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AN ANALYSIS OF THE RELATIONSHIPS BETWEEN JOB SATISFACTION/ ENRICHMENT FACTORS AND DEMOGRAPHIC VARIABLES FOR UNITED STATES AIR FORCE PROFESSIONAL MILITARY EDUCATION FACULTY

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AN ANALYSIS OF THE RELATIONSHIPS BETWEEN JOB SATISFACTION/ ENRICHMENT FACTORS AND DEMOGRAPHIC VARIABLES FOR UNITED STATES AIR FORCE PROFESSIONAL MILITARY EDUCATION FACULTY

Robert Harold Reely, Jr.

A Dissertation

Submitted to

the Graduate Faculty of

Auburn University

in Partial Fulfillment of the

Requirements for the

Degree of

Doctor of Education

Auburn, Alabama

August 26, 1976

VITA

Robert Harold Reely, Jr., son of Robert Harold, Sr., and Mary (Steffani) Reely, was born September 21, 1938, in Orlando, Florida. He attended Seminole County public schools and graduated from Seminole High School, Sanford, Florida, in 1956. The following fall he entered Florida State University and received the degree of Bachelor of Music Education in June, 1960. Upon graduation as a Distinguished Military Graduate, he was commissioned a Second Lieutenant in the United States Air Force and entered active duty. Throughout his military career, he has continued to do graduate work in Education at the University of Alabama, Auburn University, and Oklahoma Southeastern State College. In June, 1970, he culminated his studies on the Masters level by receiving a degree from Oklahoma Southeastern State College. In September, 1974, he was assigned by the Air Force to Auburn University to pursue full time graduate studies on the doctoral level in Educational Administration. He married Charlotte Ann, daughter of Herbert Miller and Beatrice (Zipperer) King in December, 1960. They have one son, Robert Harold, III, and one daughter, Dana Anise.

DISSERTATION ABSTRACT

AN ANALYSIS OF THE RELATIONSHIPS BETWEEN JOB SATISFACTION/ ENRICHMENT FACTORS AND DEMOGRAPHIC VARIABLES FOR UNITED STATES AIR FORCE PROFESSIONAL MILITARY EDUCATION FACULTY

Robert Harold Reely, Jr.

Doctor of Education, August 26, 1976
(M.Ed., Oklahoma Southeastern State College, 1970)
(B.M.E., Florida State University, 1960)

130 Typed Pages

Directed by Thomas E. Morgan

This study has focused upon an application of job motivation/ satisfaction theory to the faculty of the United States Air Force Air University.

The study was limited to the three major college faculties within Air University. Two hundred and twenty subjects were measured with the Air University Faculty Motivation Survey. The instrument presented and defined 15 job factors. Scales were included to measure both an individual's satisfaction with and perceived importance of each factor. Six job enrichment factors and selected demographic variables were also measured.

Seven hypotheses were investigated and the analysis of the data provided the bases for the following conclusions:

1. There is no significant difference in overall job satisfaction between the faculties of Squadron Officer School, Air Command and Staff College, and Air War College. However, Squadron Officer School is enjoying a significantly higher degree of intrinsic job satisfaction than Air Command and Staff College. Additionally, the faculty members in Air War College are experiencing a significantly greater degree of extrinsic job satisfaction than other university faculty members.

2. There is a negative relationship between military rank and overall job satisfaction. This relationship is characterized by bimodality of the ranks of captain and lieutenant colonel with the mean low being the rank of full colonel.

3. There are no significant differences in overall job satisfaction between the faculty members assigned to the Curriculum Directorates versus Operations Directorates of Squadron Officer School and Air Command and Staff College.

4. There is no relationship between a faculty member's educational level and overall job satisfaction.

5. There is a low positive relationship between the number of people a faculty member supervises and overall job satisfaction.

6. Intrinsic job satisfaction contributes more to overall job satisfaction than extrinsic.

7. The overall level of perceived faculty job enrichment is high and the faculty generally does not advocate a job enrichment program. However, faculty members of the rank of colonel are relatively less satisfied with the enrichment of their jobs and advocate a job design change.

The supplementary analysis conducted provided the following additional conclusions.

1. There is no significant difference between a faculty member's status as an academy or non-academy graduate and overall job satisfaction.

2. There is no significant difference between a faculty member's status as a rated or non-rated officer and overall job satisfaction.

3. There is no relationship between the number of years in the Air Force and overall job satisfaction.

ACKNOWLEDGEMENTS

It is difficult to cite fully all the generous persons at Air University and Auburn University whose time and efforts have contributed to the study.

However, a special and important acknowledgement is appropriate for my wife. Her continued help and cooperation provided the support needed in my quest of this goal.

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I. INTRODUCTION

> In our quest for a better environment, we must always remember that the most important part of the quality of life is the quality of work. And the new need for job satisfaction is the key to the quality of work.[1]

If the United States Air Force is to be an effective instrument of national policy, it must recruit, maintain, and retain professional personnel. Even more important, the Air Force must insure that its personnel achieve a high level of productivity. This need was articulated clearly by former Secretary of the Air Force, Robert C. Seamans, in a speech to the Riverside, California, Chamber of Commerce.

> We cannot achieve any of our goals unless we have competent and committed people. It is the dedicated day-to-day performance of the men and women in the Air Force which assures that we can carry out our military mission. Attracting and keeping the kind of people we need will pose an even greater challenge as we work toward our objective of an all-volunteer force.[2]

One specific managerial method the Air Force has examined to enhance productivity through people in the all-volunteer era is job enrichment, a method of designing jobs to maximize an individual's job

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[1] U.S. Department of Defense, Assistant Secretary of Defense, Office of Manpower and Reserve Affairs, Job Satisfaction in Industry and in the Military, September 1973, p. i.

[2] Robert C. Seamans, Jr., "Attracting and Keeping the People We Need," Air Force Policy Letter for Commanders, November 1972, p. 3.

motivation and satisfaction. A recent study on the quality of life in the Air Force further substantiates this point. Analysis of the data from this study indicates that the central concern of the respondents is satisfaction with their work.[1]

The Problem

The problem of this study is to examine the job motivation/satisfaction of faculty members of the United States Air Force Air University. The investigation will attempt to determine how these faculty members react to specific factors of satisfaction and enrichment and if differences exist among various faculty subgroups (for example, different colleges, ranks, and education). This information will enable Air University to determine if job redesign attempts are desired; and if so, by whom.

Significance of the Study

Job motivation/satisfaction studies have been conducted extensively in the civilian sector. Efforts to analyze how satisfied a person is with his job in the military have been limited. A literature review indicates that job motivation/satisfaction theory has not been systematically applied to educational units within the United States Air Force. This lack of analysis coupled with a continual necessity to attract the highest quality faculty members to the staffs

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[1] T. Roger Manley, Robert A. Gregory, and Charles W. McNichols, Quality of Life in the U.S. Air Force (Washington, D.C.: Air Force Management Improvement Group, 1975), p. 14.

of professional military schools has given rise to the need for this particular study.

Findings in a recent investigation by a sub-committee of the Department of Defense charged with seeking ways to improve the excellence in professional military education substantiate this need. Much of the Clements Committee's (the committee is headed by Deputy Secretary of Defense W. P. Clements) work to date has focused upon the quality of the professional military education faculty and the nature of their jobs, including the Air Force's Air University.[1] This study will attempt to analyze factors providing job satisfaction to Air Force Professional Military Education faculty members as well as identify levels of importance placed on these factors. These data should provide a baseline for administrators and personnel planners to attract and provide Air Force Professional Military Education faculty members with the most satisfying and enriched job experiences possible.

Assumptions

1. The sample group will be able to quantify their feelings on a continuum.

2. Herzberg's motivation/hygiene factors are applicable to Air Force Professional Military Education faculty members.

3. Data gathered on faculty member job facet satisfaction and job facet importance and their reaction to job enrichment factors will provide a baseline for a faculty job enrichment program.

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[1]W. P. Clements, "The Senior Service Colleges: Conclusions and Initiatives," June 5, 1975, Memorandum for the Department of the Army, Navy, Air Force, and the Joint Chiefs of Staff, The Deputy Secretary of Defense, Washington, D.C., pp. 8-11.

4. Study of these factors will add an additional dimension to traditional need assessment techniques.

Limitations

1. This study is limited by the recall or projections of the surveyed group as to job facet satisfaction, job facet importance, and job enrichment.

2. This study is confined to sampling the 14 Herzberg attitudinal factors as adapted from the United States Air Force officer motivation study, New View.[1]

3. This study is also limited to the measures of job enrichment as adapted from the works of Hackman[2] and Lawler.[3]

4. The sample of this study is restricted to the faculties of the three major schools at Air University. These schools are:

a. Squadron Officer School,

b. Air Command and Staff College, and

c. Air War College.

5. This study is also limited to the military instructional staff of the Air Force Air University. It does not include civilian faculty, foreign and joint service advisors, directors, wing chiefs, or administrative assistants.

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[1]U.S. Air Force, Office of the Chief of Staff, A Study In Officer Motivation (New View), (Washington, D.C.: Department of the Air Force, 1966), pp. A-5 - A-7.

[2]J. Richard Hackman and Edward E. Lawler III, "Employee Reactions to Job Characteristics," Journal of Applied Psychology 55 (June 1971): 259-286.

[3]Edward E. Lawler III, "Job Design and Employee Motivation," Personnel Psychology 22 (Winter 1969): 426-435.

Hypotheses

The hypotheses of this study will be tested at the .05 level of significance. They are stated with a brief accompanying rationale to give the reader further insights into the bases for this investigation.

1. There will be a significant difference in overall, intrinsic, and extrinsic job satisfaction between the faculties of Squadron Officer School, Air Command and Staff College, and Air War College.

The rationale for this hypothesis dates to Lewin's original work in the thirties where it was hypothesized that organizational climates effect the individual. Specifically, Lewin presented his classic formula--Behavior is a function of Personality times Environment--$B=f(P \times E)$.[1] Grove and Kerr further substantiated this relationship in 1951 by relating organizational climate to employee morale.[2] Gibson, Ivancevich, and Donnelly further suggested a measure of job satisfaction can be a determinate of organizational effectiveness.[3]

Within Air University three different colleges exist relative to organizational environments. Similarities involve such commonalities as mission, facilities, and curriculums. However, due to such differences

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[1]Kurt Lewin, Field Theory in Social Science (New York: Harper and Bros., 1951), p. 241.

[2]Edward E. Lawler III, Motivation in Work Organizations (Monterey, California: Brooks/Cole Publishing Company, 1973), p. 81.

[3]James L. Gibson, John M. Ivancevich, and James H. Donnelly, Jr., Organizations: Structure, Processes, and Behavior (Dallas: Business Publications, Inc., 1973), pp. 328-338.

as individual career development, measures of performance, and leadership, the organizational climates are really different. Therefore, the possibility for significant differences in overall, intrinsic, and extrinsic job satisfaction between the colleges is hypothesized. Perhaps as Gibson suggested, this measure might give the reader some insight into the level of effectiveness of the colleges.

2. There will be a positive relationship between military rank and overall job satisfaction.

The rationale for this hypothesis is based upon the assumption that as an individual performs well within an organization he is rewarded with promotion. This reward then leads to increased job satisfaction.[1] Eran would also suggest that status, determined in this case by rank, would provide opportunities for increased satisfaction.[2] Lawler would postulate that rank as a measure of growth and seniority would be a significant personal input factor. This would then be viewed by the individual as an equity in determining his overall level of satisfaction.[3] Porter in 1961 identified significant differences in the needs of bottom and middle managers. Specifically, middle managers were more satisfied than lower level

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[1]Lyman W. Porter and Edward E. Lawler III, Managerial Attitudes and Performance (Georgetown, Ontario: Irwin-Dorsey Limited, 1969), pp. 16-18.

[2]Mordechai Eran, "Relationship Between Self-Perceived Personality Traits and Job Attitudes in Middle Management," Journal of Applied Psychology 49 (October 1966): 424.

[3]Lawler, Motivation In Work Organizations, p. 80.

managers.[1] Assuming rank and management levels to be analogous, the question arises as to whether results similar to those of Porter will be obtained in a military setting. Finally, an examination of the data by rank offers an additional perspective within which Air University can apply the findings of this investigation.

3. The Directorates of Curriculum of Squadron Officer School and Air Command and Staff College will have a significantly higher level of overall job satisfaction than the Directorates of Operations.

The theoretical basis for this hypothesis is similar to the first hypothesis in terms of organization climate. These two directorates are significantly different sub-groups within the colleges and thereby establish their own climate identity. However, there is an additional theoretical concern pertaining to these directorates. Assuming Hackman and Lawler's five job enrichment factors represent the theoretical wholeness of a job,[2] it is possible that disparate jobs within these two organizations have significant differences within these dimensions. Specifically, as Lawler would suggest, the possible lack of feedback and control may have a significant impact upon job satisfaction.[3]

Assuming that the Operations Directorate is a line organization and Curriculum a staff organization, Porter and Henry would postulate that

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[1]Lyman W. Porter, "A Study of Needs Satisfaction in Bottom and Middle Management Jobs," Journal of Applied Psychology 45 (February 1961): 1-10.

[2]Hackman and Lawler, pp. 280-286.

[3]Edward E. Lawler III, "Job Design and Employee Motivation," p. 434.

different job attitudes would exist in these two organizations based upon personality traits.[1]

All these theoretical possibilities of differences make it logical to investigate this specific set of sub-groups within the colleges at Air University. Air War College's Directorates of instruction were not included in the investigation because of their organizational differences and the small number of cases available for analysis.

4. There will be a negative relationship between the educational level of a person and his overall job satisfaction.

In studying any sample one might assume certain positive effects of education upon a person. But, it is not suggested that one of these should be job satisfaction. For example, Adams might suggest that on an equity basis, a person might perceive education as an input and thus have higher expectations regarding satisfaction.[2] In 1966 Klein and Maher found that pay satisfaction decreases with increased education.[3] Lawler's view of the findings of research tends to support this position that an increase in perception of expectancies associated with education could result in frustration.[4]

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[1]Lyman W. Porter and Mildred M. Henry, "Job Attitudes in Management; Perceptions of Certain Personality Traits as a Function of Line Versus Staff Job," Journal of Applied Psychology, 55 (August 1964): 305-309.

[2]J. Stacy Adams, "Inequity in Social Exchange," L. Berkowitz (Ed.), Advances in Experimental Social Psychology, Vol. 2, pp. 284-286.

[3]Stuart M. Klein and James R. Maher, "Educational Level and Satisfaction with Pay," Personnel Psychology 19 (Winter 1966): 195-208.

[4]Lawler, Motivation In Work Organizations, p. 75.

It is, therefore, logical to examine the highly educated faculty at Air University and see if their advances in education have proven to be dysfunctional in their achieving overall job satisfaction.

5. There will be a positive relationship between the number of people a person supervises and his level of overall job satisfaction.

The theoretical basis for studying the relationship between the number supervised and job satisfaction is founded upon Atkinson's Model for Motivation. Atkinson, as well as McClelland, would suggest the relationship between influence over others (supervision) and satisfaction would provide a measure of an individual's fulfillment of his need for power.[1] It would be appropriate in this investigation to examine this dimension to determine if any satisfaction is derived from fulfillment of this specific need within these educational organizations.[2]

6. Intrinsic motivational factors will have a significantly higher relationship with overall job satisfaction than extrinsic motivational factors.

This hypothesis is founded upon research that indicates intrinsic motivational factors contribute more to overall job satisfaction than extrinsic.[3] Actually, Lawler postulates the relationship is strong because it is mediated by the individual and not the organization.[4]

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[1]Richard M. Steers and Lyman W. Porter, Motivation and Work Behavior (New York: McGraw-Hill, Inc.,11975), pp. 56-58.

[2]Gibson, Ivancevich, and Donnelly, p. 322.

[3]Hackman and Lawler, p. 263.

[4]Lawler, Motivation In Work Organizations, pp. 83-85.

Regardless of the reasons, it would be of interest to confirm the findings of Wernimont,[1] Myers,[2] and others by examining a military organization that provides ample opportunities for extrinsic rewards as well as intrinsic.

7. The faculty will be significantly satisfied with the level of enrichment of their jobs and will not advocate a job enrichment program.

This hypothesis is based upon the need to test the applicability of the theoretical concept projected by Herzberg--job enrichment. Herzberg maintains that job enrichment is a practical motivation package and describes it as follows:

> . . . seeks to improve both efficiency and human satisfaction by means of building into people's jobs, quite specifically, greater scope for personal achievement and recognition, more challenging and responsible work, and more opportunity for individual advancement and growth. It is concerned only incidentally with matters such as pay and working conditions, organizational structure, communications, and training, important and necessary though these may be in their own right.[3]

Lawler would further argue that structuring the job in such a way that intrinsic rewards result will lead to high performance.[4] This means

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[1]Paul F. Wernimont, "Intrinsic and Extrinsic Factors in Job Satisfaction," Journal of Applied Psychology 50 (February 1966): 41.

[2]M. Scott Myers, "Who Are Your Motivated Workers?", Harvard Business Review 42 (January-February 1964): 73-80.

[3]William J. Paul, Jr., Keith B. Robertson, and Frederick Herzberg, "Job Enrichment Pays Off," Harvard Business Review 47 (March-April 1969): 61.

[4]Edward E. Lawler III, "Job Design and Employee Motivation," p. 434.

the job must have meaningful feedback as well as the dimensions of autonomy, variety, and the use of an individual's skills and abilities.[1]

On the other hand, Dunnette, Campbell, and Hakel suggest that Herzberg's approach is grossly oversimplified and may not be applicable. In either case, it would be of value to investigate the level of enrichment of faculty jobs and identify the appropriate dimensions for improvement.[2]

Definition of Terms

Definitions are limited to those terms used and should not be construed to be exhaustive in respect to job motivational/satisfaction theory.

Achievement. A specific success or feeling of success such as: successful accomplishment of work; making a worthwhile contribution; seeing positive results of one's efforts; becoming proficient in a specialized area; or attaining leadership in one's field.

Advancement. An improvement in status or position, progress or furtherance of one's career, such as job progression; movement into a more advanced career field; promotion in rank; or completion of AFIT or service school program.

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[1]Charles L. Hulin, "Individual Differences and Job Enrichment--The Case Against General Treatments," From Steers and Porter, pp. 425-436.

[2]M. Dunnette, J. Campbell, and M. Hakel, "Factors Contributing to Job Dissatisfaction in Six Occupational Groups," Organizational Behavior and Human Performance 2 (May 1967): 143-147.

College/School Policy and Administration. That aspect of your college/school at all organizational levels involving the adequacy or inadequacy of organization and management; harmful or beneficial effects of personnel and operational policies, procedures, and practices; or presence or lack of consistent and fair policies involving assignment preferences, proper utilization of abilities, and placement on job related to interests, background, and training.

Extrinsic Motivational Factors. A composite measure formed by combining scores on the following eight job factors:

1. College/School Policy and Administration,
2. Interpersonal Relations,
3. Personal Life,
4. Salary
5. Security,
6. Status,
7. Supervision, and
8. Working Conditions.

Growth. Changes in one's situation which show evidence that possibilities for growth have been enhanced; opportunity to develop one's potential to the fullest on the job.

Interpersonal Relations. Interaction with colleagues, students, or superiors both on and off the job; esprit of service life; working with a particular class of person; feeling of belonging to and acceptance by service associates.

Intrinsic Motivational Factors. Intrinsic motivation is a composite measure formed by combining scores on the following six job factors:

1. Achievement,
2. Advancement,
3. Growth,
4. Recognition,
5. Responsibility, and
6. The Work Itself.

Job Enrichment Factors (JEF). In job enrichment, jobs emphasize the following factors:

1. Amount of Feedback--The faculty member is able to know how he is doing on the job. Either he has definite standards or goals in his job so that he knows how good his performance is or he has a supervisor who will honestly tell him whether or not he is doing a good job.

2. Amount of Variety--The faculty member has the opportunity to do many different things on the job rather than only a few things. He uses different methods and procedures.

3. Opportunity for Independent Action--As long as a faculty member maintains an acceptable level of output and quality, he can do the job how he wants to. He can choose the methods and procedures he will use.

4. Opportunity to do a Large Part of a Job--The faculty member does a large part of a job rather than only a small part of the job. He is able to see clearly the results of his work.

5. Opportunity to Use Skills and Abilities--The faculty member performs work that uses his skills and abilities and that gives him a chance to develop new skills and abilities. His work is challenging.

Job Facet Satisfaction (JFS). A level of satisfaction experienced by a person in a particular facet of his job.

Job Facet Importance (JFI). A level of importance that a person attaches to a particular job factor.

Motivation. A factor that energizes, directs, or sustains human behavior.

Personal Life. Effect of job or career on some aspect of personal life such as family life, standard of living, acceptance by community; providing for family's comfort, education, and welfare; or personal opportunities.

Recognition. An act of acknowledgement and approval for demonstrated ability or performance; praise or notice from a supervisor, higher management, a peer, general public, or any other source. It could be in the form of effectiveness reports, written or oral communications of commendation, or medals.

Responsibility. In full charge of a job, or situation; opportunity to exercise initiative in carrying out assigned work.

Salary. All forms of direct or indirect monetary compensation such as base pay, hazard pay, and collateral benefits accruing from medicare, commissary and exchange privileges, and recreational opportunities (hobby shops, clubs, rest areas, etc.).

Security. Involves a sense of permanence of your position in the Air Force. An example is a continued need for your skills as a professional in your career field.

Status. A sign of acknowledgement associated with a job or assignment such as privileges for key personnel; prestige associated with being at Air University or with a particular rank or position.

Supervision. Involves one's relations with these in direct or indirect control over his job or career behavior; entails technical or managerial competence or incompetence; concern or indifference; fairness or unfairness; coercion or consideration.

The Job as a Whole. All aspects and factors of your job as an Air University faculty member.

The Work Itself. The actual doing of the job or the tasks of the job. Involves work that is interesting, varied, challenging, adventurous, or exciting; entails work that is important or meaningful to the individual, work that corresponds to one's ability and background.

Working Conditions. This factor involves the physical conditions of work, the amount of work, or the facilities for doing the work; for example: improper faulty equipment, excessive working hours, or limited office space.

Organization of the Study

Chapter I presented an introduction to the study, a statement of the problem, and the significance of the study. Assumptions,

limitations, hypotheses, definitions, and the organization of the study were also included in this chapter.

Chapter II presents a review of related literature.

Chapter III identifies and describes the methods used in the study.

Chapter IV presents the results of the study.

Chapter V discusses the results, draws conclusions, states their implications, and summarizes the study.

II. REVIEW OF LITERATURE

Current literature on motivational theory is almost limitless. For the purpose of this study, the author will limit the review to a recent chronology of job motivation/satisfaction theory.

Background

Several general theories of organizational thought have had considerable influence on administrative behavior over the years.[1] In order to develop adequately the background on motivational theory pertaining to job motivation/satisfaction theory, two of these theories will be discussed--the classical and neo-classical doctrines.

Taylor

Actually the term classical doctrine is somewhat arbitrary in management or administrative theory and what it really designates is the beginning of the scientific era of management. This movement was fostered by Frederick W. Taylor.[2] Essentially it advocated four key pillars of management thought that have been widely used and are still cited today. They are the division of labor, the scalar and functional processes, structure, and span of control. More importantly, from a

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[1] William G. Scott, "Organization Theory: An Overview and an Appraisal," In Management Systems, ed. P. P. Schoderber (New York: John Wiley & Sons, 1967), p. 28.

[2] Leonard J. Kazmier, Principles of Management (New York: McGraw-Hill, Inc., 1969), p. 2.

motivational theorist point of view, this school of thought made some assumptions about man that have since been challenged. First, the classical movement essentially considered man to be a constant factor and only motivated by economic gain. Second, man's behavior within groups was viewed as generally dysfunctional in achieving organizational goals. Both of these underlying ideas within the scientific management era have been seriously questioned.[1] This questioning gave rise to a somewhat separate line of thought--neo-classical doctrine.

Mayo

The neo-classical school would be more accurately described if it were called the human relations movement in management. The inspiration for the movement was Elton Mayo's Hawthorne studies at Western Electric. These studies were a series of experiments oriented toward manipulating the environment of workers to increase productivity. However, the key variable to increased productivity was found to be the perception by the worker of the organization's interest in him.[2] This study was then followed by the introduction of many subsequent job motivation/satisfaction theories. Two that are significant in the development of motivation/satisfaction theory beyond the human relations school of thought are Douglas McGregor's "Theory X" and "Theory Y" and Maslow's Hierarchy of Needs.

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[1]Scott, pp. 28-29.

[2]Claude S. George, Jr., The History of Management Thought (Englewood Cliffs, N.J.: Prentice-Hall, 1968), pp. 128-130.

Maslow

In the forties, Dr. Abraham H. Maslow asserted that man tends to act toward the fulfillment of his own personal needs. Accordingly man's needs are arranged in a relative hierarchy of priority, or prepotency (see Figure 1). This means that the emergence of one need will usually depend upon the prior gratification of another. In Maslow's hierarchy, five basic needs were identified. In order of priority, they are the physiological, safety, social, esteem, and self-actualization needs. This simplication of the number of needs and their priority was the strength of Maslow's theory.

Maslow defined physiological needs as the basic drives of human behavior such as food, drink, shelter, sleep, clothing, and sexual satisfaction.

The next higher set of needs defined are those of safety. Safety, or as some call them, security needs included protection from the dangers of bodily harm, disease, insecurity, and instability.

Following safety needs we find social needs. These needs encompass such factors as love, friendship, acceptance, affection, and the desire to belong to a particular group or organization. However, when these are relatively satisfied, the esteem needs emerge.

Esteem needs were divided into two groups by Maslow--self-esteem and the esteem of others. Self-esteem includes self-respect, confidence, achievement, responsibility, competence, independence, and knowledge. The esteem of others includes recognition, prestige, status, reputation,

appreciation, and importance. Satisfaction of the esteem needs provides feelings of dignity, worth, and usefulness.

Lastly, self-actualization entails the fulfillment of man's highest potential. This requires making use of all that one has to become all that one is capable of becoming. The manifestation of the self-actualization needs will vary from individual to individual and may be expressed through any sense of excellence.[1]

In summary, we might say that the concept of the hierarchal form of unsatisfied needs and the simplification in number of needs is Maslow's major contribution to motivation theory.

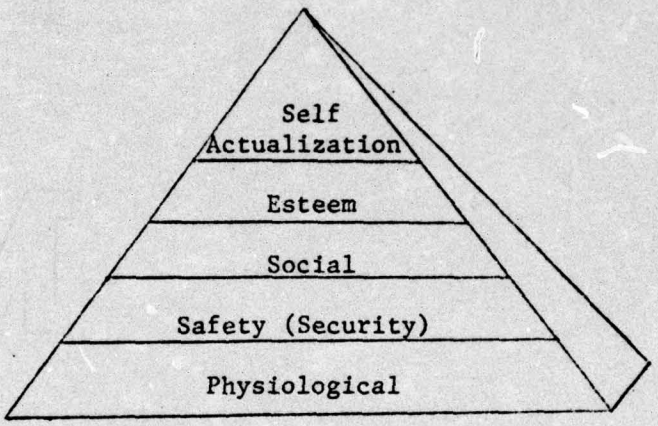

Figure 1. Maslow's Hierarchy of Needs

McGregor

Having looked at Maslow's motivational theory, now let us turn to a more contemporary theory of motivation--McGregor's "Theory X" and "Theory Y."

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[1]Douglas M. McGregor, "The Human Side of Enterprise," Management Review 46, No. 11 (November 1957): 23-24.

Theory X is characterized by authoritarian management and a relatively low opinion of the average individual. The premises of this theory are paraphrased as follows:

1. The average human being has an inherent dislike of work and will avoid it if he can.

2. Because of this characteristic, most people must be controlled, coerced, and threatened with punishment to get them to put forth an honest day's work in support of organizational goals.

3. The average human being prefers to be controlled, avoids responsibility, has little ambition, and desires security above all.

In contrast, Theory Y is characterized by a high degree of respect for the individual. The premises of this theory are as follows:

1. The average human being does not have an inherent dislike of work. Work to him is as natural as breathing and may be the source of either satisfaction or dissatisfaction.

2. Since man will exercise self-control and direction in support of organizational goals to which he is committed, external control and coercion are not the only means to achieve organizational objectives.

3. Commitment to organizational goals depends upon the rewards which the individual may realize if they are achieved. The two greatest rewards, esteem and self-actualization, can be direct by-products of work directed toward achieving organization objectives.

4. Under proper conditions, which can be controlled, the average individual will not only accept but will seek responsibility. Emphasis on security and lack of ambition are learned, not inherent characteristics of the individual.

5. The average individual is capable of a relatively high degree of creativity and imagination in support of organizational goals.

6. The average job only partially challenges the intellectual potential of the average individual.

According to McGregor, either a Theory X or Y attitude can be taken by management or administration. But, what will occur as a result of this attitude is what is called a self-fulfilling prophecy. That is, what is expected behavior by administration will be perceived by the worker and in turn become a reality.[1]

Even though McGregor's theory was introduced after Maslow and before Herzberg, it provides an underlying conceptual base for these theories of motivation. This basis is best illustrated in Figure 2.[2]

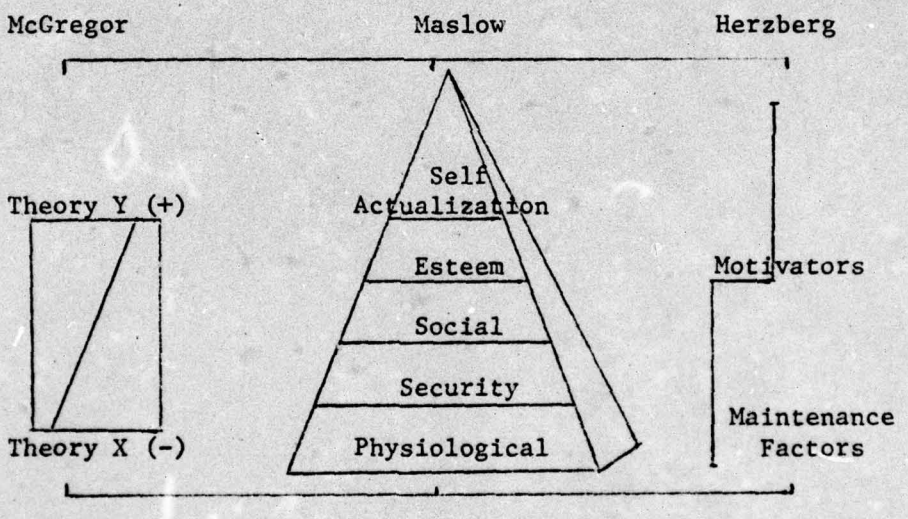

Figure 2. McGregor, Maslow, and Herzberg Paralleled

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[1]Saul W. Gellerman, "The Work of Douglas McGregor," The Gellerman Motivation and Productivity Film Series--Leaders Guide (1969): p. 27.

[2]Lecture by Lt. Col. Darryl W. Freed. "Motivational Theory," Air Command and Staff College, Air University, Maxwell Air Force Base, AL, November 1, 1973. Adapted from: Keith Davis, Human Behavior at Work (New York: McGraw-Hill, Inc., 1967), p. 37.

To this point we have looked at the background that led to the development of a job satisfaction theory of motivation. Principally, it began with the questioning of scientific management's assumptions about man. Then it led to Mayo's studies, Maslow's needs theory, and finally McGregor's X and Y. All of these, as we have pointed out, relate to Herzberg's theory. It is, therefore, appropriate to examine his theory in further depth.

Herzberg

In 1959, Dr. Frederick Herzberg published a study in job satisfaction. In this study, 200 engineers and accountants were interviewed to determine if man has two different sets of needs, avoidance and growth. The hypothesis of the study was that factors which produced job satisfaction were separate and distinct from those factors which produced job dissatisfaction. In other words, the absence of a factor which produced job satisfaction would not necessarily lead to job dissatisfaction, but rather to no job satisfaction. Or to put it still another way, the opposite of job satisfaction is not job dissatisfaction, but rather no job satisfaction; and conversely, the opposite of job dissatisfaction is not job satisfaction but rather no job dissatisfaction. Although this may appear to be a play on words or a matter of semantics, Herzberg feels this is not the case.

Herzberg identified six primary factors which led to job satisfaction. They are achievement, recognition, work itself,

responsibility, advancement, and growth. These factors, which describe job content, were called motivation factors.

Also identified were eight primary factors which led to job dissatisfaction. They are company policy and administration, interpersonal relations, supervision, working conditions, salary, status, security, and personal life. These factors, which describe the context or environment in which a job is performed, were called hygiene factors or maintenance factors.[1]

Since Herzberg's original work, numerous other studies have been conducted to replicate his findings. In 12 of these studies, interviewers questioned 1,685 people including scientists, administrators, accountants, foremen, engineers, technicians, supervisors, maintenance personnel, and military officers. The results of these studies corroborate Herzberg's original findings and are presented in Figure 3.[2] More recently, however, Herzberg's contention that job satisfaction and job dissatisfaction are qualitatively different has not been supported. A general conclusion which does emerge from the research is that the motivators are more important to overall job satisfaction-dissatisfaction than are the hygiene factors.[3]

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[1]Frederick Herzberg, Bernard Mausner, and Barbara B. Snyderman, The Motivation to Work (New York: John Wiley and Sons, 1959), pp. 79-81.

[2]Frederick Herzberg, "One More Time: How do You Motivate Employees?" Harvard Business Review 47 (January-February 1968): 57.

[3]Richard M. Steers and Lyman W. Porter, Motivation and Work Behavior (New York: McGraw-Hill, Inc., 1975), p. 112.

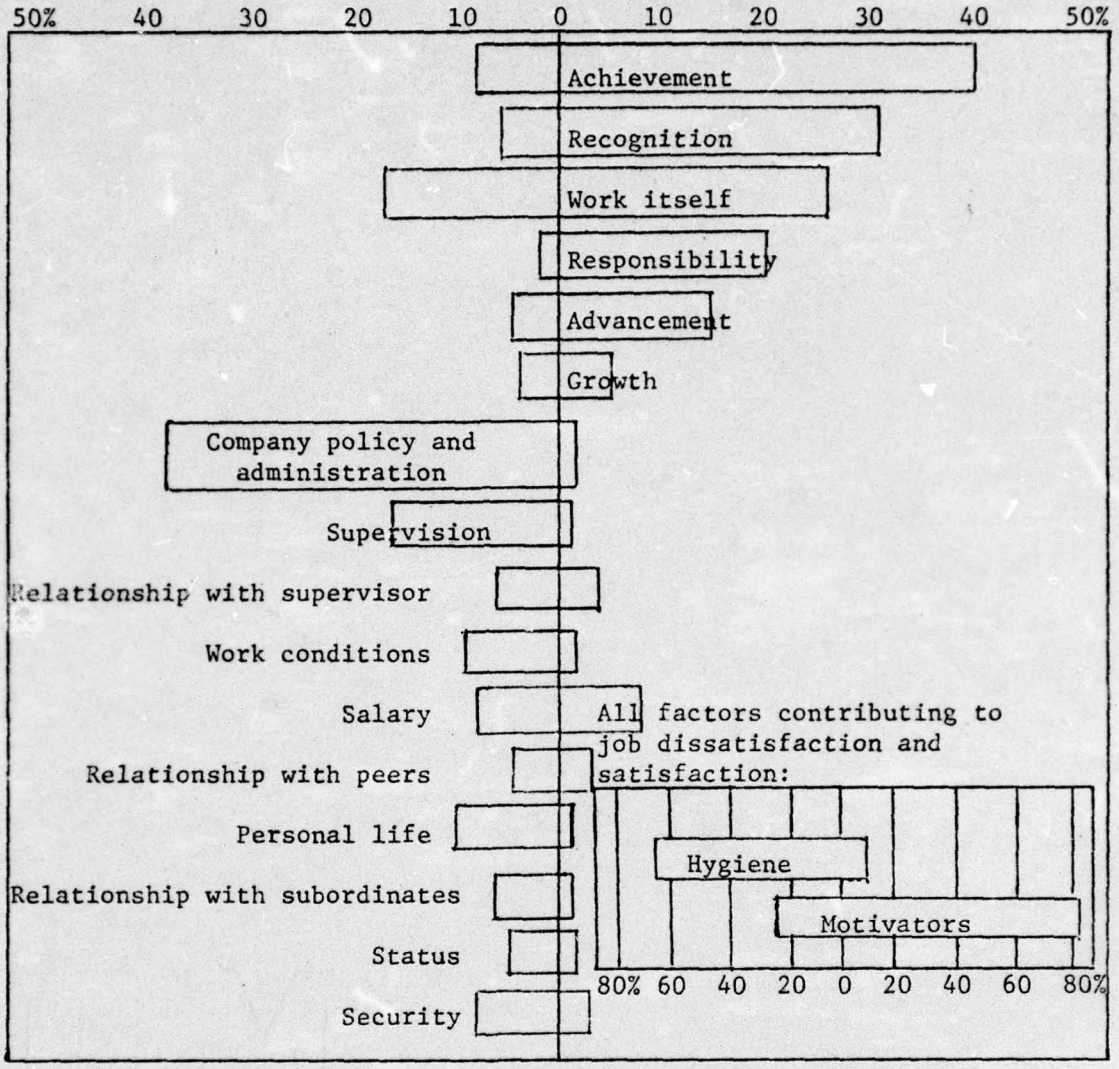

Figure 3. Factors Affecting Job Attitudes

It would now be appropriate to examine more recent job motivation/satisfaction research.

Vroom

In his book published in 1964, Victor H. Vroom presented a motivational model that had a different focus from the concepts of Maslow and Herzberg.[1] His theory became known by many names--Instrumentality Theory, Path-Goal Theory, and Valence-Instrumentality-Expectancy Theory. Expectancy/Valence Theory has become the most descriptive of the two principle variables upon which the theory is based.[2]

Vroom defines expectancy as an action-outcome association by the individual involved.[3] Basically this is the belief by a person that a certain action on his part will result in a specific outcome. The second major factor in the theory is valence. Simply defined, it is the value that an individual places upon a certain outcome. This value may be either a positive or negative attraction. Thus, an individual's motivational force can be determined by multiplying his expectancy times valence.

Obviously Vroom's theory is oriented toward the individual and based on the assumption that job performance comes from the desire of

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[1]James L. Gibson, John M. Ivancevich, and James H. Donnelly, Jr., Organizations: Structure, Processes, and Behavior (Dallas: Business Publications, Inc., 1973), p. 229.

[2]Richard M. Steers and Lyman W. Porter, Motivation and Work Behavior (New York: McGraw-Hill, Inc., 1975), p. 180.

[3]Victor H. Vroom, Motivation and Work (New York: John Wiley and Sons, 1964), p. 18.

the individual to perform the task. Vroom's theory has two points in common with the theories of Maslow and Herzberg. He suggests that an individual's behavior will be goal directed and that the individual will be seeking fulfillment of some need or basic level of satisfaction.[1] This leads us to the next point of discussion--job satisfaction.

Job Satisfaction

The human relations movement has consistently made the assumption that job satisfaction is the causal factor for performance. Much research that has been practically oriented is based upon this assumption.[2] However, the theoretical basis of this cause-effect association has been seriously questioned. For example, March and Simon see both satisfaction and performance as dependent variables. That is to say, dissatisfaction may be necessary for certain performance, or performance can lead to satisfaction.[3] This concern is best expressed in the model proposed by Porter and Lawler where the linkage between satisfaction and performance is mediated by intervening variables such as rewards as illustrated in Figure 4.[4]

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[1]Gibson, p. 231.

[2]Ibid., p. 231.

[3]J. G. March and H. A. Simon, Organizations (New York: John Wiley and Sons, 1958), pp. 47-48.

[4]Lyman W. Porter and Edward E. Lawler III, Managerial Attitudes and Performance (Georgetown, Ontario: Irwin-Dorsey Limited, 1969), p. 17.

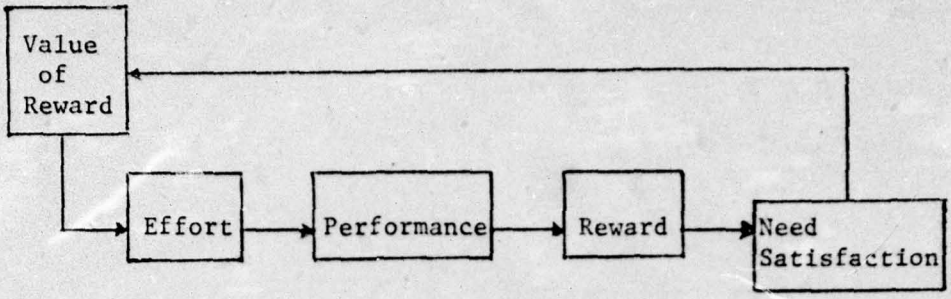

Figure 4. Porter-Lawler Performance-Satisfaction Model

Now that job satisfaction has been briefly considered, it is appropriate to discuss a technique used to increase the satisfaction one derives from his job--job enrichment.

Job Enrichment

Job enrichment is defined as an approach to improve both efficiency and human satisfaction on a job, which involves increased opportunities for individual achievement, recognition, responsibility, advancement, and growth.[1] These are generally considered to be the basic intrinsic motivational factors. However, job enrichment has recently been broadened to include the range of a job. This is essentially an incorporation of the horizontal dimension known as job enlargement. Current thought establishes that both job enrichment and job enlargement are necessary for optimum job motivation and satisfaction.[2] For the purposes of this study, job enrichment will include both dimensions.

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[1]William J. Paul, Jr., Keith B. Robertson, and Frederick Herzberg, "Job Enrichment Pays Off," Harvard Business Review 47 (March-April 1969): 61.

[2]Edward E. Lawler III, "Job Design and Employee Motivation," Personnel Psychology 22 (Winter 1969): 434.

Operationally, job enrichment has proven a viable strategy to increase productivity. Although its theoretical soundness is still debated, corporations such as Texas Instruments have made job enrichment work for them. For example, M. Scott Myers defines job enrichment as "a process for developing employees so they think and behave like managers in managing their jobs, and a process for redefining the job and the role of the job incumbent to make such development feasible.[1] The feasibility of such approaches are explored through a learning and implementation cycle. These cycles consist primarily of either a task force effort or a problem solving-goal setting approach. Both involve motivational theory and job design educational efforts as well as a work group interaction.[2] However, not all jobs can be or need to be enriched, nor do all employees desire enriched jobs.[3] It is, therefore, advisable to determine the extent to which employees are dissatisfied and desire a job enrichment program. This can be done through measures of intrinsic and extrinsic job factor satisfaction levels coupled with a measure of the factors that comprise an enriched job. One can then more accurately estimate the extent to which job enrichment is feasible in a particular organization.

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[1]M. Scott Myers, Every Employee A Manager (New York: McGraw-Hill, Inc., 1970), p. xii.

[2]Ibid., pp. 75-87.

[3]Herzberg, p. 62.

Application in Education/Military

Studies of the factors affecting teacher satisfaction are constantly being performed in the field of education.[1] For example, several of these have attempted to test the applicability of Herzberg's theory to education. The general consensus is that job motivation/satisfaction theories are applicable with some exceptions. Concerning satisfaction factors, Savage found interpersonal relations a satisfier to teachers while Herzberg found it to be a dissatisfier to engineers and accountants. Savage also found that teachers did not find advancement a satisfier.[2] On the other hand, Ellenburg did find pay to be a satisfier for teachers.[3] These are just a few of the conflicts noted between the business research and the educational work done in this field. However, Johnson concludes that the job motivation/satisfaction theory is applicable to education.[4]

To date, the military has examined job motivation/satisfaction theory to a limited extent. In 1966 a major study (New View) of junior

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[1]F. C. Ellenburg, "Factors Affecting Teacher Morale," NASSP Bulletin 46 (December 1972): 37.

[2]Ralph Savage, "A Study of Teacher Satisfaction and Attitudes: Cause and Effects." (Ed.D. Dissertation, Auburn University, 1967), pp. 148-149.

[3]Ellenburg, p. 37.

[4]Eldon O. Johnson, "An Analysis of Factors Related to Teacher Satisfaction-Dissatisfaction." (Ed.D. Dissertation, Auburn University, 1967), p. 136.

officers (lieutenants and captains) was conducted to ascertain their motivational problems and career intent.[1] Until recently very little else has been done to test Herzberg's concept in the military.[2] But within the last two years the Air Force has contracted Herzberg to aid in implementing a job enrichment program in its Logistics Command. The program has helped magnify the need within the Air Force to determine the applicability of Herzberg's approach to various types of jobs. For example, as in industry, the technical-task oriented jobs were enriched first, then the more administrative ones. The same evolutionary process of application is now happening in the military. Hence, researchers have arrived at the point of studying the application of job motivation/satisfaction to the role of professional military educator.

Summary

Current job motivation/satisfaction theory has evolved out of years of management and administrative thought. Upon considering all the theories presented here, the basic understanding of the motivational process has come a long way since Frederick Taylor and the classical movement. No longer is motivation a function of a single variant--money.

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[1] U.S. Air Force, Office of the Chief of Staff, A Study in Officer Motivation (New View), Washington, D.C.: Department of the Air Force, 1966), p. iii.

[2] U.S. Department of Defense, Assistant Secretary of Defense, Office of Manpower and Reserve Affairs, Job Satisfaction in Industry and in the Military, September 1973, p. 183.

No longer is it considered solely a function of satisfaction. Employees live in a complex world today and expect more from their jobs in terms of both intrinsic and extrinsic rewards. Future research, including this study, can lead to increased productivity and meaningful work. Only through improved knowledge of what factors are important to job satisfaction can jobs be enriched. This is essential for both administrators and faculty members. They can then contribute more effectively to the goals of the educational institutions of which they are a part and at the same time receive greater personal satisfaction.

III. METHOD

Subjects

The subjects tested in this investigation were United States Air Force officers. All were active faculty members of the three major schools of Air University at Maxwell Air Force Base in Montgomery. Questionnaires were distributed to 220 officers and the overall response rate to the instrument was 84 percent (N=185). Six subjects were eliminated (two per school) because of incomplete data, thereby reducing the total number of subjects to 179. Participating were 42 officers from Air War College (AWC), 64 from Air Command and Staff College (ACSC), and 73 from Squadron Officer School (SOS). The response percent of AWC was 86%; ACSC, 80%; and SOS, 86%.

The profile of the typical subject shows that he is a 36 to 40 year old white male who is married and has three dependents. A review of the data indicates that his career profile typifies him as an ROTC graduate, a rated (pilot or navigator) officer, a Regular officer, and a Major. The average subject has been in the Air Force 12-16 years and at Air University one to two years. He holds a Masters Degree in Business Administration, works in one of the college's operations directorates, has no supervisory duties, and expects to be a full colonel in his Air Force career. There were five demographic

factors that were somewhat diverse in respects to these profiles. They were age, number of years in the Air Force, number of years at Air University, rank, and educational field of study. Specifically, the age of the respondents varied from 26 years to more than 56 years. Some have been in the Air Force a minimum of four years and others more than 20. Several had been at Air University less than one year and a few had worked there more than four. Rank varied from first lieutenant to colonel. Educational fields of study ranged from Science and Engineering to the Humanities.

Test Instrument

Each subject was tested with the Air University Faculty Motivation Survey (see Appendix B).

Construct validity was established by basing the questionnaire on theories and past research in the area of job motivation/satisfaction. Fourteen job factors (plus an overall measure) were identified from the Air Force's application of Herzberg's research.[1] Six of these were intrinsic factors and eight were extrinsic. These variables were operationalized by a measure of job satisfaction described by Wanous and Lawler. This consisted of measuring job facet satisfaction (JFS), job facet importance (JFI), and a measure formed by multiplying job facet satisfaction by job facet importance (JFSI).[2] The rationale for

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[1] U.S. Air Force, Office of the Chief of Staff, A Study in Officer Motivation (New View), (Washington, D.C.: Department of the Air Force, 1966), pp. A-5 - A-7.

[2] John P. Wanous and Edward E. Lawler III, "Measurement and the Meaning of Job Satisfaction," Journal of Applied Psychology 56 (April 1972): 95-105.

the multiple factor is based upon Blood's suggestion that the importance of a facet may be reflected in its contribution to overall satisfaction.[1] This implies importance as a weight is related to the impact that facet satisfaction has on total satisfaction.[2] For example, if a facet is high in satisfaction but low in facet importance to an individual, the organizational implications regarding that person's overall level of satisfaction would be low.

The first section of the questionnaire measured JFS and JFI on the six intrinsic factors of achievement, advancement, growth, recognition, responsibility, and the work itself. Also measured were the eight extrinsic factors of college/school policy and administration, interpersonal relations, personal life, salary, security, status, supervision, and working conditions, plus an overall satisfaction factor entitled the job as a whole. All of these measures were presented to the respondents with a six point Likert scale. Adapted dimensions of not at all satisfied to extremely satisfied for JFS and not at all important to extremely important for JFI were used to establish the spectrums.[3]

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[1]Milton R. Blood, "The Validity of Importance," Journal of Applied Psychology 55 (October 1971): 487-488.

[2]Wanous and Lawler, p. 103.

[3]Lyman W. Porter and Edward E. Lawler III, Managerial Attitudes and Performance (Georgetown, Ontario: Irwin-Dorsey, 1969), p. 25.

The second section of the questionnaire measured five job enrichment (JE) factors identified from the works of Hackman[1] and Lawler.[2] The factors measured were autonomy, variety, use of skills and abilities, a large part of a job, and feedback. Likert scale dimensions measuring JE satisfaction were very dissatisfied to very satisfied. Questions asking if a respondent would like to have his job changed to include more of each individual JE factor, plus an overall JE factor, were measured between the dimensions of strongly disagree to strongly agree.

The third section of the questionnaire gathered select demographic data such as age, sex, rank, and education. General written comments were also requested at the close of this section.

Five composite measures were formed by multiplying each factor's JFS times JFI. These scores were then added and divided by the number of factors comprising the composite. The five composite factors derived were JFSI Composite, JFSI Intrinsic, JFSI Extrinsic, JE Satisfaction, and JE Desire.

Reliability statistics were calculated for the composite measures. Kuder-Richardson Formula 21 Coefficients of Reliability for the instrument are depicted in Table 1.

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[1]J. Richard Hackman and Edward E. Lawler III, "Employee Reactions to Job Characteristics," Journal of Applied Psychology 55 (June 1971): 259-286.

[2]Edward E. Lawler III, "Job Design and Employee Motivation," Personnel Psychology 22 (Winter 1969): 426-435.

TABLE 1

KUDER-RICHARDSON FORMULA 21 COEFFICIENTS OF RELIABILITY OF COMPOSITE MEASURES

Measure	Reliability Coefficient
Job Facet Satisfaction x Importance Composite	.78
Job Facet Satisfaction x Importance Intrinsic	.77
Job Facet Satisfaction x Importance Extrinsic	.64
Job Enrichment Satisfaction	.75
Job Enrichment Desire	.83

Procedure

The three colleges were surveyed simultaneously. The questionnaire was administered in the work setting of the colleges at Air University. The time frame of the academic year was mid-point and thereby moderated any extremes in faculty motivation that might lower the survey's external validity. Prior to the actual administration of the instrument, school commandants were notified by the Air University Directorate of Evaluation of the pending survey (see Appendix A). One week following the distribution of the questionnaire, a response reminder was administered to potential respondents (see Appendix C). All 185 responses were obtained within a two week period.

All three colleges received a letter from the Directorate of Evaluation commending their cooperation and high response rate (see Appendix D).

Analysis

The data collected from the investigation were subjected to statistical analysis. Correlations, t-tests, and F-tests were used to analyze the data. All one-way analysis F-tests were subjected to homogeneity of variance tests. Cochran's C was chosen as a test of homogeneity because of its unique properties of dealing with leptokurdic and skewed distributions.[1] Both distributions' characteristics are typical of this study as evidenced in the means and standard deviations reported (see Appendix E, Table 14). A .05 level of significance was used for rejection due to lack of homogeneity. Tukey's Honestly Significant Difference (HSD) test was used to identify specific differences among treatment means.[2]

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[1]John T. Roscoe, Fundamental Research Statistics for the Behavioral Sciences (New York: Holt, Rinehart, and Winston, 1975), pp. 290-291.

[2]B. J. Winer, Statistical Principles in Experimental Design (New York: McGraw-Hill, Inc., 1971), p. 198.

IV. RESULTS

The data concerned with the major hypotheses of the study are presented individually with each hypothesis. The hypotheses in the Introduction are restated for the convenience of the reader. Only composite measures which proved statistically significant have been presented in this chapter (with the exception of Table 2). The rationale for this was two-fold. First, the composite measures are the most sound theoretically and statistically. Second, the data generated were too cumbersome for presentation in the text. A statement regarding support or non-support of each hypothesis is presented. Detailed examination of the findings and their implications will be discussed in the next chapter.

Data Related to the First Hypothesis

1. There will be a significant difference in overall, intrinsic, and extrinsic job satisfaction between the faculties of Squadron Officer School, Air Command and Staff College, and Air War College.

One-way analysis of variance and associated tests were used to analyze this hypothesis. A complete set of data (Table 2) is presented within the text to give the reader insight into all the factors available for examination in the tables in Appendix E.

The first hypothesis was not supported by the data. However, Squadron Officer School was experiencing significantly higher intrinsic job satisfaction and Air War College, extrinsic.

TABLE 2

ONE-WAY ANALYSIS OF VARIANCE COMPARING AIR UNIVERSITY COLLEGES ON MOTIVATIONAL FACTORS

Job Factors	Squadron Officer School (n=73) $\bar{X}$	Air Command and Staff College (n=63) $\bar{X}$	Air War College (n=43) $\bar{X}$	F-Test	Cochran's C
Overall Measures					
Composite					
Job Facet Satisfaction x Importance (JFSI)	22.3659	21.3672	22.9185	2.335	.4027
Job Facet Satisfaction (JFS)	4.3953	4.2528	4.4784	1.704	.4001
Job Facet Importance (JFI)	5.0528	5.0000	5.1213	1.070	.3607
Job Enrichment (JE) Satisfaction	5.0137	4.7682	4.6279	3.937*	.3734
JE Desire	3.2247	3.4794	3.6139	1.826	.1879

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level
⌐¬ = $\bar{X}$'s connected indicate a Tukey's (HSD) significance of difference

TABLE 2--Continued

Job Factors	Squadron Officer School	Air Command and Staff College	Air War College	F-Test	Cochran's C
Overall					
JFSI	26.1096	23.4127	23.8372	2.524	.4318
JFS	4.7534	4.3492	4.3953	2.394	.4442*
JFI	5.4931	5.3651	5.4186	.461	.3717
Enrichment	3.4521	3.4762	3.6047	.172	.3775
Intrinsic Measures Composite					
JFSI	24.9931	22.3386	22.6937	5.196**	.4340*
JFS	4.5799	4.1190	4.2248	5.552**	.4392*
JFI	5.4201	5.3783	5.3643	.246	.3957
Achievement					
JFSI	25.6849	23.6190	25.4651	1.452	.4100
JFS	4.5616	4.2063	4.5116	1.759	.4218
JFI	5.5890	5.6190	5.6512	.136	.4653**
Advancement					
JFSI	21.2192	17.5397	18.6977	3.978*	.3786
JFS	3.8904	3.4286	3.6279	1.940	.4055
JFI	5.4384	5.2063	5.1860	1.824	.5023***
Growth					
JFSI	25.2192	21.6984	21.2325	5.915**	.4304*
JFS	4.6164	4.0476	4.1163	5.143**	.4500*
JFI	5.4384	5.3175	5.1395	2.344	.3905

TABLE 2--Continued

Job Factors	Squadron Officer School	Air Command and Staff College	Air War College	F-Test	Cochran's C
Recognition					
JFSI	20.8356	17.9524	20.8139	2.449	.4479*
JFS	4.3194	3.5397	4.2093	5.860**	.4679**
JFI	4.9178	5.0635	4.9767	.447	.3608
Responsibility					
JFSI	29.7260	27.2540	24.1860	7.942***	.4072
JFS	5.2740	4.8571	4.3023	11.337***	.4313*
JFI	5.6027	5.5397	5.6279	.332	.3953
The Work Itself					
JFSI	27.2740	25.9682	25.7674	.699	.4240
JFS	4.8767	4.6349	4.5814	1.182	.4354*
JFI	5.5342	5.5238	5.6047	.206	.4087
Extrinsic Measures Composite					
JFSI	20.3955	20.6389	23.1278	7.339***	.3752
JFS	4.2568	4.3532	4.6686	5.518**	.3576
JFI	4.7774	4.7163	4.9390	2.349	.3990
Administration					
JFSI	21.4384	18.5714	19.7907	3.098*	.4183
JFS	4.3562	3.7619	3.9070	5.476**	.4406*
JFI	4.9178	4.9048	5.0698	.593	.3682

TABLE 2--Continued

Job Factors	Squadron Officer School	Air Command and Staff College	Air War College	F-Test	Cochran's C
Interpersonal Relations					
JFSI	27.9178	27.3492	28.3023	.255	.3780
JFS	5.2192	5.1587	5.2093	.078	.3951
JFI	5.3151	5.2540	5.4186	.664	.3779
Personal Life					
JFSI	17.3014	22.6349	25.3023	18.187***	.3653
JFS	3.4658	4.5873	4.9302	25.422***	.3525
JFI	5.0137	4.9524	5.1163	.414	.4098
Salary					
JFSI	18.9863	22.0952	25.6046	21.227***	.3827
JFS	4.2192	4.9683	5.2791	18.966***	.4857**
JFI	4.5753	4.4762	4.8605	2.950*	.4297
Security					
JFSI	20.0000	20.7936	23.6046	2.885*	.4172
JFS	4.0822	4.3333	4.7907	3.595*	.3695
JFI	4.9178	4.8254	4.9070	.172	.3744
Status					
JFSI	19.1233	15.6825	17.5581	3.891*	.4051
JFS	4.4384	3.8095	3.9302	4.579**	.4519*
JFI	4.2877	4.1587	4.5581	1.745	.3715

TABLE 2--Continued

Job Factors	Squadron Officer School	Air Command and Staff College	Air War College	F-Test	Cochran's C
Supervision					
JFSI	22.2603	21.8730	23.1395	.264	.1870
JFS	4.5068	4.4127	4.6047	.253	.3728
JFI	4.8630	4.8571	5.0233	.440	.3678
Work Conditions					
JFSI	16.1370	16.1111	21.3953	7.886***	.3692
JFS	3.7671	3.7937	4.6977	6.550**	.4066
JFI	4.3288	4.3016	4.5581	.947	.3453
Job Enrichment Factors					
Independence	5.3699	5.1111	4.6047	8.647***	.4942**
Variety	5.2055	4.9524	4.8140	2.922*	.4295
Ability	5.0685	4.6667	4.7209	2.442	.4070
Large Job Part	5.2877	5.0476	4.7209	5.548**	.4143
Feedback	4.1370	4.0635	4.2791	.318	.4081
Job Enrichment Change Factors					
Independence	3.1111	3.4286	3.6512	2.005	.3698
Variety	3.0000	2.9683	1.2326	.566	.3816
Ability	3.1233	3.6667	3.9535	4.449**	.4146
Large Job Part	2.8630	3.3681	3.5116	3.466*	.3868
Feedback	4.0685	4.0323	3.7209	.834	.3899

N=179

Data Related to the Second Hypothesis

2. There will be a positive relationship between military rank and overall job satisfaction.

Spearman Rho Rank Order Correlation was used to identify significant correlations between rank and overall job satisfaction. One-way analysis of variance and associated tests were also used in an effort to pinpoint specific differences in satisfaction between the ranks of captain, major, lieutenant colonel, and colonel. The significant Spearman Rho Rank Order Correlation composite factors are reported in Table 3. Non-significant factors are in Appendix E, Table 15.

Significant one-way analysis of composite factors are reported in Table 4. Non-significant factors are in Appendix E, Table 16.

The second hypothesis was not supported by the data.

Data Related to the Third Hypothesis

3. The Directorates of Curriculum of Squadron Officer School and Air Command and Staff College will have a significantly higher level of overall job satisfaction than the Directorates of Operations.

This hypothesis was analyzed by using a t-test. Tests for homogeneity of variance were made with pooled or separate variances used accordingly. Statistically significant factors are reported in Table 5.

The third hypothesis was not supported by the data.

TABLE 3

SPEARMAN RHO RANK ORDER CORRELATION BETWEEN MILITARY RANK AND SIGNIFICANT JOB SATISFACTION/ENRICHMENT FACTORS

Factor	r_s
Overall Measures	
JE Satisfaction	-.17*
JE Desire	.17*
Overall JFSI	-.17*
Intrinsic Measures	
Composite JFSI	-.22**
Growth JFSI	-.26***
Responsibility JFSI	-.26***
Extrinsic Measures	
Composite JFSI	.23**
Personal Life JFSI	.39***
Salary JFSI	.41***
Security JFSI	.17*
Work Conditions JFSI	.17*
Job Enrichment Factors	
Independence	-.26***
Large Job Part	-.24***
Job Enrichment Change Factors	
Independence	.19**
Ability	.24***
Large Job Part	.25***
Feedback	-.14*

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level
N=179

TABLE 4

ONE-WAY ANALYSIS OF VARIANCE COMPARING MILITARY RANK AND SIGNIFICANT JOB SATISFACTION/ENRICHMENT FACTORS

Factor	Captain $\bar{X}$(n=68)	Major $\bar{X}$(n=45)	Lieutenant Colonel $\bar{X}$(n=37)	Colonel $\bar{X}$(n=28)	F
Overall Measures					
JE Satisfaction	5.01	4.75	4.99	4.39	5.42***
JE Desire	3.17	3.60	3.11	4.05	5.80**
Overall JFSI	26.24	24.16	24.76	21.68	2.63*
Enrichment	3.40	3.69	3.00	4.07	3.70**
Intrinsic Measures					
Composite JFSI	25.12	22.68	23.39	21.59	4.06**
Growth JFSI	25.38	23.31	20.22	20.93	5.36**
Responsibility JFSI	29.99	26.00	28.40	22.54	7.92***
Extrinsic Measures					
Composite JFSI	20.27	20.36	23.14	21.95	5.52**
Personal Life JFSI	17.24	22.53	23.78	24.82	10.58***

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level
⌐¬ = $\bar{X}$'s connected indicate a Tukey's (HSD) significance of difference

TABLE 4--Continued

Factor	Captain	Major	Lieutenant Colonel	Colonel	F
Salary JFSI	18.74	21.84	24.02	25.29	13.39***
Status JFSI	19.07	15.42	18.68	16.00	3.10*
Supervision JFSI	22.26	20.49	25.84	21.21	2.83*
Work Conditions JFSI	15.93	16.11	20.24	18.96	3.92*
Job Enrichment Factors					
Independence	5.38	5.13	5.27	4.18	12.32***
Variety	5.21	4.87	5.16	4.69	3.173*
Large Job Part	5.31	5.07	5.14	4.46	6.45***
Job Enrichment Change Factors					
Independence	3.06	3.40	3.11	4.25	5.17**
Ability	3.04	3.73	3.43	4.36	5.47**
Large Job Part	2.75	3.47	2.95	4.18	8.17***
Feedback	4.12	4.34	3.24	4.00	4.89**

n=178

TABLE 5

t-TEST COMPARING THE OPERATIONS DIRECTORATES AND CURRICULUM DIRECTORATES OF SQUADRON OFFICER SCHOOL AND AIR COMMAND AND STAFF COLLEGE ON SIGNIFICANT JOB SATISFACTION/ENRICHMENT FACTORS

Factor	Operations $\bar{X}$(n=87)	Curriculum $\bar{X}$(n=44)	t
Overall Measures			
Composite JE Desire	3.49	2.91	2.86**
Overall Enrichment	3.70	2.93	3.11**
Job Enrichment Change Factors			
Independence	3.40	2.80	2.37*
Variety	3.23	2.48	3.04**
Large Job Part	3.22	2.64	2.33*
Feedback	4.24	3.64	2.15*

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level
n=131

Data Related to the Fourth Hypothesis

4. There will be a negative relationship between the educational level of a person and his overall job satisfaction.

Spearman Rho Rank Order Correlation was used to identify significant correlations between educational levels and overall job satisfaction. The three educational levels defined were the Bachelors Degree, Masters Degree, and Post-Masters Degree. Statistical analysis presented was limited to Spearman Rho. However, one-way analysis of variance was conducted but not reported due to the unequal numbers.

Specifically, the majority of the faculty's educational level was Masters or above. Statistically significant data were reported in Table 6.

TABLE 6

SPEARMAN RHO RANK ORDER CORRELATION BETWEEN EDUCATIONAL LEVEL ACHIEVED AND SIGNIFICANT JOB SATISFACTION/ENRICHMENT FACTORS

Factor	r_s
Overall Measures	
Composite	
JE Satisfaction	-.16**
Intrinsic Measures	
Advancement	
JFSI	-.15*
Growth	
JFSI	-.16*
Extrinsic Measures	
Administration	
JFSI	-.20***
Salary	
JFSI	.19**
Status	
JFSI	-.15**
Job Enrichment Factors	
Ability	-.19**
Job Enrichment Change Factors	
Large Job Part	.15*

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level
N=179

The fourth hypothesis was not supported by the data.

Data Related to the Fifth Hypothesis

5. There will be a positive relationship between the number of people a person supervises and his level of overall job satisfaction.

This hypothesis was examined by using Pearson Product Moment Correlation. The results of statistically significant factors are reported in Table 7. Factors that were non-significant are reported in Appendix E, Table 14. One-way analysis of variance was conducted but not reported because of the variant distributions of n's. It might also be noted that upon examination of individual responses to the questionnaire, some confusion about what constitutes supervision in an academic situation apparently existed. This could possibly confound the results of this analysis.

The fifth hypothesis was supported by four low positive correlations. Three low negative correlations were also obtained. However, it may be concluded that the hypothesis was supported since the overall JFSI measure correlated positively at the .05 level of significance.

Data Related to the Sixth Hypothesis

6. Intrinsic motivational factors will have a significantly higher relationship with overall job satisfaction than extrinsic motivational factors.

The analysis used to test this hypothesis was to select the six intrinsic composite job satisfaction factors and eight extrinsic composite job satisfaction factors and use a Pearson Product Moment Correlation to correlate them with the single-item measure, the job as

TABLE 7

PEARSON PRODUCT MOMENT CORRELATION BETWEEN THE NUMBER OF PEOPLE SUPERVISED AND SIGNIFICANT JOB SATISFACTION/ENRICHMENT FACTORS

Factor	r
Overall Measures	
Overall	
JFSI	.15*
Intrinsic Measures	
Recognition	
JFSI	-.17*
The Work Itself	
JFSI	.18**
Extrinsic Measures	
Personal Life	
JFSI	-.15*
Salary	
JFSI	-.25***
Work Conditions	
JFSI	.15*
Job Enrichment Factors	
Independence	.21**
Ability	.19**

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level
N=179

a whole. The correlations obtained are presented in Tables 8 and 9 respectively.

A difference between two Pearson coefficients from related samples was conducted between composite intrinsic, extrinsic, and overall measures. A correlation of .42 between intrinsic and extrinsic measures

TABLE 8

PEARSON PRODUCT MOMENT CORRELATION BETWEEN INTRINSIC MOTIVATIONAL FACTORS AND OVERALL JOB SATISFACTION

Factor	r
Achievement	.53***
Advancement	.30***
Growth	.53***
Recognition	.38***
Responsibility	.45***
The Work Itself	.56***

*** = Significant at the .001 level
N=179

TABLE 9

PEARSON PRODUCT MOMENT CORRELATION BETWEEN EXTRINSIC MOTIVATIONAL FACTORS AND OVERALL JOB SATISFACTION

Factor	r
Administration	.23***
Interpersonal Relations	.33***
Personal Life	.08 n.s.
Salary	-.03 n.s.
Security	.18**
Status	.37**
Supervision	.28**
Work Conditions	.14 n.s.

n.s. = non-significant
** = Significant at the .01 level
*** = Significant at the .001 level
N=179

and a difference of correlations of 4.40 was obtained at the .05 level of significance.

The sixth hypothesis was supported by the data.

Data Related to the Seventh Hypothesis

7. The faculty will be significantly satisfied with the level of enrichment of their jobs and will not advocate a job enrichment program.

This hypothesis was statistically explored by using t-tests to compare the job enrichment satisfaction and job enrichment change scores against the estimation of the parameter mean of neutrality. The score of 3.50 was used as an index of neutrality since the scales used range from one to six. These scales were defined by the terms very dissatisfied to very satisfied and strongly disagree to strongly agree. Overall, when considering a six point scale, the lowest job enrichment mean score was only 4.15 on the factor feedback. Also, the highest advocate of change score was 3.95 on the same factor. The overall level of job enrichment satisfaction was 4.84 and the desire for a job enrichment program mean score was only 3.41 out of a possible six. In all scores the distribution was leptokurtic and negatively skewed.

The seventh hypothesis was supported by the data. Specific differences did exist between various sub-samples and have been reported in earlier tables.

Data Related to the Supplementary Analysis

In an attempt to gain further insight into the data, supplementary analyses (not directly related to the specific hypotheses of the study)

were undertaken. Three investigations concerned faculty personnel management. The final inquiry was a compilation of the respondents' written comments.

The personnel management concerns involved an individual's level of overall job satisfaction in comparison to his:

1. status as a military academy graduate,
2. status as a pilot or navigator (rated officer), and
3. his number of years in the Air Force.

To analyze statistically the first two considerations, t-tests were used to explore the differences in means. Tests for homogeneity of variance were made with pooled or separate variances used accordingly. The results of a comparison of military academy graduates to non-academy graduates is reported in Table 10. Table 11 contains the comparison of rated to non-rated faculty members. Non-significant data on these specific investigations are contained in Appendix E, Tables 18 and 19 respectively.

Some differences do exist in Table 10 between these two sub-samples. However, they appear to be limited and non-significantly relevant to overall job satisfaction in comparison to Table 11's presentation of rated versus non-rated officers.

In sum, there were several specific differences noted, but the hypotheses that different sources of commission or different aeronautical ratings effect overall job satisfaction is not supported by the data.

The last supplementary statistical investigation has a theoretical basis. Assuming that age and number of years in the Air Force are

TABLE 10

t-TEST COMPARING MILITARY ACADEMY GRADUATES TO NON-ACADEMY GRADUATES ON SIGNIFICANT JOB SATISFACTION/ENRICHMENT FACTORS

Factor	Academy Graduates $\bar{X}$(n=30)	Non-Academy Graduates $\bar{X}$(n=148)	t
Overall Measures			
JE Desire	3.83	3.32	-2.23*
Extrinsic Measures			
Administration			
JFSI	17.43	20.61	2.36**
Job Enrichment Change Factors			
Independence	3.97	3.24	-2.54**
Variety	3.53	2.95	-2.19*

* = Significant at the .05 level
** = Significant at the .01 level
n=178

synonymous. Saleh[1] in 1964, and Singh and Baumgartel[2] in 1966, suggest negative linear relationships exist regarding overall job satisfaction. Therefore, it is hypothesized that a negative relationship will exist between the number of years in the Air Force and overall job satisfaction. Pearson Product Moment Correlation was used to investigate this hypothesis. Significant composite data were presented in Table 12. Non-significant data on all factors were reported in Appendix E, Table 14.

This hypothesis was not supported by the data.

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[1]Shoukry D. Saleh, "A Study of Attitude Change in the Pre-Retirement Period," Journal of Applied Psychology 48 (August 1964): 310.

[2]Tilipit M. Singh and Howard Baumgartel, "Background Factors in Airline Mechanics' Work Motivations," Journal of Applied Psychology 50 (October 1966): 357-359.

TABLE 11

t-TEST COMPARING RATED OFFICERS TO NON-RATED ON SIGNIFICANT JOB SATISFACTION/ENRICHMENT FACTORS

Factor	Rated $\bar{X}$(n=127)	Non-Rated $\bar{X}$(n=52)	t
Overall Measures			
Composite			
JE Desire	3.55	3.05	2.77**
Intrinsic Measures			
Growth			
JFSI	22.29	24.80	-2.11*
Extrinsic Measures			
Administration			
JFSI	19.24	21.96	-2.46**
Interpersonal Relations			
JFSI	27.00	29.79	-2.48**
Job Enrichment Factors			
Independence	5.00	5.33	-2.01*
Large Job Part	4.96	5.32	-2.48**
Job Enrichment Change Factors			
Independence	3.53	2.92	2.55**
Ability	3.70	3.04	2.65**
Large Job Part	3.36	2.79	2.44**

* = Significant at the .05 level
** = Significant at the .01 level
N=179

TABLE 12

PEARSON PRODUCT MOMENT CORRELATION COMPARING NUMBER OF YEARS IN THE AIR FORCE AND SIGNIFICANT JOB SATISFACTION/ENRICHMENT FACTORS

Factor	r
Overall Measures	
JE Satisfaction	-.16*
Intrinsic Measures	
Growth	
JFSI	-.22**
Responsibility	
JFSI	-.17**
Extrinsic Measures	
Composite	
JFSI	.25***
Personal Life	
JFSI	.34***
Salary	
JFSI	.40***
Work Conditions	
JFSI	.21**
Job Enrichment Factors	
Independence	-.22***
Variety	-.15*
Large Job Part	-.19**
Job Enrichment Change Factors	
Independence	.15*
Ability	.21**
Large Job Part	.19**

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level
N=179

The final supplementary analysis was an examination of the written comments at the end of each questionnaire.

There were six commonalities throughout the written comments. They were as follows:

1. A desire for more time for faculty instruction with less time devoted to administration.
2. A desire for more prestige, advancement, and recognition.
3. A desire for more supervisor feedback.
4. A need to conduct more Air Force research.
5. A need for less demands on personal life.
6. A general feeling of satisfaction with their job.

The comparison of these comments to the statistical findings of the study will be made in the next chapter.

V. DISCUSSION

In this chapter the researcher has attempted to summarize the results of the analyses presented in Chapter IV. The findings have been presented similarly to the previous procedure with the hypotheses paraphrased. The conclusions drawn from these findings have been listed along with a limited discussion regarding their implications for research which needs to be conducted based upon the questions raised by the study. The chapter concludes with a summation of the investigation.

Findings Related to the Major Hypotheses

1. The first hypothesis concerned testing for a significant difference in overall, intrinsic, and extrinsic job satisfaction between the three colleges within Air University. The data did not support the hypothesis of the study with two exceptions. First, Squadron Officer School (SOS) experiences significantly more intrinsic job satisfaction than Air Command and Staff College (ACSC). Second, Air War College (AWC) experiences a significantly greater degree of extrinsic job satisfaction than the other two colleges.

In addition to examining the overall measures relevant to this hypothesis, it would be of value to study each individual factor's composite measure. For example, we find in Table 2 eleven specific factors that proved to be statistically significant among the colleges.

Respondents from SOS were significantly more satisfied with the factor of growth, but less satisfied with personal life and salary than the other two colleges. Air Command and Staff College was significantly less satisfied with advancement and administration than the other colleges. They are also significantly less satisfied with status than the faculty at SOS. Air War College, on the other hand, is more satisfied with their working conditions. They are less satisfied with their level of responsibility and the job enrichment factor of independence. By comparison with SOS, the AWC faculty members desire a larger job part and a change in job design so that their abilities would be better utilized.

The findings from the investigation of this hypothesis suggest three separate organizational climates exist concerning specific job satisfaction factors, but no climatic difference is strong enough to effect overall job satisfaction. For example, the faculty of SOS is probably experiencing their first career broadening assignment and an associated sense of growth. Because of the demanding social life associated with organizational expectations, personal life and salary show a relatively lower level of satisfaction than that of the other colleges.

Air Command and Staff College's lower levels of satisfaction can be accounted for by examination of some specifics relevant to their environment. The organizational climate at ACSC has traditionally suffered from a role identification problem. This probably accounts for their status concern in comparison to the junior school--SOS. This, coupled with a history of frequent turnovers in top administrators,

has created a sense of confusion about administrative policies. It has also prevented a clear-cut pattern of advancement within the college.

The findings regarding AWC can be accounted for by pointing out the organizational fact of superior facilities and support provided because of the faculty's seniority. However, because of their intrinsic expectations, the job design provides an insufficient amount of responsibility, an inadequate sense of independence, and limited use of their abilities.

2. The second hypothesis examined the relationship between military rank and overall job satisfaction. The posit was that this relationship would be positive. The data were not supportive. Actually, correlation analysis identified a reversal of trends (Table 3) between intrinsic and extrinsic measures. These conflicting trends possibly led to the confounding of the overall measure and its low negative correlation $r = -.17$ ($P<.05$). However, all significant correlations were relatively low with the exceptions of personal life $r = .39$ ($P<.001$) and salary $r = .41$ ($P<.001$). The analysis of variance comparing military rank gave the researcher additional insights into this hypothesis. For example, the negative linear relationship of the overall and specific factors is apparently bimodal (Table 4). That is to say, the ranks of captain and lieutenant colonel had higher means than either the ranks of major or colonel. Actually, in comparison to the other ranks, colonels were significantly less satisfied with several factors. The general measures were overall, intrinsic, and job enrichment satisfaction. Specific measures were responsibility, supervision, independence,

variety, and a large part of the job. Also, their desire for job enrichment was statistically significant, particularly on the proper use of their abilities.

The practical examination of these findings is interesting in light of the previously examined hypothesis. For example, one can speculate about the effect of rank on various faculty members within Air University. Generally the findings suggest a lower level of satisfaction as rank increases with a slight rise in satisfaction at the rank of lieutenant colonel and a sharp drop in satisfaction at the rank of colonel.

Theoretically these findings can be accounted for by Adams' theory of equity. Rank is perceived by the individual as an input into the organizational environment. If the output does not match, a sense of inequity results.[1] This is particularly evident when one considers the prestige associated with the rank of colonel.

3. The third hypothesis investigated the possibility that a significant difference in overall job satisfaction would exist between the Curriculum and Operations Directorates of instruction in SOS and ACSC. The data did not support the hypothesis. Actually, only one set of differences existed and that was a desire for job enrichment by the faculty assigned to the Directorate of Operations (Table 5).

A possible explanation for this is their perceived lack of the planning and control functions of management in their line job. This has resulted in several limited attempts to redesign the jobs in

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[1]J. Stacy Adams, "Inequity in Social Exchange," L. Berkowitz (Ed.), Advances in Experimental Social Psychology, Vol. 2. pp. 284-286.

Operations and integrate them with the Curriculum faculty staff functions. To a certain degree these experiences have had an impact upon the author's intrinsic interest in conducting this investigation. Since no specific composite factors emerged in the study as being statistically significant, this desire for job enrichment apparently has little basis other than a perceived organizational line/staff need.

4. The fourth hypothesis suggested that a negative relationship exists between education and overall job satisfaction. The data generated in this study did not directly support this hypothesis. However, two intrinsic factors and one extrinsic factor (Table 6) emerged with a low negative correlation to education. Two extrinsic factors emerged with low positive correlations. This, coupled with low correlations to job enrichment factors, makes it difficult to identify any specific findings relevant to education and overall job satisfaction other than no relationship exists.

This finding appears to be logical. Statistically, there was little differentiation in educational levels--most of the faculty members have Masters Degrees. The general feeling toward education at Air University is that it helps one advance in his career, but it is not a necessity. Therefore, education is not necessarily a direct contributor, but a moderator, to overall satisfaction. This is somewhat different from most civilian situations, such as public schools and higher educational institutions.[1]

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[1]Stuart M. Klein and James R. Maher, "Educational Level and Satisfaction with Pay," Personnel Psychology 19 (Winter 1966): 207-208.

5. The fifth hypothesis concerned the posit that a positive relationship existed between the number of people a person supervises and overall job satisfaction. The data from the study supported the hypothesis. However, this support was based upon the single overall measures' correlation of r = .15 (P<.05). Other positive correlations identified were the work itself, work conditions, independence, and ability (Table 7). Negative correlations were personal life, recognition, and salary.

All of these findings appear to be logical in light of an individual's need for power (n Power) and the resultant satisfactions that would occur.[1] A greater sense of overall satisfaction from the work itself plus a challenge to ones abilities fulfilled by autonomous action are results of n Power being met. It should be noted, however, all correlations were low.

6. The sixth hypothesis investigated the relationship of intrinsic and extrinsic factors to overall job satisfaction. The data confirmed previous research that intrinsic factors contribute more to overall job satisfaction than do extrinsic factors. Specifically, four out of the six intrinsic motivational factors were significant at the .001 level of significance (Table 8). They were achievement r = .53, growth r = .53, responsibility r = .45, and the work itself r = .56. However, two factors, advancement r = .30 and recognition r = .38, had moderate correlations. Two extrinsic factors (Table 9) proved non-significant, four had extremely low correlations, and two, interpersonal

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[1]Richard M. Steers and Lyman W. Porter, Motivation and Work Behavior (New York: McGraw-Hill, Inc., 1975), pp. 56-58.

relations r = .33 and status r = .37, had moderate correlations at the .01 level of significance. The correlations of interpersonal relations and status with overall job satisfaction could possibly indicate that these factors may be intrinsic rather than extrinsic concerns for this specific population.

These findings appear logical in light of previous research conducted on various samples of employees.[1] It is interesting to note that status is likely to be an intrinsic factor with a military population. One could assume a certain amount of rank consciousness on the part of military personnel and therefore, a sensitivity to status. On the other hand, the finding that interpersonal relations may be an intrinsic factor is interesting in light of a socially oriented academic environment. This finding also confirms Savage's research in the public sector concerning a teacher's need for interpersonal relations.[2]

7. The seventh hypothesis examined the level of job enrichment of the entire faculty as well as their desire for a job enrichment program. The data supported the hypothesis relevant to the faculty's high level of overall enrichment and lack of desire for a job enrichment program. However, the sub-sample of colonels, as indicated by eight factors (Table 4), showed a lower level of job enrichment and advocated a change in job design.

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[1]M. Scott Myers, "Who are your Motivated Workers." Harvard Business Review 42 (January-February 1964): 73-80.

[2]Ralph Savage, "A Study of Teacher Satisfaction and Attitudes: Cause and Effects." (Ed.D. Dissertation, Auburn University, 1967), pp. 148-149.

These findings can best be accounted for by noting several general comments of the respondents indicating they already had the most enriched jobs in the Air Force. This is logical when one considers the latitude associated with the academic environment at Air University versus that of an operational combat unit.

Written comments by colonels also indicated a lack of opportunities for advancement and responsibility commensurate with their level of rank when compared to other jobs within the Air Force for full colonels.

Findings Related to the Supplementary Analysis

Several significant factors were reported in the t-test comparison of the data regarding military academy graduates and non-academy graduates. However, as one considers the minimal differences in means, it would be difficult to present a supportable finding from this investigation. An examination of the rated versus non-rated officers t-test comparison yields similar statistical results and non-supportable findings of any relationships. However, the trends noted on specific factors were that academy graduates and non-rated officers had overall higher means than non-academy and rated officers.

These findings can be accounted for when one considers the organizational assimilation that occurs over a period of time. Regardless of an individual's source of commission or his rated position, the same organizational attitudes are generally assimilated over a given period of time. Therefore, personnel concerns based upon initial recruitment may not be as relevant as immediate job design to overall job satisfaction.

As a result of the final supplementary examination, findings concerning the relationship of the number of years in the Air Force to overall job satisfaction confirmed the previous analysis of rank (Tables 3 and 12). That is, satisfaction with personal life and salary increased and satisfaction with the enrichment level of a job decreased as the number of years in the Air Force increased. However, there was no significant relationship between overall job satisfaction and the number of years in the Air Force. The accountability for such findings has been discussed earlier in the chapter's commentary on rank.

The findings indicated by the written comments supported statistical data found earlier. Specifically noted concerns were the factors of advancement, personal life, recognition, and a general support for the present level of enrichment of Air University faculty positions.

Conclusions of the Study

The seven hypotheses investigated and the data analysis provided the bases for the following conclusions.

1. There is no significant difference in overall job satisfaction between the faculties of SOS, ACSC, and AWC. However, SOS is enjoying a significantly higher degree of intrinsic job satisfaction than ACSC. Additionally, the faculty members in AWC are experiencing a significantly greater degree of extrinsic job satisfaction than other university faculty members.

2. There is a negative relationship between military rank and overall job satisfaction. This relationship is characterized by

bimodality of the ranks of captain and lieutenant colonel with the mean low being the rank of full colonel.

3. There are no significant differences in overall job satisfaction between the faculty members assigned to the Curriculum Directorates versus Operations Directorates of SOS and ACSC.

4. There is no relationship between a faculty member's educational level and overall job satisfaction.

5. There is a low positive relationship between the number of people a faculty member supervises and overall job satisfaction.

6. Intrinsic job satisfaction contributes more to overall job satisfaction than extrinsic.

7. The overall level of perceived faculty job enrichment is high and the faculty generally does not advocate a job enrichment program. However, faculty members of the rank of colonel are relatively less satisfied with the enrichment of their jobs and advocate a job design change.

The supplementary analysis conducted provided the following additional conclusions.

1. There is no significant difference between a faculty member's status as an academy or non-academy graduate and overall job satisfaction.

2. There is no significant difference between a faculty member's status as a rated or non-rated officer and overall job satisfaction.

3. There is no relationship between the number of years in the Air Force and overall job satisfaction.

In sum, different and specific needs exist in all three colleges regarding job satisfaction. However, generally it can be said that Air University's job satisfaction needs range from primarily extrinsic in SOS to intrinsic at AWC. It should be remembered that intrinsic motivational factors contribute significantly more to overall job satisfaction than do extrinsic factors.

Implications for Future Research

The current investigation has raised some questions, both theoretical and practical, that would imply future research. Several possibilities are summarized as follows:

1. Specifically, the causes of lower job satisfactions in the organizational environments of each college should be investigated.

2. Some additional research is also needed to determine if similar patterns of intrinsic, extrinsic satisfaction occur throughout professional military education in all of the armed services.

3. It would then be interesting to see if similar patterns of satisfaction develop within comparable civilian educational institutions as well as within business organizations.

4. Since the instrument was an application of motivational theory, some questions might be raised concerning the theories themselves.

   a. One concerns a question of a basic premise of Maslow. It was found that an inversion of higher order needs fulfillment was occurring at the exclusion of some of the lower order needs. This was specifically noted by the reversal of intrinsic and extrinsic trends in faculty job satisfaction.

b. The findings would also imply a unidimensional vector rather than two dimensional as in Herzberg's theory. This is supported by the moderate correlations of several extrinsic factors with overall job satisfaction.

5. The final implication leads us to the possibility of applying this study's methodology to future job satisfaction research within the Air Force itself. This could be easily accomplished by Air University's Leadership and Management Development Center in fulfilling its new role of organizational development within the Air Force.

Summary

The present study has focused upon faculty job motivation/satisfaction within the United States Air Force Air University. The investigation was undertaken to gain insight into what job factors were providing the most satisfaction to Air University faculty members. The study has answered many questions regarding faculty motivation/satisfaction at Air University and at the same time pointed toward areas of further research.

Air University is a large school system serving the professional military education needs of the United States Air Force. The study was limited to the three major schools in Air University. They were Squadron Officer School, Air Command and Staff College, and Air War College.

The Air University Faculty Motivation Survey was employed as the instrument to gather the data for this investigation. The respondents' job facet satisfaction, job facet importance, and job enrichment factors

were attitudinally measured. These factors were then compared to various demographic variables to identify significant differences.

Significant differences were found in job satisfaction between the colleges within Air University. Generally, it was noted a higher degree of intrinsic satisfaction and a lower level of extrinsic satisfaction existed in the faculty of Squadron Officer School. The opposite was true of the Air War College faculty. The faculty of the Air Command and Staff College showed a mix of intrinsic and extrinsic factors peculiar to their organizational environment.

Analysis of the entire faculty showed intrinsic factors contributed more to overall satisfaction than extrinsic factors. It was also found that the faculty was satisfied with the overall level of enrichment found in their jobs. They did not advocate a job enrichment program.

The present research was stimulated by the investigator's intrinsic interest in motivational theory and its operational application to professional educators. The Air University provided an appropriate setting for such an investigation. Hopefully, this study has provided a contribution toward the understanding of motivation/satisfaction theory.

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APPENDICES

APPENDIX A

STAFF LETTER TO THE COLLEGE COMMANDANTS

AU/EDV/ Lt Col Baker/7423/alp/19 Dec 75

DEC 22 1975

EDV

Faculty Development Survey

AWC/CV ACSC/CV SOS/CC

1. Major Robert Reely, a former ACSC faculty member now pursuing a doctorate at Auburn University, has informed AU/EDV of his scheduled meeting with you on 8 January 1976 to discuss the survey shown at Atch 1. This letter provides additional background information for that meeting.

2. The survey was approved by Air University and the Air Staff in November 1975. Earlier, AU/EDV sought and obtained your concurrence to administer the survey to your faculty. That request was made during telecons with Lt Colonel Baker (AU/EDV) on 4 and 5 September 1975.

3. Faculty members will receive the survey package in mid-January 1976. The package will include a separate privacy act statement (not shown). That statement and the cover letter to Atch 1 are being reprinted to correct minor errors.

FOR THE COMMANDER

EDWARD J. JACKO, Lt Colonel, USAF
Deputy Director of Evaluation and Research
DCS/Education

1 Atch
AU/EDV Ltr, 28 Nov 75,
w/1 Atch

MR: The letter is addressed to those individuals who were contacted in September and approved the survey for their school. Major Reely will see each individual during 8 January. Data from the survey will be used by him in his doctoral work. The schools are also interested in the results, as is AU/EDV.

Record by. ED
Read File, EDV
~~Hold cy, EDV wd~~

EDV

APPENDIX B

AIR UNIVERSITY FACULTY MOTIVATION SURVEY

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR UNIVERSITY
MAXWELL AIR FORCE BASE, ALABAMA 36112

REPLY TO ATTN OF: EDV

28 NOV 1975

SUBJECT: Faculty Development

TO: AWC/ACSC/SOS Faculty Members

1. Air University has a continuing interest in faculty development. Associated with this is the necessity to perform a motivational needs assessment as a baseline for establishing future programs. This questionnaire is designed to help us accomplish this task, as well as provide routine data for doctoral research.

2. We request you take the time to respond immediately -- it will only take about 20 minutes. Upon completion of the questionnaire, please return it to your evaluation directorate. Participation in this survey is entirely voluntary, and no adverse action of any kind may be taken against any individual who elects not to respond.

3. The results of this study will be disseminated by the end of the academic year. Thank you for your help.

FOR THE COMMANDER

JOHN T. MEEHAN
Director of Evaluation & Research
DCS/Education

1 Atch
AU Faculty Motivation Survey

SUSPENSE: 20 JAN 1976

AD-A031 821 AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OHIO F/G 5/9
AN ANALYSIS OF THE RELATIONSHIPS BETWEEN JOB SATISFACTION/ENRIC--ETC(U)
AUG 76 R H REELY

UNCLASSIFIED AFIT-CI-7T-10 NL

2 OF 2
AD
A031 821

END

DATE
FILMED
12-76

PRIVACY ACT STATEMENT

USAF Survey Control Number 76-32

Air University

Faculty Motivation Survey

In accordance with paragraph 30, AFR 12-35, the following information is provided as required by the Privacy Act of 1974:

a. Authority:

(1) 10 U.S.C., 80-12, Secretary of the Air Force, Powers, Duties, Delegation by Compensation; and/or

(2) EO 93-97, 22 Nov 43, Numbering System for Federal Accounts Relating to Individual Persons; and/or

(3) DOD Instruction 1100.13, 17 Apr 68, Surveys of Department of Defense Personnel; and/or

(4) AFR 178-9, 9 Oct 73, Air Force Military Survey Program.

b. Principle Purpose: To provide a data base for Air University faculty development.

c. Routine Use: To accomplish a faculty motivational needs assessment and provide data for doctoral research.

d. Participation in this survey is entirely voluntary.

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

AIR UNIVERSITY

FACULTY MOTIVATION SURVEY

USAF SCN 76-32

This instrument is designed to measure your feelings of satisfaction and importance in relation to various job factors. It will also measure your perception of the need for a faculty job enrichment program and gather demographic data for comparative analysis. Thank you very much for your time and cooperation.

INSTRUCTIONS

Think about your present position and please answer each of the following questions to indicate how you honestly feel. You can do this by reading the definition of each factor and then placing a check (✓) in one of the six boxes to show how satisfied you are with each factor. Then check (✓) how important each factor is to you. Please do not sign the questionnaire or identify yourself.

Start Here:

JOB MOTIVATION FACTORS

(1-3) 1. Achievement. A specific success or feeling of success such as: successful accomplishment of work; making a worthwhile contribution; seeing positive results of one's efforts; becoming proficient in a specialized area; or attaining leadership in one's field.

(4) a. Based on this definition, how satisfied are you with achievement in your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(5) b. How important to you is achievement in your job?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

2. Advancement. An improvement in status or position, progress or furtherance of one's career, such as job progression; movement into a more advanced career field; promotion in rank; or completion of AFIT or service school program.

(6) a. How satisfied are you with advancement in your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(7) b. How important to you is advancement in your job?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

3. College/School Policy and Administration. That aspect of your college/school at all organizational levels involving the adequacy or inadequacy of organization and management; harmful or beneficial effects of personnel and operational policies, procedures, and practices; or presence or lack of consistent and fair policies involving assignment preferences, proper utilization of abilities, and placement on job related to interests, background, and training.

(8) a. How satisfied are you with your college/school policy and administration?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(9) b. How important to you is your college/school policy and administration?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

4. Growth. Changes in one's situation which show evidence that possibilities for growth have been enhanced; opportunity to develop one's potential to the fullest on the job.

(10) a. How satisfied are you with growth in your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(11) b. How important to you is growth in your job?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

5. Interpersonal Relations. Interaction with colleagues, students, or superiors both on and off the job; esprit of service life; working with a particular class of person; feeling of belonging to and acceptance by service associates.

(12) a. How satisfied are you with the interpersonal relations in your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(13) b. How important to you are interpersonal relations in your job?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

6. Personal Life. Effect of job or career on some aspect of personal life such as family life, standard of living, acceptance by community; providing for family's comfort, education, and welfare; or personal opportunities.

(14) a. How satisfied are you with the influence of your job on your personal life?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(15) b. How important to you is the influence of your job on your personal life?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

7. Recognition. An act of acknowledgement and approval for demonstrated ability or performance; praise or notice from a supervisor, higher management, a peer, general public or any other source. Could be in form of effectiveness reports, written or oral communications of commendation, or medals.

(16) a. How satisfied are you with recognition in your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(17) b. How important to you is recognition in your job?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

8. Responsibility. In full charge of a job, or situation; opportunity to exercise initiative in carrying out assigned work.

(18) a. How satisfied are you with the responsibility in your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(19) b. How important to you is responsibility in your job?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

9. Salary. All forms of direct or indirect monetary compensation such as base pay, hazard pay, and collateral benefits accruing from medicare, commissary and exchange privileges, and recreational opportunities (hobby shops, clubs, rest areas, etc.)

(20) a. How satisfied are you with salary?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(21) b. How important is salary to you?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

10. Security. Involves a sense of permanence of your position in the Air Force. An example is a continued need for your skills as a professional in your career field.

(22) a. How satisfied are you with job security?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(23) b. How important is job security to you?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

11. Status. A sign of acknowledgement associated with a job or assignment such as privileges for key personnel; prestige associated with being at Air University or with a particular rank or position.

(24) a. How satisfied are you with the status associated with your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(25) b. How important to you is the status associated with your job?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

12. Supervision. Involves one's relations with those in direct or indirect control over his job or career behavior; entails technical or managerial competence or incompetence; concern or indifference; fairness or unfairness; coercion or consideration.

(26) a. How satisfied are you with the supervision of your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(27) b. How important is the supervision of your job to you?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

13. The Work Itself. The actual doing of the job or the tasks of the job. Involves work that is interesting, varied, challenging, adventurous, or exciting; entails work that is important or meaningful to the individual, work that corresponds to one's ability and background.

(28) a. How satisfied are you with the work itself?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(29) b. How important to you is the work itself?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

14. Working Conditions. This factor involves the physical conditions of work, the amount of work, or the facilities for doing the work; for example: improper faulty equipment, excessive working hours, or limited office space.

(30) a. How satisfied are you with the working conditions in your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(31) b. How important to you are the working conditions in your job?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

15. The Job as a Whole. All aspects and factors of your job as an Air University faculty member.

(32) a. Overall, how satisfied are you with your job?

Not At All Satisfied ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Satisfied

(33) b. How important is your job in influencing how satisfied you are with life in general?

Not At All Important ( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5 ( ) 6 Extremely Important

JOB ENRICHMENT FACTORS

16. This study is primarily concerned with how faculty members such as yourself view the type of work which you do. At the present time there are projects being carried out in the Air Force which are aimed at making jobs more interesting and satisfying to the people who hold them. These are called job enrichment projects. In job enrichment, jobs are changed to emphasize the following five factors:

(a) Opportunity for Independent Action--As long as a faculty member maintains an acceptable level of output and quality, he can do the job how he wants to. He can choose the methods and procedures he will use.

(b) Amount of Variety--The faculty member has the opportunity to do many different things on the job rather than only a few things. He uses different methods and procedures.

(c) Opportunity to Use Skills and Abilities--The faculty member performs work that uses his skills and abilities and that gives him a chance to develop new skills and abilities. His work is challenging.

(d) Opportunity to Do a Large Part of a Job--The faculty member does a large part of a job rather than only a small part of the job. He is able to see clearly the results of his work.

(e) Amount of Feedback--The faculty member is able to know how he is doing on the job. Either he has definite standards or goals in his job so that he knows how good his performance is or he has a supervisor who will honestly tell him whether or not he is doing a good job.

Please consider how much of each of these 5 factors you presently have in your job as compared to how much you would like to have and use this as a basis for telling how satisfied or dissatisfied you are with each factor. Put a check (✓) in one of the 6 boxes by each factor to show how satisfied or dissatisfied you are with each factor. Please give an answer for each of the 5 factors.

		(1) very dissat.	(2) dissat.	(3) slightly dissat.	(4) slightly sat.	(5) sat.	(6) very sat.
(34)	a. opportunity for independent action	( )	( )	( )	( )	( )	( )
(35)	b. amount of variety	( )	( )	( )	( )	( )	( )
(36)	c. opportunity to use skills and abilities	( )	( )	( )	( )	( )	( )
(37)	d. opportunity to do a large part of a job	( )	( )	( )	( )	( )	( )
(38)	e. amount of feedback	( )	( )	( )	( )	( )	( )

17. As an additional measure of Air University's need for a faculty enrichment program, please respond to each of the following statements by putting a check (✓) in one of the boxes to the right of each statement to indicate the extent to which you agree or disagree with the statement. Please give a response for each statement.

		(1) strongly disagree	(2) disagree	(3) slightly disagree	(4) slightly agree	(5) agree	(6) strongly agree
(39)	a. I would like to have my job changed to give me more opportunity for independent action.	( )	( )	( )	( )	( )	( )
(40)	b. I would like to have my job changed to provide more variety (that is, more different things to do on the job).	( )	( )	( )	( )	( )	( )
(41)	c. I would like to have my job changed to give me more opportunity to use my skills and abilities (that is, to make my job more challenging).	( )	( )	( )	( )	( )	( )
(42)	d. I would like to have my job changed to give me the opportunity to do a larger part of the job.	( )	( )	( )	( )	( )	( )
(43)	e. I would like to have my job changed to give me more feedback as to how I am doing on the job.	( )	( )	( )	( )	( )	( )
(44)	f. I would like to have my job enriched (in other words, to have my job given a lot more of the 5 factors mentioned earlier).	( )	( )	( )	( )	( )	( )

GENERAL INFORMATION FACTORS

Please check (✓) the correct answer for each question. (Check only one per question.)

(45) 18. How old are you?

___1. 21-25
___2. 26-30
___3. 31-35
___4. 36-40
___5. 41-45
___6. 46-50
___7. 51-55
___8. 56 or over

(46) 19. How many years have you been in the Air force?

___1. Less than 4 years
___2. 4 or more, but less than 8
___3. 8 or more, but less than 12
___4. 12 or more, but less than 16
___5. 16 or more, but less than 20
___6. 20 or more

(47) 20. How many years have you been a faculty member at Air University?

___1. Less than 1 year
___2. 1 or more, but less than 2
___3. 2 or more, but less than 3
___4. 3 or more, but less than 4
___5. 4 or more

(48) 21. What is your rank?

___1. First Lieut.
___2. Captain
___3. Major
___4. Lt. Colonel
___5. Colonel

(49) 22. What is the highest rank you expect to obtain in your Air Force career?

___1. Major
___2. Lt. Colonel
___3. Colonel
___4. General

(50) 23. What is your source of commission?

___1. AECP
___2. OCS
___3. ROTC
___4. Air Force Academy
___5. West Point
___6. Naval Academy
___7. Other (Please Specify)_____

(51) 24. Do you have a regular or a reserve commission?

___1. Regular ___2. Reserve

(52) 25. What is the highest aeronautical rating you hold?

___1. Command Pilot
___2. Senior Pilot
___3. Pilot
___4. Command Navigator
___5. Senior Navigator
___6. Navigator
___7. None

(53) 26. What is your highest educational leval?

___1. Bachelor's Degree
___2. Master's Degree
___3. Post Master's work
___4. Doctoral Degree
___5. Post Doctoral work
___6. No degree

(54) 27. What is your educational field of study?

___1. Engineering
___2. Science
___3. Math
___4. Psychology
___5. Education
___6. Business
___7. Political Science
___8. Counseling
___9. Other (Please Specify)_____
__10. Not applicable

(55) 28. How many people do you supervise directly?

___1. 0
___2. 1-4
___3. 5-8
___5. 9-12
___6. 13-16
___7. 17 or more

(56) 29. To which school are you assigned?

___1. Squadron Officers School (SOS)
___2. Air Command and Staff College (ACSC)
___3. Air War College (AWC)

(57) 30. To which directorate of instruction are you assigned?

___1. Operations (SOS or ACSC)
___2. Curriculum (SOS or ACSC)
___3. AWC Resident
___4. AWC Associate
___5. Other (Please Specify)_____

(58) 31. Which title best describes your duties?

___1. Faculty Seminar Leader/Section Commander
___2. Curriculum Phase Manager
___3. Curriculum Lecturer
___4. Other (Please Specify)_____

(59) 32. Are you male or female?

___1. Male ___2. Female

(60) 33. What is your marital status?

___1. Single
___2. Married
___3. Separated
___4. Divorced

(61) 34. How many dependents do you have (including your wife)?

___1. One
___2. Two
___3. Three
___4. Four
___5. Five or more

(62) 35. What is your race?

___1. White
___2. Black
___3. Other (Please Specify)_____

36. Finally, what would you suggest be included in a faculty job enrichment program at Air University?

37. If you would like to make any closing comments, please use this space to make them. Thank you very much for your help in filling out this questionnaire!

APPENDIX C

POST TEST RESPONDENT REMINDER

ROUTING AND TRANSMITTAL SLIP		ACTION
1 TO *(Name, office symbol or location)*	INITIALS	CIRCULATE
	DATE	COORDINATION
All AWC/ACSC/SOS Faculty Members		
2	INITIALS	FILE
	DATE	INFORMATION
3	INITIALS	NOTE AND RETURN
	DATE	PER CONVERSATION
4	INITIALS	SEE ME
	DATE	SIGNATURE

REMARKS

1. If you haven't completed your Faculty Motivation Survey by now, this is a friendly reminder asking you to do so.

2. Hopefully you realize that each individual response is important because a high return rate is necessary for meaningful interpretation of the data.

3. In case you've misplaced your questionnaire--an extra copy can be obtained at your school's directorate of evaluation.

4 Thanks again for your cooperation!

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM *(Name, office symbol or location)*	DATE
AU/EDV	19 JAN [illegible]
	PHONE 7423

OPTIONAL FORM 41
AUGUST 1967
GSA FPMR (41CFR) 100-11.206

★GPO : 1970 O - 406-808 5041-101

APPENDIX D

STAFF LETTER COMMENDING THE COLLEGES

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR UNIVERSITY
MAXWELL AIR FORCE BASE, ALABAMA 36112

REPLY TO
ATTN OF: EDV

SUBJECT: Faculty Support of AU Sponsored Survey

TO: AWC/CV ACSC/CV SCS/CC

1. We wish to thank you and your faculty for their solid support in completing the faculty motivation survey this office sponsored in conjunction with Major Robert Reely, an AFIT student at Auburn University. Major Reely reported a completed survey return rate of over 80 percent.

2. We will provide you a copy of the compiled data and analysis when it becomes available. The assessment of job satisfaction, job importance, and job enrichment data from the responses should prove especially useful in your faculty development programs.

FOR THE COMMANDER

JOHN T. MEEHAN
Director, Evaluation & Research
DCS/Education

Info Cy, Maj Reely

APPENDIX E

TABLES

TABLE 13

MOTIVATIONAL FACTOR MEANS AND STANDARD DEVIATIONS

Job Factors	Mean ($\bar{X}$)	Standard Deviation (SD)
Overall Measures		
Composite		
Job Facet Satisfaction x Importance (JFSI)	22.147	3.827
Job Facet Satisfaction (JFS)	4.365	0.646
Job Facet Importance (JFI)	5.051	0.421
Job Enrichment (JE) Satisfaction	4.835	0.765
JE Desire	3.408	1.127
Overall		
JFSI	24.615	7.513
JFS	4.5251	1.1723
JFI	5.4302	0.7785
Enrichment	3.4972	1.3917
Intrinsic Measures		
Composite		
JFSI	23.506	5.272
JFS	4.322	0.861
JFI	5.392	0.460
Achievement		
JFSI	24.095	7.490
JFS	4.4246	1.1605
JFI	5.6145	0.6199
Advancement		
JFSI	19.318	7.893
JFS	3.6648	1.3778
JFI	5.2961	0.8323

TABLE 13--Continued

Job Factors	$\bar{X}$	SD
Growth		
JFSI	23.022	7.319
JFS	4.2961	1.1399
JFI	5.3240	0.7236
Recognition		
JFSI	19.816	8.369
JFS	3.9944	1.4515
JFI	4.9832	0.8962
Responsibility		
JFSI	27.525	7.540
JFS	4.8939	1.1243
JFI	5.5866	0.5874
The Work Itself		
JFSI	26.452	7.749
JFS	4.7207	1.147
JFI	5.5475	0.6719
Extrinsic Measures		
Composite		
JFSI	21.128	4.000
JFS	4.390	0.670
JFI	4.795	0.531
Administration		
JFSI	20.034	6.817
JFS	4.0391	1.1136
JFI	4.9497	0.8298
Interpersonal Relations		
JFSI	27.810	6.926
JFS	5.1955	0.9306
JFI	5.3184	0.7222
Personal Life		
JFSI	21.101	8.020
JFS	4.2123	1.3407
JFI	5.0168	0.9086

TABLE 13--Continued

Job Factors	$\bar{X}$	SD
Salary		
JFSI	21.670	5.897
JFS	4.7374	1.0617
JFI	4.6089	0.8232
Security		
JFSI	21.145	8.023
JFS	4.3408	1.3946
JFI	4.8827	0.9673
Status		
JFSI	17.536	7.289
JFS	4.0950	1.3012
JFI	4.3073	1.0916
Supervision		
JFSI	22.335	8.843
JFS	4.4972	1.3673
JFI	4.8994	0.9892
Work Conditions		
JFSI	17.391	7.874
JFS	4.0000	1.4953
JFI	4.3743	1.0110
Job Enrichment Factors		
Independence	5.950	0.9983
Variety	5.0223	0.8992
Ability	4.8436	1.1456
Large Job Part	5.0670	0.9094
Feedback	4.1453	1.3662
Job Enrichment Change Factors		
Independence	3.3352	1.4724
Variety	3.0447	1.3359
Ability	3.5140	1.5628
Large Job Part	3.1955	1.4498
Feedback	3.9497	1.4963

N=179

TABLE 14

PEARSON PRODUCT MOMENT CORRELATION COMPARING MOTIVATIONAL FACTORS TO NUMBER OF YEARS IN THE AIR FORCE (AF) AND NUMBER OF PERSONS SUPERVISED

Job Factors	No. of Years In AF	No. of Persons Supervised
Overall Measures		
Composite		
Job Facet Satisfaction x Importance (JFSI)	0.0635	-0.0283
Job Facet Satisfaction (JFS)	0.0571	-0.0532
Job Facet Importance (JFI)	0.0800	0.0590
Job Enrichment (JE) Satisfaction	-0.1564*	0.1015
JE Desire	0.1315	0.0645
Overall		
JFSI	-0.1153	0.1496*
JFS	-0.1023	0.1217
JFI	-0.0442	0.1063
Enrichment	0.0386	0.1197
Intrinsic Measures		
Composite		
JFSI	-0.1406	-0.0614
JFS	-0.1506*	0.0239
JFI	0.0242	0.1306
Achievement		
JFSI	-0.0286	-0.0008
JFS	-0.0255	0.0098
JFI	0.0145	0.0268

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level

TABLE 14--Continued

Job Factors	No. of Years In AF	No. of Persons Supervised
Advancement		
JFSI	-0.1387	-0.0300
JFS	-0.0682	-0.0481
JFI	-0.1246	0.1898**
Growth		
JFSI	-0.2243**	0.0894
JFS	-0.1923**	0.0332
JFI	-0.1290	0.1747**
Recognition		
JFSI	-0.0067	-0.1715*
JFS	-0.0619	-0.1583*
JFI	0.0686	-0.0148
Responsibility		
JFSI	-0.1760**	0.1373
JFS	-0.2619***	0.1594*
JFI	0.1362	0.0298
The Work Itself		
JFSI	-0.0146	0.1776**
JFS	-0.0792	0.1891**
JFI	0.1689*	0.0827
Extrinsic Measures		
Composite		
JFSI	0.2453***	-0.1080
JFS	0.2416***	-0.1129
JFI	0.0952	-0.0031
Administration		
JFSI	-0.0362	0.0628
JFS	-0.1070	0.0761
JFI	0.1035	0.0013
Interpersonal Relations		
JFSI	0.0587	0.0912
JFS	0.0317	0.0621
JFI	0.0789	0.0733
Personal Life		
JFSI	0.3416***	-0.1472*
JFS	0.4168***	-0.2464***
JFI	-0.0488	0.1272

TABLE 14--Continued

Job Factors	No. of Years In AF	No. of Persons Supervised
Salary		
JFSI	0.4079***	-0.2468***
JFS	0.4174***	-0.1286
JFI	0.0843	-0.1747**
Security		
JFSI	0.1216	-0.0586
JFS	0.1499*	-0.0722
JFI	-0.0157	0.0334
Status		
JFSI	-0.0771	0.0759
JFS	-0.1678*	0.1974**
JFI	0.1374	-0.1376
Supervision		
JFSI	0.0561	-0.0894
JFS	0.0425	-0.0839
JFI	0.0611	0.0099
Work Conditions		
JFSI	0.2076**	0.1490*
JFS	0.2233**	-0.2155**
JFI	0.0387	0.0684
Job Enrichment Factors		
Independence	-0.2230***	0.2086**
Variety	-0.1451*	0.0709
Ability	-0.1185	0.1931**
Large Job Part	-0.1855**	0.0275
Feedback	0.0437	-0.0954
Job Enrichment Change Factors		
Independence	0.1465*	0.0578
Variety	0.0611	0.1146
Ability	0.2115**	-0.0649
Large Job Part	0.1916**	0.0469
Feedback	-0.1007	0.1388

N=179

TABLE 15

SPEARMAN RHO RANK ORDER CORRELATION COMPARING MOTIVATIONAL FACTORS TO MILITARY RANK AND EDUCATIONAL LEVEL ACHIEVED

Job Factors	Military Rank	Educational Level
Overall Measures		
Composite		
Job Facet Satisfaction x Importance (JFSI)	0.0098	-0.0806
Job Facet Satisfaction (JFS)	0.0460	-0.0875
Job Facet Importance (JFI)	0.0023	-0.0842
Job Enrichment (JE) Satisfaction	-0.1664*	-0.1628*
JE Desire	0.1719*	0.0918
Overall		
JFSI	-0.1703*	-0.1375
JFS	-0.1867**	-0.1117
JFI	-0.0029	-0.0676
Enrichment	0.0611	0.0223
Intrinsic Measures		
Composite		
JFSI	-0.2224**	-0.1110
JFS	-0.2133**	-0.1168
JFI	0.0030	0.0021
Achievement		
JFSI	-0.0570	-0.0258
JFS	-0.0528	0.0071
JFI	0.0617	0.0178
Advancement		
JFSI	-0.1004	-0.1457*
JFS	-0.0361	-0.1003
JFI	-0.0991	-0.0531

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level

TABLE 15--Continued

Job Factors	Military Rank	Educational Level
Growth		
JFSI	-0.1643***	-0.1600*
JFS	-0.2376***	-0.1347
JFI	-0.1193	-0.1197
Recognition		
JFSI	-0.0474	0.0457
JFS	-0.0692	0.0022
JFI	0.0495	0.1118
Responsibility		
JFSI	-0.2646***	-0.0794
JFS	-0.3203***	-0.1327
JFI	0.0758	0.0280
The Work Itself		
JFSI	-0.0921	-0.0478
JFS	-0.1305	-0.0523
JFI	0,1137	0.0083
Extrinsic Measures		
Composite		
JFSI	0.2343**	-0.0315
JFS	0.2503***	-0.0523
JFI	0.0091	-0.1161
Administration		
JFSI	-0.1065	-0.2003***
JFS	-0.1882**	-0.2623***
JFI	0.0702	0.0272
Interpersonal Relations		
JFSI	0.0378	-0.0654
JFS	-0.0089	-0.0816
JFI	0.0493	-0.0823
Personal Life		
JFSI	0.3923***	0.0724
JFS	0.4620***	0.2099*
JFI	0.0147	-0.1862**

TABLE 15--Continued

Job Factors	Military Rank	Educational Level
Salary		
JFSI	0.4090***	0.1911**
JFS	0.4758***	0.2310**
JFI	0.0316	0.0032
Security		
JFSI	0.1737*	0.0126
JFS	0.2331**	0.0338
JFI	-0.0221	-0.0760
Status		
JFSI	-0.1173	-0.1488*
JFS	-0.1444*	-0.1798**
JFI	0.0917	-0.0166
Supervision		
JFSI	0.0519	-0.0209
JFS	0.0711	-0.0588
JFI	0.0547	-0.0447
Work Conditions		
JFSI	0.1685*	0.0456
JFS	0.2144**	0.0323
JFI	-0.0021	0.0223
Job Enrichment Factors		
Independence	-0.2568***	-0.0781
Variety	-0.1351	-0.0716
Ability	-0.0980	-0.1873**
Large Job Part	-0.2374***	-0.1491
Feedback	0.0478	-0.0484
Job Enrichment Change Factors		
Independence	0.1885**	0.0544
Variety	0.0801	-0.0243
Ability	0.2381***	0.1160
Large Job Part	0.2489***	0.1503*
Feedback	-0.1421*	-0.0171

N=179

TABLE 16

ONE-WAY ANALYSIS OF VARIANCE COMPARING MILITARY RANK ON MOTIVATIONAL FACTORS

Job Factors	Captain (n=68) $\bar{X}$	Major (n=45) $\bar{X}$	Lieutenant Colonel (n=37) $\bar{X}$	Colonel (n=28) $\bar{X}$	F-Test	Cochran's C
Overall Measures						
Composite Job Facet Satisfaction x Importance (JFSI)	22.3476	21.3539	23.2451	21.8010	1.860	.2980
Job Facet Satisfaction (JFS)	4.3918	4.2016	4.6139	4.2704	3.160*	.3324
Job Facet Importance (JFI)	5.0472	5.0698	5.0135	5.1199	.379	.2925
Job Enrichment (JE) Satisfaction	5.0059	4.7511	4.9946	4.3929	5.418**	.2907
JE Desire	3.1676	3.6044	3.1081	4.0500	5.799***	.3120

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level
⌐¬ = $\bar{X}$'s connected indicate a Tukey's (HSD) significance of difference

TABLE 16--Continued

Job Factors	Captain	Major	Lieutenant Colonel	Colonel	F-Test	Cochran's C
Overall						
JFSI	26.2353	24.1555	24.7567	21.6786	2.632*	.2933
JFS	4.7794	4.4444	4.7027	3.8571	4.749**	.3141
JFI	5.4853	5.4222	5.2703	5.5714	.949	.3123
Intrinsic Measures Composite						
JFSI	25.1200	22.6777	23.3873	21.5892	4.060**	.3208
JFS	4.6078	4.1222	4.4144	3.9524	5.621***	.3251
JFI	5.4093	5.4630	5.2883	5.4405	1.198	.2994
Achievement						
JFSI	25.7941	24.4889	24.6216	24.2500	.449	.2958
JFS	4.5735	4.2889	4.5405	4.1786	1.124	.3150
JFI	5.6029	5.7111	5.4324	5.7857	2.250	.4774***
Advancement						
JFSI	21.1765	17.4000	20.0270	17.5000	2.861*	.3005
JFS	3.8971	3.2444	4.0541	3.3571	3.700**	.3007
JFI	5.4118	5.4000	5.0811	5.1786	1.709	.4240**

TABLE 16--Continued

Job Factors	Captain	Major	Lieutenant Colonel	Colonel	F-Test	Cochran's C
Growth						
JFSI	25.3823	23.3111	20.2162	20.9286	5.358**	.2872
JFS	4.6618	4.2444	3.9730	3.9643	4.388**	.3062
JFI	5.4118	5.4667	5.0541	5.2857	2.767*	.2705
Recognition						
JFSI	21.0441	17.5111	20.9459	19.4286	1.903	.3039
JFS	4.3433	3.4444	4.2162	3.9286	4.065**	.3202
JFI	4.9265	5.1111	4.9730	5.0000	.397	.3030
Responsibility						
JFSI	29.9853	26.6000	28.4054	22.5357	7.917***	.3199
JFS	5.3235	4.7556	5.0541	3.9286	12.961***	.3868**
JFI	5.6029	5.5333	5.5946	5.7143	.607	.2877
The Work Itself						
JFSI	27.3382	26.7556	26.1081	24.8929	.725	.2624
JFS	4.9118	4.7556	4.6486	4.3571	1.671	.2904
JFI	5.5000	5.5556	5.5946	5.6786	.542	.2871
Extrinsic Measures						
Composite						
JFSI	20.2684	20.3611	23.1385	21.9598	5.519**	.2696
JFS	4.2298	4.2611	4.7635	4.5089	6.518***	.2884
JFI	4.7757	4.7750	4.8074	4.8795	.288	.3094

TABLE 16--Continued

Job Factors	Captain	Major	Lieutenant Colonel	Colonel	F-Test	Cochran's C
Administration						
JFSI	21.0735	18.9111	21.2432	17.8571	2.316	.3404
JFS	4.3235	3.7333	4.2703	3.5357	5.394**	.3808**
JFI	4.8824	5.0222	4.9459	5.0357	.360	.2809
Interpersonal Relations						
JFSI	27.6765	28.0667	27.6757	28.3214	.078	.3036
JFS	5.1912	5.2667	5.1351	5.2143	.140	.3472
JFI	5.2941	5.3111	5.3514	5.3929	.147	.2981
Personal Life						
JFSI	17.2353	22.5333	23.7838	24.8214	10.578***	.3375
JFS	3.4265	4.4889	4.8649	4.8214	16.719***	.2952
JFI	5.0588	5.0667	4.7838	5.1786	1.205	.3766
Salary						
JFSI	18.7353	21.8444	24.0270	25.2857	13.386***	.3033
JFS	4.1324	4.8667	5.2432	5.3214	16.613***	.3868**
JFI	4.6029	4.5111	4.5946	4.7857	.640	.3241
Security						
JFSI	20.1618	19.5111	23.6216	23.2143	2.848*	.2991
JFS	4.1324	4.0222	4.7297	4.8929	3.889**	.2894
JFI	4.8971	4.9111	4.9459	4.7500	.242	.2878

TABLE 16--Continued

Job Factors	Captain	Major	Lieutenant Colonel	Colonel	F-Test	Cochran's C
Status						
JFSI	19.0735	15.4222	18.6757	16.0000	3.096*	.2915
JFS	4.4412	3.8222	4.1892	3.6071	3.806**	.3312
JFI	4.2500	4.1333	4.5135	4.5000	1.178	.3620*
Supervision						
JFSI	22.2647	20.4889	25.8378	21.2143	2.828*	.3029
JFS	4.4853	4.1778	5.1351	4.2500	4.007**	.3080
JFI	4.8824	4.8444	4.9189	5.0357	.230	.2780
Work Conditions						
JFSI	15.9265	16.1111	20.2432	18.9643	3.292*	.3094
JFS	3.7059	3.7111	4.5405	4.4286	3.995**	.2862
JFI	4.3382	4.4000	4.4054	4.3571	.051	.2646
Job Enrichment Factors						
Independence	5.3824	5.1333	5.2703	4.1786	12.320***	.4230
Variety	5.2059	4.8667	5.1622	4.6786	3.173*	.3434
Ability	5.0294	4.8222	4.8108	4.5357	1.299	.3399
Large Job Part	5.3088	5.0667	5.1351	4.4643	6.448***	.3645
Feedback	4.1029	3.8667	4.5946	4.1071	2.010	.3204

TABLE 16--Continued

Job Factors	Captain	Major	Lieutenant Colonel	Colonel	F-Test	Cochran's C
Job Enrichment Change Factors						
Independence	3.0597	3.4000	3.1081	4.2500	5.169***	.2906
Variety	2.9118	3.1778	2.8108	3.4643	1.682	.2612
Ability	3.0441	3.7333	3.4324	4.3571	5.477**	.2949
Large Job Part	2.7500	3.4667	2.9459	4.1786	8.165***	.1920
Feedback	4.1176	4.3409	3.2432	4.0000	4.393**	.2783

n=178

TABLE 17

t-TEST COMPARING COLLEGE DIRECTORATES OF INSTRUCTION ON MOTIVATIONAL FACTORS

Job Factors	Operations $\bar{X}$(n=87)	Curriculum $\bar{X}$(n=44)	t
Overall Measures			
Composite			
Job Facet Satisfaction x Importance (JFSI)	22.0886	21.8489	0.31
Job Facet Satisfaction (JFS)	4.2267	4.3734	-0.36
Job Facet Importance (JFI)	5.0886	4.9334	1.97*
Job Enrichment (JE) Satisfaction	4.9103	4.9591	-0.32
JE Desire	3.4896	2.9136	2.86**
Overall			
JFSI	26.2758	23.4091	1.91
JFS	4.7701	4.3864	1.63
JFI	5.5057	5.3409	1.13
Enrichment	3.7001	2.9318	3.11**
Intrinsic Measures			
Composite			
JFSI	24.1436	23.5871	0.49
JFS	4.4138	4.3674	0.26
JFI	5.4425	5.3333	1.27
Achievement			
JFSI	25.2874	24.3409	0.62
JFS	4.4828	4.3636	0.56
JFI	5.6207	5.5455	0.54
Advancement			
JFSI	19.6781	19.2500	0.26
JFS	3.6552	3.7500	-0.35
JFI	5.4023	5.1591	1.29

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level

TABLE 17--Continued

Job Factors	Operations $\bar{X}$(n=87)	Curriculum $\bar{X}$(n=44)	t
Growth			
JFSI	24.3678	22.7273	1.19
JFS	4.4253	4.2955	0.55
JFI	5.4943	5.2273	1.83
Recognition			
JFSI	19.0805	20.8636	-1.10
JFS	3.9070	4.1591	-0.92
JFI	4.9770	5.0000	-0.14
Responsibility			
JFSI	28.6552	28.8182	-0.11
JFS	5.1034	5.0909	0.07
JFI	5.5862	5.5682	0.16
The Work Itself			
JFSI	27.7931	25.5227	1.40
JFS	4.9540	4.5455	1.73
JFI	5.5747	5.5000	0.58
Extrinsic Measures			
Composite			
JFSI	20.5474	20.5454	0.00
JFS	4.2615	4.3778	-0.95
JFI	4.8233	4.6335	1.92*
Administration			
JFSI	20.3218	20.0909	0.16
JFS	4.1149	4.0682	0.82
JFI	4.9540	4.8636	0.57
Interpersonal Relations			
JFSI	28.3218	27.0000	1.02
JFS	5.2989	5.0682	1.26
JFI	5.3103	5.2955	0.11
Personal Life			
JFSI	19.0690	20.9091	-1.10
JFS	3.7011	4.4545	-3.43**
JFI	5.1839	4.6364	3.34***

TABLE 17--Continued

Job Factors	Operations $\bar{\chi}$(n=87)	Curriculum $\bar{\chi}$(n=44)	t
Salary			
JFSI	20.1379	21.0000	-0.82
JFS	4.5402	4.6364	-0.47
JFI	4.5172	4.5455	-0.17
Security			
JFSI	20.8506	19.1136	1.24
JFS	4.2299	4.0682	0.64
JFI	4.9655	4.7045	1.46
Status			
JFSI	18.3563	16.3636	1.53
JFS	4.3333	3.8636	2.13**
JFI	4.2414	4.2273	0.07
Supervision			
JFSI	21.6667	22.6818	-0.60
JFS	4.3678	4.5682	-0.78
JFI	4.9195	4.7727	0.77
Work Conditions			
JFSI	15.6552	17.2045	-1.13
JFS	3.5057	4.2955	-2.95***
JFI	4.4943	4.0227	2.59**
Job Enrichment Factors			
Independence	5.2989	5.2550	0.27
Variety	5.0575	5.1818	-0.79
Ability	5.0115	4.8409	0.79
Large Job Part	5.1609	5.2727	-0.71
Feedback	4.0230	4.2500	-0.84
Job Enrichment Change Factors			
Independence	3.3953	2.7955	2.37*
Variety	3.2299	2.4773	3.04***
Ability	3.4483	3.0227	1.48
Large Job Part	3.2184	2.6364	2.33*
Feedback	4.2442	3.6364	2.15*

n=131

TABLE 18

t-TEST COMPARING MILITARY ACADEMY GRADUATES TO NON-ACADEMY ON MOTIVATIONAL FACTORS

Job Factors	Academy $\bar{X}$(n=30)	Non-Academy $\bar{X}$(n=148)	t
Overall Measures			
Composite			
Job Facet Satisfaction x Importance (JFSI)	21.8023	22.2031	0.52
Job Facet Satisfaction (JFS)	4.3619	4.3648	0.02
Job Facet Importance (JFI)	4.9619	5.0665	1.24
Job Enrichment (JE) Satisfaction	4.7600	4.8486	0.58
JE Desire	3.8267	3.3270	-2.23*
Overall			
JFSI	24.9333	24.5540	-0.22
JFS	4.3667	4.5608	0.82
JFI	5.6667	5.3784	-1.86
Enrichment	3.7333	3.4459	-1.03
Intrinsic Measures			
Composite			
JFSI	23.3999	23.5303	0.12
JFS	4.3389	4.3333	-0.03
JFI	5.3167	5.4042	0.95
Achievement			
JFSI	25.8667	24.6757	-0.79
JFS	4.5333	4.3986	-0.58
JFI	5.6670	5.6014	-0.52
Advancement			
JFSI	19.3333	19.4054	0.05
JFS	3.6667	3.6824	0.06
JFI	5.1667	5.3176	0.90

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level

TABLE 18--Continued

Job Factors	Academy $\bar{X}$(n=30)	Non-Academy $\bar{X}$(n=148)	t
Growth			
JFSI	23.3333	22.9459	-0.26
JFS	4.3667	4.2770	-0.39
JFI	5.3000	5.3311	0.21
Recognition			
JFSI	19.6000	19.7500	0.09
JFS	4.1333	3.9796	-0.54
JFI	4.7333	5.0270	1.65
Responsibility			
JFSI	26.4000	27.7365	0.88
JFS	4.7000	4.9324	1.03
JFI	5.5664	5.5878	0.18
The Work Itself			
JFSI	25.8667	26.6689	0.52
JFS	4.6333	4.7568	0.55
JFI	5.4667	5.5608	0.70
Extrinsic Measures			
Composite			
JFSI	20.6042	21.2078	0.75
JFS	4.3792	4.3885	0.07
JFI	4.6958	4.8133	1.10
Administration			
JFSI	17.4333	20.6149	2.36**
JFS	3.7333	4.1014	1.65
JFI	4.7000	5.0135	1.93*
Interpersonal Relations			
JFSI	27.9667	27.7230	-0.18
JFS	5.1333	5.2027	0.37
JFI	5.4333	5.2905	-0.99
Personal Life			
JFSI	22.6337	20.7838	-0.99
JFS	4.5000	4.1486	-1.31
JFI	4.9333	5.0270	0.51

TABLE 18--Continued

Job Factors	Academy $\bar{X}$(n=30)	Non-Academy $\bar{X}$(n=148)	t
Salary			
JFSI	22.5000	21.4054	-0.94
JFS	4.9667	4.6824	-1.34
JFI	4.5333	4.6149	0.50
Security			
JFSI	19.5333	21.4122	1.17
JFS	4.4333	4.3108	-0.44
JFI	4.4667	4.9662	2.61**
Status			
JFSI	15.9667	17.9392	1.36
JFS	3.8000	4.1757	1.47
JFI	4.3000	4.3041	0.02
Supervision			
JFSI	21.8333	22.3446	0.29
JFS	4.4667	4.4932	0.10
JFI	4.9000	4.8919	-0.04
Work Conditions			
JFSI	17.2333	17.3392	0.13
JFS	4.0000	3.9932	-0.02
JFI	4.3000	4.3986	0.49
Job Enrichment Factors			
Independence	4.8333	5.1486	1.58
Variety	4.9000	5.0405	0.78
Ability	4.8000	4.8514	0.22
Large Job Part	5.0667	5.0676	0.00
Feedback	4.2000	4.1351	-0.24
Job Enrichment Change Factors			
Independence	3.9667	3.2381	-2.54**
Variety	3.5333	2.9527	-2.19*
Ability	3.8667	3.4459	-1.34
Large Job Part	3.6333	3.1081	-1.82
Feedback	4.1333	3.9388	-0.66

n=178

TABLE 19

t-TEST COMPARING RATED OFFICERS TO NON-RATED ON MOTIVATIONAL FACTORS

Job Factors	Rated $\bar{\chi}$(n=127)	Non-Rated $\bar{\chi}$(n=52)	t
Overall Measures			
Composite			
Job Facet Satisfaction x Importance (JFSI)	21.9099	22.7266	-1.30
Job Facet Satisfaction (JFS)	4.3181	4.4791	-1.52
Job Facet Importance (JFI)	5.0595	5.0288	0.44
Job Enrichment (JE) Satisfaction	4.7653	5.0038	-1.91
JE Desire	3.5543	3.0500	2.77**
Overall			
JFSI	24.2205	25.5769	-1.10
JFS	4.4724	4.6538	-0.94
JFI	5.0000	5.4615	-0.34
Enrichment	3.5984	3.2500	1.53
Intrinsic Measures			
Composite			
JFSI	23.1128	24.4679	-1.57
JFS	4.2690	4.4872	-1.54
JFI	5.3832	5.4135	-1.40
Achievement			
JFSI	24.7323	25.3269	-0.48
JFS	4.4252	4.4231	0.01
JFI	5.5748	5.7551	-1.34
Advancement			
JFSI	19.3465	19.2500	0.07
JFS	3.6535	3.6923	-0.17
JFI	5.3150	5.2500	0.47

* = Significant at the .05 level
** = Significant at the .01 level
*** = Significant at the .001 level

TABLE 19--Continued

Job Factors	Rated $\bar{\chi}$(n=127)	Non-Rated $\bar{\chi}$(n=52)	t
Growth			
JFSI	22.2913	24.8077	-2.11*
JFS	4.1732	4.5962	-2.28*
JFI	5.2992	5.3846	-0.72
Recognition			
JFSI	19.0709	21.6346	-1.87
JFS	3.9048	4.2885	-1.64
JFI	4.9685	5.0192	-0.34
Responsibility			
JFSI	28.8846	26.9685	-1.55
JFS	4.7953	5.1346	-1.85
JFI	5.5984	5.5577	0.42
The Work Itself			
JFSI	26.2677	26.9038	-0.50
JFS	4.6929	4.7885	-0.51
JFI	5.5433	5.5577	-0.13
Extrinsic Measures Composite			
JFSI	21.0079	21.4207	-0.63
JFS	4.3553	4.4736	-1.07
JFI	4.8169	4.7404	0.88
Administration			
JFSI	19.2441	21.9615	-2.46**
JFS	3.8898	4.4038	-2.86**
JFI	4.9291	5.0000	-0.60
Interpersonal Relations			
JFSI	27.0000	29.7885	-2.48**
JFS	5.0551	5.5385	-3.65***
JFI	5.3071	5.3462	-0.33
Personal Life			
JFSI	21.6850	19.6731	1.53
JFS	4.2992	4.0000	1.36
JFI	5.0551	4.9231	0.88

TABLE 19--Continued

Job Factors	Rated $\bar{X}$(n=127)	Non-Rated $\bar{X}$(n=52)	t
Salary			
JFSI	22.0315	20.7885	1.28
JFS	4.7874	4.6154	0.98
JFI	4.6457	4.5192	0.93
Security			
JFSI	21.0709	21.3269	-0.19
JFS	4.3386	4.3462	-0.03
JFI	4.8740	4.9038	-0.19
Status			
JFSI	17.5197	17.5769	-0.05
JFS	4.0472	4.2115	-0.77
JFI	4.3701	4.1538	1.20
Supervision			
JFSI	22.4646	22.0192	0.31
JFS	4.4961	4.5000	-0.02
JFI	4.9606	4.7500	1.30
Work Conditions			
JFSI	17.0472	18.2308	-0.91
JFS	3.9291	4.1731	-0.99
JFI	4.3937	4.3269	0.40
Job Enrichment Factors			
Independence	5.0000	5.3269	-2.01*
Variety	4.9921	5.0962	-0.70
Ability	4.7874	4.9808	-1.03
Large Job Part	4.9609	5.3269	-2.48**
Feedback	4.0866	4.2885	-0.90
Job Enrichment Change Factors			
Independence	3.5276	2.9216	2.55**
Variety	3.1496	2.7885	1.65
Ability	3.7087	3.0385	2.65**
Large Job Part	3.3622	2.7885	2.44***
Feedback	4.0556	3.7692	1.18

N=179