amnesty

- C51. Going to Canada to avoid fighting in Vietnam was wrong, and those those who did so should be punished. (1=agree; 4=disagree)
- C52R. The men who went to Canada rather than fight in Vietnam were doing what they felt was right. They should be allowed to return to the U.S. without being punished. (Reversed: 1=disagree; 4=agree)

Opposition to Unquestioning Military Obedience

- C53. Servicemen should obey orders without question. (1=agree; 4=disagree)

Opposition to Obedience in My Lai-type Incident

- C54. Suppose a group of soldiers in Vietnam were ordered by their superior officers to shoot all inhabitants of a village suspected of aiding the enemy including old men, women and children? In your opinion, what should the soldiers do in such a situation? (1=follow orders and shoot; 2=don't know; 3=refuse to shoot them)

Preference for "Citizen Soldiers" (Versus "Career Men")

- C12R. Most of our servicemen should be "citizen soldiers" -- men who spend just three or four years in the military and then return to civilian life. (Reversed: 1=disagree; 4=agree)
- C13. Our military service should be staffed mostly with "career men" who spend twenty or more years in the service. (1=agree; 4=disagree)

Preference for Wide Range of Political Views Among Servicemen

- C14. Only those who agree with our military policy should be allowed to serve in the armed forces. (1=agree; 4=disagree)
- C15R. There ought to be a wide range of different political viewpoints among those in the military service. (Reversed: 1=disagree; 4=agree)





## APPENDIX B

### Supplementary Correlation Matrices

- Table B-1 Correlation Matrix for First-term Enlisted Men
- Table B-2 Correlation Matrix for Later-term Enlisted Men
- Table B-3 Correlation Matrix for Navy Officers
- Table B-4 Correlation Matrix for All Civilian Men
- Table B-5 Correlation Matrix for All Civilian Women
- Table B-6 Correlation Matrix for College Educated Civilian Men



### Correlation Matrix for Later-term Enlisted Men

	ADJUSTED N	MEAN X	S. D. s
1. Perceived Military Job Opportunities	1189	3.048	0.858
2. Perceived Fair Treatment in Services	1114	2.053	0.867
3. Perceived Discrimination Against Women and Blacks	1181	2.360	0.963
4. Perceived Competence of Military Leaders	1177	2.722	0.939
5. Preference for Higher Military Spending and Influence	1184	2.878	0.858
6. Role of Military in Society Perceived as Negative	1175	2.517	0.717
7. Perceived Military (Versus Civilian) Influence	1186	2.980	1.027
8. Preferred Military (Versus Civilian) Influence	1177	3.327	0.786
9. Adequacy of Military Influence (Perceived Minus Preferred)	1177	3.653	1.352
10. Support for Military Intervention	1179	2.265	0.787
11. Preference for U.S. Military Supremacy	1181	2.721	0.871
12. Vietnam Dissent	1181	2.638	0.652
13. Support for Amnesty	1176	2.532	1.085
14. Opposition to Unquestioning Military Obedience	1186	2.777	0.936
15. Opposition to Obedience in My Lai-type Incident	1184	2.187	0.749
16. Preference for "Citizen Soldiers" (Versus "Career Men")	1174	2.642	0.831
17. Preference for Wide Range of Political Views Among Servicemen	1176	2.779	0.753

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
2.	0.5857															
3.	-0.0182	0.0167														
4.	0.4858	0.4724	-0.0885													
5.	0.2819	0.2545	-0.1261	0.3123												
6.	-0.3013	-0.2773	0.1206	-0.3694	-0.2977											
7.	-0.0684	-0.0959	0.0441	-0.0481	-0.2259	0.0485										
8.	0.2974	0.2030	-0.1765	0.3081	0.4485	-0.2626	-0.0993									
9.	-0.2280	-0.1895	0.1395	-0.2166	-0.4325	0.1916	0.8153	-0.6568								
10.	0.1141	0.1469	-0.0546	0.2773	0.2290	-0.2088	-0.1083	0.2001	-0.2003							
11.	0.2280	0.1933	-0.1102	0.2716	0.4419	-0.3284	-0.0385	0.3705	-0.2451	0.2092						
12.	-0.3503	-0.3080	0.1353	-0.4496	-0.4334	0.3872	0.0750	-0.3564	0.2657	-0.4326	-0.3987					
13.	-0.1715	-0.1783	0.1743	-0.3147	-0.3314	0.2593	0.2166	-0.3047	0.3411	-0.2748	-0.2620	0.3929				
14.	-0.3006	-0.2866	0.1039	-0.3739	-0.2345	0.2199	0.1179	-0.2489	0.2330	-0.1508	-0.2117	0.2576	0.3448			
15.	-0.2313	-0.1764	0.1223	-0.2392	-0.3237	0.2304	0.0611	-0.3217	0.2236	-0.1399	-0.3086	0.2983	0.2824	0.3155		
16.	-0.0821	-0.0440	-0.0455	-0.0563	-0.0174	0.0431	0.0833	-0.0239	0.0745	-0.0476	-0.0177	0.0326	0.0363	0.0772	0.0004	
17.	-0.0279	0.0011	0.0411	-0.0269	-0.0461	0.0425	-0.0932	-0.0932	-0.0181	0.0308	-0.0960	0.0783	-0.0159	0.0955	0.0666	0.1325



TABLE B-4

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## Correlation Matrix for All Civilian Men

	ADJUSTED W	MEAN X	S. D. X
1. Perceived Military Job Opportunities	753	3.445	0.891
2. Perceived Fair Treatment to Services	637	2.481	0.925
3. Perceived Discrimination Against Women and Blacks	741	2.493	1.034
4. Perceived Competence of Military Leaders	737	3.345	1.012
5. Preference for Higher Military Spending and Influence	744	2.671	0.786
6. Role of Military in Society Perceived as Negative	731	2.293	0.732
7. Perceived Military (Versus Civilian) Influence	730	3.142	1.025
8. Preferred Military (Versus Civilian) Influence	726	3.154	0.860
9. Adequacy of Military Influence (Perceived Minus Preferred)	741	3.988	1.322
10. Support for Military Intervention	741	2.319	0.790
11. Preference for U.S. Military Supremacy	745	2.801	0.898
12. Vietnam Disast	730	2.467	0.735
13. Support for Amnesty	737	1.939	1.081
14. Opposition to Unquestioning Military Obedience	762	2.101	0.964
15. Opposition to Obedience to My Lai-type Incident	741	2.109	0.809
16. Preference for "Citizen Soldiers" (Versus "Career Men")	737	2.499	0.847
17. Preference for Wide Range of Political Views Among Servicemen	732	2.794	0.814

1.	0.5473	2.	-0.0627	3.	0.3278	0.3068	-0.2228	4.	0.2558	0.3441	-0.2175	0.4229	5.	-0.2430	-0.2522	0.1398	-0.3834	-0.2933	6.	0.0166	-0.0600	0.1725	-0.1433	-0.3012	0.1519	7.	0.2022	0.2592	-0.0994	0.3338	0.4553	-0.2185	0.0443	8.	-0.1249	-0.2201	0.1599	-0.3374	-0.5400	0.2626	0.7463	-0.6318	9.	0.0652	0.0983	-0.1238	0.2151	0.2244	-0.1902	-0.2153	0.1104	-0.2401	10.	0.1421	0.1868	-0.2071	0.3292	0.4418	-0.2512	-0.1587	0.2893	-0.3105	0.1761	11.	-0.2435	-0.2760	0.2783	-0.4118	-0.4515	0.3507	0.1808	-0.2440	0.3035	-0.3874	-0.4063	12.	-0.0560	-0.1637	0.3259	-0.3370	-0.3688	0.3118	0.2211	-0.2795	0.3610	-0.2717	-0.3761	0.4098	13.	-0.1004	-0.2184	0.1624	-0.3504	-0.3292	0.2161	0.1567	-0.2448	0.2877	-0.3853	-0.2990	0.2689	0.3571	14.	-0.1648	-0.1844	0.1677	-0.2307	-0.3124	0.1937	0.1733	-0.2943	0.3216	-0.1714	-0.2391	0.2500	0.3327	15.	0.0480	0.0185	0.0359	-0.1300	-0.0342	0.0060	0.1652	-0.3272	0.1467	-0.0665	-0.0544	0.0708	0.1231	0.0240	0.0400	16.	-0.1392	-0.1854	0.1010	-0.1303	-0.2180	0.1064	0.0720	-0.1578	0.1578	-0.0752	-0.1458	0.2001	0.1720	0.2054	0.2297	0.0178	17.
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TABLE B-6

## Correlation Matrix for College Educated Civilian Men

Correlation Matrix for College Educated Civilian Men																
	ADJUSTED R															
	MEAN X															
	S. O. X															
1. Perceived Military Job Opportunities	133	3.267	0.914													
2. Perceived Fair Treatment in Service	122	2.213	0.909													
3. Perceived Discrimination Against Women and Blacks	132	2.818	1.032													
4. Perceived Competence of Military Leaders	130	3.200	0.986													
5. Preference for Higher Military Spending and Influence	131	2.366	0.767													
6. Role of Military in Society Perceived as Negative	132	3.417	0.731													
7. Perceived Military (Versus Civilian) Influence	132	3.000	1.035													
8. Preferred Military (Versus Civilian) Influence	132	2.780	0.827													
9. Adequacy of Military Influence (Perceived Minus Preferred)	133	4.220	1.299													
10. Support for Military Intervention	133	2.350	0.746													
11. Preference for U.S. Military Supremacy	132	2.432	0.833													
12. Vietnam Dissent	131	2.667	0.755													
13. Support for Amnesty	131	2.172	1.152													
14. Opposition to Unquestioning Military Obedience	126	2.357	0.959													
15. Opposition to Obedience in My Lai-type Incident	132	2.235	0.837													
16. Preference for "Citizen Soldiers" (Versus "Career Men")	131	2.408	0.883													
17. Preference for Wide Range of Political Views Among Servicemen	132	2.992	0.856													
1.	0.6319	2.														
2.	-0.2855	-0.2886	3.													
3.	0.4488	0.4973	-0.4640	4.												
4.	0.4473	0.4351	-0.4180	0.5689	5.											
5.	-0.3269	-0.3672	0.2893	-0.4748	-0.4423	6.										
6.	-0.0762	-0.1211	0.3847	-0.3537	-0.4616	0.3715	7.									
7.	0.3085	0.3244	-0.2265	0.4323	0.4981	-0.3597	0.0403	8.								
8.	-0.2571	-0.3067	0.4499	-0.5537	-0.6562	0.5145	0.7713	-0.6047	9.							
9.	0.1581	0.1481	-0.3020	0.2722	0.4379	-0.3357	-0.3758	0.1916	-0.4215	10.						
10.	0.3111	0.2313	-0.2669	0.3714	0.5506	-0.3715	-0.3353	0.3103	-0.4643	0.3542	11.					
11.	-0.3384	-0.2824	0.4232	-0.4328	-0.6531	0.4111	0.3796	-0.2511	0.4617	-0.5896	-0.4467	12.				
12.	-0.2393	-0.2995	0.4916	-0.4150	-0.6281	0.3665	0.2494	-0.4060	0.4552	-0.3803	-0.4311	0.6157	13.			
13.	-0.0095	-0.0813	0.2644	-0.3603	-0.4688	0.1697	0.2855	-0.2012	0.3530	-0.3165	-0.3887	0.3728	0.5086	14.		
14.	-0.2576	-0.2976	0.2172	-0.3412	-0.4814	0.3346	0.1454	-0.3877	0.3612	-0.3404	-0.3399	0.3199	0.4985	0.5241	15.	
15.	-0.0131	-0.1552	0.1450	-0.2925	-0.1073	0.2320	0.2688	-0.0283	-0.2328	-0.0292	-0.0393	0.0821	0.1510	0.0965	0.0926	16.
16.	-0.2203	-0.2221	0.1357	-0.2278	-0.3671	0.2380	0.1152	-0.3281	0.2975	-0.2072	-0.2630	0.3383	0.4306	0.3707	0.4802	0.1281
17.																





## APPENDIX C

### ANALYSIS OF FAMILY INTERRELATIONSHIPS IN VALUES AND ATTITUDES

The analyses outlined briefly here were undertaken in the hope of detecting family patterns of value transmission, and discovering whether such patterns are stronger in areas of work attitudes or in areas of attitudes toward military service. The analyses took advantage of the fact that some of the households in our civilian sample provided more than one respondent--a husband and wife, parent(s) and son or daughter (age 16 or older). Our approach was to isolate pairings of spouses, fathers and sons, mothers and sons, fathers and daughters, mothers and daughters, and for each such pairing see whether the attitudes of one member correlated with attitudes of the other member.

The specific procedures involved creating a new data file in which each case consisted of a family with at least two related individuals who had completed the questionnaire, and then using this file as the basis for correlational analysis. In most households involving more than one respondent there were only two completed questionnaires--a husband and wife, or a parent and a son or daughter. Sometimes there were three or four members--a husband and wife and one or more of their children. Separate variable numbers were assigned to responses for husbands (fathers), wives (mothers), sons and daughters, thus making it possible to run correlations between husbands and wives, fathers and sons, etc. In such an instance, a correlation reflects the extent to which a wife's response to a particular question can be predicted from a husband's response to the same question (or vice versa), the extent to which a son's response to a question can be predicted from his father's response, etc.

Six different types of family pairings were examined in the correlational analyses:

1. Fathers and sons (Ns ranged from 34 to 36, depending on question)
2. Mothers and sons (Ns ranged from 42 to 54)
3. Fathers and daughters (Ns ranged from 25 to 28)
4. Mothers and daughters (Ns ranged from 35 to 45)
5. Fathers and Mothers with one or more offspring in sample--i.e., drawn from among those parents in the first four groups above (Ns ranged from 45 to 52)
6. Husbands and Wives with no offspring in sample--i.e., all other pairs of husbands and wives (Ns ranged from 294 to 362)

For each of the above pairings, correlations were computed across all items in Sections B and C of the questionnaire. The results, detailed in Table C2, show relatively little in the way of strong or consistent evidence for family patterns of value transmission. There is a good deal of "noisiness" in the correlational data, no doubt reflecting the small numbers of cases. As an

attempt to reduce this noisiness and also provide some brief summary of the mass of information in Table C2, we computed the mean correlation for all items in the B section (work attitudes) and the C section (military attitudes) of the questionnaire, making the computations separately for each of the six pairings listed above. The results are summarized in Table C1. (Several further analyses involving some of our indexes and using combinations of all parent offspring pairings [in order to increase numbers] did not yield substantially different findings from those reported in Table C2 and summarized in Table C1.)

The table indicates several things about the interrelatedness of attitudes for family members. First, and most important, the mean correlations are all rather small. This suggests a limited amount of family value transmission--at least insofar as such values are reflected in our measures. Second, the differences among the six types of pairings are not especially large or noteworthy, especially given the limited numbers of cases involved. Finally, there is a slight but consistent tendency, reflected in each type of pairing, for the military attitudes to show a higher average correlation than the work attitudes. This may indicate that at least some of the military issues are a bit more likely to be topics of discussion and mutual influence among family members.

TABLE C1

## Summary of Correlations for Family Pairings

	1.	2.	3.	4.	5.	6.
	Fathers & Sons	Mothers & Sons	Fathers & Dtrs.	Mothers & Dtrs.	Fathers & Mthrs.	Husbands & Wives
Section B:						
Work Attitudes	.05	.06	.09	.10	.09	.11
Section C:						
Military Attitudes	.10	.11	.12	.14	.15	.18

Note: Entries are means of all correlations in the B or C sections of the questionnaire for each family pairing (see text). Means are based on actual correlation values, retaining signs (thus positive and negative correlations tend to cancel each other). Strictly speaking, correlations should be converted to Z-scores before computing such mean scores; however, in this instance the values were sufficiently small that the additional computational effort seemed unwarranted.

TABLE C-2

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## Section B and Section C Item Correlations for Family Pairings

Item Number and Name (Abbreviated)	1. Fathers & Sons	2. Mothers & Sons	3. Fathers & Dtrs.	4. Mothers & Dtrs.	5. Fathers & Mthrs.	6. Husbands & Wives
B1 No One to Boss Me	.09	.21	.30	.07	.31	.07
B2 Steady, No Layoffs	.31	-.02	.41	.23	-.15	.15
B3 Learn New Skills	.15	.30	.36	-.11	.56	.23
B4 Don't Work Hard	.21	.09	.32	.31	.23	.14
B5 Clean Job	.20	.32	.08	.03	.25	.10
B6 Chance to get ahead	-.17	.04	-.18	.20	.32	.23
B7 No responsibility	.02	.09	.38	.04	.24	.20
B8 Lots of free time	-.01	.01	.15	.02	.39	.05
B9 Good pay	-.15	.07	.49	.21	-.06	.03
B10 Job has class	.16	.31	.11	.20	.01	.26
B11 Uses my skills	.16	.09	-.06	.08	.20	.06
B12 Friendly people	-.13	-.03	-.14	.06	.05	.13
B13 Dont have to learn	.26	-.05	.25	.08	.09	.25
B14 Stay in one place	-.01	.24	.07	.13	-.06	.17
B15 Serve my country	.06	.00	.59	-.01	.41	.25
B16 Make world better	-.15	-.01	.31	.30	.15	.18
B17 Fringe benefits	.04	.28	.19	.28	.00	.19
B18 I control pers life	-.16	.24	.18	.07	.19	.09
B19 Not Bur-people	-.21	.02	-.26	-.02	.37	.01
B20 Not Bur - red tape	-.21	.37	-.22	-.03	.11	.10
B21 Not Bur - Rules/Regs	-.08	.11	-.09	.01	-.01	.08
B22 Sup Help indiv expr	-.07	-.20	-.27	.22	.13	-.05
B23 S keeps wkrs togeth	.02	-.14	-.09	.03	-.01	-.04
B24 S rely on confidenc	-.02	-.12	-.22	-.16	-.12	-.15
B25 Emot exprssd, wk out	.37	-.01	-.04	.13	-.10	.02
B26 S sens others feel	.01	.34	-.12	.06	.01	-.06
B27 Auth & resp essent	-.18	.01	.07	-.19	.33	.06
B28 Firm w/subordinates	.40	-.11	.06	.23	-.22	.16
B29 Subs prefer direct	.42	-.16	.02	.12	-.09	.14
B30 S keep check on sub	.11	-.00	-.20	.03	-.07	.20
B31 Mot by inst, dir, rew	.19	-.05	.23	.37	-.32	.11
B32 S must structure wk	.01	-.13	.17	.16	-.22	.12

TABLE C-2 (cont.)

## Section B and Section C Item Correlations for Family Pairings

Item Number and Name (Abbreviated)	1. Fathers & Sons	2. Mothers & Sons	3. Fathers & Dtrs.	4. Mothers & Dtrs.	5. Fathers & Mthrs.	6. Husbands & Wives
C1 Get ahead	.30	.10	.02	.09	.21	.17
C2 Get more education	.22	-.02	.33	.15	.12	.13
C3 Adv to more responsib	-.02	.19	-.03	.15	.16	.06
C4 Mor pers fulfil job	.22	.28	.16	.02	.18	.16
C5 Get ideas heard	.39	.25	.12	.10	-.02	.22
C6 Unjst treat set rt	.14	.29	.16	-.10	.16	.13
C7 Discr against women	-.12	.05	-.11	-.00	-.10	.20
C8 Discr against blacks	.25	.04	.38	.41	.17	.30
C9 More fair: civ or mil	.21	.09	.37	-.00	.04	-.00
C10 React son enlistmnt	.18	.10	.12	.43	.40	.27
C11 Enuf \$ mor voluntr	-.05	.14	.20	.15	.13	.21
C12 Most Citizen soldiers	.44	.11	-.06	.17	-.08	.15
C13 Most career Men	.25	.33	-.21	-.27	.03	.10
C14 Svcmn shd agr w/pcy	.28	.33	-.01	.09	.12	.16
C15 Diff pol views	.10	.35	-.12	.28	-.02	.15
C16 Mil coup in US	.12	.05	-.01	.28	.01	.15
C17 AF meet pres mil nd	.02	.22	.35	.14	.03	.25
C18 Mil use budget eff	.10	.26	-.43	.24	.33	.18
C19 Mil ldrs are smart	.09	.17	.25	-.07	.53	.28
C20 Poss impr offcr qual	.09	.23	.04	.24	-.29	.05
C21 Fall short mil prep	-.19	.05	-.23	.09	-.11	.15
C22 Waste in mil service	.07	.18	.17	.11	.40	.04
C23 Officers try do well	.09	.06	.20	-.19	.26	.24
C24 Trust mil ldrshp	-.04	-.01	-.13	.24	.52	.28
C25 Infl of mil on US	.12	.03	.52	.35	.60	.23
C26 Amt US spend on mil	-.01	.07	.25	.33	.37	.24
C27 Role of Mil in soci	.26	.07	.26	.40	-.20	.14
C28 N who dec frgn invl	.01	.27	-.08	.09	.04	.09
C29 L who dec frgn invl	.04	.18	.39	.28	.30	.13
C30 N who dec fld tact	-.02	.01	.16	-.09	-.02	.13

TABLE C-2 (cont.)

## Section B and Section C Item Correlations for Family Pairings

Item Number and Name (Abbreviated)	1. Fathers & Sons	2. Mothers & Sons	3. Fathers & Dtrs.	4. Mothers & Dtrs.	5. Fathers & Mthrs.	6. Husbands & Wives
C31 L who dec fld tact	.01	.11	.14	.07	.22	.14
C32 N who dec new weapn	-.07	.04	.37	.10	.02	.24
C33 L who dec new weapn	-.05	.11	.21	.02	.03	.15
C34 N who dec mil pay	.22	.22	.34	.15	.15	.13
C34 L who dec mil pay	.02	.01	.12	-.03	-.06	.15
C36 N who dec use nuclr	.16	.29	.09	.18	.32	.17
C37 L who dec use nuclr	.25	0.0	.22	.14	.26	.23
C38 US shld grad disarm	.23	.00	.38	.26	.21	.11
C39 US war to prot oths	.42	.24	-.30	-.17	.35	.16
C40 US war to prot econ	.11	.18	.29	-.07	.36	.25
C41 US defend only US	.09	.18	-.28	.38	.09	.09
C42 US mil power vs USSR	.02	-.02	.24	.08	.27	.11
C43 US mil power vs oths	.12	-.02	.07	.29	.18	.22
C44 Forplcy in own int	.08	.06	.08	.14	.28	.09
C45 VN damg natl honor	.08	-.11	.03	.19	.19	.19
C46 VN not in natl int	.16	-.04	-.02	.03	.21	.16
C47 VN imp fight commun	.13	-.07	.09	.23	.43	.25
C48 VN closer world war	.22	.12	.45	.13	-.04	.18
C49 VN imp prot friends	.11	-.03	.09	.17	.32	.23
C50 VN imp keep promises	.06	-.08	.17	.35	.24	.22
C51 punish draft dodgers	-.13	.06	.19	.53	.42	.47
C52 grant amnesty	-.04	-.16	.30	.20	.36	.40
C53 Obey w/o question	.06	-.13	-.10	.42	-.11	.33
C54 My Lai sldrs shld do	.14	.02	.42	.20	.02	.28
C55 My Lai most wld do	-.08	.13	-.21	-.01	-.13	.11
C56 My Lai you wld do	-.05	.25	.46	.22	.07	.27
C57 Frnds shar mil view	.03	.26	-.04	-.05	.02	.15

## BIBLIOGRAPHY

- Bachman, J.G. Values, preferences and perceptions concerning military service. Institute for Social Research, University of Michigan: Ann Arbor, June, 1973.
- Bowers, D.G. Expressed preferences and organizational practices experienced by Navy officers. Institute for Social Research, University of Michigan: Ann Arbor, December, 1973.
- Frankel, M.R. Inference from survey samples: an empirical investigation. Ann Arbor: Survey Research Center, Institute for Social Research, 1971.
- Johnston, J. & Bachman, J.G. Youth in transition, volume V: Young men and military service. Ann Arbor: Survey Research Center, Institute for Social Research, 1972.
- Kish, L. & Frankel, M.R. Balanced repeated replication for standard errors. Journal of the American Statistical Association, 1970, 65, 1071-1094.
- Michaelson, L.K. A methodology for the studies of the impact of organizational values, preferences, and practices on the All-Volunteer Navy. Institute for Social Research, University of Michigan: Ann Arbor, June, 1973.



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ONR Branch Office  
1030 E. Green St.  
Pasadena, Ca. 91106

Cdr. Howard Ewy  
Bureau of Naval Personnel  
Navy Annex  
Washington, D.C. 20370

Mr. David Segal  
U.S. Army Research Institute  
1300 Wilson Blvd.  
Arlington, Va. 22209

HQ, USAF  
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Pentagon, Rm. 50360  
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Washington, D.C. 20330

Military Asst. for Human Resources  
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Pentagon 3D129  
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Arlington, Va. 22217

Research Psychologist  
Office of Naval Research Branch Ofc.  
536 S. Clark St.  
Chicago, Ill. 60605

Psychologist  
Office of Naval Research Branch Ofc.  
495 Summer St.  
Boston, Mass. 02210

Psychologist  
Office of Naval Research Branch Ofc.  
1030 E. Green St.  
Pasadena, Ca. 91106

Deputy Chief Scientist  
Office of Naval Research Area Ofc.  
207 West 24th St.  
New York, N.Y. 10011

Head of Manpower Trg. and Reserve Grp.  
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Arlington, Va. 20360

Prog. Administrator, Personnel and  
Trg. Station, Naval Material Command (93424)  
820 Crystal Plaza #6  
2221 Jefferson Davis Hwy  
Arlington, Va. 20360

Special Asst. for Enlisted Force Analysis  
Naval Bureau of Personnel (Ax)  
Rm 2611, Arlington Annex  
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Head, Proj. Volunteer Coordination Branch  
Naval Bureau of Personnel (A25)  
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Washington, D.C. 20370

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Research Lab  
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1300 Wilson Blvd  
Arlington, Va. 22209

Army Motivation and Trg Lab  
Rm 239, Commonwealth Bldg  
1300 Wilson Bld  
Arlington, Va. 22209

AFHRL (TR/Dr. G.A. Eckstrand)  
Wright-Patterson Air Force Base  
Ohio 45433

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1400 Wilson BLD.  
Arlington, Va. 22209

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Washington, D.C. 20350

Director, Manpower Research  
Pentagon, 3D980  
Washington, D.C. 20350

Dr. Herbert R. Northrup  
Wharton School of Finance & Commerce  
University of Pennsylvania  
Philadelphia, Pa. 19104

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Dept. of Operations Research  
University of Pennsylvania  
Philadelphia, Pa. 19104

Dr. E.A. Fleishman  
American Institute for Research  
8555 Sixteenth St.  
Silver Spring, Md. 20910

Mr. Phillip G. Bernard  
B-k Dynamics, Inc.  
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Dr. Barry M. Feinberg  
Bureau of Social Science Research, Inc.  
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University of California  
Operations Research Center  
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Croton-on-Hudson, N.Y. 10520

Mr. James N. Kelly  
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Mr. Will E. Lassiter  
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Dept of Operations Research  
Naval Postgraduate School  
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Mr. Michael W. Brown  
Operations Research, Inc.  
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Personnel Decisions, Inc.  
2515 Foshay Tower  
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Naval Personnel and Training Research Lab  
San Diego, Calif. 92152

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Stanford Research Institute  
Naval Warfare Research Center  
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Dr. Gloria L. Grace  
System Development Corp.  
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Santa Monica, Calif. 90406

Dr. Leonard Carmichael  
The Smithsonian Institution  
Washington, D.C. 20560

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Office of Naval Research  
Arlington, Va. 22217

Manager, Program in Manpower R&D (Code 450)  
Office of Naval Research  
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Arlington, Va. 22217

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Naval Operations (Manpower) (Op-01CZ2)  
Rm 2633, Arlington Annex  
Washington, D.C. 20370

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Navy Personnel Research and Dev. Ctr.  
San Diego, Calif. 92152



Asst. for Research Liaison  
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Washington, D.C. 20370

Senior Research Coordinator  
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Washington, D.C. 20370

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Office of the Director of Defense  
Research and Engineering  
Rm 3D129, The Pentagon  
Washington, D.C. 20301

Special Asst. for All Volunteer Force Action  
Office of the Asst Sec of Defense  
(Manpower and Reserve Affairs)  
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Research Study Director  
A & I 3101  
Smithsonian Institution  
Washington, D.C. 20560



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