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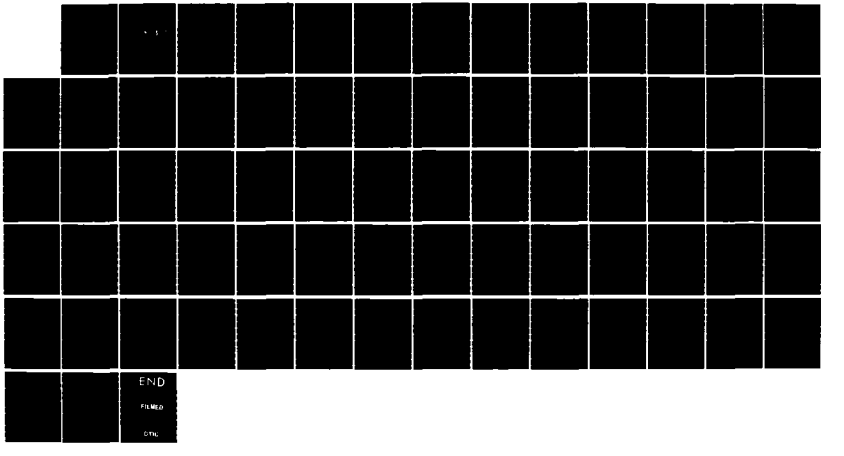

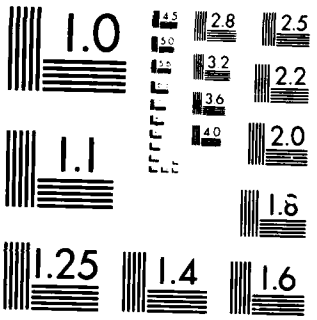

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by

Ellen S. Bristow

December 1985

Thesis Advisor: G. W. Thomas

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Job Satisfaction and Race Among Military Officers

by

Ellen S. Bristow
Lieutenant, United States Navy
B.A., University of Texas, 1980

Submitted in partial fulfillment of the requirements for the degree of

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December 1985

Author: _____
Ellen S. Bristow

Approved by: _____
George W. Thomas, Thesis Advisor

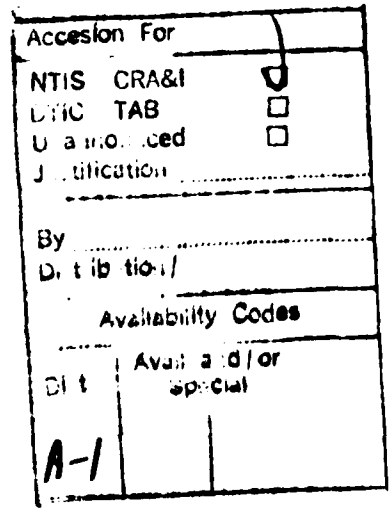
_____
Stephen L. Mehay, Second Reader

_____
Willis R. Greer, Jr., Chairman,
Department of Administrative Sciences

_____
Kneale T. Marshall,
Dean of Information and Policy Sciences

ABSTRACT

This thesis investigated the extent of variation in levels of job satisfaction among military officers that could be attributed to race. The data came from the 1978 Department of Defense Survey of Officers and Enlisted Personnel conducted by the Rand Corporation. The population analyzed was black and white officers in all four services, with the ranks of O1 through O3, who were still within their initial period of obligated service. Factor analysis was performed on a set of job characteristics to determine if differences existed between the black and white officers in the ranking and relative importance of these characteristics. The results of the factor analysis were used to formulate two multivariate models that explain job satisfaction for black and white officers separately. Knowledge of the aspects of work that are important to these officers can provide manpower planners with information that can improve the attainment of recruiting and retention goals in the future.



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I. INTRODUCTION

A. OVERVIEW

1. Job Satisfaction

The construct of job satisfaction is very complex. It is related to human behaviors such as turnover and job performance as well as to mental health and quality of life. Research on job satisfaction has implications for organizations and for the people in them.

Locke (1976) defined job satisfaction as "a pleasurable or positive emotional state, resulting from the appraisal of one's job or job experiences". Morale and job satisfaction are not the same. Morale is usually used as a measure of group well-being while satisfaction is an individual emotional reaction. [Ref. 1: p. 3]

2. Historical Background

The earliest studies of job satisfaction were conducted by industrial psychologists who were concerned with increasing productivity. Specifically, they were interested in how productivity could be changed as a result of manipulating the physical environment (Taylor 1911, Hawthorne 1920s).

The role of supervision and other social factors in productivity was another subject of early experiments. For a number of reasons, including inadequacy of experimental designs and the difficulty of interpreting the results in the environment of the depression years, these experiments failed to demonstrate that social factors were critical to improving productivity. These experiments did, however, lead directly to the establishment of the human relations school of thought in organizational psychology. The assumption of researchers in this area is that job satisfaction leads to increased productivity and that human relationships in organizations are the key to job satisfaction. Human

relationships in organizations includes leadership, supervision and informal social groups. Today, this explanation of the composition of job satisfaction is considered by most researchers to be overly simplistic and inadequate. [Ref. 1: pp. 6-7]

One of the first major works on job satisfaction that used surveys and attitude scales for measurment was published by Hoppock (1935). He used what is generally termed the traditional approach which maintains that job satisfaction consists of a multiplicity of factors and assumes that a variable that leads to satisfaction with a job will lead to dissatisfaction if it is missing. From his experiments, Hoppock was able to show that there was a relationship between job satisfaction and general life satisfaction. This suggested that individual characteristics would affect the amount of satisfaction someone would derive from a particular job. His work also raised the question of whether or not people become satisfied when they stay in a job because they adapt to their situation. [Ref. 1: p. 7]

Job satisfaction studies have been criticized for being static because they usually take a snapshot view of satisfaction at one point in time rather than examining how satisfaction changes during an individual's lifetime. Some theorists maintain that an individual's job satisfaction is constantly changing as it adapts to changing situations and to changes in the individual's and in society's values. This is supported by studies that indicate that satisfaction varies by age. [Ref. 1: p. 27]

3. Job Satisfaction and Turnover

Turnover refers to the event that occurs when an individual crosses the boundary from a member of an organization to a non-member. Several studies have documented that job satisfaction is a predictor of turnover (Mobley, Griffeth, Hand and Meglino, 1979; Porter and Steers, 1973; Price, 1977) [Ref. 2: p. 17]. Job satisfaction however,

seems to be one of a number of variables that contribute to an individual's decision to remain in or leave an organization. Many of the same variables that affect job satisfaction also affect the decision to stay or quit (eg. perceived availability of other job opportunities, demographic factors and attitudinal factors).

Figure 1.1 is the Arnold and Feldman Model (1982) which includes job satisfaction as one of the determinants of turnover. These researchers found that the individual's age, job satisfaction and degree of organizational committment affected his/her intention to search for alternative employment. Tenure, intention to search and the individual's perception of job security were found to have the greatest effect on the turnover decision. [Ref. 2: p. 23]

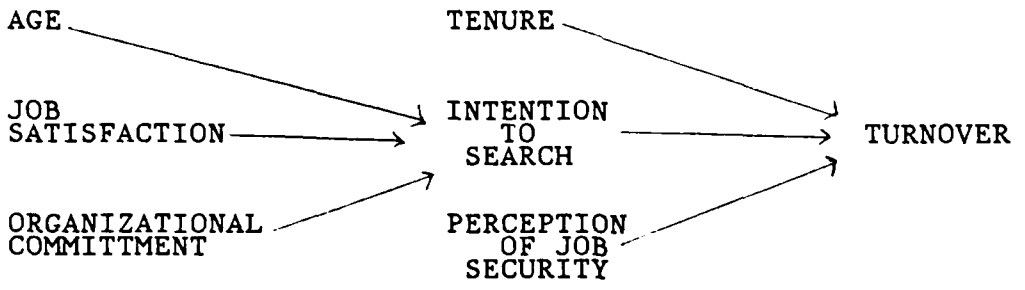

Figure 1.1 Arnold and Feldman Model of Turnover.

B. REVIEW OF LITERATURE

1. Introduction

Studies into the nature of job satisfaction have been given increasing attention over the last twenty years. There is not complete agreement among researchers on the composition of job satisfaction or the best method for analyzing satisfaction.

The multitude of studies attest to the importance of understanding the factors relating to job satisfaction. The existing literature has approached the construct of job

satisfaction from many angles and has produced volumes on the relationship between an individual's satisfaction with his/her work and other job-related phenomena such as productivity, quality of life, physical and mental health, the environment and other variables.

2. Behavioral Science Theory

Behavioral science theory that attempts to explain job satisfaction is extensive and diverse. Herzberg, Maslow, Lawler, Morgensen and Vroom have provided a foundation for the more recent research that has been undertaken in this field.

Frederick Herzberg's Motivation-Hygeine Theory is considered a landmark in behavioral science. He identified two categories of job factors that affect job satisfaction, extrinsic (hygeine) and intrinsic (motivation). Examples of extrinsic factors are pay, supervision, working conditions, organization policy and administrative and interpersonal relations. Intrinsic factors are achievement, recognition, responsibility, challenging work, advancement and possibility for growth. [Ref. 3: pp. 4-5]

According to Herzberg, satisfaction and dissatisfaction are not opposites but are actually separate dimensions. Extrinsic factors cause dissatisfaction when they fall below a level considered acceptable by the individual. However, even when the extrinsic factors are above the acceptable level, they do not cause satisfaction. It is the intrinsic factors that cause satisfaction, but conversely, their absence does not generally cause dissatisfaction. To motivate the individual to be more productive and to achieve a level of higher job satisfaction, the work must be made more interesting and challenging by increasing the intrinsic rewards. [Ref. 3: pp. 5-6]

Herzeberg also considered how differences in individual personalities would impact motivation. He claimed that there are "motivation seekers" who achieve the greatest

satisfaction and motivation from the intrinsic rewards of their work and who have a high tolerance for poor extrinsic conditions. The second personality type is the "maintenance seekers" who are affected to the greatest degree by their environment and are preoccupied by the extrinsic aspects of their jobs. [Ref. 3: p. 6]

Abraham Maslow developed the theory of Need Hierarchy. Maslow postulated that individual motivation was not only a complex construct but was constantly changing. How important the next level of individual needs is, depends on the degree of fulfillment of the previous level of needs. Once a level of needs is achieved, its importance decreases. Maslow maintained that human beings rarely reach complete satisfaction; if they do it is only for brief periods of time. [Ref. 3: p. 7]

Each level of Maslow's hierarchy of needs contains primary factors of satisfaction and dissatisfaction. The needs are ordered so that the degree of satisfaction at each level is inversely related to its position in the hierarchy with the needs that provide the greatest degree of satisfaction at the lowest level. Herzberg's extrinsic factors are at the lowest level of Maslow's hierarchy and his intrinsic factors are on the top two levels. An individual's motivation and behavoir will be affected by the degree to which his/her expectations are filled. People have different capacities and requirements to fill the needs on each level. [Ref. 3: p. 7]

Herzberg's Motivation-Hygeine theory and Maslow's Need Hierarchy are examples of content theories because they deal primarily with identifying the factors that make up job satisfaction and dissatisfaction. In contrast to these are the process theories that are interested in describing the interactions between the different variables that are related to job satisfaction. Process theories may be subdivided into expectations and equity theories, reference group

theories and needs/value fulfillment theories. Expectation theories consider the effect of an individual's expectations about the environment on behavior. An important aspect of people's expectations is that they provide a frame of reference that is used to make judgements about the environment. People use their frames of reference in deciding for example, what is reasonable pay. Equity theory maintains that people compare their own efforts and rewards to those of others. Where others are perceived as receiving more rewards for the same effort, an individual becomes dissatisfied. [Ref. 1: pp. 19-20]

Reference group theory argues that the groups that an individual relates to are important to the understanding of job satisfaction. Individual characteristics are important to this theory also, since it is these personal characteristics that will determine what groups the individual relates to and to what degree the groups will influence the individual's evaluation of his/her environment. [Ref. 1: p. 22]

Vroom postulated that there were two forms of need/value fulfillment theories. The first is the subtractive model which states that job satisfaction is negatively related to the difference between an individual's needs and how much of those needs are fulfilled on the job. This model does not take into account the relative importance of different needs and therefore failure of a job to fulfill a lesser need can be offset by the fulfillment of relatively important needs. The second model, the multiplicative model, of need fulfillment attemps to incorporate need importance. The perceived amount of need fulfillment is multiplied by the importance of the need to the individual. The products are summed to give a measure of total job satisfaction. Locke (1976) feels that this model is lacking in that it fails to distinguish between how much a person wants something (its importance) and how much of something a

person wants. In measuring discrepancy, people may be influenced by value and in measuring value, people may be influenced by the difference between what they want and what the job offers. Locke also maintains that it is what the individual values that is important rather than needs. He argues that people will value things that they do not need. Most theorists use the terms need and value interchangeably. [Ref. 1: p. 26]

Edward Lawler theorized that there are four "core dimensions" of a job that an individual receives personal satisfaction from when he/she performs a task well. The first dimension is |variety| in skills and the abilities required in procedures and variety in equipment and operations. The second dimension is the |autonomy| that exists in the individual's ability to schedule work and procedures and in general responsibility for his/her own work. The third dimension is the degree of |task| identity with the work and the results. |Feedback| on job performance is the fourth dimension. [Ref. 3: pp. 10-11]

Based on several large-scale studies, Lawler came to a number of conclusions. He maintained that the core dimensions affected work quality more than quantity (productivity). Individuals do not react the same to jobs high in the core dimensions; it is important, therefore, to have a good match between the individual and the job. Supervisors and subordinates do not always have the same perceptions about the subordinates job; the supervisor often sees the subordinates job as being much better than the subordinate considers it to be. This inability of the supervisor to be aware of the subordinates attitude toward his/her job is a major obstacle toward job enrichment (ie. increasing the core dimensions). Increasing the core dimensions of a particular job leads to the individual's desire for still greater enrichment of the dimensions. Lawler's major point is that the needs and capabilities of the individual should

match the job and that jobs should be made to rate as high on the four core dimensions as possible. [Ref. 3: pp. 11-12]

Alan Morgensen, in his Work Simplification Theory, postulated that individuals receive the greatest satisfaction from activities that they enjoy. His theory emphasizes the organizational climate and interpersonal relationships at work as the major determinants of job satisfaction. The way an individual feels about a situation and his/her attitude, are major factors in determining satisfaction. This theory attempts to establish a job improvement program that can be used as a productivity tool, by stressing friendliness, understanding and teamwork. The objective is to relate the individual's motives to the goals of the organization. Work Simplification is also a way of giving the individual a feeling of control and participation in work planning and problem solving which makes the individual more satisfied with his/her job and leads to support of corporate goals. [Ref. 3: pp. 16-19]

This is not a complete summary of the earlier theories concerning job satisfaction. It does, however, provide some background that more recent research has built upon.

3. Recent Research

Many of the early studies on job satisfaction attempted to place all workers into two or three categories that would subsequently predict what characteristics of the job they would derive satisfaction from. The more recent research refines these theories to more accurately define the biographic and demographic characteristics of individuals or groups that influence satisfaction, as well as the various elements of the job that will impact job satisfaction.

Since job satisfaction has been found to be correlated with satisfaction in other areas of life and with general life satisfaciton (Andrews and Wiley, 1976; Campbell

et al., 1976; London, Crandall and Seals, 1977), researchers have been encouraged to examine the personal characteristics of the individual that might influence his/her response to the work experience. Biographic characteristics studied, particularly from national survey data, are age, sex, education and race. Age has been shown to be positively correlated with job satisfaction (Andrews and Withey, 1976; Campbell et al., 1976; Colin, 1979; Ebeling, King and Rogers, 1979; Glenn, Taylor and Weaver, 1977). Sex does not show a direct correlation with job satisfaction (Andrews and Withey, 1976; Campbell et al., 1976; Ebeling et al., 1979; Quinn, Staines and Mccullough, 1974; Weaver, 1977); however, sex may indirectly affect the association between satisfaction and other variables. Education has been found to be negatively correlated with satisfaction (Campbell et al., 1976) which is explained by the individual with higher education expecting more from the job and therefore being less satisfied with it. Biographic characteristics, however, rarely account for more than five or six percent of the variance in measured satisfaction (Campbell et al., 1976). [Ref. 4: p. 120]

The effect of personality on job satisfaction has been examined through analysis of the individual's psychological need structure and through self-reported feelings of alienation. The relationship between needs and work is multidimensional (Jackson, Peacock and Smith, 1980; Rothstein and Jackson, 1980; Seiss and Jackson, 1971; Skinner and Jackson, 1977) [Ref. 5: p. 711]. Cawsey, Reed and Reddon (1982) maintained that by focusing on only a few needs of the individual, incomplete understanding of the underlying relationships between needs and job satisfaction will be obtained. More sophisticated methods of measurement have been developed that enable researchers to examine a broader spectrum of human needs. [Ref. 5: p. 704]

Cawsey et al. compared French and English speaking managers in Canada. To measure job satisfaction, they used the Job Descriptive Index (JDI) (Smith, Kendall and Hulin, 1969). Five facets of job satisfaction, work, supervision, pay, promotion and co-workers, were combined additively to measure overall job satisfaction. They concluded that the relationship between task, structure of the organization, individual differences in needs and job satisfaction is very complex. Cultural differences were detected, implied by differences between the two groups in need strength levels. Variations in measured job satisfaction were explained as an interaction between organization structure and individual needs. Others have suggested that a successful explanatory model for job satisfaction might be formulated from the interplay between these elements. [Ref. 5: p. 712]

Studies that have used Maslow's Motivational Personality Theory to assess psychological needs, have not been particularly helpful in understanding job satisfaction. Higher level needs have been reported to have weak moderating effects on the correlation between job characteristics and job satisfaction (Hackmanand Lawler, 1971; O'Reilly and Roberts, 1975; Schmitt et al., 1978; Sims and Szilagyi, 1976; Stone, Mowday and Porter, 1977). [Ref. 4: p. 120]

The concept of locus of control (Rotter 1966) has been used by itself and in conjunction with other variables, to explain job satisfaction (Szilagyi, Sims and Keller, 1976; Organ and Green, 1974; Gemmill and Heisler, 1972) [Ref. 6: p. 855]. There are two loci of control, internal and external. People who believe that their own behavior will determine their personal rewards have an internal locus of control. Individuals who believe that their personal rewards result from factors other than their own behavoir have an external orientation. People with a more internal orientation have been found to experience greater job satisfaction (Gemmill and Heisler, 1972; Organ and Green, 1974;

Sims and Keller, 1976) and greater psychological growth satisfaction from their work (Kimmons and Greenhaus, 1976; Dailey, 1980). [Ref. 6: p. 856]

King, Murray and Atkinson (1982) combined measures of feelings of internal versus external control (IE control) with general alienation and interpersonal trust measures and biographic and job characteristic variables to predict job satisfaction. General alienation was measured by estrangement from the policies and practices of the institution. Trust was measured by expectations concerning the behavior of coworkers and supervisors [Ref. 4: p. 121]. Their findings were that of the job characteristics measured, occupational category had the strongest correlation with job satisfaction. Managers and professionals were the most satisfied; blue collar workers were the least satisfied. Higher prestige and higher pay were also associated with higher satisfaction. Correlated with lower satisfaction were self-reported problems with hours, high frequency of supervision, tiredness on the job, dangerous working conditions and little or no control over pace of work and overtime. [Ref. 4: p. 126]

General alienation and IE control were the two strongest personality correlates of job satisfaction. People less alienated and those with strong feelings of internal control were more satisfied. [Ref. 4: p. 128]

Among the biographic characteristics, married workers reported higher satisfaction than those who were divorced, separated, widowed or never married. People who were older, had larger families and were better educated were more satisfied. These relationships, however, were generally weak. Sex differences in satisfaction were not significant. [Ref. 4: p. 128]

The strongest relationship found by King, et al. was between job satisfaction and the personality variables. There are some theorists who have maintained that an

individual's expectations and personality interact with the objective elements of an experience in determining the person's affective response to that experience (Campbell, 1976; McKemmel, 1974). In addition, psychological theories hold that personality is developed early in life and that it impacts on the individual's perception of responses to later experiences. [Ref. 4: p. 129]

Andrisani and Nestel's (1976) research suggests a reciprocal relationship between internal/external control and job satisfaction. Using longitudinal data they showed that workers with strong feelings of internal control in 1969, had increased in job satisfaction and in earnings between 1969 and 1971. Conversely, workers with lower occupational attainment and more external orientation in 1969 expressed even stronger feelings of external control in 1971. In the first case, degree of internal/external control predicted the change in satisfaction and earnings; in the second case, occupational experiences predicted the change in feelings of internal/external control. Expectations and perceptions seem to be important consideration in an understanding of job satisfaction. [Ref. 4: p. 130]

Butler and Burr (1980) applied a multidimensional locus of control scale (Levenson, 1973, 1975) to a study of U.S. Navy personnel. They found that higher internal scores were negatively related to self-reported mental health and positively correlated to over-all satisfaction with the Navy. They also confirmed their research hypothesis that among externally oriented individuals, Powerful Others scored significantly higher than Chance. This was expected because of the nature of the military rank structure and strict chain of command. [Ref. 7: p. 726]

Job choice and the relative impact of extrinsic and intrinsic job characteristics on job satisfaction have been the subjects of research. Some studies have shown that an

individual who feels that he/she was pressured or constrained into making a job choice will be less committed to that choice and report lower satisfaction with that job (Salanik, 1977; Lepper and Greene, 1975; Wortman, 1975) [Ref. 8: p. 560]. The pressure can be personal (ie. family), economic (eg. financial pressures) or political. Straw (1974) found in his study of ROTC cadets, that when the draft was ended, the removal of this pressure to join the military was correlated with an increased committment to the program by those already enrolled. Other studies have shown that jobs chosen for extrinsic reasons (eg. salary or location) will be less satisfying than those chosen for intrinsic reasons (eg. opportunity for learning and growth) (Dunette, Campbell and Hakel, 1967) [Ref. 8: p. 560].

In a study of Master's of Business Administration graduates, O'Reilly and Caldwell (1980) concluded that the aspects of the job that the individual considers when making a job choice, in addition to whatever is experienced on the job, will be predictive of subsequent job satisfaction and organizational committment. Extrinsic job factors were analyzed and only external pressures was negatively correlated with job satisfaction. They also found that intrinsic concerns were associated with increased committment to the organization but not to higher tenure intentions [Ref. 8: pp. 561-562]. Contrary to some previous studies that demonstrated that an extrinsic reward could actually reduce intrinsic motivation (Calder and Straw, 1975; Ross, 1975), this research indicated that individuals who chose jobs for extrinsic reasons reported higher satisfaction than people who rated the extrinsic rewards lower. One interpretation of this finding is that the existence of the positive extrinsic rewards is considered by the individual as confirmation that he/she had made the right job choice. This

supports other studies that maintain that intrinsic and extrinsic factors have an additive nature (Hamner and Foster, 1975; Scott, 1976) [Ref. 8: p. 564].

One of the most popular methods for analyzing job satisfaction is by examining one or more aspects of the job and relating them to the individuals subsequent satisfaction. Studies linking job goals and their effects on motivation and satisfaction, fall into this category. Examples of these types of studies are those linking goal-setting feedback to satisfaction (Latham and Kinne, 1974; Locke, 1968); the relationship between knowledge of results and satisfaction (Brethower, 1973; Locke, Cartledge and Knerr, 1970); and the association between superior's praise of the worker and that worker's subsequent satisfaction (Deci, 1971; Skinner, 1969). [Ref. 9: p. 27]

There are three contemporary approaches to motivation. Content theorists maintain that need satisfaction and improved motivation result from relating the achievement of goals to the individual's personal needs. According to process or expectancy theory, goal-setting relates to outcomes and the relative value (valence) of these outcomes to the individual. Reinforcement theory perceives goal-setting as a foundation for using reinforcment. Futrell and Parasuraman (1981), in a study using a national pharmaceutical manuafacturer's sales force, concluded that clarity of goals has a strong, positive direct effect on job satisfaction. [Ref. 9: pp. 27-30]

Related to the works on goal-setting are those that look at the impact of role conflict and role ambiguity on satisfaction (Bagozyi, 1978; Churchill, et al., 1976; Donnelly and Ivancevich, 1975; House and Rizzo, 1972; Kahn, et al., 1964; Lyons, 1971; Miles, 1976; Szilogyi, et al., 1976). Role conflict and ambiguity increase tension, which lowers job satisfaction [Ref. 9: p. 27].

Futrell and Parasuraman (1981) found that in addition to clarity of goals directly effecting job satisfaction, it also appeared to indirectly effect satisfaction by affecting role conflict. Greater clarity of goals leads to reduced role conflict which leads to greater satisfaction. They concluded that role conflict and role ambiguity affected satisfaction differently. Role conflict negatively affected an individual's satisfaction with the work while role ambiguity negatively influenced company satisfaction. [Ref. 9: p. 31]

Role conflict and role ambiguity have been shown to be associated with lower performance evaluations, low organizational committment and propensity to leave the organization [Ref. 10: p. 248]. Bedeian, Armenakis and Curran (1981), in their study of role ambiguity and conflict in an American hospital, confirmed previous research with their findings that both constructs were significantly, negatively correlated with job satisfaction. They were not, however, able to support one of their hypotheses that role ambiguity and conflict would be higher at higher levels of the organization and that the relationship between role conflict and role ambiguity would be greatest at lower levels of the organization. Organization level did not significantly interact with either role conflict or with role ambiguity. They also concluded that role ambiguity and conflict were significantly associated with tension and propensity to leave. What this study and others like it suggest is that the structure of the organization, the degree to which the organizations practices and procedures are clear and consistent, will affect the individual's satisfaction with his/her job. [Ref. 10: pp. 255-258]

Some researchers have been able to relate satisfaction, and its counterpart morale, to the degree of role structure within the organization (Burns and Stalker; Likert; Hickson) [Ref. 11: p. 1090]. Organizations that

encourage individual autonomy through flexibility, open structure and receptivity to innovative ideas are categorized as organic organizations. Conversely, bureaucratic or mechanistic organizations have rigid structures, place strong emphasis on rules and regulations, have an elaborate hierarchy and low participation of its members in decision-making. Organic organizations supposedly increase satisfaction and morale while bureaucratic organizations have low morale and dissatisfaction. There is considerable support for this hypothesis (Brief and Aldag; Dewar and Werbel; Locke; Blau and Scott; Crozier; Hage Hall; Hickson). It is also generally accepted that a high degree of upward influence increases satisfaction (Blumberg) and that larger organizations have lower morale and individual job satisfaction because their size requires impersonality of relationships, decreases a sense of personal importance in the organization and creates a demand for formalized and rigid control (Cummings and ElSalmi; Indik; Porter and Lawler). [Ref. 11: pp. 1089-1091]

A recent study done by Zeitz (1983), using questionnaires from 2,335 managers in twelve industrial companies, tested these hypotheses and found that the strongest determinant of satisfaction was the degree of structuring of activities. This relationship, however, was positive (ie. satisfaction is higher in more highly structured roles) which does not follow previous findings. Task variability and perceived openness to information also positively influenced satisfaction. [Ref. 11: pp. 1097-1098]

Hopkins (1983) looked at job satisfaction among state employees. The study used 23 job facets to reflect the multidimensional nature of job satisfaction. Hopkins formulated two distinct models to explain satisfaction. The job design model used job characteristics as the major determinants of the individual's satisfaction with his/her

job. The independent variables in this model were a job quality index, indicators of the nature of job effort required (skill in use of hands) and indicators of the nature of resources available (coworkers help and authority). The covariates of this model were life view, organizational committment and education level. The results of the multiple classification analysis of this model were that all the independent variables were significantly related to job satisfaction and explained 20% of the variation in satisfaction. Workers who had higher job quality, more resources and who had jobs that required less skill in using their hands were the most satisfied. [Ref. 12: pp. 101-103]

Hopkins' other model was a job environment model. The job environment is defined by individuals or groups other than the employee but it acquires meaning when interpreted through the employee's own perceptual apparatus. This model used fairness of promotion, an index of working conditions, a measure of how much the individual's work is done independent of supervision and job mobility within the state as independent variables. All five variables were significantly related to job satisfaction. This model also contained the three individual characteristics as covariates and was able to explain 24% of the variation in job satisfaction. [Ref. 12: p.105-107]

Environmental events can affect an individual's perception of his/her work experience and therefore affect job satisfaction. Symbolic interactionists emphasize the importance of understanding how people interpret events occurring within their environments (Blumer, 1969; Lauer and Handel, 1977) [Ref. 13: p. 1014]. There has been research into the link between local economic conditions and an individual's job satisfaction. Hulin (1966) found that satisfaction was higher in communities that had large slum areas, inferring that one element of an individual's

assessment of his/her own situation is made by comparing that situation with alternatives available [Ref. 13: p. 1016].

Maguire (1983) used local unemployment levels to attempt to determine the relationship between an individual's environment and attitude. Results showed that neither unemployment rate nor perceived consequences of unemployment were good predictors of job satisfaction [Ref. 13: p. 1022]. Education, which is usually a good predictor of satisfaction, was not a good predictor in areas of high unemployment. Although perceived consequences of unemployment was not a significant predictor of satisfaction, it approached significance in a context of high unemployment. Therefore, under conditions of high unemployment, the more commonly used predictors of satisfaction became weaker and perception of the consequences of unemployment became stronger. Many studies have maintained that education is negatively correlated with satisfaction, but not all research agrees. Janson and Martin (1982) found no relationship and Glenn and Weaver (1982) found a positive relationship which they explained as deriving from the higher level of extrinsic rewards that tend to accompany higher education levels. [Ref. 13: p. 1027]

4. Literature on Job Satisfaction and Race

Research on job satisfaction and race is characterized by conflicting results. Some studies have reported little or no differences between racial groups in reported job satisfaction (Gavin and Ewen, 1974; Jones et al., 1977; Katzell, Ewen and Korman, 1974; Weaver, 1977) [Ref. 14: p. 300]. Others have concluded that blacks have lower job satisfaction than whites (Slocum and Strawser, 1972; Moch, 1980; Milutinovich, 1977), while there are studies that show that blacks have higher satisfaction than whites in comparable jobs (Brenner and Fernsten, 1984). The important issue is not in discovering and documenting race-related

differences but rather in understanding their sources and the effect such differences have on performance and other behavoirs (Kirkpatrick, 1973). [Ref. 15: p. 6]

Economic theory maintains that job satisfaction is a function of the individual's full wage. Full wage is defined as the sum of the money wage (W) and the nonpecuniary elements of the job , expressed in equivalent monetary terms. This can be represented by the equation:

$$S = a + bW + cX$$

where X is the vector of the individual's characteristics and the coefficients of the variables in X (c) measure the effects of those characteristics in two ways: 1) through their direct effect on job satisfaction and/or 2) through their effect on the nonpecuniary elements of the job. [Ref. 16: p. 295]

There are a number of explanations of race-related differences in job satisfaction, that are common in the literature. Cultural explanations attribute the differences to the values, beliefs and psychological states that contribute to how members of different subgroups will respond to their work experience (Alper, 1975; Bloom and Barry, 1967; Jones et al., 1977; Slocum et al., 1971; Slocum and Strawser, 1972). An analog to this theory is the concept of frame of refernce. Different subcultures develop different frames of reference which influences the individual's perceptions of the job and alsc affects which aspects of the job will be satisfying and dissatisfying. [Ref. 14: p. 299]

Structural explanations of varying job satisfaction by race maintain that it is a function of how the members of different racial groups are treated by the organization, by supervisors and by coworkers. Some studies have identified fewer promotion opportunities for black employees as the reason for their lower reported satisfaction (Smith et al., 1974; Brown and Ford, 1977; Fields and Freeman, 1972; Goode,

1970). Supervisor bias exhibited in performance evaluations has also been credited with causing differential satisfaction levels (Hamner, Kim Baird and Bigoness, 1974; Katz and Greenbaum, 1963; Katz, Roberts, and Robinson, 1965). [Ref. 14: p. 300]

Social and social psychological factors have been examined for their ability to predict job satisfaction. Social factors include how employees of different races are treated by coworkers and the amount of inclusion or exclusion the individual experiences within the work center (Moch, 1980). Perceived relative deprivation, which is the extent to which the individual considers his/her present job to be the best that he/she could obtain, has also been analyzed (Jones et al., 1977; Gavin and Ewen, 1974; Moch, 1980). [Ref. 14: p. 300]

Michael K. Moch (1980) conducted a study that incorporated both cultural and structural perspectives and measures of social factors and perceived relative deprivation. The study was conducted in a packaging plant in the southern United States. Moch found that race alone accounted for 53 percent of the variation in level of job satisfaction. Employees who considered social relationships at work to be very important, who were socially intergrated and did not think that they could find a comparable job elsewhere, reported the highest level of satisfaction. [Ref. 14: p. 303]

Another possible explanation for racial differences in job satisfaction derives from differences in individual motivational structure. Arvey and Musio (1974) found that extrinsic rewards (eg. high pay, security) were more important to culturally disadvantaged employees while advantaged employees placed more emphasis on intrinsic factors [Ref. 15: p. 6].

Discrimination in the labor market may cause blacks to have lower aspirations than comparable whites. Bartel

(1981) found that although blacks had lower wages and lower nonpecuniary job returns, they still reported higher job satisfaction. She attributed this to the effect of discrimination on the individual's aspirations, which causes blacks to be satisfied with less [Ref. 17: p. 302].

The willingness to express dissatisfaction will affect the measurement of job satisfaction. Education and experience on the job might directly affect job satisfaction by increasing the individual's willingness to express dissatisfaction. Borjas (1979) maintained that although union membership tends to raise an individual's money wage and nonpecuniary benefits, it can also reduce measured job satisfaction because unions lead to politicizing of the workforce and greater expression of dissatisfaction [Ref. 17: pp. 295-296]. The extent to which blacks and other minorities have more experience on the job and are union members will affect their reported job satisfaction.

In an attempt to explain the conflicting results of previous research, Brenner and Fernsten investigated job satisfaction among black and white clerical workers. Using an adaptation of a job-facet instrument, they compared the respondent's fulfillment ratings on twenty-five different job characteristics. They found that blacks perceived greater fulfillment on every job characteristic and that twenty-two of the twenty-five were statistically significant [Ref. 16: p. 644]. Although the subjects of this study were all in similar jobs with similar extrinsic and intrinsic rewards, blacks reported greater satisfaction. Brenner and Fernsten hypothesized that this might be explained by the social psychological factors (relative deprivation) that Moch (1980) found important. Now that many blacks are attaining job parity with whites, their past deprivation causes them to perceive their rewards as more positive than do the whites [Ref. 16: p. 646].

Jones, James, Bruni and Sells (1977) looked at U.S. Navy enlisted personnel to examine differences between black's and white's job-related satisfaction. Differences were explored in the form of individual needs and through differences in the individual's perception of work conditions. They found that when black and white sailors in the same divisions aboard the same ships were compared, blacks were slightly older, had received lower GCT scores, had lived in larger cities and in smaller houses. Black sailors also reported being in the Navy longer, had higher self-esteem scores, had completed fewer advanced training schools and were more likely to be working in more routine, non-technical ratings. There were no differences between black and white sailors on general satisfaction. Blacks did report higher levels of satisfaction with regulations regarding appearance and opportunities to get a better job in the Navy (extrinsic factors). Blacks were more likely to perceive the Navy as having a desireable growth potential. White sailors reported higher intrinsic needs. [Ref. 15: pp. 10-11]

Although discrimination was not directly addressed, blacks did not perceive differences in treatment by superiors. For both blacks and whites, satisfaction was highest in jobs that were perceived as challenging; blacks who perceived their work as challenging were more likely than whites to report higher needs. Selection bias can be a problem here if the blacks who qualify for the advanced training needed for the more challenging jobs had stronger needs originally. The finding that blacks scored higher on measures of professional and organizational esprit, higher satisfaction with pay and the lack of differences in promotion rates , supports the hypothesis that blacks have lower expectations because of discrimination and relative deprivation in the labor market. [Ref. 15: p. 15]

C. MEASUREMENT OF JOB SATISFACTION

Many studies of job satisfaction use questionnaires to understand the relationships between different variables and total satisfaction. One highly regarded instrument is the Cornell Job Descriptive Index (JDI). Subtopics on the index are pay, people, supervision, promotion and work. There are a number of drawbacks in the use of ready made instruments. They do not take into account aspects of the situation being studied that are unique. Also, there is the problem of repondents giving answers on any questionnaire that are socially acceptable rather than his/her true feelings. Another problem is that people are influenced by the way a question is phrased and will give different answers depending on the wording. Considering the fact that rarely are all questionnaires filled out and returned, there is the possibility that the group of people who do not return the forms differ in some way from the people who do return the questionnaire. [Ref. 1: p. 4]

An area that has received attention in the study of job is the apparent lack of correlation between global measures of satisfaction and the measures of satisfaction with specific job characteristics. Global measures are useful in measuring the overall satisfaction for a segment of the labor force or over time. A general assessment of personal job satisfaction may be used by individuals when they make the decision to stay or leave an organization. When the focus shifts to an organization attempting to make improvements in employee job satisfaction or when attempting to predict future turnover, specific job characteristics need to be examined. [Ref. 18: p. 578]

Empirical data shows that general job satisfaction and the sum of satisfaction with job facets are not highly correlated. One possible explanation is that there are facets missing from the instruments that are presently in use, that an individual considers when reporting his/her own

overall job satisfaction. If these instruments do exclude some job facet variables, then the sum of the facets can not be expected to equal the overall satisfaction as Locke (1969) proposed and as has been generally accepted. Many researchers have acknowledged this lack of fit between the global and facet measures of job satisfaction but have attributed it to: (1) unreliability of single-item measures; (2) that the two types of measures are inherently non-equivalent or (3) that the non-equivalence may be due to scoring methods and/or from using linear statistical models when nonlinear models should be used to combine the facets. [Ref. 18: p. 579]

Scarpello and Campbell (1983) approached this problem. They felt that there was no evidence that overall satisfaction measures were unreliable. They also pointed out that the literature did not support the suggestion made by Smith, et al., (1969) that the lack of fit between the two measures was caused by the individual using two different frames of reference when responding to each type of question. Smith, et al., reasoned that the person uses a relative frame of reference that focuses on currently available alternatives when answering job facet questions and an absolute frame of reference when responding to a measure of overall satisfaction. [Ref. 18: p.579]

There is also little evidence to support the contention that the nonequivalence of the measures is caused by the use of linear instead of nonlinear models. Aldag and Brief (1978) used the overall satisfaction scale from the Yale Job Inventory as the criterion variable and the scales in the Job Descriptive Index (JDI) as predictor variables. They tested a compensatory linear model, where a high score on one facet compensates for a low score on another. They also tested a conjunctive model which is a nonlinear "multiple hurdles" approach and a disjunctive model which is nonlinear and tests whether a high score on one facet is high enough

to outweigh a low score on another facet. Aldag's and Brief's conclusion was that none of the models tested were superior to the others. [Ref. 18: p. 580]

Ferratt (1981), in research similar to that of Aldag and Brief, concluded that the linear compensating model and the simplest item scoring methods were as good or better models for job satisfaction research as the nonlinear models that he tested. He found no strong evidence that the choice of statistical method or weighting of the job facets' importance were responsible for the low correlations between facet satisfaction and overall satisfaction. [Ref. 18: p. 581]

Scarpello and Campbell tested the hypothesis that an individual considers a number of content and process variables related to career concerns such as satisfaction with life off the job and decisions made prior to and concurrently with entry into the job that are not measured by any one job satisfaction instrument. Their research was conducted by interviews in which employees were asked what they considered when the assessed their own job satisfaction. Their results argued against the common practice of summing facet satisfaction measures when measuring overall satisfaction. They concluded that the low correlation between overall measures was related to the ommission of variables that people consider when measuring their overall job satisfaction and also to differences in the meaning that respondents attributed to particular items on the questionnaires. [Ref. 18: p. 597]

Scarpello and Campbell found that global job satisfaction measures included satisfaction with occupational choice, satisfaction with life off the job and job satisfaction. In their study, the overall satisfaction measure was the more inclusive measurement compared to the summation of job facet satisfaction. By interviewing people in different organizations but in similar functional departments, they

determined that people in similar jobs attributed the same definitions to job facet questions. The importance that people attribute to different job facets in measuring their overall satisfaction, varied among individuals. [Ref. 18: p. 598]

D. SUMMARY

The review of literature documents that job satisfaction varies among individuals for many reasons, one of them being race. The hypothesis of this thesis is that job satisfaction for military officers will vary systematically by race.

Changing demographics (ie. fewer numbers of eligible personnel) due to the 'baby bust' of the 1970s and the reliance on volunteers to man the Armed Forces has made the issues of recruiting and retention important to the military. The cost of training new personnel coupled with the fact that the military is a closed labor market where most members enter at the lowest rank, is forcing the military to consider variables such as job satisfaction in the formulation of policies and plans for the future. An understanding of the elements that determine an individual's satisfaction will give military policy-makers greater control over behaviors such as recruiting and retention and will allow them greater control and understanding of the forces inherent in manpower requirements determination.

Chapter two will be a bivariate analysis of the biodemographical characteristics, job characteristics, opinions and perceptions of military officers in an attempt to identify variables that are significantly different by race and to profile the different racial groups. Chapter three will formulate a multivariate model using selected variables from the results of chapter two, that will predict/explain an individual officers degree of job satisfaction.

II. PRELIMINARY ANALYSIS

A. DATA

The data used in this research was the 1978 Department of Defense Survey of Officers and Enlisted Personnel which is composed of four questionnaires. Forms one and two were administered to enlisted personnel; forms three (economic variant) and four (quality of life) were administered to officers [Ref. 20]. To derive a sample that was homogeneous with respect to such factors as rank, time in service and age, the population analyzed in this research was restricted to Army, Navy, Air Force and Marine Corp officers with the ranks of 01 through 03, who were within their initial period of obligated service.

Small sample size prevented the inclusion of Hispanic, American Indian and Oriental officers in the analysis. Only blacks and caucasians were utilized as racial groups. The useable sample size varied depending on how many respondents answered each question. Most questions were answered by between 100 and 133 black officers (all services combined) and between 2000 and 2300 caucasian officers (all services combined).

Table I shows the number of black and caucasian officers who were on active duty in 1978. The small number of black officer respondents in the 1978 Rand Survey was a function of the small number of black officers in the military. The Army had the highest percentages of black officers in all ranks. The Navy had the fewest black officers. The black officers who were on active duty in September 1978 were heavily concentrated in the lower ranks. This was probably due to relatively few blacks entering the military so that there were not many who had been in the service long enough to have reached the higher ranks. The number of black officers in the Air Force dropped from 7.5% in the 01-02

TABLE I

OFFICERS ON ACTIVE DUTY SEPT 1978

Rank		01-02	03	04	05	06	07-08	09-010	Total
Service									
ARMY	N	22059	27773	15983	10904	4406	384	46	81555
	% black	9.78	6.19	4.90	5.24	4.34	4.43	2.17	6.67
NAVY	N	18331	17086	11757	7580	3577	225	41	58597
	% black	3.78	2.43	.817	.528	.727	.889	2.44	2.17
A.F.	N	18650	39817	17957	12314	5039	309	51	94137
	% black	7.49	3.33	2.57	1.58	1.51	2.59	0	3.68
M.C.	N	7727	4596	2620	1492	583	56	9	17083
	% black	5.37	3.44	1.11	.469	.172	0	0	3.57
TOTAL	N	66767	89272	48317	32290	13605	1001	147	251372
	% black	6.98	4.05	2.84	2.51	2.16	2.70	1.36	4.29

Source: Defense Manpower Data Center, Monterey, California

category to 3.3% in the 03 category. This gives the impression that the Air Force had recently begun to recruit more black officers since there were low percentages of black officers in the other ranks as well (under 3%). The Navy figures dropped to below 1% of black officers starting with the rank of 04. This may be caused by black Naval officers leaving the military at the end of their obligated service as well as the few blacks entering the Navy.

Blacks were almost totally excluded from the officer corps of all the services until after World War II. Black officers have tended to be concentrated in certain jobs such as supply and procurement and administration. These areas are not considered part of the mainstream and, in some cases, do not offer the same career progression opportunities [Ref. 19: p. 59].

In 1976, blacks constituted 24.4% of the enlisted Army and 16.8% of all the services. By 1981, these figures were 32.2% for the Army and 21.6% of all the Armed Forces. There is an ongoing debate with one argument being that the higher percentage of blacks in the military than there are for that age group in the general population (approximately 12%) is good because military service provides education, training and other opportunities to help improve socio-economic status. An argument that opposes this overrepresentation of blacks in the military is that in the event of a conventional war, black casualties would be disproportionately high. The black soldiers are most heavily concentrated in the combat areas where, in 1981, approximately one of every three Army combat soldiers and one in every five Marines was black. [Ref. 19: p. 57].

The issue of underrepresentation of blacks in the officer corps has not been the topic of debate like the overrepresentation in the enlisted ranks has been. One reason for this may be that the proportion of black officers in all services combined is close to the proportion of all

black college graduates in the relevant age group. In 1979, 5.3% of all male college graduates ages 21 to 29, were black. Another reason that the issue may not have received much attention is that the proportion of black officers has been steadily rising [Ref. 19: p. 61].

As affirmative action efforts were put into practice, the competition for minority college graduates became stronger. Civilian firms were competing with the military for the small numbers of black college graduates, particularly with technical or business degrees. Recruiting of blacks for the officer corps was difficult. As a group, black college graduates are considered to be more suspicious of whites and to perceive more discrimination in the black struggle for equal rights than do other members of the black community. In the late 1970s, a military career provided higher earnings than the average black college graduate could expect in the civilian sector, yet there was still a lack of interest in the Armed Forces. This suggests that there were factors other than economic considerations, that were important to blacks who were qualified to serve as military officers [Ref. 19: p. 61].

B. BIVARIATE ANALYSIS

A number of the questions appeared on both forms three and four of the 1979 survey. In these instances, statistics for both questions are included in the tables. Factors were tested for significance at the .05 level, using either Chi-square tests or tests of means.

The bivariate analysis is conducted in five sections individual characteristics, military background and service plans, current military assignment, finances and housing and equal opportunity and race relations. Table II shows the results of the bivariate analysis conducted on the variables concerned with the background history of the respondents. The sex distribution was found to be significantly different for black and white officers on form three. In all

TABLE II

INDIVIDUAL CHARACTERISTICS BY RACE

Description	Form	prob value	mean black	mean caucasian
Age entering service	3	.161	21.9	21.5
	4	.908	21.6	21.6
Age on last birthday	3	.279	26.1	25.8
	4	.422	25.8	26.0
Sex	3	.031		
	4	.052		
Marital status when entering service	3	.015		
	4	.325		
Marital status now	3	.140		
	4	.936		
Years married	3	.308	5.0	4.2
	4	.347	5.0	4.4
Age of spouse	3	.759	26.1	25.9
Spouse's military exp.	3	.553		
Spouse's education level	3	.365	15.0	14.8
	4	.976	14.9	14.8
Your education level when entered service	3	.427	15.4	15.3
Your education level now	3	.786	16.5	16.5
	4	.535	16.5	16.5
Degree held entering svc.	3	.934		
	4	.364		
Degree held now	3	.099		
	4	.921		
Education level of father	4	.001	10.0	13.8
Education level of mother	4	.001	11.4	13.2
Number of family who have military experience	4	.247	1.4	1.3
Number of dependents	3	.001	.7	.4
	4	.715	.5	.5
Residence at 16 yrs old	4	.001		

services, the percentage of minority female officers was higher than the percentage of minority male officers. Of the 128 black officers who answered this question on form

three, 37 were female (28.9%). The sex variable on form four was almost significant. Of the 137 black officers who answered this question on form four, 39 were women (28.5%).

The marital status of military members will affect their attitudes toward the service especially in areas such as military rotation policy and work and deployment schedules. It may also affect an individual's decision whether to remain in the service or leave. Marital status when the respondent entered the service was significantly different for black and white officers on form three only. A factor may be significantly different for the two groups on one of the questionnaire forms and not on the other, because of the method that was used to determine which form was sent to which military units. Another explanation is that using an alpha level of .05, the results can be expected to be incorrect 5% of the time. There is a difference between what is found to be statistically significant and what can be accepted as a practical difference. Although a variable may be found to be statistically significant, the difference may not be large enough to have any practical application to the analysis. Some of the factors, such as marital status, that were found to be significantly different on one of the survey forms and not on the other will most likely fall into this category.

Marital status was formatted using three categories, 1) married, 2) divorced, separated or widowed, 3) single, never married. A smaller number of black officers were married when they entered the military; 17.8% of the black officers and 21.4% of the white officers were married when they joined the service. A larger percentage of black officers reported being divorced, separated or widowed when they entered (4.7% of the black officers and 1.5% of the white officers).

The other background characteristics that were found to be significantly different for black and white officers

dealt with education of their parents, residence at 16 years old and number of dependents. The number of dependents excluded self and spouse. Black officers reported more dependents. The education level of both the mothers (or female guardians) and fathers (or male guardians) of black officers was significantly lower than those of the white officers. The education levels of the officers themselves were not significantly different however, either at the time of service entry or at the time that the survey was taken.

Individuals entering the service can be expected to bring attitudes and experiences that , in part, will be affected by the geographical region and type of community that they come from. The type of residence of the respondents when they were sixteen years old was significantly different for black and white officers. There were seven categories ranging from a large city of 250,000 population or more, to a farm or rural area. Suburbs of large, medium and small cities were also categories. A larger proportion of black officers reported living in large cities (21.2%) than did the white officers (13.6%). More white officers (20.3%) reported living in the suburbs of a large city than any other of the community types. Only 5.9% of the black officers reported living in the same suburbs. Combining the categories of large and medium city suburbs, 27.6% of the white officers fell into these categories while the same two categories contained only 10.2% of the black officers.

Table III addresses the military background and service plans of the respondents. The survey questions for commissioning source included 13 different categories. Due to the lack of black officers in some of the categories, I limited the categories to four, 1) Academy Graduate, 2) Officer Candidate School, 3) Regular ROTC and 4) Scholarship ROTC. The white officers were concentrated in the Academy Graduate and Scholarship ROTC categories (52%) while the majority of black officers received their commissions

TABLE III

MILITARY BACKGROUND AND SERVICE PLANS BY RACE

Description	Form	prob value	mean black	mean caucasian
Commissioning Source	3	.001		
	4	.001		
Present duty station	3	.111		
Intended years of service	3	.929	12.6	12.5
	4	.604	12.9	12.5
Expected final paygrade	3	.956		
	4	.101		
Chances next tour in undesirable location	3	.234		
	4	.529		
Chances of promotion compared to peers	3	.867		
Would you stay if promotion chances decreased 50%	3	.118	2.5	2.9
Unused leave days	3	.033	28.9	25.1
Leave days lost	3	.676	.8	1.0

through either Officer Candidate School or Regular ROTC (71%). The data shows that white officers are far more likely to be commissioned through programs that the military pays for while the black officers are paying for their own college education prior to receiving a commission. This question was answered by 100 black and 1547 white officers. The proportion of black officers in the sample is 6.1%. It would be expected that black officers would comprise approximately 6 to 7% of the respondents in each procurement category. However, black officers make up twice that percentage of officers who are commissioned through the Regular ROTC program (12.9%) and approximately half that percentage of those entering the military through the service academies (3.1%) and through the Scholarship ROTC program (3.8%). The issue of how an officer receives his/her commission is important. Providing financing for an

education and subsequent commission will allow some people to become officers who could not do so otherwise. A paid for education is also a method of encouraging individuals or groups to join the military as officers. Commissioning source also carries a particular status with it. Officers who received their commissions through one of the service academies have the highest status and also have the best chances for promotion to flag rank.

Young black and white officers do not differ in the number of years that they intend to stay in the military or in the paygrade that they expect to be in when they do leave. If promotion chances were reduced by 50%, both black and white officers were prone to leave the military, reporting between only a 20% to 30% chance of staying under those circumstances.

The number of unused leave days was significantly different for black and white officers. Black officers reported more unused leave (28.9 days) than white officers (25.1). This difference in unused leave may be caused by a tendency of black officers to not take as much leave as the white officers if they perceive this as a way of compensating for any handicap they might have because they are black. Conversely, this difference of almost four days of unused leave may not be enough to be practically different although it is statistically significant. There was no significant difference by race of what the individual perceived to be his/her promotion opportunities in comparison to peers. This analysis is restricted to junior officers, 01-03. Almost all these officers are promoted according to a designated Department of Defense schedule that is virtually unaffected by ability or fitness reports. Promotion for these officers is driven by time in service.

The black and white officers were similar in many of their personal characteristics and opinions. This is probably attributable in a large part to the selection

process inherent in becoming a military officer. This selection process requires a college education and restricts entrants by age. The data follows these two requirements with the finding that the officer respondents were statistically the same age and had achieved the same level of education when they first entered the military. Since the officers were statistically the same age, it follows that their spouse's were also the same age. Their spouse's also had statistically the same levels of education. The common college experience also helped make the respondent's opinions and intentions more similar than they might have been otherwise. The results of the research done on this population may not be applicable to other populations.

Table IV contains variables concerning the respondents present military assignment. When asked how much they considered drug use, alcohol use, crime and racial tension to be problems at their current commands, only the perception of racial tension was significantly different for the black and white officers. The degree of problem was, 1) serious problem, 2) somewhat of a problem, 3) a slight problem and 4) no problem. No problem with racial tension at their commands was reported by 50% of the white officers. Approximately half that number, 26.1% , of the black officers felt that there was no problem. A serious problem with racial tension was reported by 10.9% and 2.8% of the white officers.

While there was not a significant difference between black and white officers in the number of location choices that they had submitted prior to receiving orders to their present duty station (60% of the black officers and 58.4% of the white officers submitted three or more choices), there was a significant difference in the location choice that they received. Almost twice as many black officers (42.0%) as white officers (23.8%) reported not being assigned to

TABLE IV

CURRENT MILITARY ASSIGNMENT BY RACE

Description	Form	prob value	mean black	mean caucasian
How much problem is:	4			
Drug use		.478		
Alcohol use		.891		
Crime		.937		
Racial tension at your current location		.001		
No. of location choices submitted prior to assignment	4	.873		
Choice received	4	.001		
Chances of next assignment being undesirable location	3	.051	3.9	4.5
	4	.912	4.6	4.6
Feelings about duty station	3	.001	4.4	5.0
	4	.001	4.4	5.0
Morale at duty station	4	.019	4.0	3.7
Personnel readiness	4	.428	5.1	5.0
Equipment readiness	4	.002	5.0	4.5
How much time spent out of primary MOS	3	.570		
No. people in primary work unit	4	.826		
No. of minorities in primary work unit	4	.005		
No. hours on call/alert status, last 7 days	3	.219	18.1	21.3

any location of their choice. Their first choice location was reported as being received by 46% of the white officers and 26.8% of the black officers.

Feelings about current location were measured on a Likert scale of 1 (very dissatisfied) to 7 (very satisfied). There was a significant difference between black and white officers on both forms. In each case, black officers reported lower satisfaction than white officers.

The morale of military personnel at their current location was also measured on a seven-point Likert scale. Respondents chose 1 if they considered morale very low through 7 if morale was very high. Black officers perceived

morale as higher (4.0) than white officers (3.7). This variable was statistically significant.

The respondents evaluated the ability of the military personnel on their base to perform their wartime mission and the ability of important combat equipment to perform in wartime. These were also measured on a seven point Likert scale. There was no significant difference between the black and white officers evaluation of the military personnel on their bases. There was a significant difference between their opinions of the combat equipment. The black officers rated the equipments ability higher (5.0) than did the white officers (4.6).

There was no significant difference in the numbers of personnel in the respondents primary work groups. There was however, a difference in the number of minority service members in their primary work units. This question had six categories on the survey which were reduced to four for this research. The categories reduced categories were, 1) most or more than half, 2) about half, 3) some or a few and 4) none. Over twice as many black officers (12.7%) reported that most or more than half of their primary work units were members of minority groups than did white officers (5.9%). Since officers are generally in charge of their primary work units, this finding could be a result of black officers being systematically assigned to work units that are predominantly minority because they might be assumed to be more effective with such a group or because of a presumed reluctance of white enlisted personnel to take orders from black officers.

Table V deals with the respondents financial and housing situation. A spouse's earnings can affect a service member's decision to stay in the military. Satisfaction with military life will be affected if the spouse is employed and is opposed to the military rotation policy. A working spouse or other financial assets can provide income

TABLE V

FINANCES AND HOUSING BY RACE

Description	Form	prob value	mean black	mean caucasian
Spouse's earnings 1978	3	.959	$4189	$4156
Earnings other sources	3	.001	$ 87	$ 310
Interest on stocks/bonds	3	.001		
Total family gross income	3	.011	$13910	$15427
	4	.006	$14221	$15757
No. of hours you worked in civilian job (off duty)	3	.053	.234	.484
Amount earned in same	3	.759	$1109	$1342
Outstanding debt	3	.001		
Total assets and cash	3	.001		
Comparison of financial situation w/ 3 yrs ago	3	.001		
Type of housing you live in now	3	.031		
Satisfaction with housing	3	.250	4.8	5.0
Estimated cost of civilian housing in your area	3	.332	$315	$334
Amount paid for rent and utilities	3	.015	$258	$296
How many homes owned	3	.103		
Home purchase price	3	.646	$50767	$44314
Mortgage payment	3	.310	$346	$381
Special pay received	3	.001		
Flight pay	3	.001		
Jump pay	3	.001		
Amount spent in exchange each month	3	.345	$78	$69
Amount spent in commissary each month	3	.321	$95	$102
Amount spent in civilian market each month	3	.915	$48	$49
Unreimbursed moving expenses	4	.102	$287	$355

while the military member makes the transition to a civilian job if he/she chooses to do so. Spouse's earnings for 1978 were not significantly different for black and white

officers. However, the amount of money received from other sources such as social security, alimony, child support and interest or dividends on stock and bonds, was significantly higher for the white officers ($310 per month) than for the black officers ($87 per month). More than twice the percentage of white officers (64.1%) reported receiving interest or dividends on stocks and bonds than did black officers (30.7%). Total gross family income was also higher for the white officers.

The amount of outstanding debt that the respondents reported was significantly higher for the black officers than it was for the white officers. Total value of assets and cash was significantly higher for the white officers than for the black officers.

The respondents were asked to compare their present financial situation to what it was three years ago. At that time, of the officers included in this research, many of the officers with the ranks of O1 and O2 would not have been in the service (unless they were enlisted personnel prior to being commissioned). There were five category choices: 1)a lot better now, 2) somewhat better now, 3) about the same, 4) somewhat worse now, 5) a lot worse now. While the percentage of black officers who answered this question was 5.4% of the total sample, 17.1% of the black officers reported that their financial situation was 'a lot worse now' than it had been three years ago. The financial situation was either a lot or somewhat better than it had been three years before for 79.4% of the black officers and 67.7% of the white officers. A decrease in the respondents financial situation can either be caused by the respondent making less money in his/her present job, a reduction in other income such as interest or dividends or by the loss or reduction in a spouse's income.

The categories for current housing were 1) civilian housing, 2) on board ship, 3) BOQ, 4) onbase military

housing and 5) offbase military housing. The percentages reporting living onboard ship were 3.3% of the white officers and 0.8% of the black officers. White officers were more likely to be living in civilian housing (59.7% of the white officers and 51.2% of the black officers). Black officers were more likely to be living in onbase military housing (26.4% of the black officers and 17.3% of the white officers). If black officers perceive discrimination in local civilian housing, they may feel more comfortable in onbase housing. There was a significant difference between black and white respondents in the amount of rent and utilities they paid for those living in civilian housing. White officers paid more ($296) than the black officers ($258).

Military officers receive special pay depending on the type of duty and training that they have. Pilots receive flight pay even when they are not in a billet that requires them to fly; submariners receive sub pay. Special groups as these also receive bonuses as encouragement to remain in the military since their specialized training is easily transferable to civilian (better paying) jobs. No special pay of any type was being received by 74.6% of the black officers and 56.5% of the white officers. Of those receving flight pay, 2.5% were black. No black officers who answered these questions reported receiving sub pay. However, 26.1% of the officers receiving jump pay were black.

Table VI is concerned with the areas of equal opportunity and race relations. The respondents were asked how often members of their own race exhibited different racially oriented behaviors. The five choice categories were: 1) very often, 2) often, 3) sometimes, 4) seldom and 5) never. The officers opinion of how often people of their own race complain to each other that members of other racial groups receive better treatment in the military, was significantly different by race. That this occurred seldom or never was reported by 74.5% of the white officers and 58.1% of the

TABLE VI

EQUAL OPPORTUNITY AND RACE RELATIONS BY RACE

Description	Form	prob value
How often do people of your race do the following:	4	
Complain other races get better treatment		.001
Avoid doing things with other races		.024
Talk badly or tell racist jokes		.162
Talk to each other about problems with other races		.009
How concerned are leaders about equal opportunity	4	.066
Treatment of blacks compared to whites	4	.001
Which racial group has best chances for promotion	4	.001
Have you personally experienced discrimination in the following areas:	4	
local civilian housing		.001
local civilian services		.001
onbase facilities		.001
training/education oppor.		.001
promotion opportunities		.001
daily duty assignment		.001

black officers. Approximately the same percentage of black and white officers said that the complaint was made very often (2.4%). The divergence between the two groups is noticeable in the "often" category (12.1% of the black officers and 18.8% of the white officers chose this category) and in the "sometimes" category (27.4% of the black officers and 18.8% of the white officers chose this category). It is not an unexpected finding that more black military personnel would complain that other racial groups, particularly white personnel, received better treatment in the services.

The opinions of the officers of how often members of their own racial group avoid doing things with members of other racial groups was also significantly different for the

black and white officers. Black officers reported that black military members were more likely to avoid doing things with members of other racial groups than the white officers reported for their group. This behavoir was not reported as occurring as much as the previous behavior (complaining that other racial groups received better treatment). That this occurred seldom or never was reported by 68.5% of the black officers and 80.5% of the white officers.

Although the opinions of the officers of how often people of their own racial group talk badly about other racial groups or tell racist jokes, was not significantly different for the black and white officers, the results are interesting. The behavior occurred often or very often according to 8.9% of the black officers and 6.5% of the white officers. It occurred seldom or never according to 74% of the black officers and 89% of the white officers. This data infers the existence of pressure in the military to eliminate any overt expression of prejudice. The actual removal of discriminatory practices and racism among some military members is more difficult and takes longer.

The final behavior in this series is whether members of your own racial group talk to each other about problems in the military with other races. Of the respondents who reported that this occurred very often, 20% were black and the responses were statistically significant by race.

The opinions of the respondents of how important they thought that equal opportunity and race relations were to the leaders of their service were not significantly different for the black and white officers. The majority of both groups thought that the issues were very or somewhat important.

Their opinion of how blacks in their service are treated compared to whites was solicited from the respondents. There were five possible responses, 1) a lot better, 2) better, 3) the same as whites, 4) worse, 5) a lot worse.

The responses of the black and white officers were inverse to one another and significantly different for the two groups. Only 27.34% of the black officers thought that both groups were treated the same while 73.64% of the white officers chose this same category. Those who thought that blacks were treated worse that whites were 64.8% of the black officers and 5% of the white officers; 19.6% of the white officers thought that blacks were treated better than whites and 1.6% of the black officers thought the same. The data shows that black and white officers have quite opposite views of how black personnel are treated in the military.

Similar results were obtained concerning who has the best chances for promotion (also significantly different for the two groups). The four choices were, 1) whites, 2) blacks, 3) other minorities and 4) all groups have an equal chance. In the opinion of 74.8% of the black officers but only 16.6% of the white officers, the whites in the military have the best chances for promotion. The majority (65.4%) of the white officers thought that promotion opportunity was equal for all; less than half that percentage of the black officers (23.7%) held the same opinion. Only 0.8% of the black officers thought that blacks had the best chance for promotion while 15.5% of the white officers thought the same.

Personal experience with discrimination was explored in six different areas, local civilian housing, local civilian services, onbase facilities, training and education opportunities, promotion opportunities and in daily duty assignments. There was a significant difference between the black and white officers in all of the six areas. White officers would most likely be reporting discrimination against the military if they answered yes to having experienced discrimination in local civilian housing or services. Black officers would be reporting experiencing discrimination against the military and against blacks. There were so few high

ranking minority officers that it would be difficult for white officers to experience racial discrimination in the military. Although the question did not specify racial discrimination, by 1979, the term discrimination had been used often enough in the context of racial discrimination that it was likely that most respondents interpreted it that way. There were women officers in the sample that affected the answers received on these questions. White female officers would be more likely than white male officers to perceive sex discrimination in the military. Black female officers may experience both racial and sex discrimination. Female officers in the sample would be expected to increase the number of both white and black officers who reported personally experiencing discrimination.

More than twice as many black officers (13.7%) reported experiencing discrimination in local civilian housing compared to the white officers (6%).

Discrimination in local civilian services was reported by 33.1% of the black officers and 7.7% of the white officers. Of the officers reporting discrimination in onbase services, 32% were black. Discrimination in training and education opportunities was perceived by 15.6% of the black officers and 3.1% of the white officers and 20% of the black officers reported personally experiencing discrimination in promotion opportunities, while only 3% of the white officers had personally experienced discrimination in this area. Discrimination in daily duty assignments was reported by 32% of the black officers and 4.8% of the white officers.

Table VII is concerned with the individual's attitudes toward the military and about civilian employment. White officers expected higher civilian earnings if they left the military now than did the black officers. The difference was statistically significant on form three but it was not significant on form four.

TABLE VII

ATTITUDES ABOUT JOB CHARACTERISTICS BY RACE

Description	Form	prob value	mean black	mean caucasian
Expected civilian earnings if I left military now	3	.002	$17600	$19300
	4	.107	$18700	$20000
If I left military now civilian job would be better, worse, same, in these areas:	3			
having a say		.254		
retirement benefits		.140		
medical benefits		.438		
interesting/challenging work		.009		
wages or salary		.264		
immediated supervisor		.038		
chances for promotion		.567		
training opportunities		.001		
people I work with		.099		
work schedule/hours		.020		
job security		.340		
equipment		.047		
location		.896		
Did you receive job offers in the last 12 months	3	.140		
If left military now, how likely to find good job	3	.581	8.4	8.3
Pay/Benefits of military compared to civilian job	3	.368		
How much do you agree with:	3			
Life in military is what I expected		.059		
Military retirement won't be as good in future		.956		
Military pay/benefits won't keep up w/inflation		.232		
Family would be better off if I took civilian job		.175		
Satisfaction with military	3	.345	4.3	4.2
	4	.081	4.5	4.2

Comparing military and civilian employment, most respondents thought that the work would be more interesting and challenging in a civilian job. Although not significantly different for the two groups, 74.1% of the black officers and 75.1% of the white officers thought that the pay would be better in a civilian job. Comparisons of promotion opportunities in the military and civilian sectors were not

significantly different by race. There were 57.4% of the black officers and 55% of the white officers who thought that promotion opportunities would be better in a civilian job.

Black officers had reported discrimination in opportunities for training and education. Over half of the black officers (52.8%) thought that they would have better opportunities for training in a civilian job, while 39.1% of the white officers felt the same way. Conversely, 9.3% of the black officers and 23.3% of the white officers thought that training would be worse in civilian employment. There was a significant difference in the opinions of the black and white officers in their comparisons of work schedule and work hours in military and civilian sectors with 72.3% of the white officers and 61.1% of the black officers thinking it would be better in civilian jobs. With the viewpoint that their schedule and hours would be the same was 32.4% of the black officers and 21.1% of the white officers. The comparison of military and civilian job security was not significantly different by race. Both groups considered job security in the military to be superior. Respondents who thought that equipment used on the job would be better in the civilian sector were 98.6% white and 1.4% black which does not contradict the variable where the black officers rated the ability of the combat equipment on their bases higher than did the white officers.

The number of civilian job offers received was not significantly different for black and white officers. Reporting that they had received civilian job offers in the last twelve months were 43% of the black officers and 36.5% of the white officers.

Both black and white officers felt that their chances of finding good civilian employment, were they to leave the military, were better than 80%.

General satisfaction with the military as a way of life was measured on a seven point Likert scale. It was not significantly different for the two groups on either form.

III. MULTIVARIATE ANALYSIS

A. INTRODUCTION

The findings from the bivariate analysis were that the black and white officers were similar and did not vary on most of the biodemographical characteristics. This result is, in large part, because of the selection process. Individual's eligible for a commission as a military officer must be a certain age and have a college education (in most cases). The criteria for entering college further serve to make military officers similar to one another. The black officers perceived considerably more discrimination in areas such as promotion opportunities, training and education opportunities and in daily duty assignments. Discrimination is a negative aspect of work and would be expected to decrease the individual's degree of satisfaction with the job. Yet the overall measure of general satisfaction with the military was not significantly different for the two groups. One possible explanation of this counter-intuitive finding is that the individual's evaluation of comparative working conditions in the military and civilian sectors may not carry the same weight (ie. have the same affect) for the black officers as it does for the white officers when they are evaluating their general job satisfaction. Relative deprivation (ie. the individuals' perception of their ability to find good alternative employment) has been documented as a predictor of general job satisfaction. For the black and white officers, however, the assessment was almost identical; both groups thought that they had approximately an 83% chance of finding good civilian employment were they to leave the military now.

The literature indicates that because of the different values, beliefs and frame of reference that different racial groups have, black officers may differ from white officers

in their assessment of job characteristics. They may differ in both the relative importance that these job characteristics will have and in the relative effect that these characteristics will have on the officer's evaluation of overall satisfaction. The bivariate analysis suggests that the black and white officers will not differ in this area just as they did not differ in their biodemographical characteristics.

B. METHODOLOGY

A comparison of thirteen job facets was chosen to further test the differences/similarities between the black and white junior officers. It was decided that females in the sample would be responding to the different situation that they faced in the labor market (particularly in management fields) that was unrelated to race. Therefore, since females constituted approximately 39% of the black officers and 27% of the white officers, to identify racial and not sex differences, females were excluded from this portion of the analysis.

Factor analysis was used on thirteen job characteristics. This statistical method is useful as a means of identifying any underlying pattern of relationships that might exist and then reducing the job facets to a smaller set of factors that can be interpreted as source variables that account for the observed interrelationships in the data. [Ref. 21: p. 469]

One type of factor analysis is principal-component analysis which transforms the variables into a new set of composite variables that are uncorrelated (orthogonal) to each other. The composite variables are derived as the best linear combination of variables (ie. that combination which will explain more variance in the data as a whole, than any other combination of variables). The first principal-component explains the most variance in the data. The second principal-component is the second best linear

combination of variables and is uncorrelated to the first. Therefore, the second component actually explains the most residual variance after the effect of the first component is taken into account. Subsequent components explain the most residual variance remaining after the effects of the preceding components have been removed. [Ref. 21: p. 470]

Once the original variables are reduced into factors, the factors are rotated into terminal factors which are easier to interpret. This step is possible because there is no factor structure that is unique; one solution can be transformed into another without violating the assumptions or mathematical properties of the solution. There are many statistically equivalent ways to express the underlying relationships in a given set of data. This analysis used the varimax method of rotation. Varimax concentrates on simplifying the columns of the factor matrix. This is equivalent to maximizing the variance of the squared loadings in each column. [Ref. 21: p. 472]

To use factor analyis is to express a variable as a linear combination of independent variables. Each of the thirteen variables are expressed as dependent variables in a linear regression, with the hypothetical factors explaining these dependent variables. The correlation coefficient between each variable and each factor is referred to as the factor loading. [Ref. 21: p. 473]

Table VIII is the factor matrix for the black male officers. As in the previous chapter, the data was analyzed separately for the black officers and separately for the white officers. Correlation coefficients below .3 were omitted from the matrix to allow easier interpretation of the correlations.

The numbers in the rows are the loadings which represent regression coefficients of the factors that describe a particular variable. Some of the variables load significantly on only one factor (eg. retirement benefits and

TABLE VIII

FACTOR MATRIX FOR BLACK MALE OFFICERS

VARIABLE	FAC 1	FAC 2	FAC 3	FAC 4
having a say	.695			
interesting & challenging work	.684			
opportunity for training	.656			.401
immediate supervisor	.627	.319		
chance for promotion	.586			.402
job security	.486		.479	-.382
work schedule/hours		.783		
location of job		.693		
people I work with	.430	.600		
retirement benefits			.887	
medical benefits			.816	
salary				.775
equipment		.458		.757

medical benefits) while others may load moderately on two or more factors (eg. chance for promotion). The variables in Factor 1 (having a say, interesting/challenging work, opportunity for training, immediate supervisor, chance for promotion, people I work with and job security) are the more intrinsic type of job characteristics. Part of factor 2 (work schedule/hours, location of the job and equipment I use on the job), are more extrinsic characteristics, although "immediate supervisor" loaded moderately on factor 2 as well as on factor 1 and "people I work" with loaded more heavily on factor 2 than it did on factor 1. Factor 3 is easier to interpret. Retirement benefits and medical benefits are monetary/extrinsic type, job characteristics. Salary and equipment both loaded heaviest on factor 4 but opportunity for training and chances for promotion loaded on this factor as well.

Table IX is the factor matrix for the white male officers. Factor 1 for the white officers is very similar to factor 1 for the black officers. The differences are in the order of the loadings and that the variable "people I work

TABLE IX

FACTOR MATRIX FOR WHITE MALE OFFICERS

VARIABLE	FAC 1	FAC 2	FAC 3
interesting & challenging work	.732		
immediate supervisor	.697		
people I work with	.674		
having a say	.621		
opportunity for training	.566	.365	
chance for promotion	.509	.461	
retirement benefits		.756	
medical benefits		.754	
salary		.612	
job security		.372	
equipment		.358	
work schedule/hours			.838
location of job	.354		.541

with" loaded moderately between factors 1 and 2 for the black officers but loaded most heavily on factor 1 for the white officers. Retirement and medical benefits and salary all loaded heaviest on factor 2 (monetary/ extrinsic characteristics). Work schedule/hours and location of the job (also extrinsic type job characteristics) loaded heaviest on factor 3 for the white officers while they loaded heaviest on factor 2 for the black officers.

The eigenvalue of a factor is a measure of the relative importance of that factor. The sum of the eigenvalues equals the amount of the total variance that exists in the variables. The eigenvalue for factor 1 of the black officers was 4.01 explaining 30.9% of the total variance in the variables. For the white officer factor 1, the eigenvalue was 3.82, explaining 29.4% of the total variance. In both cases factor 1 explains a substantial amount of the total variance. For the white officers, factor 2 explains an additional 10.6% of the variance and factor 3 explains 8.1% more of the total variance in the variables. For the black officers, factor 2 explains an additional 13.9%, factor 3 an additional 11.1% and factor 4 explains 8.4% more of the total variance in the variables.

The factors were used as the independent variables in two multivariate regression models, one for the black officers and one for the white officers, with general satisfaction with the military as the dependent variable. A dummy variable for branch of service was included to account for any variance in job satisfaction that might be attributable to a particular branch of the military.

Using a stepwise regression technique, the regression coefficients that were significant at the .05 level for the white officers were, factor 1, factor 2, the dummy variable for Marine Corps (positively correlated with satisfaction) and the dummy variable for Navy (negatively correlated with satisfaction). The proportion of the variance in job satisfaction that was explained by these variables (R^2) was .333. For the black officers, the significant coefficients were those for factor 1 and factor 2. The effects of branch of service were not significant for the black officers. The R^2 statistic for this model was .331. One explanation for the lack of a branch effect is that in addition to the effects of selection criteria which serves to make all these officers similar in many areas, the process by which the blacks make the decision to become military officers has an homogenizing effect so that the black officers are more similar to one another than the white officers are to each other. This would indicate that the group of people in the black community who evaluate their career opportunities and choose the military as their alternative are a very homogeneous and also probably quite small group of individuals.

To further refine the two models and explain more of the variance in job satisfaction, an additional set of variables was examined for inclusion. The final multivariate model formulated for the white officers included factor 1, "feelings about current location", factor 2, factor 3, the Marine Corps dummy, "feelings about current housing", the Navy dummy, commissioning source (academy vs. nonacademy

graduate) and "chances of finding good civilian employment". This model accounted for .381 of the variance in job satisfaction.

The model for the black officers included factor 1, factor 2, "expected earnings in a civilian job" and "feelings about current location". This model accounted for .396 of the variance in job satisfaction. "Feelings about current location" had good explanatory power in both models, supporting the hypothesis that the way an individual feels about his current duty station and job has an effect on overall satisfaction with the military. The importance of this variable goes along with the pattern seen in the factor analysis. Many of the variables that loaded heaviest on factor 1 (for both the black and white officers) were job characteristics that the individual encounters every day; they are the more short-term characteristics like "immediate supervisor", "having a say", "interesting/challenging work" and "people I work with".

Table X is a summary of the factor analysis for the black and the white officers. Factor 1, which is the combination of variables that explains the most variation in this set of job facets, is almost identical for the black and white officers. The only differences are that job security loads on factor 1 for the black officers and does not for the white officers and people I work with is enters factor 1 for the white officers and does not for the black officers. Both of these variables appear in factor 2 for the officer group that did not have it in factor 1. Retirement and medical benefits and salary all load on factor 2 for the white officers. But these three measures of monetary benefits load on factors 3 and 4 for the black officers.

Table XI is a summary of the multivariate models for the two groups. Clearly, the same job characteristics are important to both the black and white junior officers in the evaluation of their satisfaction with the military. Factor

TABLE X

SUMMARY OF THE FACTOR ANALYSIS BY RACE

Black Officers	White Officers
FACTOR 1	
having a say	interesting/challenging work
interesting/ challenging work	immediate supervisor
oppor. for training	people I work with
immediate supervisor	having a say
chance for promotion	opportunity for training
job security	chance for promotion
FACTOR 2	
work schedule/hours	retirement benefits
location of job	medical benefits
people I work with	salary
	job security
	equipment
FACTOR 3	
retirement benefits	work schedule/hours
medical benefits	location of job
FACTOR 4	
salary	
equipment	

1 explained 24.5% of the variation in job satisfaction for the white officers and factor 1 for the black officers explained 18.4% of the variation in their job satisfaction.

The variable for branch of service did not significantly contribute to explaining job satisfaction for the black officers. This does not disconfirm that branch differences exist among black officers. Further analysis in economic and discrimination areas would have to be accomplished to determine if, in fact, there were no branch differences in any areas for the black officers. The effects of branch were significant for the white officers. Using the Air Force as the base for the dummy variable the results showed that white officers in the Marine Corps were more satisfied than those in the Air Force and Navy officers were less satisfied (and Army officers had statistically the same

TABLE XI

SUMMARY OF MULTIVARIATE ANALYSIS BY RACE

Model of Job Satisfaction for Black Male Officers

Variable	Sig T	Multiple R	R Square
Factor 1	.001	.429	.184
Factor 2	.001	.556	.309
Expected civ. earnings	.038	.593	.352
Feelings about current location	.000	.629	.396

Model of Job Satisfaction for White Male Officers

Variable	Sig T	Multiple R	R Square
Factor 1	.000	.495	.245
Feelings about current location	.000	.578	.297
Factor 2	.000	.545	.334
Factor 3	.000	.595	.353
Navy	.001	.604	.365
Feelings about current housing	.000	.611	.373
Marine Corp	.002	.613	.376
Commission Source	.006	.616	.379
Chance of finding good civ. job	.010	.618	.381

level of satisfaction as those in the Air Force). Further analysis that has a large enough minority sample to be able to examine the data individually for race and service would be able to identify the areas that differ by branch of service for the white officers.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

This thesis was primarily exploratory in nature. Due to the small sample sizes of minority officers only black and white officers could be analyzed. Sex differences have an indirect effect on the measurement of job satisfaction, however, the small black sample precluded an analysis of differences that may have been attributable to sex. Undoubtedly, some of the findings in the bivariate section were a result of a combination of sex and race differences rather than race alone.

Young black and white male military officers in 1979 were similar in both bidemographical characteristics and in their evaluations of job characteristics and alternative job opportunities. The variables that had the highest explanatory powers were those that dealt with the more intrinsic type of job characteristics such as "having a say" which measures autonomy, "interesting and challenging work", "immediate supervisor", "opportunities for training", "chances for promotion", and "people I work with". Satisfaction with current location was also found to be an important predictor of general satisfaction. The job characteristics that had the smallest amount of explanatory power were those of salary, equipment and location of job, which are the more extrinsic type of characteristics.

Black officers perceive discrimination in a number of areas in the military, including promotion, training and daily duty assignments. However, the black officers report a level of general satisfaction similar to that of the white officers. This counter-intuitive result may be caused by the expectation of the black officers' that they would encounter a similar level of discrimination in a civilian

job and, therefore, the perception of discrimination does not adversely affect their general satisfaction.

It appears that the black officers in this survey are a more homogeneous group than are the white officers. This homogeneity is partly due to the selection process, which serves to make all these officers similar to one another, but it is also a result of the process by which the blacks make the decision to become military officers. The group of people in the black community who evaluate their career opportunities and choose the military as their alternative are a very homogeneous and probably relatively small group of individuals.

B. RECOMMENDATIONS

Future research should control for the effects of sex, as well as race, on job satisfaction. This thesis was unable to do that because of the small numbers of black officers in the survey.

When the most recent Department of Defense Survey becomes available, analyses similar to this one should be undertaken. Comparisons between the older and newer data sets would then be possible and could be examined to determine the effectiveness of policies that have been instituted to improve equal opportunity in the officer corps. This type of longitudinal comparison would be helpful in identifying trends in general satisfaction in the military since 1979 and in identifying which policies may have improved racial differences in job satisfaction.

Young black people represent a potentially important pool of future resources for the officer corps. Since the services are faced with a decrease in those eligible for military service, this pool needs to be targeted for future recruiting efforts. Programs that have been established to increase minority participation in the officer ranks need to be monitored for success rate and changed to meet the needs of the participants. This thesis documents that the black

officers in the military in 1979 were very much like the white officers in terms of the factors that are associated with satisfaction with military life. The major difference was in their perception of discrimination. Further research is needed to investigate the relationship between perceptions of discrimination and subsequent job satisfaction.

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