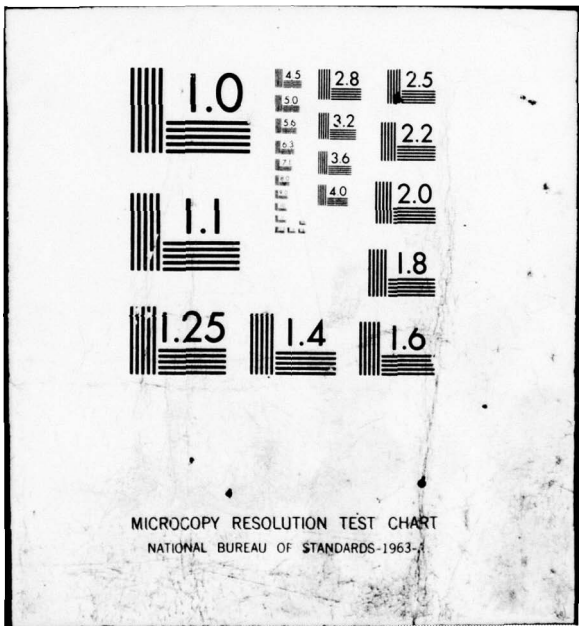
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This study analyzes and compares job satisfaction and career intent between 1975 and 1977 for Security Police personnel. The sources of the data are 564 respondents from the 1975 and 1977 USAF Quality of Air Force Life Surveys. The analysis techniques included the Automatic Interaction Detection (AID) algorithm, t-Test of Significance, Stepwise Linear Regression, and Principal Component Analysis. A detailed analysis was made of the entire population and for personnel with less than ten years service.

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The factors found to be of most value in explaining the variation in job satisfaction were:

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2. The perception of being prepared for future positions of greater responsibility
3. Satisfaction with the Work aspects of Air Force life

The factors found to be of most value in explaining the variation in expressed career intent were:

1. Time in service
2. Satisfaction with the Work aspects of Air Force life/job satisfaction

The primary conclusion from the analysis is that, for Security Police personnel, the overall level of job satisfaction and expression of career intent are essentially unchanged between 1975 and 1977. Additional conclusions drawn are that SP personnel are better qualified and more satisfied with many factors of their jobs, but are less satisfied with the Economic and Equity aspects of their Air Force lives. It is suggested that the lack of significant change in job satisfaction and career intent was caused by the gains on the job being offset by the perceived losses in other facets of Air Force life.

UNITED STATES AIR FORCE

SECURITY POLICE

JOB SATISFACTION AND CAREER INTENT:

1975 VS 1977

THESIS

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Preface

This study was completed as part of the requirements for a degree in Systems Management from the Air Force Institute of Technology. Hopefully, the results of this research will encourage Security Police and Air Force officials to continue their efforts to upgrade the Security Police career field. Perhaps this study might also provide support for efforts to stop the erosion of the economic aspects of Air Force life.

I have tried to be as objective as possible in this research and hope that the reader will forgive any bias that may have crept in. I take sole responsibility for any and all opinions, conclusions, and recommendations made. Unfortunately, I must also take responsibility for any errors.... may there be few.

My sincere appreciation goes to Dr. Charles McNichols, my thesis advisor, for his help and encouragement throughout this effort. I would also like to thank Dr. T. Roger Manley for his help and guidance during periods when Dr. McNichols was unavailable.

Finally, I want to acknowledge the invaluable help my wife, Janet, provided. Whether it was typing, editing, or just keeping the kids out from under foot, she was a major factor in getting this job done.

Peter E. King

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ABSTRACT

This study analyzes and compares job satisfaction and career intent between 1975 and 1977 for Security Police personnel. The sources of the data are 564 respondents from the 1975 and 1977 USAF Quality of Air Force Life Surveys. The analysis techniques included the Automatic Interaction Detection (AID) algorithm, t-Test of Significance, Stepwise Linear Regression, and Principal Component Analysis. A detailed analysis was made of the entire population and for personnel with less than ten years service.

The factors found to be of most value in explaining the variation in job satisfaction were:

1. The perception of job challenge
2. The perception of being prepared for future positions of greater responsibility
3. Satisfaction with the Work aspects of Air Force life

The factors found to be of most value in explaining the variation in expressed career intent were:

1. Time in service
2. Satisfaction with the Work aspects of Air Force life/job satisfaction

The primary conclusion from the analysis is that, for Security Police personnel, the overall level of job satisfaction and expression of career intent are essentially

unchanged between 1975 and 1977. Additional conclusions drawn are that SP personnel are better qualified and more satisfied with many factors of their jobs, but are less satisfied with the Economic and Equity aspects of their Air Force lives. It is suggested that the lack of significant change in job satisfaction and career intent was caused by the gains on the job being offset by the perceived losses in other facets of Air Force life.

UNITED STATES AIR FORCE
SECURITY POLICE JOB SATISFACTION AND CAREER INTENT: 1975 VS 1977

I INTRODUCTION

In the summer of 1975 and again in the spring of 1977, United States Air Force Quality of Air Force Life Surveys (QOAFL) were administered to approximately 11,000 Air Force personnel. Respondents' grades ranged from airman-basic to colonel and represented each Air Force command and agency. The surveys addressed both general and specific aspects of Air Force life as perceived by Air Force personnel serving on active duty. Although not all of the questions from the 1975 survey were repeated in 1977, enough questions were duplicated so that a comparison between the responses of the two surveys could be accomplished.

Two aspects of Air Force life addressed in both surveys were job satisfaction and career intent. Job satisfaction was measured as a summation of four questions which asked individuals to rate how much of the time they felt satisfied with their jobs, how they felt about changing their jobs, how well they liked their jobs compared with other individuals. Career intent was measured directly by asking individuals to state whether or not they had committed themselves mentally to making the Air Force a career. It is the overall purpose of this study to compare in detail the results of the 1975 and 1977 Air Force

Quality of Life surveys as they pertain to job satisfaction and career intention for a subsection of the survey respondents...those serving in the Security Police career field.

This chapter will present a brief background of problems encountered and solutions tendered in the security police career field in the past five years. This background will yield some insight as to why a comparison between the two QOAFL surveys for security police respondents may show significant differences reflecting changes in personnel attitudes concerning job satisfaction and career intention after increased emphasis was given to the entire career field. The assumptions used during this study will then be addressed along with the limitations imposed by the very nature of the survey instruments themselves.

Security Police Career Field Background

In January 1974, the Security Police Quality Improvement Committee formally documented what most Security Police personnel already knew, that the security police (SP) career field had low morale and performance because of tedious duties and poor self-image. The career field had a very high personnel turn-over rate, with nearly 80% of its personnel (in 1974) being first-term airmen.

SPs had unusually high rates of crime, drug and alcohol abuse, absence-without-leave (AWOL), and court-martial; and the various SP squadrons dominated the charts which reflected the personnel problem areas in the Air Force (Sanders, January 1974:9).

Members of the Security Police worked long, boring shifts in what was usually a thankless job. The typical workweek was 56 to 70 hours, compared to the Air Force's desired average of 40 hours per week. Training was often conducted on "off" days, and medical and dental appointments were scheduled after completed tours of duty (Sanders, May 1974:9).

The SP career field was very short of supervisors, with an officer-enlisted ratio of 1:44; and a senior non-commissioned officer (NCO) - lower enlisted ratio of 1:146 (authorized strength was 1:77, but many senior NCO slots were unfilled). Few senior NCOs stayed on after their initial retirement eligibility, and promotions in the career field were much less than proportional with the rest of the Air Force (Sanders, May 1974:9).

Since the committee's report in January 1974, however, a concerted effort has been made to increase the morale, proficiency, self-image and professionalism of the Air Force's Security Police. The ad hoc committee, composed of personnel specialists, Military Personnel Center (MPC)

resource managers, SP officers and NCOs, was created by the Security Police Directorate after statistics confirmed that the SP career field had more than its share of personnel problems. SPs indeed had higher-than-average incidence of drug abuse, court-martial, crime, and Human Reliability Program (HRP) disqualification.

The committee outlined four problem areas - personnel, manpower, SP duties, and training - as being particularly out of line with the rest of the Air Force, and recommended changes to alleviate the problems existing in each area. For personnel problems, the committee recommended that SPs become more actively involved in the preparation of information for recruiters about the career field. The committee felt that recruits were misled about what the actual duties of an SP were like, and that the recruits became dissatisfied and discouraged once they actually got out on the job. The committee also wanted to see that the Security Police got higher caliber individual recruits and wanted to be assured that unsuitable trainees would be weeded out during training while they were still at technical school rather than allowed to go to operational units where the process of elimination is much harder and takes much longer (Sanders, January 1974:8).

For the manpower and SP duties problem areas, the committee recommended a reassessment and more accurate measure-

ment of the duties SPs actually perform. It wanted the preparation time included along with guardmount and post time to determine the actual length of an SP's tour of duty. Thus, members of the committee felt they could request more manpower to shorten the present 56-hour (plus) work-week to around 44 hours. The preparation time includes duties such as briefings, weapons training, arming, and clearing prior to actually "standing" a post. During the reassessment of SP duties, the committee felt that new and better weaponry, equipment, and specialized vehicles should be developed and acquired. The expanded use of military working dogs was also recommended (Sanders, January 1974:8, May 1974:9).

Training recommendations by the committee included more proficiency in combat skills, community relations, and weapons handling. Additionally, the committee felt that mandatory training at home base should not be held on SPs' days off.

In May 1974, Headquarters United States Air Force formally approved many of the Quality Improvement Committee's recommendations to raise security police morale and improve quality. The recommendations and improvements approved included: more supervision, more sensory and electronic monitoring equipment, better working hours via revised post manning standards, better screening of recruits and trainees, expanded training in both the law enforcement and security

portions of the career field, and standardized shift schedules of five days on and two days off. The PALACE KNIGHT program, which put restrictions on NCOs cross-training out of the SP career field and encouraged NCOs of overage skills to cross-train into the SPs, was instituted that same month. Other improvements were to be implemented gradually over a period of time (Sanders, May 1974:9).

During the succeeding months and years, continued emphasis was given to the Security Police field. New uniform items were designed and approved for wear. The most noticeable was the blue beret headgear to be worn by all SP personnel. The beret was to boost morale for all SPs because it was their first distinctive headgear, unlike the white service hats worn only by law enforcement personnel. Winter-weight jackets and pile caps were authorized to replace the utility ("field") jacket and MA-1 flight jacket. Law enforcement personnel on gate-guard duty were authorized to wear white shoe laces, white scarves and gloves, blue web belt and chrome belt buckle ("All Dressed UP," September 1974:28).

A new officer supervisory position, "watch commander"/ "shift supervisor," was created, patterned after a similar position in civilian police forces. Approximately 200 officers, including many rated-supplement personnel, were involuntarily cross-trained into the SPs to fill these positions.

The Security Police Equipment Monitoring Activity, was established at Wright-Patterson Air Force Base, Ohio to deal with the equipment needs of security police forces and given the responsibility for testing the latest in specialized police equipment for possible use by SPs. Projects initially undertaken included portable handheld tape recorders for law enforcement patrols, laser sights for M-16 rifles, and electric guns. Equipment items that were field tested for operational use included pre-arrest testers (for alcoholic content), assualt shotguns, the SP blue winter jacket, miniature leather gear for security police women, and Mace units ("W-P Unit to Test SP Gear," January 1976:8).

The combat-skills training program was updated, introducing the type of fighting taught to Marines and Army infantrymen. Training was made more realistic, with more emphasis on base defense and the potential terrorist threat. Trainees were broken up into smaller fire teams and combat groups than before. Mobility, night-fighting, and search-and-clear operations were emphasized in the new, revised program. Four phases of training were instituted including orientation of the terrorist threat, weapons handling for the M-16 rifle, M-60 machine gun, 40 millimeter grenade launcher and hand grenades, and courses on airbase defense skills. The new training was to prepare SPs to handle terrorism at Air Force bases both overseas and stateside ("SPs to Take New 'Get Tough' Drills,"

February 1976:9).

In the spring of 1976, SP officials announced that female volunteers would be allowed to participate in a trial program testing the feasibility of using women in the security portion of the career field, even though this part of the security police field is considered a combat-related skill. The female security specialists were to test their suitability for a job which sometimes demands rigorous physical exercise, but mostly requires patience and mental alertness. The female security personnel would have to go through the same combat-skills training as their male counterparts, and would be required to perform the same duties once placed in operational units ("Skill Opened to Females," April 1976:11, "Female SPs Get Combat Training," May 1976:12). This program necessitated a waiver from Air Force policy which prohibits females from holding jobs that are combat-related. The first females were scheduled for training in October 1976. One aspect of this new program was that Security Police officials hoped that, by opening up all aspects of SP duties to females, some of the unhappiness in the SP ranks would be alleviated because, up until that time, women pulled only (what some SPs consider) the more desirable law enforcement duty ("60 Women Enter SP Test," September 1976:8).

In April 1976, a job enrichment program was initiated for security police personnel at Ellsworth Air

Force Base, South Dakota. Initially, suggestions were solicited from Ellsworth's SP personnel so that the program could be started by concentrating on the major problems perceived by the resident SPs. Some of the suggestions made and implemented included: individual counseling for workers, an increase in the amount of authorized leave that could be taken at a given time, elimination of what SPs considered unnecessary training, addition of more realistic training, and a new priority system for shift changeovers. Many of the suggestions dealt with work schedules, especially about the fact that training and medical appointments were being scheduled in the middle of the SPs' off duty days. In this initial job enrichment program, SPs were given more say over their schedules (Sanders, May 1976:10). The results of the Ellsworth program are presently being analyzed. If the results are encouraging, more SP job enrichment programs can be expected.

Thus, since early 1974, the Air Force has put great emphasis on upgrading the quality of its Security Police. The primary targets of this upgrade program have been the first-term airmen and the NCOs in the career field. These personnel are now better trained, equipped, and supervised than before; and their workweek now is closer in line with the desired 40 hours per week.

A great amount of time, effort, and money has gone into upgrading the quality of the security police

career field and enhancing the morale and self-image of its members. The Air Force must be particularly concerned with the job satisfaction and retention of SP personnel because of the criticality of the job being accomplished and the extremely high cost of recruiting and training replacements. The need for research into job satisfaction and career intention among SPs is certainly necessary to determine if the improvements initiated over the past several years have been effective...whether the time, effort, and expense have paid off.

Purpose of the Study

The purpose of this study is to analyze the 1975 and 1977 QOAFL data relating to job satisfaction and career intention for security police personnel to see if the special attention given to the security police forces paid off in higher job satisfaction with more SP personnel overtly opting to make the Air Force a career. The study should identify those variables which presumably influence perceived job satisfaction and career intention the most. These variables which are identified could be of some consideration and use for those controlling personnel who direct Security Police forces and who assign personnel. The results of this study could also be of considerable interest to those persons attempting to implement various job enrichment programs in various Air Force commands and installations.

Statement of the Problem

Given the 1975 and 1977 Air Force Quality of Air Force Life Survey(s) data, what are the variables associated with the perception of job satisfaction and career intention of Security Police personnel for those two years; and for what variables have the response patterns changed significantly.

Assumptions

The assumptions on which this research is based are:

Assumption 1. The data obtained in the surveys is assumed to be valid. This assumes that the survey was randomly distributed so that the responses are representative of the entire force; and that personnel surveyed answered all questions truthfully and did not attempt to "game" the survey.

Assumption 2. The measure of job satisfaction used in the survey is assumed to be valid. Hoppock's four question job satisfaction blank, somewhat modified, was used in both the 1975 and 1977 QOAFL survey instruments. A study by Manley, McNichols, and Stahl (1978) supports this assumption.

Assumption 3. An increase or decrease in job satisfaction and/or career intention is due primarily to factors on the job and not due to other factors such as fringe benefits, retirement, or other 'outside' factors (i.e.;

the only factors considered for this study will be those factors (questions) which appeared on both the 1975 and 1977 QOAFL surveys...see Appendix 1 for a listing of those questions appearing on both surveys).

Assumption 4. The opinions expressed in the 1975 QOAFL survey are assumed to reflect security police personnel attitudes which prevailed 'pre-enhancement' (i.e.; before many of the recommended improvements could be implemented so that job satisfaction and career intention were not yet affected significantly by the increased headquarters and command emphasis and attention).

Assumption 5. The opinions expressed in the 1977 QOAFL survey are assumed to reflect SP personnel attitudes which prevailed 'post-enhancement' (i.e.; after all the suggestions and improvements had been implemented and all SP personnel had a chance to reflect on the changes, the consequences, and the personal effect on each individual and their way of life on the job and in the Air Force. Also, new personnel in the SP field should reflect their attitudes on the improved career field which in turn should reflect the effects of the increased emphasis and attention).

Limitations

This study will be limited to an analysis of the USAF Quality of Air Force Live - Active Duty - Air Force Surveys conducted in 1975 and 1977. The surveys contain responses

from all ranks and career fields; but this study will utilize only those responses from the Security Police career field (AFSCs 81XX and 81XXX only).

A second limitation is that there is no way to follow-up survey results by requestioning specific individuals to determine whether their responses have changed over a period of time.

Another limitation is that only information asked for by the survey instrument will be provided. The responses provided to answer the multiple-choice questions may or may not have allowed the respondents to adequately express their true feelings or perceptions.

A final limitation is that the analysis of job satisfaction and career intention is limited to the variables similar in both the 1975 and 1977 QOAFL survey instruments (i.e., those questions which were asked identically, or so similarly as to appear identical, in both surveys).

II LITERATURE REVIEW

In support of the previously stated purposes of the study, this chapter presents a review of other researchers' efforts concerning job satisfaction and career intention. The chapter will first define job satisfaction and career intention as utilized in this study; then it will present a review of Air Force and civilian research into these areas. This review should yield insights into the many varied factors which make up and affect both job satisfaction and career intention.

Job Satisfaction and Career Intent Defined

To deal with any problem, the subject of the problem must be understood. Thus, it seems appropriate to start with good working definitions of both job satisfaction and career intent.

Of all the articles, papers, and theses this writer consulted in the course of this study, the best definitions of job satisfaction and career intent came from the AFIT theses by Thompson and Vrooman. Job satisfaction was defined by Thompson (1975:12) as a "measure of an individual's perception of how well his needs are met by his job and its related environment." A year later, Vrooman (1976:85) defined career intent as "a decision for a career and the projection of one's desires into the future."

These definitions seemed especially good because they linked the individual with his needs and his perceptions about the present and the future. This idea is relevant

when one reflects on why some personnel remain on a particular job while others leave. Usually those who leave complain of job dissatisfaction, while the feelings expressed by the ones who stay range from dissatisfied to perfectly satisfied. In other words, the concepts of job satisfaction and career intent are personal ones. The nature and extent of each individual's sense of values, needs, and perceptions.

AFIT Studies on Job Satisfaction and Career Intention

In addition to Thompson's and Vrooman's studies, several other AFIT theses have been accomplished which have focused on job satisfaction and career intent. Madia (1974) and Eshbaugh (1977) wrote on these subjects as they apply in the Air Force using the results of surveys administered Air Force-wide. The results of these Air Force theses are very similar to the results found in this study.

Madia (1974:132-137), in a study on Air Force officers, reported that:

1. Younger officers placed more importance on social values, while older officers put their importance on organizational values. Madia found that the majority of dissatisfied officers were those who were on their initial service commitment; that there was a job satisfaction low point at the 3-4 year service mark after which time job satisfaction increased.

2. The behavior of Air Force officers is strongly influenced by considerations of personal ethics.

3. As long as economic and living conditions stayed at

what the officers considered a satisfactory level, these variables would not affect officers' job satisfaction or benavior. However, should a significant loss in these areas occur, then the variables would take on added importance.

4. Job satisfaction increases with tenure. This can be attributed to the idea that as an individual gets more 'locked in' to a career with an employer over a period of time, that individual is mentally set to more easily accept his job and his future with that employer. However, a caveat here is that since many of the more dissatisfied people have terminated employment, a survey's results may be influenced most by the 'satisfied' high-tenure people left.

5. Officers who had completed senior-level professional military education (PME) were the most satisfied. This conclusion is similar to the preceding conclusion, but there is more to it than just tenure. Officers who have attended senior-level PME have at least ten years service, but these officers also have the confidence and ability to do their jobs adequately. Those officers have been prepared for their jobs and probably feel more secure about their future. This preparation, along with tenure, can account for the high job satisfaction.

6. Officers performing Strategic Air Command (SAC) missile duty were among the least satisfied officers.

Thus, Madia pointed to some areas where special attention toward job satisfaction could be given. Junior officers and SAC missile crews would seem to be prime candidates for

increased job satisfaction efforts. However, the fact that economic and living conditions could come into play is important and extremely relevant because, since 1974, military pay raises have been 'capped' at a level well below the officially recognized national rate of inflation.

Thompson, a year after Madia, reported several conclusions which confirmed Madia's findings, and offered some new findings of his own. Utilizing the 1975 QOAFL survey, Thompson (1975:133-140) reported:

1. Job satisfaction in the Air Force is primarily determined by job-related variables such as job challenge, the feeling of being prepared for greater responsibility and job freedom.

2. Most of the variance in job satisfaction can be explained by looking only at the characteristics of particular jobs, the personalities of individuals, the quality of supervision and the relationships between these variables.

3. There is no significant difference in the primary factors influencing job satisfaction for different groups (officers, enlisted personnel, etc.). The job satisfaction of all groups examined could be increased by increasing their perceptions of job challenge. However, similar policies applied to different groups may not have the same effect on each group.

4. Demographic variables were of little value in determining job satisfaction. In other words, the job and the job environment determine the job satisfaction far more than the individual's characteristics.

5. Job satisfaction is a significant factor in people's career decisions, particularly for those in the early years of service.

Thompson discovered that the three most important variables affecting job satisfaction were job challenge, the feeling of being prepared to assume future positions of greater responsibility, and job freedom. These variables appear to be quite consistent with Madia's results.

Concerning career intention, Thompson made two significant conclusions that (1) job satisfaction is a significant factor determining career intention, and (2) similar policies applied to different groups may not have the same effect of each group. These findings certainly confirm the validity of instituting job enrichment programs, and also support the idea that each job enrichment program should be tailored to the individual organization(s) concerned.

In 1976, Vrooman reported on job satisfaction and career intent for Air Force personnel with less than six years of service. His study was in part prompted by an earlier AFIT thesis (Bartholomew, 1973) that had indicated a steady decline in job satisfaction and career intention for non-rated personnel with less than four years in the Air Force. Vrooman's (1976: 77-86) findings were:

1. The work related questions of job challenge and the perception of being prepared to assume future positions of responsibility are the most meaningful factors for predicting levels of job satisfaction.

2. Personal growth satisfaction is a lesser, but still important, factor in determining the job satisfaction of officers.

3. Personal growth satisfaction appears to be the most important factor in explaining career intent.

4. The quality of leadership and satisfaction with leadership/supervision factors are the second most prevalent factors in explaining career intention.

5. The work related factors of job challenge, being prepared to assume future jobs of responsibility, and wanting a job with greater responsibility were lesser, but still important, factors in explaining career intention.

6. Career intent is directly affected by job satisfaction.

Thus, Vrooman's study was consistent with Madia and Thompson's work. However, his study delved much deeper into the decisions of personnel as to whether or not they decide to make the Air Force a career.

Finally, in 1977, Eshbaugh accomplished a study using the results of a survey of Air Force commanders. His results (1977:89-92) show:

1. Four factors appeared consistently as best able to explain the variation in job satisfaction: job challenge, degree of satisfaction with personal standing, satisfaction with leadership and supervision, and a desire for the (commander's) job.

2. Other factors which were of some value in determining

job satisfaction were the desire for more responsibility and the perception of being prepared for future responsibility.

Once again, the same factors appear in the determination of job satisfaction. Running consistently through the AFIT studies are the factors of challenge and the perception of being prepared for greater responsibility in the future. It would appear that personnel have a need to be challenged; that they need to 'grow.' People need to know that the future holds something better for them and that they can grow with, or into a job instead of being restricted by it. The results of these AFIT theses are also quite consistent with other Air Force and non-military studies concerning job satisfaction and career intent.

Non-AFIT Studies

Countless studies have been done by various researchers on the subjects of job satisfaction and career intent. These researchers used surveys, interviews, and actual observation to try and determine why personnel are satisfied (or dissatisfied) with their jobs, and why personnel decide to make a career with one employer over another. The result of all this research is a multitude of theories and observations, many of which appear to be similar to or substantiated by the AFIT studies just discussed. This part of the literature review will present some theories and observations from various researchers' studies which seem the most relevant to this study. Job satisfaction will be covered first, followed by personnel retention/career intention. The writer will intersperse

comments as believed necessary to tie the researchers' work to the military and to the Security Police.

Job Satisfaction. One of the most prominent authors on the subject of job satisfaction is Frederick Herzberg. His work is very well recognized, and, in fact, he has been hired by the Air Force to act as a consultant in several projects. Herzberg (et al., 1959) bases his theory of job satisfaction on two factors: job content and job context.

Job content factors, also called 'motivator' factors, include: achievement, recognition for actual achievement, increased responsibility resulting from successful performance, opportunity to grow in knowledge and capacity, and opportunity for advancement. As these factors are satisfied, they lead to job satisfaction.

Job context factors, also called 'maintenance' factors, include: company policies and administration; technological and interpersonal supervision; work conditions; and wages, salaries, and benefits. These factors can cause job dissatisfaction, but do not lead to job satisfaction.

Herzberg proposes that a certain level of on-the-job elements, the maintenance factors, must be at a certain 'satisfactory' level before employees can be satisfied with their jobs. If any of the maintenance factors are allowed to slip below what individual employees consider their satisfactory level, then the employee will concentrate on satisfying that particular factor until it is again raised to what is perceived as a satisfactory level. Until that factor is reestablished,

the employee will be dissatisfied with the job.

Motivator factors, on the other hand, promote job satisfaction. As each motivator is increased or more satisfied, the employees' satisfaction with their jobs is increased. These factors do not cause job dissatisfaction, only more or less job satisfaction. As their name implies, these factors provide employee motivation.

In an earlier work, Herzberg (et al., 1957) reported that personnel in the lower level occupations have the least job satisfaction, and that most jobs are found at these lower levels. Also noted was that, in general, morale is high among young workers, but it tends to go down during the first few years of employment. After this period, job morale climbs steadily with age (which result Madia reported in his AFIT thesis). The worker's job attitudes play an important role in determining whether they will report consistently to work in the face of minor obstacles, and whether or not they will leave their jobs for avoidable reasons.

The work of Herzberg tends to indicate that the Air Force needs to concentrate its job satisfaction efforts on the younger officer and enlisted personnel. The service needs to insure that these people have what they consider their basic needs fulfilled so that they are receptive to real job satisfaction efforts. Recent losses in buying power due to inflation and pay 'caps,' perceived losses of fringe benefits, and a retirement system which could be perceived as a loss and may be implemented in the near future, could severely hamper attempts

at increasing job satisfaction by sabotaging the maintenance factors already in being. And lowered job satisfaction, or even dissatisfaction, can greatly influence persons' behavior and performance.

Productivity. Workers who are unhappy with their jobs tend to be less productive. Sutemeister (1965:756) tied job satisfaction to industrial production. He concluded that productivity is directly related to technology and job performance; therefore, each enterprise which seeks to meet production objectives is dependent on the job satisfaction of its workers. Smith (1955:132) noted that workers who were dissatisfied were less cooperative, absent from work more often, and terminated employment sooner than satisfied workers. An Air Force study in 1966 (A Study in Officer Motivation), concluded that for younger officers, increased job satisfaction led to increased productivity and more favorable career intention. Thus, the dollars-and-cents aspect of job satisfaction is that satisfied workers do better work while on the job and are not as likely to terminate employment (thereby eliminating much of the cost of recruiting and training new personnel). This link of job satisfaction and productivity leads to the implication that job satisfaction itself provides motivation to accomplish the task(s) at hand.

Motivation. Motivation is required to accomplish any task, regardless of whether the motivation required is positive or negative. Gellerman (1963:95) reported that it has long been known that job performance is a function of worker ability and motivation, while Kast (1965:797) added that the satisfaction

or thwarting of expectations has pronounced effects on employee motivation. Penzer (1973:3) reported that "work slowdowns, stoppages, controlled rates, and countless other problems come as a result of depressed motivation which in turn is often a function of dissatisfying job situation." This last statement by Penzer is very critical to the Security Police career field.

Security Police duty, especially that duty which requires standing a post, can be very boring at times. This dull, routine type of duty often has a demotivating effect on SP personnel. R. N. Ford found that dull and routine work could be made acceptable to individuals by appealing to each person's need for responsibility (Davis, 1972:195). This is compatible with the AFIT studies which registered Air Force personnel's desires for greater responsibility in their jobs. Ford (1973:97) candidly stated that there is "no simple solution to job satisfaction problems," and also observed that employees today are asking more than to be treated well, they are asking to be used well.

Personality Needs. Kornhauser (1965:128-9), in a study of automobile assembly line workers in Detroit, viewed nonuse of abilities as causing lowered self-esteem, discouragement, futility, and feelings of failure and inferiority in contrast to a sense of personal growth and fulfillment resulting from more varied, responsible, and challenging undertakings that afford individuals the opportunity to develop and use their ideas and skills. He described how low-level jobs have "especially adverse effects on the average...occurs largely by reason of the incongruity between personality needs and the nature

of the job characteristics, opportunities, and demands" (Kornhauser, 1965:275:6). The personality needs referred to are classified as: personal freedom and independence; interesting, challenging activities; sense of accomplishment, completion, and significance; and general goals of self-esteem and feelings of personal worth.

The military way of life is based upon discipline, with some very narrow rules, regulations, and policies to provide guidance for service personnel. This means, unfortunately, that some, or all, of Kornhauser's personality needs may not be able to be fulfilled. Argyris (1964) tries to conjecture what tends to happen to employees who have to suppress their desires for control, autonomy, and independence. He hypothesized that "such a work world may, after many years, influence the employee's view of himself, his esteem of his self, his degree of tension, satisfaction in life, and indeed, his values about the meaning of work" (Argyris, 1964:54). Fortunately, however, the rather grim picture painted by Argyris has been softened by more optimistic writers who look at a way out of the job dissatisfaction morass.

Job Enrichment. Maurer viewed the worker as seeking to satisfy Maslow's (1954) higher-order needs of self-respect, peer-respect, autonomy, and self-actualization. He stated that "emphasis has shifted to include instrumental as well as expressive returns of work, that is, to the study of pay, security, and social relations has been added the study of returns from direct performance of the work role" (Maurer, 1969:2). He cited terms like job enlargement and job enrichment as

reflecting the interest in trying to help workers satisfy their needs. Job enrichment programs, however, are not always as effective as they could be.

Tregoe wrote, "too often job enrichment efforts (programs to make jobs more satisfying) have begun by searching for ways to motivate people, rather than seeking ways to allow the worker to motivate himself" (Tregoe, 1973:177). To be effective each job enrichment program must start by finding out what problems are perceived by the program's subject. The Security Police job enrichment effort at Ellsworth AFB was started by asking for comments and suggestions trying to find out what the problem areas were. The entire program aimed at upgrading the SP image concurs with studies by Gurin, Verhoff, and Feld (1960), who found that the highest degree of job satisfaction tended to be associated with ego-need fulfillment, and that occupational status was directly related to ego-need fulfillment in work. But occupational status alone is not enough to guarantee job satisfaction or insure career intention. Personnel work to make a living, to earn at least enough to survive. There must be rewards given in return for work, and the higher these rewards are the more satisfaction is found in the work.

Rewards. Porter and Lawler (1968) cite rewards as playing a vital role in determining job satisfaction and being an integral part in any job enrichment effort. Rewards must be tied to performance to be effective. There is little, or no, incentive for rewards that are given across-the-board, in secret, or for loyalty or longevity.

Personnel expect rewards which they consider fair. They will compare their rewards with others whom they consider as their peers and develop their own opinions about what they consider to be a fair input-outcome equity ratio. Tuttle and Hazel (1973) talked about this equity theory in an Air Force study, and observed that if fair rewards were not realized, then various behavioral responses would occur when individuals tried to reduce perceived reward inequities. One response is expressed dissatisfaction. If the input-outcome ratio is not equal to their peers individuals perceive inequity and become dissatisfied. To reduce perceived inequities, individuals may (1) change their object(s) of comparison; (2) alter their inputs by being less productive; (3) alter outcomes by asking for more rewards, joining a union, switching to a different job; (4) cognitively distort inputs and outcomes by rationalizing; and/or, (5) leave the organization by quitting or transferring.

The most obvious reward is, of course, money. The pay that each individual receives for services rendered is usually considered the most basic of the rewards given to workers. However, monetary rewards are not necessarily the ultimate reward when it comes to being satisfied on the job.

Pay. According to Porter, Lawler, and Hackman (1975), pay, like some other factors, has the ability to satisfy several needs. It gives security, buys food, and often sets an individual's place in society. Earlier, Lawler and Porter found that individuals got increased satisfaction from pay increases if the actual pay raises were greater than the individuals' perception of what their pay should be;

but their perception of what their pay should be does not necessarily rise at the same rate as the actual increases.

Glenn, Taylor, and Weaver (1977:192) found many other variables that could explain variations in job satisfaction better than the extrinsic rewards of work. They classified income along with prestige, authority, and autonomy as the extrinsic rewards that really cannot account for job satisfaction. Gurin (et al., 1960) found that those people who were satisfied only in extrinsic terms were generally dissatisfied with their jobs. Herzberg (et al., 1957:75) rated pay fourth out of nine factors in importance in determining job attitudes. It was noted that employers often overestimated the importance of wages to employees. Smith, Kendall, and Hulin viewed pay as important because employees are not as satisfied as they like. However, once an adequate level of pay satisfaction is reached, it loses importance. "There is a satiation or adaptation effect" (Smith, et al., 1969:145). Thus, pay is an important part of any job. It helps satisfy basic needs which need to be satisfied before personnel can find job satisfaction through fulfillment of their higher level needs.

The concept of job satisfaction has been covered from basic theory through productivity, motivation, and needs to rewards. The basic significance of job satisfaction is that personnel who are satisfied will do better work and be more productive. That fact by itself is a very good reason why the Air Force needs to be aware of and try to promote the satisfaction of its members. However, another good reason to be concerned with job satisfaction is that more satisfied individuals tend

to stay longer in the employment of what they consider is a good organization. And any increase in the rate of personnel retention could mean real savings in the cost of recuriting and training of new personnel.

Personnel Retention. Brayfield and Crockett (1955) found that higher job satisfaction among employees decreased absenteeism and lowered the turnover rate. Vroom (1964) ventured the theory that the more satisfied the workers were, the less likely it was that the workers would leave their jobs. Thus, it appears that Air Force efforts to increase job satisfaction would have an added benefit besides morale boosting and better job performance...more personnel would be tempted to remain in the service.

According to Porter and Steers (1973:167), "a multiplicity or organizational, work, and personal factors can be associated with the decision"....to terminate employment. These factors include pay, promotions, organization size, and immediate work factors. Porter and Steers found the level of job satisfaction significantly related to employee turnover. They also found a significant relationship between turnover and supervisory style. They noted that supervisors who had less than five years experience had significantly higher turnover rates among their subordinates. Tiffen and McCormick (1974) found supervision to be between third and seventh in importance of factors which affected employee turnover; while Gordon cited four factors which were major causes of turnover. Gordon's (1974:141)factors include (1) selection of personnel employed, (2) supervision,

(3) job structure, and (4) compensation. Thus, it appears that supervision is a key ingredient affecting personnel retention. Earlier, Herzberg (et al.,1957:196) had assessed the importance of supervisory style and attitude. The result was the caution that the attitudes and practices of supervisory personnel often profoundly affect the attitudes and morale of their subordinates. In other words, the supervisors are very important persons in any organization because their actions, temperament, and whole demeanor greatly excite or inhibit their subordinates.

Expression of Career Intention. Waters, Roach, and Waters (1976) analyzed employees' estimates of job satisfaction, career intention, and biographical variables and used the estimates to predict termination. They found that intent to remain (with a company) was highly correlated with the employees' satisfaction with their work and promotions, their age, their job grade, and their tenure with the company. Most important for this study, however, Waters (et al.,) also found that employees' expressions of career intention (i.e., intent to remain with or leave a company) were outstanding predictors of future tenure with their company.

This last result by Waters certainly gives credibility to the career intention variable on the QOAFL surveys. The result makes it reasonable to assume that by comparing the 1975 and 1977 survey results concerning expressed career intention, the impact of Air Force and Headquarters Security Police job betterment and job enrichment efforts on career retention of Security Police personnel can be assessed.

Summary

Job satisfaction and career intention have been widely researched, studied, and written about. The result of all these studies is the recognition that many factors go into the making of job satisfaction, or dissatisfaction, and the decision to remain with, or separate from, a company. Employees desire more than just pay; they want a job that is challenging, a job that will bring them some sense of achievement. They want to be recognized for their achievements and for their performance. Personnel expect to grow on the job, to be promoted based upon their good performance, and to be supervised in a reponsible manner by responsible people. When these desires, needs, and expectations are met by a company, then that company's personnel can reasonably be expected to be satisfied on the job.

Increased job satisfaction often means workers produce more while on the job, and are absent from their jobs less. In addition, more satisfied workers means less employee turnover for the company. A very important factor in employee turnover is supervisory style, in that subordinates are very much affected by their supervisors' actions and atittudes. Finally, employees expression of intent to remain with, or terminate from, a company is an outstanding predictor of future tenure and company turnover.

III. METHODOLOGY

The Data

In the summer of 1975, the first United States Air Force Quality of Air Force Life Survey - Active Duty Military Personnel (QOAFL) was randomly distributed throughout the Air Force. All commands and agencies were included in the survey, and respondents ranged in grade from airman basic to colonel. In all, 10,966 usable questionnaires were returned to Wright-Patterson Air Force Base for analysis. Of this total number 335 of the respondents belonged to the Security Police career field (AFSC 81XX or 81XXX). These personnel represented both the law enforcement and security portions of the career field.

The second QOAFL survey was administered in the spring of 1977. The survey was again randomly distributed throughout all Air Force commands and agencies, with respondents ranging from airman basic to colonel. This survey netted 10,867 usable questionnaires, with 229 of the total respondents belonging to the Security Police. Again, these personnel represented both the law enforcement and security portions of the career field.

The 1975 survey instrument consisted of 150 questions covering many subject areas. The 1977 survey instrument consisted of 165 questions covering the same general subjects in more detail. Of the questions asked in the surveys, only 59 questions were sufficiently similar to

permit comparison across the two year time interval. Of the 59 questions, nine dealt with the 'importance' that individual respondents placed on each Quality of Air Force Life Indicator. These questions were not used in this study because the writer felt that these questions would only be a reflection of the satisfaction with the particular quality of life indicator. Possibly, these questions about importance could be of use if the QOAFLIs were ranked in order of importance; but the writer feels that just using them to rate each individual indicator probably only reflects whether individual needs have been satisfied or still need to be satisfied. The remaining 50 questions were recoded as necessary so that multivariate analyses could be run utilizing both surveys' data simultaneously.

An additional variable was added to the variable list specifying the survey (1975 or 1977) represented by the respondent. The 1975 QOAFL survey responses were labeled "1" and the 1977 QOAFL surveys were labeled "0" in added - variable 47. For a full list of the questions used in this study and the response codings, see Appendix A.

Nine of the surveys' similar questions covered demographic information:

1. Grade
2. Command of assignment
3. Total active military service
4. Educational background
5. Marital status

6. Number of dependents

7. Race

8. Sex

9 Aeronautical rating

The remaining questions dealt with various aspects of Air Force life, including feelings about making the Air Force a career and feelings about the desirability of each individual's job. In the combined survey responses, career intention was measured by question 9 which has the following form.

9. Which one of the following best describes your attitude toward making the Air Force a career?

   A. Definitely intend to make the Air Force a career

   B. Most likely will make the Air Force a career

   C. Undecided

   D. Most likely will not make the Air Force a career

   E. Definitely do not intend to make the Air Force a career

Four questions on each survey form the Hoppock Job Satisfaction Measure (Hoppock, 1935) used to calculate a job satisfaction score for each individual. The job satisfaction measure is represented by question 48. The four questions are as follows:

1. Which one of the following shows <u>how</u> <u>much</u> of the time you feel satisfied with your job:

A. All the time

B. Most of the time

C. A good deal of the time

D. About half of the time

E. Occasionally

F. Seldom

G. Never

2. Choose the <u>one</u> of the following statements which best tells how well you like your job.

A. I hate it

B. I dislike it

C. I don't like it

D. I am indifferent to it

E. I like it

F. I am enthusiastic about it

G. I love it

3. Which <u>one</u> of the following best tells how you feel about changing your job?

A. I would quit this job at once if I could

B. I would take almost any other job in which I could earn as much as I am earning now

C. I would like to change both my job and my occupation

D. I would like to exchange my present job for another one

E. I am not eager to change my job, but I would do so if I could get a better job

F. I cannot think of any jobs for which I would exchange

G. I would not exchange my job for any other

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

A. No one likes his job better than I like mine

B. I like my job much better than most people like theirs

C. I like my job about as well as most people like theirs

D. I dislike my job more than most people dislike theirs

E. I dislike my job much more than most people dislike theirs

F. No one dislikes his job more than I dislike mine

These questions were scored by assigning numbers to the responses as follows:

First and last questions:

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

Second and third questions:

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

An individual's job satisfaction was calculated by adding the answers to the four questions. Thus, individual job satisfaction scores could range from a high of 28 to a low of 4. The highest score (28) reflects an extremely high degree of job satisfaction, while the lowest score (4) reflects an extremely low degree of job satisfaction.

The two QOAFL surveys included questions to assess the nine Quality of Air Force Life Indicators. Each indicator was covered by two questions. One question was to determine the importance of each factor to the individual, and one question was to measure the individual's satisfaction for each factor. As previously mentioned, this study did not use the questions relative to importance; it only used the questions which measured the satisfaction or dissatisfaction of the individual. The nine factors and their definitions are:

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

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

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

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

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

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

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

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

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

Thus, of the 59 questions similar in both surveys, four went into the making of the Hoppock Job Satisfaction Measure, nine were demographic variables, nine were Quality of Life Indicators, one measured expressed career intention, and nine were not used. The rest of the questions asked a variety of facts and opinions relating to each individuals' job, family, personal well-being, and satisfaction in various additional areas. All of these variables, plus the additional variable added to differentiate each individual by survey year, were used for analysis of job satisfaction and career intention for Security Police personnel for 1975 and 1977.

AID Algorithm

The Automatic Interaction Detection (AID) Algorithm,

developed by Sonquist and Morgan (1964), was used to differentiate between 1975 and 1977 Security Police personnel by seeing which variables split between the two year groups. This analytic technique was used successfully before by Thompson (1975) and Eshbaugh (1977) in their AFIT theses. Since AID imposes few limitations concerning the scaling or distribution of variables, it was readily applied to this study's data analysis.

In essence, the AID algorithm performs a one-way analysis of variance (ANOVA) for all predictor variables, then selects the variable which best reduces the error sum of squares and uses this variable to split the sample into two parts, or subgroups. This procedure is repeated on each of the two subgroups yielding more subgroups, and continues until the binary splitting yields groups too small for further consideration, or until the explanatory power or any further split is too small to be meaningful. The minimum group size and minimum increase in explanatory power are selectable by the user who determines these parameters based, usually, on sample size.

The successive splits made by the algorithm are displayed on a tree pattern. By looking at the 'tree,' one can trace the sequence of splits responsible for the isolation of a particular group. The amount of variation explained for the criterion variable at any point in the tree is the total variation explained by all preceding splits. This ability to display the structure of the data greatly assists in interpretation of the relationship between the

predictor variables and the criterion variable.

For this study, the criterion variable was the variable added to each individual's variable list. Thus, the first group had a mean of approximately 0.5 because of roughly equal numbers of responses from the 1975 and 1977 respondents. Each split driving the mean toward '1' or '0' tended to isolate the 1975 respondents (the "1's") from the 1977 respondents (the "0's"). Thus, large changes in the mean of the criterion variable after a split indicated large differences of opinion between the two surveys' respondents on the question defining the split.

t-Test

The t-test of significance (Nie, et al., 1975:267-271) is an analytic technique used to determine whether or not a difference between two samples implies a true difference in the parent populations. A test of this nature is required because, due to the natural variability of any pouplation, it is highly probable that two samples taken from the same population would be different. Hence, a difference in sample means does not necessarily imply that the populations from which the samples were drawn actually differ on the characteristic being studied. Thus, the goal of the t-test is to establish whether or not a difference between two samples is significant.

The t-statistic is Student's-t (by statistician William Seeley Gosset) which is applicable to a normally

distributed random variable where the mean is known (or assumed to be known) and the population variance is estimated from a sample:

$$t = (X - \mu)/s$$

> where X is a normally distributed random variable with mean μ and unknown population variance σ^2, which is estimated by a sample variance s^2.
>
> (Nie, et. al., 1975:268)

$$s^2 = \frac{\sum_{i=1}^{n}(x_i - \bar{x})^2}{n - 1}$$

> where n is the sample size and (n-1) is the degrees of freedom.
>
> (Nie, et. al., 1975:268)

An appropriate test statistic to use in comparing sample means when we are unsure if the population variances are equal is the following:

$$t = \frac{(\bar{x}_1 - \bar{x}) - (\mu_1 - \mu_2)}{s_1^2/n_1 + s_2^2/n_2}$$

(Nie, et. al., 1975:270)

This statistic is not distributed as Student's-t. However, the probability for 't' can be approximated by treating it as 't' using degrees of freedom

$$df = \frac{[(s_1^2/n_1) + (s_2^2/n_2)]^2}{[(s_1^2/n_1)^2/(n_1-1)] + [(s_2^2/n_2)^2/n_2-1)]}$$

(Nie, et al., 1975:270)

To test whether the mean of one group is larger than the mean of another group, a 'one-tailed test' is used. First, a null hypothesis (H_o) and an alternative hypothesis (H_1) are formulated. In this application $H_o: \mu_1 = \mu_2$ (no difference in means for the two groups) is the appropriate null hypothesis. The alternate hypothesis is that the mean of one group is less than/greater than the mean of the other. Next, a significant level (usually .05 or .01) for testing is chosen. Then the sample means and variances are computed and the t-statistic is calculated. From the frequency distribution of the statistic is computed the probability of getting a more extreme value of the statistic. This is the two-tailed probability which is divided by two, resulting in the appropriate one-tailed probability. If the one-tailed probability is smaller than the specified significance level, H_o is rejected. If H_o is rejected and 't' has positive value, then the mean of the first group is significantly larger than the mean of the second group. If H_o is rejected and 't' has negative value, then the opposite is true.

The t-test of significance was used in this study to test if significant difference existed between career intention and job satisfaction for the two survey groups. It determined if significantly more personnel expressed an

intention to make the Air Force a career in either survey year group, and determined if there was significantly higher job satisfaction for one year group over another. In addition, the t-test was run on all the other variables (listed in Appendix A) to see if there were any significant positive or negative trends that occurred between 1975 and 1977.

Regression Analysis

Forward stepwise regression (Nie, et al, 1975) was used to build an explanatory model unique for each survey year group. In the regression technique, predictor variables enter into the equation, or model, based upon their ability to explain the total amount of variation for the criterion variable. The predictor which can explain the most variance enters first; followed by the next predictor which, in conjunction with the first variable, can explain the most variance. This procedure continues until all the predictors are in the model, or until the marginal increase in explanatory power has become so small that certain user-specified termination criteria are exceeded.

The amount of variation explained by the regression equation is calculated by squaring the multiple correlation coefficient. This amount (called "R^2") is defined as:

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

(Nie, et. al., 1975:330)

This R^2 gives the proportion of variance of Y explained, and is also known as "the goodness of fit of the regression equation" (Nie, et. al., 1975:330).

Unfortunately, not all variables are measured in the same units, so that unstandardized regression coefficients will not be equivalent to each other. Standardized regression coefficients (called 'beta weights') provide a sensible way to overcome this fault, and allow comparison of the relative importance of predictors. The relationship between beta weights and unstandardized regression coefficients is shown in the identity:

$$B^*_{yx} = B_{yx}\left(\frac{S_x}{S_y}\right)$$

where: B^*_{yx} is the beta weight

B_{yx} is the unstandardized regression coefficient

S_x is the standard deviation of X

S_y is the standard deviation of Y

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

In this study, regression analysis was used to build models for the 1975 and 1977 year groups to see if there was any difference(s) between the two year groups. From each year's variable list, job satisfaction and career intention were used as criterion variables, with all other variables used as predictor variables.

Principal-Component Analysis

Principal-component analysis (Nie, et al., 1975:470-1), a form of 'factor analysis,' is a method of transforming a set of variables into a new set of composite variables, or principal components, that are uncorrelated (orthogonal) to each other. The analysis yields the best linear combination of variables which account for more variance in the data as a whole than any other linear combination of variables. The first principal component, or factor, is viewed as the single best summary of linear relationships exhibited in the data. The second factor is the second best linear combination of variables, provided the second factor is orthogonal to the first factor, and so on. The principal component model is:

$$z_j = a_{j1}F_1 + a_{j2}F_2 + \ldots + a_{jn}F_n$$

(Nie, et al., 1975:470)

where each of the F_n's is a linear combination of the original n variables and the a_{jn}'s are regression weights. When using this analysis technique, it is expected that usually some number of factors smaller than the original number of variables will explain most to the variance in the data. Thus, a principal component model should be a somewhat simple model compared to a model containing all the original variables.

Computer Analysis

The analysis techniques used were available as standard computer programs on file in the ASD CDC 6600 computer system at Wright-Patterson Air Force Base. The AID algorithm was the AID-4 version adapted from the Air Force Human Resources Laboratory. All other programs used came from the Statistical Package for the Social Sciences (SDSS7). One other SPSS7 program used for this study was FREQUENCIES.

IV ANALYSIS

This chapter presents results obtained by using the analytic techniques described in the preceding chapter. These results will be grouped in subsections according to the techniques used.

AID Results

The Automatic Interaction Detector (AID) was used to determine whether certain variables could be used to discriminate 1975 Security Police respondents from 1977 respondents. As explained in the AID methodology section, a one or zero coding was used for the criterion variable to differentiate between survey years (1975 and 1977 respectively). Using this coding, the average value of the criterion variable in each group always represents the fraction of the observations which are from the 1975 study. Thus, averages close to 1.0 or 0.0 imply that a sequence of splits has resulted in a group containing nearly all observations from a single survey. This implies that the variables on which the sequence of splits was based have significant discriminating power. The greater the shift in the criterion mean for each split, the more powerful was the variable defining that split as a differentiator for a particular survey year group.

Several AID runs were made using different groupings of variables before final AID runs were accomplished using nineteen of the variables listed in Appendix A. The initial AID run used only demographic variables, and the results

were not conclusive, except to show that demographics alone were not good differentiators between year groups.

The second AID run used all the other (non-demographic) variables, but the results, again, were not conclusive. The writer allowed the variables to 'free-float,' and many split groups were just further splits of a specific variable. These splits often contained both extreme positive and negative opinions, so that no particular trend in opinion could be detected. Thus, further AID runs were considered necessary.

The next AID run used nineteen descriptor variables selected from the first two runs. These variables were selected because they had been the 'best' differentiators in their respective AID runs. Most of the demographic variables used were allowed to free-float, but all other variables were entered as 'monotonic.' The variables specified as monotonic would be more certain to show any trends in opinions because these variables could not be split in such a manner that high and low responses could be split off into one subgroup leaving mid-range responses in the other subgroup. The descriptor variables used and the nature of their splitting were:

Q4 - Level of Education (monotonic)

Q5 - Marital Status (free-floating)

Q6 - Number of Dependents (monotonic)

Q7 - Race (free-floating)

Q8 - Sex (free-floating)

Q9 - Career Intention (monotonic)

Q10 - Aeronautical Rating (free-floating)

Q12 - Economic Security Satisfaction (monotonic)

Q14 - Second Job Hours Worked (monotonic)

Q15 - Does Your Spouse Work (monotonic)

Q25 - Leadership/Supervision Satisfaction (monotonic)

Q27 - Supervisor Influence on the Organization (monotonic)

Q32 - Equity Satisfaction (monotonic)

Q40 - Personal Standing Satisfaction (monotonic)

Q41 - Basic Training Does Not Adequately Prepare Airmen for Their First Duty Assignment (monotonic)

Q42 - Technical School Training Does Not Adequately Prepare Airmen for Their First Duty assignment (monotonic)

Q45 - Senior NCO Responsibility (monotonic)

Q46 - Health Satisfaction (monotonic)

Q48 - Job Satisfaction Measure (monotonic)

The criterion variable was Q47 - Year Group, which had one or zero coding. Of the 564 Security Police responses received from the two surveys, 57 were rejected for having out of range predictors during this run, giving a rejection rate of 10.11 percent. Figure 1 shows the resulting AID tree from this analysis depicting those groups which had enough cases to be meaningfully interpreted (see Appendix B for the response codes and selected frequencies).

The results of this AID analysis for all Security Police personnel responding to the QOAFL surveys are shown in Figure 1. To interpret these results, the reader must remember

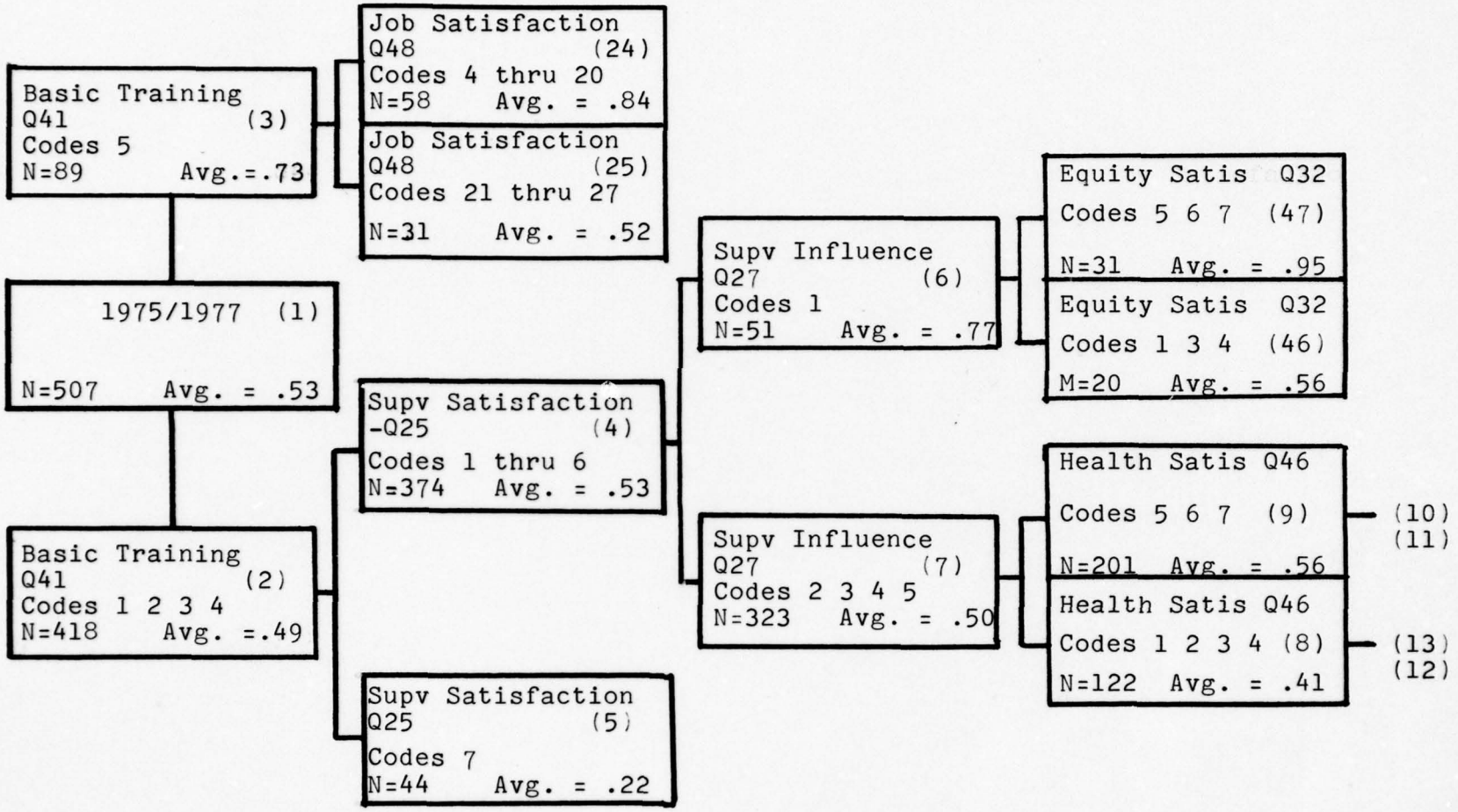


Figure 1. AID Tree for 1975 and 1977 Security Police Respondents

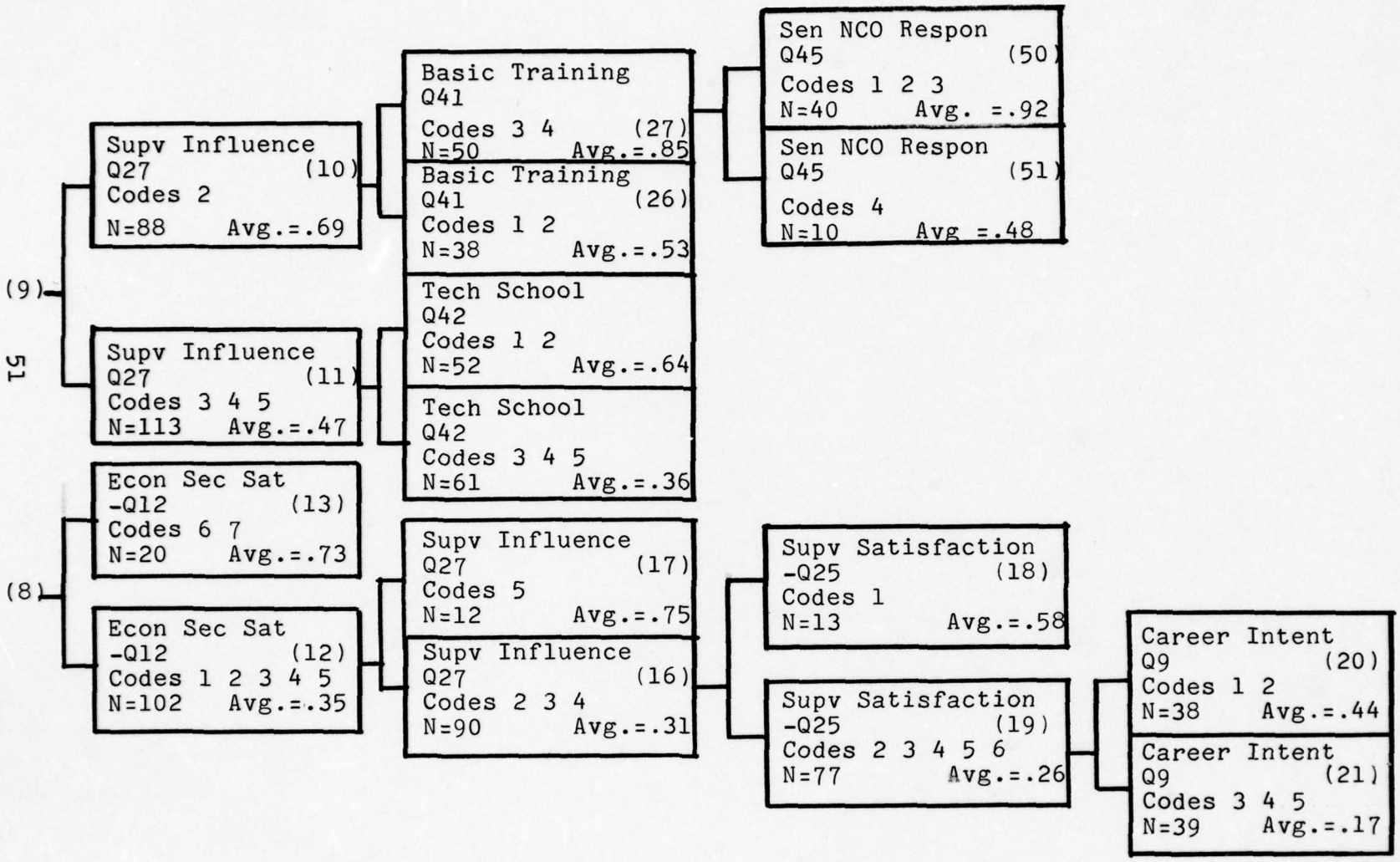


Figure 1 (Continued)

that each split is conditional on all other preceding splits which link that split to the initial group. Thus, results of the first split and the 'upper branch' of the AID tree show that:

--1975 survey personnel felt more strongly that Basic Military Training does not adequately prepare airmen for their first duty assignments (group 3).

--1975 personnel who indicated that basic training was inadequate had lower job satisfaction measure scores than 1977 personnel who also felt that basic training was inadequate (group 24).

Tracing the results of the 'lower branch' of the AID tree is more complicated because of its length. However, by following paths along the branch looking at various groups at one time, it may be easier for the reader to interpret the results:

--Groups 2 - 5: shows that the bulk of the surveys' respondents had a range of feelings about the adequacy of training received at basic training (group 2); and of these personnel, the 1977 respondents were more highly satisfied with the Leadership/Supervision aspects of their lives (group 5).

--Groups 2 - 4 - 6 - 47: the bulk of the personnel had a range of feeling about the adequacy of basic training (group 2) and the Leadership/Supervision aspects of their lives (group 4); and of these personnel, the 1975 respondents felt that their

supervisors had more favorable influence on their organizations (group 6), and they also were more satisfied with the Equity aspects of their lives (group 47).

--Groups 2 - 4 - 7 - 9 - 10 - 27 - 50: the bulk of the personnel had a range of feeling about the adequacy of basic training (group 2), the Leadership/ Supervision aspects of their lives (group 4), and about whether their supervisors had favorable influence on their organizations (group 7). Of these personnel, most had higher satisfaction with the Health aspects of their lives (group 9); and, of these personnel, the 1975 personnel felt that their supervisors had more favorable influence on their organizations (group 10), felt more strongly that basic training inadequately prepared airmen for their first duty assignments (group 27), and disagreed more with the statement that senior NCOs are given jobs which less responsibility than they should have.

--Groups 2 - 4 - 7 - 9 - 11 - 15: shows that for personnel who had a range of feelings about the adequacy of basic training (group 2), a range of feelings about their Leadership/Supervision satisfaction (group 4), a range of feelings about the influence their supervisors have on their organizations (group 7), and higher satisfaction with the Health aspects of

their lives (group 9), 1977 respondents felt that their supervisors had less favorable influence on their organizations (group 11), and also felt more strongly that Technical School Training does not adequately prepare airmen for their first duty assignments (group 15).

--Groups 2 - 4 - 7 - 8 - 12 - 16 - 19 - 21: shows that for personnel who had a range of feelings about basic training (group 2), Leadership/Supervision satisfaction (group 4), and their supervisors' influence on their organizations (group 7), 1977 personnel had slightly less satisfaction with Health aspects of their lives (group 8), were less highly satisfied with their Economic Security (group 12), were mixed on their feelings about their supervisors' influence on their organizations (group 16), and expressed slightly more indecision or non-intention about making the Air Force a career (group 21).

One more AID run was accomplished to see if personnel with less than ten years service had a pattern of responses significantly different from the Security Police force taken as a whole.

To accomplish this last run, Q3 - Total Active Federal Military Service was entered as a variable with all responses indicating over ten years service considered out-of-limits (and subsequently dropped from this analysis). In all, 334 cases were retained. Figure 2 shows the resulting AID tree from this final AID run.

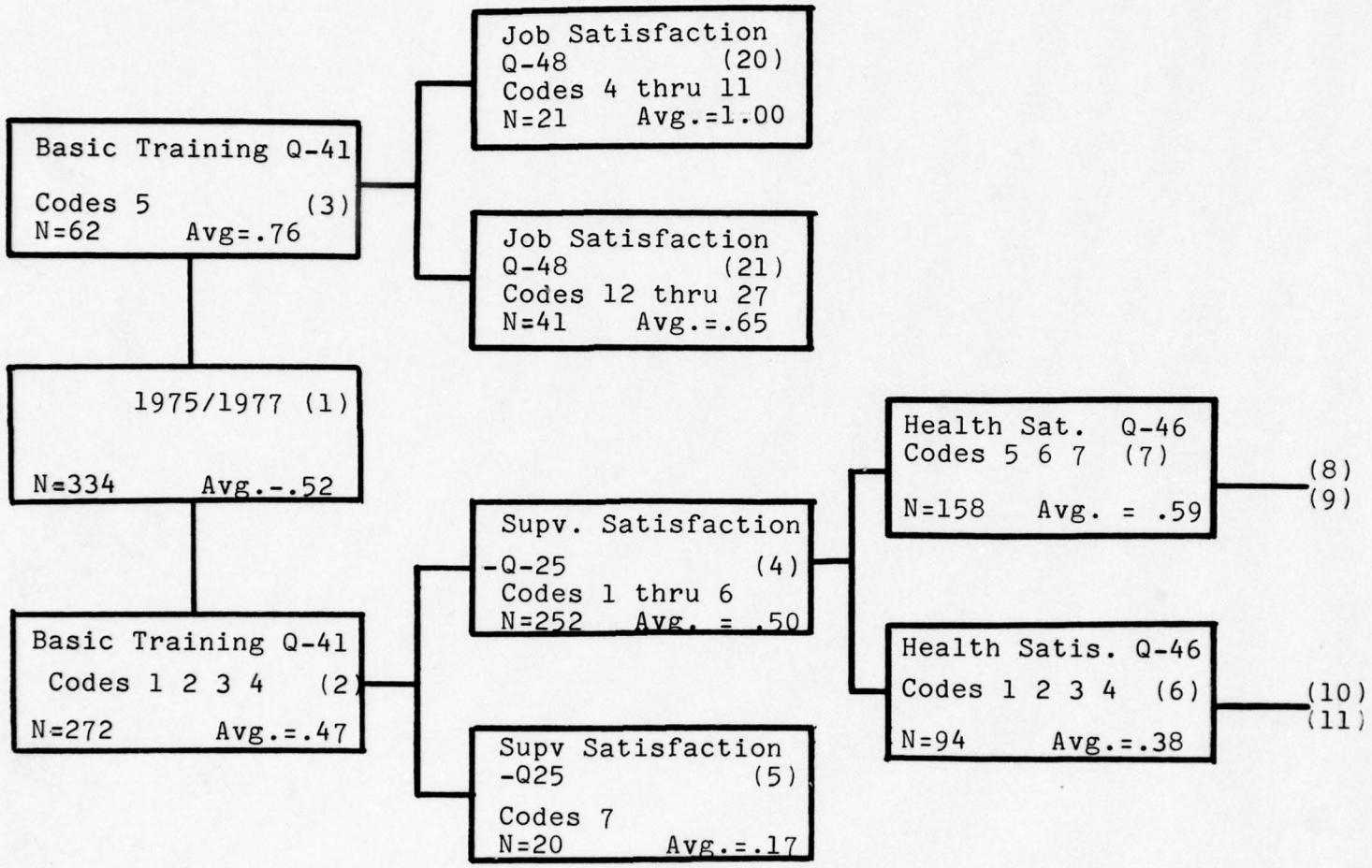


Figure 2. AID Tree for Security Police With Less Than Ten Years Service

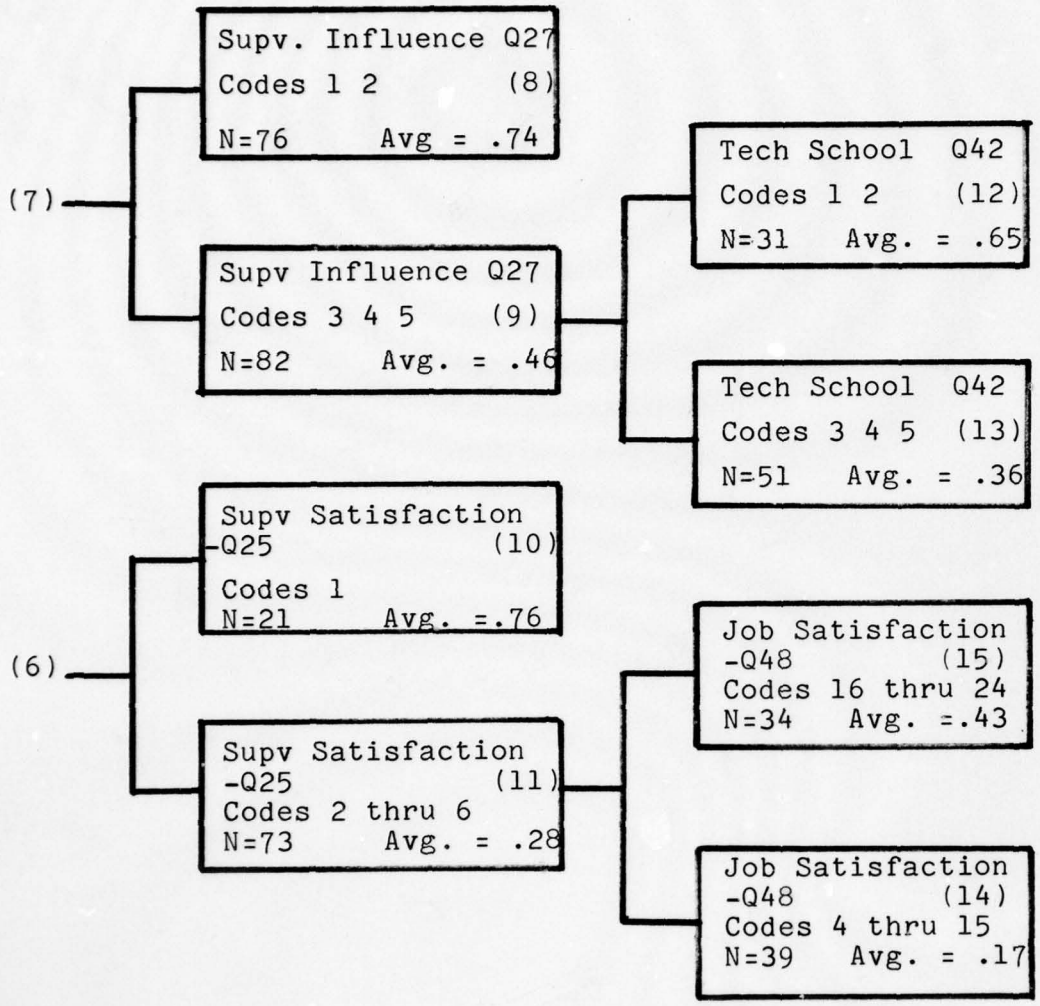


Figure 2. (Continued)

The results of the final AID analysis show that, for Security Police personnel with less than ten years service who responded to the QOAFL surveys, there were few differences from the pattern exhibited by the entire SP force. Once again, the first split was on basic training, with the 1975 personnel indicating more that they felt the training inadequately prepared airmen for their first duty assignments (group 3). Of those who indicated that basic training was inadequate, 1975 personnel again had lower job satisfaction measure scores (group 20). However, in this run at group 14 on the branch of the AID tree representing personnel who were not so dissatisfied with basic training, 1975 personnel show higher job satisfaction than the 1977 personnel.

Other results of this run that were similar to the entire force analysis were:

--Groups 2 - 5: shows that of the personnel who were not so dissatisfied with basic training (group 2), 1977 respondents were more satisfied with the Leadership/Supervision aspects of their lives (group 5).

--Groups 2 - 4 - 7 - 8 and 2 - 4 - 9 - 13: shows that for personnel who had a range of feelings about the adequacy of basic training (group 2) and Leadership/Supervision satisfaction, and who were more satisfied with the Health aspects of their lives (group 7); 1975 respondents felt that their supervisors had more favorable influence on their organizations (group 8); while 1977 respondents who indicated that their supervisors

had less favorable influence on their organizations (group 9), felt more strongly that Technical School Training does not adequately prepare airmen for their first duty assignments (group 13).

--Groups 2 - 4 - 6 - 10: shows that for personnel who had a range of feelings about basic training (group 2) and Leadership/Supervision satisfaction (group 4), 1977 respondents were less satisfied with Health aspects (group 6); while 1975 personnel who were also less satisfied with Health aspects were also less satisfied with the Leadership/Supervision aspects of their lives (group 10).

Interpreting the results of these two AID runs, it appears that between 1975 and 1977, the level of satisfaction indicated dropped for several of the Quality of Life indicators. Specifically, 1977 respondents indicated relatively lower satisfaction with the Equity, Health, and Economic Security aspects of their lives. The impact of this change in satisfaction can be traced in the lower branch of Figure 1 through lowered Health and Economic Security satisfaction to Career Intent, where those 1977 personnel who had indicated lowered satisfaction also indicated indecision or expressed intent not to make the Air Force a career.

On the basis of AID, the level of job satisfaction appears not to have changed significantly between 1975 and 1977. It seems like an increase of job satisfaction for one group in one area is offset by a decrease for another group in another area. So, for job satisfaction (and all the

other variables) another type of analysis seemed appropriate to help determine if, indeed, significant changes occurred in response patterns between 1975 and 1977.

t-Test

The second phase of the analysis used two sample t-tests to determine whether there were statistically significant shifts in variable means between 1975 and 1977. Two analyses were performed. The first analysis used the entire Security Police survey population, while the second run used only those personnel who had less than ten years total Federal military service. The results of these analyses are presented in Tables I and II.

For the two analyses, results for Security Police personnel showed that between 1975 and 1977 the following occurred:

--an increase in the Security Police education level

--a decrease in the proportion of members with working spouses

--an increase in the satisfaction with individuals' Free Time aspects of their lives

--an increase in the proportion of personnel wanting jobs with greater responsibility than their current jobs

--a decreased proportion of personnel who felt that the Air Force required them to participate in too many activities that were not related to their jobs

--an increase in personnel who were more satisfied with the Leadership/Supervision aspects of their lives

--a more favorable opinion about the quality of leadership in the Air Force

--increased feeling that immediate supervisors had more favorable influence on their organizations

--an increase in individuals' feelings that they were given the freedom they needed to do their jobs well

--a shift from feelings that discipline in today's Air Force is 'somewhat lenient' (in 1975) to feelings that discipline is 'about right' (in 1977)

--a decrease in satisfaction with the Equity aspects of personnel's lives

--a shift in opinion that individuals' grades were somewhat too low for the work they were doing (in 1975) to the opinion that grades were about right for the work they were doing in 1977

--an indication that personnel got together more frequently with their supervisors to set their personal performance objectives in 1977 than in 1975

--an increase in the satisfaction with Personal Standing aspects of personnel's lives

--a shift in opinion reflecting a more positive attitude about the value of Basic Military Training in preparing airmen for their first duty assignment

--a lesser shift in opinion reflecting increased feeling that Technical School Training did <u>not</u> adequately prepare airmen for their first duty

TABLE I

t-test of Significance
(Entire Security Police Survey Populations)
n=564

VARIABLE	YEAR	MEAN	t-VALUE	ONE-TAIL PROBABILITY
Education Level (Q-4)	1975 1977	3.144 3.569	-3.23	.001
Satisfaction with Economic Security (Q-12)	1975 1977	4.437 4.258	1.56	.05
Spouse Work (Q-15)	1975 1977	2.090 1.920	2.47	.007
Satisfaction with Free Time (Q-17)	1975 1977	3.529 3.909	-3.19	.001
Want More Responsibility Than Current Job (Q-22)	1975 1977	4.059 4.289	-3.34	.001
Required Extra Activities Not Related to Job (Q-24)	1975 1977	3.032 2.853	5.28	.000
Leadership/Supervision Satisfaction (Q-25)	1975 1977	3.809 4.311	-4.16	.000
Leadership Quality in the Air Force (Q-26)	1975 1977	3.391 3.132	3.54	.000
Supervisor Influence on the Organization (Q-27)	1975 1977	2.932 2.601	3.92	.000
Job Freedom (Q-28)	1975 1977	2.952 3.186	-2.82	.003
Discipline in Today's Air Force (Q-30)	1975 1977	3.562 3.262	3.30	.001
Satisfaction with Equity (Q-32)	1975 1977	4.049 3.845	1.73	.042
Job Appropriate with Grade (Q-33)	1975 1977	3.435 2.886	7.22	.000

TABLE I

(Continued)

VARIABLE	YEAR	MEAN	t-VALUE	ONE-TAIL PROBABILITY
Civilian Break (Q-34)	1975 1977	3.091 3.218	- 1.80	.035
Supervisor Meeting and Setting Objectives (Q-39)	1975 1977	2.274 2.651	- 4.75	.000
Satisfaction with Personal Standing (Q-40)	1975 1977	4.051 4.328	- 2.41	.008
Basic Training Not Adequately Prepare Amn (Q-41)	1975 1977	3.484 3.040	5.55	.000
Technical School Not Adequately Prepare Amn (Q-42)	1975 1977	3.145 3.279	- 1.69	.045
Career Intent (Q-9)	1975 1977	2.786 2.894	- 1.14	.128
Job Satisfaction (Q-48)	1975 1977	15.814 15.670	.37	.357

TABLE II

t-test of Significance

(Security Police Personnel with Less Than Ten Years Service)

n=334

VARIABLE	YEAR	MEAN	t-VALUE	ONE-TAIL PROBABILITY
Education Level (Q-4)	1975 1977	3.011 3.328	- 2.40	.008
Spouse Work (Q-15)	1975 1977	1.986 1.801	2.45	.007
Satisfaction with Free Time (Q-17)	1975 1977	3.457 3.839	- 2.88	.002
Want More Responsibility Than Current Job (Q-22)	1975 1977	4.007 4.192	- 2.36	.009
Required Extra Activities Not Related to Job (Q-24)	1975 1977	3.319 2.854	4.92	.000
Leadership/Supervision Satisfaction (Q-25)	1975 1977	3.638 4.211	- 4.36	.000
Leadership Quality in the Air Force (Q-26)	1975 1977	3.498 3.154	4.24	.000
Supervisor Influence on the Organization (Q-27)	1975 1977	3.031 2.640	4.14	.000
Job Freedom (Q-28)	1975 1977	2.785 3.090	- 3.38	.001
Supervisors Recognition (Q-29)	1975 1977	2.779 2.951	- 1.96	.025
Discipline in Today's Air Force (Q-30)	1975 1977	3.340 3.052	2.82	.003

TABLE II

(Continued)

VARIABLE	YEAR	MEAN	t-VALUE	ONE-TAIL PROBABILITY
Satisfaction with Equity (Q-32)	1975 1977	3.955 3.705	2.00	.023
Job Appropriate with Grade (Q-33)	1975 1977	3.448 2.837	7.12	.000
Supervisor Feedback (Q-38)	1975 1977	2.771 2.915	- 1.84	.033
Supervisor Meeting and Setting Objectives (Q-39	1975 1977	2.164 2.573	- 4.83	.000
Satisfaction with Personal Standing (Q-40)	1975 1977	3.820 4.224	- 3.23	.001
Basic Training Not Adequately Prepare Amn (Q-41)	1975 1977	3.451 2.989	5.12	.000
Technical School Not Adequately Prepare Amn (Q-42)	1975 1977	3.169 3.352	- 2.11	.035
Senior NCO Respect (Q-43)	1975 1977	3.166 3.353	- 2.13	.016
Career Intent (Q-9)	1975 1977	3.169 3.249	- .83	.202
Job Satisfaction (Q-48)	1975 1977	15.120 15.277	- .36	.359

assignments

Results from the analysis using the entire Security Police populations (Table I) that were not reflected in the group that had less than ten years service showed:

--a decrease in satisfaction with the Economic Security aspects of personnel's lives

--a slight increase in the feeling that individuals could get more of an even break in civilian life than in the Air Force

Results from the analysis using respondents under ten years service (Table II) that were not reflected by the entire Security Police population showed that when comparing 1975 and 1977:

--immediate supervisors in 1977 gave more recognition for a job well done and more frequent feedback about job performance in general

--personnel in 1977 had more respect for the Senior NCOs (E7-E9) they knew

The two t-test analyses also pointed out that there was no statistically significant difference between the job satisfaction of 1975 personnel when compared to 1977 personnel; and also no statistically significant difference between expressed career intention for those same groups of personnel. This lack of difference applies both to the entire Security Police survey population and to those surveyed personnel who had less than ten years service.

In summary, it appears that Security Police personnel in 1977 were more satisfied with the leadership and supervisory

aspects of their jobs, aspired to jobs with greater responsiblity, and were happier with the Free Time aspects of their lives. The 1977 respondents also were happier with the quality of basic training, yet more unhappy with technical school in respect to the preparation of airmen for their first duty assignments. This last point may have stemmed from the fact that by 1977, most Security Police recruits went directly from basic training to technical school instead of reporting directly to their first duty assignments, which was more prevalent pre-1975. The conclusion to be drawn from these variables is that evidently there is a perceived lack of adequate training and preparation for Security Police personnel who are arriving at their first duty assignments. Finally, 1977 respondents showed less satisfaction with the Equity and Economic Security aspects of their lives; and these personnel also perceived more that individuals might get more of an even break in civilian life than in the Air Force.

Regression

Forward stepwise regression analysis was used to build descriptive models trying to explain the variance for job satisfaction and career intention for each survey year group. Once again, the Security Police survey population was analyzed as a whole, and then analyzed again for those personnel with less than ten years service. Tables II through X detail the results of these analyses.

Each analysis was allowed to include eight predictor

variables in its equation, but only the first four are presented in each table. After four variables, the amount of additional variance explained was sufficiently small that it was felt that subsequent variables would not contribute meaningfully to each model.

Job Satisfaction. Tables III and IV list the results of the job satisfaction regressions for the Security Police survey populations of 1975 and 1977. Both regressions have R^2 of about .6; and there are some close similarities between the two year groups.

The 1975 survey group (Table III) had job challenge, satisfaction with the Work aspects of life, and having a job which individuals felt prepared them to assume future positions of greater responsibility as the three variables which explained most of the job satisfaction variance. The fourth variable was the feeling about whether or not an Air Force base was a desirable place to live.

The 1977 survey group (Table IV) likewise had job challenge, satisfaction with the work aspects, and having a job which prepared individuals to assume future positions of greater responsibility as the three primary predictors of job satisfaction. The fourth variable in the 1977 model, however, was that Air Force training programs do not do a very good job of preparing people to get along with other people. The small size of the beta weight and the small change in R^2 suggest that this variable is not a strong predictor for the 1977 model.

TABLE III

1975 QOAFL SURVEY

Job Satisfaction Regression
(Entire Security Police Survey Population)

VARIABLE		BETA WEIGHT	R^2	R^2 CHANGE
Q-20 Job Challenge	(x_1)	.330	.435	.435
Q-19-Work Satisfaction	(x_2)	.275	.519	.084
Q-21-Future Responsibility	(x_3)	.226	.567	.048
Q-18-AF Base Living	(x_4)	.185	.595	.028

CORRELATION MATRIX

	x_2	x_3	x_4	Y
x_1	.531	.519	.357	.660
x_2		.412	.288	.597
x_3			.335	.572
x_4				.458

Job Satisfaction (Y) = 4.187 = 1.332 (Job Challenge)
+ .828 (Work Satisfaction)
+ .888 (Future Responsibility)
+ .936 (AF Base Living)

TABLE IV

1977 QOAFL SURVEY

Job Satisfaction Regression
(Entire Security Police Survey Population)

VARIABLE		BETA WEIGHT	R^2	R^2 CHANGE
Q-20-Job Challenge	(x_1)	.358	.500	.500
Q-21-Future Responsibility	(x_2)	.258	.563	.063
Q-19- Work Satisfaction	(x_3)	.279	.591	.028
Q-37-Training Programs	(x_4)	.134	.607	.016

CORRELATION MATRIX

	x_2	x_3	x_4	Y
x_1	.673	.659	-.062	.707
x_2		.655	-.153	.661
x_3			-.225	.654
x_4				.010

Job Satisfaction (Y) = 2.249 + 1.750 (Job Challenge)
+ 1.079 (Future Responsibility)
+ .896 (Work Satisfaction)
+ .788 (Training Programs)

TABLE V

1975 QOAFL SURVEY

Job Satisfaction Regression
(Security Police Personnel with Less Than Ten Years Service)

VARIABLE	BETA WEIGHT	R^2	R^2 CHANGE
Q-20-Job Challenge	(x_1) .278	.398	.398
Q-21-Future Responsibility	(x_2) .284	.500	.102
Q-18-AF Base Living	(x_3) .229	.552	.052
Q-19-Work Satisfaction	(x_4) .234	.590	.038

CORRELATION MATRIX

	x_2	x_3	x_4	Y
x_1	.510	.381	.518	.631
x_2		.314	.425	.597
x_3			.293	.493
x_4				.565

Job Satisfacton Y = 3.571 + 1.160 (Job Challenge)
+ 1.138 (Future Responsibility)
+ 1.212 (AF Base Living
+ .715 (Work Satisfaction)

TABLE VI

1977 QOAFL SURVEY

Job Satisfaction Regression

(Security Police Personnel with Less Than Ten Years Service)

VARIABLE	BETA WEIGHT	R^2	R^2 CHANGE
Q-20 Job Challenge	(x_1) .276	.463	.463
Q-21-Future Responsibility	(x_2) .276	.531	.068
Q-35-Supv. and Females	(x_3) .183	.566	.037
Q-19-Work Satisfaction	(x_4) .258	.598	.032

CORRELATION MATRIX

	x_2	x_3	x_4	Y
x_1	.671	.215	.698	.681
x_2		.153	.624	.650
x_3			.186	.332
x_4				.657

Job Satisfaction $Y = 3.814 + 1.394$ (Job Challenge)

$+ 1.164$ (Future Responsibility)

$+ .433$ (Supervisors and Females)

$+ .865$ (Work Satisfaction)

Tables V and VI detail the job satisfaction regression analysis for Security Police personnel with less than ten years service. Similar to the previous regressions, both groups had R^2 of about .6, and both had variables similar to their parent populations. The four variables in the 1975 group (Table V) were job challenge, the feeling of being prepared to assume future positions of greater responsibility, an Air Force base is a desirable place to live, and satisfaction with work aspects of life. The 1977 group (Table VI) also had job challenge, future positions of greater responsibility, and work satisfaction as three of the four primary predictor variables. The other variable was how each individual's supervisor dealt with women co-workers. The writer thinks this merely indicates that a large majority of Security Police personnel still has male supervisors; and that even with the stepped-up influx of women into the field, enough time has not elapsed to give many women a chance to be put into supervisory positions. Whatever the reason, the low beta weight and small change in the R^2 denote that this is not a very strong predictor in the 1977 equation model.

In summary, for Security Police personnel in 1975 and 1977, regardless of time in service, the primary variables affecting job satisfaction were job challenge, feelings of being prepared to assume future positions of greater responsibility, and satisfaction with work aspects of life.

Career Intention. Tables VII and VIII list the results of the Career Intention regressions for the Security Police

TABLE VII

1975 QOAFL SURVEY
Career Intention Regression
(Entire Security Police Survey Population)

VARIABLE	BETA WEIGHT	R^2	R^2 CHANGE
Q-3- Time In Service	(x_1) -.431	.348	.348
Q-48-Job Satisfaction	(x_2) -.255	.474	.126
Q-18-AF Base Living	(x_3) -.195	.518	.044
Q-34-Civilian Break	(x_4) .173	.543	.025

CORRELATION MATRIX

	x_2	x_3	x_4	Y
x_1	.228	.248	-.306	-.590
x_2		.458	-.213	-.480
x_3			-.338	-.478
x_4				.425

Career Intention (Y) = 4.342 - .107 (Time In Service)
- .063 (Job Satisfaction)
- .242 (AF Base Living)
+ .243 (Civilian Break)

TABLE VIII

1977 QOAFL SURVEY
Career Intention Regression
(Entire Security Police Survey Population)

VARIABLE	BETA WEIGHT	R^2	R^2 CHANGE
Q-3-Time in Service	(x_1) -.374	.315	.315
Q-19-Work Satisfaction	(x_2) -.261	.423	.108
Q-11-Economic Standard Satisfaction	(x_3) -.203	.457	.034
Q-6-Number of Dependents	(x_4) -.228	.488	.031

CORRELATION MATRIX

	x_2	x_3	x_4	Y
x_1	.091	.094	.637	-.562
x_2		.327	.072	-.378
x_3			.039	-.332
x_4				-.492

Career Intention (Y) = 5.409 - .097 (Time in Service)
- .200 (Work Satisfaction
- .191 (Economic Standard Satisfaction)
- .226 (Number of Dependents)

TABLE IX

1975 QOAFL SURVEY
Career Intention Regression
(Security Police Personnel with Less Than Ten Years Service)

VARIABLE	BETA WEIGHT	R^2	R^2CHANGE
Q-18-AF Base Living	(x_1) -.332	.245	.245
Q-36-Personal Growth Satisfaction	(x_2) -.247	.310	.065
Q-3- Time in Service	(x_3) -.202	.364	.054
Q-34-Civilian Break	(x_4) .199	.399	.035

CORRELATION MATRIX

	x_2	x_3	x_4	Y
x_1	.270	.172	-.311	-.495
x_2		.127	-.085	-.379
x_3			-.223	-.335
x_4				.368

Career Intention (Y) = 4.500 - .384 (AF Base Living)
- .189 (Personal Growth Satisfaction)
- .120 (Time In Service)
+ .248 (Civilian Break)

TABLE X

1977 QOAFL SURVEY
Career Intention Regression
(Security Police Personnel with Less Than Ten Years Service)

VARIABLE	BETA WEIGHT	R^2	R^2 CHANGE
Q-19-Work Satisfaction	(x_1) -.351	.177	.177
Q-1-Grade	(x_2) .175	.275	.098
Q-11-Economic Standard Satis-	(x_3) -.243	.317	.042
Q-6-Number of Dependents	(x_4) -.220	.355	.038

CORRELATION MATRIX

	x_2	x_3	x_4	Y
x_1	.030	.287	.026	-.421
x_2		-.150	-.448	.299
x_3			-.123	-.365
x_4				-.302

Career Intention (Y) = 3.915 - .257 (Work Satisfaction)
+ .106 (Grade)
- .213 (Economic Standard Satisfaction)
- .245 (Number of Dependents)

survey populations of 1975 and 1977. Both regressions have an R^2 of about .5 and the same first entering predictor variable, but after that, some differences occur.

The 1975 survey group (Table VII) showed time in service as the primary predictor variable, followed by job satisfaction, feelings about whether or not an Air Force base is a desirable place to live, and whether an individual could get more of an even break in civilian life than in the Air Force. Time in service was by far the most important predictor with a beta weight nearly twice the size of job satisfactions' weight, and more than double that of the other two variables.

The 1977 survey group (Table VIII) also showed time in service as the primary predictor variable, but followed with satisfaction with work aspects of life, satisfaction with Economic Standard, and number of dependents. Again, time in service was the most important predictor, but the ratio of its beta weight against those of the other variables was not nearly so high as with the 1975 survey.

Comparing the 1975 and 1977 regression models, the writer feels that the concept of satisfaction with work aspects of life and the job satisfaction measure are so similar that the second variable for the 1975 and 1977 models can be considered as essentially the same variable. The earlier regressions on job satisfaction show that work satisfaction and job satisfaction are closely tied together, so the conclusion about them being so similar is reasonable.

The last two variables in the 1977 model are very different from the 1975 model. The 1977 respondents' third

and fourth predictors of satisfaction with Economic Standard and number of dependents imply to the writer a more economic turn of mind for the 1977 personnel. The presence of Economic Standard satisfaction is self-explanatory, but the number of dependents can also be viewed in an economic sense. More dependents for a service member mean higher costs for food, clothing, health, etc., which must be paid for out of that member's pay. The Air Force, however, helps alleviate some bills by providing facilities such as the commissary and the base exchange, and eliminates others such as most medical and some dental bills. Thus, the writer thinks that the higher a service member perceives his bills 'on the outside' might be because of a large family, the more apt that member is to remain in the service to make use of the service's fringe benefits that intrinsically enhance the actual pay received.

Tables IX and X list the results of the career intention regressions for Security Police personnel with less than ten years service. The regressions have R^2 of about .4 and vary considerably in the predictor variables in each equation.

The 1975 personnel with less than ten years service have the primary predictor variable of feelings about whether or not an Air Force base is a desirable place to live. The next three predictor variables are satisfaction with Personal Growth aspects of life, time in service, and feelings about whether or not the individual can get more of an even break in civilian life than in the Air Force.

The 1977 personnel with less than ten years service have the primary predictor variable of satisfaction with

work aspects of life, followed by grade, satisfaction with Economic Standard, and number of dependents. Again the writer feels this points up a more economic-oriented trend in the 1977 personnel as compared to the 1975 personnel.

The relationship between grade and career intention for 1977 personnel with under ten years service is unexpected. According to the analysis, as the grade rises, the intent to remain for a career decreases. The writer thinks that perhaps this is indicative that for 1977 respondents, those personnel under ten years service who had progressed in grade more rapidly than others perceived that they had the ability and opportunity to do better if they were out of the service. Accordingly, these people would have professed an intent not to make the service a career. Another reason could be that personnel under ten years who have higher grade are pushed, by virtue of their rank, into higher organizational positions which they consider undesirable and unwanted. Thus, they express no interest in a career.

In summary, for 1975 Security Police personnel, the primary variables affecting career intention are time in service, feelings about whether or not an Air Force base is a desirable place to live, and feelings about whether individuals can get a better break in civilian life. For the entire survey population, the job satisfaction measure is also a good predictor variable; while for 1975 personnel with less than ten years service that measure is replaced by Personal Growth satisfaction as a predictor.

For 1977 Security Police personnel, the primary variables affecting career intention are satisfaction with work aspects of life, satisfaction with Economic Standard, and number of dependents. For 1977 respondents with less than ten years service, the fourth primary variable is grade; for the entire survey population, it is time in service.

Principal Component Analysis

Finally, principal component analysis was performed on the responses to the nine questions which make up the Air Force Quality of Life Indicators. As with previous analyses, the analysis was run using the entire Security Police survey population, then run again using those personnel who had less than ten years service. Tables XI through XIV list the results of the four principal component analysis runs.

In each analysis, it appears that at least two factors are present for the nine Quality of Life Indicators. These two factors explain about 50 percent of the total variation; and represent what the writer calls the "work" aspects of the job (Factor 1) and the "economic" aspects of Air Force life (Factor 2).

In each analysis, Factor 1 incorporates those indicators of Air Force life which deal more with the work aspects of the job. Those indicators include satisfaction with work, satisfaction with Leadership/Supervision, Equity satisfaction, and Personal Growth and Standing satisfactions.

Factor 2 deals with the economic aspects associated with being in the Air Force. Specifically, satisfaction with

Economic Standard and Economic Security make up this factor in each of the four analysis runs.

Some of the Quality of Life Indicators did not really fall into either factor, or moved between factors from 1975 to 1977. Specifically, 1975 personnel did not indicate satisfaction with the Free Time aspects of their lives as belonging to either the work or economic factors. However, 1977 personnel have Free Time satisfaction associated mainly with the work factor. A possible interpretation is that 1977 personnel felt more strongly that their free time was supposed to be a guaranteed part of their work contract; that is, their free time was to be scheduled and protected by their supervisors, and it was important to the people that the free time schedule be held reasonably firm and reliable.

Satisfaction with Health aspects of Air Force life shows as mostly associated with the work factor in 1975, but splits between Factors 1 and 2 in 1977. In 1975, perhaps personnel were more inclined to think of health care as merely a fringe benefit, while in 1977, personnel may have realized that health care is as much a part of their total pay package as their salary is. This realization is certainly reinforced by the high costs of medical care in the civilian world, especially with these costs increasing at twice the recognized national rate of inflation.

Similarly, the Equity aspects of life appears more firmly entrenched in Factor 1 in 1975 that in 1977. Again, perhaps living longer with inflation made the 1977 personnel more aware of the impact that promotions, assignments, and

TABLE XI

1975 QOAFL Survey
Principal Components Results
(Entire Security Police Survey Population)

Correlation Matrix

Question	11	12	17	19	25	32	36	40
12	.485							
17	.273	.256						
19	.288	.213	.300					
25	.247	.267	.203	.488				
32	.264	.308	.273	.420	.382			
36	.166	.144	.249	.439	.494	.456		
40	.350	.246	.299	.381	.393	.429	.485	
46	.224	.127	.120	.236	.283	.202	.289	.334

Factor	Eigen Value	% of Variation
1	3.508	39.0
2	1.182	13.1

Factor Loadings

Question	Factor 1	Factor 2
Q11-Economic Standard Satisfaction	.158	.806
Q12-Economic Security Satisfaction	.084	.829
Q17-Free Time Satisfaction	.288	.492
Q19-Work Satisfaction	.682	.223
Q25-Leadership/Supervision Satisfaction	.718	.165
Q32-Equity Satisfaction	.622	.304
Q36-Personal Growth Satisfaction	.816	.010
Q40-Personal Standing Satisfaction	.663	.299
Q46-Health Satisfaction	.505	.091

TABLE XII

1977 QOAFL Survey
Principal Components Results
(Entire Security Police Survey Population)

Correlation Matrix

Question	11	12	17	19	25	32	36	40
12	.508							
17	.234	.198						
19	.327	.258	.326					
25	.215	.173	.370	.428				
32	.293	.349	.183	.519	.385			
36	.457	.286	.327	.424	.444	.356		
40	.385	.335	.300	.425	.488	.440	.679	
46	.280	.226	.281	.254	.190	.337	.363	.387

Factor	Eigen Value	% of Variation
1	3.818	42.4
2	1.070	11.9

Factor Loadings

Question	Factor 1	Factor 2
Q11-Economic Standard Satisfaction	.199	.803
Q12-Economic Security Satisfaction	.080	.837
Q17-Free Time Satisfaction	.599	.066
Q19-Work Satisfaction	.678	.235
Q25-Leadership/Supervision Satisfaction	.800	-.018
Q32-Equity Satisfaction	.551	.377
Q36-Personal Growth Satisfaction	.664	.392
Q40-Personal Standing Satisfaction	.695	.380
Q46-Health Satisfaction	.403	.384

TABLE XIII

1975 QOAFL Survey
Principal Components Results
(Security Police Personnel with Less Than Ten Years Service)

Correlation Matrix

Question	11	12	17	19	25	32	36	40
12	.474							
17	.258	.209						
19	.250	.191	.298					
25	.230	.277	.178	.479				
32	.247	.269	.262	.440	.385			
36	.104	.086	.213	.432	.493	.435		
40	.318	.237	.297	.339	.363	.420	.464	
46	.230	.160	.124	.247	.345	.246	.354	.387

Factor	Eigen Value	% of Variation
1	3.444	38.3
2	1.249	13.9

Factor Loadings

Question	Factor 1	Factor 2
Q11-Economic Standard Satisfaction	.132	.822
Q12-Economic Security Satisfaction	.087	.815
Q17-Free Time Satisfaction	.298	.443
Q19-Work Satisfaction	.678	.197
Q25-Leadership/Supervision Satisfaction	.709	.175
Q32-Equity Satisfaction	.642	.267
Q36-Personal Growth Satisfaction	.828	-.076
Q40-Personal Standing Satisfaction	.644	.299
Q46-Health Satisfaction	.559	.137

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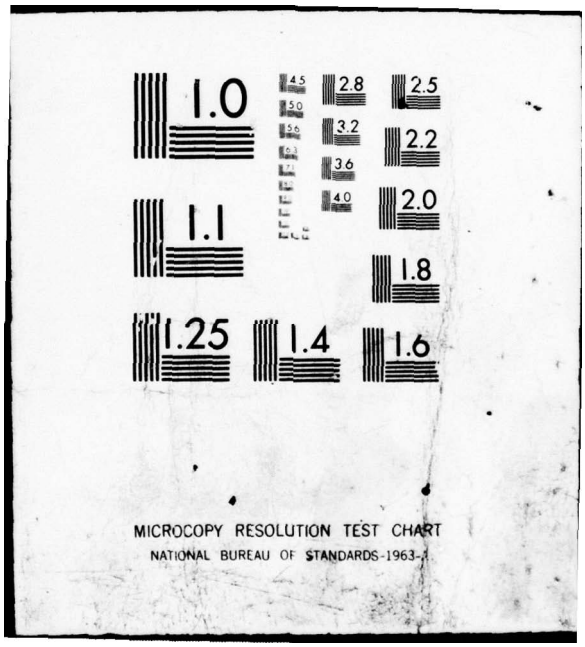

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MICROCOPY RESOLUTION TEST CHART
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TABLE XIV

1977 QOAFL Survey
Principal Components Results
(Security Police Personnel with Less Than Ten Years Service)

Correlation Matrix

Question	11	12	17	19	25	32	36	40
12	.479							
17	.214	.153						
19	.287	.248	.346					
25	.161	.189	.410	.367				
32	.259	.373	.170	.454	.297			
36	.436	.230	.307	.367	.410	.245		
40	.362	.286	.245	.372	.454	.363	.645	
46	.269	.220	.248	.237	.168	.374	.348	.374

Factor	Eigen Value	% of Variation
1	3.566	39.6
2	1.132	12.6

Factor Loadings

Question	Factor 1	Factor 2
Q11-Economic Standard Satisfaction	.134	.751
Q12-Economic Security Satisfaction	-.002	.797
Q17-Free Time Satisfaction	.694	.026
Q19-Work Satisfaction	.572	.349
Q25-Leadership/Supervision Satisfaction	.792	.055
Q32-Equity Satisfaction	.297	.593
Q36-Personal Growth Satisfaction	.637	.393
Q40-Personal Standing Satisfaction	.621	.442
Q46-Health Satisfaction	.311	.491

assignment location had on their entire lives, not just on their position in their work environment. Perhaps, too, the institution of the WAPS method of promotion, the concept of 'up-or-out,' and the increased drive to institute DOPMA emphasized to all personnel that to not get promoted could indeed threaten individuals' future economic standard and security.

In summary, two factors explain over half of the total variation for the Quality of Life Indicators. The two factors are classified as work and economic factors. For 1975 personnel, Health and Equity satisfaction were considered more a part of the work factor than by 1977 personnel, who placed them increasingly as part of the economic factor. Also, 1977 personnel considered Free Time satisfaction more a part of the work factor, indicating increased importance that these personnel put on the scheduling and allowance of their free time by their organizations.

V REVIEW, CONCLUSIONS, AND RECOMMENDATIONS

This final chapter will review the analysis results from the last chapter, draw some conclusions based on those results, and suggest further areas of study which might yield additional useful information about the nature of job satisfaction and career intent for Security Police personnel. Information of this kind could be very useful for Security Police officials trying to initiate and implement job enrichment programs, and could possibly be of use to Air Force personnel program officials in general.

Review

The analysis results reported in the preceding chapter were obtained using four different analytical techniques: automatic interaction detection (AID), t-test of significance, multiple linear regression, and principal component analysis. These techniques were used to determine what factors made up the job satisfaction and career intention variables for 1975 and 1977 Security Police personnel, and also identified areas of change between these two years.

AID analysis distinguished several differences in response patterns between 1975 and 1977 personnel. The most notable changes were the differences in satisfaction with the Quality of Life Indicators of Health, Economic Security and Equity. Respondents from 1977 who expressed lower satisfaction with these aspects of their lives also expressed more indecision and negative intent about making the Air Force a career. Also, differences were noted in the area of training where

1975 personnel indicated more dissatisfaction with the adequacy of basic training in preparing airmen for their first duty assignment, while 1977 personnel expressed similar feelings about technical school training. Finally, 1975 personnel felt more strongly that senior NCOs were given jobs with appropriate responsibility and that their supervisors had more favorable influence on their organizations.

The t-test of significance was used to test all available variables to see if significant differences existed between the response means of any of the variables. This analysis showed the same pattern of feelings about the quality of training that was brought out with the AID analysis, but only reflected less satisfaction with the Equity and Economic Security aspects of 1977 personnel's lives (and did not reflect a significant change in Health satisfaction). The t-test results showed that 1977 personnel had more favorable opinions about the Leadership and Supervision aspects of their jobs, felt that their grades were more appropriate for the work they were doing, and indicated that they wanted jobs with greater responsibility than their current jobs. Finally, the test also showed that 1977 personnel perceived to a greater degree that individuals could get more of an even break in civilian life than in the Air Force.

Regression analysis was used to build descriptive models trying to explain the variance for job satisfaction and career intention. The primary variables affecting job satisfaction for both 1975 and 1977 personnel were found to be job challenge, feelings that individuals' jobs were preparing

them to assume future positions of greater responsibility, and satisfaction with work aspects of life. Respondents from the 1975 survey were also consistent with a fourth variable of whether or not an Air Force base was a desirable place to live. The primary variables affecting career intention for both 1975 and 1977 personnel were found to be time in service and satisfaction with Work aspects of life/job satisfaction. For 1975 personnel, additional variables were feelings about whether an Air Force base was a desirable place to live and feelings about whether an individual could get more of an even break in civilian life. For 1977 personnel, additional variables were satisfaction with Economic Standard and number of dependents. Regression on personnel with less than ten years service showed that for 1975 respondents, satisfaction with Personal Growth replaced job satisfaction as a primary variable. Grade replaced time in service as a primary variable for 1977 personnel with less than ten years service, and the relationship was such that as grade rose, intent to make the Air Force a career declined.

Principal component analysis was performed on the nine Quality of Air Force Life Indicators to see if there was any change in the way the two survey year groups considered these indicators. Two factors were found that explained over half of the total variation, and were classified as the work and economic factors. Factor loadings indicate that respondents to the 1975 survey considered the Health and Equity indicators more a part of the work factor than 1977 respondents; and that 1977 personnel considered the Free Time indicator as

more a part of the work factor.

Conclusions

On the basis of the analysis results listed in the previous chapter and reviewed immediately preceding, the writer was able to draw several conclusions about the career intention and job satisfaction of Security Police personnel for 1975 and 1977. These conclusions are based primarily upon the analytical results, but are also tempered by the writer's emotions in interpreting the data and by the writer's previous experiences in and out of the Security Police field.

The primary conclusion drawn is that,for Security Police personnel, the overall level of job satisfaction and the proportion of personnel expressing the intention of making the Air Force a career are essentially unchanged between 1975 and 1977. This conclusion is not meant to imply that the increased attention paid to the Security Police was a failure and a waste of time and money; but, rather, it is suggested that if increased attention had not been given to the Security Police, the results for the 1977 personnel could have been much worse than for 1975. Reasons for this implication are contained in the following paragraphs.

A second conclusion, of some importance, is that the Security Police field in 1977 is a better career field than In 1975. This increase in quality is reflected by the better educated personnel in the field, the increased satisfaction with the leadership and supervision found on the job, the increased feelings about having the freedom to do the job well,

and the increased desire by personnel to have jobs with greater responsibility. These changes in opinion certainly do not reflect a force that is 'going downhill.' However, this positive movement in the career field is offset by other factors not controllable by the Security Police.

The third conclusion is that, with respect to job satisfaction and career intent, 1977 Security Police personnel perceived declines in the overall Economic and Equity aspects of their lives which were enough to neutralize the perceived gains in satisfaction with their jobs. The idea is that there was a perceived decline in the satisfaction of individuals' basic needs that was sufficient to counteract the gains made in satisfying their higher level needs on the job. For example, since 1974 the military's pay raises have been 'capped' at several percentage points below the officially recognized national rate of inflation, and the value of the Air Force's different systems and policies of promotion (including up-or-out, WAPS, controlled OERs, and the future DOPMA program) have been hotly debated. These factors directly influence personnel's subsistence and existence in the Air Force. Remembering that the satisfaction of basic needs is of more importance than that of other needs, then the decline in the satisfaction of these needs would show up in either a leveling off or decline in job satisfaction and career intent, which was observed.

Overall, the Security Police personnel in 1977 showed more satisfaction with the work aspects of their jobs, positively reflecting the time, effort, and money which has been

put into the career field. If this increased attention had been the only thing to change, this writer feels that a significant increase in job satisfaction and career intent would have resulted. However, other things did change, such as the nation's economy (with inflation) and other Air Force programs, and these changes had a negative effect on job satisfaction and career intent. Thus, the overall result was that Security Police personnel did not show evidence of significantly increased or decreased changes in job satisfaction or career intent between 1975 and 1977.

Recommendations

The writer recommends further research into the training of Security Police personnel and a restructuring of the questions making up the job satisfaction measure. The changes noted about the decrease in the adequacy of Technical School Training in preparing airmen for their first duty assignment could be of some importance. Unfortunately, the question does not cover whether the inadequacy concerns the quality of training received, or something more basic such as having the right clothing, licenses, etc. The quality and total preparedness of new Security Police personnel coming out of Technical School is very important and any perceived inadequacies should be checked out thoroughly.

The job satisfaction measure is made up of four questions which all ask about the individuals' feelings toward their "jobs." The writer feels this use of the word is not clear.

Does "job" refer to each individual's position in their career field, or does it merely refer to being in the Air Force at all? Perhaps two separate job satisfaction measures would be more appropriate than one. One measure could be asked and computed using 'being in the Air Force' as the job reference while another would use the career field (or actual duty position held) as the job reference. Using this method, a researcher, for instance, might be able to show that crosstraining discontented personnel who are not totally adverse to being in the Air Force to another position or career field might eliminate some of the high costs of recruiting and training brand new personnel.

One final recommendation is that further studies done using Security Police personnel as the subjects should endeavor to get a larger sample base than was obtained during the 1975 and 1977 QOAFL surveys. A larger sample base would certainly be more representative of the force, and would add more credibility to any resulting findings.

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APPENDIX A

Selected Questions From The USAF Quality of Air Force Life Surveys of 1975 and 1977

The following questions were extracted from the 1975 and 1977 Air Force Quality of Air Force Life Surveys and used as the variables in the course of this study.

Question

1. What is your present active duty grade?

   A. Colonel
   B. Lt Colonel
   C. Major
   D. Captain
   E. First Lieutenant
   F. Second Lieutenant
   G. Warrant Officer
   H. Chief Master Sergeant
   I. Senior Master Sergeant
   J. Master Sergeant
   K. Technical Sergeant
   L. Staff Sergeant
   M. Sergeant
   N. Senior Airman
   O. Airman First Class
   P. Airman
   Q. Airman Basic

2. What is your command of assignment (the command that maintains your personnel records)?

   A. Alaskan Air Command
   B. United States Air Force Academy
   C. Aerospace Defense Command
   D. Unites States Air Forces in Europe
   E. Air Force Accounting and Finance Center
   F. Air Force Logistics Command
   G. Air Force Systems Command
   H. Air Reserve Personnel Center
   I. Air Training Command
   J. Air University
   K. Headquarters Air Force Reserve
   L. Headquarters USAF
   M. Air Force Communications Service
   N. Air Force Data Automation Agency
   O. Headquarters Command
   P. Military Airlift Command
   Q. Pacific Air Forces

R. Strategic Air Command
S. Tactical Air Command
T. USAF Security Service
U. Air Force Military Personnel Center
V. Air Force Inspection and Safety Center
W. Air Force Audit Agency
X. Air Force Office of Special Investigations
Y. Other

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

A. Less than 1 year
B. 1 year but less than 2
C. 2 years but less than 3
D. 3 years but less than 4
E. 4 years but less than 5
F. 5 years but less than 6
G. 6 years but less than 7
H. 7 years but less than 8
I. 8 years but less than 9
J. 9 years but less than 10
K. 10 years but less than 11
L. 11 years but less than 12
M. 12 years but less than 13
N. 13 years but less than 14
O. 14 years but less than 15
P. 15 years but less than 16
Q. 16 years but less than 17
R. 17 years but less than 18
S. 18 years but less than 19
T. 19 years but less than 20
U. 20 years but less than 21
V. 21 years but less than 22
W. 22 years but less than 23
X. 23 years but less than 24
Y. 24 years but less than 25
Z. 25 years but less than 26
Ø. 26 years but less than 27
1. 27 years but less than 28
2. 28 years but less than 29
3. 29 years but less than 30
4. 30 years or more

4. What is your highest level of education <u>now</u> (include accepted GED credits)?

A. Some high school (did not graduate)
B. High school graduate (no college)
C. Trade or technical school (no college)

D. Some college, but less than one year
E. One year college, but less than two
F. Two years college, but less than three (including two-year associate degree)
G. Three years or more college, no degree
H. Registered nurse diploma program
I. College degree (BS, BA, or equivalent, except LL.B)
J. Graduate work beyond bachelor degree (no master's degree)
K. Master's degree
L. Postgraduate work beyond master's degree
M. Doctorate degree (includes LL.B, J.D., D.D.S., M.D., and D.V.M.)

5. What is your marital status?

A. Married
B. Never been married
C. Divorced and not remarried
D. Legally separated
E. Widower/widow

6. How many dependents do you have? Do not include yourself.

A. None
B. One
C. Two
D. Three
E. Four
F. Five
G. Six
H. Seven
I. Eight or more

7. Which one of the following do you consider yourself?

A. Black
B. Spanish or Mexican American
C. American Indian
D. Oriental American
E. White (other than Spanish or Mexican American)
F. Other

8. What is your sex?

A. Male
B. Female

9. Which one of the following best describes your attitude toward making the Air Force a career?

A. Definitely intend to make the Air Force a career
B. Most likely will make the Air Froce a career
C. Undecided
D. Most likely will not make the Air Force a career
E. Definitely do not intend to make the Air Force a career

10. What is your current primary aeronautical rating?

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

The following two questions address the subjects of economic standard and security. Please rate your degree of satisfaction with them based on the descriptions shown below:

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

11. To what degree are you satisfied with the ECONOMIC STANDARD aspects of your life? (Select one of the seven points on the satisfaction scale)

A.....B.....C.....D.....E.....F.....G

Highly Dissatisfied — Neutral — Highly Satisfied

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

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

A.....B.....C.....D.....E.....F.....G

Highly Dissatisfied — Neutral — Highly Satisfied

The following is a list of Federal Holidays:

Jan - New Year's Day
Feb - President's Day
May - Memorial Day
Jul - Independence Day
Sep - Labor Day
Oct - Columbus Day
Oct - Veterans' Day
Nov - Thanksgiving Day
Dec - Christmas Day

13. During the past year how many of these nine holidays were you not able to take off because you were required to be at work in a duty status?

A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days
I. 8 days
J. 9 days

14. Do you hold a second job?

A. No
B. Yes, I work

(1) 1-5 hours per week
(2) 6-10 hours per week
(3) 11-20 hours per week
(4) 21-30 hours per week
(5) Over 30 hours per week

15. Does your spouse work?

A. Not applicable, I am not married, or I am legally separated.

B. I am married and my spouse

(1) Resides with me, and has a paying job
(2) Resides with me, and does not work
(3) Does not reside with me, and has a paying job
(4) Does not reside with me, and does not work

16. The main reason that I have a second job, and/or that my spouse works is that we have to in order to make ends meet.

A. Not applicable
B. Strongly disagree
C. Disagree
D. Undecided
E. Agree
F. Strongly agree

Please rate the degree of satisfaction with free time based on the following description:

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

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

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

18. An Air Force base is a desirable place to live.

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

Please rate the degree of satisfaction with work based on the following description:

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

19. To what degree are you satisfied with the WORK aspects of your life?

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

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

A. Not at all challenging
B. Not very challenging
C. Somewhat challenging
D. Challenging
E. Very challenging

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

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

22. Do you want a job which has greater responsibility than your current job?

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

23. Which one of the following factors do you consider the most essential for having a satisfying job?

A. Challenging work
B. Recognition for my work
C. Sense of achievement
D. Encouragement to use initiative and creativity
E. Having responsibility for a job
F. Having a good supervisor

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

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

Please rate your degree of satisfaction with leadership/supervision based on the following description:

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

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

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

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

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

27. What kind of influence does your immediate supervisor have on your organization?

A. Very favorable
B. Favorable
C. Neutral
D. Unfavorable
E. Very unfavorable

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

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

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

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

30. What is your opinion of discipline in today's Air Force?

A. Too strict
B. Somewhat strict
C. About right
D. Somewhat lenient
E. Too lenient

31. The Air Force does a good job of keeping me informed about what is going on.

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

Please rate your degree of satisfaction with equity based on the following description:

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

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

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

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

A. My grade is much too high for the work I am doing
B. My grade is somewhat too high for the work I am doing

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

34. An individual can get more of an even break in civilian life than in the Air Force.

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

35. How does your supervisor deal with your women co-workers?

A. Not applicable, there are no women in my unit

B. My supervisor is a woman and she:

(1) Expects more from the women workers than the men
(2) Treats men and women workers the same
(3) Gives women workers the easy jobs, and the hard jobs to the men

C. My supervisor is a man and he:

(1) Expects more from the women workers than the men
(2) Treats men and women workers the same
(3) Gives women workers the easy jobs, and the hard jobs to the men

Please rate your degree of satisfaction with personal growth based on the following description:

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

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

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

37. Air Force training programs do not do a very good job of preparing people to get along with other people.

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

38. How often are you given feedback from your supervisor about your job performance?

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

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

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

Please rate your degree of satisfaction with personal standing based on the following description:

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

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

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

41. Basic Military Training does not do an adequate job of preparing an airman for his first duty assignment.

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

42. Technical School Training does not do an adequate job of preparing an airman for his first duty assignment.

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

43. I have a lot of respect for most of the Senior NCOs (E7-E9) I know.

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

44. Most of the Senior NCOs (E7-E9) understand and are able to communicate with the people who work with them.

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

45. Senior NCOs (E7-E9) are usually given jobs with less responsibility than they should have.

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

Please rate your degree of satisfaction with HEALTH based on the following description:

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

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

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

47. (An artificial variable created by coding 1975 respondents as "1" and 1977 respondents as "Ø")

48. Job satisfaction measure derived from the following questions:

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

(1) All the time
(2) Most of the time
(3) A good deal of the time

(4) About half of the time
(5) Occasionally
(6) Seldom
(7) Never

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

(1) I hate it
(2) I dislike it
(3) I don't like it
(4) I am indifferent to it
(5) I like it
(6) I am enthusiastic about it
(7) I love it

C. Which one of the following best tells how you feel about changing your job?

(1) I would quit this job at once if I could
(2) I would take almost any other job in which I could earn as much as I am earning now
(3) I would like to change both my job and my occupation
(4) I am not eager to change my job, but I would do so if I could get a better job
(5) I cannot think of any jobs for which I would exchange
(6) I would not exchange my job for any other

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

(1) No one likes his job better than I like mine
(2) I like my job much better than most people like theirs
(3) I like my job better than most people like theirs
(4) I like my job about as well as most people like theirs
(5) I dislike my job more than most people dislike theirs
(6) I dislike my job much more than most people dislike theirs
(7) No one dislikes his job more than I dislike mine

APPENDIX B

Summary of Responses to Selected Questions From The Quality of Air Force Life Surveys

The following is a summary of selected responses from the Quality of Air Force Life Surveys. The code column given for some questions provides a key allowing the reader to define the codes shown in the AID trees.

Question		1975	1977
4.	What is your highest level of education now (include accepted GED credits)?	%	%
	A. Some high school (did not graduate)	5.1	.8
	B. High school graduate (no college)	53.2	49.8
	C. Trade or technical school (no college)	2.8	2.6
	D. Some college, but less than one year	17.7	24.3
	E. One year college, but less than two	12.0	10.3
	F. Two years college, but less than three (including two-year associate degree)	3.7	4.0
	G. Three years or more college, no degree	1.9	.8
	H. College degree (BS, BA, or equivalent, except LL.B)	.8	2.9
	I. Graduate work beyond bachelor degree (no master's degree)	1.2	3.3
	J. Postgraduate work beyond master's degree	.2	.3
6.	How many dependents do you have? Do not include yourself.		
	A. None	38.1	44.6
	B. One	18.6	14.9
	C. Two	20.2	16.3
	D. Three	13.8	15.6
	E. Four	6.2	7.1
	F. Five	2.4	.5

Question (Continued)		1975	1977
		%	%
	G. Six	.5	.5
	H. Seven	0.0	.3
	I. Eight or more	.2	.3
8.	What is your sex?		
	A. Male	97.7	95.2
	B. Female	2.3	3.9
9.	Which one of the following best describes your attitude toward making the Air Force a career?		
Code			
1	A. Definitely intend to make the Air Force a career	26.5	25.6
2.	B. Most likely will make the Air Force a career	18.3	12.3
3	C. Undecided	22.7	25.4
4	D. Most likely will not make the Air Force a career	15.1	16.0
5	E. Definitely do not intend to make the Air Force a career	17.4	19.8

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

11.	To what degree are you satisfied with the ECONOMIC STANDARD aspects of your life? (Select one of the seven points on the satisfaction scale).		
	A. Highly Dissatisfied	13.6	10.2
	B.	8.2	9.9
	C.	17.9	21.1
	D. Neutral	24.3	29.1

Question (Continued)			1975	1977
			%	%
	E.		20.2	18.0
	F.		11.0	5.7
	G.	Highly Satisfied	4.7	5.3

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

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

Code				
1	A.	Highly Dissatisfied	11.5	6.4
2	B.		4.6	9.2
3	C.		9.9	14.5
4	D.	Neutral	19.6	23.5
5	E.		24.3	23.2
6	F.		16.9	10.8
7	G.	Highly Satisfied	13.1	11.8

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

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

	A.	Highly Dissatisfied	22.4	12.1
	B.		9.6	8.1
	C.		16.4	18.3
	D.	Neutral	19.4	27.2
	E.		12.9	14.7
	F.		12.8	10.3
	G.	Highly Satisfied	6.2	9.1

Question (Continued)	1975 %	1977 %
18. An Air Force base is a desirable place to live.		
A. Strongly Disagree	21.7	24.8
B. Disagree	26.0	25.0
C. Undecided	24.7	19.6
D. Agree	24.9	28.1
E. Strongly Agree	2.7	1.9

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

19. To what degree are you satisfied with the WORK aspects of your life?		
A. Highly Dissatisfied	21.6	23.9
B.	10.7	11.6
C.	14.0	10.7
D. Neutral	21.1	19.1
E.	12.4	16.8
F.	11.3	11.6
G. Highly Satisfied	8.6	6.1
20. How do you evaluate your present Air Force job?		
A. Not at all challenging	31.9	22.6
B. Not very challenging	11.8	26.6
C. Somewhat challenging	23.3	21.2
D. Challenging	18.3	21.4
E. Very challenging	14.7	8.0

Question (Continued)	1975 %	1977 %
21. Do you think your present job is preparing you to assume future positions of greater responsibility?		
A. Definitely no	23.9	24.1
B. Probably no	18.2	16.3
C. Undecided	10.9	14.4
D. Probably yes	29.4	26.1
E. Definitely yes	16.1	18.3
22. Do you want a job which has greater responsibility than your current job?		
A. Definitely no	4.2	.6
B. Probably no	4.8	5.9
C. Not sure	14.5	11.4
D. Probably yes	30.2	27.5
E. Definitely yes	45.5	54.5
24. The Air Force requires me to participate in too many activities that are not related to my job.		
A. Strongly disagree	6.3	10.4
B. Disagree	29.5	37.1
C. Undecided	13.5	19.3
D. Agree	27.4	15.9
E. Strongly agree	23.0	15.8

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

Question (Continued)			1975 %	1977 %
25.	To what degree are you satisfied with the LEADERSHIP/ SUPERVISION aspects of your life?			
Code				
1	A.	Highly Dissatisfied	14.5	10.8
2	B.		9.3	9.3
3	C.		13.1	11.9
4	D.	Neutral	23.7	15.7
5	E.		22.2	21.6
6	F.		10.2	12.9
7	G.	Highly Satisfied	5.9	16.7
26.	What is your opinion of the quality of leadership in the Air Force?			
	A.	Excellent	1.9	4.4
	B.	Above average	19.4	21.8
	C.	Average	36.5	37.2
	D.	Below average	21.6	25.1
	E.	Poor	16.5	10.6
27.	What kind of influence does your immediate supervisor have on your organization?			
Code				
1	A.	Very favorable	15.2	10.3
2	B.	Favorable	30.3	33.8
3	C.	Neutral	24.7	39.0
4.	D.	Unfavorable	12.6	10.3
5	E.	Very unfavorable	8.2	4.7
28.	Are you given the freedom you need to do your job well?			
	A.	Never	16.1	7.4
	B.	Seldom	18.8	22.4

Question (Continued)		1975 %	1977 %
Code (Continued)			
3	C. Sometimes	30.3	30.0
4	D. Often	19.8	20.0
5	E. Always	14.3	19.3
29.	Does your immediate supervisor give you recognition for a job well done?		
	A. Never	15.8	9.5
	B. Seldom	20.2	25.3
	C. Sometimes	32.9	28.7
	D. Frequently	17.9	24.2
	E. Always	12.5	11.3
30.	What is your opinion of discipline in today's Air Force?		
	A. Too strict	12.8	7.4
	B. Somewhat strict	13.2	17.3
	C. About right	16.6	26.1
	D. Somewhat lenient	22.7	29.5
	E. Too lenient	29.3	17.6
31.	The Air Force does a good job of keeping me informed about what is going on.		
	A. Strongly disagree	10.8	15.5
	B. Disagree	40.4	34.3
	C. Undecided	17.9	13.0
	D. Agree	29.7	32.9
	E. Strongly agree	.5	2.5

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

Question (Continued)			1975 %	1977 %
32. To what degree are you satisfied with the EQUITY aspects of your life?				
Code				
1	A.	Highly Dissatisfied	12.5	12.1
2	B.		9.2	9.7
3	C.		13.8	17.3
4	D.	Neutral	19.5	25.3
5	E.		20.1	15.2
6	F.		15.6	12.0
7	G.	Highly Satisfied	8.7	7.4
33. Do you feel that the work you are doing is appropriate to the grade you hold?				
	A.	My grade is much too high for the work I am doing	5.7	9.4
	B.	My grade is somewhat too high for for the work I am doing	10.7	13.4
	C.	My grade is about right for the work I am doing	46.8	56.4
	D.	My grade is somewhat too low for the work I am doing	18.8	15.6
	E.	My grade is much too low for the work I am doing	5.1	4.2
34. An individual can get more of an even break in civilian life than in the Air Force.				
	A.	Strongly disagree	2.7	4.7
	B.	Disagree	27.7	20.9
	C.	Undecided	29.7	32.1
	D.	Agree	30.8	28.0
	E.	Strongly agree	7.8	13.4

Question (Continued)	1975 %	1977 %

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

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

A. Highly Dissatisfied	10.7	8.2
B.	8.4	9.4
C.	13.1	18.4
D. Neutral	23.0	22.1
E.	23.9	21.1
F.	14.8	12.7
G. Highly Satisfied	5.0	7.2

37. Air Force training programs do not do a very good job of preparing people to get along with other people.

A. Strongly disagree	6.1	3.6
B. Disagree	28.7	28.5
C. Undecided	23.2	25.9
D. Agree	30.4	34.6
E. Strongly agree	10.9	6.5

38. How often are you given feedback from your supervisor about your job performance?

A. Never	11.5	11.0
B. Seldom	25.0	18.9
C. Sometimes	35.6	41.5
D. Frequently	21.3	19.8
E. Very frequently	6.0	7.8

Question (Continued)			1975 %	1977 %
39.	How often do you and your supervisor get together to set your personal performance objectives?			
	A.	Never	33.8	22.2
	B.	Seldom	25.1	22.1
	C.	Sometimes	20.7	27.3
	D.	Frequently	17.2	20.8
	E.	Very frequently	2.5	6.7

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

40.	To what degree are you satisfied with the PERSONAL STANDING aspects of your life?			
	A.	Highly Dissatisfied	13.7	6.6
	B.		8.2	7.4
	C.		12.1	11.0
	D.	Neutral	16.7	24.9
	E.		23.1	25.2
	F.		19.6	15.0
	G.	Highly Satisfied	5.6	9.1
41.	Basic Military Training does not do an adequate job of preparing airmen for their first duty assignment.			
Code				
1	A.	Strongly disagree	5.5	6.3
2	B.	Disagree	22.1	34.0
3	C.	Undecided	11.6	15.0
4	D.	Agree	36.8	34.3
5	E.	Strongly agree	23.7	9.5

Question (Continued)		1975 %	1977 %
42.	Technical School Training does not do an adequate job of preparing an airman for his first duty assignment.		
Code			
1	A. Strongly disagree	7.5	4.8
2	B. Disagree	28.8	24.1
3	C. Undecided	14.3	15.1
4	D. Agree	36.8	41.4
5	E. Strongly agree	11.8	12.8
43.	I have a lot of respect for most of the Senior NCOs (E7-E9) I know.		
	A. Strongly disagree	9.8	7.5
	B. Disagree	17.6	16.3
	C. Undecided	15.1	15.8
	D. Agree	46.5	47.7
	E. Strongly agree	10.3	11.7
45.	Senior NCOs (E7-E9) are usually given jobs with less responsibility than they should have.		
Code			
1	A. Strongly disagree	7.4	9.3
2	B. Disagree	34.7	31.2
3	C. Undecided	29.9	26.7
4	D. Agree	19.4	23.5
5	E. Strongly agree	7.2	8.0

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

Question (Continued)			1975 %	1977 %
46. To what degree are you satisfied with the HEALTH aspects of your life?				
Code				
1	A.	Highly Dissatisfied	9.6	5.0
2	B.		4.0	7.9
3	C.		10.1	13.0
4	D.	Neutral	13.4	16.3
5	E.		23.4	20.4
6	F.		21.5	16.4
7	G.	Highly Satisfied	16.5	18.8
48. Job Satisfaction Measure				
Code				
4	4.	Extremely low job satisfaction	2.5	2.1
5	5.		2.9	2.6
6	6.		2.5	3.5
7	7.		2.9	2.4
8	8.		2.1	2.1
9	9.		3.0	2.9
10	10.		2.8	2.7
11	11.		4.7	6.5
12	12.		4.1	2.7
13	13.		4.2	5.2
14	14.		4.3	6.1
15	15.		3.4	3.8
16	16.	Average Job Satisfaction	5.9	6.5

Question (Continued)		1975 %	1977 %
17	17.	6.4	3.8
18	18.	9.0	6.4
19	19.	10.3	9.0
20	20.	7.3	4.0
21	21.	3.3	6.7
22	22.	6.7	7.1
23	23.	4.1	4.2
24	24.	2.6	3.0
25	25.	2.2	.9
26	26.	1.2	1.4
27	27	.5	1.9
28	28.	.1	.4

VITA

Peter E. King was born in San Juan, Puerto Rico on September 13, 1946. He graduated from high school in Philadelphia, Pennsylvania in 1964 and attended The College of William and Mary in Virginia from which he graduated in 1968 with a Bachelor's Degree in Chemistry.

He enlisted in the Air Force in 1968 and served as a Medical Laboratory Technician until acceptance into Officer Training School and Undergraduate Pilot Training in 1969. After completing pilot training at Columbus Air Force Base, Mississippi he operationally flew the WC-130B with the USAF "Hurricane Hunters" at both Ramey Air Base, Puerto Rico and Keesler Air Force Base, Mississippi; and the AC-130A "Spectre" gunship at Korat Royal Thai Air Force Base, Thailand.

In 1975, he was involuntarily entered into the rated supplement as a Security Police shift supervisor/operations officer at Dover Air Force Base, Delaware. He entered the Air Force Institute of Technology in June 1977.

He is married to the former Janet Grace Bender of Jackson, Mississippi. They have a daughter, Jennifer, and a son, Peter ("Chip").

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