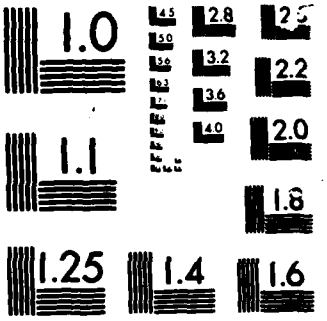
AD-A166 709 JOB ATTITUDES OF SAC (STRATEGIC AIR COMMAND) PILOTS COMPARED(U) AIR COMMAND AND STAFF COLL MAXWELL AFB AL J K KENNEDY APR 86 ACSC-86-1380 1/1

UNCLASSIFIED F/G 5/9 NL



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STUDENT REPORT

JOB ATTITUDES OF SAC PILOTS COMPARED TO OTHER AIR FORCE PILOTS AND NON-RATED OFFICERS

MAJOR JOSEPH K. KENNEDY 86-1380

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REPORT NUMBER 86-1380

TITLE JOB ATTITUDES OF SAC PILOTS COMPARED TO OTHER AIR FORCE PILOTS AND NON-RATED OFFICERS

AUTHOR(S) MAJOR JOSEPH K. KENNEDY, USAF

FACULTY ADVISOR MAJOR MICKEY R. DANSBY, LMDC/AN

SPONSOR MAJOR MICKEY R. DANSBY, LMDC/AN

Submitted to the faculty in partial fulfillment of requirements for graduation.

AIR COMMAND AND STAFF COLLEGE
AIR UNIVERSITY
MAXWELL AFB, AL 36112

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION: UNCLASSIFIED

AD-A166 709

1b. RESTRICTIVE MARKINGS

2a. SECURITY CLASSIFICATION AUTHORITY

2b. DECLASSIFICATION/DOWNGRADING SCHEDULE

3. DISTRIBUTION/AVAILABILITY OF REPORT: STATEMENT "A" Approved for public release; Distribution is unlimited.

4. PERFORMING ORGANIZATION REPORT NUMBER(S): 86-1380

5. MONITORING ORGANIZATION REPORT NUMBER(S)

6a. NAME OF PERFORMING ORGANIZATION: ACSC/EDCC

6b. OFFICE SYMBOL (If applicable)

7a. NAME OF MONITORING ORGANIZATION

6c. ADDRESS (City, State and ZIP Code): Maxwell AFB AL 36112-5542

7b. ADDRESS (City, State and ZIP Code)

8a. NAME OF FUNDING/SPONSORING ORGANIZATION

8b. OFFICE SYMBOL (If applicable)

9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

8c. ADDRESS (City, State and ZIP Code)

10. SOURCE OF FUNDING NOS.

PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT NO.

11. TITLE (Include Security Classification): JOB ATTITUDES OF SAC PILOTS COMPARED

12. PERSONAL AUTHOR(S): Kennedy, Joseph K., Major, USAF

13a. TYPE OF REPORT

13b. TIME COVERED: FROM _____ TO _____

14. DATE OF REPORT (Yr., Mo., Day): 1986 April

15. PAGE COUNT: 71

16. SUPPLEMENTARY NOTATION: ITEM 11: TO OTHER AIR FORCE PILOTS AND NON-RATED OFFICERS (U)

17. COSATI CODES

FIELD	GROUP	SUB. GR.

18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number): (Strategic Air Command)

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This study examines whether significant differences exist among the job attitudes of SAC pilots, other Air Force pilots, and non-rated officers. Demographic characteristics and job attitudes were measured by the USAF Organizational Assessment Package. The study concludes that significant attitudinal differences do exist among SAC pilots, other Air Force Pilots, and non-rated officers. The study recommends how commanders can capitalize on attitudinal strengths and compensate for attitudinal weaknesses.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT: UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☒ DTIC USERS ☐

21. ABSTRACT SECURITY CLASSIFICATION: UNCLASSIFIED

22a. NAME OF RESPONSIBLE INDIVIDUAL: ACSC/EDCC Maxwell AFB AL 36112-5542

22b. TELEPHONE NUMBER (Include Area Code): (205)293-2483

22c. OFFICE SYMBOL

DD FORM 1473, 83 APR — EDITION OF 1 JAN 73 IS OBSOLETE — UNCLASSIFIED

PREFACE

The Leadership and Management Development Center (LMDC), Maxwell AFB, Alabama, was created in 1975. The LMDC charter established it as the focal point for developing better leadership and management for Air Force people and units. To do this, LMDC provided research and consultation services in the field of leadership and management. These research and consultation services will be terminated 1 October 1986.

The present manuscript is written in the style of the American Psychological Association, in keeping with the requirements of LMDC. The author acknowledges a great debt to the personnel of LMDC/AN for technical advice in the preparation of this manuscript and for performing statistical tests. The help of Major Mickey R. Dansby was invaluable in this regard.

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ABOUT THE AUTHOR

Major Joseph Kennedy entered the US Air Force in 1973. He has been a B-52 Aircraft Commander and a Wing Flying Training Scheduler in SAC. He was a Section Commander and Chief of Special Progams at Squadron Officer School. He received a Bachelor of Arts in Political Science from California State College, and a Master of Science in Public Administration from Central Michigan University. He is a resident graduate of Squadron Officer School.

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EXECUTIVE SUMMARY

Part of our College mission is distribution of the students' problem solving products to DoD sponsors and other interested agencies to enhance insight into contemporary, defense related issues. While the College has accepted this product as meeting academic requirements for graduation, the views and opinions expressed or implied are solely those of the author and should not be construed as carrying official sanction.

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REPORT NUMBER 86-1380

AUTHOR(S) MAJOR JOSEPH K. KENNEDY, USAF

TITLE JOB ATTITUDES OF SAC PILOTS COMPARED TO OTHER AIR FORCE PILOTS AND NON-RATED OFFICERS

I. Purpose: To determine whether there are significant differences among the job attitudes (as measured by the USAF Organizational Assessment Package--OAP) of SAC pilots, other Air Force pilots, and non-rated officers and to recommend appropriate steps based on the findings.

II. Background: In order to determine whether there are significant attitudinal differences among these groups, data from the Organizational Assessment Package (OAP) survey data base maintained by the Leadership and Management Development Center (LMDC) are examined. The OAP survey and the consulting process surrounding it can be traced to 1973 and the All Volunteer Force (AVF). At that time, Air Force leaders recognized they would have to do everything possible to enhance the attractiveness of Air Force life to successfully compete for resources in the AVF environment. The AVF prompted the Air Force to take a more active interest in the job attitudes of Air Force personnel. In order to accomplish its mission, the Air Force must have highly qualified personnel. The job attitudes of these Air Force personnel are critical to their performance and retention. In an environment of shortages and increased costs in manpower and

CONTINUED

materials, it behooves the Air Force to seek ways to improve productivity through improving job satisfaction. The present report examines job satisfaction within one major command (SAC) and offers recommendations for improving satisfaction.

III. Procedures: Several steps were taken to reach the goals of the present research:

(1) Current and relevant organizational behavior literature were reviewed to determine what previous researchers have learned about work attitudes in general and those of SAC pilots, other Air Force pilots, and non-rated officers in particular.

(2) OAP-measured demographic characteristics and job attitudes of the three groups were compared. Then, analysis of variance (ANOVA) procedures were used to determine whether there were overall differences between groups at the 95% statistical confidence level. Finally, the Newman-Keuls test was used to determine which specific groups differ from each other.

(3) Attitudinal differences determined to be statistically and practically significant among the groups were analyzed for trends, consistencies, and inconsistencies; then an attempt to explain significant attitudinal differences among these groups in light of other organizational behavior research was made.

(4) Recommendations for SAC commanders were developed on how they can capitalize on attitudinal strengths and compensate for attitudinal weaknesses. Also, SAC commanders were advised what work issues they should be concerned about.

IV. Results and Conclusions:

(1) SAC pilots have less task autonomy than other Air Force pilots and non-rated officers.

(2) SAC pilots rate their jobs as intrinsically less motivating than other Air Force pilots and non-rated officers rate their jobs.

(3) SAC pilots feel their organizations are better supervised and managed than the other two comparison groups' organizations. Also, SAC pilots rate their organizations' communications, both supervisory and organizational, higher than the other two comparison groups rate theirs.

(4) SAC pilots' job related satisfaction is lower than that of other Air Force pilots and non-rated officers. However, SAC

pilots report a more positive feeling about pride than do the other two comparison groups.

V. Recommendations:

(1) Commanders should make a concentrated effort to increase the task autonomy of SAC pilots whenever the mission permits. A more participative approach in making decisions could help do this.

(2) Commanders should continue to search for new and innovative ways to motivate SAC pilots. Giving increased responsibility to individuals who demonstrate an ability to handle it could help motivate SAC pilots. In other words, commanders need to avoid the "micro-manager" approach and let their people operate and grow professionally.

(3) Commanders should continue to foster a climate of open communications. This research indicates SAC does a good job in both the supervisory and organizational communications area. Commanders should continue to stress the importance of feedback to subordinates to maintain good communications.

Chapter One

INTRODUCTION

The primary purpose of this study is to determine whether there are significant differences among job attitudes for SAC pilots, other Air Force pilots, and non-rated officers. For years it's been said that Air Force pilots have regarded flying assignments in some major commands as more satisfying than flying assignments in other major commands (Riely, 1980). This belief, whether correct or incorrect, causes problems for Air Force personnel managers because both new and experienced pilots seek and resist assignments based on this perception. Clearly, job attitudes are important, both to the Air Force member and to Air Force leaders and personnel managers. Studying the attitudes of Air Force pilots, both within specific commands and as a whole, may provide insights as to how we can improve their job satisfaction, and consequently their performance and commitment. Comparing job attitudes of pilots to non-rated officers may yield further insight into job concerns that are unique to pilots. The Air Force must create an environment whereby job satisfaction and personal growth can take place to insure retention of its personnel (Tuttle & Hazel, 1974).

In order to determine whether there are significant attitudinal differences among these groups, data from the Organizational Assessment Package (OAP) data base maintained by the Leadership and Management Development Center (LMDC) at Maxwell AFB, AL, are examined. The OAP survey will be covered in detail in Chapter Three. However, a brief history of the OAP survey is appropriate now.

The OAP survey and the consulting process surrounding it can be traced to 1973 and the All Volunteer Force (AVF). At that time, Air Force leaders recognized they would have to do everything possible to enhance the attractiveness of Air Force life to successfully compete for resources in the AVF environment (Mahr, 1982). The OAP was developed jointly by LMDC and the Air Force Human Resources Laboratory (AFHRL) at Brooks Air Force Base, TX. The present OAP survey was field-tested from January through July of 1978 with a sample of approximately 5000 Air Force personnel. AFHRL did much internal validation and testing prior to this, emphasizing factor composition, internal consistency reliability, item distributions, and model testing. Despite this, however, the field test provided the first opportunity for LMDC consulting teams to use the survey in the field (Short, 1985).

In 1978, AFHRL personnel, LMDC research personnel, and LMDC management consultants gathered at LMDC. They examined the results of the field validation, selected the factors to retain in the OAP survey, and determined the final structure of the

survey. The present OAP survey is a result of these workshops and subsequent field tests by two consultant teams (Short, 1985).

As was mentioned earlier, the AVF prompted the Air Force to develop the OAP and to take a more active interest in the job attitudes of Air Force personnel. In order to accomplish its mission, the Air Force must have highly qualified personnel. In addition, the job attitudes of these Air Force personnel are critical. Experience shows that poor job attitudes directly impact retention rates (Tuttle & Hazel, 1974). All defense agencies are faced with shortages in manpower and increased costs of manpower, as well as shortages and increased costs in materials (Henggeler, 1981).

In today's Air Force our most vital resource is our military personnel. The Air Force must be sensitive to the needs of its people. One way to do this is to know how they feel about their jobs. This study analyzes data that reveal job attitudes of SAC pilots, other Air Force pilots, and non-rated officers. This research pursues four goals:

1. To conduct a review of current and relevant organizational behavior literature to determine what previous researchers have learned about work attitudes in general and those of SAC pilots, other Air Force pilots, and non-rated officers in particular;

2. To compare OAP-measured demographic characteristics and job attitudes of these three groups and use analysis of variance (ANOVA) procedures to determine whether there are overall

differences among groups at the 95% statistical confidence level; then use the Newman-Keuls test to determine which specific groups differ from each other;

3. To select attitudinal differences determined to be statistically and practically significant among the groups and analyze them for trends, consistencies, and inconsistencies; then look at present results and attempt to explain significant attitudinal differences among these groups in light of other organizational behavior research; and

4. To develop recommendations for SAC commanders on how they can capitalize on attitudinal strengths and compensate for attitudinal weaknesses; also to advise leaders within SAC what work issues they should be concerned about.

This report addresses each of these goals in the following way. First, Chapter Two shows the results of the literature review. Next, Chapter Three presents the methodology used to conduct the research. This chapter is divided into four sections. The section entitled "Instrumentation" explains the OAP questionnaire. The data collection section describes the process used to gather data. The subjects section deals with the comparison groups. Finally, the procedures section explains those procedures used to analyze the data. Chapter Four contains the analysis results. The results are divided into demographic description and attitudinal results. In Chapter Five, the results, and their implications, are discussed. Finally, Chapter Six presents some conclusions and recommendations.

Chapter Two

LITERATURE REVIEW

Many studies have been written on military career irritants and retention problems. However, very little research deals with pilots' job attitudes as compared to non-rated officers. Furthermore, little research compares Air Force pilots' job attitudes in different major commands to each other. This chapter reviews some organizational behavior theory and some findings of studies that are closely related to pilots' job attitudes.

Job satisfaction and motivation are essential elements of a person's attitude towards his or her work. Attitudes have been defined as feelings, beliefs, and behavioral acts (Hellriegel & Slocum, 1976). To help the reader better understand job satisfaction, motivation, and attitudes toward work, this chapter summarizes some classic work in organizational management theory. First, Frederick Taylor's (1911) influential "scientific management" theory is summarized. Next, motivation is discussed by describing Maslow's (1954) hierarchy of needs. Then, job satisfaction is examined by describing Herzberg's (Herzberg, Mauser & Synderman, 1959) "two-factor" theory. Chapter Two

concludes by reviewing some findings of studies closely related to pilots' job attitudes.

Basic Theory

Taylor's "Scientific Management"

As cited by Henggeler (1981), Taylor's ideas and thoughts about the problems associated with an organization resulted in a theory he describes as "scientific management." Taylor believed that work, the human and physical components, can be studied scientifically. Through science, Taylor hoped to determine a method for organizing work. Taylor developed four key elements in his management theory:

> 1st: Develop a science for each element of a man's work which replaced the old rule-of-thumb method.
>
> 2nd: Scientifically select and then train, teach, and develop the workman.
>
> 3rd: Cooperate with the men to insure all work is done in accordance with principles of the science which has been developed.
>
> 4th: There is almost an equal division of the work and the responsibility between the management and the workmen. The management takes over all work for which they are better fitted. (Taylor, 1911, pp. 36-37)

These four concepts are still being used today and are often thought of as structure, functional processes, span of control, and the division of labor. Some felt that Taylor considered men only motivated by economic gain (Henggeler, 1981). Later, theorists looked beyond basic motivation by economic gain to explore the higher order needs of man.

Maslow's Hierarchy of Needs

Maslow's model of human behavior is one of the earliest theories dealing with higher motivation. Maslow's model is based on two fundamental premises:

1. Man is a wanting animal whose needs depend on what he already has. Only needs not yet fulfilled can influence behavior; an adequately fulfilled need is not a motivator.

2. Man's needs are arranged in an hierarchy of importance. Once one need is fulfilled, another emerges and demands fulfillment. (Maslow, 1954, p. 220)

In Maslow's hierarchy, five types of needs were presented. These needs, in order of priority, are physiological, safety, social, esteem, and self-actualization. Maslow defined the physiological needs as the primary needs for survival. These needs include air, food, water, shelter, sleep, and sex. Physiological needs are the controlling needs if all needs are unsatisified. Maslow defined safety as protection from bodily injury, illness, and insecurity. When physiological needs are met, safety needs become the primary motivators. Maslow's social needs include love, companionship, acceptance, and belonging. At this level, the controlling needs move from the physical to the mental or psychological realm. The esteem need consists of self-esteem and esteem from others. Self-esteem stems from self-respect, confidence, achievement, and mastery. Esteem from others includes prestige, status, and approval from others. The final need is self-actualization. Maslow defines this as the desire to become more and more of what one is, to become

everything that one is capable of becoming. To satisfy this need all other needs must be satisfied first (Henggeler, 1981).

Maslow contends these hierarchical needs are present in all mankind. He also notes that the order of needs, especially those in the middle of the hierarchy, may vary from one individual to another. In addition, he says that moving up the hierarchy can take a long time (Maslow, 1970).

Herzberg's Two-Factor Theory

Herzberg and his associates have shown the importance of job attitudes to motivation and productivity (Herzberg et al., 1959). Herzberg developed a "two-factor" theory based on interviews of accountants and engineers. He identified job conditions that contribute to job satisfaction as the first factor or "motivators." These job conditions are achievement, recognition, advancement, work itself, and responsibility. They describe the job content.

Herzberg called the second factor "hygienes" and they included company policy, technical supervision, salary, job security, personal life, interpersonal relationships, and status. These factors described the job environment. Without these job conditions present, job dissatisfaction would result.

According to Herzberg, job satisfaction and dissatisfaction result from two separate human needs: animal needs and activity needs. Fulfilling the human animal needs will not lead to job satisfaction. These needs are biological and parallel Maslow's physiological needs. Fulfilling human activity needs can lead to

job satisfaction. Self-actualization and the ability to achieve are examples of human activity needs fulfilled.

Job Attitude Research on Air Force Pilots

Air Force officials have recognized the importance of job attitude research (Short, 1985). However, there is little research that focuses on the job attitudes of pilots in different commands. A review of some studies closely related to pilots' job attitudes reveals some interesting findings.

The USAF Study (USAF, 1966) was conducted as a response to the loss of experienced officers and the increased cost of training replacements. The purpose of this study was to identify those factors seen as important job and career motivators. The study consisted of questionnaires and interviews with 420 randomly selected officers. The study concluded that motivation of rated officers may improve by focusing on policies related to TDY, alerts, job assignments, and career planning. The study found these areas negated such motivating factors as love of flying, sense of accomplishment, and opportunity for career progression (Riely, 1980).

In 1965, MAC initiated a series of studies on aircrew morale which continued until 1970. The USAF School of Aerospace Medicine conducted the studies. In 1968, 43% of MAC rated officers listed "time away from home" as the most disliked aspect of their job (Cantrell & Hartman, 1968). A 1970 study (Dryden, Kirschner & Hartman) indicated 58% of MAC's Air Rescue Service

rated officers reported that their jobs had negative effects on themselves and their families.

In 1972, a research project was conducted on officer retention within the Tactical Airlift Force. Questionnaires were completed and interviews conducted with 140 C-130 rated officers. Family separations and little control over assignments were listed by 70% and 53% of the people, respectively, as most unfavorable job factors. Pay and allowances were listed as the most favorable by those participating in the study (Riely, 1980).

In 1978, Beck and Gray found that ATC instructor pilots were dissatisfied because they could not transfer between weapon systems and major commands. The study indicates pilots don't want to serve in the same aircraft during their entire Air Force careers (Beck & Gray, 1978). The authors interviewed many pilots serving as ATC instructor pilots as part of an exchange program from MAC and SAC. The interviews indicated these pilots enjoyed their exchange tours. However, they were required to return to their previous commands. They had no chance to be assigned to other commands. Many indicated this policy would cause them to seriously consider separating from the Air Force (Riely, 1980).

This brief review of organizational behavior concepts and the findings of studies on pilots' job attitudes highlights the importance of understanding the motivating aspects of the job environment. The lack of significant research on job attitudes of SAC pilots inspired the present study. How do SAC pilots feel

about their jobs? The next chapter explains the methodology used in the present research to try and answer that question.

Chapter Three

METHODOLOGY

This chapter presents the methodology used to determine what job attitude differences exist between SAC pilots, other Air Force pilots, and non-rated officers. The Organizational Assessment Package (OAP), data collection, the subjects in the OAP survey, and analysis procedures are discussed.

Instrumentation

The survey instrument used to gather the data for this study was LMDC's OAP (Appendix C). The OAP is a survey designed jointly by the Air Force Human Resources Laboratory and LMDC. It is used to aid LMDC in its missions to (a) conduct research on Air Force systematic issues using information in the OAP data base, (b) provide leadership and management training, and (c) provide management consultation services to Air Force commanders upon request. In its present form, the OAP survey consists of a computer-scored response sheet and a 109-item booklet. Responses use a scale of 1 to 7, with a value of 1 generally indicating strong disagreement or dissatisfaction with the question or statement, and a 7 usually indicating strong agreement or satisfaction. The exact meaning of each response is clearly

indicated in the introduction to each of the seven sections or modules of the survey.

To better understand the seven modules, we need to look at each one. The first OAP module is the BACKGROUND INFORMATION SECTION. The 16 items in this section gather demographic information about the respondent. The second OAP module, JOB INVENTORY, relates to the respondent's job. Respondents rate 34 items dealing with job complexity, the degree of job autonomy, performance standards, job goals, etc. The third module, JOB DESIRES, contains seven items about the desired job characteristics. The fourth module, SUPERVISION, consists of 19 items which measure leadership/managerial traits of the respondent's supervisor. The fifth module, WORK GROUP EFFECTIVENESS (WORK GROUP PRODUCTIVITY), consists of five items dealing with the quantity and quality of the work produced by the respondent's work group. The sixth module, ORGANIZATION CLIMATE, consists of 19 items about the respondent's relationships with the squadron or staff agency. The items deal with communication within an organization, rewards and recognition for contributions, and teamwork within the organization. The final module, JOB RELATED SATISFACTION, consists of nine items that round out the picture of the respondent's work environment. The items deal with subjects such as the degree of teamwork among co-workers, the respondent's family's attitude towards his/her job, and whether or not the job provides an opportunity to acquire valuable skills (Short, 1985).

Short (1985) presents evidence for the validity and reliability of the OAP. Results of the survey administrations are maintained in a cumulative data base at LMDC consisting of nearly 300,000 cases.

Data Collection

All data for the present report were collected in conjunction with LMDC management consultations. In the LMDC management consultation process, the initial administration of the OAP in an organization is a key step in the data gathering process (Vermilya, 1985). To administer the OAP, LMDC must first be invited by the commander of the subject organization (usually of wing size or equivalent). Consultants visit the organization and administer the survey in group sessions. Respondents are promised individual anonymity for their responses. Consultants from LMDC administer surveys directly to all members of the organization present for duty during the survey period. Thus, the survey is a census, rather than a sampling, within the organization. (From an Air Force-wide perspective, the bases visited are an opportunity sample and were not selected randomly. However, a large number of bases in all major commands have been visited.) The consultants also conduct interviews with personnel and gather other management data. After returning to LMDC, they perform a computer assisted analysis of survey results for the organization. Then the consultants return to the organization for a tailored visit to provide feedback to supervisors, assist

them in preparing action plans to work problem areas, and conduct on-site workshops and seminars. The survey results are treated in a confidential manner between LMDC and the client commander.

Between four and seven months after the tailored visit, the consultants return to the organization to re-administer the OAP and do other follow-up data gathering. In this case, the OAP is used as an evaluation tool to assess the impact of the consulting process. After analysis, a final report and the results comparing pre- and post- OAP administrations are mailed to the client organization. Data for the present analysis include only survey results from the initial (as opposed to follow-up) data gatherings.

Subjects

This study compares the job attitudes of SAC pilots, other Air Force pilots, and non-rated officers. To compare the job attitudes of these groups, responses to the pre-intervention OAP were taken from the LMDC Data Base. All subjects of this research were active duty Air Force officers. The data are taken from surveys administered at more than 70 bases or sites, including 12 SAC bases, between 1 October 1981 and 16 September 1985.

SAC pilots help deter nuclear war by providing ready, flexible, and credible strategic response capability. This capability counters threats to vital US security interests. SAC pilots perform bombing, refueling, and reconnaissance missions.

Other Air Force pilots in this study are from MAC, TAC, and ATC. MAC pilots primarily fly airlift missions. TAC pilots perform tactical missions to include close air support, air interdiction, and air-to-air operations. ATC pilots are responsible for training student pilots. The non-rated officers group consists of Air Force officers who do not possess an aeronautical rating. The non-rated officers represent a broad spectrum of career fields. While virtually all of the pilots were males, almost 18% of the non-rated officers were females. Sample sizes for the three groups consisted of 225 SAC pilots, 1937 other Air Force pilots, and 8030 non-rated officers. More detailed demographic information is contained in Appendix A.

Procedures

To analyze the data, the officers responding to the survey were arranged into three groups: (a) SAC pilots, (b) other Air Force pilots, and (c) non-rated officers. Results of analyses of the groups are reported in two separate comparisons. First, an analysis of demographics is provided to characterize the sample groups. Secondly, a comparison of SAC pilots' job attitudes to other Air Force pilots' and non-rated officers' job attitudes is provided using the OAP data base.

In order to make these comparisons, the Statistical Package for the Social Sciences (SPSS) computer package was used. Demographic and attitudinal results on the OAP were compared separately for SAC pilots, other Air Force pilots, and non-rated

officers. The analysis of variance (ANOVA) procedure was used to determine whether there are statistically significant overall differences among the groups at the 95% confidence level. After the ANOVA, the Newman-Keuls test was administered to determine which specific groups differ significantly from each other.

Statistically significant differences at the 95% confidence level are considered acceptable evidence that there are differences among SAC pilots, other Air Force pilots, and non-rated officers on OAP results. Such differences are conventionally accepted as reliable with 95% confidence in the behavioral sciences research. No prior hypotheses about whether SAC pilots, other Air Force pilots, or non-rated officers are higher or lower than each other were proposed; rather the research question was "are there any differences, whether higher or lower, among SAC pilots, other Air Force pilots, and non-rated officers?" If the F-Statistic (ANOVA) was significant, the differences between the means for the various groups and the results of the Newman-Keuls follow-up procedure indicated the direction and statistical significance of attitudinal differences.

This chapter has outlined the methodology used to determine significant job attitude differences among SAC pilots, other Air Force pilots, and non-rated officers. Chapter Four presents the demographic and attitudinal results of the research.

Chapter Four

RESULTS

The previous chapter outlined how the job attitude differences of SAC pilots, other Air Force pilots, and non-rated officers were to be compared. The purpose of this chapter is to present results of these comparisons on the demographic variables and each of the 21 factors listed in Table 1. The results of the Analyses of Variance are summarized and shown in Table 1.

Tables A-1 through A-21, Appendix A, provide detailed and descriptive information about the three groups compared in the present study. The typical SAC pilot respondent is between 26 and 40 years of age, has more than 36 months in the career field, and between 6 and 36 months in his (all are males) present position. More than 94% are white and over 85% are married. More than 50% of the SAC pilots hold advanced academic degrees. More than 70% supervise at least three people. Twenty-two percent do not write performance reports. Over 60% indicate they will make the Air Force a career.

Other Air Force pilot respondents consist of pilots from MAC, TAC, and ATC. The typical pilot from this group is between 21 and 35 years of age, has 18 to 36 months in the career field, and between 6 and 36 months in his or her present position. More

TABLE 1

Summary Results of ANOVAs

Factor	Group Means			Sig/Dif	
	SAC Pilots	Other AF Pilots	Non Rated	Yes	No
Job Performance Goals	4.87	4.92	4.65	X	
Task Characteristics	5.39	5.45	5.33		X
Task Autonomy	3.59	3.91	4.75	X	
Work Repetition	4.46	4.64	4.23	X	
Desired Repet/Easy Tasks	2.33	2.50	2.48	X	
Job Related Training	5.26	5.27	4.49	X	
Skill Variety	5.62	5.75	5.38	X	
Task Identity	5.44	5.34	5.20	X	
Task Significance	5.72	5.79	5.82		X
Job Feedback	4.78	4.88	4.88		X
Need for Enrichment	6.04	5.97	6.13	X	
Job Motivation Index	97.90	107.75	131.53	X	
Work Support	4.43	4.28	4.57	X	
Management/Supervision	5.48	5.43	5.24	X	
Supervisory Comm	5.03	4.99	4.79	X	
Organizational Comm	5.13	5.01	4.81	X	
Pride	5.79	5.78	5.40	X	
Advancement/Recognition	4.70	4.58	4.59		X
Workgroup Effectiveness	5.93	5.85	5.73	X	
Job Related Satisfaction	5.21	5.25	5.41	X	
Gen Organ Climate	5.54	5.34	5.11	X	

than 95% are white and over 75% are married. Only 24% of this group have advanced academic degrees. More than 40% supervise at least three people. Seventy percent write performance reports. Thirty-nine percent indicate they will make the Air Force a career.

The typical non-rated officer respondent is between 21 and 41 years of age, has between 18 and 36 months in the career field, and between 6 and 36 months in his or her present position. Just over 85% are white and 76% are married. Thirty-eight percent of these non-rated officers have advanced degrees. More than 45% supervise at least three people. Forty-seven percent do not write performance reports. Over 50% indicate they will make the Air Force a career.

Results of the ANOVAs indicate significant differences (sig/dif) between comparison groups at the 95% confidence level on 17 of the 21 OAP factors analyzed (Table 1). More detailed information on the ANOVAs is found in Appendix B, Table B-1.

Significant attitudinal differences found in the 17 OAP factors cover all four organizational function areas. These include work itself, job enrichment, work group process, and work group output. The following paragraphs summarize the attitudinal differences between comparison groups in each functional area.

Under the work itself functional area, SAC pilots see themselves as having less Task Autonomy than other Air Force pilots and non-rated officers. They also indicated their work was less repetitive than other Air Force pilots but more

repetitive than non-rated officers. No significant differences exist among comparison groups for Task Characteristics.

In the job enrichment area, SAC pilots were less motivated by the job itself than other Air Force pilots and non-rated officers. However, SAC pilots reported a more positive attitude about the importance of their job. Also, no significant differences exist among the comparison groups concerning feedback about their performance. All three groups felt their jobs provided moderate feedback.

In the work group process area, which includes measurements of overall supervision and management, SAC pilots reported more favorable perceptions than did the other two comparison groups in Management Supervision, Supervisory Communications, and Organizational Communications. Non-rated officers reported a more positive feeling about Work Support than did SAC pilots and other Air Force pilots.

The last key area in which significant differences were noted was work group output. SAC pilots indicated their Job Related Satisfaction was lower than other Air Force pilots and non-rated officers. However, SAC pilots reported a more positive feeling about Pride than did the other two comparison groups. Also, SAC pilots indicated more positive Workgroup Effectiveness and General Organizational Climate. No significant differences exist among the groups with reference to Advancement/Recognition.

This chapter has presented the results from data gathered for the LMDC Data Base. Chapter Five discusses these results and attempts to explain them.

Chapter Five

DISCUSSION

As shown in the previous chapter, 17 of the 21 factors evaluated revealed significant differences between comparison groups. Table 1 contains a summary of these findings.

This chapter attempts to examine, interpret, and qualify the results cited in Chapter Four. In addition, certain inferences are drawn from the results. The significant attitudinal differences found in the 17 OAP factors cover all four organizational function areas. The following paragraphs examine and interpret computer results from these four areas while also comparing these results to literature review findings where applicable.

The first organizational function area examined is work itself. This area consists of six factors. They include Task Characteristics, Job Performance Goals, Task Autonomy, Work Repetition, Desired Repetitive/Easy Tasks, and Job Related Training. There are significant differences between at least two of the comparison groups on five of the six OAP factors. No significant differences exist among comparison groups for Task Characteristics.

Although statistical differences exist among the groups in the other five factors, I believe the Task Autonomy factor is the most important. SAC pilots feel they have considerably less Task Autonomy than other Air Force pilots and non-rated officers. As a former SAC pilot myself, I have seen this problem become contagious and a real detriment to an organization. Air Force officers should be given an opportunity to make decisions. This allows them to develop confidence and grow professionally. As mentioned in the literature review, Herzberg and his associates have shown the importance of task autonomy in his "two-factor" theory (Herzberg et al., 1959). Herzberg lists task autonomy (responsibility) as a primary motivator that contributes enormously to job satisfaction.

In the job enrichment area, there are six factors. These include Skill Variety, Task Identity, Task Significance, Job Feedback, Need for Enrichment, and Job Motivation Index. No significant differences exist among the comparison groups for Task Significance and Job Feedback. However, there are significant differences among the comparison groups on the other four factors.

I believe the most important factor in this functional area is the Job Motivation Index. Computer results indicated SAC pilots rated the intrinsic motivation potential of their jobs lower than other Air Force pilots and non-rated officers. As Air Force leaders it's our job to provide jobs that are as intrinsically motivating as possible under the circumstances.

Experience shows that motivated people perform better than those who are not motivated. Maslow (1954) showed the importance of motivation to job attitudes and productivity. He believed that man is motivated by more than just economic gain. The USAF Study (USAF, 1966) confirmed this. It recommended the Air Force could improve rated officer motivation by focusing on alerts, job assignments, and career planning. Since SAC pilots work closely with a large part of our nuclear arsenal, the Air Force should explore ways to enrich their jobs and better motivate these personnel.

There are four factors in the third functional area, work group process. They are Work Support, Management and Supervision, Supervisory Communications Climate, and Organizational Communications Climate. Although statistical differences exist among the comparison groups in all four factors, none of the absolute differences is very large. Therefore, no major differences exist among the comparison groups.

The final OAP organizational function area is work group output. There are five factors in this area. They are Pride, Advancement/Recognition, Workgroup Effectiveness, Job Related Satisfaction, and General Organizational Climate. No significant differences exist among groups for the Advancement/Recognition factor. There are significant differences on the remaining four factors.

I believe the two most important factors in this functional area are Pride and Job Related Satisfaction. It's interesting to note that although SAC pilots expressed a lower Job Related Satisfaction than other Air Force pilots and non-rated officers, they indicated a more positive feeling about Pride. Although Herzberg (1959) in his "two-factor" theory doesn't mention pride specifically as a motivator, one could say it is closely related to what Herzberg calls achievement. Herzberg identified achievement as a major contributor to job satisfaction. In other words, a direct correlation exists between achievement (pride) and job satisfaction. However, this doesn't appear to be the case with SAC pilots. With SAC pilots expressing more Pride and less Job Related Satisfaction than other Air Force pilots and non-rated officers, they appear to be an exception to Herzberg's "two-factor" theory.

This chapter has attempted to examine, interpret, and qualify the results in Chapter Four. Chapter Six contains some conclusions based on the research. Additionally, some recommendations are made based on the results of this study.

Chapter Six

CONCLUSIONS AND RECOMMENDATIONS

The primary purpose of this study was to compare the job attitudes of SAC pilots, other Air Force pilots, and non-rated officers. The instrument used to make these comparisons was LMDC's Organizational Assessment Package (OAP). This survey measures 21 job attitude factors in four organizational function areas. This chapter discusses the conclusions of this research and also makes recommendations based on the results.

Conclusions and Summary of Findings

This research shows that significant attitudinal differences exist between SAC pilots, other Air Force pilots, and non-rated officers. This conclusion is based on the LMDC computer results that indicated the comparison groups were statistically significantly different on 17 of 21 factors in the OAP survey (See Appendix B for more detailed information). The following findings are the most important from each of the four organizational function areas:

1. Work Itself: SAC pilots have less Task Autonomy than other Air Force pilots and non-rated officers.

2. Job Enrichment: SAC pilots rate their jobs intrinsically less motivating than other Air Force pilots and non-rated officers rate their jobs.

3. Work Group Process: SAC pilots feel their organizations are better supervised and managed than the other two comparison groups' organizations. Also, SAC pilots see their organizations' communications, both supervisory and organizational, as superior to the other two comparison groups.

4. Work Group Output: SAC pilots' Job Related Satisfaction is lower than that of other Air Force pilots and non-rated officers. However, SAC pilots report a more positive feeling about Pride than the other two comparison groups report.

Recommendations

The study results clearly indicate that job attitude differences exist among SAC pilots, other Air Force pilots, and non-rated officers. In view of the study's findings, recommendations are made in four areas. These four areas are the organizational function areas assessed by the OAP: work itself, job enrichment, work group process, and work group output.

More specifically the recommendations address the factors of Task Autonomy, Job Motivation Index, Supervisory Communications Climate, Organizational Communications Climate, and Job Related Satisfaction. It's important to understand that each factor is a member of one of the four organizational function areas respectively. Furthermore, even though the study indicates many statistical differences, the author views the four previously mentioned factors as the most practically significant and therefore worthy of further examination.

The information contained in this study should be brought to the attention of SAC commanders. The author makes the following recommendation :

1. Commanders should make a concentrated effort to increase the task autonomy of SAC pilots whenever the mission permits. A more participative approach in making decisions could help do this.

2. Commanders should continue to search for new and innovative ways to motivate SAC pilots. Giving increased responsibility to individuals who demonstrate an ability to handle it could help motivate SAC pilots. In other words, commanders need to avoid the "micro-manager" approach and let their people operate and grow professionally.

3. Commanders should continue to foster a climate of open communications. This research indicates SAC does a good job in both the supervisory and organizational communications area. Commanders should stress the importance of feedback to subordinates to maintain good communications.

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APPENDIX

APPENDIX A

DEMOGRAPHICS

Table A-1

Number of Respondents by Personnel Category

SAC Pilots (n)	Other AF Pilots (n)	Non-Rated Officers (n)
225	1937	8049

Table A-2

Sex by Personnel Category

	Male (%) (n)	Female (%) (n)
SAC Pilots	100.0 225	0.0 0
Other AF Pilots	99.4 1926	0.6 11
Non-Rated Officers	82.1 6596	17.9 1434

Table A-3

Age by Personnel Category

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	225	1937	8049
21 to 25 Yrs	0.4	20.6	11.8
26 to 30 Yrs	22.2	41.4	25.3
31 to 35 Yrs	36.9	18.5	25.4
36 to 40 Yrs	33.8	15.2	20.4
41 to 45 Yrs	5.3	3.7	11.7
46 to 50 Yrs	0.4	0.3	3.5
> 50 Years	0.9	0.4	1.9

Table A-4

Time in Air Force

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	225	1936	8036
< 1 Yr	0.0	0.2	4.7
1 to 2 Yrs	0.0	3.3	6.6
2 to 3 Yrs	0.4	13.6	6.9
3 to 4 Yrs	0.9	11.1	6.5
4 to 8 Yrs	21.3	31.4	20.4
8 to 12 Yrs	32.9	17.8	15.6
> 12 Years	44.4	22.7	39.4

Table A-5

Months in Present Career Field

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	221	1924	8004
< 6 Mos	2.7	4.4	5.1
6 to 12 Mos	3.2	9.6	7.4
12 to 18 Mos	2.7	10.2	7.0
18 to 36 Mos	11.3	28.2	19.4
> 36 Mos	80.1	47.6	61.1

Table A-6

Months at Present Duty Station

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	225	1931	8033
< 6 Mos	10.7	11.5	14.4
6 to 12 Mos	12.4	17.1	16.9
12 to 18 Mos	16.4	16.7	16.9
18 to 36 Mos	32.9	37.1	35.1
> 36 Mos	27.6	17.7	16.7

Table A-7

Months in Present Position

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	225	1929	8027
< 6 Mos	28.9	32.9	24.9
6 to 12 Mos	25.3	30.2	23.9
12 to 18 Mos	16.0	17.0	17.3
18 to 36 Mos	19.1	16.3	26.4
> 36 Mos	10.7	3.7	7.5

Table A-8

Ethnic Group

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	224	1929	8014
White	94.2	95.1	85.3
Hispanic	1.8	1.0	2.7
Black	0.9	0.9	7.5
Other	3.0	2.9	4.5

Table A-9

Marital Status

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	225	1933	8046
Not Married	12.4	22.6	22.1
Married	86.2	77.0	76.0
Single Parent	1.3	0.4	1.9

Table A-10

Spouse Status: SAC Pilots

	Geographically Separated (%)	Not Geo Separated (%)
n =	4	190
Civilian Employed	100.0	27.4
Not Employed	0.0	70.0
Military Member	0.0	2.6

Table A-11

Spouse Status: Other AF Pilots and Non-Rated Officers

	Geographically Separated (%)	Not Geo Separated (%)
n =	334	7272
Civilian Employed	58.0	34.0
Not Employed	18.0	56.0
Military Member	24.0	10.0

Table A-12

Educational Level

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	224	1936	8022
HS Grad or GED	0.0	0.1	0.1
< 2 yrs College	0.4	0.0	0.2
> 2 yrs College	0.0	0.2	1.8
Bachelors Degree	46.0	75.6	48.0
Masters Degree	53.1	24.0	38.1
Doctoral Degree	0.4	0.1	11.9

Table A-13

Professional Military Education

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	225	1933	8038
None	9.3	40.2	36.7
Phase 1 or 2	0.4	0.4	1.2
Command Academy	0.0	0.3	2.7
Sr NCO Academy	0.0	0.0	0.2
Sq Officer Sch	29.3	31.1	26.2
Int Service Sch	51.1	23.3	21.5
Sr Service Sch	9.8	4.7	11.5

Table A-14

Number People Directly Supervised

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	219	1809	7604
None	16.9	56.8	37.4
1 Person	5.9	4.1	8.3
2 People	0.9	5.2	7.2
3 People	28.3	7.0	8.3
4 to 5 People	22.8	9.7	14.9
6 to 8 People	13.7	6.0	10.4
9 or > People	11.4	11.2	13.5

Table A-15

Number People for Whom Respondent Writes APR/OER/Appraisal

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	225	1929	8030
None	22.2	70.6	47.0
1 Person	5.3	3.7	11.4
2 People	3.1	4.0	8.3
3 People	27.1	4.4	8.1
4 to 5 People	23.6	8.2	12.0
6 to 8 People	13.3	5.1	8.5
9 or > People	5.3	4.0	4.8

Table A-16

Supervisor Writes Respondent's APR/OER/Appraisal

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	219	1916	7934
Yes	80.4	83.1	76.6
No	12.8	12.9	14.1
Not Sure	6.8	4.0	9.3

Table A-17

Work Schedule

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	219	1919	7970
Day Shift	8.7	13.9	74.8
Swing Shift	0.5	0.0	0.2
Mid Shift	0.0	0.1	0.1
Rotating Shifts	0.5	4.2	5.3
Irregular Sched	8.7	23.0	10.8
Freq TDY/On-call	2.7	10.5	7.4
Crew Sched	79.0	49.4	1.4

Table A-18

Supervisor Holds Group Meetings

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	216	1914	7956
Never	4.6	5.7	6.6
Occasionally	30.6	22.7	22.4
Monthly	30.6	15.0	13.8
Weekly	31.0	38.2	43.9
Daily	2.3	15.8	11.5
Continuously	0.9	2.6	1.8

Table A-19

Supervisor Holds Group Meetings to Solve Problems

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	221	1904	7906
Never	18.1	13.6	15.8
Occasionally	46.2	41.3	42.6
Half the Time	14.9	22.0	22.1
Always	20.8	23.1	19.4

Table A-20

Aeronautical Rating and Current Status

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Officers (%)
n =	225	1936	8010
Non-Rated	0.9	0.1	85.9
Non-Rated Crew	0.0	0.2	3.4
Rated Ops	96.9	98.0	2.3
Rated Support	2.2	1.8	8.3

Table A-21

Career Intent

	SAC Pilots (%)	Other AF Pilots (%)	Non-Rated Pilots (%)
n =	225	1928	8006
Retire 12 Mos	1.8	0.6	3.9
Career	61.3	39.0	52.3
Likely Career	25.8	31.7	20.7
Maybe Career	8.9	22.0	14.3
Likely Separate	0.9	5.0	5.4
Separate	1.3	1.6	3.4

Note: The number (n) is the total number of valid responses for the factor being examined.

APPENDIX

APPENDIX B

OAP ATTITUDINAL ANALYSES

Table B-1

Comparison of OAP Factor Scores
Between SAC Pilots, Other AF Pilots, and Non-Rated Officers

THE WORK ITSELF	Mean	SD	df	F-Ratio	Subset
Job Performance Goals			2,9819	62.64***	
SAC Pilots	4.88	.82			2
Other AF Pilots	4.92	.86			2
Non-Rated Officers	4.65	1.00			1
Task Characteristics			2,9874	12.42***	
SAC Pilots	5.40	.89			1
Other AF Pilots	5.45	.84			1
Non-Rated Officers	5.38	.96			1
Task Autonomy			2,9898	385.06***	
SAC Pilots	3.58	1.23			1
Other AF Pilots	3.92	1.26			2
Non-Rated Officers	4.75	1.29			3
Work Repetition			2,10039	69.90***	
SAC Pilots	4.4[illegible]	1.21			2
Other AF Pilots	4.64	1.30			3
Non-Rated Officers	4.24	1.39			1
Desired Repetitive/ Easy Tasks			2,9750	2.72	
SAC Pilots	2.33	.92			1
Other AF Pilots	2.51	1.02			1
Non-Rated Officers	2.48	1.05			1
Job Related Training			2,7968	204.41***	
SAC Pilots	5.26	1.13			2
Other AF Pilots	5.28	1.25			2
Non-Rated Officers	4.49	1.51			1

Note. Groups not in the same subset are significantly different at the .05 level.

*$p<.05$. **$p<.01$. ***$p<.001$.

Table B-1 (Continued)

JOB ENRICHMENT	Mean	SD	df	F-Ratio	Subset
Skill Variety			2,10107	66.78***	
SAC Pilots	5.62	1.08			2
Other AF Pilots	5.75	1.11			2
Non-Rated Officers	5.39	1.29			1
Task Identity			2,10086	12.47***	
SAC Pilots	5.44	1.19			2
Other AF Pilots	5.34	1.11			1,2
Non-Rated Officers	5.21	1.23			1
Task			2,10136	.90	
SAC Pilots	5.73	1.16			1
Other AF Pilots	5.80	1.13			1
Non-Rated Officers	5.82	1.26			1
Job Feedback			2,10095	.81	
SAC Pilots	4.78	1.11			1
Other AF Pilots	4.89	1.09			1
Non-Rated Officers	4.89	1.19			1
Need for Enrichment			2,9877	25.12***	
SAC Pilots	6.04	.79			1,2
Other AF Pilots	5.98	.85			1
Non-Rated Officers	6.13	.85			2
Job Motivation			2,9260	111.14***	
SAC Pilots	97.91	53.08			1
Other AF Pilots	107.75	56.04			2
Non-Rated Officers	131.53	68.08			3

Note. Groups not in the same subset are significantly different at the .05 level.

*$p<.05$. **$p<.01$. ***$p<.001$.

Table B-1 (Continued)

WORK GROUP PROCESS	Mean	SD	df	F-Ratio	Subset
Work Support			2,9755	56.75***	
SAC Pilots	4.44	1.03			2
Other AF Pilots	4.29	1.03			1
Non-Rated Officers	4.58	1.08			3
Management Superv			2,9538	16.03***	
SAC Pilots	5.49	1.12			2
Other AF Pilots	5.43	1.16			2
Non-Rated Officers	5.25	1.40			1
Superv Communications			2,9352	17.61***	
SAC Pilots	5.04	1.18			2
Other AF Pilots	5.00	1.27			2
Non-Rated Officers	4.79	1.47			1
Orgnl Communications			2,9449	23.09***	
SAC Pilots	5.13	1.05			2
Other AF Pilots	5.01	1.17			2
Non-Rated Officers	4.82	1.29			1

Note. Groups not in the same subset are significantly different at the .05 level.

*$p<.05$. **$p<.01$. ***$p<.001$.

Table B-1 (Continued)

WORK GROUP OUTPUT	Mean	SD	df	F-Ratio	Subset
Pride			2,10079	65.01***	
SAC Pilots	5.80	1.18			2
Other AF Pilots	5.78	1.20			2
Non-Rated Officers	5.40	1.41			1
Advance/Recognition			2,9682	1.05	
SAC Pilots	4.71	1.07			1
Other AF Pilots	4.59	1.07			1
Non-Rated Officers	4.59	1.20			1
Work Group Effective			2,9780	12.20***	
SAC Pilots	5.94	.85			2
Other AF Pilots	5.86	.94			1,2
Non-Rated Officers	5.74	1.12			1
Job Rel Satisfaction			2,9109	18.87***	
SAC Pilots	5.21	.97			1
Other AF Pilots	5.26	1.01			1
Non-Rated Officers	5.42	1.09			2
General Org Climate			2,9474	34.18***	
SAC Pilots	5.54	.96			3
Other AF Pilots	5.35	1.17			2
Non-Rated Officers	5.12	1.28			1

Note. Groups not in the same subset are significantly different at the .05 level.

*$p < .05$. **$p < .01$. ***$p < .001$.

APPENDIX

APPENDIX C

FACTORS AND VARIABLES BOOKLET

FACTORS AND VARIABLES OF THE ORGANIZATIONAL ASSESSMENT PACKAGE

The OAP is a 109-item survey questionnaire designed jointly by the Air Force Human Resources Laboratory and the Leadership and Management Development Center (LMDC) and is used to aid LMDC in its missions to: (a) conduct research on Air Force systemic issues using information in the OAP database, (b) provide leadership and management training, and (c) provide management consultation service to Air Force commanders upon request.

Allowable responses to the attitudinal items on the survey range from 1 (low) to 7 (high). The attitudinal items are grouped into 25 factors that address such areas as the job itself, management and supervision, communications, and performance in the organization. Each data record consists of 7 externally coded descriptors and 24 demographic items as well as the responses to the 93 attitudinal items.

The factors measured by the OAP are grouped into a systems model to assess three aspects of a work group: input, process, and output (adapted from McGrath's model).

Input. In LMDC's adaptation of the model, input is comprised of demographics, work itself, and job enrichment.

A. Demographics. Descriptive or background information about the respondents to the OAP survey.

B. Work Itself. The work itself has to do with the task properties (technologies) and environmental conditions of the job. It assesses the patterns of characteristics members bring to the group or organization, and patterns of differentiation and integration among position and roles. The following OAP factors measure the work itself:

806 - Job Desires (Need For Enrichment)
810 - Job Performance Goals
812 - Task Characteristics
813 - Task Autonomy
814 - Work Repetition
816 - Desired Repetitive Easy Tasks
823 - Job Related Training
Job Influences (not a statistical factor)

C. Job Enrichment. Measures the degree to which the job itself is interesting, meaningful, challenging, and responsible. The following OAP factors measure job enrichment:

800 - Skill Variety
801 - Task Identity
802 - Task Significance
804 - Job Feedback
806 - Need for Enrichment Index (Job Desires)
807 - Job Motivation Index
808 - OJI Total Score
809 - Job Motivation Index - Additive
825 - Motivation Potential Score

Work Group Process. The work group assesses the pattern of activity and interaction among the group members. The following OAP factors measures leadership and the work group process:

805 - Performance Barriers/Blockages (Work Support)
818 - Management and Supervision
819 - Supervisory Communications Climate
820 - Organizational Communications Climate
Work Interferences (not a statistical factor)
Supervisory Assistance (not a statistical factor)

Work Group Output. Measures task performance, group development, and effects on group members. Assesses the quantity and quality of task performance and alteration of the group's relation to the environment. Assesses changes in positions and role patterns, and in the development of norms. Assesses changes on skills and attitudes, and effects on adjustment. The following OAP factors measure the work group output:

811 - Pride
817 - Advancement/Recognition
821 - Work Group Effectiveness (Perceived Productivity)
822 - Job Related Satisfaction
824 - General Organizational Climate

EXTERNALLY CODED DESCRIPTORS

Batch Number

Julian Date of Survey

Major Command

Base Code

Consultation Method

Consultant Code

Survey Version

(Note: These items are concatenated to each data record during EDP processing.)

DEMOGRAPHIC ITEMS (NOT A STATISTICAL FACTOR)

Variable Number	Statement Number	Statement
-	-	Supervisor's Code
-	-	Work Group Code
-	-	Sex
-	-	Your age is
-	-	You are (officer, enlisted, GS, etc.)
-	-	Your pay grade is
-	-	Primary AFSC
-	-	Duty AFSC

(Note: The above items are on the response sheet.)

Variable Number	Statement Number	Statement
001	-	(Not used)
002	-	(Not used)
003	1	Total years in the Air Force: 1. Less than 1 year 2. More than 1 year, less than 2 years 3. More than 2 years, less than 3 years 4. More than 3 years, less than 4 years 5. More than 4 years, less than 8 years 6. More than 8 years

Variable Number	Statement Number	Statement
004	2	Total months in present career field: 1. Less than 1 month 2. More than 1 month, less than 6 months 3. More than 6 months, less than 12 months 4. More than 12 months, less than 18 months 5. More than 18 months, less than 24 months 6. More than 24 months, less than 36 months 7. More than 36 months
005	3	Total months at this station: 1. Less than 1 month 2. More than 1 month, less than 6 months 3. More than 6 months, less than 12 months 4. More than 12 months, less than 18 months 5. More than 18 months, less than 24 months 6. More than 24 months, less than 36 months 7. More than 36 months
006	4	Total months in present position: 1. Less than 1 month 2. More than 1 month, less than 6 months 3. More than 6 months, less than 12 months 4. More than 12 months, less than 18 months 5. More than 18 months, less than 24 months 6. More than 24 months, less than 36 months 7. More than 36 months
007	5	Your Ethnic Group is: 1. American Indian or Alaskan Native 2. Asian or Pacific Islander 3. Black, not of Hispanic Origin 4. Hispanic 5. White, not of Hispanic Origin 6. Other
008	11	Which of the following "best" describes your marital status? 0. Not married. 1. Married: Spouse is a civilian employed outside home. 2. Married: Spouse is a civilian employed outside home - geographically separated. 3. Married: Spouse not employed outside home. 4. Married: Spouse not employed outside home - geographically separated. 5. Married: Spouse is a military member. 6. Married: Spouse is a military member - geographically separated. 7. Single parent.

Variable Number	Statement Number	Statement
009	6	Your highest education level obtained is: 1. Non-high school graduate 2. High school graduate or GED 3. Less than two years college 4. Two years or more college 5. Bachelors Degree 6. Masters Degree 7. Doctoral Degree
010	7	Highest level of professional military education (residence or correspondence): 0. None or not applicable 1. NCO Orientation Course or USAF Supervisor Course (NCO Phase 1 or 2) 2. NCO Leadership School (NCO Phase 3) 3. NCO Academy (NCO Phase 4) 4. Senior NCO Academy (NCO Phase 5) 5. Squadron Officer School 6. Intermediate Service School (i.e., ACSC, AFSC) 7. Senior Service School (i.e., AWC, ICAF, NWC)
011	8	How many people do you directly supervise? 1. None 5. 4 to 5 2. 1 6. 6 to 8 3. 2 7. 9 or more 4. 3
012	9	For how many people do you write performance reports? 1. None 5. 4 to 5 2. 1 6. 6 to 8 3. 2 7. 9 or more 4. 3
013	10	Does your supervisor actually write your performance report? 1. Yes 2. No 3. Not sure

Variable Number	Statement Number	Statement
014	11	Your work requires you to work primarily: 1. Alone 2. With one or two people 3. As a small work group (3-5 people) 4. As a large work group (6 or more people) 5. Other
015	12	What is your usual work schedule? 1. Day shift, normally stable hours 2. Swing shift (about 1600-2400) 3. Mid shift (about 2400-0800) 4. Rotating shift schedule 5. Day or shift work with irregular/unstable hours 6. Frequent TDY/travel or frequently on-call to report to work 7. Crew schedule
016	13	How often does your supervisor hold group meetings? 1. Never 4. Weekly 2. Occasionally 5. Daily 3. Monthly 6. Continuously
017	14	How often are group meetings used to solve problems and establish goals? 1. Never 3. About half the time 2. Occasionally 4. All of the time
018	15	What is your aeronautical rating and current status? 1. Nonrated, not on aircrew 2. Nonrated, now on aircrew 3. Rated, in crew/operations job 4. Rated, in support job

Variable Number	Statement Number	Statement
019	16	Which of the following best describes your career or employment intentions? 1. Planning to retire in the next 12 months 2. Will continue in/with the Air Force as a career 3. Will most likely continue in/with the Air Force 4. May continue in/with the Air Force 5. Will most likely not make the Air Force a career 6. Will separate/terminate from the Air Force as soon as possible

NOTE: Variable 008, Statement 11 was added to the OAP on 19 Jan 80 and replaced variable 014 which appears on page 6. Although no longer used, Variable 014 is still shown because data collected from about 25,000 samples for this variable are still in the data base.

FACTORS

Each 800 series factor consists of two or more variables which correspond to statements in the OAP. A mean score can be derived for each factor except 805, 807, 808, 809 and 825 by using a "straight average." The formula for computing the exceptions is indicated.

FACTOR 800 - SKILL VARIETY: Measures the degree to which a job requires a variety of different tasks or activities in carrying out the work; involves the use of a number of different skills and talents of the worker; skills required are valued by the worker.

Variable Number	Statement Number	Statement
201	17	To what extent does your job require you to do many different things, using a variety of your talents and skills?
212	29	To what extent does your job require you to use a number of complex skills?

FACTOR 801 - TASK IDENTITY: Measures the degree to which the job requires completion of a "whole" and identifiable piece of work from beginning to end.

Variable Number	Statement Number	Statement
202	18	To what extent does your job involve doing a whole task or unit of work?
211	28	To what extent does your job provide you with a chance to finish completely the piece of work you have begun?

FACTOR 802 - TASK SIGNIFICANCE: Measures the degree to which the job has a substantial impact on the lives or work of others; the importance of the job.

Variable Number	Statement Number	Statement
203	19	To what extent is your job significant in that it affects others in some important way?
210	27	To what extent does doing your job well affect a lot of people?

FACTOR 803 (NOT USED)

FACTOR 804 - JOB FEEDBACK: Measures the degree to which carrying out the work activities required by the job results in the worker obtaining clear and direct information about job outcomes or information on good and poor performance.

Variable Number	Statement Number	Statement
272	22	To what extent are you able to determine how well you are doing your job without feedback from anyone else?
209	26	To what extent does your job provide the chance to know for yourself when you do a good job, and to be responsible for your own work?

FACTOR 805 - WORK SUPPORT: Measures the degree to which work performance is hindered by additional duties, details, inadequate tools, equipment, or work space.

Variable Number	Statement Number	Statement
206	23	To what extent do additional duties interfere with the performance of your primary job?
207	24	To what extent do you have adequate tools and equipment to accomplish your job?
208	25	To what extent is the amount of work space provided adequate?

Formula (8-206+207+208)/3

FACTOR 806 - NEED FOR ENRICHMENT INDEX (JOB DESIRES): Has to do with job related characteristics (autonomy, personal growth, use of skills, etc.) that the individual would like in a job.

Variable Number	Statement Number	Statement
(In my job, I would like to have the characteristics described--from "not at all" to "an extremely large amount")		
249	51	Opportunities to have independence in my work.
250	52	A job that is meaningful.
251	53	The opportunity for personal growth in my job.
252	54	Opportunities in my work to use my skills.
253	55	Opportunities to perform a variety of tasks.

FACTOR 807 - JOB MOTIVATION INDEX: A composite index derived from the six job characteristics that reflects the overall "motivating potential" of a job; the degree to which a job will prompt high internal work motivation on the part of job encumbents.

Index is computed using the following factors:

800	Skill variety
801	Task identity
802	Task significance
805	Performance barriers/blockages
813	Task autonomy
804	Job feedback

Formula ((800+801+802+805)/4)*813*804

FACTOR 808 - OJI TOTAL SCORE: Assesses one's perception of motivation provided by his or her job. This factor is a variation of a scale employed by other job motivation theorists.

Score is computed using the variables in the following formula:

Formula (V201+V202+V203+V270+V271+V272
+8-V206+V207+V208+V209+V210
+V211+V212+V213)

FACTOR 809 - JOB MOTIVATION INDEX ---- ADDITIVE: This factor is a variation of a scale employed by other job motivation theorists.

Index is computed using the following factors:

800	Skill variety
801	Task identity
802	Task significance
805	Performance barriers/blockages
813	Task autonomy
804	Work repetition

Formula ((800+801+802+805)/4)+813+804

FACTOR 810 - JOB PERFORMANCE GOALS: Measures the extent to which job performance goals are clear, specific, realistic, understandable, and challenging.

Variable Number	Statement Number	Statement
217	34	To what extent do you know exactly what is expected of you in performing your job?
218	35	To what extent are your job performance goals difficult to accomplish?
273	36	To what extent are your job performance goals clear?
274	37	To what extent are your job performance goals specific?
221	38	To what extent are your job performance goals realistic?

FACTOR 811 - PRIDE: Measures the pride in one's work.

Variable Number	Statement Number	Statement
215	32	To what extent are you proud of your job?
275	46	To what extent does your work give you a feeling of pride?

FACTOR 812 - TASK CHARACTERISTICS: A combination of skill variety, task identity, task significance, and job feedback designed to measure several aspects of one's job.

Variable Number	Statement Number	Statement
201	17	To what extent does your job require you to do many different things, using a variety of your talents and skills?
202	18	To what extent does your job involve doing a whole task or unit of work?
203	19	To what extent is your job significant, in that it affects others in some important way?
272	22	To what extent are you able to determine how well you are doing your job without feedback from anyone else?
209	26	To what extent does your job provide the chance to know for yourself when you do a good job, and to be responsible for your own work?
210	27	To what extent does doing your job well affect a lot of people?
211	28	To what extent does your job provide you with a chance to finish completely the piece of work you have begun?
212	29	To what extent does your job require you to use a number of complex skills?

FACTOR 813 - TASK AUTONOMY: Measures the degree to which the job provides freedom to do the work as one sees fit; discretion in scheduling, decision making, and means for accomplishing a job.

Variable Number	Statement Number	Statement
270	20	To what extent does your job provide a great deal of freedom and independence in scheduling your work?
271	21	To what extent does your job provide a great deal of freedom and independence in selecting your own procedures to accomplish it?
213	30	To what extent does your job give you freedom to do your work as you see fit?
214	31	To what extent are you allowed to make the major decisions required to perform your job well?

FACTOR 814 - WORK REPETITION: Measures the extent to which one performs the same tasks or faces the same type of problems in his or her job on a regular basis.

Variable Number	Statement Number	Statement
226	39	To what extent do you perform the same tasks repeatedly within a short period of time?
227	40	To what extent are you faced with the same type of problem on a weekly basis?

FACTOR 815 (NOT USED)

FACTOR 816 - DESIRED REPETITIVE EASY TASKS: Measures the extent to which one desires his or her job involve repetitive tasks or tasks that are easy to accomplish.

Variable Number	Statement Number	Statement
255	56	A job in which tasks are repetitive.
258	57	A job in which tasks are relatively easy to accomplish.

FACTOR - JOB INFLUENCES (NOT A STATISTICAL FACTOR):

Variable Number	Statement Number	Statement
216	33	To what extent do you feel accountable to your supervisor in accomplishing your job?
238	42	To what extent do co-workers in your work group maintain high standards of performance?

FACTOR 817 - ADVANCEMENT/RECOGNITION: Measures one's awareness of advancement and recognition, and feelings of being prepared (i.e., learning new skills for promotion).

Variable Number	Statement Number	Statement
234	41	To what extent are you aware of promotion/advancement opportunities that affect you?
239	43	To what extent do you have the opportunity to progress up your career ladder?

240	44	To what extent are you being prepared to accept increased responsibility?
241	45	To what extent do people who perform well receive recognition?
276	47	To what extent do you have the opportunity to learn skills which will improve your promotion potential?

FACTOR 818 - MANAGEMENT and SUPERVISION (A): Measures the degree to which the worker has high performance standards and good work procedures. Measures support and guidance received, and the overall quality of supervision.

Variable Number	Statement Number	Statement
404	58	My supervisor is a good planner.
405	59	My supervisor sets high performance standards.
410	60	My supervisor encourages teamwork.
411	61	My supervisor represents the group at all times.
412	62	My supervisor establishes good work procedures.
413	63	My supervisor has made his responsibilities clear to the group.
445	64	My supervisor fully explains procedures to each group member.
416	65	My supervisor performs well under pressure.

FACTOR - MANAGEMENT and SUPERVISION (B): (NOT A STATISTICAL FACTOR)

Variable Number	Statement Number	Statement
424	66	My supervisor takes time to help me when needed.
434	71	My supervisor lets me know when I am doing a poor job.
439	75	When I need technical advice, I usually go to my supervisor.

FACTOR 819 - SUPERVISORY COMMUNICATIONS CLIMATE: Measures the degree to which the worker perceives that there is good rapport with supervisors, that there is a good working environment, that innovation for task improvement is encouraged, and that rewards are based upon performance.

Variable Number	Statement Number	Statement
426	67	My supervisor asks members for their ideas on task improvements.
428	68	My supervisor explains how my job contributes to the overall mission.
431	69	My supervisor helps me set specific goals.
433	70	My supervisor lets me know when I am doing a good job.
435	72	My supervisor always helps me improve my performance.
436	73	My supervisor insures that I get job related training when needed.
437	74	My job performance has improved due to feedback received from my supervisor.
442	76	My supervisor frequently gives me feedback on how well I am doing my job.

FACTOR 820 - ORGANIZATIONAL COMMUNICATIONS CLIMATE: Measures the degree to which the worker perceives that there is an open communications environment in the organization, and that adequate information is provided to accomplish the job.

Variable Number	Statement Number	Statement
300	82	Ideas developed by my work group are readily accepted by management personnel above my supervisor.
301	83	My organization provides all the necessary information for me to do my job effectively.
302	84	My organization provides adequate information to my work group.
303	85	My work group is usually aware of important events and situations.
304	86	My complaints are aired satisfactorily.
309	91	The information in my organization is widely shared so that those needing it have it available.

314	96	My organization has clear-cut goals.
317	99	The goals of my organization are reasonable.
318	100	My organization provides accurate information to my work group.

FACTOR 821 - WORK GROUP EFFECTIVENESS: Measures one's view of the quantity, quality, and efficiency of work generated by his or her work group.

Variable Number	Statement Number	Statement
259	77	The quantity of output of your work group is very high.
260	78	The quality of output of your work group is very high.
261	79	When high priority work arises, such as short suspenses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.
264	80	Your work group always gets maximum output from available resources (e.g., personnel and material).
265	81	Your work group's performance in comparison to similar work groups is very high.

FACTOR - WORK INTERFERENCES (NOT A STATISTICAL FACTOR): Identifies things that impede an individual's job performance.

Variable Number	Statement Number	Statement
277	48	To what extent do you have the necessary supplies to accomplish your job?
278	49	To what extent do details (task not covered by primary or additional duty descriptions) interfere with the performance of your primary job?
279	50	To what extent does a bottleneck in your organization seriously affect the flow of work either to or from your group?

FACTOR 822 - JOB RELATED SATISFACTION: Measures the degree to which the worker is generally satisfied with factors surrounding the job.

Variable Number	Statement Number	Statement
705	101	Feeling of Helpfulness The chance to help people and improve their welfare through the performance of my job. The importance of my job performance to the welfare of others.
709	102	Co-worker Relationships My amount of effort compared to the effort of my co-workers, the extent to which my co-workers share the load, and the spirit of teamwork which exists among my co-workers.
710	103	Family Attitude Toward Job The recognition and the pride my family has in the work I do.
717	106	Work Schedule My work schedule; flexibility and regularity of my work schedule; the number of hours I work per week.
718	107	Job Security
719	108	Acquired Valuable Skills The chance to acquire valuable skills in my job which prepare me for future opportunities
723	109	My Job as a Whole

FACTOR 823 - JOB RELATED TRAINING: Measures the extent to which one is satisfied with on-the-job and technical training received.

Variable Number	Statement Number	Statement
711	104	On-the-Job Training (OJT) The OJT instructional methods and instructors' competence.
712	105	Technical Training (Other than OJT) The technical training I have received to perform my current job.

FACTOR 824 - GENERAL ORGANIZATIONAL CLIMATE: Measures the individual's perception of his or her organizational environment as a whole (i.e. spirit of teamwork, communications, organizational pride, etc.).

Variable Number	Statement Number	Statement
305	87	My organization is very interested in the attitudes of the group members toward their jobs.
306	88	My organization has a very strong interest in the welfare of its people.
307	89	I am very proud to work for this organization.
308	90	I feel responsible to my organization in accomplishing its mission.
310	92	Personnel in my unit are recognized for outstanding performance.
311	93	I am usually given the opportunity to show or demonstrate my work to others.
312	94	There is a high spirit of teamwork among my co-workers.
313	95	There is outstanding cooperation between work groups of my organization.
315	97	I feel motivated to contribute my best efforts to the mission of my organization.
316	98	My organization rewards individuals based on performance.

FACTOR 825 - MOTIVATION POTENTIAL SCORE: This factor is another variation of a scale employed by other job motivation theorists. The score ranges between 1 and 343 with 109 being the Air Force average. Low scores indicate a poorly motivating job. Score is computed using the following factors:

800	Skill variety
801	Task identity
802	Task significance
804	Job feedback
813	Task autonomy

Formula ((800+801+802)/3)*813*804

VARIABLES

Variable Number	Factor	Statement Number	Statement
201	800/812	17	To what extent does your job require you to do many different things, using a variety of your talents and skills?
202	801/812	18	To what extent does your job involve doing a whole task or unit of work?
203	802/812	19	To what extent is your job significant, in that it affects others in some important way?
204 & 205	--	--	(Not used)
206	805	23	To what extent do additional duties interfere with the performance of your primary job?
207	805	24	To what extent do you have adequate tools and equipment to accomplish your job?
208	805	25	To what extent is the amount of work space provided adequate?
209	804/812	26	To what extent does your job provide the chance to know for yourself when you do a good job, and to be responsible for your own work?
210	802/812	27	To what extent does doing your job well affect a lot of people?
211	801/812	28	To what extent does your job provide you with a chance to finish completely the piece of work you have begun?
212	800/812	29	To what extent does your job require you to use a number of complex skills?

Variable Number	Factor	Statement Number	Statement
213	813	30	To what extent does your job give you freedom to do your work as you see fit?
214	813	31	To what extent are you allowed to make the major decisions required to perform your job well?
215	811	32	To what extent are you proud of your job?
216*	--	33	To what extent do you feel accountable to your supervisor in accomplishing your job?
217	810	34	To what extent do you know exactly what is expected of you in performing your job?
218	810	35	To what extent are your job performance goals difficult to accomplish?
219 & 220	--	--	(Not used)
221	810	38	To what extent are your job performance goals realistic?
222-225	--	--	(Not used)
226	814	39	To what extent do you perform the same tasks repeatedly within a short period of time?
227	814	40	To what extent are you faced with the same type of problem on a weekly basis?

* This variable is an element of "Job Influences" (not a statistical factor).

Variable Number	Factor	Statement Number	Statement
228-233	--	--	(Not used)
234	817	41	To what extent are you aware of promotion/advancement opportunities that affect you?
235-237	--	--	(Not used)
238*	--	42	To what extent do co-workers in your work group maintain high standards of performance?
239	817	43	To what extent do you have the opportunity to progress up your career ladder?
240	817	44	To what extent are you being prepared to accept increased responsibility?
241	817	45	To what extent do people who perform well receive recognition?
242-248	--	--	(Not used)
249	806	51	Opportunities to have independence in my work?
250	806	52	A job that is meaningful.
251	806	53	The opportunity for personal growth in my job.
252	806	54	Opportunities in my work to use my skills.
253	806	55	Opportunities to perform a variety of tasks.
254	--	--	(Not used)
255	816	56	A job in which tasks are repetitive.

* This variable is an element of "Job Influences" (not a statistical factor).

Variable Number	Factor	Statement Number	Statement
256 & 257	--	--	(Not used)
258	816	57	A job in which tasks are relatively easy to accomplish.
259	821	77	The quantity of output of your work group is very high.
260	821	78	The quality of output of your work group is very high.
261	821	79	When high priority work arises, such as short suspenses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.
262 & 263	--	--	(Not used)
264	821	80	Your work group always gets maximum output from available resources (e.g., personnel and material).
265	821	81	Your work group's performance in comparison to similar work groups is very high.
266-269	--	--	(Not used)
270	813	20	To what extent does your job provide a great deal of freedom and independence in scheduling your work?
271	813	21	To what extent does your job provide a great deal of freedom and independence in selecting your own procedures to accomplish it?
272	804/812	22	To what extent are you able to determine how well you are doing your job without feedback from anyone else?

Variable Number	Factor	Statement Number	Statement
273	810	36	To what extent are your job performance goals clear?
274	810	37	To what extent are your job performance goals specific?
275	811	46	To what extent does your work give you a feeling of pride?
276	817	47	To what extent do you have the opportunity to learn skills which will improve your promotion potential?
277**	--	48	To what extent do you have the necessary supplies to accomplish your job?
278**	--	49	To what extent do details (task not covered by primary or additional duty descriptions) interfere with the performance of your primary job?
279**	--	50	To what extent does a bottleneck in your organization seriously affect the flow of work either to or from your group?
280-299	--	--	(Not used)
300	820	82	Ideas developed by my work group are readily accepted by management personnel above my supervisor.
301	820	83	My organization provides all the necessary information for me to do my job effectively.
302	820	84	My organization provides adequate information to my work group.

** These variables are elements of "work interferences" (not a statistical factor).

Variable Number	Factor	Statement Number	Statement
303	820	85	My work group is usually aware of important events and situations.
304	820	86	My complaints are aired satisfactorily.
305	824	87	My organization is very interested in the attitudes of the group members toward their jobs.
306	824	88	My organization has a very strong interest in the welfare of its people.
307	824	89	I am very proud to work for this organization.
308	824	90	I feel responsible to my organization in accomplishing its mission.
309	820	91	The information in my organization is widely shared so that those needing it have it available.
310	824	92	Personnel in my unit are recognized for outstanding performance.
311	824	93	I am usually given the opportunity to show or demonstrate my work to others.
312	824	94	There is a high spirit of teamwork among my co-workers.
313	824	95	There is outstanding cooperation between work groups of my organization.

Variable Number	Factor	Statement Number	Statement
314	820	96	My organization has clear-cut goals.
315	824	97	I feel motivated to contribute my best efforts to the mission of my organization.
316	824	98	My organization rewards individuals based on performance.
317	820	99	The goals of my organization are reasonable.
318	820	100	My organization provides accurate information to my work group.
319-403	--	--	(Not used)
404	818	58	My supervisor is a good planner.
405	818	59	My supervisor sets high performance standards.
406-409	--	--	(Not used)
410	818	60	My supervisor encourages teamwork.
411	818	61	My supervisor represents the group at all times.
412	818	62	My supervisor establishes good work procedures.
413	818	63	My supervisor has made his responsibilities clear to the group.
414 & 415	--	--	(Not used)
416	818	65	My supervisor performs well under pressure.
417-423	--	--	(Not used)
424***	--	66	My supervisor takes time to help me when needed.
425	--	--	(Not used)

*** This variable is an element of "supervisory assistance" (not a statistical factor).

Variable Number	Factor	Statement Number	Statement
426	819	67	My supervisor asks members for their ideas on task improvements.
427	--	--	(Not used)
428	819	68	My supervisor explains how my job contributes to the overall mission.
429 & 430	--	--	(Not used)
431	819	69	My supervisor helps me set specific goals.
432	--	--	(Not used)
433	819	70	My supervisor lets me know when I am doing a good job.
434***	--	71	My supervisor lets me know when I am doing a poor job.
435	819	72	My supervisor always helps me improve my performance.
436	819	73	My supervisor insures that I get job related training when needed.
437	819	74	My job performance has improved due to feedback received from my supervisor.
438	--	--	(Not used)
439***	--	75	When I need technical advice, I usually go to my supervisor.
440 & 441	--	--	(Not used)
442	819	76	My supervisor frequently gives me feedback on how well I am doing my job.
443 & 444	--	--	(Not used)
445	818	64	My supervisor fully explains procedures to each group member.
446-704	--	--	(Not used)

*** These variables are elements of "supervisory assistance" (not a statistical factor).

Variable Number	Factor	Statement Number	Statement
705	822	101	Feeling of Helpfulness The chance to help people and improve their welfare through the performance of my job. The importance of my job performance to the welfare of others.
706-708	--	--	(Not used)
709	822	102	Co-worker Relationships My amount of effort compared to the effort of my co-workers, the extent to which my co-workers share the load, and the spirit of teamwork which exists among my co-workers.
710	822	103	Family Attitude Toward Job The recognition and the pride my family has in the work I do.
711	823	104	On-the-Job Training (OJT) The OJT instructional methods and instructors' competence.
712	823	105	Technical Training (Other than OJT) The technical training I have received to perform my current job.
713-716	--	--	(Not used)
717	822	106	Work Schedule My work schedule; flexibility and regularity of my work schedule; the number of hours I work per week.
718	822	107	Job Security
719	822	108	Acquired Valuable Skills The chance to acquire valuable skills in my job which prepare me for future opportunities.
720-722	--	--	(Not used)
723	822	109	My Job as a Whole
724-999	--	--	(Not used)

END
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