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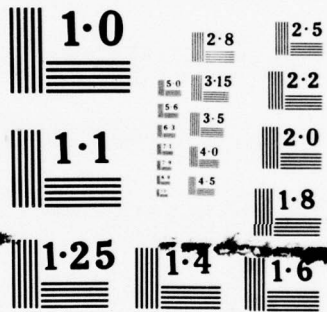
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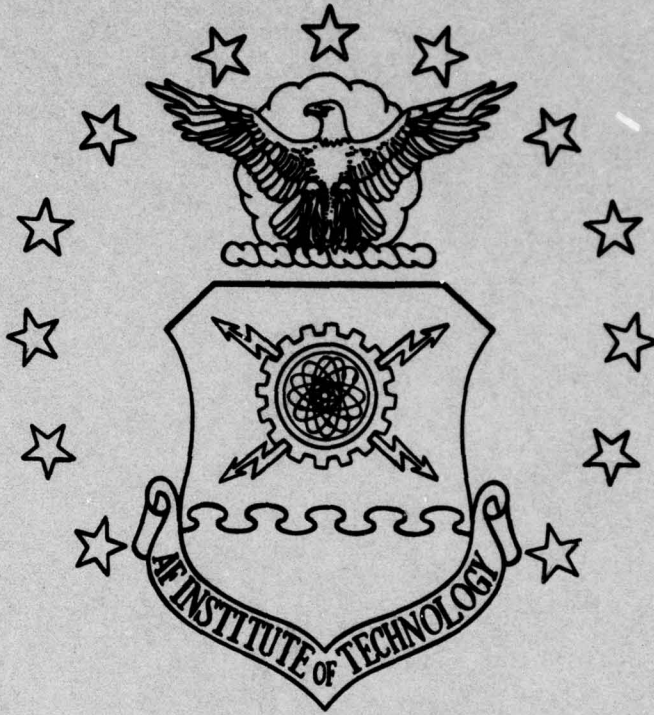
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AN ANALYSIS OF FACTORS ASSOCIATED
WITH THE JOB SATISFACTION OF UNITED
STATES AIR FORCE COMMANDERS
THESIS

AFIT/GSM/SM/77S-3 Vernon L. Eshbaugh
Capt USAF

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AFIT/GSM/SM/77S-3

6 AN ANALYSIS OF FACTORS ASSOCIATED
WITH THE JOB SATISFACTION OF UNITED STATES
AIR FORCE COMMANDERS.

9 *Master's* THESIS,

Presented to the Faculty of the School of Engineering
of the Air Force Institute of Technology
Air University
in Partial Fulfillment of the
Requirements for the Degree of
Master of Science

by
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Capt USAF
Graduate Systems Management

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Preface

This study was performed as part of my efforts to fulfill the requirements for a degree in Systems Management from the Air Force Institute of Technology. It is hoped, first, that this research might provide some small additional insight into the determinates of job satisfaction. Secondly and more importantly, it is hoped that some useful information will be gained concerning the effect of past and present Air Force policies relating to commander's assignments and the commander's job. Perhaps those responsible for formulating future policies in these areas can also benefit from this effort.

I accept the responsibility for any and all errors in this paper. The opinions given, conclusions drawn, and recommendations made are mine alone.

I would like to express my appreciation to Dr. Charles McNichols, my thesis advisor, who provided help and encouragement throughout this effort. I would also like to thank Dr. T. Roger Manley for suggesting the topic and providing additional guidance for this effort.

I must also thank my wife, Betsy, whose help typing, editing, and providing encouragement was invaluable.

Vernon L. Eshbaugh

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Abstract

↳ This study determines the variables associated with the job satisfaction of Air Force commanders. The source for the data is the Quality of Air Force Life Commander's Survey conducted in December of 1976. The analysis techniques used were Principal Component Analysis, the Automatic Interaction Detection (AID) algorithm, and Step-wise Regression.

▷ The survey responses were analyzed for ⁹nine different groups: total sample, rated, non-rated, conus, overseas, less than ten years service, over ten years service, ^{and} with, ^{and without} command experience, and without command experience.

↳ The factors of most value in explaining the variation in job satisfaction are:

- (1) Job Challenge,
- (2) PERSONAL STANDING satisfaction,
- (3) Desire for the commander's job, ^{and}
- (4) LEADERSHIP/SUPERVISION satisfaction.

Also of value, but to a lesser degree, were preparation for future responsibility, job freedom, and recognition. ←

With few exceptions demographic variables were found to be of little importance in determining job satisfaction. Although some interesting trends were noted, the variations in job satisfaction resulting from demographic division were small compared to those observed due to differing perceptions of job challenge.

AN ANALYSIS OF FACTORS ASSOCIATED
WITH THE JOB SATISFACTION OF UNITED STATES
AIR FORCE COMMANDERS

I. INTRODUCTION

In December of 1976 the USAF Quality of Air Force Life Commander's Survey was administered to all commanders in the United States Air Force. Some 2695 individuals returned useable questionnaires, providing a sizeable data base addressing both general and specific aspects of Air Force life as perceived by those serving as commanders. Several questions included in the survey deal with job satisfaction and factors relating to it. The central purpose of this study is to analyze in detail the results of the Commander's Survey as they relate to job satisfaction.

The purpose of this first chapter is to lay the groundwork for the remainder of the study. Brief discussions of three previous research projects at the Air Force Institute of Technology (AFIT) are included as they are the forerunners of this effort. A statement of the problem addressed by this thesis is presented along with discussions of the applicable assumptions and limitations.

Recent AFIT Job Satisfaction Research

Many of the techniques and measures used in this study were tested in research projects conducted by three previous

AFIT students. As such, the results of their efforts provide an evolutionary prelude to this study. A short review of the conclusions drawn by each in the area of job satisfaction is included here to familiarize the reader with their results.

Madia, in a 1974 study of the Personal Value Systems and Job Satisfaction of United States Air Force Officers reported several findings. He concluded in part:

1. Officers with three or four years service are the least satisfied. In other words, those on their initial service commitment include the majority of dissatisfied officers.

2. Job satisfaction tends to increase with tenure. This suggests that dissatisfied officers depart the Air Force and the career officers remaining are for the most part satisfied with their duties.

3. Individuals who have completed professional military education are more satisfied than those who have not.

4. Strategic Air Command missile duties are among the least satisfying in the Air Force (Madia, 1974: 136-137).

The data base analyzed by Madia was a combination of four separate samples which included officers at Wright-Patterson Air Force Base, Air Force women, Strategic Air Command Minuteman Combat Crew members, and Strategic Air

Command Missile Maintenance Officers. Before generalizing Madia's conclusions one should recognize that this data base was not representative of the entire population of the Air Force, particularly in the proportion of operational flying unit personnel (Madia, 1974: 11-12).

From an analysis of data gathered from the 1975 Air Force Management Improvement Group (AFMIG) survey, Thompson concluded that the principal determinants of job satisfaction in the Air Force are job related perceptions. The three most important perceptions of those addressed in the AFMIG survey questionnaire were found to be:

1. The perception of job challenge. (Job Challenge)
2. The perception of being prepared for future positions of greater responsibility. (Job Growth)
3. The perception of job freedom. (Job Freedom)

In explaining the variation in job satisfaction, Thompson concluded that the job growth and job freedom perceptions were of nearly equal importance, while the job challenge perception was about two and one-half times as important as the other two (Thompson, 1975: 77).

Thompson further concluded that:

1. Demographic variables were of little value in determining job satisfaction.
2. The primary determinants of job satisfaction for officers and enlisted personnel were essentially the same.

3. The job satisfaction of rated and non-rated officers was determined by the same factors.

4. The major factors defining the most satisfied groups were the same as those defining the least satisfied groups (Thompson, 1975: 133).

5. Job satisfaction is lowest for those in their third to fifth year of service (Thompson, 1975: 129).

The sample, stratified by grade, analyzed by Thompson included 10,996 individuals randomly selected throughout the Air Force; with the exception that a greater proportion of higher ranking enlisted men and higher ranking officers were sampled (to insure sufficient responses from those ranks for statistical analysis). This departure from randomness was corrected for during the analysis by assigning appropriate weights to the various ranks (Thompson, 1975: 32). As a result, the conclusions drawn by Thompson concerning various segments of the Air Force were drawn from the analysis of data taken from samples representative of those segments.

Vrooman, in a study of Job Satisfaction and Career Intent of Air Force Personnel With Less Than Six Years Service, analyzed a subset (N=3519) of the data base used by Thompson. He concluded that for this segment job challenge, the perception of being prepared for future responsibility, and personal growth satisfaction were most useful in explaining the variation in job satisfaction (Vrooman, 1976: 45).

With the measures and techniques perfected by these authors as tools for analysis and their conclusions as a basis for comparison, a study of the commanders is attempted.

Purpose of the Study

The purpose of this study is to analyze the QOAFL Commander's Survey data relating to job satisfaction and identify those variables which presumably influence perceived job satisfaction. Supportive to this basic purpose are several objectives as follows:

1. To identify areas of possible interest to those involved with personnel assignments and retention.
2. To further assess the usefulness of the Automatic Interaction Detection (AID) algorithm and the adequateness of the rules developed for its use.
3. To provide information useful in testing or assessing the validity of the various job satisfaction theories. Since the QOAFL Commander's Survey instrument was not designed with this objective specifically in mind, the author considered this to be of secondary importance in conducting the study.

Statement of the Problem

Given the QOAFL Commander's Survey data, what are the variables associated with the perceived job satisfaction of those serving as commanders in the United States Air Force?

Assumptions

The assumptions basic to this research are:

Assumption 1. The measure of job satisfaction used in the survey is assumed to be valid. Hoppock's four question general job satisfaction blank, slightly modified, was incorporated in the survey instrument. A study of the Hoppock measure by McNichols, Stahl, and Manley (1976) supports this assumption. In addition, an analysis presented in Chapter IV provides further evidence concerning the validity of the measure.

Assumption 2. The data obtained in the survey is assumed to be valid. This assumes that the respondents truthfully answered the survey questions and did not attempt to "game" the survey.

Limitations

When one undertakes a study of this type, certain limitations must be considered and dealt with if meaningful conclusions are to be drawn from the study results. The first and perhaps most important limitation stems from the use of survey data. Only the information asked for by the survey instrument will be provided. The possible responses provided by the multiple choice questions on a survey may or may not adequately express the true feelings or perceptions of the respondent.

A second limitation relative to this study is that the QOAFFL Commander's Survey instrument was not specifically designed for the study of job satisfaction or the factors relating to it. As such, the analysis is limited to the variables or measurements included in the questionnaire. These certainly do not cover the gamut of factors relating to job satisfaction.

Another limitation is that the results of studies relating to job satisfaction are not easily compared due to changes in populations, surveying techniques, and the survey instruments.

Definition

The following definition will be used for this study:

Job satisfaction is a measure of an individual's perception of how well his needs are met by his job and its related environment (Thompson, 1975: 12).

Summary

The availability of the QOAFFL Commander's Survey data base and a plan of attack evolved through the efforts of Madia, Thompson, and Vrooman provide the ingredients for yet another study of job satisfaction. This thesis is an attempt at combining those ingredients to identify the factors which influence the perceived job satisfaction of Air Force commanders.

To insure meaningful interpretation of the results, certain assumptions concerning the validity of the data base have been made. In addition, the limitations relative to the study are provided.

II. LITERATURE REVIEW

Introduction

This chapter provides a review of what several other researchers have to say concerning job satisfaction and the factors relating to it. In view of the fact that this study is concerned with those serving as commanders in the Air Force, the emphasis of this review will be toward research dealing with the job satisfaction of management or supervisory personnel. This emphasis should not be construed to mean that the factors associated with management or supervisory job satisfaction differ greatly from those of other workers.

Before continuing this review one question should be addressed. Why study the job satisfaction of Air Force commanders (or any other management group)? In an attempt to answer this question, one must look at the many studies of job satisfaction in the literature. The majority of researchers find supervision to be an important factor in determining, or at least associated with, the job satisfaction of workers in general. Tiffen and McCormick, in ranking factors obtained from many surveys, found it to be between third and seventh in importance (Tiffen and McCormick, 1966: 320). Given that supervision is important and that one can agree that a cross-over exists between the attitudes

of the supervisor and those of the subordinate, then certainly the study of supervisory attitudes is important.

Herzberg, Mauser, Peterson, and Capwell, in studying job attitudes, also addressed the importance of supervisory attitudes. They inferred that the attitudes and practices of supervisory personnel quite often profoundly affect the attitudes and morale of their subordinates. This suggests that supervisory job satisfaction and the factors relating to it should receive at least as much attention as the morale of the subordinate employees (Herzberg, et. al., 1957: 196).

Those serving as commanders in the Air Force, ranging from Second Lieutenants commanding small units to Colonels leading very large organizations, make up only a part of the supervisory or management structure. However, they form an important part of that structure, and since they form a part of the work environment for many personnel, their attitudes deserve attention.

Job Satisfaction

Needs. The definition of job satisfaction presented in Chapter One ties the perception of need fulfillment to an individual's job satisfaction. This concept of need fulfillment is found in much of the research concerning job satisfaction. The various theories of job satisfaction, such as Herzberg's Two Factor Theory, Maslow's Hierarchy

of Needs, and Vroom's Valence/Expectancy Theory have roots in the basic needs of man but differ in approach. Certainly the fulfillment of needs is important to job satisfaction.

Schaffer, although not credited with the concept, effectively put into words a theory of the relationship of need strength to job satisfaction. He stated that "Overall job satisfaction will vary directly with the extent to which those needs of an individual which can be satisfied in a job are actually satisfied; the stronger the need, the more closely will job satisfaction depend on its fulfillment" (Schaffer, 1953: 29). Need strength or need importance is also addressed in various job satisfaction theories and forms the basis of others. Therefore, strong support exists for the notion that needs strength is relevant to the study of job satisfaction.

Lyman W. Porter, in studying management attitudes as a function of several organizational variables, used both the concepts of perceived need importance and perceived need fulfillment. As a framework he used Maslow's Hierarchy of Needs (Maslow, 1954: 80-92) and specifically addressed Security, Social, Esteem, Autonomy, and Self-Actualization needs (Porter, 1961: 3). Since Porter's work was published as a series of articles, each covering a specific organizational variable, his conclusions will be integrated with those of others as the organizational variables are considered.

Job Level. One area of frequent study is the relationship of job satisfaction to job level or job status. In general, job satisfaction tends to increase with job level. Most researchers suggest that more rewards are available as one moves to higher job levels, and as such, the individuals occupying higher levels are more satisfied. Another theory presumes that the reasons for satisfaction change with job level. For example, the role of monetary reward changes with job level (Herzberg, et. al., 1957: 21).

Porter, in studying five different management levels, found that the perceived deficiencies in need fulfillment increased at each successive lower management level. The strength of this relationship varied from one need to another and was most significant for esteem, autonomy, and self-actualization (Porter, 1961: 7, 1962: 392-383, 1963a: 148). This would suggest that the greater job satisfaction enjoyed by higher level managers is due partially to their greater opportunity to satisfy higher level needs.

Porter and Mitchell, in comparing need satisfaction at different levels in the military (Air Force) and civilian business, drew some conclusions perhaps relevant to the commander's study. In comparing levels they paired Brigadier Generals and Colonels with Vice-Presidents, Lieutenant Colonels and Majors with upper-middle managers, Captains and Lieutenants with lower-middle managers. Military officers were found

to be more dissatisfied than their civilian counterparts. However, the hierarchy of officer positions in the military has roughly the same relationship to perceptions of need fulfillment and satisfaction as hierarchies of managerial positions in civilian business (Porter and Mitchell, 1967: 143-144). Many changes have occurred in the military since 1967 and one might consequently question the relevancy of these conclusions today.

Line Versus Staff. The relationship between job satisfaction and line versus staff or horizontal position is not widely discussed in the literature. Many authors discuss in great detail the line-staff relationships but little research has been done relating to job satisfaction.

Porter, in his Job Attitudes in Management series, looked at perceived deficiencies in need fulfillment as a function of line versus staff. He found that line managers tend to be more satisfied than staff managers. This relationship held up at four different vertical management levels (Porter, 1963b: 269-271). The perceived importance of needs was essentially equal for the line and staff managers. The effects of vertical position (job level) were more significant than those of a horizontal position (line versus staff).

Gilmer, in writing about the conflict between staff and line personnel, highlights several conditions relevant

to differences in job satisfaction. Differences in age, differences in status and job freedom, perceptions of threat to authority and security were presented as sources of tension and frustration (Gilmer and Deci, 1977: 182-184).

Size of Organization. The relationship of size of the organization to the attitudes of the individuals in those organizations appears to be negative. Porter, Lawler, and Hackman draw this conclusion in reviewing the results of seven studies of job satisfaction as expressed by rank and file employees (Porter, Lawler, and Hackman, 1975: 250-251). Gilmer infers that large companies offer more self-fulfillment opportunities for those in middle and upper levels of management. In addition, he contends that administrative jobs are generally more challenging, more difficult, and more competitive in larger firms (Gilmer and Deci, 1977: 78).

Porter, in his fourth installment on Attitudes in Management, studied perceived deficiencies in need fulfillment as a function of company size. He concluded that lower level managers were more satisfied in small companies while higher level managers were more satisfied in large companies (Porter, 1963c: 394-397).

Age. In the context of job satisfaction the effects of age are prevalent in two ways. First, the way an individual can deal with dissatisfaction may be more limited as he becomes

older. The second effect of age on job satisfaction is that as the worker gets older and more experienced, his interests broaden which can lead to a more general satisfaction (Herzberg, et. al., 1957: 10-11).

Related to the age of the worker is length of service. Workers with longer length of service, by necessity, are older, and as such, it is difficult to determine the degree to which job satisfaction is related to age alone. Glenn, Taylor, and Weaver tested the hypothesis that the increases associated with longer service and age in the extrinsic rewards of work (income, prestige, authority, and autonomy) were responsible for upward trends in job satisfaction. They found only a moderate contribution and concluded that other variables were responsible for much of the variation in job satisfaction (Glenn, Taylor, and Weaver, 1977: 172). Older managers usually occupy the higher levels of management and perhaps as a result, their perceived ability to satisfy higher order needs is responsible for greater satisfaction.

In dealing with dissatisfaction the young worker is clearly at an advantage. If dissatisfied with his job, he sees much of his life ahead and will change his job or even his occupation for a more satisfying position. Older workers are more reluctant to move due to losses in retirement benefits and the like. The older worker may also have a more difficult time locating a job of equal or higher level (Herzberg, et. al., 1957: 12).

Pay. The relationship between pay and job satisfaction is unclear. Some researchers conclude that pay is very important to job satisfaction, while others conclude that it is of lesser importance. George Strauss, in Monthly Labor Review, stresses the importance of pay in stating "...the evidence suggests that for all workers at all levels- even managers and professionals- lack of challenge is much less oppressive than lack of income. People as a whole are willing to tolerate large doses of boredom if they are paid enough" (Strauss, 1974: 57). In summarizing the research of others, Herzberg, Mauser, Peterson, and Capwell indicated that pay ranked fourth in importance in a group of nine factors in determining job attitudes. They noted that the importance of wages to the employee was often overestimated by employers (Herzberg, et. al., 1957: 75).

Lawler and Porter found that an individual's perception of his pay rises with an increase in pay but that his perception of what it should be does not necessarily rise. The decreasing distance between the two is then the reason for increased satisfaction (Lawler and Porter, 1963: 46-47). This leads to the conclusion that the amount of money earned is less important to the worker than his thinking as to the fairness of his pay.

Pay, like some other factors, has the ability to satisfy more than one need. Pay affords one a certain measure of

security, allows one to buy food for existence, and if one receives high pay, he enjoys respect and esteem in many segments of our society (Porter, Lawler, and Hackman, 1975: 46).

Summary. In the preceding paragraphs the findings and viewpoints of several other writers have been presented concerning the relationship between certain variables and job satisfaction. Justification was given for the study of managerial job satisfaction. Job level, line versus staff, size of the organization, age, and pay were shown to relate to the variation in managerial or supervisory job satisfaction. The individual's needs coupled with his perceptions of their importance and degree of satisfaction were tied to job satisfaction.

III. METHODOLOGY

The purpose of this chapter is to describe how this study was performed. A breakdown of portions of the QOAFL Commander's Survey is presented in describing what was included in the data base. Scoring of certain measures contained in the survey instrument is included where necessary to understand the study results. The analytic tools used in the data analysis are discussed along with the computer programs implementing them.

The Commander's Survey

The USAF Quality of Air Force Life Commander's Survey results were used as a data base for this study. The Commander's Survey questionnaire was distributed to all United States Air Force Commanders through the grade of Colonel during December, 1976. Approximately 3400 copies of the questionnaire were distributed, and of these, a total of 2695 were completed and returned. The sample thus represented approximately 79% of the USAF officers possessing either a Commander's Air Force Specialty Code (AFSC) or the A-prefix (indicating current service in a commander's position) to other AFSC's. The survey responses were recorded and entered on file in Aeronautical Systems Division (ASD) CDC 6600 computer system at Wright-Patterson Air Force Base.

The survey instrument consisted of 149 questions covering many subject areas. The first thirteen provided specific

demographic information as follows:

1. Command of assignment
2. Grade
3. Sex
4. Total active military service
5. Age
6. Aeronautical rating
7. Type of organization commanded
8. Mission of organization
9. Length of service as commander
10. Number of personnel in organization
11. Previous command experience
12. Base location
13. Race

The remaining 136 questions deal with various aspects of Air Force life, Commander's duties, and Air Force policy/procedures. Many of these were not directly related to job satisfaction, and as such, were not considered in the study. Questions 89 through 92 were based on the Hoppock Job Satisfaction Measure (Hoppock, 1935) and were used to calculate a job satisfaction score for each individual. These questions appeared in the survey instrument as follows:

89. Which one of the following shows how much of the time you feel satisfied with your job?
- A. All the time
 - B. Most of the time

- C. A good deal of the time
- D. About half of the time
- E. Occasionally
- F. Seldom
- G. Never

90. Choose the one of the following statements which best tells how well you like your job.

- A. I hate it
- B. I dislike it
- C. I don't like it
- D. I am indifferent to it
- E. I like it
- F. I am enthusiastic about it
- G. I love it

91. Which one of the following shows how you think you compare with other people?

- A. No one likes his job better than I like mine
- B. I like my job much better than most people like theirs
- C. I like my job better than most people like theirs
- D. I like my job about as well as most people like theirs
- E. I dislike my job more than most people dislike theirs
- F. I dislike my job much more than most people dislike theirs

- G. No one dislikes his job more than I dislike mine
92. Which one of the following best tells how you feel about changing your job?
- A. I would quit this job at once if I could
 - B. I would take another job in which I could earn as much as I do now
 - C. I would like to change both my job and my occupation
 - D. I would like to exchange my present job for another one
 - E. I am not eager to change my job, but would for a better one
 - F. I cannot think of any jobs for which I would exchange
 - G. I would not exchange my job for another

Questions 89 and 91 were scored by assigning numbers to the responses as follows:

A=7, B=6, C=5, D=4, E=3, F=2, G=1

Questions 90 and 92 were scored in the opposite sequence:

A=1, B=2, C=3, D=4, E=5, F=6, G=7

After scoring each of the responses for an individual, his overall job satisfaction score was calculated as the sum of the four questions. Thus an individual's job satisfaction score could range from 4 to 28. Four represents a high degree of dissatisfaction while 28 represents a high degree of satisfaction.

Although the validity and reliability of the Hoppock measure has been assessed by other researchers (McNichols, Stahl, and Manley, 1976), the author considered it appropriate to test the measure for the sample to be analyzed in this study. A correlation matrix was obtained for the responses to the four Hoppock questions. A principal component analysis was then performed on this matrix to determine if the four questions appeared to be measures of the same factor. The results of this analysis are presented in Chapter IV.

The survey questionnaire included 18 questions used to assess the nine Quality of Air Force Life Indicators (QOAFLI's) developed by Doctors Manley, Gregory, and McNichols. Two questions were provided for each indicator, one to determine the importance of the factor to the individual and the other to measure satisfaction. The nine factors are as follows (brackets indicate question numbers on the survey instrument):

Economic Standard: Satisfaction of basic human needs such as food, shelter, clothing; the ability to maintain an acceptable standard of living. (98,99)

Economic Security: Guaranteed employment; retirement benefits; insurance; protection for self and family. (100, 101)

Free Time: Amount, use and scheduling of free time alone or in voluntary associations with others; variety of activities engaged in. (105,106)

Work: Doing work that is personally meaningful and important; pride in your work; job satisfaction; recognition for my efforts and accomplishments on the job. (81, 82)

Leadership/Supervision: Has my interests and that of the Air Force at heart; keeps me informed; approachable and helpful rather than critical; good knowledge of the job. (28,29)

Equity. Equal opportunity in the Air Force; a fair chance at promotion; an even break in my job/assignment selections. (125,126)

Personal Growth: To be able to develop individual capacities; education/training; making full use of my abilities; the chance to further my potential. (107,109)

Personal Standing: To be treated with respect; prestige; dignity; reputation; status. (56, 57)

Health: Physical and mental well-being of self and dependents; having illnesses and ailments detected, diagnosed, treated, and cured; quality and quantity of health care services provided. (142, 143)

Since not all of the nine QOAFLI are directly related with overall job satisfaction, it was expected that some would be eliminated from consideration upon review of early analysis results.

In addition to the 13 demographic and 18 QOAFLI questions, 36 additional questions possibly related to job satisfaction were selected from the survey. This group of 67 questions was then the starting point for analysis. Forty-three of the sixty-seven were eliminated early in the study leaving a group of twenty-four questions for further analysis.

Data Analysis Tools and Procedures

Several relationship explaining techniques were employed in analyzing the data. Three of the most important are reviewed in the following paragraphs in order to acquaint the reader with their use. No attempt is made to explain in detail the theory or derivation of the various techniques. The emphasis here is to explain their application in this study.

AID Algorithm. The Automatic Interaction Detection (AID) Algorithm (Sonquist and Morgan, 1970) was used as the primary relationship explaining technique for this study. AID imposes few limitations concerning the scaling or distribution of the variables and, as such, is easily applied to survey data analysis. This algorithm calculates one-way analysis of variance (ANOVA) statistics for all predictor variables. From these statistics the algorithm selects the variable which best reduces the error sum of squares and uses this variable to split the sample into two parts. This procedure is repeated on the resulting two subgroups yielding more subgroups. This process continues until the groups are too small for consideration or until the explanatory power of any possible split is too small to be meaningful. The parameters for minimum group size and minimum increase in explanatory power are selectable and are determined by the user based on sample size and other considerations (Sonquist, 1969: 85-86).

The successive splits made by the algorithm may be displayed as a tree showing the pattern or structure of the data. In looking at the tree structure one can easily determine the sequence of splits responsible for the isolation of a particular group. The amount of explained variation in the criterion variable at any point in the tree structure is the total explained by all preceding splits. This ability to display the structure of the data assists greatly in interpretation

of the relationship between the predictors and the criterion variable. However, the AID algorithm does not provide a complete understanding of the relative importance of the predictor variables, particularly their global importance in explaining the criterion.

Regression Analysis. Since the AID algorithm does not provide complete information concerning the importance of the predictors, forward stepwise regression was employed as an additional analysis technique. In the forward stepwise technique, variables are entered into the equation or model based on their explanatory power. Thus the predictor variable that explains the greatest amount of variance in the dependent variable enters first. The second predictor to enter is then the one which best explains the variance in conjunction with the predictor which first entered. This stepwise procedure continues until all predictors are entered or until certain user specified termination criteria are met, such as statistical significance and marginal increase in explanatory power.

Although regression is useful in developing predictive models, its use in this study is primarily to determine the amount of variation explained by certain predictor variables and to determine the importance of variables in relation to each other. The amount or proportion of variation explained by the regression equation can be determined by squaring the multiple correlation coefficient. This proportion or R^2 is

defined as:

$$R^2 = \frac{\text{variation in Y explained by the combined linear influence of the independent variables}}{\text{total variation in Y}}$$

Thus the value of R^2 is an indication of the goodness of fit of the regression equation (Nie, et. al., 1975: 325-331).

A determination of how important one variable is in relation to another variable can be made if one used standardized regression coefficients or beta weights. In most cases when there are two or more independent variables, they are not measured in the same units. In this situation beta weights provide a sensible way of comparing the relative importance of the predictors. Beta weights are related to unstandardized regression coefficients by the following identity:

$$B_{yx}^* = B_{yx} \frac{S_x}{S_y}$$

B_{yx}^* is the beta weight

B_{yx} is the unstandardized regression coefficient

S_x is the standard deviation of x

S_y is the standard deviation of y

(Nie, et. al., 1975: 325)

Principal Component Analysis. Principal component analysis in essence mathematically transforms a set of original variables into a set of composite variables or principal components which are orthogonal to each other. This resulting set of composite variables is the best linear combination of the

original variables in terms of accounting for the variance in the data. The first principal component then is the best summary of linear relationships inherent in the data. The second component would be the second best summary, the third the third best, and so on. The principal component model may be represented by the following equation:

$$Z_j = a_{j1}F_1 + a_{j2}F_2 + \dots + a_{jn}F_n$$

In this equation each of the F_n 's is a linear combination of the original n variables and the a_{j1} 's are regression weights. When using the principal component analysis technique it is expected that some number of components, usually much smaller than the original number of variables, will explain most of the variance in the data. Thus a principal component model, explaining most of the variation in the data, should be much simpler, in number of terms, than a model containing all of the original variables (Nie, et. al., 1975: 470-471).

Computer Programs. The three analysis techniques discussed above were available as standard computer programs on file in the ASD CDC 6600 computer system. The AID algorithm is implemented using the University of Texas version of AID-4 as adapted from the Air Force Human Resources Lab. The regression and principal component analysis programs are portions of the Statistical Package for the Social Sciences (SPSS). Other SPSS subprograms used for this study included FREQUENCIES PEARSON CORR, and BREAKDOWN.

Summary

The preceding paragraphs provide a limited review of the survey sample, the survey questionnaire, and scoring responses. In addition, brief descriptions are included of the Automatic Interaction Detection Algorithm, Regression Analysis procedure, and the Principal Component Analysis procedure. These are the most important relationship explaining techniques employed in the study.

IV. ANALYSIS RESULTS

This chapter provides an organized presentation of the analysis results. The discussion is broken down into several sections, each dealing with a specific topic or sub group of the sample.

Hoppock Job Satisfaction Measure

The first analysis performed as a part of the study was a principal component analysis of the responses to four questions comprising the Hoppock Measure of Job Satisfaction. Gilford suggests that when several measures are to be combined to form a criterion variable knowledge of their factor loadings is important. This knowledge allows one to determine if the measures should be combined, and if so, what weight should be assigned to each when they are combined (Gilford, 1954: 403).

Table I presents the correlation matrix and the results of the principal component analysis of the four questions. The responses to questions 89 and 91 were reversed prior to analysis as their response scales were the opposite from questions 90 and 92 in the questionnaire. This reversal of response scales causes all correlations to be positive and allows easier interpretation of the analysis results.

TABLE I
Correlation Matrix

	Question			
Question	89	90	91	92
89	1.000	.703	.652	.486
90		1.000	.749	.549
91			1.000	.506

Principal Components Results

<u>Factor</u>	<u>Eigen Value</u>	<u>% of Variation</u>
1	2.836	70.9
2	.570	14.3
3	.353	8.8
4	.239	6.0

Factor Loadings

	Factor			
Question	1	2	3	4
89	.850	-.230	.462	.109
90	.902	-.143	-.114	-.392
91	.872	-.199	-.356	.270
92	.735	.676	.028	.034

Since the first factor explains 70.9% of the total variation, it appears that the four questions are measuring the same underlying factor, and therefore, combining their responses is appropriate. The heavy loadings on factor one indicates that all questions are important to the overall

measure. In addition, the loadings on factor one are of the same relative magnitude, thus equal weighting of the questions is considered reasonable. The results of this analysis support the first assumption presented in Chapter One. These results are similar to those obtained by McNichols, Stahl, and Manley in a previous study of the Hoppock measure (McNichols, Stahl, and Manley: 1976).

The job satisfaction scores, obtained by summing the four questions for each individual, ranged from a low of 4 (one individual) to a high of 28 (24 individuals). The mean score was 20.83, the mode was 23, the median was 21.61, the variance was 13.742, and the standard deviation was 3.707. The distribution of these scores is unimodal and negatively skewed.

The Total Population

AID Analysis. As a starting point for the analysis of job satisfaction, 67 questions were selected from the survey questionnaire. These included the 13 questions providing demographic information, 18 questions comprising the Quality of Air Force Life Indicators, and 36 additional questions considered by the author as possibly related to job satisfaction. A preliminary AID analysis was accomplished with these 67 questions as predictor variables and job satisfaction as the criterion. The termination parameters for this analysis were

set such that the number of final groups terminated the algorithm. All predictors were entered in the free-floating mode as if they were nominal, thus allowing the algorithm to try all possible splits on each predictor. The first four splits were made on the WORK QOAFLI satisfaction (WORK SAT) score. The R^2 (Proportion of variance explained) for these four splits was .449.

Following the four splits on the WORK SAT variable, five splits were made on the responses to the job challenge question yielding an R^2 of .552. The remainder of the splits were made on a variety of predictors with little increase in the amount of variance explained. After 38 splits the R^2 value was .595, with the last split adding .003 to the previous value. These results differed from those obtained by Thompson for his analysis of Air Force officers. The first split made in his analysis was on job challenge, while the WORK SAT variable was responsible for the second stage splits (Thompson, 1975: 79).

This author chose to delete the WORK SAT variable from further job satisfaction analysis. This decision was based on three considerations. First, the correlation coefficient between the job satisfaction and WORK SAT responses was found to be .71 indicating that they were measuring very nearly the same factor. Second, the definition of the WORK QOAFLI included job satisfaction, thus the WORK QOAFLI is a

more encompassing measure. The third consideration was that deletion of the WORK SAT variable might allow other more meaningful relationships to surface during further analysis.

Five additional preliminary AID runs were made on the total population using various combinations of predictor variables. They included the following:

Run one included the 67 predictors discussed previously less the WORK SAT variable. (Final $R^2 = .469$)

Run two included the demographic and the QOAFLI satisfaction scores. (Included WORK SAT, Final $R^2 = .548$)

Run three included the demographics and the responses to questions 30, 32, 33, 43, 85, 86, 88, 94, 110, 111, and 112 from the questionnaire (See Appendix A). (Final $R^2 = .446$)

Run four was the same as run three with question 38 (Job Challenge) deleted. (Final $R^2 = .353$)

Run five included only the demographics. (Final $R^2 = .140$)

From the results of the original 67 predictor run and the five runs listed above, it was determined that in addition to the demographics, only 11 predictors were responsible for splitting in the first eight levels of the analysis. These were the following:

29. To what degree are you satisfied with the LEADERSHIP/SUPERVISION aspects of your life?

(Answers from "Highly Dissatisfied" to "Highly Satisfied")

30. What is your opinion of the quality of leadership in the Air Force?

(Answers from "poor" to "excellent")

57. To what degree are you satisfied with the PERSONAL STANDING aspects of your life?

(Answers from "highly dissatisfied" to "highly satisfied")

85. Does your immediate supervisor give you recognition for a job well done?

(Answers from "never" to "always")

86. Are you given the freedom you need to do your job well?

(Answers from "never" to "always")

88. How do you evaluate your present Air Force job?

(Answers from "not at all challenging" to "very challenging")

93. I have sufficient authority to carry out my responsibilities.

(Answers from "strongly disagree" to "strongly agree")

94. For your next assignment, do you want a job which has greater responsibility than your current job?

(Answers from "definitely no" to "definitely yes")

109. I wanted the job of Commander.

(Answers from "strongly disagree" to "strongly agree")

111. Do you feel that the work you are now doing is appropriate to the grade you hold?

(Answers from "My grade is much too high for the work I am doing" to "My grade is much too low for the work I am doing")

112. Do you think your present job is preparing you to assume future positions of greater responsibility?

(Answers from "definitely no" to "definitely yes")

At this point it was decided that these eleven questions along with the demographics would be used as predictors for further analysis. AID analysis was then performed on the total population using these 24 selected predictors.

The resulting AID tree from this run is shown in Figure 1. The first split made on job challenge explained 25% of the variation and yielded groups large enough to be considered significant. Of particular interest are the second and third stage splits for the high job challenge group, made on the basis of wanting the commander's job and PERSONAL STANDARD satisfaction. These are exceptions to a finding made by Thompson that the high and low satisfaction groups resulted from splits made on the same variables (Thompson, 1975: 54). For the commanders this was not the case although splits on job challenge and LEADERSHIP satisfaction, in that order, occur as second and third stage splits for the low satisfied branch and as fourth and fifth level (not shown in Figure 1) splits for the high satisfaction branch. The association of wanting the commander's job and satisfaction with PERSONAL STANDING with high satisfaction perhaps indicates that those most satisfied with their job as commander desired a level of prestige or status they perceived as being associated with the job and are satisfied with the level they experience as commander.

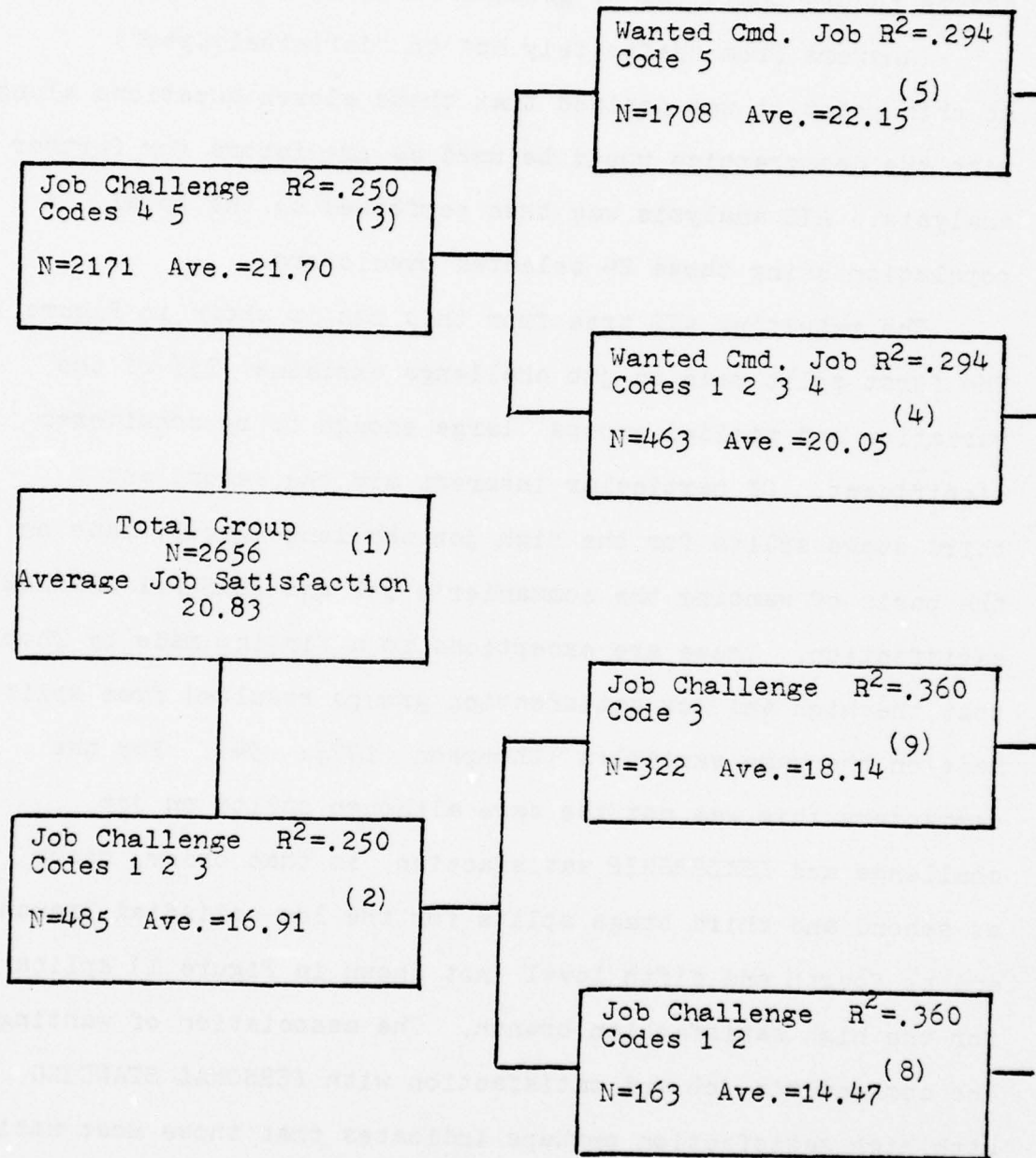


Figure 1. First Four Levels of the AID Tree for the Total Population (See Appendix B for definition of codes)

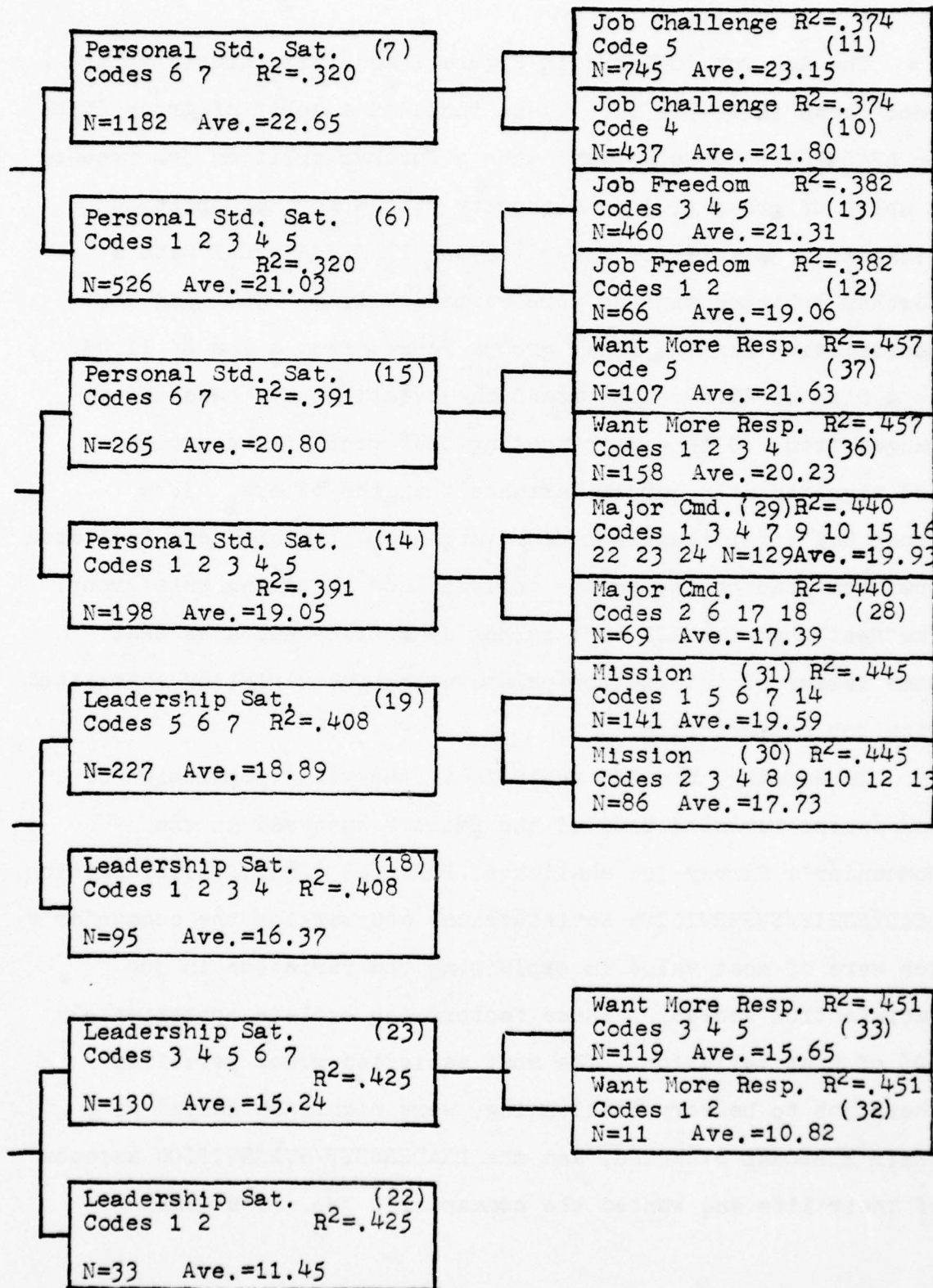


Figure 1. (Continued)

The AID run depicted in Figure 1 made six further splits (not shown in Figure 1). These included a split of group (11) on LEADERSHIP satisfaction with a further split on job freedom, a split of group (10) on authority with a further split on mission, and a split of group (13) on LEADERSHIP SAT with a further split on wanting more responsibility. The mean job satisfaction for the final groups ranged from a low of 11.45 to a high of 23.83. The standard deviations of these groups ranged from 2.0 to 4.2 indicating that none of the groups had significantly larger variance than the others. If a group had significantly larger variance, it might have indicated that some factor not in the analysis was affecting this group. The fact that the AID tree is not symmetric indicates that some degree of interaction exists among the variables associated with job satisfaction.

In summary, the AID analysis of the total population of commanders revealed that of the factors assessed in the Commander's Survey job challenge, PERSONAL STANDING satisfaction, LEADERSHIP/SUPERVISION satisfaction, and wanting the commander's job were of most value in explaining the variation in job satisfaction scores. These factors can explain approximately 40% of that variation. The most satisfied group perceived their job to be very challenging, were highly satisfied with their PERSONAL STANDING, and the LEADERSHIP/SUPERVISION aspects of their life and wanted the commander's job. The least

satisfied group perceived their job to be "not at all", "not very", or "somewhat challenging" and were highly dissatisfied with the LEADERSHIP/SUPERVISION aspects of their life.

Regression. A regression analysis of the total commander's sample was performed using the forward stepwise inclusion method. Partial results of this analysis are shown in Table II. The stepwise procedure was allowed to continue until ten predictors were in the equation, but the increase in explained variation was negligible after four predictors were included. It is for this reason that the four predictor model is included here as Table II. It was encouraging to find that the same four predictors selected by AID were the most significant in the regression analysis. The fact that the variation explained by these predictors was close to that reported by AID was also encouraging. In examining the beta weights for the four predictors one finds the PERSONAL STANDING, wanting the commander's job, and the LEADERSHIP/SUPERVISION variables to be of approximately equal importance while the job challenge variable is approximately 2.4 times as important.

The variance explained by this four predictor model ($R^2 = .450$) is somewhat less than that explained by the three predictor model developed by Thompson ($R^2 = .609$) for the officer subset of the AFMIG data base (Thompson, 1975: 199). An analysis of the commander's data was performed using the job challenge, job growth, and job freedom predictors as

Table II

Job Satisfaction Regression
(Total Population)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.438	.314	.314
PERSONAL STANDING SAT (X ₂)	.198	.389	.075
Wanted Commander's Job (X ₃)	.184	.424	.035
LEADERSHIP SAT (X ₄)	.178	.450	.026

Correlation Matrix

	X ₁	X ₂	X ₃	X ₄	Y
X ₁	1.000	.248	.206	.194	.560
X ₂		1.000	.142	.397	.404
X ₃			1.000	.128	.325
X ₄				1.000	.366

$$\begin{aligned}
 \text{Job Satisfaction (Y)} &= 4.021 + 1.745 \text{ (Job Challenge)} \\
 &+ .597 \text{ (PERSONAL STANDING SAT)} \\
 &+ .824 \text{ (Wanted Commander's Job)} \\
 &+ .431 \text{ (LEADERSHIP SAT)}
 \end{aligned}$$

identified by Thompson. The R^2 for the total commander's population was .383. The results of this regression analysis and others analyzing subgroups of the commander's population using the same variables are shown in Tables XI to XIX in Appendix C. It should be noted that although the perception of job challenge was measured in both the AFMIG and Commander's Surveys, the questions comprising the measure were quite different. The effect of this difference on the measure is unknown.

Since AID and Regression both found job challenge to be of significant value in explaining the variation in job satisfaction, a plot of the distribution of job satisfaction scores was constructed for each of the five levels of job challenge. These five distributions are shown in Figure 2. It should be noted that the group sizes represented by the five distributions vary from 36 to 1245. The figure shows in simple terms how job satisfaction varies in relation to perceived job challenge.

Demographic Breakdown. Seven demographic variables were selected for graphic analysis. These included major command, grade, sex, years service completed, type of organization commanded, mission of organization commanded, and race. In analyzing the subgroups defined by their variables, information is provided for the high and low challenge groups isolated by the first AID split shown in Figure 1. Subgroups with small

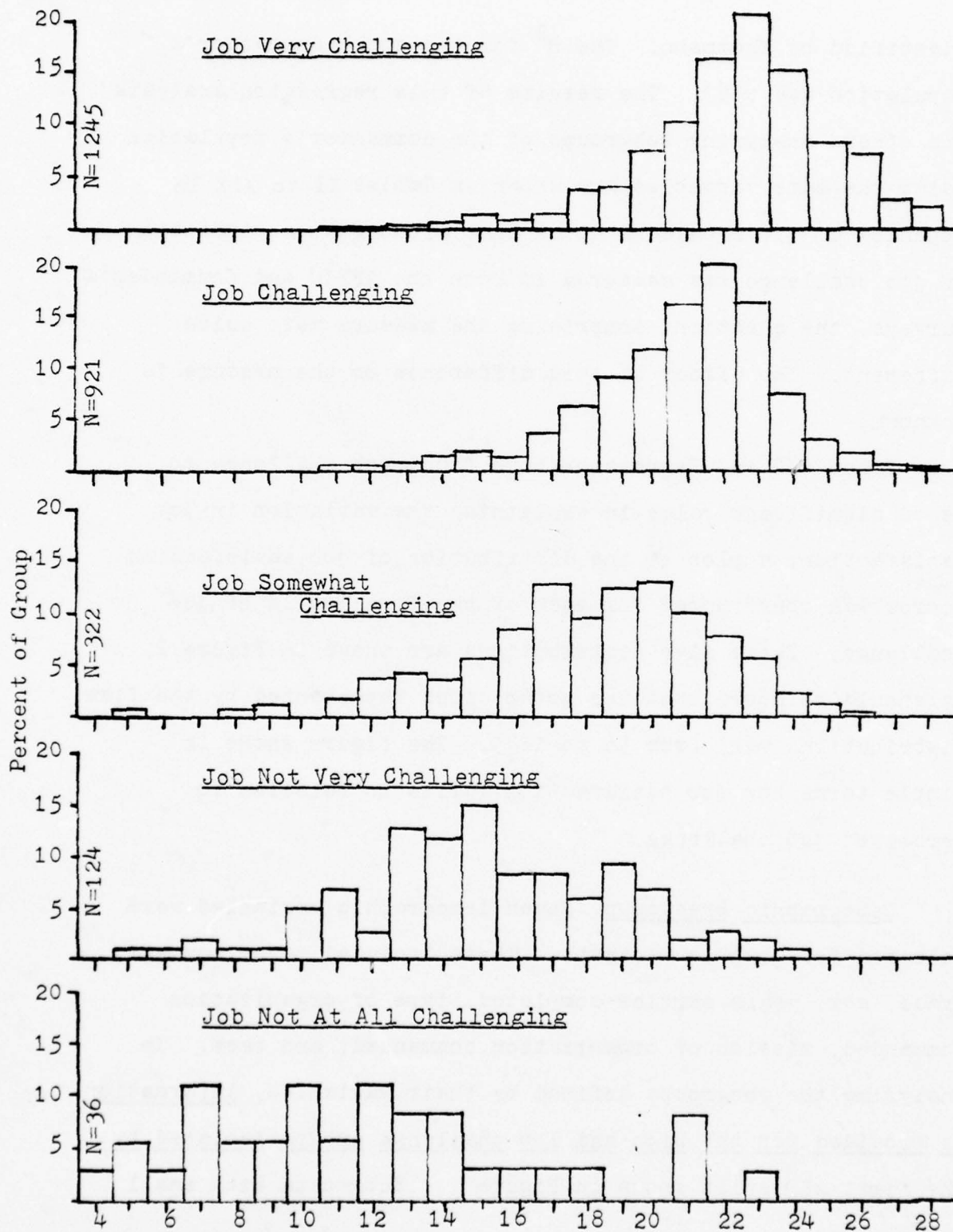


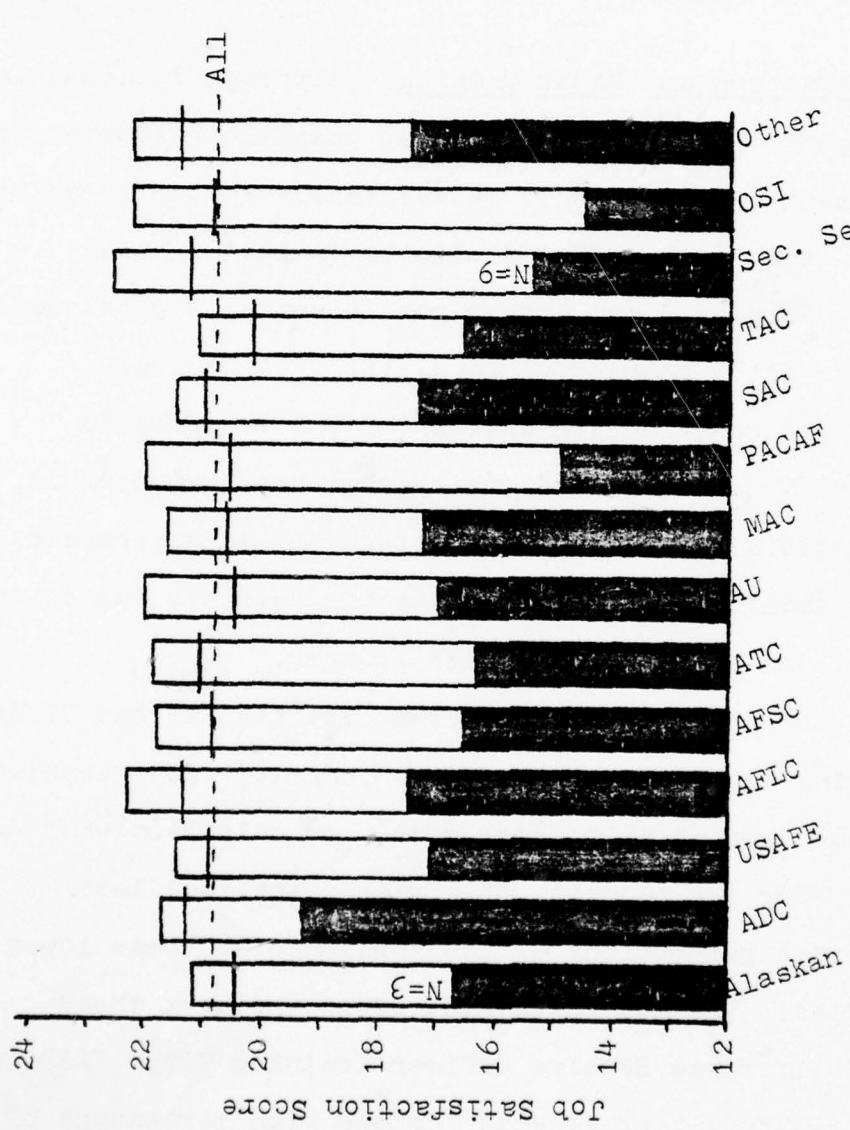
Figure 2. Distribution of Job Satisfaction Scores as a Function of Job Challenge Response

numbers of respondents (N) were omitted from the analysis. Where this number is relatively small, but perhaps still allows meaningful analysis, the N is provided as additional information to the reader.

Job Satisfaction and Major Command. * Although 23 commands plus the category "other" were listed as possible responses to the major command question, only 14 were analyzed due to missing values or the small number of individuals sampled in the remaining 10. Figures 3 and 4 show the 14 commands with samples large enough to allow meaningful conclusions to be drawn.

The mean job satisfaction scores for the 14 commands varied from 20.27 to 21.45, indicating that the variation in average job satisfaction based on splitting by major command, is relatively small. The variations within commands due to the perceptions of job challenge are much greater.

The most striking observation from Figure 4 is that 31.6% of those serving as commanders in Air University (AU) perceive their job to be "not at all", "not very", or only "somewhat challenging". For the majority of commands analyzed less than 20% reported perceptions of job challenge in these lower three categories. The Air University group includes those in command of Air Force Reserve Officer Training Corps (AFROTC) detachments. Perhaps they account for the high percentage of low challenge responses.



■ Low Challenge □ High Challenge + Command
 The Low Challenge group considered their jobs "Not At All", "Not Very", or "Somewhat Challenging". The High Challenge group rated their jobs as "Challenging" or "Very Challenging".

Figure 3. Job Satisfaction by Major Command

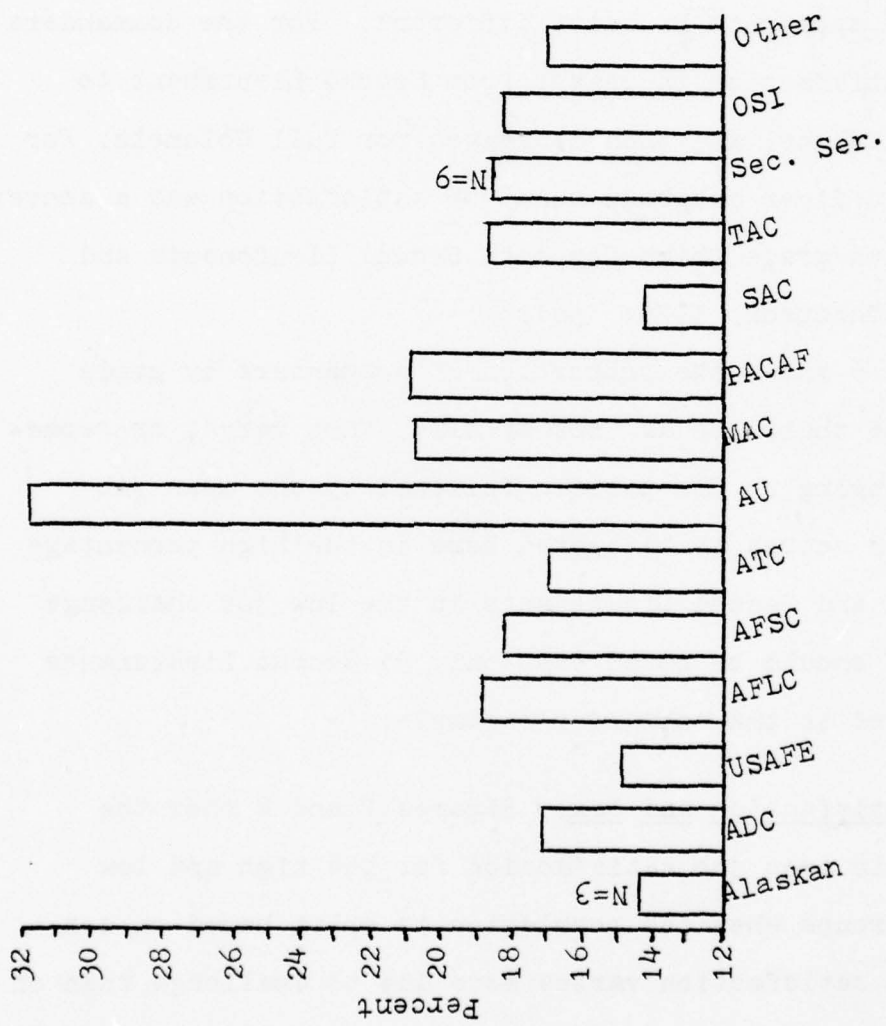


Figure 4. Percent, by Major Command, Who Consider Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"

Job Satisfaction and Grade. Figure 5 shows the mean job satisfaction scores for each grade and for the high and low challenge groups within each grade. Job satisfaction increases with grade, peaking at Lieutenant Colonel. The commanders and the total Air Force officer subgroup analyzed by Thompson appear to be quite different. For the commanders mean job satisfaction increases from Second Lieutenant to Lieutenant Colonel and then decreases for full Colonels. For Thompson's officer subgroup mean job satisfaction was a convex function with grade (high for both Second Lieutenants and Colonels) (Thompson, 1975: 56).

Figure 6 shows the proportion of commanders by grade who perceive their job as "not at all", "not very", or "somewhat challenging". The pattern followed by the mean job satisfaction scores is reflected here in the high percentage of Colonels and Second Lieutenants in the low job challenge groups. It should be noted that only 31 Second Lieutenants were included in the commander's sample.

Job Satisfaction and Sex. Figures 7 and 8 show the variations in mean job satisfaction for the high and low challenge groups when the population is split based on sex. Clearly job satisfaction varies more due to challenge than on the basis of sex. Although the groups differ greatly in size (77 women and 2575 men), the large difference in proportion of those who perceive their job as not challenging is noteworthy.

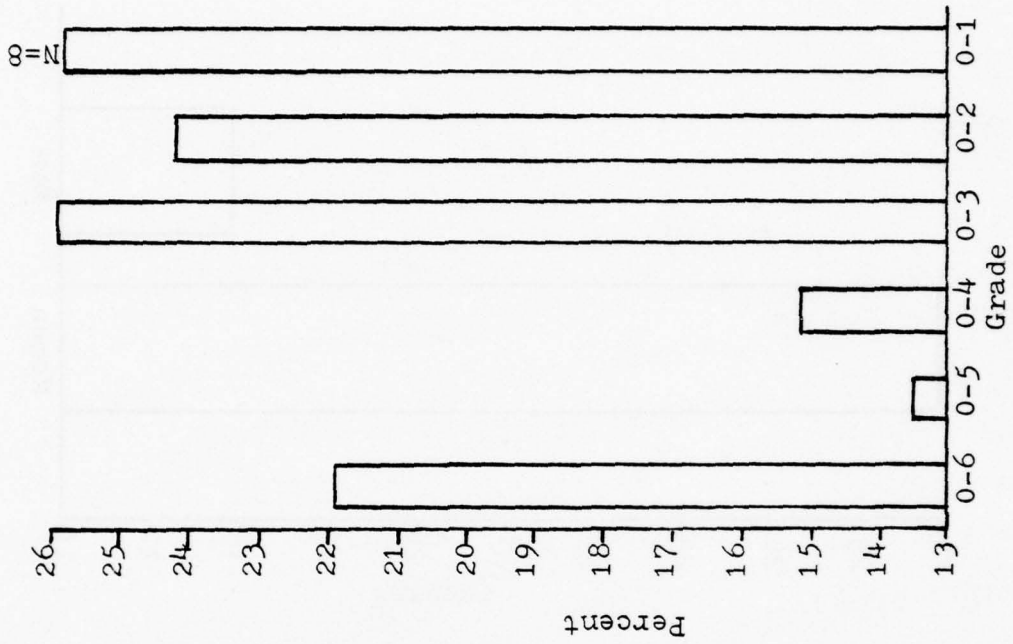


Figure 6. Percent, by Grade, Who Consider Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"

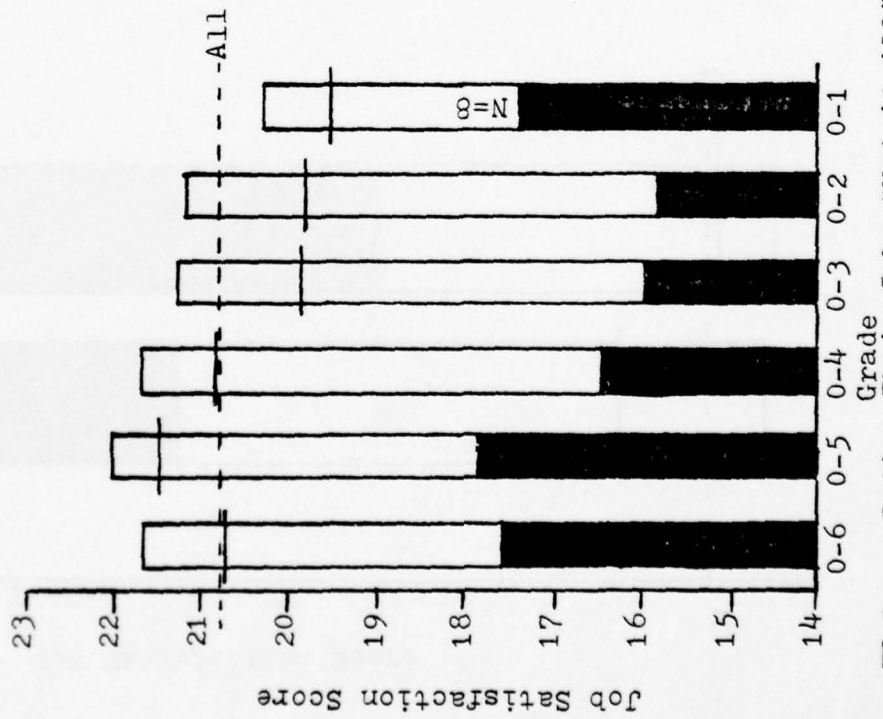


Figure 5. Job Satisfaction by Grade

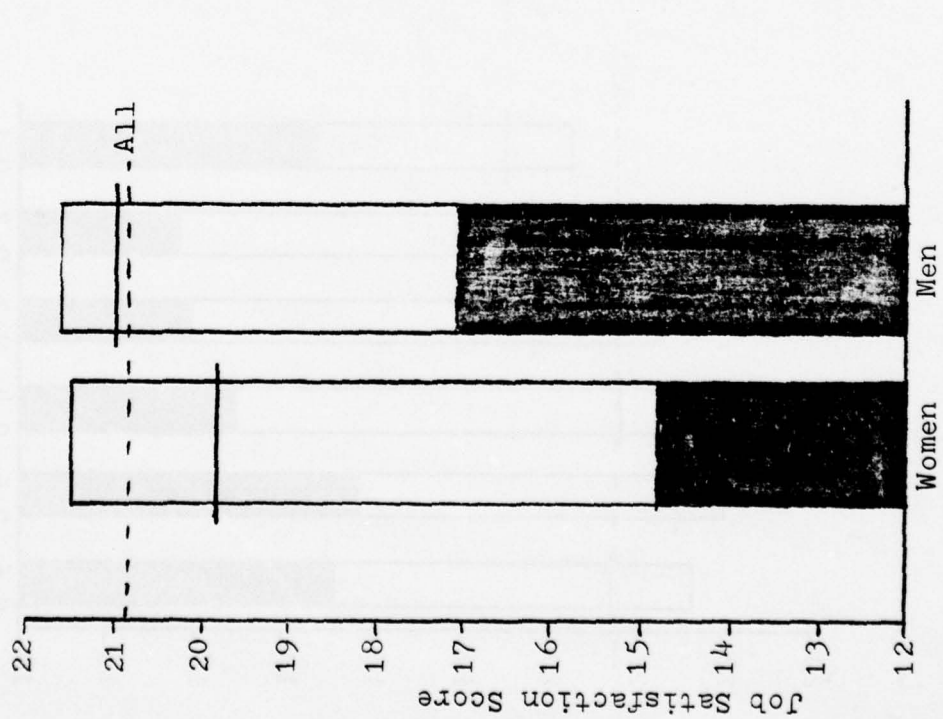


Figure 7. Job Satisfaction by Sex
 ■ Group Rating Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"
 □ Group With "Challenging" or "Very Challenging" Jobs +- Sex Average

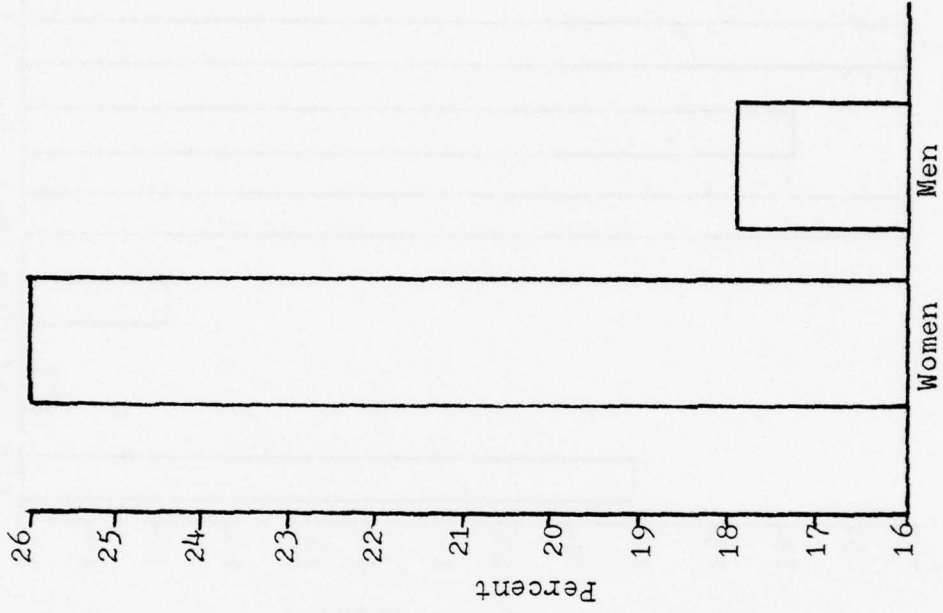
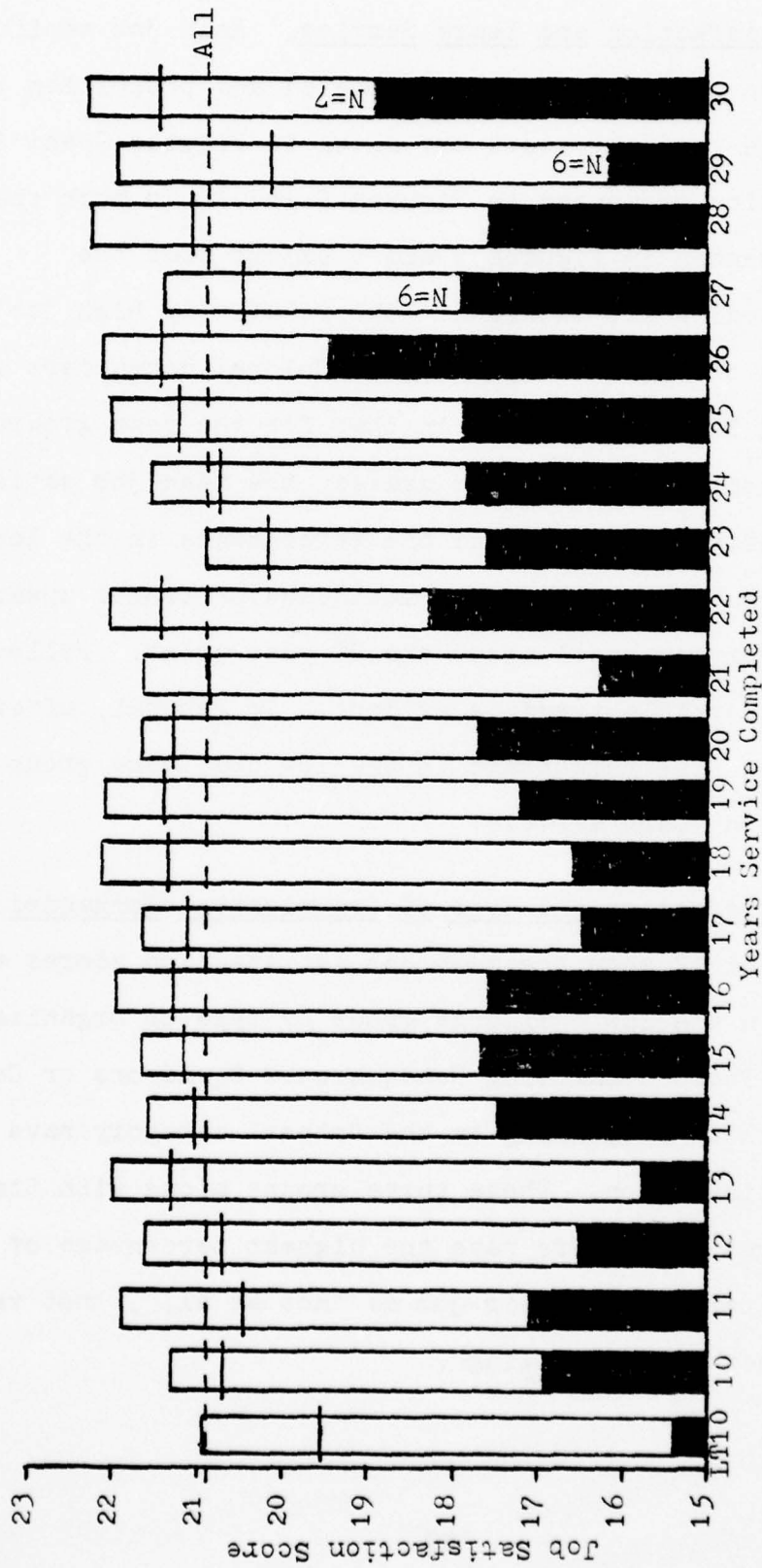


Figure 8. Percent by Sex Who Consider Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"

Job Satisfaction and Years Service. Mean job satisfaction as a function of years service completed and proportion in the low challenge group by years are shown in Figures 9 and 10. The information presented in Figures 9 and 10 is much the same as that presented in Figures 5 and 6 except that the horizontal scales are expanded. The relatively high job satisfaction of Major and Lieutenant Colonel commanders is reflected in Figures 9 and 10 in that for the year groups normally associated with these grades, the mean job satisfaction score is consistently high and the percentages in the low challenge group are small. Job satisfaction trends upward with years service until about the 20 year point. Following that, no discernible trend is evident. In general, after the 13 year point, the percentage in the low challenge group increases with years service.

Job Satisfaction and Type of Organization Commanded. Figures 11 and 12 show the mean job satisfaction scores and percentage in the low challenge group by type of organization commanded. Those commanding Headquarters Squadrons or Centers along with those responding in the "other" category have lower mean job satisfaction. These three groups along with Station and Detachment Commanders have the highest percentage of individuals perceiving their job as "not at all", "not very", or only "somewhat challenging".



■ Group Rating Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"
 □ Group Rating Their Jobs "Challenging" or "Very Challenging"
 - - - Year Group Average

Figure 9. Job Satisfaction vs. Years Service

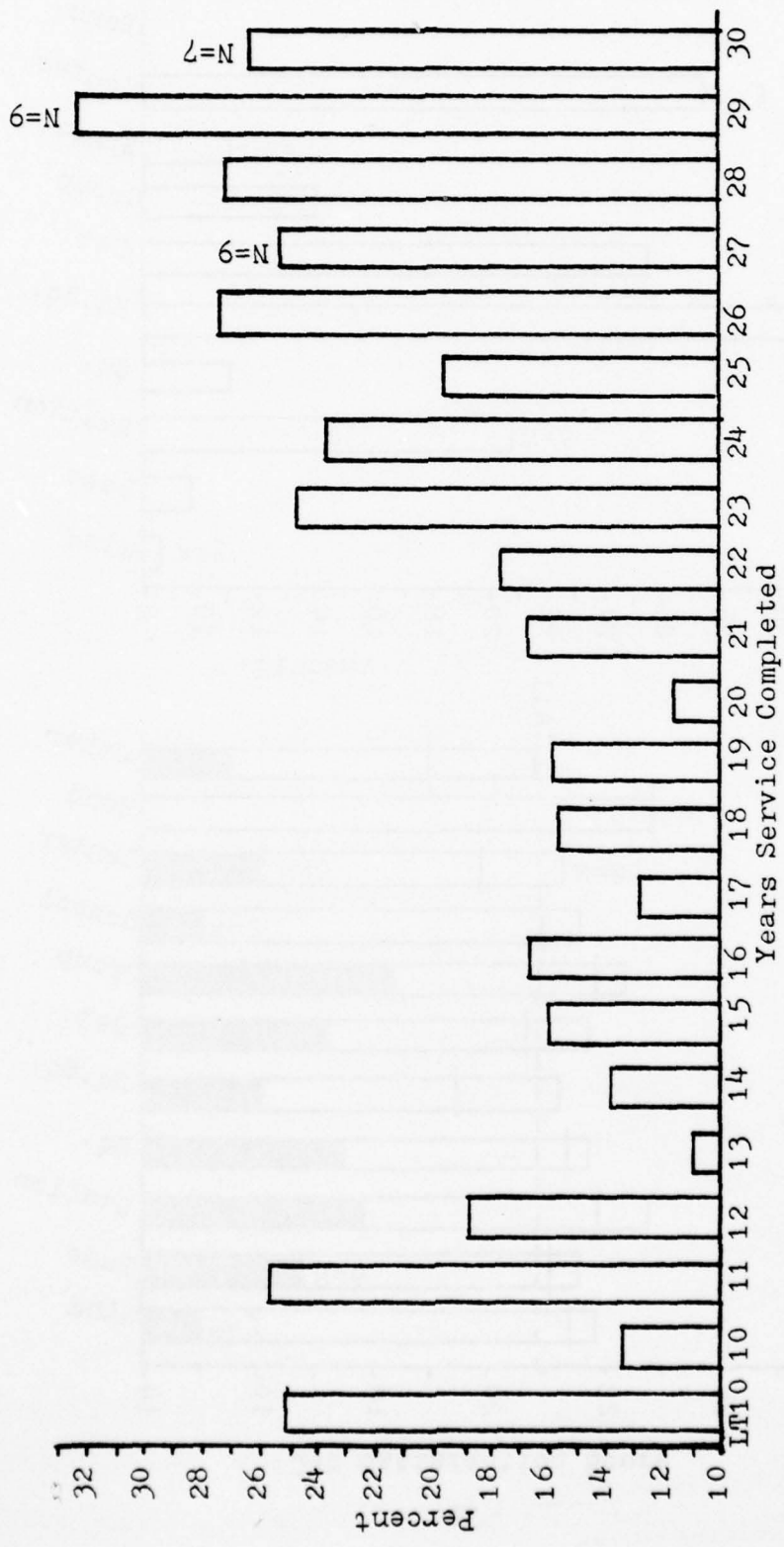


Figure 10. Percent by Years Service Who Consider their Jobs "Not At All", "Not Very", or "Somewhat Challenging"

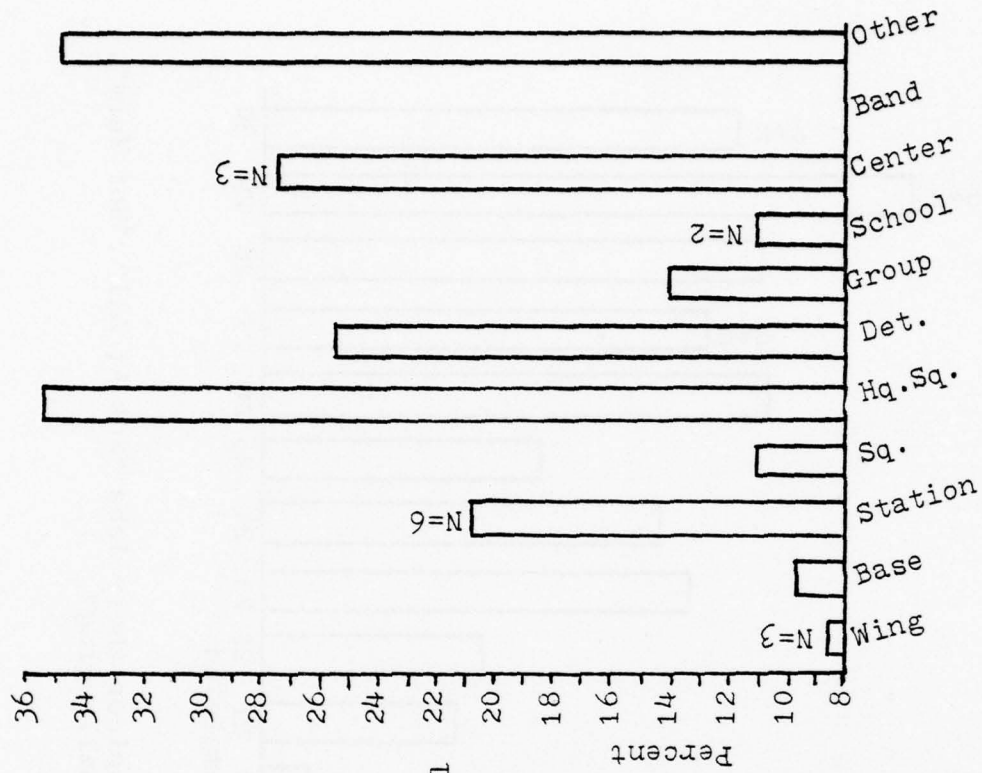


Figure 12. Percent by Type of Organization Who Consider Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"

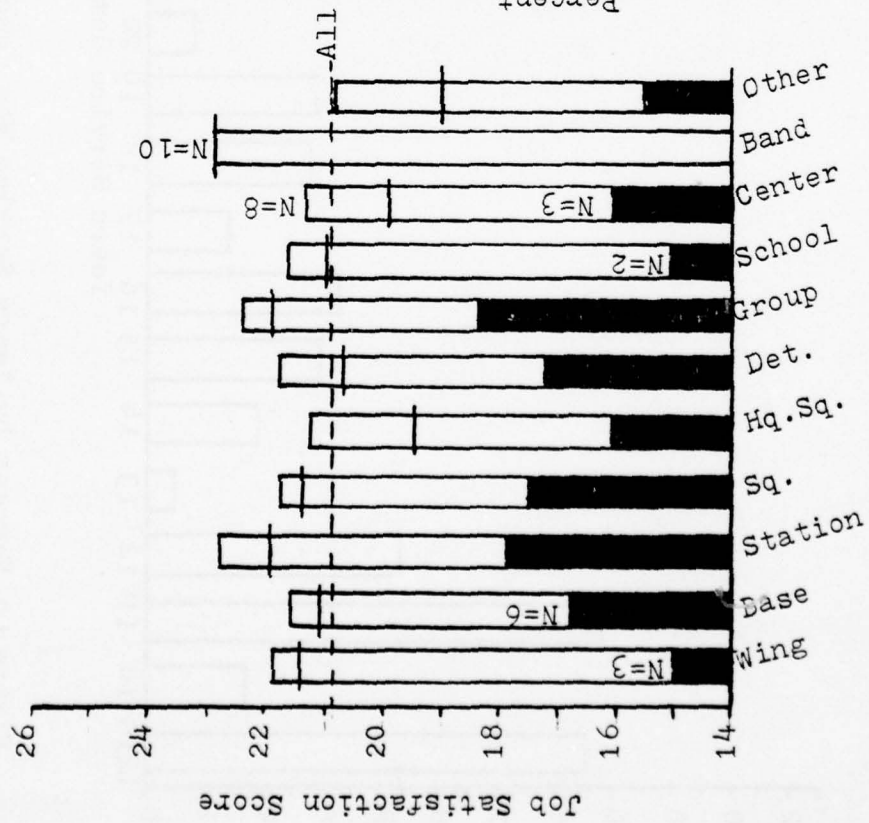


Figure 11. Job Satisfaction by Type of Organization
 ■ Group Rating Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"
 □ Group Rating Their Jobs "Challenging" or "Very Challenging" + Type Average

Job Satisfaction and the Mission of the Organization Commanded. The variation in job satisfaction due to splitting the commanders on the basis of the mission of the organization they command is shown in Figure 13. Figure 14 shows the proportion in the low challenge group for the same breakdown. Those in Flying, Communications, and Research organizations reported the highest mean job satisfaction. Medical, Civil Engineering, Security Police, and Service organizations have the lowest. The variation in job satisfaction due to job challenge is much greater than the variation due to splits based on the mission of the organization. This is particularly true for those commanding Research organizations. Over 20% of those commanding Training, Weather, Research, Medical, Air-base Group, and "other" organizations are in the low job challenge group. While those commanding Maintenance organizations have a mean job satisfaction score very close to the overall commander mean score, their percentage in the low challenge group is the smallest.

Job Satisfaction and Race. Figures 15 and 16 show the variation in mean job satisfaction by racial group and the proportion by race in the low challenge group. As indicated in the figures, the sample sizes for the minority groups are small, making any conclusions drawn concerning them questionable. Perhaps of most significance is the large percentage of Black

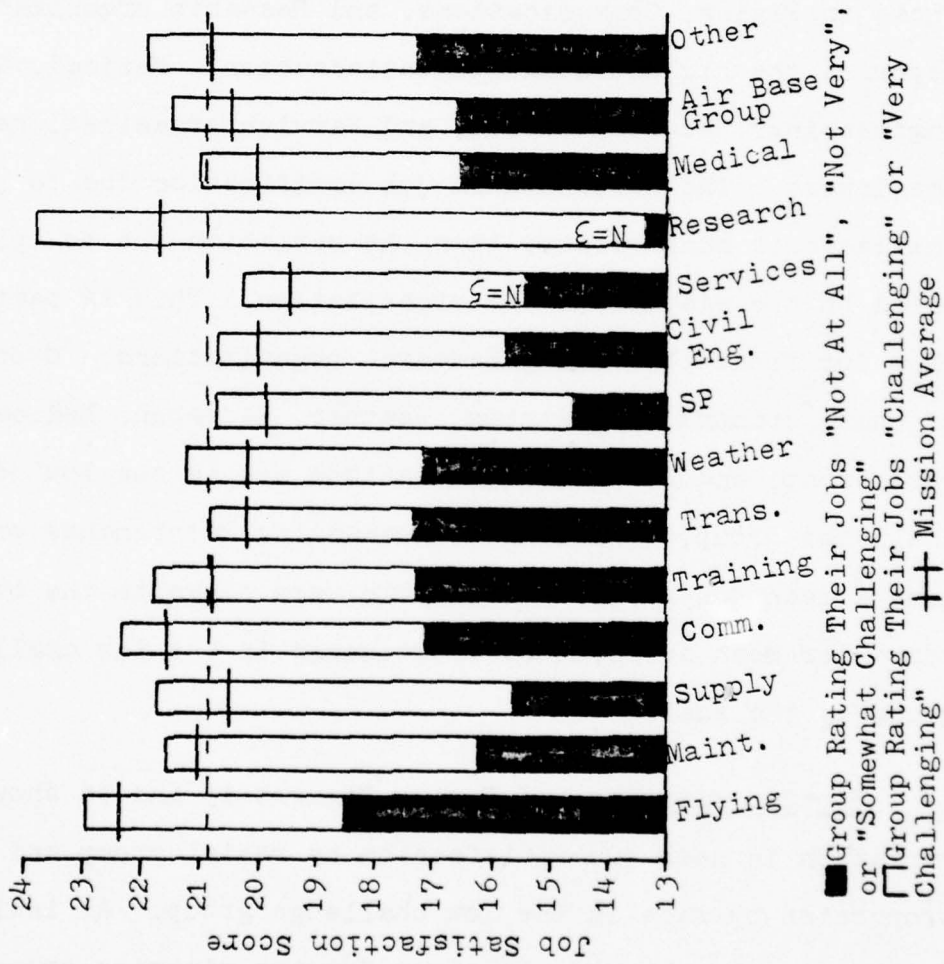


Figure 13. Job Satisfaction by Mission

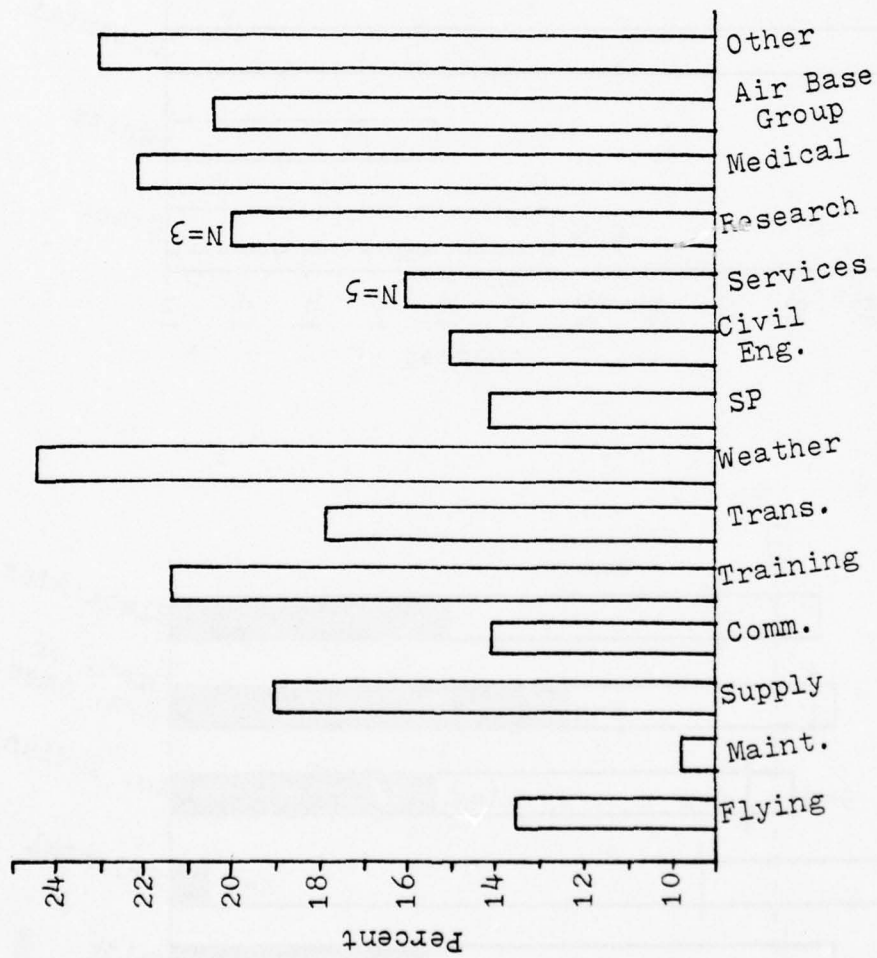


Figure 14. Percent, by Mission, Who Consider Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"

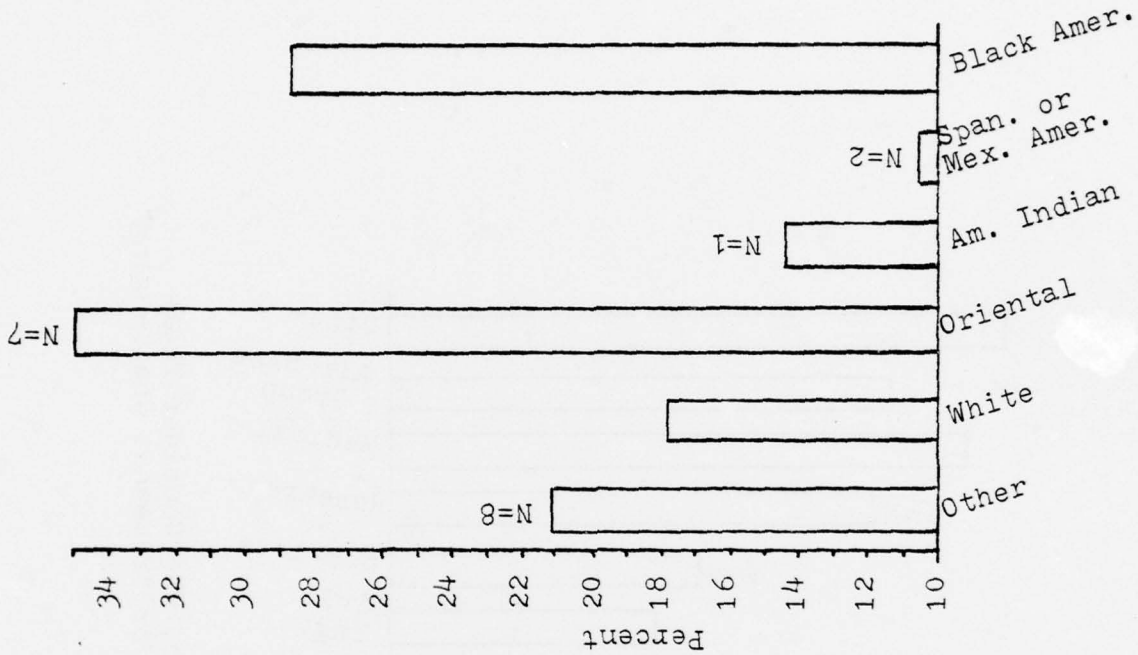


Figure 16. Percent by Race Who Consider Their Jobs "Not At All", "Not Very", or "Somewhat Challenging"

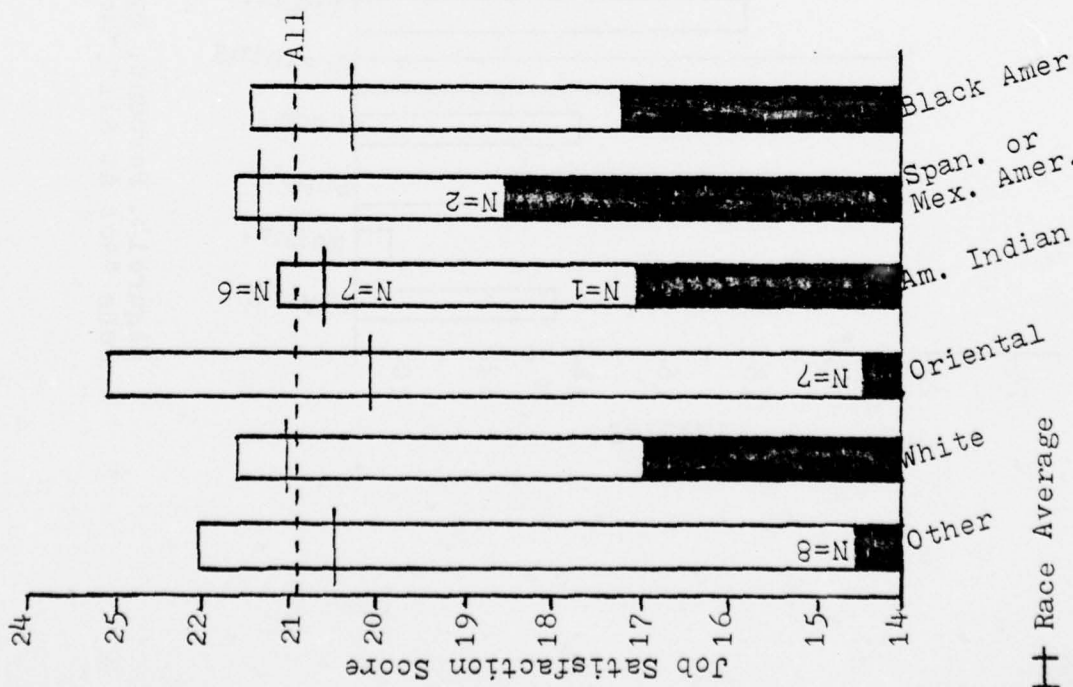


Figure 15. Job Satisfaction by Race

and Oriental Americans who consider their job "not at all", "not very", or "somewhat challenging".

Conclusions Based On Demographic Analysis. For the seven demographic variables examined, the variation in job satisfaction due to differing perceptions of job challenge were greater than the variations due to splits based on the demographics. This is in agreement with the results of the various AID runs discussed earlier. The relatively low explanation of variance ($R^2 = .146$) for the AID run using the demographics as predictor variables can certainly not be disputed on the basis of these single variable analyses. The information to be gained from this section of the study is for the most part descriptive only. Although some trends were noted, one would not recommend changes in policy based on the results of these analyses.

Comparison of Non-Rated and Rated Commanders

The commander population was split into non-rated and rated subgroups for analysis and comparison. AID and Regression analysis were performed on both groups. The results of these analyses are presented as a single section so that comparisons can easily be made.

AID Analysis. The AID tree for the non-rated group is shown in Figure 17, while the rated tree is shown in Figure 18.

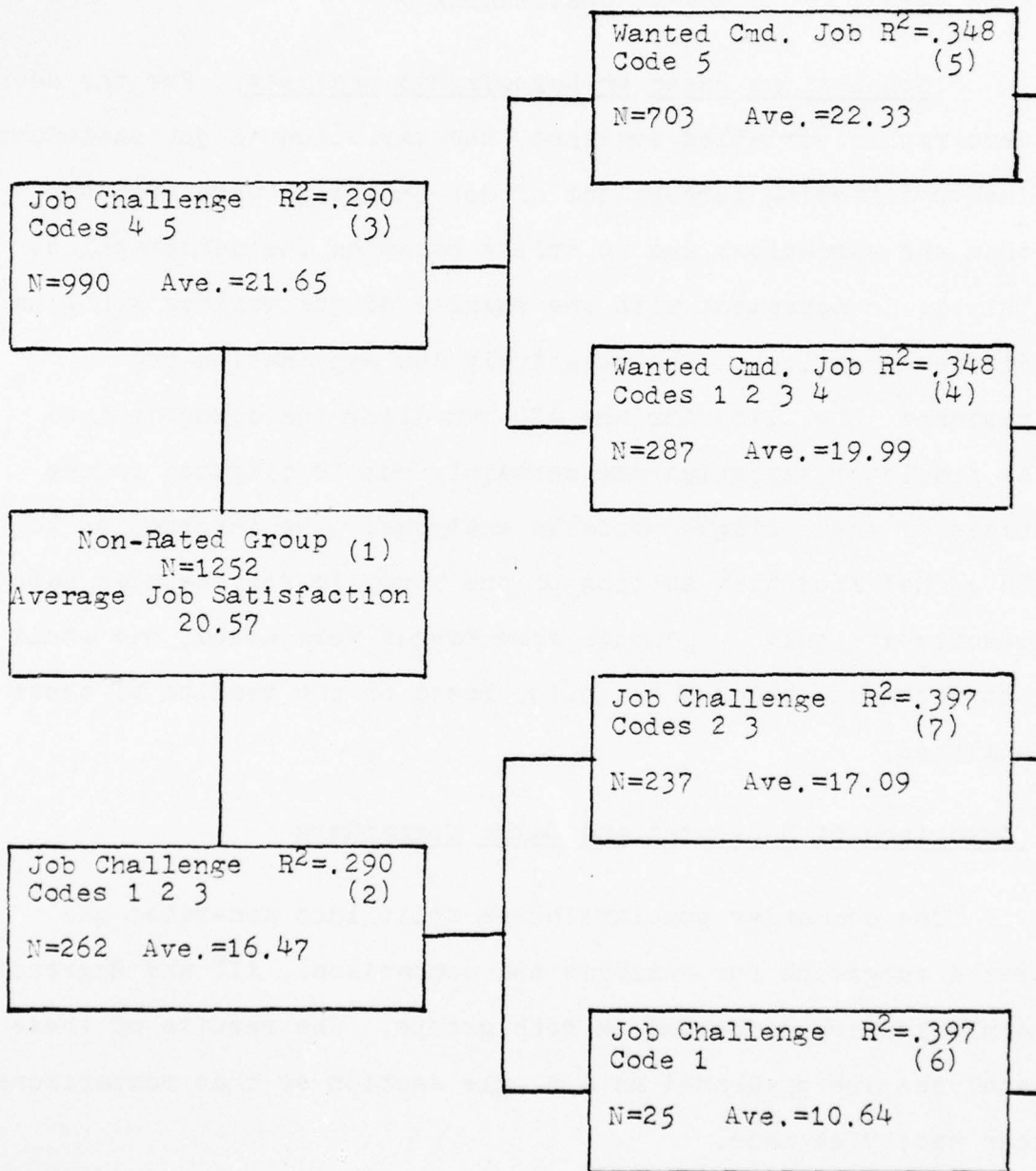


Figure 17. AID Tree for the Non-Rated Group
(See Appendix B for definition of codes)

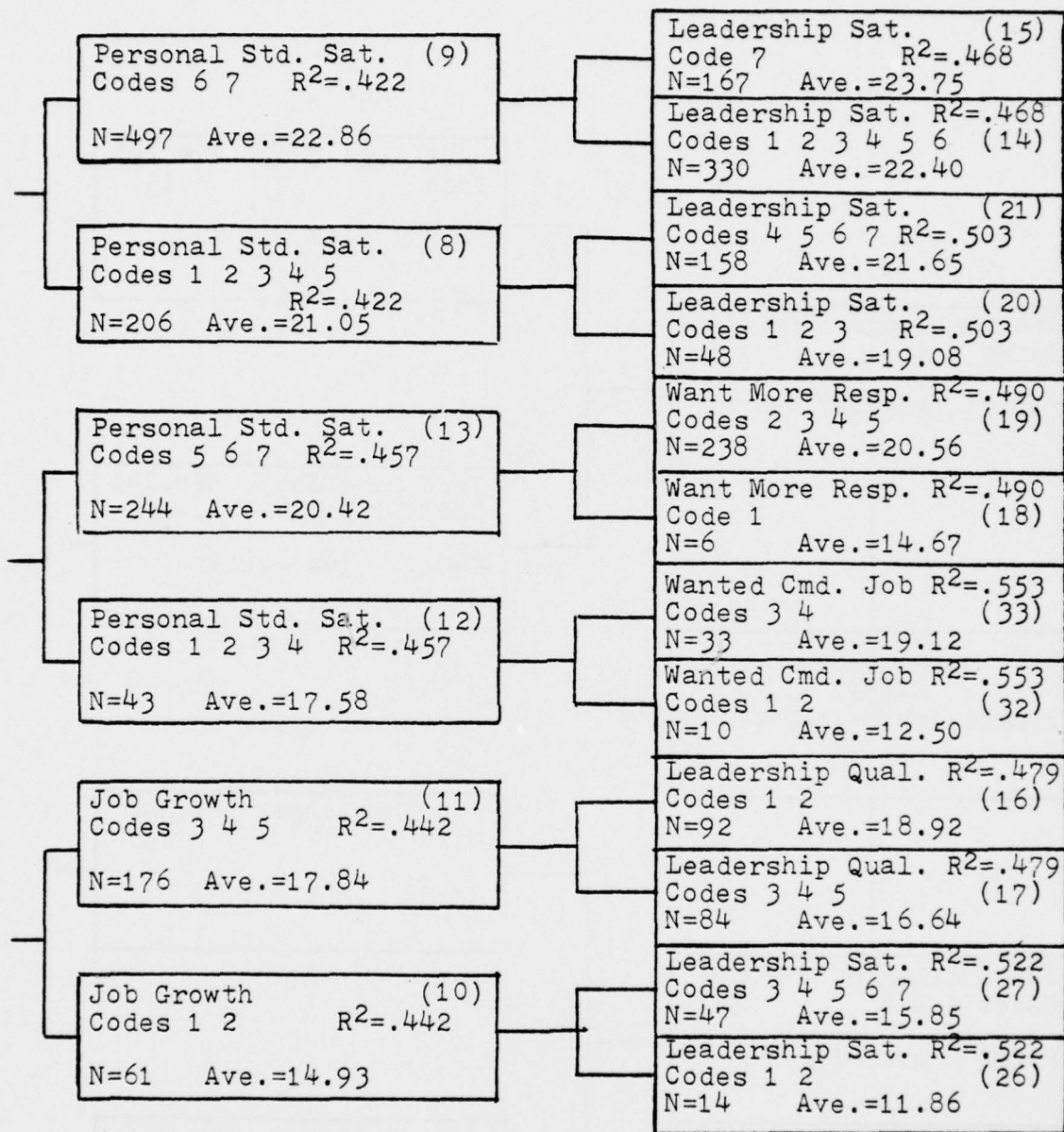


Figure 17. (Continued)

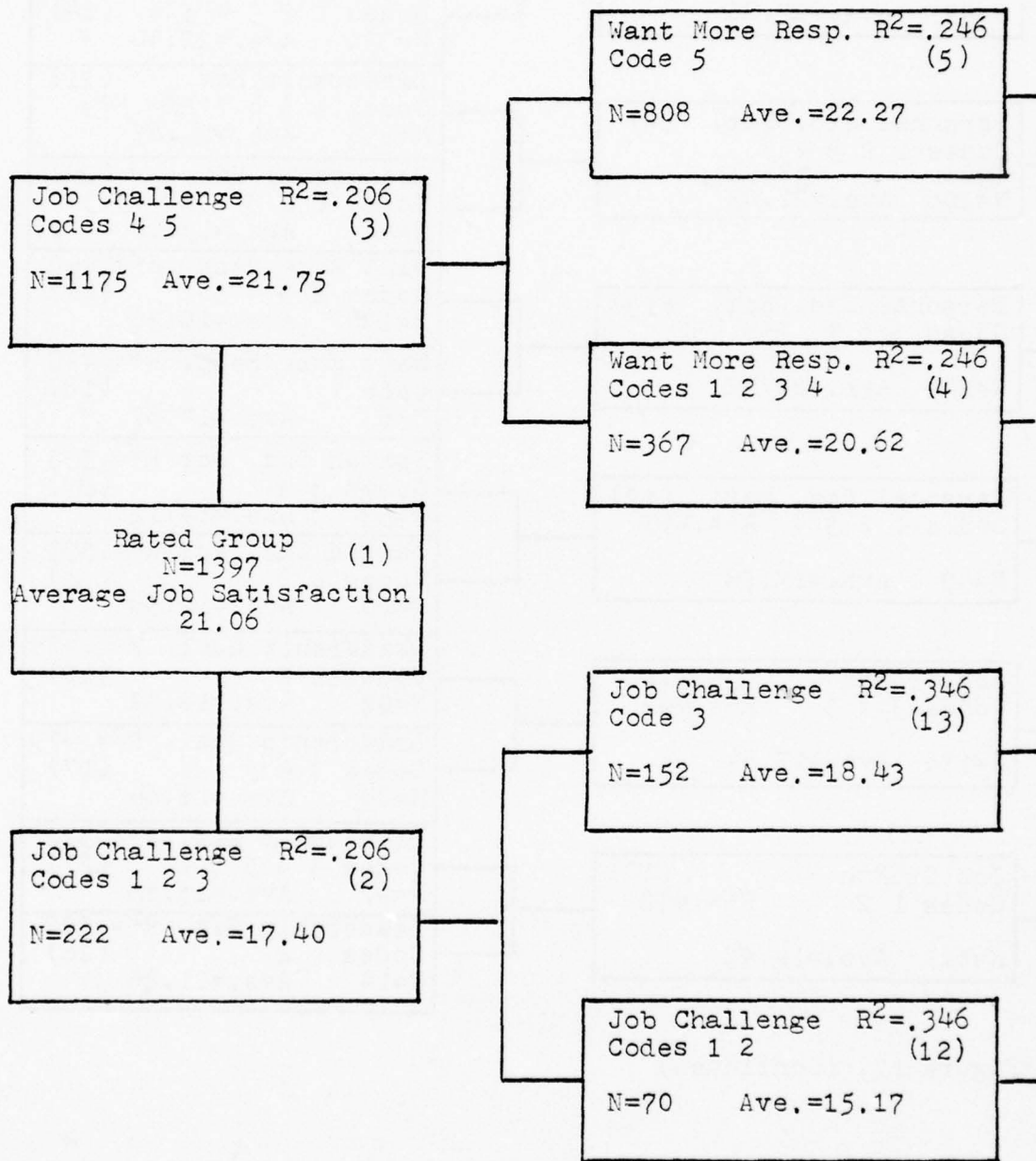


Figure 18. AID Tree for the Rated Group
(See Appendix B for definition of codes)

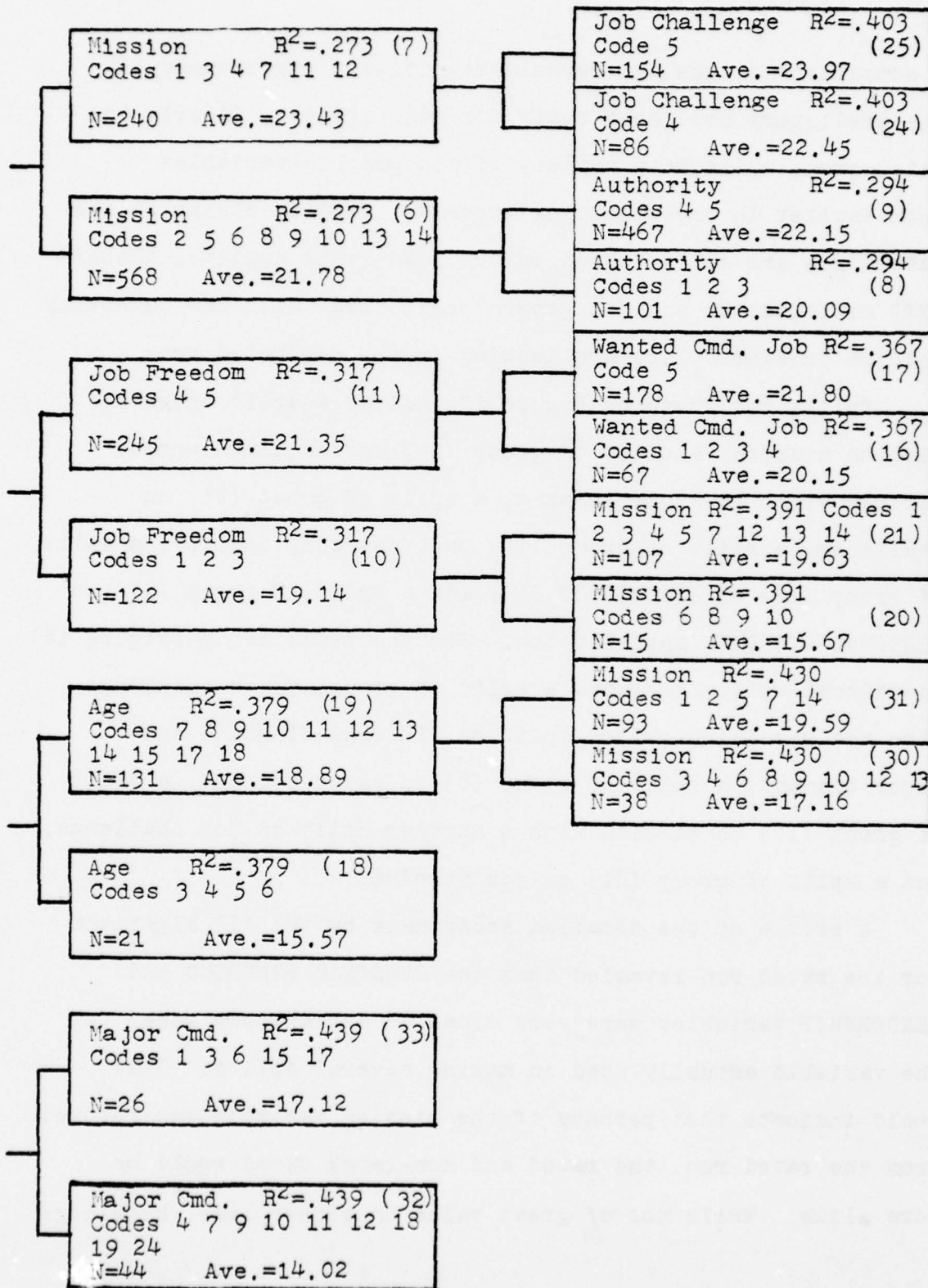


Figure 18. (Continued)

A comparison of the two reveals significant differences in the predictors used as a basis for many splits. Clearly the rated group split on a variety of demographic variables much earlier in the splitting process. Totally absent in the rated tree are splits based on the leadership quality, LEADERSHIP satisfaction and job growth predictors while the authority and job freedom splits are lacking in the non-rated tree.

Splits not shown on Figure 17 include a split of group (15) on mission, a split of group (14) on challenge with a further split on major command, a split of group (21) on challenge, a split of group (19) on leadership quality, a split of group (16) on LEADERSHIP SAT, and a split of group (17) on PERSONAL STANDING satisfaction. For the rated group (Figure 18) additional splits included a split of group (9) on challenge with the resulting groups split on PERSONAL STANDING and major command, a split of group (8) on major command, a split of group (17) on mission with a further split on job challenge, and a split of group (21) on job freedom.

A review of the detailed scans made by the AID algorithm for the rated run revealed that the PERSONAL STANDING and LEADERSHIP variables were very close in explanatory power to the variable actually used in making several splits. This would indicate that perhaps if the mission variable was removed from the rated run, the rated and non-rated trees would be more alike. While not of great value in either case, knowledge

of the mission of the organization commanded is a better predictor of job satisfaction for the rated group.

If one was asked to select the most important predictors of job satisfaction for each group on the basis of the AID tree, two separate lists would be appropriate. However, if a single set of predictors was to be selected for use on both groups, and the detailed scans for the AID runs were available, the predictors shown to be important in the non-rated tree with the addition of job freedom would most likely be selected as the best compromise.

Regression. Regression results are shown for the non-rated group in Table III, while those for the rated group are shown in Table IV. As with the Regression analysis performed on the total group, the analyses here were truncated when additional predictors added little to the predictive power of the model. The Regression results for the non-rated group tend to confirm the AID results for that group. The rated Regression results agree with AID in the relative amount of variance explained but since the demographic variables were not included for the Regression analysis the predictive ability of the demographics, as shown by AID, cannot be verified.

The beta weights indicate that job challenge is about 2.3 to 2.4 times as important as the other predictors. This differs little from the total population findings.

Table III

Job Satisfaction Regression
(Non-Rated Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.451	.365	.365
PERSONAL STANDING SAT (X ₂)	.211	.455	.090
Wanted Commander's Job (X ₃)	.202	.497	.042
LEADERSHIP SAT (X ₄)	.197	.527	.030

Correlation Matrix

	X ₁	X ₂	X ₃	X ₄	Y
X ₁	1.000	.280	.221	.251	.604
X ₂		1.000	.176	.428	.457
X ₃			1.000	.142	.367
X ₄				1.000	.429

$$\begin{aligned}
 \text{Job Satisfaction (Y)} &= 3.040 + 1.805 \text{ (Job Challenge)} \\
 &+ .652 \text{ (PERSONAL STANDING SAT)} \\
 &+ .846 \text{ (Wanted Commander's Job)} \\
 &+ .493 \text{ (LEADERSHIP SAT)}
 \end{aligned}$$

Table IV

Job Satisfaction Regression
(Rated Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.453	.259	.259
PERSONAL STANDING SAT (X ₂)	.198	.321	.062
Want More Responsibility (X ₃)	.169	.353	.032
Job Freedom (X ₄)	.160	.377	.024

Correlation Matrix

	X ₁	X ₂	X ₃	X ₄	Y
X ₁	1.000	.210	.017	.068	.509
X ₂		1.000	.079	.271	.350
X ₃			1.000	.101	.208
X ₄				1.000	.261

$$\begin{aligned}
 \text{Job Satisfaction (Y)} &= 4.599 + 1.798 \text{ (Job Challenge)} \\
 &+ .580 \text{ (PERSONAL STANDING SAT)} \\
 &+ .692 \text{ (Want More Responsibility)} \\
 &+ .596 \text{ (Job Freedom)}
 \end{aligned}$$

Comparison of Conus and Overseas Commanders

AID Analysis. AID trees for the Conus and Overseas groups are shown as Figures 19 and 20, respectively. In comparing these, for the most part, the same predictors are present, however, placement of the predictors in the tree are different. For the Conus group later stage splits not shown on Figure 18 included a split of group (13) on authority with a further split on mission, a split of group (12) on mission with further splits on authority and recognition, a split of group (15) on job freedom with a further split on LEADERSHIP satisfaction and a split of group (14) on grade. The Overseas group made later splits not shown in Figure 20 which include a split of group (11) on mission, a split of group (10) on mission, with further splits on command, time in command, and years service a split of group (18) on mission and a split of group (22) on wanting the commander's job.

In comparing the trees for the two groups for the most part, the same predictors are present, however, their position within the tree differs from one group to the other. Job challenge, PERSONAL STANDING satisfaction, and LEADERSHIP satisfaction appear to be of almost equal importance to both groups. The job growth variable or perception of being prepared for greater responsibility is unique to the Overseas tree.

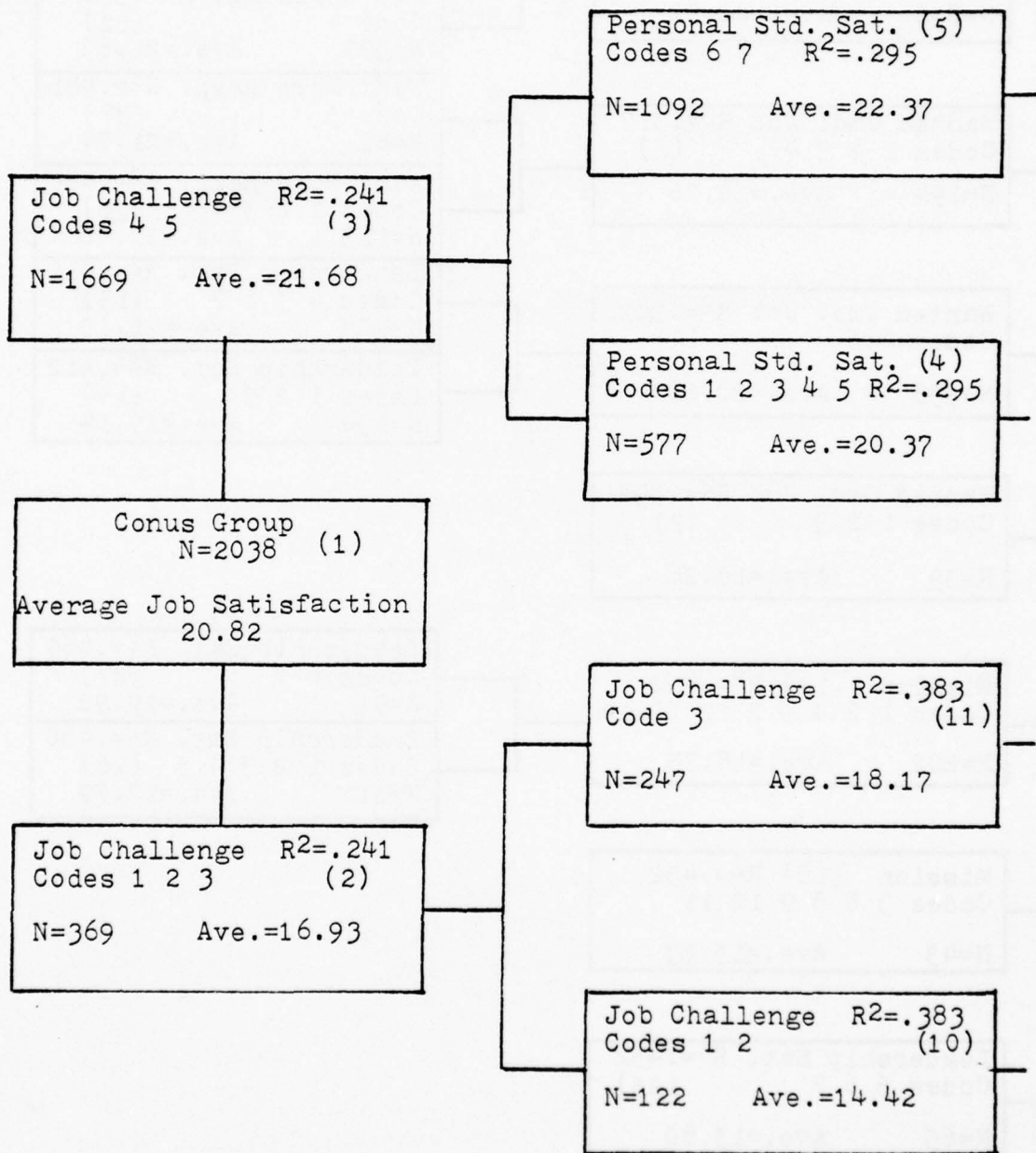


Figure 19. AID Tree for the Conus Group
(See Appendix B for definition of codes)

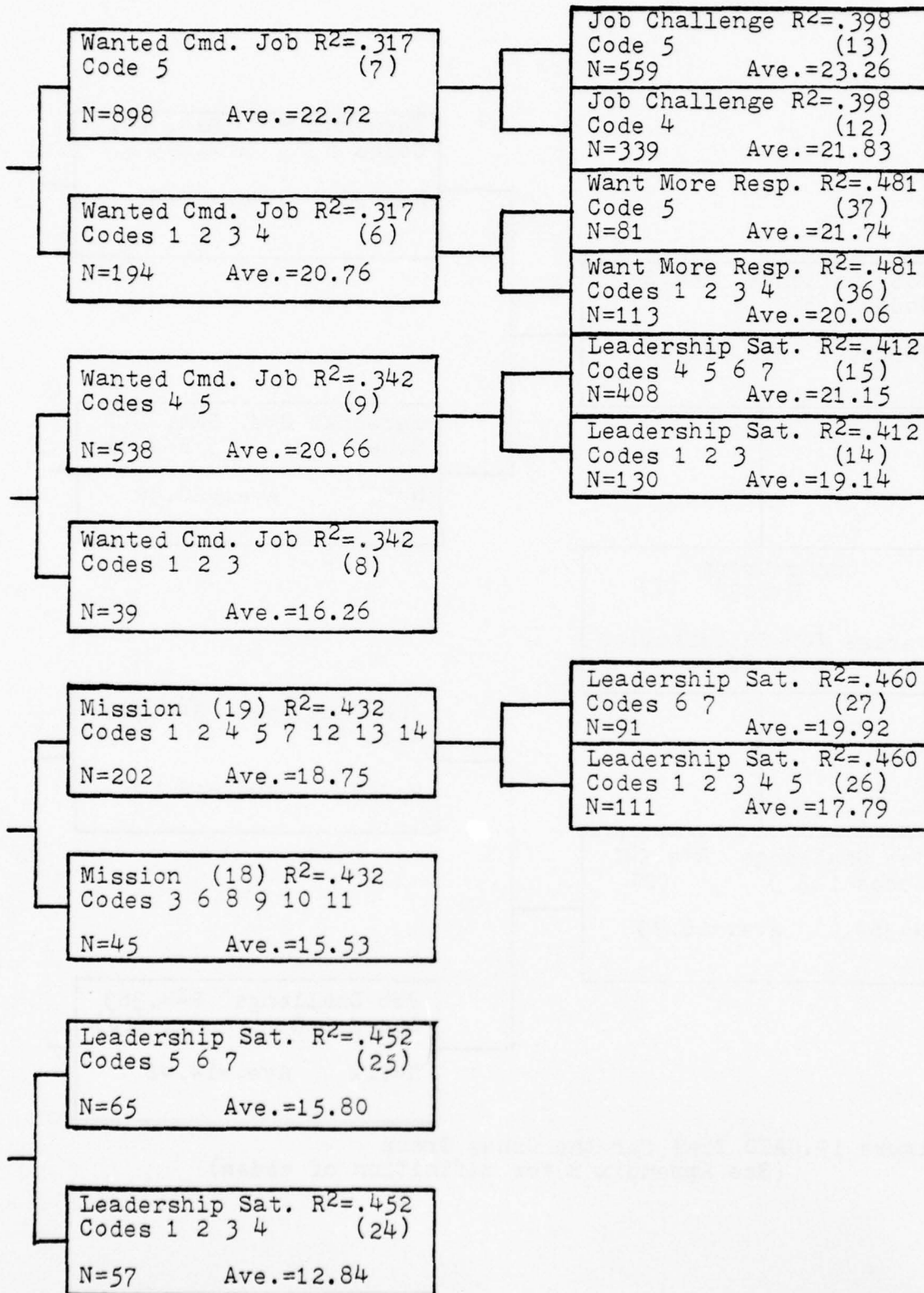


Figure 19. (Continued)

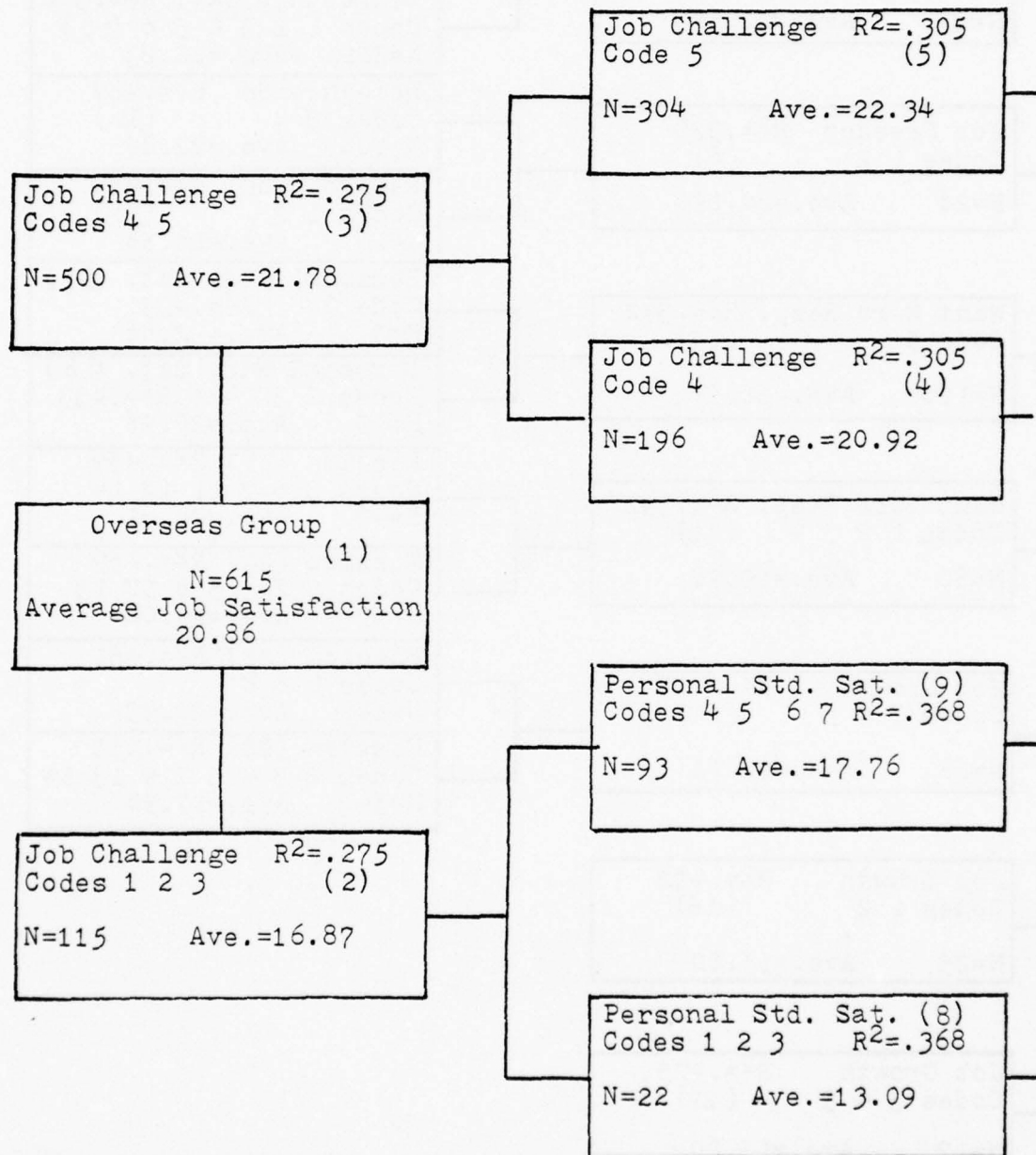


Figure 20. AID Tree for the Overseas Group
(See Appendix B for definition of codes)

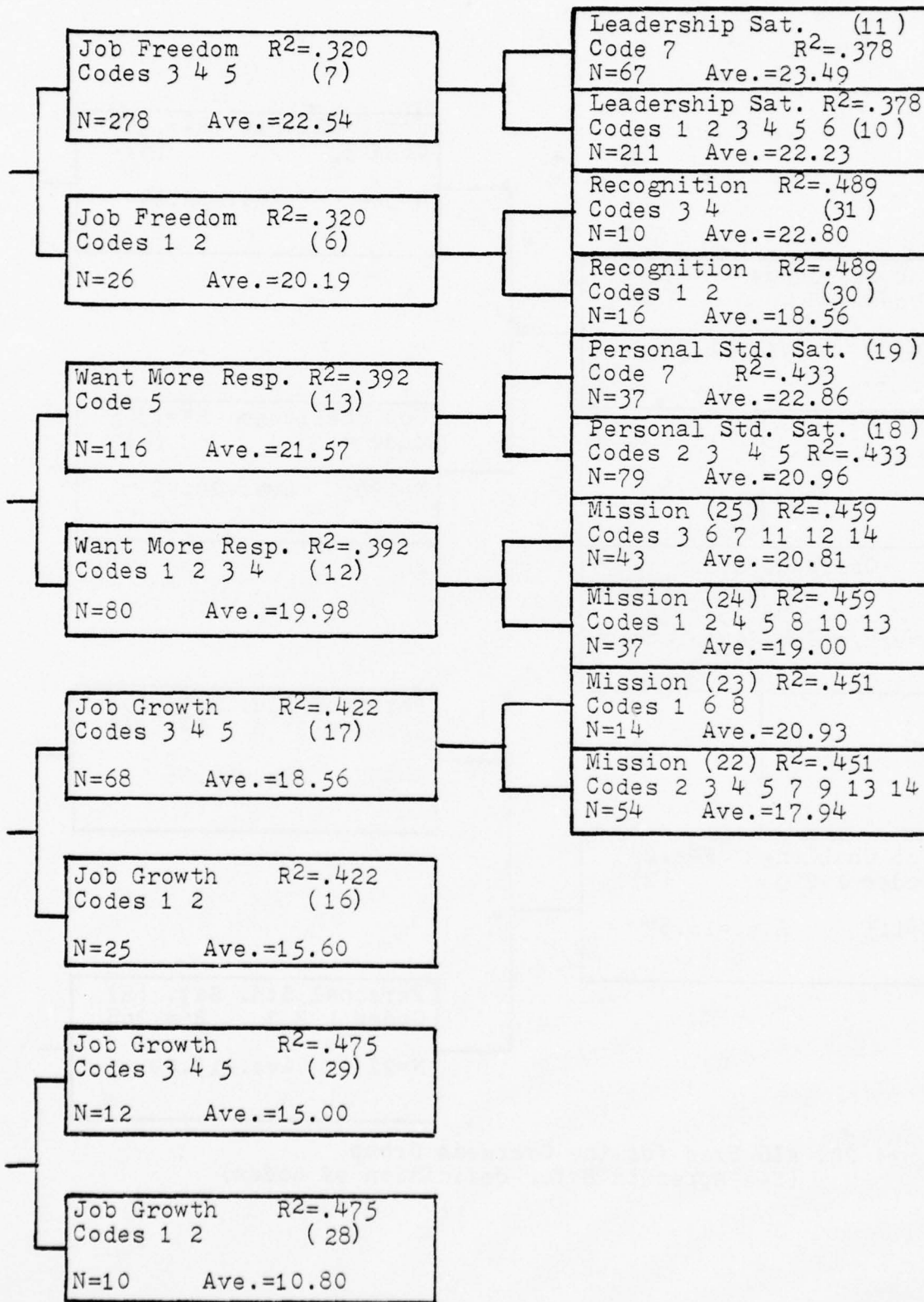


Figure 20. (Continued)

Regression. The results of Regression analyses performed on the Conus and Overseas groups are shown in Tables V and VI. Job challenge, PERSONAL STANDING satisfaction and LEADERSHIP satisfaction are important to both groups. The groups differ in that the perception of being prepared for future responsibility is important to the Overseas group while the degree to which the individual desired the commander's job is included in the Conus model. The results here are consistent with the results of the AID analysis performed on the two groups.

Comparison of Groups Above and Below Ten Years Service

AID Analysis. Figures 21 and 22 provide AID trees for those with less than ten years service and those with more than ten years service, respectively. For the under ten group additional splits not shown in Figure 21 included a split of group (19) on mission with further splits on major command and time in command. Group (11) was split on LEADERSHIP satisfaction with further splits on mission, major command, and time in command. In addition, group (21) was split on time in command. Later splits for the over ten group, shown in Figure 22 included a split of group (9) on LEADERSHIP satisfaction with further splits on mission and job freedom, a split of group (8) on recognition with a further split on authority, a split of group (20) on job freedom, and splits of groups (26 and 31) on major command and mission, respectively.

Table V

Job Satisfaction Regression
(Conus Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.427	.307	.307
PERSONAL STANDING SAT (X ₂)	.191	.384	.077
Wanted Commander's Job (X ₃)	.208	.428	.044
LEADERSHIP SAT (X ₄)	.184	.455	.027

Correlation Matrix

	X ₁	X ₂	X ₃	X ₄	Y
X ₁	1.000	.243	.224	.187	.554
X ₂		1.000	.158	.416	.404
X ₃			1.000	.122	.356
X ₄				1.000	.368

$$\begin{aligned}
 \text{Job Satisfaction (Y)} &= 3.793 + 1.713 (\text{Job Challenge}) \\
 &+ .573 (\text{PERSONAL STANDING SAT}) \\
 &+ .923 (\text{Wanted Commander's Job}) \\
 &+ .440 (\text{LEADERSHIP SAT})
 \end{aligned}$$

Table VI

Job Satisfaction Regression
(Overseas Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.404	.334	.334
PERSONAL STANDING SAT (X ₂)	.200	.403	.069
LEADERSHIP SAT (X ₃)	.165	.432	.029
Job Growth (X ₄)	.166	.452	.020

	X ₁	X ₂	X ₃	X ₄	Y
X ₁	1.000	.268	.228	.500	.578
X ₂		1.000	.330	.276	.409
X ₃			1.000	.244	.364
X ₄				1.000	.463

$$\begin{aligned}
 \text{Job Satisfaction (Y)} &= 5.886 + 1.570 \text{ (Job Challenge)} \\
 &+ .607 \text{ (PERSONAL STANDING SAT)} \\
 &+ .412 \text{ (LEADERSHIP SAT)} \\
 &+ .628 \text{ (Job Growth)}
 \end{aligned}$$

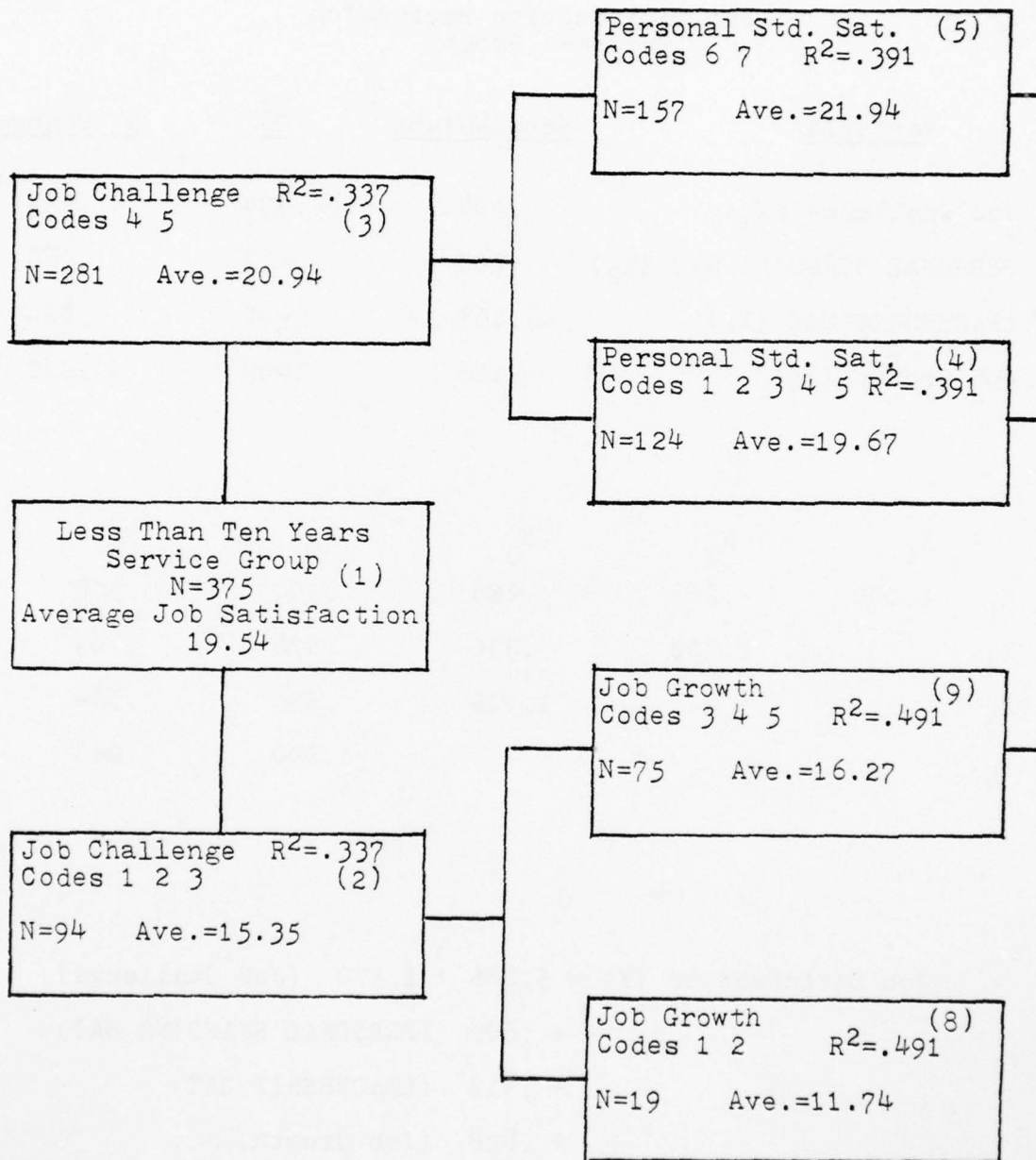


Figure 21. AID Tree for the Group With Less Than Ten Years Service (See Appendix B for definition of codes)

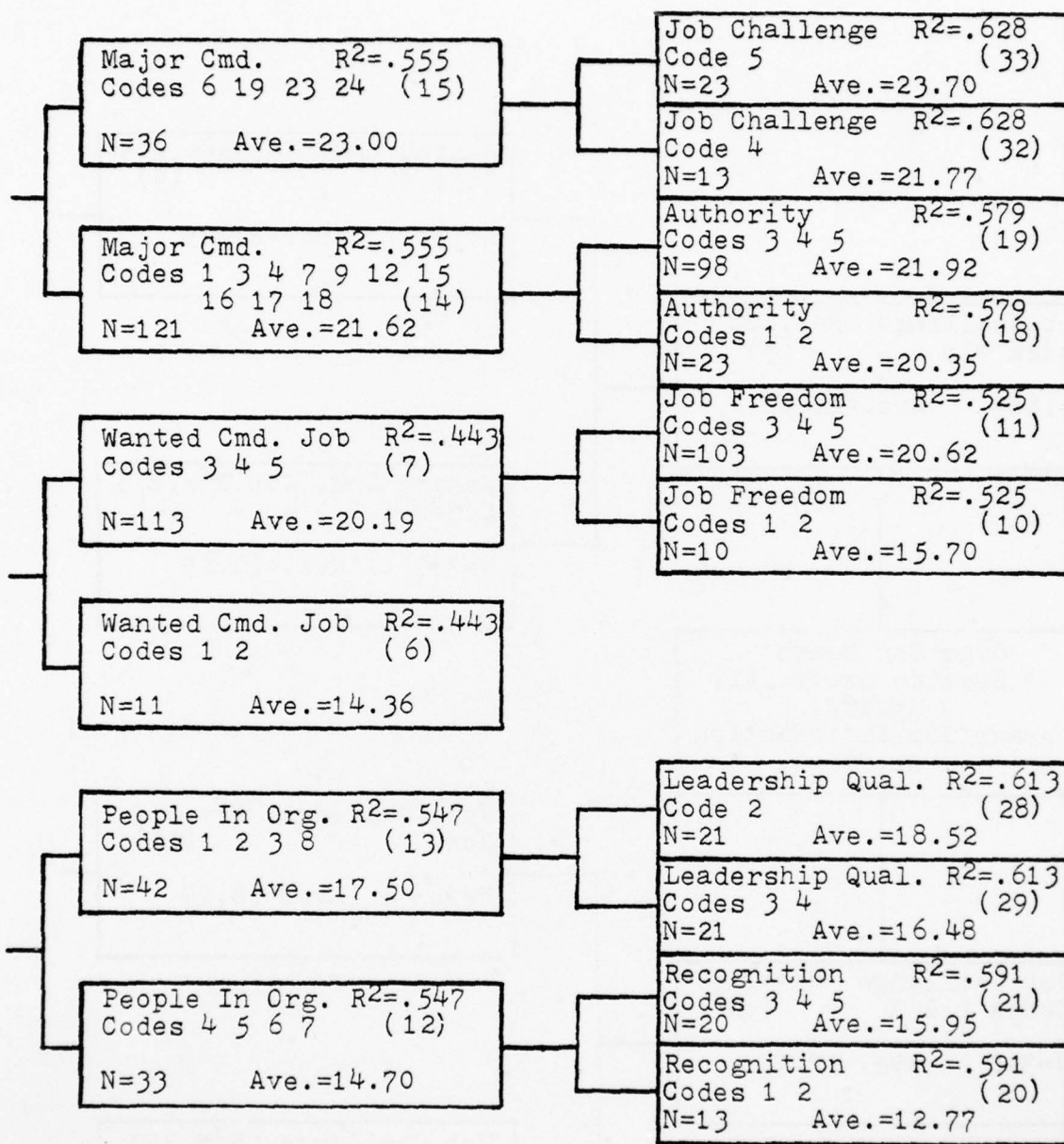


Figure 21. (Continued)

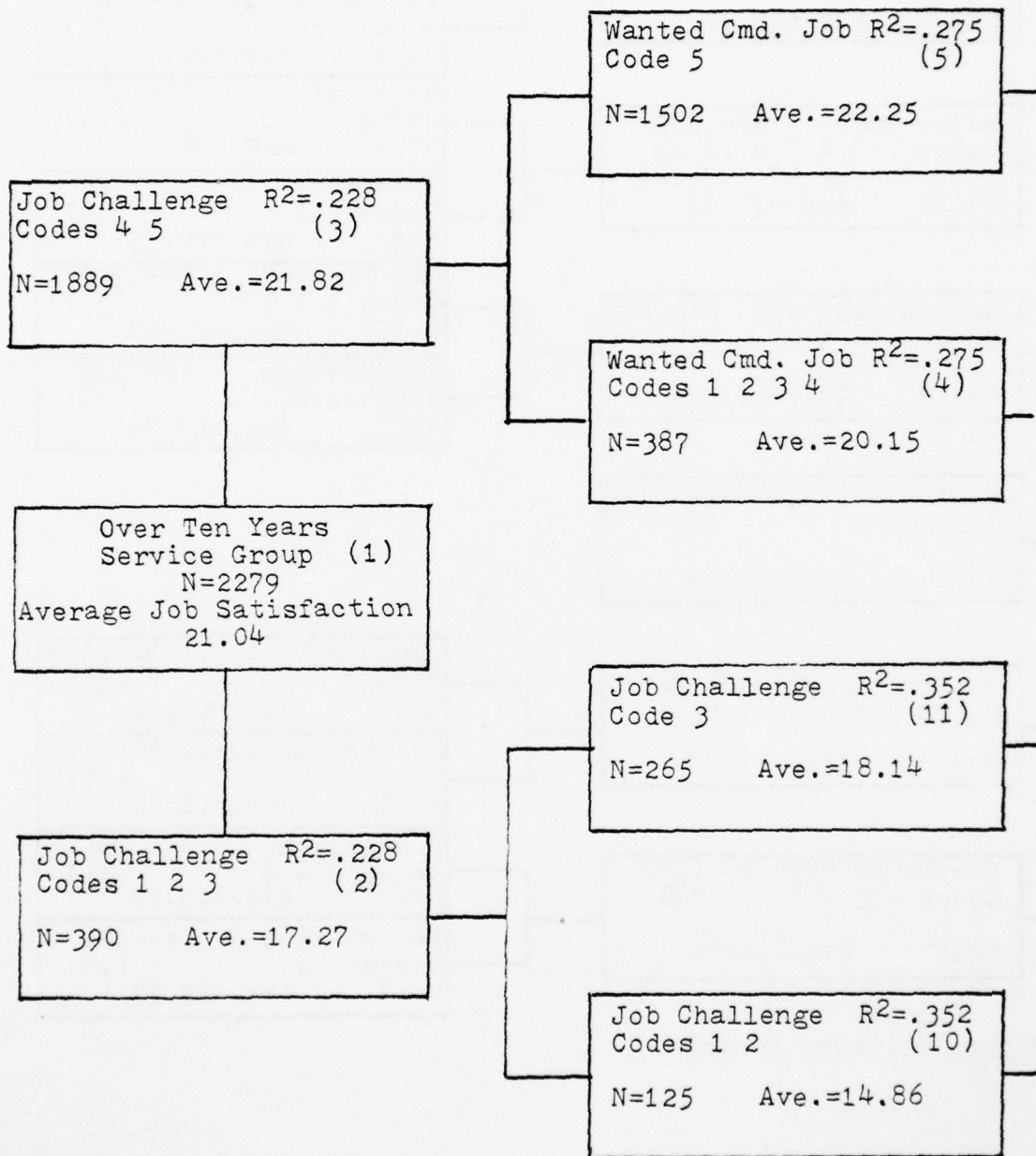


Figure 22. AID Tree for the Group With Over Ten Years Service
(See Appendix B for definition of codes)

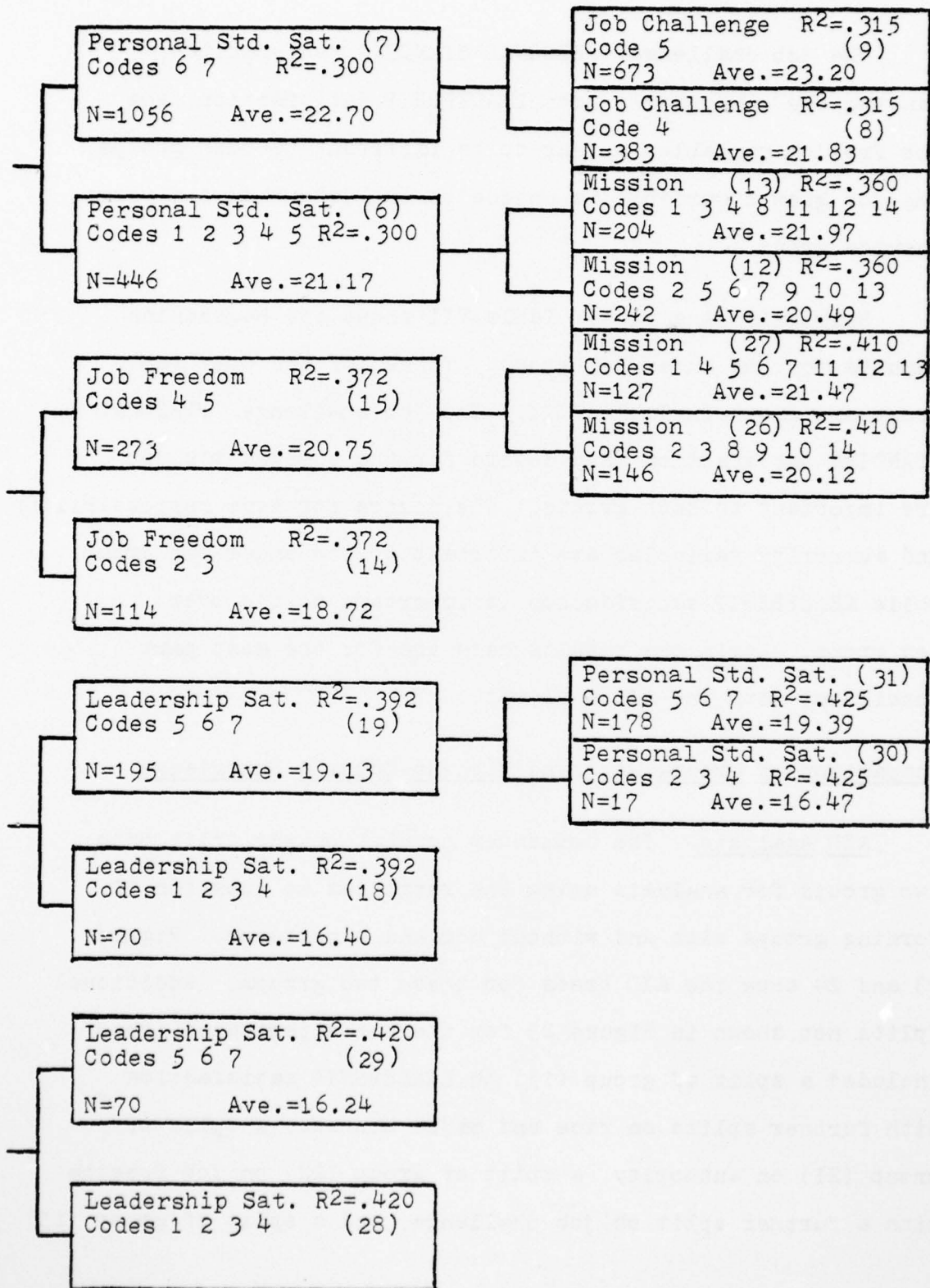


Figure 22. (Continued)

The job challenge, PERSONAL STANDING satisfaction, wanting the commander's job, LEADERSHIP satisfaction, and job freedom variables appear to be important to both groups. The job growth variable is unique to the less than ten years service group.

Regression Analysis. Table VII shows the Regression results for the under ten group. Those for the over ten group are shown in Table VIII. The job challenge PERSONAL STANDING satisfaction, and desire for the commander's job are important to both groups. The desire for more responsibility and authority variables are important to the under ten group while LEADERSHIP satisfaction is important to the over ten group. Again the results here are for the most part consistent with the AID analysis.

Comparison of Groups With and Without Command Experience

AID Analysis. The commander population was split into two groups for analysis using the responses to question 11 forming groups with and without command experience. Figures 23 and 24 show the AID trees for these two groups. Additional splits not shown in Figure 23 for the non-experienced group included a split of group (13) on LEADERSHIP satisfaction with further splits on race and major command, a split of group (21) on authority, a split of group (22) on job freedom with a further split on job challenge, and a split of group (15)

Table VII

Job Satisfaction Regression
(Group With Less Than Ten Years Service)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.557	.417	.417
PERSONAL STANDING SAT (X ₂)	.206	.474	.057
Wanted Commander's Job (X ₃)	.173	.523	.049
Wanted More Responsibility (X ₄)	.162	.547	.024
Authority (X ₅)	.144	.566	.019

Correlation Matrix

	X ₁	X ₂	X ₃	X ₄	X ₅	Y
X ₁	1.000	.257	.125	-.099	.212	.646
X ₂		1.000	.067	.014	.242	.398
X ₃			1.000	.248	.084	.309
X ₄				1.000	-.014	.151
X ₅					1.000	.324

$$\begin{aligned}
 \text{Job Satisfaction (Y)} = & -2.020 + 2.225 \text{ (Job Challenge)} \\
 & + .644 \text{ (PERSONAL STANDING SAT)} \\
 & + .815 \text{ (Wanted Commander's Job)} \\
 & + .817 \text{ (Wanted More Responsibility)} \\
 & + .529 \text{ (Authority)}
 \end{aligned}$$

Table VIII

Job Satisfaction Regression
(Group With Greater Than Ten Years Service)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.427	.287	.287
PERSONAL STANDING SAT (X ₂)	.197	.364	.077
Wanted Commander's Job (X ₃)	.178	.398	.034
LEADERSHIP SAT (X ₄)	.185	.426	.028

Correlation Matrix

	X ₁	X ₂	X ₃	X ₄	Y
X ₁	1.000	.237	.219	.179	.535
X ₂		1.000	.153	.399	.397
X ₃			1.000	.142	.326
X ₄				1.000	.363

$$\begin{aligned}
 \text{Job Satisfaction (Y)} = & 4.808 + 1.645 \text{ (Job Challenge)} \\
 & + .585 \text{ (PERSONAL STANDING SAT)} \\
 & + .779 \text{ (Wanted Commander's Job)} \\
 & + .434 \text{ (LEADERSHIP SAT)}
 \end{aligned}$$

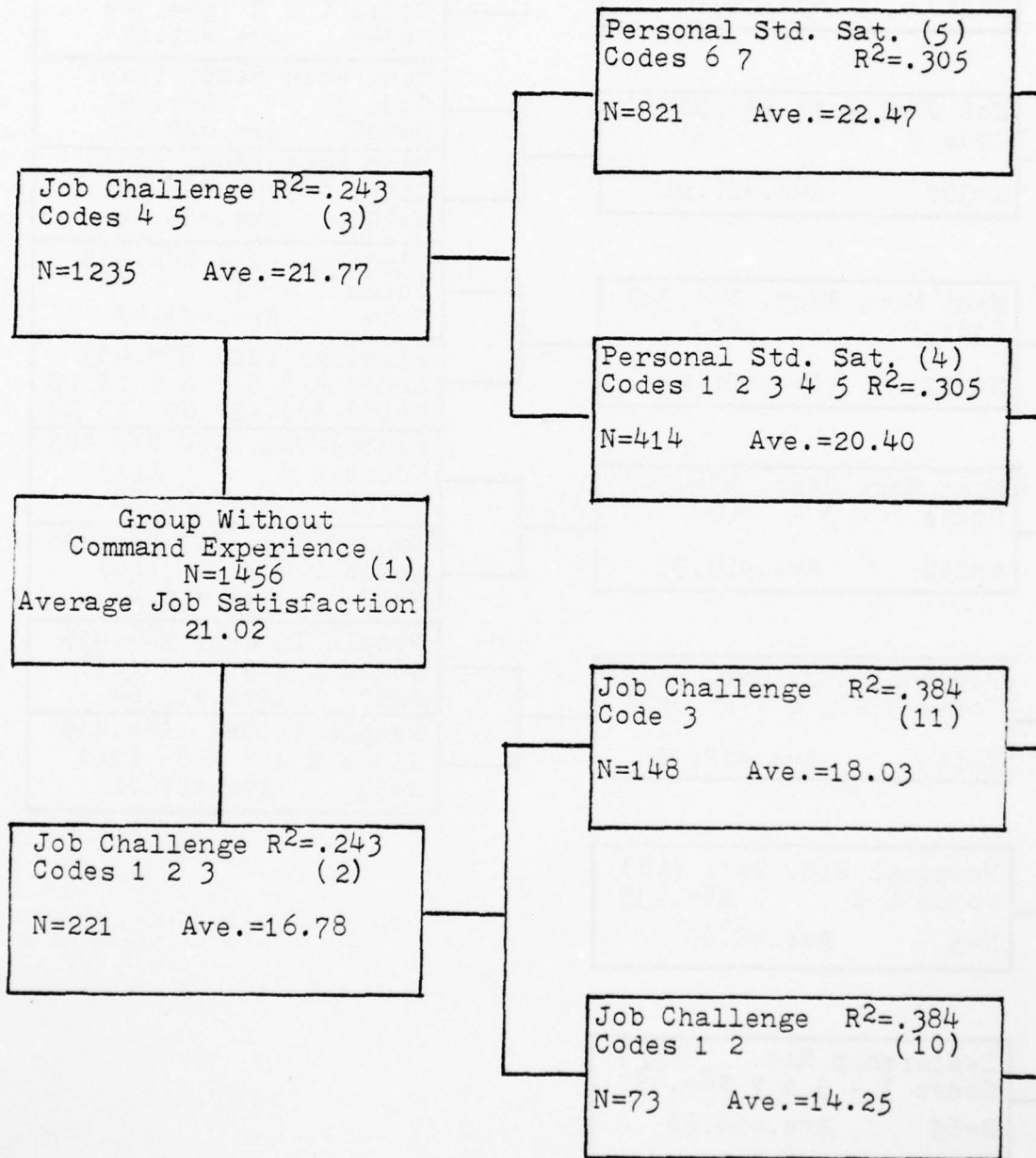


Figure 23. AID Tree for the Group Without Command Experience
(See Appendix B for definition of codes)

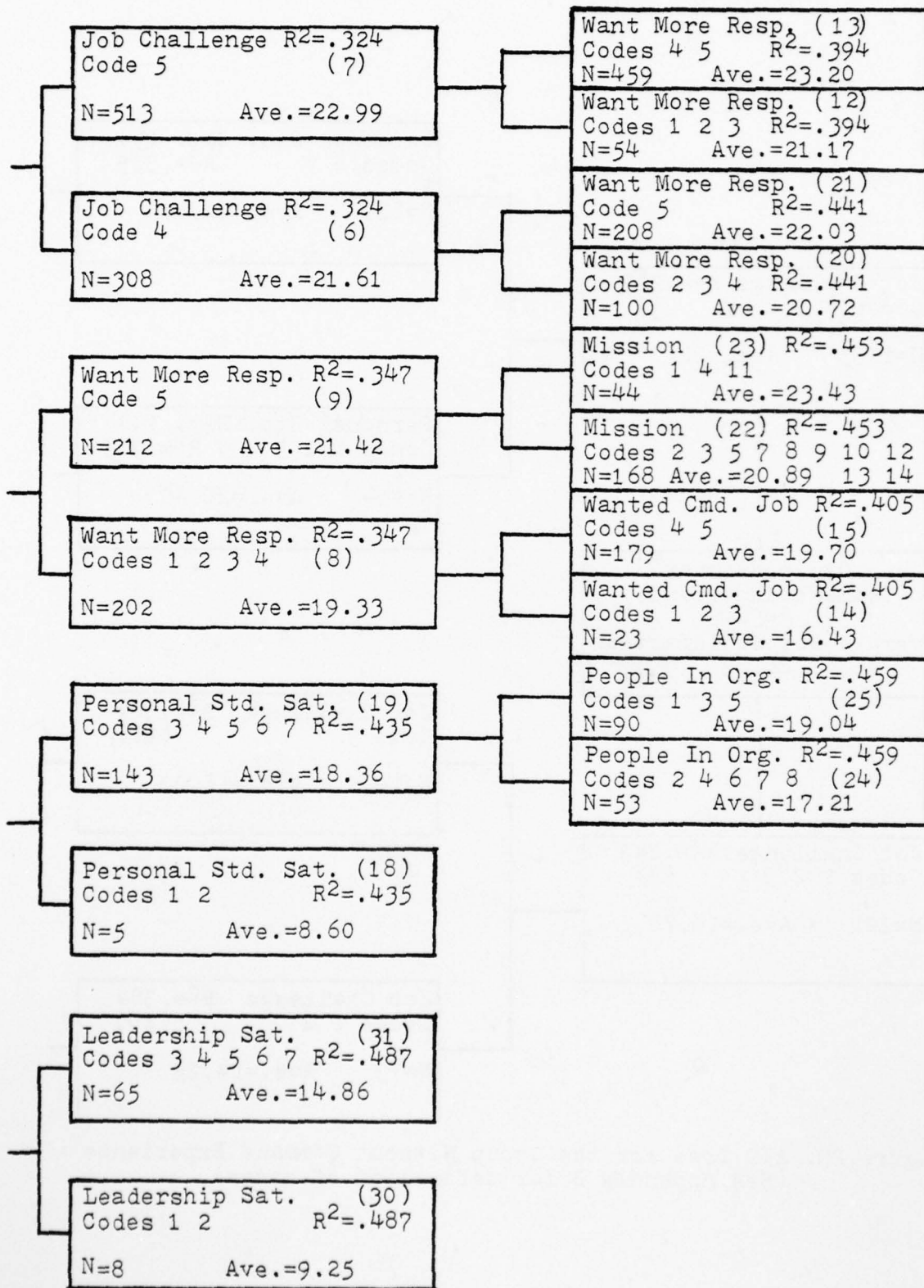


Figure 23. (Continued)

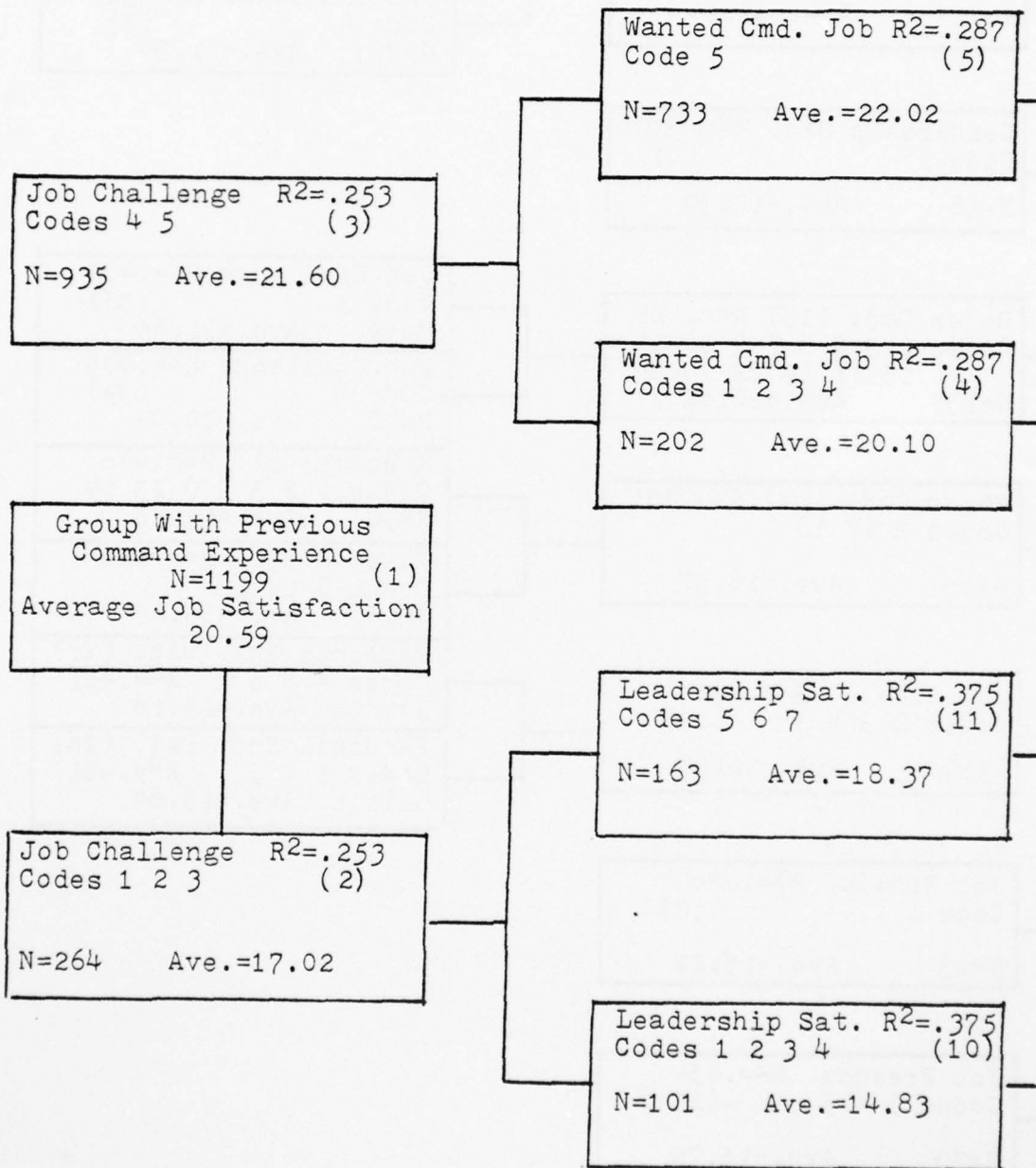


Figure 24. AID Tree for the Group With Command Experience
(See Appendix B for definition of codes)

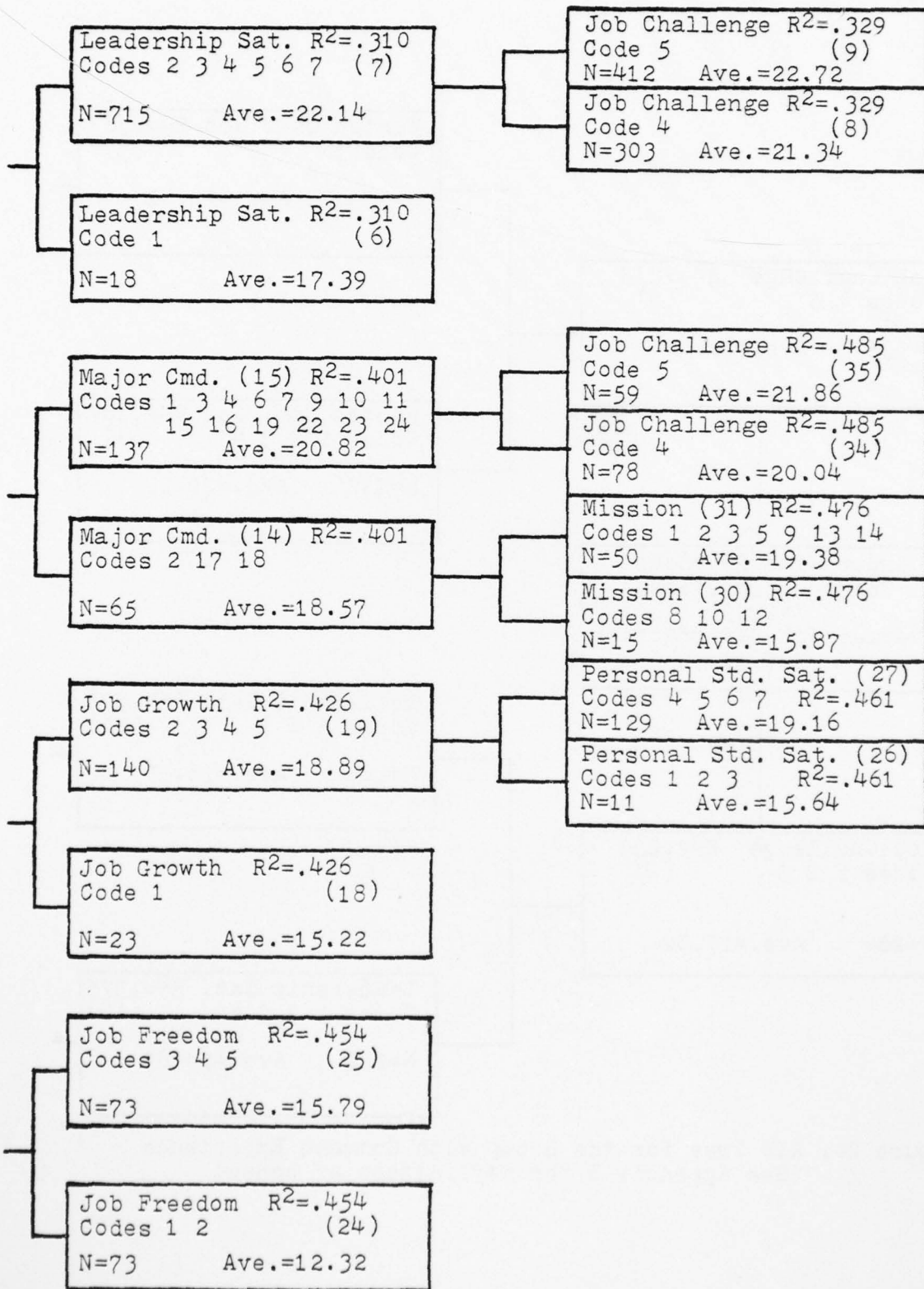


Figure 24. (Continued)

on job freedom. For the experienced group further splits not shown in Figure 24 included a split of group (9) on wanting more responsibility with further splits on PERSONAL STANDING satisfaction, mission, and time in command, a split of group (8) on LEADERSHIP satisfaction with the resulting groups both split on mission, and a split of group (27) on time in command.

For the experienced group job challenge, wanting the commander's job, and LEADERSHIP satisfaction are most important while job freedom, PERSONAL STANDING satisfaction, and job growth are of secondary importance. For the non-experienced group job challenge, PERSONAL STANDING satisfaction, and wanting more responsibility are most important. Of secondary importance to this group is wanting the commander's job and LEADERSHIP satisfaction.

Regression. Tables IX and X show the Regression results for the non-experienced and experienced groups. For the non-experienced group Regression indicates that the job challenge and PERSONAL STANDING satisfaction variables are most important. The experienced results show job challenge and LEADERSHIP satisfaction to be most important. The job growth and job freedom variables evident in the experienced model would not enter until the seventh and tenth steps of the non-experienced run. The PERSONAL STANDING variable would enter next in the experienced model. Again the regression results tend to confirm the AID results.

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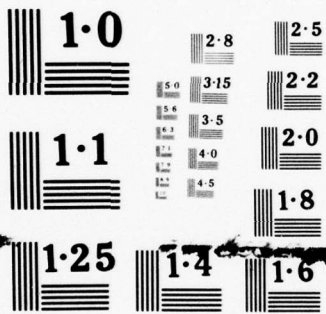
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NATIONAL BUREAU OF STANDARDS
MICROCOPY RESOLUTION TEST CHART

Table IX

Job Satisfaction Regression
(Group With No Command Experience)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.460	.307	.307
PERSONAL STANDING SAT (X ₂)	.255	.394	.087
Want More Responsibility (X ₃)	.181	.440	.046
Wanted Commander's Job (X ₄)	.149	.460	.020

Correlation Matrix

	X ₁	X ₂	X ₃	X ₄	Y
X ₁	1.000	.250	.013	.183	.554
X ₂		1.000	.155	.177	.425
X ₃			1.000	.261	.265
X ₄				1.000	.326

$$\begin{aligned}
 \text{Job Satisfaction (Y)} &= 1.889 + 1.883 \text{ (Job Challenge)} \\
 &+ .790 \text{ (PERSONAL STANDING SAT)} \\
 &+ .750 \text{ (Want More Responsibility)} \\
 &+ .696 \text{ (Want Commander's Job)}
 \end{aligned}$$

Table X

Job Satisfaction Regression
(Group With Command Experience)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.382	.317	.317
LEADERSHIP SAT (X ₂)	.202	.396	.079
Wanted Commander's Job (X ₃)	.166	.431	.035
Job Growth (X ₄)	.169	.453	.022
Job Freedom (X ₅)	.153	.472	.019

Correlation Matrix

	X ₁	X ₂	X ₃	X ₄	X ₅	Y
X ₁	1.000	.208	.223	.489	.129	.563
X ₂		1.000	.100	.186	.405	.391
X ₃			1.000	.226	.085	.322
X ₄				1.000	.123	.450
X ₅					1.000	.319

$$\begin{aligned}
 \text{Job Satisfaction (Y)} &= 4.095 + 1.484 (\text{Job Challenge}) \\
 &+ .480 (\text{LEADERSHIP SAT}) \\
 &+ .710 (\text{Wanted Commander's Job}) \\
 &+ .549 (\text{Job Growth}) \\
 &+ .602 (\text{Job Freedom})
 \end{aligned}$$

Summary

In the preceding paragraphs the validity of the Job Satisfaction Measure was addressed and the job satisfaction scores of the commander's population were analyzed. Principal Component Analysis, the AID algorithm, and Regression were used as the primary relationship explaining techniques. Graphic analysis was performed on seven selected demographic variables. The commanders were analyzed as a single group and as separate groups when broken down by aeronautical rating, service in the conus or overseas, less than ten years service or over ten years service, and command experience. The factors found best able to explain the variation in job satisfaction were job challenge, PERSONAL STANDING satisfaction, LEADERSHIP satisfaction, and the degree to which the individual wants more responsibility or wanted the commander's job. Also important to job satisfaction are job freedom, the perception of being prepared for future responsibility, and recognition. With a few exceptions the demographic variables were of little value in explaining the variation in job satisfaction.

V. Conclusions and Recommendations

The purpose of this chapter is to draw some conclusions from the analysis results presented in the previous chapter. It is hoped the information presented here will be helpful or at least interesting to those involved with personnel assignments and retention. In the final paragraph of the chapter a recommendation for possible future research is given.

Job Satisfaction

If one reviews the analysis results for the total commander population sample and the eight subgroups analyzed, four factors appear consistently as best able to explain the variation in job satisfaction. These four factors are job challenge, degree of satisfaction with PERSONAL STANDING, satisfaction with LEADERSHIP and SUPERVISION, and a desire for the commander's job.

Job Challenge. The perception of job challenge is by far the most important variable, of those addressed by the Commander's Survey, in determining job satisfaction. In general, the commanders perceive their jobs to be more challenging than the Air Force wide sample analyzed by Thompson. For the commanders, approximately 18% responded in one of the lowest three levels of job challenge while

Thompson found nearly 58% responding in the three lowest levels of job challenge (Thompson, 1975: 190).

In reviewing the analysis results, the groups with the largest proportion of individuals responding in the three lowest job challenge categories, included the non-rated group, those with less than ten years service, and those with command experience. Any corrective action efforts aimed at increasing job challenge should focus on the jobs held by these groups with particular emphasis on those held by individuals with less than ten years service.

PERSONAL STANDING. Satisfaction with PERSONAL STANDING was also of considerable value in explaining the variation in job satisfaction. Since the definition of this factor includes being treated with respect, prestige, dignity, reputation, and status, it is a measure of satisfactions enjoyed both on and off the job. To a certain extent such things as prestige, status, and reputation are enjoyed as a result of holding the commander's job. The degree of satisfaction with these, however, is the difference between what the individual enjoys and what he desires.

The commanders appear to be quite satisfied with their PERSONAL STANDING as 62% of them responded in the two highest categories of satisfaction. For the Air Force wide sample analyzed by Thompson, only 32% responded in these categories (Thompson, 1975: 208).

LEADERSHIP/SUPERVISION. A third factor found important in explaining the variation in job satisfaction is satisfaction with the leadership and supervision the individual receives on the job. Related to LEADERSHIP/SUPERVISION are job freedom, recognition, authority, and to a certain extent job challenge. These factors are controlled or at least partially controlled by the immediate supervisor.

The commanders appear quite satisfied with LEADERSHIP/SUPERVISION as 55% of the responses were in the top two satisfaction categories. Sixty-four percent of the commanders feel that the quality of leadership is at least above average. Seventy percent of the commanders reported that they have the freedom to do their job well "often" or "always". Seventy-seven percent of them "agreed" or "strongly agreed" that they had sufficient authority to carry out their responsibilities. One area of possible concern is recognition, only 39% responded that they "frequently" or "always" were given recognition by their supervisor for a job well done.

Wanting the Job. The fourth variable found to be of value in explaining the variation in job satisfaction was the degree to which the individual desired the commander's job. The author questions whether this is a determinate of job satisfaction. Some individuals may indicate that they did not want the job as a result of being dissatisfied with the job. The extent to which this is the case is unknown. In any event, taking

the data at face value, the conclusion to be drawn is that those who indicated that they wanted the commander's job tend to be more satisfied with their job.

Other Factors. Other factors which were of some value in determining job satisfaction were the desire for more responsibility and the perception of being prepared for future responsibility. The desire for more responsibility is possibly linked to job satisfaction by the fact that the individual holds the commander's job. He may feel that the commander's job he is now holding is a step towards some future responsibility he desires. This is closely tied to the perception of being prepared for future responsibility. The inconsistent appearance in the various analysis of the desire for the commander's job, the desire for more responsibility, and the perception of being prepared for future responsibility perhaps indicates that a degree of interaction exists among these variables or among them and other variables.

Job freedom, recognition, and authority also appear throughout the analysis results. Although these were mentioned as, in part being determined by one's supervisor, they are significant determinates of job satisfaction and are, in a sense, metered by the supervisor. Although these factors were not of great value in explaining the variation in job satisfaction for the commanders, the author believes that they are relatively important as determinates of job satisfaction.

With few exceptions the demographic variables addressed in the Commander's Survey were of little value in explaining variation in job satisfaction. While some trends were noted with years service, grade, sex, and others, the variations due to these variables were much smaller than the variation due to differing perceptions of job challenge.

Factors dealing with pay, economic security, equality, health care, and free time were of little value in predicting job satisfaction. The commanders apparently do not consider pay a significant factor in determining job satisfaction. Approximately 80% of the respondents felt their pay raises were not keeping up with increases in the cost of living, while 71% felt their pay and benefits combined were less than civilian rewards for similar work. Over 70% of the respondents expressed satisfaction with economic security, equality, and health care, while only about 50% expressed satisfaction with free time.

Recommendation for Future Research

This author recommends that studies be performed in an attempt to better characterize the Quality of Air Force Indicators. The WORK QOAFLI, for example, is defined to include job satisfaction along with several other factors. The coefficient of correlation between the WORK QOAFLI Satisfaction Score and the Hoppock Job Satisfaction Score appears to be in

the neighborhood of .70 (for the 1975 AFMIG Survey and the Commander's Survey). This correlation gives some insight into the relationship but additional information is needed. Further studies of job satisfaction, using data bases which include the QOAFLI's, would perhaps be more meaningful if the QOAFLI's were better understood.

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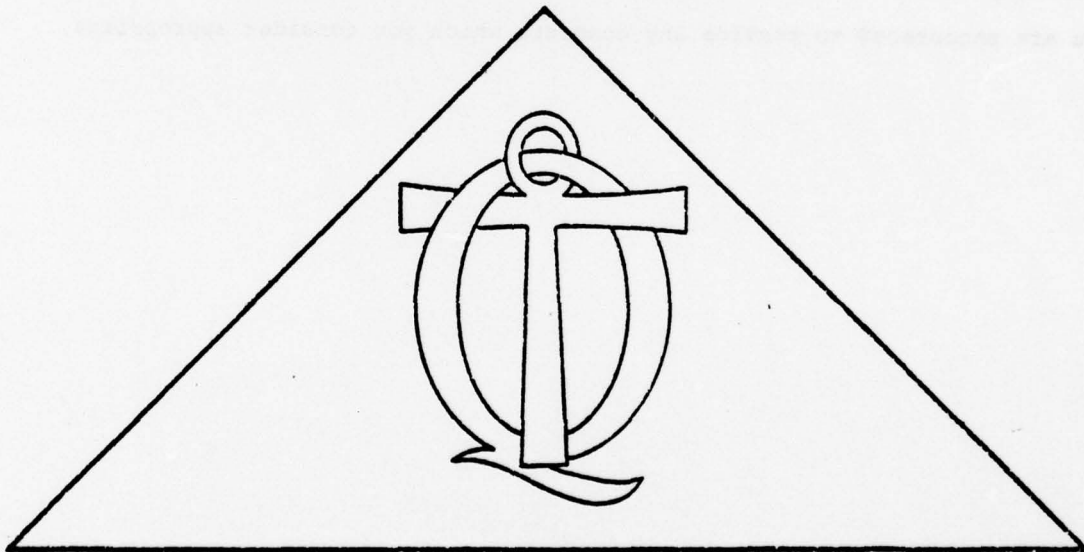
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APPENDIX A

United States Air Force
Quality of Air Force Life
Commanders Survey

UNITED STATES AIR FORCE
QUALITY OF AIR FORCE LIFE
COMMANDERS SURVEY



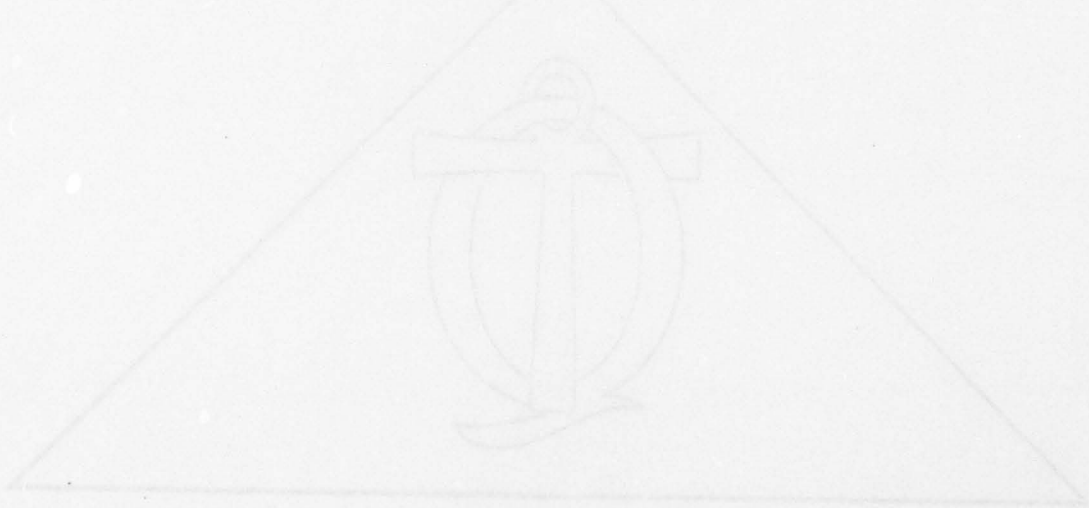
USAF SCN7 T-11
DECEMBER 1976

LEADERSHIP/MOTIVATION DIVISION
HUMAN RESOURCES DEVELOPMENT
DIRECTORATE OF PERSONNEL PLANS
HQ UNITED STATES AIR FORCE

UNITED STATES AIR FORCE

FOREWORD

As an Air Force commander, you are in a unique position to observe the personal and organizational functioning of the Air Force. It is hoped that you will take the opportunity to complete this survey and, thereby, provide the Air Staff with the benefit of your experience. Your responses are anonymous. They will be combined with those of all other Air Force commanders to formulate an attitude and opinion data base not otherwise available, upon which to base future personnel plans and policies. Although the survey uses a special answer sheet for machine processing, a comments page is included at the end of the survey. You are encouraged to provide any comments which you consider appropriate.



LEADERSHIP INFORMATION DIVISION
HUMAN RESOURCES DEVELOPMENT
DIRECTORATE OF PERSONNEL PLANS
UNITED STATES AIR FORCE

USAF FORM 1-71
DECEMBER 1970

INSTRUCTIONS FOR COMPLETING SURVEY

Please do not fold, staple, or otherwise damage the answer sheet.

Select only one answer to each question.

Mark your answers on the answer sheet. It is not necessary to write on the survey itself. Please use a No. 2 pencil.

Be sure to mark your answers carefully so that you enter them opposite the same answer sheet number as survey question number.

Be sure that your answer marks are heavy and that you blacken the oval-shaped space. Erase all changes completely and carefully so as not to tear the answer sheet.

	A	B	C	D
Right Way	o	•	o	o
to Mark	o	o	o	•
Answer Sheet	A	B	C	D
	o	•	o	o
Wrong Way	o	o	o	o
to Mark	o	•	o	o
Answer Sheet	o	o	•	o

Since this survey is strictly anonymous, please do not write your name or your SSAN on either your answer sheet or survey booklet.

PRIVACY ACT STATEMENT

In accordance with paragraph 30, AFR 12-35, Air Force Privacy Act Program, the following information about this survey is provided as required by the Privacy Act of 1974:

a. Authority. This survey information is authorized for solicitation by Federal Statute Title 10, United States Code, Section 8012, Executive Order 9397, 22 Nov 1943, DoDI 1100.13, 17 Apr 1968, and AFR 30-23, 22 Sep 1976.

b. Principle Purpose. This survey is being conducted to gain the attitudes and opinions of Air Force commanders on a variety of subjects of interest to HQ USAF.

c. Routine Use. The survey data will be converted to statistical information for use by decision makers in development of future personnel plans and policies.

d. Participation in this survey is entirely voluntary.

e. No adverse action of any kind may be taken against any individual who elects not to participate in any or all of this survey.

1. What is your major command of assignment?

- | | |
|--|---|
| A. Alaskan Air Command | M. Air Force Data Automation Agency |
| B. U.S. Air Force Academy | N. Headquarters Command |
| C. Aerospace Defense Command | O. Military Airlift Command |
| D. U.S. Air Forces in Europe | P. Pacific Air Forces |
| E. Air Force Accounting and Finance Center | Q. Strategic Air Command |
| F. Air Force Logistics Command | R. Tactical Air Command |
| G. Air Force Systems Command | S. USAF Security Service |
| H. Air Reserve Personnel Center | T. Air Force Military Personnel Center |
| I. Air Training Command | U. Air Force Inspection and Safety Center |
| J. Air University | V. Air Force Audit Agency |
| K. Headquarters Air Force Reserve | W. Air Force Office of Special Investigations |
| L. Headquarters USAF | X. Other |

2. What is your present active duty grade?

- A. Colonel
- B. Lieutenant Colonel
- C. Major
- D. Captain
- E. First Lieutenant
- F. Second Lieutenant

3. What is your sex?

- A. Female
- B. Male

4. How much total active federal military service have you completed?

- | | |
|------------------------------|------------------------------|
| A. Less than 10 years | L. 20 years but less than 21 |
| B. 10 years but less than 11 | M. 21 years but less than 22 |
| C. 11 years but less than 12 | N. 22 years but less than 23 |
| D. 12 years but less than 13 | O. 23 years but less than 24 |
| E. 13 years but less than 14 | P. 24 years but less than 25 |
| F. 14 years but less than 15 | Q. 25 years but less than 26 |
| G. 15 years but less than 16 | R. 26 years but less than 27 |
| H. 16 years but less than 17 | S. 27 years but less than 28 |
| I. 17 years but less than 18 | T. 28 years but less than 29 |
| J. 18 years but less than 19 | U. 29 years but less than 30 |
| K. 19 years but less than 20 | V. 30 years or more |

5. How old were you on your last birthday?

- | | |
|-----------------------|------------------|
| A. Less than 25 years | J. 41 - 42 |
| B. 25 - 26 | K. 43 - 44 |
| C. 27 - 28 | L. 45 - 46 |
| D. 29 - 30 | M. 47 - 48 |
| E. 31 - 32 | N. 49 - 50 |
| F. 33 - 34 | O. 51 - 52 |
| G. 35 - 36 | P. 53 - 54 |
| H. 37 - 38 | Q. 55 - 56 |
| I. 39 - 40 | R. Over 56 years |

6. What is your current primary aeronautical rating?

- A. Pilot
- B. Navigator
- C. Flight Surgeon
- D. Other type of aeronautical rating
- E. Nonrated

7. What type of organization do you command?

- | | |
|------------------|--------------------|
| A. Wing | J. School |
| B. Base | K. Center |
| C. Station | L. Service |
| D. Squadron | M. Region |
| E. Hq Sq Section | N. Area |
| F. Detachment | O. Academy |
| G. Group | P. Band |
| H. Laboratory | Q. Other |
| I. Depot | |

8. What is the mission of your organization?

- | | |
|-----------------------|--------------------|
| A. Flying Operation | H. Security Police |
| B. Maintenance | I. Civil Engineers |
| C. Supply | J. Services |
| D. Communications | K. Research |
| E. Training/Education | L. Medical |
| F. Transportation | M. Air Base Group |
| G. Weather | N. Other |

9. How long have you been Commander of your present organization?

- A. Less than 6 months
- B. 6 - 12 months
- C. 13 - 18 months
- D. 19 - 24 months
- E. 25 - 30 months
- F. 31 - 36 months
- G. 37 - 42 months
- H. 43 - 48 months
- I. Over 48 months

10. How many military and civilian personnel are assigned to your organization?

- A. Less than 100
- B. 100 - 199
- C. 200 - 299
- D. 300 - 399
- E. 400 - 499
- F. 500 - 749
- G. 750 - 1000
- H. Over 1000

11. Have you previously held a command position prior to your current assignment?

- A. No
- B. Yes, an operational commander
- C. Yes, a support area
- D. Yes, in both operations and support area
- E. Other

12. The location of my base is

- A. CONUS
- B. Overseas

13. Which one of the following do you consider yourself?
- A. Black American
 - B. Spanish or Mexican American
 - C. American Indian
 - D. Oriental American
 - E. White American (other than Spanish or Mexican American)
 - F. Other
14. Has your present organization experienced a manning reduction since you took command?
- A. No
 - B. Yes, and it has caused significant problems in getting my job done
 - C. Yes, but it has caused few problems in getting my job done
 - D. Yes, and it has had a positive impact on getting my job done
15. Have you experienced an increase in administrative procedures and reports required of the commander since you took command of your present organization?
- A. No, they have been decreasing
 - B. No, they are about the same as before
 - C. Yes, and it has caused significant problems in getting my job done
 - D. Yes, but it has caused few problems in getting my job done
 - E. Yes, and it has had a positive impact on getting my job done
16. What percent of your duty time is spent on commander's duties as compared to staff functional duties?
- | | |
|---------|-----------------|
| A. 100% | G. 40% |
| B. 90% | H. 30% |
| C. 80% | I. 20% |
| D. 70% | J. 10% |
| E. 60% | K. 5% |
| F. 50% | L. Less than 5% |
17. Formal commander's training courses of instruction should be prerequisites for assignment as a commander.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
18. The Headquarters Squadron Section commander has sufficient authority to carry out his/her responsibilities.
- A. Strongly agree
 - B. Agree
 - C. No opinion
 - D. Disagree
 - E. Strongly disagree
19. Under current procedures, the Headquarters Squadron Section is responsive to the needs of the individuals in the organization.
- A. Strongly agree
 - B. Agree
 - C. No opinion
 - D. Disagree
 - E. Strongly disagree

20. What do you believe is the maximum effective/manageable size of a squadron?
- A. Less than 250
 - B. 251 - 350
 - C. 351 - 450
 - D. 451 - 550
 - E. More than 550
21. Do you have a full-time Senior Enlisted Advisor on your staff?
- A. No, I don't need one
 - B. No, but I need one
 - C. Yes, but I don't need one
 - D. Yes, and I need one
22. Recent changes in Air Force Personnel programs have been aimed at enhancing NCO prestige. Do you believe these efforts will be successful?
- A. Definitely yes
 - B. Probably yes
 - C. Undecided
 - D. Probably no
 - E. Definitely no
23. Commissioned officer prestige has declined over the past several years.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
24. How does the quality of the Airmen entering the Air Force today compare with that of the Airmen who entered in previous years?
- A. Decreased
 - B. Remained about the same
 - C. Increased
 - D. Don't know
25. Are you satisfied with the Weighted Airman Promotion Program (WAPS) which promotes airmen to grades E-5, E-6, and E-7?
- A. Very satisfied
 - B. Somewhat satisfied
 - C. Undecided
 - D. Somewhat dissatisfied
 - E. Very dissatisfied
26. Do current Air Force promotion policies provide the latitude you need in carrying out your responsibility for quality control in the airman promotion programs?
- A. All of them do
 - B. Most of them do
 - C. Some of them do
 - D. Few of them do
 - E. None of them do

27. How do you rate the system which allows airmen to compete for early promotion to E-4?

- A. Very favorably
- B. Favorably
- C. Undecided
- D. Unfavorably
- E. Very unfavorably
- F. Never heard of it.

One of the aspects of our lives is the Leadership/Supervision we receive on the job. Please rate the degree of importance of this factor to you and your degree of satisfaction with it based on the following description:

LEADERSHIP/SUPERVISION: My supervisor has my interests and that of the Air Force at heart; keeps me informed; approachable and helpful rather than critical; good knowledge of the job.

28. What degree of importance do you attach to the above? (Select one of the seven points)

A.....B.....C.....D.....E.....F.....G
Low High
Importance Medium Importance
Importance

29. To what degree are you satisfied with the LEADERSHIP/SUPERVISION aspects of your life? (Select one of the seven points)

A.....B.....C.....D.....E.....F.....G
Highly Highly
Dissatisfied Neutral Satisfied

30. What is your opinion of the quality of leadership in the Air Force?

- A. Excellent
- B. Above average
- C. Average
- D. Below average
- E. Poor

31. What is your opinion of the leadership ability of your immediate supervisor?

- A. Excellent
- B. Above average
- C. Average
- D. Below average
- E. Poor

32. How often do you and your supervisor get together to set your personal performance objectives?

- A. Never
- B. Seldom
- C. Sometimes
- D. Frequently
- E. Very frequently

33. How often are you given feedback from your supervisor about your job performance?
- A. Never
 - B. Seldom
 - C. Sometimes
 - D. Frequently
 - E. Very frequently
34. The Air Force does a good job of keeping me informed about what is going on.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
35. Commander's Call is an effective way for a commander to communicate with his people.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
36. The requirement to hold Commander's Call should be changed from mandatory to optional.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
37. Attendance at Commander's Call should be optional.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
38. How often should Commander's Calls be conducted?
- A. Monthly
 - B. Every other month
 - C. Quarterly
 - D. As determined by each commander
39. Which one of the following do you consider to be the most effective means of receiving feedback from military personnel assigned to your organization?
- A. Base newspaper action line columns
 - B. Base councils
 - C. IG complaint system
 - D. Personal contacts with military members other than my staff
 - E. My staff

40. Do you get enough feedback from the military people in your organization?
- A. No, not as much as I would like
Yes, and it is of:
 B. No use
 C. Little use
 D. Some use
 E. General use
 F. Great use
41. You might use a variety of media to communicate an important policy to military personnel at your base. In which of the following do you have the greatest confidence?
- A. Regular administrative channels
 B. Commander's Call
 C. Bulletin board announcements
 D. Base newspaper
 E. Oral communication at staff meetings
42. In which one of the following do you have the least confidence?
- A. Regular administrative channels
 B. Commander's Call
 C. Bulletin board announcements
 D. Base newspaper
 E. Oral communication at staff meetings
43. What is your opinion of discipline in today's Air Force?
- A. Too strict
 B. Somewhat strict
 C. About right
 D. Somewhat lax
 E. Too lax
 F. No opinion
44. New airmen arriving in my organization from Basic Military Training or technical training are motivated to comply with the requirements of Air Force discipline and standards.
- A. Strongly disagree
 B. Disagree
 C. Undecided
 D. Agree
 E. Strongly agree

Please rate the contribution of each of the following councils/committees to your organization.

	<u>Of Great Value</u>	<u>Of Considerable Value</u>	<u>Of Moderate Value</u>	<u>Of Little Value</u>	<u>Of No Value</u>
45. Enlisted Advisory Council	A	B	C	D	E
46. Human Relations Council	A	B	C	D	E
47. Junior Officer Council	A	B	C	D	E
48. Drug and Alcohol Abuse Control Committee	A	B	C	D	E
49. Nonappropriated Fund Council	A	B	C	D	E
50. Nonappropriated Fund Advisory Committees	A	B	C	D	E
51. Equal Employment Opportunity Advisory Committee	A	B	C	D	E

52. What percent of your personal time is involved in preparation and attendance at these councils, etc.?
- A. None
 - B. Less than 5%
 - C. 5% - 10%
 - D. 11% - 15%
 - E. 16% - 20%
 - F. More than 20%
53. Some of the above councils are used as a means of dealing with problems without going through command channels.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
54. I feel that if the above councils were used to solve problems without going through command channels, it would weaken the Air Force chain of command.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
55. In your opinion, do councils such as JOC, EAC, HRC, etc., affect your ability to do your job?
- A. Strongly enhance
 - B. Enhance
 - C. Neutral
 - D. Detract
 - E. Strongly detract

Please rate the degree of importance of the concept of personal standing to you and your degree of satisfaction with it based on the following description:

PERSONAL STANDING: To be treated with respect; prestige; dignity; reputation; status.

56. What degree of importance do you attach to the above?

A.....	B.....	C.....	D.....	E.....	F.....	G
Low						High
Importance		Medium				Importance
		Importance				

57. To what degree are you satisfied with the PERSONAL STANDING aspects of your life?

A.....	B.....	C.....	D.....	E.....	F.....	G
Highly						Highly
Dissatisfied		Neutral				Satisfied

Listed below are 23 factors or policies which affect Air Force personnel. Using the scale listed immediately below, please rate each of the areas. Mark only one response for each item.

- A. Standard too strict, enforcement too strict
- B. Standard too strict, enforcement about right
- C. Standard too strict, enforcement too lax

- D. Standard about right, enforcement too strict
- E. Standard about right, enforcement about right
- F. Standard about right, enforcement too lax

- G. Standard too lax, enforcement too strict
- H. Standard too lax, enforcement about right
- I. Standard too lax, enforcement too lax

- 58. Overall personal appearance.
- 59. Wear of the uniform.
- 60. Haircuts.
- 61. Mustaches.
- 62. Beard policy.
- 63. Military courtesy and customs.
- 64. Personnel weight control program.
- 65. What my immediate supervisor expects of me.
- 66. My commander's policies and procedures.
- 67. Officer/enlisted on-the-job relationships.
- 68. Drills and ceremonies.
- 69. Respect for supervisors.
- 70. Safety procedures.
- 71. Working hours.
- 72. Leave procedures.
- 73. Living in on-base family housing.
- 74. Living in on-base dormitories.
- 75. Quality of work expected on the job.
- 76. Quantity of work expected on the job.
- 77. Officer supervisor/subordinate relationships.
- 78. Enlisted supervisor/subordinate relationships.
- 79. Unit mission accomplishment.
- 80. Air Force life in general.

Please rate the degree of importance of your work to you and your degree of satisfaction with it based on the following description:

WORK: Doing work that is personally meaningful and important; pride in my work; job satisfaction; recognition for my efforts and my accomplishments on the job:

81. What degree of importance do you attach to the above? (Select one of the seven points)

A.....B.....C.....D.....E.....F.....G
Low High
Importance Medium High
Importance Importance

82. To what degree are you satisfied with the WORK aspects of your life? (Select one of the seven points)

A.....B.....C.....D.....E.....F.....G
Highly Highly
Dissatisfied Neutral Satisfied

83. Past assignments have prepared me for my current duties.

- A. Strongly disagree
- B. Disagree
- C. Undecided
- D. Agree
- E. Strongly agree

84. The Air Force requires me to participate in too many activities that are not related to my job.

- A. Strongly disagree
- B. Disagree
- C. Undecided
- D. Agree
- E. Strongly agree

85. Does your immediate supervisor give you recognition for a job well done?

- A. Never
- B. Seldom
- C. Sometimes
- D. Frequently
- E. Always

86. Are you given the freedom you need to do your job well?

- A. Never
- B. Seldom
- C. Sometimes
- D. Often
- E. Always

87. What is your estimate of the average number of hours per week you spend on the job?
- A. Less than 30 hours
 - B. 31 - 35
 - C. 36 - 40
 - D. 41 - 45
 - E. 46 - 50
 - F. 51 - 55
 - G. 56 - 60
 - H. More than 60
88. How do you evaluate your present Air Force job?
- A. Not at all challenging
 - B. Not very challenging
 - C. Somewhat challenging
 - D. Challenging
 - E. Very challenging
89. Which one of the following shows how much of the time you feel satisfied with your job?
- A. All the time
 - B. Most of the time
 - C. A good deal of the time
 - D. About half of the time
 - E. Occasionally
 - F. Seldom
 - G. Never
90. Choose the one of the following statements which best tells how well you like your job.
- A. I hate it
 - B. I dislike it
 - C. I don't like it
 - D. I am indifferent to it
 - E. I like it
 - F. I am enthusiastic about it
 - G. I love it
91. Which one of the following shows how you think you compare with other people?
- A. No one likes his job better than I like mine
 - B. I like my job much better than most people like theirs
 - C. I like my job better than most people like theirs
 - D. I like my job about as well as most people like theirs
 - E. I dislike my job more than most people dislike theirs
 - F. I dislike my job much more than most people dislike theirs
 - G. No one dislikes his job more than I dislike mine.
92. Which one of the following best tells how you feel about changing your job?
- A. I would quit this job at once if I could
 - B. I would take another job in which I could earn as much as I do now
 - C. I would like to change both my job and my occupation
 - D. I would like to exchange my present job for another one
 - E. I am not eager to change my job, but would for a better one
 - F. I cannot think of any jobs for which I would exchange
 - G. I would not exchange my job for another

93. I have sufficient authority to carry out my responsibilities.

- A. Strongly disagree
- B. Disagree
- C. Undecided
- D. Agree
- E. Strongly agree

94. For your next assignment, do you want a job which has greater responsibility than your current job?

- A. Definitely no
- B. Probably no
- C. Not sure
- D. Probably yes
- E. Definitely yes

Listed below are a number of factors which have been associated with favorable attitudes toward an Air Force career.

FAVORABLE FACTORS

- A. Opportunity for training and education in the Air Force
- B. My Air Force job (challenging, provides sense of accomplishment, etc.)
- C. Pay and allowances
- D. Housing
- E. Promotion system and opportunity
- F. Fringe benefits (medical and dental care, BX, commissary, etc.)
- G. Leadership and supervision in the Air Force
- H. Travel and new experiences
- I. Have "say" in future assignments
- J. Security of Air Force life
- K. Air Force policies and procedures
- L. The retirement system
- M. Opportunity to serve my country
- N. Some other factor
- O. I do not intend to make the Air Force a career

95. Select the one factor which originally influenced you the most to make the Air Force a career.

96. Select the one factor which TODAY would influence you the most to make the Air Force a career.

Listed below are a number of factors which have been associated with unfavorable attitudes toward an Air Force career.

UNFAVORABLE FACTORS

- A. Family separation
- B. My Air Force job (little challenge, little sense of accomplishment, etc.)
- C. Pay and allowances
- D. Housing
- E. Promotion selection system
- F. Promotion opportunity
- G. Fringe benefits (medical and dental care, BX, commissary, etc.)
- H. Leadership and supervision in the Air Force
- I. Frequent PCS moves
- J. Little "say" in future assignments
- K. Insecurity of Air Force life
- L. The people
- M. Air Force policies and procedures
- N. Some other factor
- O. Nothing unfavorable

97. Select the one factor which TODAY would influence you the most NOT to make the Air Force a career.

The following four questions address the subjects of economic standards and security. Please rate the degree of importance of these concepts to you and your degree of satisfaction with them based on the descriptions shown below:

ECONOMIC STANDARD: Satisfaction of basic human needs such as food, shelter, clothing; the ability to maintain an acceptable standard of living.

98. What degree of importance do you attach to the above?

A.....B.....C.....D.....E.....F.....G
Low High
Importance Medium Importance

99. To what degree are you satisfied with the ECONOMIC STANDARD aspects of your life?

A.....B.....C.....D.....E.....F.....G
Highly Highly
Dissatisfied Neutral Satisfied

ECONOMIC SECURITY: Guaranteed employment; retirement benefits; insurance; protection for self and family.

100. What degree of importance do you attach to the above?

A.....B.....C.....D.....E.....F.....G
Low High
Importance Medium Importance

101. To what degree are you satisfied with the ECONOMIC SECURITY aspects of your life?

A.....B.....C.....D.....E.....F.....G
Highly Highly
Dissatisfied Neutral Satisfied

102. The Air Force is providing enough information to its members to permit them to determine the current status of actions which may impact on their fringe benefits (Commissary, retirement, medical care, etc.):

- A. Strongly disagree
- B. Disagree
- C. Undecided
- D. Agree
- E. Strongly Agree

103. Military pay raises over the past five years have adequately offset increases in the cost of living.

- A. Strongly disagree
- B. Disagree
- C. Undecided
- D. Agree
- E. Strongly agree

104. How do you think your military pay (including all allowances and fringe benefits) compares with pay in civilian employment for similar work?

- A. Military pay is far higher than civilian
- B. Military pay is somewhat higher than civilian
- C. Both about equal
- D. Military pay is somewhat less than civilian
- E. Military pay is far less than civilian
- F. There is no valid comparison between military and civilian pay

Please rate the degree of importance of free time to you and your degree of satisfaction with it based on the following description:

FREE TIME: Amount, use, and scheduling of free time alone, or in voluntary associations with others; variety of activities engaged in.

105. What degree of importance do you attach to the above?

- | | | | | | | |
|------------|--------|--------|------------|--------|--------|------------|
| A..... | B..... | C..... | D..... | E..... | F..... | G |
| Low | | | Medium | | | High |
| Importance | | | Importance | | | Importance |

106. To what degree are you satisfied with the FREE TIME aspects of your life?

- | | | | | | | |
|--------------|--------|--------|---------|--------|--------|-----------|
| A..... | B..... | C..... | D..... | E..... | F..... | G |
| Highly | | | Neutral | | | Highly |
| Dissatisfied | | | | | | Satisfied |

Please rate the degree of importance of personal growth to you and your degree of satisfaction with it based on the following description:

PERSONAL GROWTH: To be able to develop individual capacities, education/training; making full use of my abilities; the chance to further my potential.

107. What degree of importance do you attach to the above?

- | | | | | | | |
|------------|--------|--------|------------|--------|--------|------------|
| A..... | B..... | C..... | D..... | E..... | F..... | G |
| Low | | | Medium | | | High |
| Importance | | | Importance | | | Importance |

108. To what degree are you satisfied with the PERSONAL GROWTH aspects of your life?

A.....B.....C.....D.....E.....F.....G
Highly Dissatisfied Neutral Highly Satisfied

109. I wanted the job of Commander.

- A. Strongly disagree
- B. Disagree
- C. Undecided
- D. Agree
- E. Strongly agree

110. To what extent is dealing with people a part of your job?

- A. Very little
- B. Little
- C. Some moderate amount
- D. Much
- E. Very much

111. Do you feel that the work you are now doing is appropriate to the grade you hold?

- A. My grade is much too high for the work I am doing.
- B. My grade is somewhat too high for the work I am doing.
- C. My grade is about right for the work I am doing.
- D. My grade is somewhat too low for the work I am doing.
- E. My grade is much too low for the work I am doing.

112. Do you think your present job is preparing you to assume future positions of greater responsibility?

- A. Definitely no
- B. Probably no
- C. Undecided
- D. Probably yes
- E. Definitely yes

113. The position of First Sergeant serves a necessary function in the Air Force.

- A. Strongly agree
- B. Agree
- C. Undecided
- D. Disagree
- E. Strongly disagree

114. What do you consider the most important function of the First Sergeant?

- A. Dormitory Manager
- B. Enlisted/Dependent Counselor
- C. Commander's Assistant
- D. Interorganization Communications/Liaison
- E. Administrative Manager
- F. Other

115. Do First Sergeants on your installation attend a monthly meeting to exchange ideas and update one another on Air Force and local policies and/or local problems?
- A. All of them do
 - B. Most of them do
 - C. Some of them do
 - D. Few of them do
 - E. None of them do
116. Most of the Senior NCOs (E-7 through E-9) understand and are able to communicate with the people who work with them.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
117. Do you like the changes introduced by the Tri-deputate Reorganization Program?
- A. Definitely yes
 - B. Probably yes
 - C. Undecided
 - D. Probably no
 - E. Definitely no
 - F. Never heard of it
118. Do you like the changes introduced by the new E-4 Appointment to NCO Status Program (AFR 39-13, Senior Airman/NCO)?
- A. Definitely yes
 - B. Probably yes
 - C. Undecided
 - D. Probably no
 - E. Definitely no
 - F. Never heard of it
119. Do you feel that the new Phase I NCO PME (NCO Orientation Course) is meeting its objective of preparing E-4/Senior Airmen to assume the roles and responsibilities of NCOs?
- A. Definitely yes
 - B. Probably yes
 - C. No opinion/don't know
 - D. Probably no
 - E. Definitely no
120. Do you feel that the new Phase II NCO PME (USAF Supervisor's Course) is meeting its objective of preparing E-4/NCOs, E-5s, and civilian employees to assume their first supervisory positions?
- A. Definitely yes
 - B. Probably yes
 - C. No opinion/don't know
 - D. Probably no
 - E. Definitely no

121. Do you like the changes introduced by the new Enlisted Force Organization ("Three-tier," AFR 39-6)?

- A. Definitely yes
- B. Probably yes
- C. Undecided
- D. Probably no
- E. Definitely no
- F. Never heard of it

122. Do you like the changes introduced by the new Individualized Newcomers Treatment Orientation (INTRO) Program?

- A. Definitely yes
- B. Probably yes
- C. Undecided
- D. Probably no
- E. Definitely no
- F. Never heard of it

123. Have you been provided sufficient information and instructions to properly perform your duties under the Selective Reenlistment Program?

- A. No

Yes, and I got most of my information from:

- B. AFR 35-16
- C. The Career Advisory News
- D. The Base Career Advisor
- E. My Unit Career Advisor
- F. The CBPO

124. Do you believe that you as a commander have sufficient information available to you about each individual airman to make a good reenlistment selection decision?

- A. No

Yes, and I obtain most of my information from:

- B. The airman's supervisor
- C. The records in the CBPO
- D. The records in my unit
- E. The first sergeant
- F. Personal knowledge of the airmen

Please rate the degree of importance of the concept of equity to you and your degree of satisfaction with it based on the following description:

EQUITY: Equal opportunity in the Air Force; a fair chance at promotion; an even break in my job/assignment selections.

125. What degree of importance do you attach to the above?

A.....B.....C.....D.....E.....F.....G
Low Medium High
Importance Importance Importance

126. To what degree are you satisfied with the EQUITY aspects of your life?

A.....B.....C.....D.....E.....F.....G
Highly Highly
Dissatisfied Neutral Satisfied

127. Do you believe that racial discrimination is a problem on your base?
- A. No
 - B. Yes, a minor problem
 - C. Yes, a moderate problem
 - D. Yes, a big problem
128. Are race relations on your base improving, the same, or worse than last year?
- A. Greatly improving
 - B. Somewhat improving
 - C. The same
 - D. Somewhat worse
 - E. Much worse
129. Do you think it is likely that there will be a racial flare-up on your base in the near future?
- A. Yes, definitely
 - B. Yes, probably
 - C. I don't know
 - D. No, probably not
 - E. No, definitely not
130. Do you think your race is now a factor in your promotion opportunity?
- A. Very helpful
 - B. Somewhat helpful
 - C. Makes no difference
 - D. Somewhat harmful
 - E. Very harmful
 - F. No opinion/don't know
131. Do you think minority group personnel receive the same punishment for the same offense as other personnel in disciplinary action (Article 15 and court martial) under the Uniform Code of Military Justice?
- A. Minority groups receive much more severe punishment
 - B. Minority groups receive somewhat more severe punishment
 - C. No difference in punishment
 - D. Minority groups receive somewhat less severe punishment
 - E. Minority groups receive much less severe punishment
 - F. No opinion/don't know
132. Human Relations Education courses are effective in getting people to treat each other better.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree
133. Current Air Force training programs should help prepare people to get along with other people.
- A. Strongly disagree
 - B. Disagree
 - C. Undecided
 - D. Agree
 - E. Strongly agree

134. On the same jobs as Air Force men, do Air Force women tend to be absent from the job for all reasons more, less, or about the same?
- A. Much more
 - B. More
 - C. About the same
 - D. Less
 - E. Much less
135. On the same jobs as men, do Air Force women tend to do more, less, or about the same amount of work?
- A. Much more
 - B. More
 - C. About the same
 - D. Less
 - E. Much less
136. Who do you believe should address matters regarding racial/sex discrimination?
- A. Installation IG
 - B. Equal Opportunity Office
 - C. Unit Commander
 - D. Supervisor
 - E. Other
137. How would you rate your understanding of the Equal Opportunity Affirmative Actions Plan?
- A. Excellent
 - B. Good
 - C. Fair
 - D. Poor
 - E. Not aware of the Plan
138. To what extent are you personally involved in the development of the Equal Employment Opportunity (EEO) Plan of Action of your organization?
- A. Very little
 - B. Moderately
 - C. Considerably
 - D. Totally
 - E. We have no EEO Plan
139. How do you rate the effectiveness of the EEO complaints process?
- A. Excellent
 - B. Good
 - C. Fair
 - D. Poor
 - E. Not aware of the process
140. How would you rate your understanding of the EEO Plan of Action?
- A. Excellent
 - B. Good
 - C. Fair
 - D. Poor
 - E. Not aware of the Plan

141. I believe I am capable of handling discrimination complaints involving members of my organization.

- A. All of them
- B. Most of them
- C. Some of them
- D. Few of them
- E. None of them

Please rate the degree of importance of health to you and your degree of satisfaction with it based on the following description:

HEALTH: Physical and mental well-being of self and dependents; having illnesses and ailments detected, diagnosed, treated and cured; quality and quantity of health care services provided.

142. What degree of importance do you attach to the above?

A.....B.....C.....D.....E.....F.....G
Low Medium High
Importance Importance Importance

143. To what degree are you satisfied with the HEALTH aspects of your life?

A.....B.....C.....D.....E.....F.....G
Highly Neutral Highly
Dissatisfied Satisfied

144. From your viewpoint and experience, do you think drug abuse is a problem in the Air Force?

- A. It is not a problem
- B. It is a minor problem
- C. It is a serious problem
- D. It is a major problem

145. Do you think that drug abuse control education is helpful?

- A. I have never attended
- B. It is not effective
- C. It is effective for new personnel entering the Air Force
- D. ~~It is effective for all personnel~~
- E. It is effective for supervisors only

146. Is the drug abuse rehabilitation program effective for helping personnel with this problem return to productive service performance?

- A. Do not know about rehabilitation program
- B. Have no opinion about rehabilitation program
- C. Rehabilitation programs are not effective
- D. Rehabilitation programs are effective

147. From your viewpoint and experience, do you think alcohol abuse is a problem in the Air Force?

- A. It is not a problem
- B. It is a minor problem
- C. It is a serious problem
- D. It is a major problem

148. Do you think that alcohol abuse control education is helpful?

- A. I have never attended
- B. It is not effective
- C. It is effective for new personnel entering the Air Force
- D. It is effective for all personnel
- E. It is effective for supervisors only

149. Is the alcohol abuse rehabilitation program effective for helping personnel with this problem return to productive service performance?

- A. Do not know about rehabilitation program
- B. Have no opinion about rehabilitation program
- C. Rehabilitation programs are not effective
- D. Rehabilitation programs are effective

COMMENTS SHEET

COMMANDERS SURVEY

Please provide any comments which you feel would be of value to HQ USAF in our efforts to improve the quality of Air Force life. If you use this sheet, please detach it and return it with your answer sheet.

Grade: _____

Type of organization commanding _____

THANK YOU FOR COMPLETING THIS SURVEY

APPENDIX B

Summary of Responses to Selected
Questions from the Commander's Survey

The following is a summary of selected responses for the Commander's Survey. Titles in parenthesis are those used in the AID trees presented throughout Chapter IV. The code column given for some questions provides a key allowing one to define the codes shown in the AID trees.

Question

1. (Major Cmd)
What is your major command of assignment?

Code		%
1	A. Alaskan Air Command	1.8
2	B. U.S. Air Force Academy	.9
3	C. Aerospace Defense Command	3.9
4	D. U.S. Air Forces in Europe	9.3
5	E. Air Force Accounting and Finance Center	.8
6	F. Air Force Logistics Command	2.8
7	G. Air Force Systems Command	3.5
8	H. Air Reserve Personnel Center	.8
9	I. Air Training Command	12.8
10	J. Air University	5.1
11	K. Headquarters Air Force Reserve	.1
12	L. Headquarters USAF	.2
13	M. Air Force Data Automation Agency	.1
14	N. Headquarters Command	.2
15	O. Military Airlift Command	15.8
16	P. Pacific Air Forces	3.1
17	Q. Strategic Air Command	17.4

Question

continued

Code		%
18	R. Tactical Air Command	13.5
19	S. USAF Security Service	1.8
20	T. Air Force Military Personnel Center	.1
21	U. Air Force Inspection and Safety Center	.0
22	V. Air Force Audit Agency	.0
23	W. Air Force Office of Special Investigations	2.0
24	X. Other	7.1
2. What is your present active duty grade?		
	A. Colonel	16.0
	B. Lieutenant Colonel	36.0
	C. Major	24.8
	D. Captain	18.8
	E. First Lieutenant	3.3
	F. Second Lieutenant	1.2
3. What is your sex?		
	A. Female	3.0
	B. Male	97.0
4. (Years Service)		
How much total active federal military service have you completed?		
1	A. Less than 10 years	14.7

Question

Continued

Code		%
2	B. 10 years but less than 11	2.8
3	C. 11 years but less than 12	2.3
4	D. 12 years but less than 13	4.1
5	E. 13 years but less than 14	4.8
6	F. 14 years but less than 15	5.5
7	G. 15 years but less than 16	4.3
8	H. 16 years but less than 17	5.2
9	I. 17 years but less than 18	6.2
10	J. 18 years but less than 19	8.3
11	K. 19 years but less than 20	7.0
12	L. 20 years but less than 21	6.5
13	M. 21 years but less than 22	5.4
14	N. 22 years but less than 23	5.8
15	O. 23 years but less than 24	3.1
16	P. 24 years but less than 25	3.4
17	Q. 25 years but less than 26	3.7
18	R. 26 years but less than 27	2.2
19	S. 27 years but less than 28	1.3
20	T. 28 years but less than 29	1.4
21	U. 29 years but less than 30	1.0
22	V. 30 years or more	1.0

5. (Age)

How old were you on your last birthday?

1	A. Less than 25 years	1.0
---	-----------------------	-----

Question

continued

Code		%
2	B. 25-26	2.0
3	C. 27-28	3.0
4	D. 29-30	4.4
5	E. 31-32	4.9
6	F. 33-34	8.1
7	G. 35-36	9.5
8	H. 37-38	9.7
9	I. 39-40	12.4
10	J. 41-42	14.6
11	K. 43-44	12.5
12	L. 45-46	8.6
13	M. 47-48	4.9
14	N. 49-50	1.6
15	O. 51-52	1.4
16	P. 53-54	.9
17	Q. 54-55	.3
18	R. Over 56 years	.2

6. What is your current primary aeronautical rating?

A.	Pilot	39.1
B.	Navigator	12.6
C.	Flight Surgeon	.6
D.	Other type of aeronautical rating	.7
E.	Nonrated	47.0

Question

7. (Type of Org.)
What type of organization do you command?

Code		%
1	A. Wing	2.1
2	B. Base	5.0
3	C. Station	1.1
4	D. Squadron	49.4
5	E. Hq Sq Section	11.8
6	F. Detachment	22.6
7	G. Group	2.7
8	H. Laboratory	.0
9	I. Depot	.1
10	J. School	.7
11	K. Center	.4
12	L. Service	.3
13	M. Region	.3
14	N. Area	.3
15	O. Academy	.2
16	P. Bank	.4
17	Q. Other	2.6

8. (Mission)
What is the mission of your organization?

1	A. Flying Operation	11.6
2	B. Maintenance	12.3
3	C. Supply	4.8
4	D. Communications	6.6

Question

continued

Code		%
5	E. Training/Education	12.5
6	F. Transportation	3.4
7	G. Weather	4.8
8	H. Security Police	3.7
9	I. Civil Engineers	4.5
10	J. Services	1.2
11	K. Research	.6
12	L. Medical	3.3
13	M. Air Base Group	8.4
14	N. Other	22.2
9.	(Time in Command) How long have you been Commander of your present organization?	
1	A. Less than 6 months	22.1
2	B. 6-12 months	25.0
3	C. 13-18 months	25.6
4	D. 19-24 months	10.0
5	E. 25-30 months	9.3
6	F. 31-36 months	3.5
7	G. 37-42 months	2.7
8	H. 43-48 months	.9
9	I. Over 48 months	1.8
10.	(People in Org.) How many military and civilian personnel are assigned to your organization?	
1	A. Less than 100	33.2

Question

continued

Code		%
2	B. 100-199	14.8
3	C. 200-299	13.1
4	D. 300-399	11.9
5	E. 400-499	7.4
6	F. 500-749	8.7
7	G. 750-1000	3.7
8	H. Over 1000	7.2
11.	Have you previously held a command position prior to your current assignment?	
	A. No	54.7
	B. Yes, an operational commander	11.4
	C. Yes, a support area	26.6
	D. Yes, in both operations and support area	4.9
	E. Other	2.4
12.	The location of my base is	
	A. CONUS	76.8
	B. Overseas	23.2
13.	(Race)	
	Which one of the following do you consider yourself?	
1	A. Black American	2.8
2	B. Spanish or Mexican American	1.0
3	C. American Indian	.4
4	D. Oriental American	.7
5	E. White American (other than Spanish or Mexican American)	93.7
6	F. Other	1.4

One of the aspects of our lives is the LEADERSHIP/
SUPERVISION we receive on the job. Please rate the degree
of importance of this factor to you and your degree of
satisfaction with it based on the following description:

LEADERSHIP/SUPERVISION: My supervisor has my interests
and that of the Air Force at heart; keeps me informed;
approachable and helpful rather than critical; good knowledge
of the job.

29. (Leadership Sat)
To what degree are you satisfied with the LEADERSHIP/
SUPERVISION aspects of your life? (Select one of the
seven points)

Code		%
1	A. Highly dissatisfied	2.7
2	B.	6.0
3	C.	6.9
4	D. Neutral	7.2
5	E.	22.9
6	F.	32.8
7	G. Highly satisfied	21.5

30. (Leadership Qual)
What is your opinion of the quality of leadership in
the Air Force?

1	A. Excellent	11.2
2	B. Above average	52.8
3	C. Average	26.2
4	D. Below average	8.0
5	E. Poor	1.9

Please rate the degree of importance of the concept of personal standing to you and your degree of satisfaction with it based on the following description:

PERSONAL STANDING: To be treated with respect; prestige; dignity; reputation; status.

57. (Personal Std. Sat.)
To what degree are you satisfied with the PERSONAL STANDING aspects of your life?

Code		%
1	A. Highly dissatisfied	.9
2	B.	2.0
3	C.	5.1
4	D. Neutral	4.5
5	E.	25.1
6	F.	38.6
7	G. Highly satisfied	23.8

85. (Recognition)
Does your immediate supervisor give you recognition for a job well done?

1	A. Never	4.8
2	B. Seldom	20.8
3	C. Sometimes	35.7
4	D. Frequently	28.4
5	E. Always	10.3

86. (Job Freedom)
Are you given the freedom you need to do your job well?

1	A. Never	.7
2	B. Seldom	8.1

Question

continued

Code		%
3	C. Sometimes	17.4
4	D. Often	42.2
5	E. Always	31.6

88. (Job Challenge)
How do you evaluate your present Air Force job?

1	A. Not at all challenging	1.4
2	B. Not very challenging	4.7
3	C. Somewhat challenging	12.2
4	D. Challenging	34.8
5	E. Very challenging	47.0

The next four questions make up the modified Hoppock Job Satisfaction Measure.

89. Which one of the following shows how much of the time you feel satisfied with your job?

Score		
7	A. All the time	6.1
6	B. Most of the time	47.6
5	C. A good deal of the time	23.0
4	D. About half of the time	12.8
3	E. Occasionally	8.0
2	F. Seldom	2.1
1	G. Never	.3

90. Choose the one of the following statements which best tells how well you like your job.

1	A. I hate it.	.5
2	B. I dislike it	2.3

Question

continued

Score		%
3	C. I don't like it	4.1
4	D. I am indifferent to it	3.2
5	E. I like it	29.8
6	F. I am enthusiastic about it	41.9
7	G. I love it	18.1
91. Which <u>one</u> of the following shows how you think you compare with other people?		
7	A. No one likes his job better than I like mine	7.2
6	B. I like my job much better than most people like theirs	33.7
5	C. I like my job better than most people like theirs	35.2
4	D. I like my job about as well as most people like theirs	18.0
3	E. I dislike my job more than most people dislike theirs	4.7
2	F. I dislike my job much more than most people dislike theirs	.9
1	G. No one dislikes his job more than I dislike mine	.2
92. Which <u>one</u> of the following best tells how you feel about changing your job?		
1	A. I would quit this job at once if I could	1.3
2	B. I would take another job in which I could earn as much as I do now	3.5
3	C. I would like to change both my job and my occupation	4.0
4	D. I would like to exchange my present job for another one	14.0

Question

continued

Score		%
5	E. I am not eager to change my job, but would for a better one	60.6
6	F. I cannot think of any jobs for which I would exchange	11.1
7	G. I would not exchange my job for another	5.5
93. (Authority) I have sufficient authority to carry out my responsibilities.		
Code		
1	A. Strongly disagree	4.2
2	B. Disagree	15.9
3	C. Undecided	2.7
4	D. Agree	57.1
5	E. Strongly agree	20.1
94. (Want More Resp.) For your next assignment, do you want a job which has greater responsibility than your current job?		
1	A. Definitely no	1.1
2	B. Probably no	4.9
3	C. Not sure	4.9
4	D. Probably yes	25.3
5	E. Definitely yes	63.8
109. (Wanted Cmd. Job) I wanted the job of Commander.		
1	A. Strongly disagree	2.0
2	B. Disagree	2.9
3	C. Undecided	1.8

Question

continued
Code

		%
	4 D. Agree	18.8
	5 E. Strongly agree	74.6
111.	(Work Vs. Grade) Do you feel that the work you are now doing is appropriate to the grade you hold?	
	1 A. My grade is much too high for the work I am doing.	2.2
	2 B. My grade is somewhat too high for the work I am doing.	8.0
	3 C. My grade is about right for the work I am doing.	64.5
	4 D. My grade is somewhat too low for the work I am doing.	22.3
	5 E. My grade is much too low for the work I am doing.	3.0
112.	(Job Growth) Do you think your present job is preparing you to assume future positions of greater responsibility?	
	1 A. Definitely no	3.1
	2 B. Probably no	7.0
	3 C. Undecided	3.0
	4 D. Probably yes	30.2
	5 E. Definitely yes	56.6

APPENDIX C

AFMIG Regression Comparison

AFMIG REGRESSION COMPARISON

In May and June of 1975 the Air Force Management Improvement Group (AFMIG) conducted a survey of Air Force personnel. Thomas N. Thompson, in a previous AFIT Job Satisfaction research effort, analyzed the data base resulting from that survey. He found that three factors, Job Challenge, preparation for future responsibility (Job Growth), and Job Freedom were important in the determination of job satisfaction. As a portion of his study, Thompson developed regression models for several sample populations using the responses to questions addressing these three variables. These regression models were as follows:

For the total population:

$$Y = 5.795 + 2.092X_1 + 0.780X_2 + 0.783X_3 \quad (R^2 = 0.615)$$

For officers only:

$$Y = 5.166 + 2.088X_1 + 0.750X_2 + 0.897X_3 \quad (R^2 = 0.609)$$

For enlisted only:

$$Y = 5.913 + 2.126X_1 + 0.817X_2 + 0.731X_3 \quad (R^2 = 0.615)$$

For rated officers:

$$Y = 5.601 + 2.027X_1 + 0.793X_2 + 0.811X_3 \quad (R^2 = 0.598)$$

For non-rated officers:

$$Y = 4.825 + 2.130X_1 + 0.714X_2 + 0.975X_3 \quad (R^2 = 0.618)$$

Where:

Y = Job Satisfaction

X₁ = Job Challenge

X₂ = Job Growth

X₃ = Job Freedom (Thompson, 1975: 198-199)

At the request of Dr. Charles McNichols, regression equations were developed for the commanders using these same three predictors. Tables XI to XIX show the results of these regression analyses.

It should be noted that the questions measuring the perception of job challenge differed from the AFMIG Questionnaire to the Commander's Questionnaire. For the AFMIG group, the five possible responses were "boring", "not challenging", "somewhat challenging", "challenging", and "very challenging". The five responses for the commanders included "not at all challenging", "not very challenging", "somewhat challenging", "challenging", and "very challenging". Although the author believes this difference to have little effect on the responses to the question, its existence is pointed out here in the interest of completeness. The questions addressing Job Growth and Job Freedom were the same for both questionnaires.

Table XI
 Job Satisfaction Regression
 (Total Population)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.448	.313	.313
Job Freedom (X ₂)	.208	.360	.047
Job Growth (X ₃)	.173	.383	.023

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.122	.496	.560
X ₂		1.000	.124	.284
X ₃			1.000	.422

$$\begin{aligned}
 \text{Job Satisfaction (Y)} = & 7.417 + 1.780 \text{ (Job Challenge)} \\
 & + .816 \text{ (Job Freedom)} \\
 & + .620 \text{ (Job Growth)}
 \end{aligned}$$

Table XII

Job Satisfaction Regression
(Non Rated Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.471	.365	.365
Job Freedom (X ₂)	.197	.409	.045
Job Growth (X ₃)	.197	.439	.029

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.186	.489	.604
X ₂		1.000	.178	.320
X ₃			1.000	.463

$$\begin{aligned} \text{Job Satisfaction (Y)} = & 6.296 + 1.880 \text{ (Job Challenge)} \\ & + .812 \text{ (Job Freedom)} \\ & + .753 \text{ (Job Growth)} \end{aligned}$$

Table XIII

Job Satisfaction Regression
(Rated Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.415	.258	.258
Job Freedom (X ₂)	.219	.308	.050
Job Growth (X ₃)	.155	.326	.017

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.068	.505	.508
X ₂		1.000	.082	.260
X ₃			1.000	.017

$$\begin{aligned} \text{Job Satisfaction (Y)} &= 8.586 + 1.641 \text{ (Job Challenge)} \\ &+ .816 \text{ (Job Freedom)} \\ &+ .521 \text{ (Job Growth)} \end{aligned}$$

Table XIV
 Job Satisfaction Regression
 (Conus Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.441	.306	.306
Job Freedom (X ₂)	.229	.362	.056
Job Growth (X ₃)	.162	.382	.020

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.138	.497	.553
X ₂		1.000	.129	.311
X ₃			1.000	.412

$$\begin{aligned}
 \text{Job Satisfaction (Y)} = & 7.338 + 1.764 (\text{Job Challenge}) \\
 & + .906 (\text{Job Freedom}) \\
 & + .574 (\text{Job Growth})
 \end{aligned}$$

Table XV
 Job Satisfaction Regression
 (Overseas Group)

<u>Variables</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.461	.334	.334
Job Growth (X ₂)	.216	.373	.040
Job Freedom (X ₃)	.140	.392	.019

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.497	.068	.578
X ₂		1.000	.106	.460
X ₃			1.000	.194

$$\begin{aligned}
 \text{Job Satisfaction (Y)} = & 7.610 + 1.793 \text{ (Job Challenge)} \\
 & + .816 \text{ (Job Growth)} \\
 & + .532 \text{ (Job Freedom)}
 \end{aligned}$$

Table XVI

Job Satisfaction Regression
(Less Than 10 Years Service Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.516	.417	.417
Job Freedom (X ₂)	.174	.454	.037
Job Growth (X ₃)	.164	.472	.018

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.223	.554	.646
X ₂		1.000	.266	.332
X ₃			1.000	.496

$$\begin{aligned} \text{Job Satisfaction (Y)} = & 4.555 + 2.06 \text{ (Job Challenge)} \\ & + .801 \text{ (Job Freedom)} \\ & + .788 \text{ (Job Growth)} \end{aligned}$$

Table XVII
 Job Satisfaction Regression
 (Over 10 Years Service Group)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.410	.286	.286
Job Freedom (X ₂)	.218	.337	.051
Job Growth (X ₃)	.203	.368	.031

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.106	.503	.535
X ₂		1.000	.104	.282
X ₃			1.000	.431

$$\begin{aligned} \text{Job Satisfaction (Y)} = & 8.003 + 1.615 \text{ (Job Challenge)} \\ & + .818 \text{ (Job Freedom)} \\ & + .686 \text{ (Job Growth)} \end{aligned}$$

Table XVIII
 Job Satisfaction Regression
 (Group Without Command Experience)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.463	.306	.306
Job Freedom (X ₂)	.183	.343	.037
Job Growth (X ₃)	.139	.357	.015

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.115	.496	.553
X ₂		1.000	.136	.255
X ₃			1.000	.394

$$\begin{aligned} \text{Job Satisfaction (Y)} = & 7.460 + 1.886 (\text{Job Challenge}) \\ & + .711 (\text{Job Freedom}) \\ & + .586 (\text{Job Growth}) \end{aligned}$$

Table XIX

Job Satisfaction Regression
(Group With Command Experience)

<u>Variable</u>	<u>Beta Weight</u>	<u>R²</u>	<u>R² Change</u>
Job Challenge (X ₁)	.429	.317	.317
Job Freedom (X ₂)	.237	.378	.061
Job Growth (X ₃)	.210	.411	.033

Correlation Matrix

	X ₁	X ₂	X ₃	Y
X ₁	1.000	.130	.490	.563
X ₂		1.000	.121	.318
X ₃			1.000	.033

$$\begin{aligned} \text{Job Satisfaction (Y)} = & 7.262 + 1.668 \text{ (Job Challenge)} \\ & + .923 \text{ (Job Freedom)} \\ & + .678 \text{ (Job Growth)} \end{aligned}$$

Vita

Vernon L. Eshbaugh was born on 15 December 1944 in Brookville, Pennsylvania. He graduated from the Scotland School for Veterans' Children in June 1962. Following this, he attended Grove City College in Grove City, Pennsylvania. In June 1966 he graduated with a Bachelor of Science Degree in Electrical Engineering.

Upon graduation he was commissioned in the United States Air Force and assigned to the Space and Missile Systems Organization at Los Angeles Air Force Station, California. As a project officer in the Communication Satellite Systems Program Office, he monitored the development of satellites for the United States, NATO, and the United Kingdom.

In 1970 Captain Eshbaugh was assigned as a Missile Combat Crew Commander in the Minuteman Weapon System at Ellsworth Air Force Base, South Dakota. Upon completion of a four year tour in Missile Operations, he was assigned to Vandenberg Air Force Base, California as chief of the Technical Engineering Section with the 394th Strategic Missile Squadron. Captain Eshbaugh entered the Air Force Institute of Technology in June of 1976.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This study determines the variables associated with the job satisfaction of Air Force commanders. The source for the data is the Quality of Air Force Life Commander's Survey conducted in December of 1976. The analysis techniques used were Principal Component Analysis, the Automatic Interaction Detection (AID) algorithm, and Stepwise Regression. The survey responses were analyzed for nine different groups: total sample, rated, non-rated, conus, overseas, less than ten		

years service, over ten years service, with command experience, and without command experience.

The factors of most value in explaining the variation in job satisfaction are:

1. Job Challenge
2. PERSONAL STANDING satisfaction
3. Desire for the commander's job
4. LEADERSHIP/SUPERVISION satisfaction

Also of value, but to a lesser degree, were preparation for future responsibility, job freedom, and recognition.

With few exceptions demographic variables were found to be of little importance in determining job satisfaction. Although some interesting trends were noted, the variations in job satisfaction resulting from demographic division were small compared to those observed due to differing perceptions of job challenge.