THE EFFECTS OF PERCEIVED OVERQUALIFICATION ON JOB SATISFACTION, ORGANIZATIONAL COMMITMENT, AND TURNOVER: A STUDY OF AFIT GRADUATES

THESIS

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AFIT/GAQ/ENG/03-01

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Thomas E. Hoskins

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Abstract

The U.S. Air Force provides multiple programs to increase the educational skills of its workforce. This study focuses on the Air Force Institute of Technology (AFIT) graduate level, in-residence degree program. The Air Force is making a significant investment in the education of its members. Studies on perceived overqualification, overeducation, and match quality suggest that utilization plays a role in an individual's job satisfaction and organizational commitment. Job satisfaction and organizational commitment levels can be used as predictors of turnover. This research studies the levels of perceived overqualification in AFIT graduates and how it effects their job satisfaction, organizational commitment, and turnover. Data for this research was collected using an on-line survey tool, Facilitate.com. Analysis indicates that US Air Force officers who perceived that they were overqualified for their AFIT follow-on assignment did experience lower levels of job satisfaction and organizational commitment. The hypotheses, results, and analysis of this study are presented along with recommendations and suggestions for future research.

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I. Introduction

Chapter Overview

This chapter describes the fundamental motivation for my research. It provides background information to explain the history of the subject, the problem statement, the scope of the research, the variables of interest, an explanation of the research objectives, the primary research questions, and a brief introduction to the hypotheses. It concludes with a brief description of the methodology used, the expected gain, and other support.

Background

The welfare of workers ties to the welfare of the organization. This statement has been the catalyst for many human resource studies. Human resources must not only be obtained but also retained. Firms have recognized the importance of retaining the current workforce. Retaining an existing worker is far more cost effective than hiring and training a new one. Many firms have instituted extensive employee education programs as a non-monetary benefit for the development of their employees. Employees can further their education and increase their qualifications through these programs. Many firms establish these programs assuming that the firm will benefit from the increases in workforce education. Are employers realizing the benefits from the education programs in which they anticipate?

Firms are making significant investments in their employees. Some firms encourage additional education by provide partial reimbursement, while others provide full reimbursement. The Air Force (AF) provides multiple education programs encouraging education. One such program, the Air Force Institute of Technology (AFIT) provides graduate education to Department of Defense members. More than 100 students per year attend AFIT full time. The program is provided at no charge to the student. While in attendance, students continue to receive their salary. The costs to the AF are significant. This is only one of the many programs provided by the Air Force.

The skilled individual that emerges from one of these programs also must be retained and utilized. Every employer wants to utilize its skilled employees to the maximum degree possible. This is not only good business sense but how an organization utilizes these resources has a direct impact on the retention of the resource. Studies on perceived overqualification, overeducation, and match quality have shown that poor utilization of resources affects the turnover of resources. Understanding the effects of these variables may present opportunities for organizations to improve the retention of this group and make informed decisions concerning employee education and placement.

Problem

The Air Force is offering multiple education programs to increase the educational skills of its workforce. This study focuses on the Air Force Institute of Technology (AFIT) and its in-residence program. Retention of the workforce in general continues to be an issue of focus within the Air Force. There have been many studies focusing on

specific areas of retention such as pilots, engineers, and scientists. This study will attempt to test hypotheses derived from extant research in concerns with utilization of employees to determine the effects of an employee education program on job satisfaction, commitment, and turnover. The effects of underutilization, such as perceived overqualification, overeducation, and poor match quality, on job satisfaction and turnover are well documented. Are these new resources being utilized or may underutilization of these resources add to the retention problems of the Air Force? Within the AFIT sample:

1. Are there significant levels of perceived overqualification amongst AFIT graduates?
2. Do the levels of perceived overqualification correlate to reduced job satisfaction and lower organizational commitment?
3. Do the levels of job satisfaction and organizational commitment correlate to higher turnover within the group?

Scope

There have been extensive studies on the effects of match quality, perceived overqualification, and overeducation on job satisfaction, and retention. Job matching is a process that attempts to match a person's qualifications, such as educational attainment and experience, with the requirements for adequate performance of the job. Match quality refers to the success of this process. Perceived overqualification occurs when an individual believes that his or her skill set exceeds the requirements of the job (Johnson and Johnson, 2001). Overeducation refers to the possession by the worker of educational attainment in excess of the educational requirements of a job. Research shows that match quality, perceived overqualification, and overeducation affect job satisfaction,

organizational commitment, and turnover (e.g. Hersch, 1991; Johnson and Johnson, 2001; Tsang, 1985 and 1987).

This study will focus on an employee education program. The program to be studied will be the Air Force AFIT in-residence program. The AFIT program provides a sample in which pay and promotion are relatively constant. Participant's pay and promotion are based on time in grade and is relatively standardized. This study will be testing the generalizability of perceived overqualification theory on this new sample. The testing will be accomplished using two generally accepted theories of turnover, job satisfaction and organizational commitment.

Variables

The following is a summation of the demographic, independent, and dependent variable collected from each participant. This collection of variables was used to develop the research questions to follow.

Demographic Variable. Thirteen demographic variables were collected for each participant in this study. They are as follows:

1. Rank.
2. Total Years in Service (Tenure).
3. Age.
4. Sex.
5. Race.

6. Education Level.
7. Marital Status.
8. Air Force Specialty Code (AFSC).
9. Experience in career field (AFSC).
10. Experience prior to attending AFIT.
11. Years between undergraduate and AFIT participation.
12. Year of Graduation.
13. Eligibility to separate from the Air Force.

Independent Variable. Two independent variables were collected for each participant in this study. They are as follows:

1. Perceived Mismatch Index.
2. Perceived No Growth Index.

Perceived no-grow and perceived mismatch are defined by Johnson and Johnson (2000 a & b) in their research on perceived overqualification and job satisfaction.

Dependent Variables. Four dependent variables were collected for each participant in this study. They are as follows:

1. Work Satisfaction Index.
2. Supervision Satisfaction Index.
3. Pay Satisfaction Index.
4. Promotion Satisfaction Index.
5. Organizational Commitment Index.

6. Turnover intent.
7. Efforts to find new job outside the Air Force.
8. Efforts to find a new job within the Air Force.
9. Intent to stay until retirement.

All of the independent variables use indices that have been defined in previous research. The Work, Supervision, Pay and Promotion Satisfaction Indexes were taken from the Job Description Index defined by Smith, Kendall, and Hulin (1969) in their research on job satisfaction. The Organizational Commitment Index was defined by Porter, Steers, and Mowday (1974) in their research on organizational commitment and turnover.

Research Objectives

Based on the literature review and the problem statement the following research objectives were developed:

1. Describe and report the demographic, perceived overqualification levels, organizational commitment levels, and job satisfaction levels of the AFIT graduate.
2. Determine if the correlations between perceived overqualification and organizational commitment and job satisfaction for this population are consistent with those described in pervious research.
3. Describe and report the relationships between the demographic variables and the dependent variables.

4. Determine the correlation between the independent variables and the dependent variables.

Research Questions

The following research questions will be addressed in this study:

1. Are the results of research on perceived overqualification generalizible to this population?
2. How does job satisfaction and organizational commitment relate to turnover?
3. Which independent variables are the best predictors of turnover intent?
4. Which independent variables are the best predictors of efforts to find a new job?
5. Which independent variables are the best predictors of remaining until retirement?

Scope and Limitations of the Research

The following research hypotheses are developed from the literature review in chapter 2. They are presented here for the purpose of introduction to the research.

Hypothesis 1**.** Graduates who report higher levels of POQ report lower levels of job satisfaction.

Hypothesis 2**.** Graduates who report higher levels of POQ report lower levels of commitment.

Hypothesis 3. Graduates who report higher levels of POQ report lower levels of satisfaction with work than other JDI factors. Pay and promotion are held relatively constant for this population sample.

Hypothesis 4**.** Graduates who turnover intent report higher levels of POQ.

Hypothesis 5. Graduates who report intent to search for a job with another employer report higher levels of POQ.

Hypothesis 6. Graduates who report intent to search for a job within the Air Force report higher levels of POQ.

Hypothesis 7. Graduates who report intent to stay 20 years in the Air Force report lower levels of POQ.

Methodology

This study is a deductive study. These hypotheses are based on assumption from previous research. This study intends to test these assumptions within the scope of an employee education program.

This research will use cross-sectional data. Cross-sectional data will be collected with a surveys measuring job satisfaction, organizational commitment, quit intention, and perceived overqualification. The surveys will be administered to a sample of graduates of the AFIT in-residence programs. The data collected will be analyzed using regression and analysis of variance.

Expected Gain

It is expected that the results of this research will support the findings of pervious research on perceived overqualification within this population. For the AF sample, it is hypothesized that for the AFIT participants that experience higher levels of perceived overqualification will experience lower levels of job satisfaction and lower levels of organizational commitment. The lower levels of job satisfaction and organizational commitment are expected to correlate to increased turnover intent, effort to find a new job, and intent to stay 20 years.

Scope and Limitations of the Research

Dr. Gloria Jones Johnson, professor of sociology, Iowa State University, has done extensive studies on perceived overqualification. Her contributions to the field are well documented. She will be acting as a reader on the research committee and has offered her assistance and resources. With her guidance, this research seeks to make a meaningful contribution to the current body of knowledge.

The chapters that follow present: the findings of an in depth literature review (chapter 2), the research methodology utilized (chapter 3), the results of the data collection (chapter 4), and finally the analysis of the results, conclusions, and recommendations (chapter 5).

II. Literature Review

Introduction

In business today, organizations are competing for resources. An organization's ability to obtain resources in the competitive market can determine the organization's success or failure. Employees are one resource that companies must not only obtain but also retain. Competition for skilled workers has increased and obtaining and retaining workers with the right skills mix has become increasingly difficult. Employers must recognize the importance of matching an employee's skills with his or her job and its effects on job satisfaction and retention.

The Air Force has recognized the importance of retaining its workforce. The Air Force Personnel Center (AFPC) tracks workforce retention and conducts studies to understand turnover in the Air Force. The Air Force has also instituted a number of incentives; such as enlistment bonuses for enlisted personnel, fight pay for pilots, professional pay for critical career fields, and pay restructuring to improve retention. The Air Force has also identified a need for more advance degrees in the workforce. The Air Force has made a significant investment in these degree programs, such as AFIT, to encourage the education of its workforce. This investment looks to increase as the Air Force proceeds with new initiatives to increase the number of advance degrees. To protect its investment, the Air Force must recognize that it is competing for resources within the labor market and the effects of perceived overqualification and matching an

employee's skill with his or her job can affect job satisfaction, commitment, and turnover.

Match quality affects job satisfaction (Hersch, 1991). Perceived overqualification has been shown to affect personal job satisfaction negatively (Johnson and Johnson, 2000). Perceived overqualification occurs when an individual believes that his or her skill set exceeds the required qualifications of the job (Johnson & Johnson, 2000). Mismatches due to overeducation or perceived overqualification encourage individuals to search for a better job match, and that search may cause the individual to leave the firm once a better match is found.

This chapter reviews the current state of research in the areas of job satisfaction, perceived overqualification, match quality and overeducation, and organizational commitment as they affect job retention. Content analysis of the research in each area listed above identifies linkages between the constructs. Based on collective findings, I develop hypotheses that improving match quality to reduce the occurrences of overeducation and reducing perceived overqualification in the workforce would improve job satisfaction and organizational commitment and thus improve retention.

Job Satisfaction and Turnover

Job satisfaction is the perception a worker has about his job. It can be expanded to include the perception a worker has for individual aspects of the job. Job satisfaction

may be influenced by many variables. Herzberg's motivation-hygiene theory identified two components of job satisfaction; intrinsic motivators and extrinsic dissatisfiers, or hygiene factors (Herzberg, 1967). Some intrinsic motivators include factors such as achievement, growth opportunities, advancement opportunities, responsibility, meaningful work, and recognition. These are motivators but when not present do not cause high dissatisfaction. Extrinsic dissatisfiers include things such as pay, benefits, working conditions, policies, and procedures. Dissatisfiers do not motivate but if not met result in employee dissatisfaction. Herzberg (1967) stated the employers must meet and maintain a level of what he termed "no dissatisfaction."

Turnover is defined as the voluntary act of quitting by employees. Turnover is costly to an organization. Employers lose their training investment in an employee as well as incur cost associated with the recruitment and hiring of the replacement worker. Mobley (1977) in his development of Turnover Decision Process Model found that there was a strong correlation between the intent to quit and turnover and the intent to quit is the immediate precursor to actual quitting (Mobley and others, 1978).

In the Lee, Mitchell, Holtom, McDaniel and Hill (1999) voluntary turnover study, job satisfaction was identified as a major component of the turnover model. Low job satisfaction, as defined in the turnover model, occurs when a job no longer meets an individual's required intellectual, emotional, or financial needs. Low job satisfaction usually develops over an extended time period, allowing a manager to anticipate and focus on preventing turnover.

In a study of quit data, Clark (2001) found that job satisfaction responses are significantly correlated with future separation and quit probability. He states that "job satisfaction data is a powerful predictor of both separation and quit, even controlling for wages, hours and standard demographic and job variables" (Clark, 2001: 223). Using the quit data from 10,000 individuals in 5500 British households, he identified the aspects of a job that most likely induce separation and quit. He found seven dominant job satisfaction measurements;

1. Job security.
2. Pay.
3. Use of initiative.
4. Relations with supervisors,
5. The work itself,
6. Promotion opportunities,
7. Hours of work.

Clark (2001) also advocates the use of job satisfaction as a suitable index of a poor job match.

Job Descriptive Index (JDI)

The JDI was developed by Smith, Kendall, and Hulin and is presented in their book, *The Measurement of Satisfaction in Work and Retirement*. In this book they establish the JDI for use as a "generally applicable series of measurements of satisfaction" (Smith, Kendall, Hulin, 1969: 10). Many studies have shown that job satisfaction is comprised of multiple factors. Using a single measure of job satisfaction

may allow other factors to influence the results and create measurement errors. This can be overcome by using multiple measures. The JDI uses five measures of different aspects of a job:

1. Satisfaction with the work itself.
2. Satisfaction with supervision.
3. Satisfaction with work.
4. Satisfaction with pay.
5. Satisfaction with other workers on the job.

To measure each aspect, a series of negative and positive adjective statements are presented to the respondent who answer yes, no, or undecided. Each answer is scored based on the response. A yes response to a positive item and a no response to a negative item are worth three points. An undecided response is worth one point. A no response to a positive item and a yes response to a negative item are worth no points. The answers are used to calculate a mean score for each section. A high score indicates satisfaction. Since its creation, the JDI has been used extensively as a tool to measure overall satisfaction. Porter, Steers, and Mowday (1974); Hom, Katerburg, and Hulin (1979); and Johnson and Johnson (2000a & b, 2002) all used the JDI in their research to measure job satisfaction.

Perceived Overqualification (POQ)

"Perceived overqualification is defined as the extent to which an employed individual perceives that he or she; (a) possesses surplus job qualifications, or (b) has limited opportunities to acquire and use new job-related skills (Johnson and Johnson, 2002)." Johnson and Johnson's (2000a & b) research identified two dimensions of perceived overqualification, the perceived lack of growth opportunity and the perceived mismatch. These two dimensions align with two of Hertzberg's intrinsic motivators (needs), growth opportunity and meaningful work. According to the Johnson and Johnson's studies, perceived overqualification may become a source of job dissatisfaction because it destroys motivation and perceptions regarding opportunities for need satisfaction inside the work situation. Hertzberg's theory states that the lack of intrinsic motivators does not cause high dissatisfaction. Hertzberg, et al. (1959), implies that the lack of "motivators" in a job will increase the sensitivity of employees to real or imagined job "hygiene" factors (extrinsic dissatisfiers). In a study of a Midwest American Postal Workers Union, Johnson and Johnson (2000a & b) found evidence that perceived overqualification has a negative effect on job satisfaction. The study found that there was a significant negative relationship between perceived no-grow and job satisfaction and perceived mismatch and job satisfaction (Johnson and Johnson, 2000). Johnson and Johnson (2002) also conducted further research on the POQ scales across work settings. They tested the scale on: (1) a sample of nurses from the staff of the serves department of a large, Midwestern teaching hospital; (2) a sample of unionized railroad workers; and (3) a sample of unionized U.S. Postal Service employees. The results of their testing of the data from these samples suggest that the two dimensions of

perceived overqualification, no-grow and mismatch, are significantly and negatively correlated with dimensions of job satisfaction and organizational commitment.

Match Quality and Overeducation

Match quality is how well a person's specific qualifications, to include education attainment and experience, are matched to the skill requirement of the job. "Overeducation has been defined in one of three ways: as a decline in the economic position of educated individuals relative to historically higher levels; as an under fulfilled expectation of the educated with respect to their occupational attainment; or as the possession by workers of greater educational skills than their job required (underutilization of workers' education)" (Tsang, 1987:239). These definitions contain similarities to the definition of perceived overqualification. The perceived overqualification scale measures two indicators, perceived no-grow and perceived mismatch. The perceived mismatch scale includes four items: "my formal education overqualifies me for my present job; my talents are not fully utilized on my job; my work experience is more than necessary to do my present job; and based on my skills, I am overqualified for the job I hold" (Johnson and Johnson, 2000a). These similarities suggest that the research on POQ may produce results similar to the research findings for match quality and overeducation. This implies that individuals with POQ may behave in a similar manner to those with matched quality and overeducation.

Studies conducted by Bowlus (1985) have found that match quality fluctuates throughout the labor market depending on the economy. Using unemployment rates as

an indicator of the economy, Bowlus found that during times of recession, mismatches are more prevalent. Individuals are more willing to accept mismatches as stopgap employment until the economy improves. Once the economy improves, workers experiencing mismatches will seek to move out of these stopgap jobs (Bowlus, 1995).

Hersch's (1991) research into educational match and job match in manufacturing and warehouse firms found evidence that overqualified workers are less satisfied with their jobs and more likely to quit. The study also identifies an inverse relationship between overqualification and training time. The research suggests that overqualified workers' ability to learn is greater and a mismatch may be optimal (Hersch, 1991).

Using a representative sample of the Spanish labor force, Alba-Ramirez (2001) studied the rates of returns of education. Individuals acquire education with the expectation of future returns. These returns are affected by the quality of the job match. He found that the rate of return to education for individuals with adequate education was 5.8 percent. The rate of return to education that exceeded the requirements of the job was 2.7 percent. The penalty for each year of undereducation was a 4.7 percent reduction in wage. Individuals experiencing unsatisfactory returns are motivated to seek a better match and a higher return on educational qualifications. He found that overeducated individuals experienced higher job turnover than other comparable workers (Alba-Ramirez, 2001). These finding were in agreement with the turnover theory of Arnott and Stiglitz (1985). Their study suggests that when individuals pay the cost of education and

training, the pay must be sufficiently high for the individual to recoup the expenses of the training plus interest. Turnover will occur when there are discrepancies.

Tsang and Levin (1985) explained the economics of overeducation. They state that supply of college graduates has increased dramatically which has increased the average education of the workforce, but the job structure has not adjusted to account for this education increase in the workforce. Economic theory suggests that the market will adjust and this problem only occurs in the short run. Tsang and Levin (1985) believe that overeducation may become a persistent problem if job structures are unresponsive. They used several labor-market models and economic theory to explain overeducation's impact on productivity. Tsang and Levin (1985) suggest employers consider strategies to change the job structure to make jobs more challenging and productive.

Tsang (1987) tested the production model developed by Tsang and Levin (1985). He used data from twenty-two U.S. Bell Companies for the period 1981-1982. He found that overeducation was negatively and significantly related to productivity (Tsang, 1987). "The results indicated that overeducation was negatively and significantly related to job satisfaction which was positively related and significantly related to output…" (Tsang, 1987: 246). The overeducated worker has lower job satisfaction, which results in reduced work effort, increased production costs, and consequently lower productivity. Tsang suggest strategies to mitigate the impact of underutilization; (1) Raising the educational requirements of the job or changing the job structure or, (2) lowering the educational attainment through hiring controls (Tsang, 1987). He performs a cost benefit

analysis, which concludes that raising the educational requirements is the more effective strategy (Tsang, 1987). Tsang also states that "education influences the needs and tastes of individuals. Some studies have shown that more educated workers, compared with less educated workers, set a higher priority on challenging work than financially rewarding work" (Quinn and Mandilovitch, 1975) (Tsang, 1987: 97).

Tsang, Rumberger, and Levin (1991) did a comparative study on differing measurements of overeducation, in particular surplus schooling. They compared the measurements obtained subjectively and objectively. Subjectively overeducation was measured by asking each worker the amount of schooling he or she thinks the job requires. Objectively overeducation was measured using the Department of Labor's Dictionary of Occupational Titles, which specifies the amount of general and specific training needed for "average performance" in each job situation (Tsang and others, 1991). The study concluded that the objective measure showed higher levels of surplus schooling than the subjective measure. These results show that in this case self-reporting provided a more conservative estimation of overeducation. The dimension of perceived overqualification, perceived mismatch, is very similar to what would be used in the subjective measure of overeducation.

Vahey's (2000) research does not support the theory that overeducated workers are less productive because of lack of interest and motivation. Vahey (2000) used data from the National Survey of Class Structure and Labor Process in Canada (NSCS) a cross-sectional survey of the Canadian workforce. He found that overeducated males

experienced a positive return for overeducation in jobs requiring a bachelor's degree, and undereducated males did experience lower pay (Vahey, 2000). Buchel's (2000) studies of German productivity have produced findings that also contradict the theory. In comparing employee with similar levels of requirements, Buchel (2000) found that overqualified workers tended to be stronger workers, more career-minded, more likely to participate in on-the-job training and experience longer periods of tenure. Buchel (2000) analyzed cross-sectional and longitudinal data from a representative sample of the West German workforce. In his studies he found that overeducated workers receive wage premiums for their surplus schooling. He does acknowledge that returns are lower for surplus education but they are positive (Buchel, 2000).

Organizational Commitment

Organizational commitment is defined as the strength of an individual's identification with and involvement in a particular organization (Porter and others, 1974). Organizational Commitment has been shown to be powerful predictor of turnover. Porter (1974) theorized that under certain circumstances, organizational commitment may be a more effective predictor of turnover than job satisfaction. Individuals may have low job satisfaction but their commitment to the organizations goals may override such dissatisfaction and they will continue to participate in the organization (Porter and others, 1974). Porter (1974) validated his theory is a study of psychiatric technician trainees. In his study, organizational commitment proved to be a more accurate predictor than job satisfaction (Porter and others, 1974). Porter's research was later validated by Hom, Katerburg, and Hulin (1979) research on turnover prediction. They collected data from

534 National Guard members. The study measured job satisfaction using the five JDI scales and organizational commitment using Porter's commitment scale. Their research concluded that organizational commitment was a more accurate predictor of turnover than job satisfaction (Hom and others, 1979:282). They believed that organizational commitment predicted turnover as well or better because:

> When an employee quits, he or she ends all formal ties with a particular company. The employee may not necessarily be relinquishing a set of job duties, since the same kind of job may be assumed elsewhere. Resignation implies rejection of the organization but not necessarily rejection of the job. Consequently, organizational commitment is regarded as being more directly related to termination than are job attitudes. (Hom and others, 1979: 282)

Summary of Basic Conclusions

Current research supports the hypothesis that improving match quality to reduce the occurrences of overeducation and reducing perceived overqualification in the workforce would improve job satisfaction and organizational commitment and thus reduce turnover. Job satisfaction is a powerful predictor of future separation and quit (Clark, 2001). Organizational Commitment has been shown to be powerful predictor of turnover (Porter and others, 1974). This supports the claim that increasing job satisfaction and commitment would reduce turnover. Match quality affects an individual's return on education (Alba-Ramirez, 2001). Overeducation leads to positive returns but the returns are lower for surplus education. Turnover increases when this return is not adequate to cover the cost of acquiring the education employee. Overeducation increases turnover. Perceived overqualification negatively affects job satisfaction and commitment (Johnson and Johnson, 2002). Based on this literature review, which summarized the current state of research in the areas of match quality,

perceived overqualification, and overeducation as they affect job satisfaction, commitment, and turnover; we have developed the following strategic human resource management theory: By improving match quality, a firm or an organization such as the United States Air Force, can reduce the occurrences of overeducation and perceived overqualification in its workforce. This leads to increased job satisfaction, commitment, and reduced turnover.

III. Methodology

This chapter presents the research design and methodology used to conduct this study. The first two sections operationally define the relevant variables, both independent and dependent, for this study. In addition, the first two sections include the measurement methodology used in this study. The Survey and Data Collection section includes a description of the survey instrument as well as the methodology employed in data collection. The Population and Sampling Frame section defines the target population this study focuses on as well as identifies the sampling frame used. The Hypotheses section includes a listing of the null (Ho) hypotheses tested in this study. The Data Analysis section is a description of the analysis methodology used to test the hypotheses. The final section, Limitations of Design, includes a discussion of the potential limitations associated with the design and methodology of this research.

Independent Variables

In this study, I used two independent variables derived from perceived overqualification to predict job satisfaction, commitment, and turnover intent. They are:

1. Perceived No-grow
2. Perceived Mismatch

Perceived overqualification is operationally defined as "the extent to which an employed individual perceives that he or she (a) possesses surplus job qualifications or (b) has limited opportunities to acquire and use new job-related skills" (Johnson and Johnson,

2002). POQ is a subjective assessment. Johnson and Johnson's (2002) 10-item Perceived Overqualification (POQ) Scale uses two dimensions, perceived no-grow and perceived mismatch, to operationalize POQ. In this study, the target population consists of United States Air Force officers who earned a graduate degree from the Air Force Institute of Technology (AFIT) between 1992 and 2002. I expanded upon this existing two-dimensional scale to include seven additional questions specific to the target population. (I.e. "My qualifications exceed those of my peers outside the Air Force," "My education exceeds that of my peers within my career field," and "The Air Force has benefited from my AFIT education"). The scale utilizes a five-point Likert scale ranging from "strongly agree" (5) to "strongly disagree" (1). The scale provided two scores for each respondent, perceived no-grow and perceived mismatch, each was computed by taking the average of the summed score from the POQ scale.

Dependent Variables

In this study, I had three dependent variables to study the effects of perceived overqualification. The three dependent variables in this study are:

1. Job satisfaction
2. Commitment
3. Turnover intent.
    a. Intent to leave
    b. Intent to search for job with another employer
    c. Intent to search for a job within the Air Force
    d. Intent to remain in the Air Force for 20 years.

Job satisfaction and organizational commitment are dependent variables within this study. One of the research objectives in this study is to determine if the effects of perceived overqualification found in pervious research are generalizable to this population. Pervious research has shown that the levels of perceived overqualification correlate to the levels of job satisfaction and organizational commitment (Johnson and Johnson, 2002).

Job satisfaction is defined as the feelings a worker has about his job (Smith, Kendall, and Hulin, 1969:6). In this study job satisfaction is measured by soliciting the workers feeling about specific aspects of the job. The Job Descriptive Index (JDI) developed by Smith, Kendall, and Hulin (1969) has developed scales to operationalize job satisfaction. This study utilizes four scales from the JDI to measure job satisfaction. These scales measure satisfaction with work, satisfaction with supervision, satisfaction with pay, and satisfaction with promotion. The fifth dimension, satisfaction with co-workers, was excluded due to its lack of relevance to measures of perceived overqualification. The exclusion of satisfaction with co-workers is in line with the previous research conducted by Johnson and Johnson (2002). The JDI measures job satisfaction by presenting the subject with a list of descriptive adjectives or phrases. The respondent then answers yes, no, or cannot decide. Each response is weighted so that a high score indicates satisfaction.

Commitment is operationally defined as "the strength of an individual's identification with and involvement in a particular organization" (Porter, Steers, Mowday, and Boulian, 1974: 604). The organization in this study is the Air Force. Commitment was operationalized using Porter's Organizational Commitment Scale. The scale, which is a 15-item questionnaire, "was designed to measure the degree to which subjects feel committed to the employing organization" (Porter and others, 1974: 605). The survey uses a five-point Likert scale and the respondent's overall commitment is computed by taking the total score across the items.

Turnover intent is operationally defined as the expressed behavioral intention to quit. This is measured by using the following four questions:

1. Do you intend to leave the Air Force after your commitment?
2. Did you make any efforts to find a new job with another employer?
3. Did you seek a new job within the Air Force to better utilize you skills?
4. Do you intend to remain in the Air Force until retirement?

Responses to the questions were yes, no, or cannot decide.

Survey and Data Collection

The survey instrument developed for this study utilizes scales obtained from the literature review to measure the dependent and independent variables. Attachment 1 is the survey used for this study. The survey contains scales that have been used extensively by researchers in this field of study. The survey is organized into four sections.

1. Demographic Information
2. Perceived Overqualification (POQ) Scale
3. The Job Descriptive Index (JDI)
4. Organizational Commitment

The demographics section contained 12 questions. The respondents were asked their age; rank; gender; race; marital status; Air Force Specialty Code (AFSC); experience within AFSC (years); total years of service; year of graduation from AFIT; time between undergraduate and graduate education; separation eligibility; experience prior to attending AFIT. The demographics were compared to the responses given to the other sections. The AFSC is the job specialty code that identifies an individual's job title and description. All Air Force members are assigned an AFSC code. In this study, the AFSC identifies the specific degree program and allows for comparisons between the different programs. The experience questions allowed for interaction testing for significance. Total years in service allowed for testing to understand the effects of tenure.

The validity and reliability of the JDI and Porter's Organizational Commitment Scale are well documented. The POQ scales are relatively new and one of the goals of this research is to test the reliability and validity of this scale on a new population. The survey was customized to include additional questions specific to the Air Force and to a participant in an employee graduate programs. A pretest was conducted to check for construct validity.

The study is cross-sectional, measuring data at one time point. The survey was conducted via an internet survey tool, Facilitate.com. Invitations to respond were sent via email to 1208 individuals. The email included the information necessary to access the tool the survey. A reminder email was sent out seven days after the initial email. From the 1208 invitations, 606 responses were received. The response rate was 50.16%. The estimated time to complete this survey was 10-15 minutes. The instruments utilized electronic media. The data collected by the surveys was quantitative. The surveys also collected individual demographic data. The survey was administered over a two-week period.

Population and Sampling Frame

The target population in this study is all AF officers that have attended AFIT in residence between 1992 and 2002. Obtaining a graduate degree from AFIT requires 15-18 months for a Master of Science (MS) degree and three-years for a Doctor of Philosophy (PhD) degree. The participants are enrolled in a curriculum tailored for their specific specialty designated by their Air Force Specialty Code (AFSC). For example, a civil engineering officer would pursue a MS in Engineering and Environmental Management and his or her AFSC would be 32E. The curriculum includes classes that are tailored to the identified needs of the Air Force. Students take an average of 12 credit hours per ten-week quarter to complete their degree. The school is accredited by The Higher Learning Commission and is a member of the North Central Association (NCA). The Aeronautical Engineering, Astronautical Engineering, Computer Engineering,

Electrical Engineering, Nuclear Engineering, and Systems Engineering curricula are also accredited by the Accreditation Board for Engineering and Technology (ABET). Individuals that apply to the program must meet admissions criteria and are competitively selected. Participants in the program are Air Force, Army, Navy, Marine and Coast Guard officers, as well as foreign military officers and Department of Defense civilians. Air Force participants acquire a 3-5 year commitment to the Air Force at the completion of the program. Pay and promotion opportunities are held relatively constant for this population. The pay scale is set by Congress and is determined based on rank and years in service. Promotion opportunities and increases in rank are based on years in service. Participants do not receive increases in pay or promotion opportunities based on their participation in the program.

The sampling frame was obtained from the Air Force Personnel Center Database, MIL-PDS. The system contains all Air Force personnel. All AFIT graduates are identified within the system. The sampling frame is a listing of Air Force officers that attended AFIT in residence from 1992 to 2002 and are still in the Air Force. The listing contained 1837 graduates. Of the 1837 graduates, email addresses could not be found using the Air Force Global Address list for 494 of the graduates. Of the 1343 emails sent, 135 were undeliverable. The total number of graduates contacted was 1208.

This study uses purposive sampling. The survey was sent out to 1208 AFIT graduates still in the Air Force that graduated from 1992 to 2002. Those individuals participating in the program that have graduated within the last three to four year are

ineligible to separate from the service due to the service commitment they acquired after completion of the program. Those who graduated more than four years ago have completed this service commitment and may voluntarily leave the service. The sample does not include earlier graduates due to the potential effects of other variables such as age and tenure.

Hypotheses

The following hypotheses were developed to test the overall POQ theories presented in Ch. 2 and the research questions posed in Chapter 1. Hypotheses 1-3 were developed to test the generalizability of pervious research, research question 1. Hypothesis 4–7 were developed to answer research questions 2–5.

Hypothesis 1.
Graduates who report higher levels of POQ report lower levels of job satisfaction.
Ho: The null hypothesis (Ho) is that POQ does not have a significant R^2 or a negative coefficient of correlation for job satisfaction.

Hypothesis 2.
Graduates who report higher levels of POQ report lower levels of commitment.
Ho: The null hypothesis is that POQ does not have a significant R^2 or a negative coefficient of correlation for commitment.

Hypothesis 3.
Pay and promotion are held relatively constant for this population sample.
Graduates who report higher levels of POQ report lower levels of satisfaction with work than other JDI factors.
Ho: The null hypothesis is that POQ R^2 for satisfaction with work does not exceed the R^2 value for satisfaction with pay or satisfaction with promotion.

Hypothesis 4.
Graduates who report turnover intent report higher levels of POQ.
Ho: The null hypothesis is that there is not significant difference between the mean levels of POQ or, those with turnover intent do not have a higher mean score for POQ.

Hypothesis 5.
Graduates who report intent to search for a job with another employer report higher levels of POQ.
Ho: The null hypothesis is that there is not a significant difference between the mean levels of POQ or, those with intent to search for a job with another employer do not have a higher mean score for POQ.

Hypothesis 6.
Graduates who report intent to search for a job within the Air Force report higher levels of POQ.
Ho: The null hypothesis is that there is not a significant difference between the means or those with intent to search for a job within the Air Force do not have a higher mean score for perceived overqualification.

Hypothesis 7
Graduates who report intent to stay 20 years in the Air Force report lower levels of POQ.
Ho: The null hypothesis is that there is not a significant difference between the mean levels of POQ or, those with intent to stay 20 years do not have a lower mean score for POQ.

Data Analysis

The data was analyzed using the statistical software tool JMP 4.0. Regression analysis and analysis of variance testing for the difference between two means were used in hypothesis testing.

Hypotheses 1 and 2. Regression analysis was used to test the predictive strength, coefficient of determination, and coefficient of correlation of perceived no-grow and perceived mismatch for job satisfaction and organizational commitment. The job satisfaction score used was the overall JDI score, which is a combination of four dimensions of the JDI; satisfaction with work, satisfaction with supervision, satisfaction with promotion, and satisfaction with pay. The organizational commitment score was the

sum of the responses to Porter's Organizational Commitment Scale. The fit model function from JMP 4.0 was used to a stepwise regression and to create the best model. For a predictor to be included in the model a p-value of less than .25 was required. Those predictors with a p-value greater than .25 were rejected and not reported. This testing was performed on the overall sample (n=606) as well as the samples segregated by AFSC. Each sample was tested alone and then again with the demographic predictors. The demographic variables used were rank, age, tenure, sex, experience prior to AFIT, year graduated.

Hypothesis 3. JMP 4.0 was used to conduct regression analysis to test hypothesis 3. The coefficients of determination, R^2, of perceived no-grow and perceived mismatch for satisfaction with work, were compared with those for satisfaction with supervision, pay, and promotion. The fit model function for JMP 4.0 was uses stepwise regression and to create the best model. For a predictor to be included in the model a p-value of less than .25 was required. Those predictors with a p-value greater than .25 were rejected and not reported. This testing was performed on the overall sample (n=606) as well as the samples segregated by AFSC.

Hypotheses 4, 5, 6, and 7. To test hypotheses 4, 5, 6, and 7, mean levels of perceived no-grow and perceived mismatch within each group were compared. Each of these hypotheses tested a separate question concerning turnover intent. The questions were answer one of three ways, yes, no, or cannot decide. The sample size for each group was different so a Levene test was conducted to test for possible differences in

variance. A larger Levene score indicates that the variances are equal. For hypotheses testing an analysis of variance was conducted where those that answered "yes" were compared to those who answered "no" to determine if their means were significantly different.

Limitations of Design

This study tests these hypotheses using a sample limited to AFIT graduates still in the Air Force. The traits associated with the sample may not be representative of all employee graduate programs. The results may not be generalizable outside of this Air Force population. The sample covers a limited number of AFSC. For example, there is only one pilot and two navigator respondents in the sample. Therefore the results may not be generalizable to the Air Force as a whole. There may be unique variables that only affect this population and this may contribute to the results of this study. For example the effects of the September 11, 2001 may have contributed to the results of this study. Further studies utilizing a more representative sample may be necessary.

The study is cross sectional. There may be different factors that affect the different graduation year groups. A panel study that tested year groups over time may yield better results and reduce the effects of other factors.

IV. Results

This chapter presents the data collected using the survey instrument. The first three sections present the demographic characteristics, perceived overqualification scores, Job Description Index scores, and commitment scores for the sample of n=606. Attachment 2 graphically presents the data collected from the survey. The chapter then presents the results of the hypothesis testing for hypothesis 1-7. Each hypothesis is restated and the results are presented in tabular format, a brief description of noteworthy results is given with each section.

Demographic Characteristics

Twelve demographic variables were collected for each participant in this study. They are summarized in the tables that follow. Each table provides the frequencies of the occurrence of each category by count or number and by percentage of the whole.

Rank. Table 1 breaks down the rank make up of the sample. All of the respondents are active duty Air Force officers.

Table 1. Respondents' Rank

	Frequencies	
Category	**Count**	**Percentage**
Second Lt	1	.00165
First Lt	13	.02145
Captain	266	.43894
Major	237	.39109
Lt Colonel	88	.14521
Colonel	1	.00165
Total Responses	606	1.00000

Total Years in Service (Tenure). Table 2 reports the total years in service of the respondents.

Table 2. Respondents' Years in Service (Tenure)

	Frequencies	
Category	**Count**	**Percentage**
2-4 Years	10	.01650
4-8 Years	94	.15512
8-12 Years	144	.23762
12-16 Years	148	.24422
16 Years or More	210	.34653
Total Responses	606	1.00000

Age. Table 3 describes the age characteristics of the sample.

Table 3. Respondents' Age

	Frequencies	
Category	**Count**	**Percentage**
20-25	17	.02805
26-30	105	.17327
31-35	181	.29868
36 or above	303	.50000
Total Responses	606	1.00000

Sex. Table 4 breaks down the respondents by sex.

Table 4. Respondents' Sex

	Frequencies	
Category	**Count**	**Percentage**
Male	567	.93564
Female	39	.06436
Total Responses	606	1.00000

Ethnic Background. Table 5 segregates the sample by ethnic background.

Table 5. Respondents' Ethnic Background

	Frequencies	
Category	**Count**	**Percentage**
White	520	.85809
Black	20	.03300
Hispanic	18	.02970
Asian	15	.02475
Other	21	.03465
None Reported	12	.01980
Total Responses	606	1.00000

Marital Status. Table 6 shows the breakdown of the respondents by martial status.

Table 6. Respondents' Marital Status

	Frequencies	
Category	**Count**	**Percentage**
Married	514	.84818
Divorced	29	.04785
Never Married	60	.09901
Widowed	3	.00495
Total Responses	606	1.00000

Air Force Specialty Code (AFSC). Table 7 reports the job specialty code of the respondents. The career fields included are those with over 30 members represented, all others are included in the other category. The 63A AFSC was included due to its inclusion in the critical skill retention bonus.

Table 7. Respondents' Air Force Specialty Code (AFSC)

	Frequencies	
Category	**Count**	**Percentage**
32E	57	.0940
33S	85	.1403
61S	61	.1007
62E	120	.1980
63A	27	.0445
64P	31	.0512
21	86	.1419
11	33	.0545
Other	106	.1749
Total Responses	606	1.0000

Experience in career field (AFSC). Table 8 reports the time the respondents have served in the assigned job specialty code.

Table 8. Repondents' Years in Current AFSC

	Frequencies	
Category	**Count**	**Percentage**
0 to 11 Months	16	.02640
1-3 Years	38	.06271
3-6 Years	101	.16667
6-8 Years	100	.16502
8-10 Years	90	.14851
10+ Years	261	.43069
Total Responses	606	1.00000

Experience prior to attending AFIT. Table 9 reports the time the respondents had served in the assigned job specialty code prior to assignment to the AFIT program.

Table 9. Respondents' Experience Prior to AFIT

	Frequencies	
Category	**Count**	**Percentage**
0 to 11 Months	138	.22772
1-3 Years	166	.27393
3-6 Years	182	.30033
6-8 Years	55	.09076
8-10 Years	32	.05281
10+ Years	33	.05446
Total Responses	606	1.00000

Years between undergraduate and AFIT participation. Table 10 reports the time elapsed between completion of the respondents' undergraduate degree and their assignment to the AFIT program.

Table 10. Respondents' Years Between Undergraduate Degree and AFIT

	Frequencies	
Category	**Count**	**Percentage**
Less than 1 Year	55	.09076
1-3 Years	116	.19142
3-5 Years	172	.28383
5-7 Years	115	.18977
7+ Years	148	.24422
Total Responses	606	1.00000

Year of Graduation. Table 11 reports the respondents' year of graduation from the AFIT program. This table also reports the number of graduates still in the Air Force, population size, and the percentage of the population represented in the survey results, population response (%).

Table 11. Respondents' Year of Graduation

	Frequencies		Population	
Category	**Count**	**Percentage**	**Size**	**Response (%)**
2002	61	.10066	157	38.85
2001	76	.12541	198	38.38
2000	51	.08416	155	32.90
1999	62	.10231	198	31.31
1998	48	.07921	121	39.67
1997	57	.09406	176	32.39
1996	53	.08746	168	31.55
1995	48	.07921	164	29.27
1994	55	.09076	187	29.41
1992-1993	95	.15677	313	30.35
Total	606	1.00000	1837	

Eligibility to separate from the Air Force. Respondents may acquire service commitments that limit their ability to separate from the Air Force. Table 12 reports the respondents' eligibility to separate from the Air Force.

Table 12. Respondents' Eligibility to Separate

	Frequencies	
Category	**Count**	**Percentage**
Yes	256	.42244
No	346	.57096
Not Reported	4	.00660
Total Responses	606	1.00000

Perceived Overqualification Scores

The survey measured two constructs, perceived no-grow and perceived mismatch, to determine each individual level of perceived overqualification. The paragraphs to follow include statistical summaries of these constructs.

Perceived No-Grow Score. Perceived no-grow scores range from a minimum of 1 to a maximum 5. The sample mean perceived no-grow score was 2.404 and the sample standard deviation was .728.

Perceived Mismatch. Perceived Mismatch scores range from a minimum of 1 to a maximum 5. The sample mean was 2.823 and the sample standard deviation was .892.

Job Descriptive Index Scores and Organizational Commitment

The survey used four indices from the JDI to measure job satisfaction and Porter Organizational Commitment Scale to measure commitment. The paragraphs to follow include statistical summaries of these indices.

Work Satisfaction Index. Work satisfaction scores range from a minimum of 3 to a maximum of 54, a higher score meaning satisfaction. The sample mean was 33.98 and the sample standard deviation was 11.00.

Supervision Satisfaction Index. Supervision satisfaction scores range from a minimum of 5 to a maximum of 54, a higher score meaning satisfaction. The sample mean was 42.15 and the sample standard deviation was 11.76.

Pay Satisfaction Index. Pay satisfaction scores range from a minimum of 0 to a maximum of 24, a higher score meaning satisfaction. The sample mean was 15.58 and the sample standard deviation was 5.53.

Promotion Satisfaction Index. Promotion satisfaction score range from a minimum of 0 to a maximum of 24, a higher score meaning satisfaction. The sample mean was 14.69 and the sample standard deviation was 7.88.

Organizational Commitment. Organizational commitment scores range from a minimum of 22 to a maximum of 75, a higher score meaning higher commitment. The sample mean was 52.68 and the sample standard deviation was 8.92.

Hypothesis Testing

Hypotheses 1-7 were tested in accordance with the data analysis methodology described in chapter three. Hypotheses 1-3 were tested using regression analysis. If the p-value for the predictor is greater than .25 it is included if not the predictor is excluded. The models all have a significant p-value, less than .05. The tables for these three sections display the following:

Coefficient (Coeff). The model coefficients are provided for the constant and predictors for each regression test. Those predictors with a p-value greater than .25 were rejected and not reported.

Standard Error (Std error). The standard error associated with each predictor was reported. It allows us to tell whether a predictor is likely to overestimate or underestimate a parameter.

Beta Coefficient (Beta). The beta coefficient is provided for each predictor in the model. This provides the relative strength of the predictor within the model.

Coefficient of Determination (R^2). The coefficient for the model is provided for each model. The R^2 provided is the adjusted R^2. It has been adjusted for sample size and number of parameters and is more conservative than R^2. This describes the amount of variation in the dependent variable that can be explained by the model.

F-statistic (F). The f-statistic for the model is provided for each model. The F-statistic looks at strength of the relationship between the entire model and the dependent variable. A higher f-statistic indicates a stronger relationship.

Hypotheses 4-7 were tested using analysis of variance (ANOVA). The tables provided for these sections displays the following:

T-statistic (t-test). The t-statistic is provided for each test. The t-test is a test of the difference between the means of the two samples. The null hypothesis is that the two means are equal. A higher t-test value rejects the null and indicates that the means are different.

P-value (Prob>|t|). The p-value is the significance of the test. A lower p-value indicates significance. A p-value over .1 indicates that the test is insignificant.

Hypothesis 1

Graduates who report higher levels of POQ report lower levels of job satisfaction. Ho: The null hypothesis (Ho) is that POQ does not have a significant R^2 or a negative coefficient of correlation for job satisfaction.

Table 13, Perceived Overqualification and Job Satisfaction, shows a summary of the testing of hypothesis one. The Job Description Index score is used to measure job satisfaction in this analysis. The results show that the sample as a whole (n=606) does support hypothesis one and does not support Ho, the null hypothesis. The R^2 for the sample is .22 and the coefficients of correlation for perceived no-grow and perceived mismatch are both negative.

Table 13. Perceived Overqualification and Job Satisfaction

Sample	Total (n=606)		
	Coeff	Std error	Beta
Independent Variables			
Constant	147.06	3.29	
No-grow	-13.6	1.56	-0.4
Mismatch	-2.82	1.3	-0.1
R^2		0.22	
F		87.72	
With Control Variables			
Constant	130.9	5.98	
No-grow	-13.16	1.56	-0.39
Mismatch	-2.88	1.3	-0.1
Rank	4.07	1.76	0.13
Age	-	-	-
Tenure	1.99	1.13	0.09
Sex	2.25	1.78	0.04
Experience prior to AFIT	-0.94	0.77	-0.05
Year graduated	-1.17	0.4	-0.14
R^2		0.24	
F		27.92	

The p-value for each F-statistics (F) is $p<.05$.

The sample was segregated by AFSC, each sample was tested for the significance of the two constructs, perceived no-grow and perceived mismatch. This resulted in the following three groupings:

1. The 61S, 62E, and 21 AFSCs were comparable to the result of the overall sample and support the support hypothesis one, see Table14.

Table 14. Perceived Overqualification and Job Satisfaction (Group 1)

Sample	61S (n=61)			62E (n=120)			21 (n=86)		
	Coeff	Std error	Beta	Coeff	Std error	Beta	Coeff	Std error	Beta
Independent Variables									
Constant	149.93	9.35		149.25	6.6		146.36	9.96	
No-grow	-10.46	5.12	-0.31	-12.5	3.2	-0.39	-10.74	4.74	-0.27
Mismatch	-9.14	4.35	-0.32	-4.17	2.51	-0.17	-4.43	3.22	-0.16
R^2		0.32			0.25			0.13	
F		14.88			21.21			7.23	
With Control Variables									
Constant	119.12	16.46		131.69	10.85		130.84	19.49	
No-grow	-12.23	4.76	-0.36	-12.47	3.16	-0.39	-13.39	3.76	-0.34
Mismatch	-6.31	4.06	-0.22	-3.8	2.46	-0.15	-	-	-
Rank	6.93	4.81	0.21	7.51	2.99	0.24	14.32	5.17	0.41
Age	4.99	4.08	0.19	-	-	-	-11.64	5.6	-0.33
Tenure	-	-	-	-	-	-	5.29	3.99	0.21
Sex	-	-	-	-	-	-	-	-	-
Experience prior to AFIT	-6.77	2.73	-0.26	-	-	-	-	-	-
Year graduated	-	-	-	-1.86	0.66	-0.26	-3.87	1.2	-0.48
R^2		0.43			0.32			0.26	
F		10			13.54			7.07	

The p-value for each F-statistics (F) is $p<.05$.

2. The 32E, 33S, and 11 AFSCs support hypothesis one but show that for the sample perceived no-grow significantly and negatively correlated to job satisfaction but perceived mismatch did not, see Table 15.

Table 15. Perceived Overqualification and Job Satisfaction (Group 2)

Sample	32E (n=57)			33S (n=85)			11 (n=33)		
	Coeff	Std error	Beta	Coeff	Std error	Beta	Coeff	Std error	Beta
Independent Variables									
Constant	144.85	8.58		154.97	7.61		142.26	13.51	
No-grow	-15.66	3.55	-0.51	-19.01	2.81	-0.6	-13.71	5.7	-0.4
Mismatch	-	-	-	-	-	-	-	-	-
R^2		0.25			0.35			0.13	
F		19.44			45.87			5.78	
With Control Variables									
Constant	99.93	15.08		153.92	9.7		142.26	13.51	
No-grow	-19.51	4.17	-0.64	-18.89	2.76	-0.59	-13.71	5.7	-0.4
Mismatch	6.87	3.92	0.26	-	-	-	-	-	-
Rank	-	-	-	-	-	-	-	-	-
Age	15.32	4.23	0.57	-	-	-	-	-	-
Tenure	-	-	-	-	-	-	-	-	-
Sex	-	-	-	-	-	-	-	-	-
Experience prior to AFIT	-	-	-	2.09	1.45	0.13	-	-	-
Year graduated	-2.03	1.2	-0.26	-1.26	0.92	-0.12	-	-	-
R^2		0.37			0.37			0.13	
F		9.41			17.46			5.78	

The p-value for each F-statistics (F) is $p<.05$.

3. The Other grouping partially supported the null hypothesis, see Table 16. Both perceived no-grow and perceived mismatch were found to be significantly correlated to job satisfaction. Perceived no-grow was negatively correlated to job satisfaction while perceived mismatch was positively related to job satisfaction. The positive correlation of perceived mismatch to job satisfaction does not support hypothesis one.

Table 16. Perceived Overqualification and Job Satisfaction (Group 3)

Sample	Others (n=106)		
	Coeff	Std error	Beta
Independent Variables			
Constant	142.91	8.84	
No-grow	-21.43	4.38	-0.58
Mismatch	4.96	3.81	0.15
R^2		0.22	
F		16.23	
With Control Variables			
Constant	102.1	15.11	
No-grow	-18.31	2.93	-0.5
Mismatch	-	-	-
Rank	8.26	3.98	0.22
Age	5.19	3.1	0.15
Tenure	-	-	-
Sex	8.67	4.37	0.16
Experience prior to AFIT	-4.62	1.63	-0.27
Year graduated	0.54	0.96	0.06
R^2		0.35	
F		10.28	

The p-value for each F-statistics (F) is $p<.05$.

Hypothesis 2

Graduates who report higher levels of POQ report lower levels of commitment.
Ho: The null hypothesis is that POQ does not have a significant R^2 or a negative coefficient of correlation for commitment.

Table 17, Perceived Overqualification and Commitment, show a summary of the testing of hypothesis two. The results show that the sample as a whole (n=606) did support the hypothesis 2 and did not support Ho, the null hypothesis, for perceived no-grow. The construct perceived no-grow had a significant correlation to commitment while perceived mismatch did not. The R^2 for the sample was .09 and the coefficients of correlation for perceived no-grow was negative.

Table 17. Perceived Overqualification and Commitment

Sample	Total (n=606)		
	Coeff	Std error	Beta
Independent Variables			
Constant	61.77	1.19	
No-grow	-3.78	0.47	-0.31
Mismatch	-	-	-
R^2		0.09	
F		63.77	
With Control Variables			
Constant	58.9	1.83	
No-grow	-3.73	0.47	-0.3
Mismatch	-	-	-
Rank	-	-	-
Age	0.84	0.41	-0.3
Tenure	-	-	-
Sex	-	-	-
Experience prior to AFIT	-	-	-
Year graduated	-	-	-
R^2		0.1	
F		34.17	

The p-value for each F-statistics (F) is $p<.05$.

The sample was segregated by AFSC, each sample was tested for the significance of the two constructs, perceived no-grow and perceived mismatch. This resulted in the following three groupings:

1. The 32E, 61S, 62E, 21, 11, and Others AFSCs were comparable to the result of the overall sample and support hypothesis two, see Table 18 and 19.

Table 18. Perceived Overqualification and Commitment (Group 1)

Sample	32E (n=57)			61S (n=61)			62E (n=120)		
	Coeff	Std error	Beta	Coeff	Std error	Beta	Coeff	Std error	Beta
Independent Variables									
Constant	59.42	3.95		61.72	3.02		61.89	2.34	
No-grow	-3.04	1.63	-0.24	-4.46	1.21	-0.43	-3.9	0.94	-0.36
Mismatch	-	-	-	-	-	-	-	-	-
R^2		0.04			0.17			0.12	
F		3.46			13.5			17.44	
With Control Variables									
Constant	52.37	6.12		53.51	4.55		61.89	2.34	
No-grow	-2.83	1.6	-0.23	-4.04	1.16	-0.39	-3.9	0.94	-0.36
Mismatch	-	-	-	-	-	-	-	-	-
Rank	-	-	-	-	-	-	-	-	-
Age	-	-	-	3.34	0.96	0.41	-	-	-
Tenure	-	-	-	-	-	-	-	-	-
Sex	3.43	2.34	0.19	-	-	-	-	-	-
Experience prior to AFIT	2.46	1.2	0.26	-1.53	0.92	0.19	-	-	-
Year graduated	-0.62	0.42	-0.19	-	-	-	-	-	-
R^2		0.13			0.3			0.12	
F		3.04			9.48			17.44	

The p-value for each F-statistics (F) is $p<.05$.

Table 19. Perceived Overqualification and Commitment (Group 1) cont.

Sample	21 (n=86)			11 (n=33)			Others (n=225)		
	Coeff	Std error	Beta	Coeff	Std error	Beta	Coeff	Std error	Beta
Independent Variables									
Constant	64.57	3.74		67.81	5.28		63.32	3.07	
No-grow	-3.88	1.6	-0.26	-6.53	2.23	-0.46	-4.72	1.21	-0.36
Mismatch	-	-	-	-	-	-	-	-	-
R^2		0.05			0.19			0.12	
F		5.86			8.57			15.2	
With Control Variables									
Constant	64.57	3.74		67.81	5.28		58.84	4.9	
No-grow	-3.88	1.6	-0.26	-6.53	2.23	-0.46	-4.91	1.2	-0.37
Mismatch	-	-	-	-	-	-	-	-	-
Rank	-	-	-	-	-	-	-	-	-
Age	-	-	-	-	-	-	2.27	1.17	0.19
Tenure	-	-	-	-	-	-	-	-	-
Sex	-	-	-	-	-	-	-	-	-
Experience prior to AFIT	-	-	-	-	-	-	1	0.59	-0.16
Year graduated	-	-	-	-	-	-	-	-	-
R^2		0.05			0.19			0.14	
F		5.86			8.57			6.84	

The p-value for each F-statistics (F) is $p<.05$.

2. The 64P AFSC partially supports hypothesis two but shows that for the sample perceived mismatch is significantly and negatively correlated to commitment but perceived no-grow did not significantly correlate to commitment, see Table 20.

Table 20. Perceived Overqualification and Commitment (Group 2)

Sample	64P (n=31)		
	Coeff	Std error	Beta
Independent Variables			
Constant	63.84	5.56	
No-grow	-	-	-
Mismatch	-3.99	1.74	-0.39
R^2		0.12	
F		5.24	
With Control Variables			
Constant	63.84	5.56	
No-grow	-	-	-
Mismatch	-3.99	1.74	-0.39
Rank	-	-	-
Age	-	-	-
Tenure	-	-	-
Sex	-	-	-
Experience prior to AFIT	-	-	-
Year graduated	-	-	-
R^2		0.12	
F		5.24	

The p-value for each F-statistics (F) is $p<.05$.

3. The 33S and 63A AFSCs partially supported hypothesis two, see Table 21. Both perceived no-grow and perceived mismatch were found to be significantly correlated to commitment. For the 33S, perceived no-grow was negatively correlated to commitment while perceived no-grow was positively related to commitment. For the 63A, perceived mismatch was negatively correlated to commitment while perceived mismatch was positively related to commitment. The positive correlations of perceived no-grow and the perceived mismatch to commitment in the 33S and 63A AFSCs, respectively, do not support hypothesis two.

Table 21. Perceived Overqualification and Commitment (Group 3)

Sample	33S (n=85)			63A (n=27)		
	Coeff	Std error	Beta	Coeff	Std error	Beta
Independent Variables						
Constant	53.95	3.9		67.61	5.4	
No-grow	-3.64	1.67	-0.33	3.39	2.56	-0.26
Mismatch	2.6	1.67	0.23	-9.31	2.31	-0.78
R^2		0.03			0.38	
F		2.37			9.03	
With Control Variables						
Constant	43.22	6.63		69.36	12.39	
No-grow	-3.78	1.64	-0.34	-	-	-
Mismatch	2.81	1.65	0.25	-6.12	1.73	-0.51
Rank	3.22	1.62	0.21	-5.53	2.82	-0.36
Age	-	-	-	-	-	-
Tenure	-	-	-	4.58	2.51	0.35
Sex	-	-	-	-	-	-
Experience prior to AFIT	-	-	-	-2.8	1.61	-0.27
Year graduated	-	-	-	0.82	0.65	0.21
R^2		0.06			0.49	
F		2.95			5.99	

Hypothesis 3

As pay and promotion are held relatively constant for this population sample, graduates who report higher levels of POQ report lower levels of satisfaction with work than other JDI factors.

Ho: The null hypothesis is that the POQ R^2 for satisfaction with work does not exceed the R^2 value for satisfaction with pay, satisfaction with promotion, or satisfaction with promotion.

Table 21, Perceived Overqualification and Dimensions of Job Satisfaction (Job Description Index), shows the results of testing for hypothesis three. The results show that the sample as a whole (n=606) did support hypothesis three and did not support Ho, the null hypothesis. The two constructs, perceived no-grow and perceived mismatch, were able to explain satisfaction with work with an R^2 of .33. Perceived no-grow was able to explain satisfaction with supervision with an R^2 of .04, and satisfaction with

promotion with an R^2 of .14; however, it was unable to explain satisfaction with pay with a significant R^2. Perceived mismatch was unable to explain any of the three with a significant R^2 for the sample was .09 and the coefficients of correlation for perceived no-grow was negative.

When the sample is segregated by AFSC, each sample was tested and the results supported hypothesis three and were comparable to the overall sample. Each of the AFSCs was able to explain the dimension satisfaction with work with a higher R^2 than they were able to explain any other dimension, see Table 22 and Table 23.

Table 22. Perceived Overqualification and Dimensions of Job Satisfaction

	Work Satisfaction			Supervisor Satisfaction		
Sample	Coeff	Std error	Beta	Coeff	Std error	Beta
Independent Variables						
Total (n=606)						
Constant	56.23	1.37		50.5	1.61	
No-grow	-7.04	0.65	-0.47	-3.47	0.64	-0.22
Mismatch	-1.89	0.54	-0.15	-	-	-
R^2		0.33			0.04	
F		148.01			29.29	
32E (N=57)						
Constant	52.05	4.02		50.38	4.56	
No-grow	-8.33	1.66	-0.56	-3.31	1.89	-0.23
Mismatch	-	-	-	-	-	-
R^2		0.3			0.04	
F		25.03			3.08	
33S (N=85)						
Constant	55.81	3.6		60.49	3.68	
No-grow	-9.04	1.33	-0.6	-6.4	1.36	-0.46
Mismatch	-	-	-	-	-	-
R^2		0.35			0.2	
F		46.35			22.3	
61S (N=61)						
Constant	58.47	3.63		53.12	4.58	
No-grow	-5.3	1.99	-0.37	-	-	-
Mismatch	-4.07	1.69	-0.34	-4.82	1.66	-0.35
R^2		0.42			0.11	
F		22.37			8.44	
62E (N=120)						
Constant	61.34	2.93		52	3.3	
No-grow	-7.72	1.42	-0.48	-	-	-
Mismatch	-2.9	1.12	-0.23	-3.68	1.32	-0.25
R^2		0.42			0.05	
F		43.71			7.79	
63A (N=27)						
Constant	50.48	5.8		-	-	
No-grow	-	-	-	-	-	-
Mismatch	-5.64	2.19	-0.46	-	-	-
R^2		0.18			-	
F		6.62			-	
64P (N=31)						
Constant	59.3	5.31		42.86	9.16	
No-grow	-5.52	2.03	-0.39	5.78	3.5	0.34
Mismatch	-5.57	1.64	-0.48	-5.82	2.84	-0.42
R^2		0.56			0.08	
F		19.85			2.33	
21 (N=86)						
Constant	54.1	3.89		48.24	5.33	
No-grow	-6.69	1.85	-0.41	-3.15	2.28	-0.15
Mismatch	-1.48	1.26	-0.13	-	-	-
R^2		0.22			0.01	
F		13.24			1.91	
11 (N=33)						
Constant	53.78	6.29		-	-	
No-grow	-8.59	2.66	-0.5	-	-	-
Mismatch	-	-	-	-	-	-
R^2		0.23			-	
F		10.47			-	
Other (N=106)						
Constant	50.95	3.14		49.38	4.54	
No-grow	-6.7	1.24	-0.47	-8.36	2.23	-0.47
Mismatch	-	-	-	4.13	1.96	0.27
R^2		0.21			0.11	
F		29.29			7.23	

The p-value for each F-statistics (F) is $p<.05$.

Table 23. Perceived Overqualification and Dimensions of Job Satisfaction cont.

	Promotion Satisfaction			Pay Satisfaction		
Sample	Coeff	Std error	Beta	Coeff	Std error	Beta
Independent Variables						
Total (n=606)						
Constant	24.33	1.02		-	-	
No-grow	-4.01	0.41	-0.37	-	-	-
Mismatch	-	-	-	-	-	-
R^2		0.14			-	
F		96.42			-	
32E (N=57)						
Constant	24.68	2.44		-	-	
No-grow	-3.04	1.01	-0.38	-	-	-
Mismatch	-	-	-	-	-	-
R^2		0.13			-	
F		9.04			-	
33S (N=85)						
Constant	26.43	2.64		14.53	2.2	
No-grow	-4.95	0.97	-0.49	2.62	0.94	0.41
Mismatch				-1.76	0.94	-0.28
R^2		0.23			0.06	
F		25.8			3.85	
61S (N=61)						
Constant	17.29	3.35		22.06	2.54	
No-grow	-2.77	1.35	-0.26	-4.92	1.39	-0.59
Mismatch	-	-	-	1.66	1.18	0.23
R^2		0.05			0.18	
F		4.21			7.52	
62E (N=120)						
Constant	22.75	2.21		12.14	1.66	
No-grow	-3.67	0.88	-0.36	1.56	0.66	0.21
Mismatch	-	-	-	-	-	-
R^2		0.12			0.04	
F		17.22			5.56	
63A (N=27)						
Constant	23.23	5.08		9.1	4.22	
No-grow	-3.94	2.15	-0.34	2.3	1.78	0.25
Mismatch	-	-	-	-	-	-
R^2		0.08			0.02	
F		3.36			1.66	
64P (N=31)						
Constant	24.15	4.78		10.95	3.09	
No-grow	-	-	-	-	-	-
Mismatch	-3.25	1.4	-0.39	1.93	0.97	0.35
R^2		0.13			0.09	
F		5.36			3.96	
21 (N=86)						
Constant	28.14	2.46		-	-	
No-grow	-4.32	1.05	-0.41	-	-	-
Mismatch	-	-	-	-	-	-
R^2		0.16			-	
F		16.81			-	
11 (N=33)						
Constant	22.2	5.01		-	-	
No-grow	-	-	-	-	-	-
Mismatch	-2.8	1.72	-0.28	-	-	-
R^2		0.05			-	
F		2.64			-	
Other (N=106)						
Constant	25.48	2.63		18.29	2.06	
No-grow	-4.57	1.04	-0.4	-1.12	0.69	-0.16
Mismatch	-	-	-	-	-	-
R^2		0.15			0.02	
F		19.45			2.64	

The p-value for each F-statistics (F) is $p<.05$.

Hypothesis 4

Graduates that report turnover intent report higher levels of POQ.
Ho: The null hypothesis is that there is not significant difference between the mean levels of POQ or, those with turnover intent do not have a higher mean score for POQ.

To test hypothesis four, the original sample (n=606) was sorted by responses to the question "Did/do you intend to leave the Air Force when you complete(d) your AFIT commitment?" The breakdown of responses was 75 "yes", 462 "no", and 69 "cannot decide" or "did not respond." To test hypothesis four, the mean levels of perceived no-grow and perceived mismatch were compared for the "yes" responses, scored a "1", and the "no" responses, scored a "3".

Perceived No-Grow. The results show that the sample (n=537) did support hypothesis four and rejects Ho, the null hypothesis. Those that answered "yes" they intend to separate, had a sample mean for perceived no-grow of 2.53 compared to a sample mean of 2.37 for those who answered "no." The mean score for those intending to separate is higher compared to those not intending to separate. A Levene test was conducted to test for equal variances. The results for the Levene test were a t-statistic of 6.35 with a p-value of less than .05. Therefore we can conclude that the variances are equal. The t-statistic was 1.76 and the p-value for the significance of the test was .0791. The test is significant and the results show that the means for the two groups are significantly different, see Table 24.

Table 24. Intent to Leave and Perceived No-Grow

Oneway Anova

Summary of Fit

Rsquare	0.00575
Adj Rsquare	0.003892
Root Mean Square Error	0.726845
Mean of Response	2.391061
Observations (or Sum Wgts)	537

t-Test

	Difference	t-Test	DF	Prob > |t|
Estimate	0.15917	1.759	535	0.0791
Std Error	0.09049			
Lower 95%	-0.01858			
Upper 95%	0.33692			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Quit Intention	1	1.63473	1.63473	3.0943	0.0791
Error	535	282.64237	0.52830		
C. Total	536	284.27709			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
1	75	2.52800	0.08393	2.3631	2.6929
3	462	2.36883	0.03382	2.3024	2.4353

Std Error uses a pooled estimate of error variance

Perceived Mismatch. The results show that the sample (n=537) test is not significant and therefore the null hypothesis can neither be rejected nor accepted. Those that answered "yes" they intend to separate, had a sample mean for perceived mismatch of 2.89 compared to a sample mean of 2.79 for those who answered "no" they do not intend to separate. The mean score for those intending to separate is higher compared to those not intending to separate, supporting the null hypothesis. A Levene test was conducted to test for equal variances. The results for the Levene test were a t-statistic of 1.37 with a p-value of greater than .05. The test was not significant. The t-statistic was .92 and the p-value for the significance of the test was .36. The test is not significant, see Table 24.

Table 25. Intent to Leave and Perceived Mismatch

Oneway Anova

Summary of Fit

Rsquare	0.001577
Adj Rsquare	-0.00029
Root Mean Square Error	0.860099
Mean of Response	2.808659
Observations (or Sum Wgts)	537

t-Test

	Difference	t-Test	DF	Prob > |t|
Estimate	0.09842	0.919	535	0.3584
Std Error	0.10707			
Lower 95%	-0.11192			
Upper 95%	0.30876			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Quit Intention	1	0.62502	0.625021	0.8449	0.3584
Error	535	395.77721	0.739770		
C. Total	536	396.40223			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
1	75	2.89333	0.09932	2.6982	3.0884
3	462	2.79491	0.04002	2.7163	2.8735

Std Error uses a pooled estimate of error variance

Hypothesis 5

Graduates that report intent to search for a job with another employer report higher levels of POQ.

Ho: The null hypothesis is that there is not a significant difference between the mean levels of POQ or, those with intent to search for a job with another employer do not have a higher mean score for POQ.

To test hypothesis five, the original sample (n=606) was sorted by responses to the question "After you compete(d) your AFIT commitment, do you plan to/did you make any efforts to find a new job outside the Air Force?" The breakdown of responses was 108 "yes", 440 "no", and 58 "cannot decide" or "did not respond." To test hypothesis four, the mean levels of perceived no-grow and perceived mismatch were compared for the "yes" responses, scored a "1", and the "no" responses, scored a "3".

Perceived No-Grow. The results show that the sample (n=548) test is not significant and therefore the null hypothesis can neither be rejected nor accepted. Those that answered "yes," had a sample mean for perceived no-grow of 2.49 compared to a sample mean of 2.37 for those who answered "no." The mean score for those with intent to search for a job with another employer is higher compared to those without intent. A Levene test was conducted to test for equal variances. The results for the Levene test were a t-statistic of 5.44 with a p-value of less than .1. Therefore we can conclude that the variances are equal. The t-statistic was 1.55 and the p-value for the significance of the test was .12. The p-value is over .1 and therefore the test is insignificant, see Table 26.

Table 26. Effort to Seek Job Outside the Air Force and Perceived No-Grow

Oneway Anova

Summary of Fit

Rsquare	0.00436
Adj Rsquare	0.002536
Root Mean Square Error	0.730297
Mean of Response	2.39708
Observations (or Sum Wgts)	548

t-Test

	Difference	t-Test	DF	Prob > |t|
Estimate	0.12126	1.546	546	0.1226
Std Error	0.07842			
Lower 95%	-0.03279			
Upper 95%	0.27531			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Search Intent	1	1.27512	1.27512	2.3908	0.1226
Error	546	291.20021	0.53333		
C. Total	547	292.47533			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
1	108	2.49444	0.07027	2.3564	2.6325
3	440	2.37318	0.03482	2.3048	2.4416

Std Error uses a pooled estimate of error variance

Perceived Mismatch. The results show that the sample (n=548) test is not significant and therefore the null hypothesis can neither be rejected nor accepted. Those that answered "yes" they intend to separate, had a sample mean for perceived mismatch of 2.49 compared to a sample mean of 2.37 for those who answered "no" they do not intend to separate. The mean score for those with intent to search for a job with another employer is higher compared to those without intent, supporting hypothesis four. A Levene test was conducted to test for equal variances. The results for the Levene test were a t-statistic of 4.11 with a p-value of less than .1. Therefore we can conclude that the variances are equal. The t-statistic was .80 and the p-value for the significance of the test was .42. The p-value is over .1 and therefore the test is insignificant, see Table 27.

Table 27. Effort to Seek Job Outside the Air Force and Perceived Mismatch

Oneway Anova

Summary of Fit

Rsquare	0.001176
Adj Rsquare	-0.00065
Root Mean Square Error	0.872129
Mean of Response	2.789234
Observations (or Sum Wgts)	548

t-Test

	Difference	t-Test	DF	Prob > |t|
Estimate	0.07511	0.802	546	0.4229
Std Error	0.09366			
Lower 95%	-0.10886			
Upper 95%	0.25907			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Search Intent	1	0.48914	0.489143	0.6431	0.4229
Error	546	415.29233	0.760609		
C. Total	547	415.78148			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
1	108	2.84954	0.08392	2.6847	3.0144
3	440	2.77443	0.04158	2.6928	2.8561

Std Error uses a pooled estimate of error variance

Hypothesis 6

Graduates that report intent to search for a job within the Air Force report higher levels of POQ.

Ho: The null hypothesis is that there is not a significant difference between the mean levels of POQ or, those with intent to search for a job within the Air Force do not have a higher mean score for POQ.

To test hypothesis six, the original sample (n=606) was sorted by responses to the question "Did you seek a new job within the Air Force to better utilize your skills?" The breakdown of responses was 379 "yes", 159 "no", and 68 "cannot decide" or "did not respond." To test hypothesis six, the mean levels of perceived no-grow and perceived mismatch were compared for the "yes" responses, scored a "1", and the "no" responses, scored a "3". The distributions of the two samples are similar and variances are assumed to be equal.

Perceived No-Grow. The results show that the sample (n=538) test rejects the null hypothesis and supports hypothesis six. Those that answered "yes" they intend to search for a job within the Air Force, had a sample mean for perceived no-grow of 2.46 compared to a sample mean of 2.25 for those who answered "no." The mean score for those intending to search for a job within the Air Force is higher when compared to those not. A Levene test was conducted to test for equal variances. The results for the Levene test were a t-statistic of 4.83 with a p-value of less than .1. Therefore we can conclude that the variances are equal. The t-statistic was 2.98 and the p-value for the significance of the test was less than .05. The test is significant and the results show that the means for the two groups are significantly different, see Table 28.

Table 28. Efforts to Search for Job Within the Air Force and Perceived No-Grow

Oneway Anova

Summary of Fit

Rsquare	0.016245
Adj Rsquare	0.01441
Root Mean Square Error	0.722519
Mean of Response	2.395911
Observations (or Sum Wgts)	538

t-Test

	Difference	t-Test	DF	Prob > |t|
Estimate	0.203106	2.975	536	0.0031
Std Error	0.068269			
Lower 95%	0.068999			
Upper 95%	0.337214			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Search within	1	4.62063	4.62063	8.8512	0.0031
Error	536	279.81037	0.52203		
C. Total	537	284.43100			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
1	379	2.45594	0.03711	2.3830	2.5288
3	159	2.25283	0.05730	2.1403	2.3654

Std Error uses a pooled estimate of error variance

Perceived Mismatch. The results show that the sample (n=548) test rejects the null hypothesis and supports hypothesis six. Those that answered "yes" they intend to separate, had a sample mean for perceived mismatch of 2.87 compared to a sample mean of 2.68 for those who answered "no" they do not intend to separate. The mean score for those with intent to search for a job within the Air Force is higher when compared to those without intent, supporting hypothesis six. A Levene test was conducted to test for equal variances. The results for the Levene test were a t-statistic of 7.02 with a p-value of less than .05. Therefore we can conclude that the variances are equal. The t-statistic

was 2.28 and the p-value for the significance of the test was less than .05. The test is significant and the results show that the means for the two groups are significantly different, see Table 29.

Table 29. Effort to Search for Job Within the Air Force and Perceived No-Grow

Oneway Anova

Summary of Fit

Rsquare	0.009609
Adj Rsquare	0.007761
Root Mean Square Error	0.872839
Mean of Response	2.81645
Observations (or Sum Wgts)	538

t-Test

	Difference	t-Test	DF	Prob > |t|
Estimate	0.188069	2.280	536	0.0230
Std Error	0.082472			
Lower 95%	0.026061			
Upper 95%	0.350078			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
Search within	1	3.96178	3.96178	5.2002	0.0230
Error	536	408.35014	0.76185		
C. Total	537	412.31192			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
1	379	2.87203	0.04483	2.7840	2.9601
3	159	2.68396	0.06922	2.5480	2.8199

Std Error uses a pooled estimate of error variance

Hypothesis 7

Graduates who report intent to stay 20 years in the Air Force report lower levels of POQ.

Ho: The null hypothesis is that there is not a significant difference between the mean levels of POQ or, those with intent to stay 20 years do not have a lower mean score for POQ.

To test hypothesis seven, the original sample (n=606) was sorted by responses to the question "Do you intend to spend over 20 years in the Air Force?" The breakdown of responses was 341 "yes", 105 "no", and 160 "cannot decide" or "did not respond." To test hypothesis four, the mean levels of perceived no-grow and perceived mismatch were compared for the "yes" responses, scored a "1", and the "no" responses, scored a "3". The distributions of the two samples are similar and variances are assumed to be equal.

Perceived No-Grow. The results show that the sample (n=446) test rejects the null hypothesis and supports hypothesis seven. Those that answered "yes" they intend to separate, had a sample mean for perceived no-grow of 2.32 compared to a sample mean of 2.59 for those who answered "no." The mean score for those intending to stay 20 years is lower compared to those not intending to stay 20 years, supporting hypothesis seven. A Levene test was conducted to test for equal variances. The results for the Levene test were a t-statistic of 3.36 with a p-value of less than .1. Therefore we can conclude that the variances are equal. The t-statistic was –3.40 and the p-value for the significance of the test was less than .05. The test is significant and the results show that the means for the two groups are significantly different, see Table 30

Table 30. Intent to Stay 20 Years and Perceived No-Grow

Oneway Anova

Summary of Fit

Rsquare	0.025385
Adj Rsquare	0.02319
Root Mean Square Error	0.714733
Mean of Response	2.381166
Observations (or Sum Wgts)	446

t-Test

	Difference	t-Test	DF	Prob > |t|
Estimate	-0.27127	-3.401	444	0.0007
Std Error	0.07977			
Lower 95%	-0.42804			
Upper 95%	-0.11450			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
20 yr career	1	5.90759	5.90759	11.5644	0.0007
Error	444	226.81420	0.51084		
C. Total	445	232.72179			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
1	341	2.31730	0.03870	2.2412	2.3934
3	105	2.58857	0.06975	2.4515	2.7257

Std Error uses a pooled estimate of error variance

Perceived Mismatch. The results show that the sample (n=446) test rejects the null hypothesis and supports hypothesis seven. Those that answered "yes" they intend to stay 20 years, had a sample mean for perceived mismatch of 2.76 compared to a sample mean of 2.96 for those who answered "no" they do not intend to stay 20 years. The mean score for those intending to stay 20 years is lower compared to those not intending to stay 20 years, supporting hypothesis seven. A Levene test was conducted to test for equal variances. The results for the Levene test were a t-statistic of 3.86 with a p-value of less than .1. Therefore we can conclude that the variances are equal. The t-statistic was -2.21 and the p-value for the significance of the test was less than .05. The test is significant

and the results show that the means for the two groups are significantly different, see Table 31.

Table 31. Intent to Stay 20 Years and Perceived Mismatch

Oneway Anova

Summary of Fit

Rsquare	0.01088
Adj Rsquare	0.008653
Root Mean Square Error	0.842788
Mean of Response	2.798206
Observations (or Sum Wgts)	446

t-Test

	Difference	t-Test	DF	Prob > |t|
Estimate	-0.20788	-2.210	444	0.0276
Std Error	0.09406			
Lower 95%	-0.39274			
Upper 95%	-0.02301			

Assuming equal variances

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	Prob > F
20 yr career	1	3.46911	3.46911	4.8841	0.0276
Error	444	315.36946	0.71029		
C. Total	445	318.83857			

Means for Oneway Anova

Level	Number	Mean	Std Error	Lower 95%	Upper 95%
1	341	2.74927	0.04564	2.6596	2.8390
3	105	2.95714	0.08225	2.7955	3.1188

Std Error uses a pooled estimate of error variance

Summary

This chapter first presented the demographic data, perceived overqualification scores, Job description index scores, and commitment scores for the sample. The chapter then presented the results of the hypothesis testing of hypotheses 1-7. Chapter 5 provides further discussion of the result, recommendations, benefits, limitations, and suggestions for future research.

V. Discussion and Recommendations

This thesis is a follow-on research effort to that conducted by Johnson and Johnson (2000) who proposed a connection between perceived overqualification and both job satisfaction and commitment. Johnson and Johnson (2002) tested this proposed connection on three independent samples. The purpose of this research is to determine if the results of research on perceived overqualification are generalizable to this population, the AFIT graduate. This study also looks to determine the effects of perceived overqualification on turnover intent.

A survey was sent out to a sample of AFIT in-residence graduates using the methodology described in chapter 3. Both regression and analysis of variances were conducted to determine if perceived overqualification was affecting job satisfaction, commitment, and turnover.

This chapter addresses this research effort's results, recommendations, benefits, limitations, and suggestions for future research.

Results

Table 32 provides a summary of the hypotheses test results. A brief discussion of each hypothesis and test result follows.

Table 32. Summary of Hypotheses Test Results

Hypothesis	Test Result
1	**Supported**
2	Partial Support
3	**Supported**
4	Not Significant
5	Not Significant
6	**Supported**
7	**Supported**

Hypothesis 1

Graduates who report higher levels of POQ report lower levels of job satisfaction. Ho: The null hypothesis (Ho) is that POQ does not have a significant R^2 or a negative coefficient of correlation for job satisfaction.

SUPPORTED. In using regression analysis, there is sufficient evidence to support the hypothesis that graduates who report higher levels of POQ report lower levels of job satisfaction. Both POQ measures, perceived no-grow and perceived mismatch, have significant and a negative coefficient of correlation for job satisfaction, therefore Ho is rejected and hypothesis 1 is supported.

Hypothesis 2

Graduates who report higher levels of POQ report lower levels of commitment. Ho: The null hypothesis is that POQ does not have a significant R^2 or a negative coefficient of correlation for commitment.

PARTIAL SUPPORT. In using regression analysis, there is some evidence to support the hypothesis that graduates who report higher levels of POQ report lower levels of commitment. Perceived no-grow has a significant and a negative coefficient of correlation for commitment. Perceived mismatch does not have a significant relationship

with commitment. Therefore, hypothesis 2 is partially supported but Ho cannot be rejected.

Hypothesis 3
As pay and promotion are held relatively constant for this population sample, graduates who report higher levels of POQ report lower levels of satisfaction with work than other JDI factors.
Ho: The null hypothesis is that the POQ R^2 for satisfaction with work does not exceed the R^2 value for satisfaction with pay, satisfaction with promotion, or satisfaction with promotion.

SUPPORTED. In using regression analysis, there is sufficient evidence to support the hypothesis that graduates who report higher levels of POQ report lower levels of satisfaction with work than other JDI factors. POQ measures, perceived no-grow and perceived mismatch, were able to predict the variation within satisfaction with work with a higher coefficient of correlation, R^2, than any other JDI factor, therefore Ho is rejected and hypothesis 3 is supported.

Hypothesis 4
Graduates that report turnover intent report higher levels of POQ.
Ho: The null hypothesis is that there is not significant difference between the means or those with turnover intent do not have a higher mean score for perceived overqualification.

NOT SIGNIFICANT. In using analysis of variance, there is neither sufficient nor insufficient evidence to support the hypothesis that graduates that report turnover intent report higher levels of POQ. The tests for both POQ measures were not significant.

Hypothesis 5

Graduates that report intent to search for a job with another employer report higher levels of POQ.

Ho: The null hypothesis is that there is not a significant difference between the means or those with intent to search for a job with another employer do not have a higher mean score for perceived overqualification.

NOT SIGNIFICANT. In using analysis of variance, there is neither sufficient nor insufficient evidence to support the hypothesis that graduates that report intent to search for a job with another employer report higher levels of POQ. The tests for both POQ measures were not significant.

Hypothesis 6

Graduates that report intent to search for a job within the Air Force report higher levels of POQ.

Ho: The null hypothesis is that there is not a significant difference between the means or those with intent to search for a job within the Air Force do not have a higher mean score for perceived overqualification.

SUPPORTED. In using analysis of variance, there is sufficient evidence to support the hypothesis that graduates that report intent to search for a job within the Air Force report higher levels of POQ. POQ measures, perceived no-grow and perceived mismatch, have significantly different means within the two groups. The means for both POQ measures were higher for those with intent to search for a job within the Air Force. Therefore, Ho is rejected and hypothesis 6 is supported.

Hypothesis 7

Graduates who report intent to stay 20 years in the Air Force report lower levels of POQ.

Ho: The null hypothesis is that there is not a significant difference between the means or those with intent to stay 20 years do not have a lower mean score for perceived overqualification.

SUPPORTED. In using analysis of variance, there is sufficient evidence to support the hypothesis that graduates that report intent to stay 20 years in the Air Force report lower levels of POQ. POQ measures, perceived no-grow and perceived mismatch, have significantly different means within the two groups. The means for both POQ measures were lower for those with intent to stay 20 years in the Air Force. Therefore, Ho is rejected and hypothesis 7 is supported.

Recommendations

The effects of perceived overqualification can be prevented. Perceived overqualification is a combination of the two constructs perceived no-grow and perceived mismatch. Implementing changes to focus on reducing these two constructs would reduce the occurrences of perceived overqualification and reduce the probability of turnover.

My first recommendation is to ensure opportunities for growth. This can be accomplished by placing AFIT graduates in existing jobs with growth potential or making changes to job structure to increase growth opportunities. Tsang (1985) found that the job structure was lagging as the average education level increased. After graduation, graduates are assigned to advance degree billets. These existing billets may be candidates for job structure changes to improve growth opportunities or identifying new advance degree billets may be necessary. Investing in job structure changes may provide a better long-term investment than programs that increase pay over the short-term. The organization may experience better returns from the short term investment but

when the pay incentives stop the benefit stops. Changes to the job structure would continue to benefit the organization and may only require periodic updates.

My second recommendation is to reduce the occurrences of perceived mismatch. The process of identifying advance degree billets should be reviewed to ensure matches. Organizations with advance degree billets should justify the need and show how the graduate skills will be used. Organizations seeking advance degree billets should have the opportunity to justify their need and compete for these advance degree billets. Job matching techniques such as interviews or a formal selection process may also improve the match quality. The AFIT program is an internal program. The Air Force has the latitude to make changes to the program. An area for consideration is curriculum tailoring. If the graduates are not providing the skills that are desired then there may be opportunities to make changes to the curriculum to better meet the needs of the Air Force.

Benefits and Contributions of Research

This research effort resulted in evidence to support the hypotheses that perceived overqualification is affecting graduate job satisfaction, commitment, and turnover mediators that have been linked to turnover behavior. These findings will be a tremendous source of information for the Air Force (USAF/DP), the AFIT graduate school, the U.S. Air Force and taxpayers.

USAF/DP will directly benefit from this study. As the Air Force's office of primary responsibility for personnel development and training, USAF/DP, with the

results of this study, will be armed with information and will be able to increase the effectiveness of education and training programs. Based upon the results of this study, USAF/DP has information that may help explain why some AFIT graduates leave the Air Force. This research may assist USAF/DP in making intelligent and informed changes to its policy and procedures in order to reduce the effects of perceived overqualification in AFIT graduates. It may also help identify other population that may be affected by perceived overqualification.

AFIT will benefit from this study. The better utilization of AFIT graduates could lead to an increase impact of the graduates of the AFIT program within the Air Force. AFIT equips it graduates with tools tailored to the needs of the Air Force. By providing graduates opportunities to use these tools, the graduate can and will make impact.

The Air Force and taxpayers may also benefit from this study. The Air Force and ultimately the taxpayer are making a significant investment in the individuals that participate in advance degree programs. By understanding the effects of perceived overqualification and implementing changes to reduce these effects, the Air Force can protect this investment by increasing the retention of these resources. New graduates can be used as tools to facilitate change to be inserted within the workforce to implement new ideas. This is especially important in this time of transformation.

Limitations

The study may be limited by sample bias. The sample was not random. All AFIT graduates from years 2002-1992 that were in the Air Force global address book were invited to participate. This sampling frame may be biased and may not be an accurate representation of the total population under study. The study did have between 29 and 38 percent representation of all graduates for each year group. The result of this study may only generalizable to this population and may not be generalizable to other populations within the Air Force or outside the Air Force. The sample is not representative of the Air Force as a whole. The sample only includes one pilot and two navigators. Other AFSCs are not represented in this sample. The sample is limited to U.S. Air Force officers so the results may not be generalizable to populations outside the Air Force. There may be unique factors that affect this population or unique characteristics that impact the results of the research.

A second limitation of this study is the timing of the measurements of perceived overqualification, job satisfaction, and commitment measurements. The survey had the respondent answer scales to measure perceived overqualification and job satisfaction associated with the job held immediately after AFIT. The graduate responses may have been affected by the time between holding that job and responding to the survey. Some respondents may still be serving in this job while some may have held the job as much as three years ago. The organizational commitment scale measured the respondent's current commitment. Again time may have impacted the commitment scores. This may explain POQ's limited ability to explain the variance in commitment.

The measurement scale of turnover intent was limited. Respondents were limited to a nominal response of yes, no, or cannot decide. The scale limited the analysis. An analysis of variance was used to compare the means within those responding yes and no. Regression analysis was not possible due to the nominal data.

Opportunities for Research

Future research should improve on the limitations involved in this research effort. One possible recommendation for future research is to study the effects of perceived overqualification over time. This may help understand how job satisfaction, commitment, and turnover intent change over time. It may also provide insight into the actual turnover behavior exhibited by the population.

This research may have potential benefits for other populations. Other populations within the Air Force may also be affected by perceived overqualification such as enlisted personnel, various training program participates, and AFSC not currently represented in the research sample. Research in these areas may provide insight into the behaviors exhibited by these groups.

Based upon the results of this research effort, there is evidence to support the hypotheses that perceived overqualification affects job satisfaction, commitment, and turnover intent. How can these effects being prevented? A potential area for future research would be to study the effectiveness of preventive measure. The Air Force has established a critical retention bonus for critical AFSC. What is the effect of this bonus?

Conclusion

Based on the research results, the proposed relationships of perceived overqualification with both job satisfaction and organizational commitment are generalizable to this population, U.S. Air Force AFIT graduates. The research results also provided evidence that perceived overqualification levels may contribute to turnover.

This chapter provided a brief summary of this research effort. Areas addressed included the research conclusions, recommendations, benefits, limitations, and suggestions for future research.

Attachment 1

INTRODUCTION AFPC control no. USAF SCN 03-014

There have been many studies on retention of military personnel. Studies have shown that in the private sector perceived overqualification negatively affects job satisfaction, commitment, and retention. This study tests these findings on the military personnel, specifically those attending the Air Force Institute of Technology (AFIT). If the findings prove to be true in the AFIT population, it may allow leadership to make more informed decisions in the retention of this population.

INSTRUCTIONS

This questionnaire is divided into four parts as follows:
1. Demographic Information
2. Perceived Overqualification Scale
3. The Job Descriptive Index
4. Commitment

Please answer each section according to the directions provided. The entire survey should take only 10-15 minutes to complete. Your name is not associated with your response to this survey and responses will remain anonymous. Thank you for participating in this survey.

Demographics Information

Select the answer that best describes you.

What is your current rank?
Second Lieutenant
First Lieutenant
Captain
Major
Lieutenant Colonel
Colonel

What is your total years of service for pay purposes?
1 2 years, but less than 4 years
2 4 years, but less than 8 years
3 8 years, but less than 12 years
4 12 years, but less than 16years
5 16 years or more

What is your current age?

6 20 – 25
7 26 – 30
8 31 – 35
9 36 or above

Please indicate your sex.

10 Male
1 Female

What is your current level of education?

1 Bachelor's Degree
2 Some Graduate School
3 Graduate Degree
4 PhD

What is your marital status?

2 Married
3 Divorced
4 Never Married
5 Widowed

What is your current AFSC?

Number of years in your current career field?

6 0 to 11 months
7 1 to 3
8 3 to 6
9 6 to 8
5 8 to 10
6 10+

Prior to attending AFIT how many years of experience did you have in the career field?

1 0 to 11 months
2 1 to 2
3 3 to 5
4 6 to 8
5 8 to 10
6 10+

How many years had elapsed between your undergraduate graduation and your participation in the AFIT program?

1 Less than 1 year
2 1 years, but less than 3 years
3 3 years, but less than 5 years
4 5 years, but less than 7 years
5 7 years or more

When did you graduate from AFIT?

1	2002	6	1997
2	2001	7	1996
3	2000	8	1995
4	1999	9	1994
10	1998	10	1993

Are you eligible to separate from the AF?

1 Yes
2 No

Perceived Overqualification Scale

Listed below are a series of statements that represent possible feeling an individual might have about a job. In this case rate the job position you filled **immediately** after your AFIT graduation.

Use the following rating scale to indicate your feelings about the job.

Strongly disagree / disagree / Neutral / agree / strongly agree
1 2 3 4 5

My job frequently provides me with new challenges.
1 2 3 4 5

My qualifications exceed those of my peers outside the Air Force.
1 2 3 4 5

My job/assignment utilizes my education.
1 2 3 4 5

The day-to-day content of my job seldom changes.
1 2 3 4 5

My formal education overqualifies me for my present job.

1 2 3 4 5

My job has a lot of potential for growth and change.
1 2 3 4 5

My talents are not fully utilized on my job.
1 2 3 4 5

Continuing education related to my job has improved my job performance.
1 2 3 4 5

My education exceeds that of my peers within my career field.
1 2 3 4 5

My work experience is more than necessary to do my present job.
1 2 3 4 5

I have mastered nearly every aspect of my job.
1 2 3 4 5

Based on my skills, I am overqualified for the job I hold.
1 2 3 4 5

My qualifications exceed those of my peers within my career field.
1 2 3 4 5

My education exceeds that of my peers outside the Air Force.
1 2 3 4 5

My job/assignment required a graduate degree.
1 2 3 4 5

The Air Force has benefited from my AFIT education.

1 2 3 4 5

In your opinion, what level of education does a person need in order to perform the job you had immediately after AFIT?
1 High School
2 Bachelor's Degree
3 Some Graduate School
4 Graduate Degree
5 PhD

Job Description Index

The following sections of the Job Description Index help to describe feelings individuals might have toward their particular job and work environment.

Think of your job held immediately after your AFIT assignment. What is/was it like most of the time? Select

1 for "Yes" if it describes your work

2 if you cannot decide

3 for "No" if it does NOT describe your work.

WORK ON MY JOB

Yes	Cannot Decide	No	
1	2	3	Fascinating
1	2	3	Routine
1	2	3	Satisfying
1	2	3	Boring
1	2	3	Good
1	2	3	Creative
1	2	3	Respected
1	2	3	Hot
1	2	3	Pleasant
1	2	3	Useful
1	2	3	Tiresome
1	2	3	Healthful
1	2	3	Challenging
1	2	3	On your feet
1	2	3	Frustrating
1	2	3	Simple
1	2	3	Endless
1	2	3	Gives sense of accomplishment

Think of your job held immediately after your AFIT assignment and the kind of supervision that you got on your job. How well does each of the following words describe this supervision? Select

1 if it describes the supervision you got on your job

2 if you cannot decide

3 if it does NOT describe it

SUPERVISION ON MY JOB

Yes	Cannot Decide	No	
1	2	3	Asks my advice
1	2	3	Hard to please
1	2	3	Impolite
1	2	3	Praises good work
1	2	3	Tactful
1	2	3	Influential
1	2	3	Up-to-date
1	2	3	Doesn't supervise enough
1	2	3	Quick tempered
1	2	3	Tells me where I stand
1	2	3	Annoying
1	2	3	Stubborn
1	2	3	Knows the job
1	2	3	Bad
1	2	3	Intelligent
1	2	3	Leaves me on my own
1	2	3	Around when needed
1	2	3	Lazy

Think of your job held immediately after your AFIT assignment and the pay you got for your job. How well does each of the following words describe the pay you received for your job? Select

1 if it describes your pay

2 if you cannot decide

3 if it does NOT describe it

PAY

Yes	Cannot Decide	No	
1	2	3	Income adequate for normal expenses
1	2	3	Barely live on income
1	2	3	Bad
1	2	3	Income provides luxuries
1	2	3	Insecure
1	2	3	Less than I deserve
1	2	3	Highly paid
1	2	3	Underpaid

Think of your job held immediately after your AFIT assignment and the opportunities for promotion you received. How well does each of the following words describe these opportunities? Select

1 for "Yes" if it describes your opportunities for promotion
2 if you cannot decide
3 for "No" if it does NOT describe them

OPPORTUNITIES FOR PROMOTION

Yes	Cannot Decide	No	
1	2	3	Good opportunities for promotion
1	2	3	Opportunities somewhat limited
1	2	3	Promotion on ability
1	2	3	Dead-end job
1	2	3	Good chance for promotion
1	2	3	Unfair promotion policy
1	2	3	Infrequent promotions
1	2	3	Fairly good chance for promotion

Answer the following concerning your intention following your job held immediately after your AFIT assignment. Select

1 for "Yes" if it describes your actions or intentions
2 if you cannot decide
3 for "No" if it does NOT describe them

TURNOVER INTENTION

Yes	Cannot Decide	No	
1	2	3	Did/do you intend to leave the Air Force when you complete(d) your AFIT commitment?
1	2	3	After you compete(d) your AFIT commitment, do you plan to/did you make any efforts to find a new job outside the Air Force?
1	2	3	Did you seek a new job within the Air Force to better utilize your skills?
1	2	3	Do you intend to spend over 20 years in the Air Force?

Commitment

Listed below are a series of statement that represent possible feeling that individuals may have about an organization for which they work. In this case, as Air Force Officers, please consider the organization for which you work the Air Force and NOT your specific organization, MAJCOM, base, ect.

Use the following rating scale to indicate your feelings about the job.

Strongly disagree / disagree / Neutral / agree / strongly agree
1 2 3 4 5

I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
1 2 3 4 5

I talk up this organization to my friends as a great organization to work for.
1 2 3 4 5

I feel very little loyalty to this organization.
1 2 3 4 5

I would accept almost any type job assignment in order to keep working for this organization.

1 2 3 4 5

I find that my values and the organization's values are very similar.

1 2 3 4 5

I am proud to tell others that I am part of this organization.

1 2 3 4 5

I could just as well be working for a different organization as long as the type of work was similar.

1 2 3 4 5

This organization really inspires the very best in me in the way of job performance.

1 2 3 4 5

It would take very little change in my present circumstances to cause me to leave this organization.

1 2 3 4 5

I am extremely glad that I chose this organization to work for, over others I was considering at the time I joined.

1 2 3 4 5

There's not too much to be gained by sticking with this organization indefinitely.

1 2 3 4 5

Often, I find it difficult to agree with this organization's policies on important matters relating to employees.

1 2 3 4 5

I really care about the fate of this organization.

1 2 3 4 5

For me this is the best of all possible organizations for which to work.

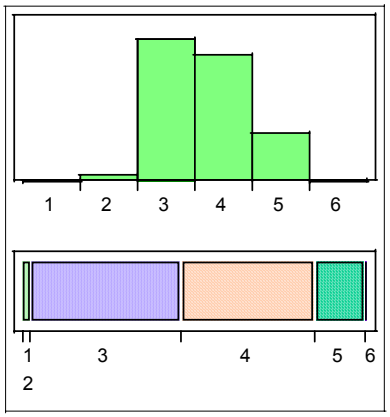
1 2 3 4 5

Deciding to work for this organization was a definite mistake on my part.

1 2 3 4 5

Attachment 2

Distributions
Rank

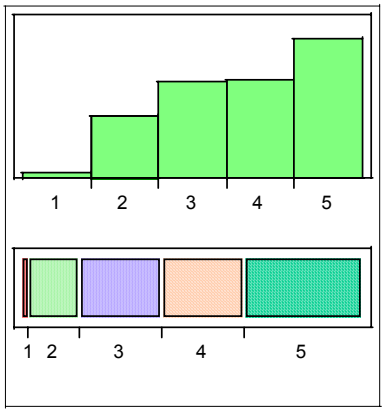


Frequencies

Level	Count	Prob
1	1	0.00165
2	13	0.02145
3	266	0.43894
4	237	0.39109
5	88	0.14521
6	1	0.00165
Total	606	1.00000

6 Levels

Distributions
Years in Service

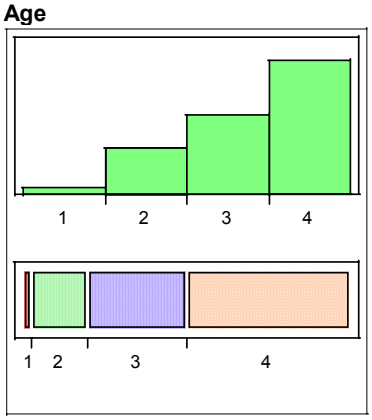


Frequencies

Level	Count	Prob
1	10	0.01650
2	94	0.15512
3	144	0.23762
4	148	0.24422
5	210	0.34653
Total	606	1.00000

5 Levels

Distributions
Age

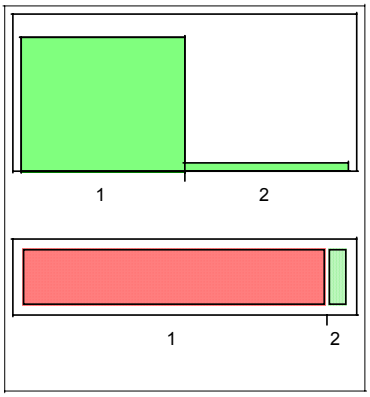


Frequencies

Level	Count	Prob
1	17	0.02805
2	105	0.17327
3	181	0.29868
4	303	0.50000
Total	606	1.00000

4 Levels

Distributions
Sex

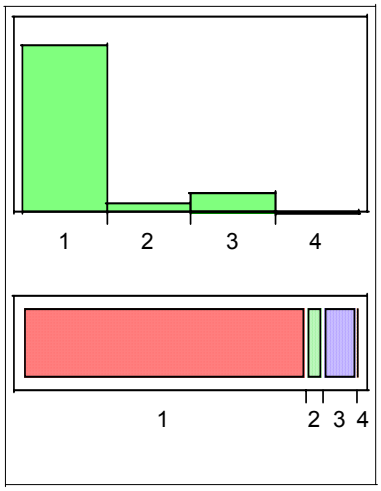


Frequencies

Level	Count	Prob
1	567	0.93564
2	39	0.06436
Total	606	1.00000

2 Levels

Distributions
Marital Status

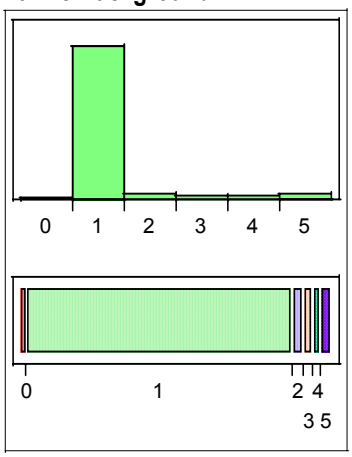


Frequencies

Level	Count	Prob
1	514	0.84818
2	29	0.04785
3	60	0.09901
4	3	0.00495
Total	606	1.00000

4 Levels

Distributions
Ethnic Background

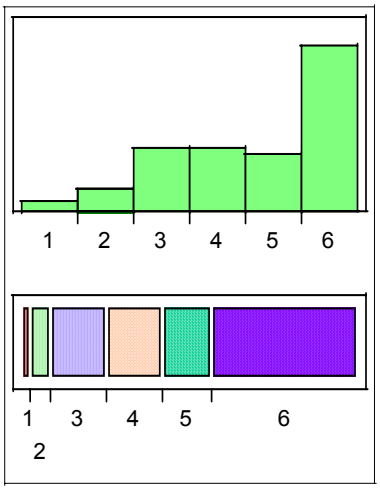


Frequencies

Level	Count	Prob
0	12	0.01980
1	520	0.85809
2	20	0.03300
3	18	0.02970
4	15	0.02475
5	21	0.03465
Total	606	1.00000

6 Levels

Distributions
Years in current career field

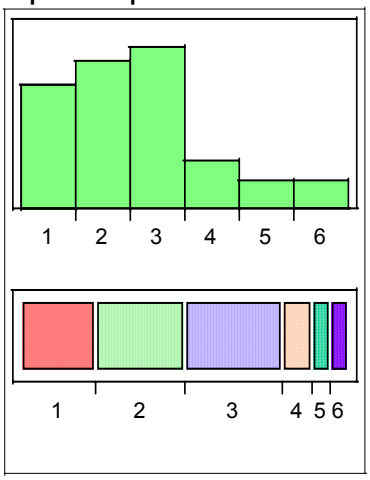


Frequencies

Level	Count	Prob
1	16	0.02640
2	38	0.06271
3	101	0.16667
4	100	0.16502
5	90	0.14851
6	261	0.43069
Total	606	1.00000

6 Levels

Distributions
Experience prior to AFIT

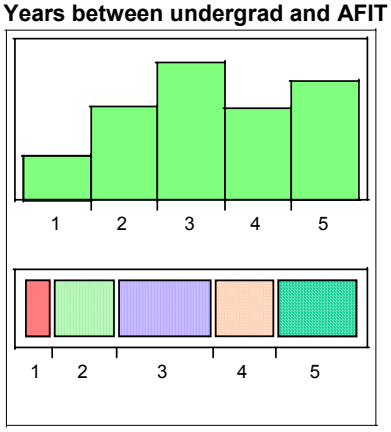


Frequencies

Level	Count	Prob
1	138	0.22772
2	166	0.27393
3	182	0.30033
4	55	0.09076
5	32	0.05281
6	33	0.05446
Total	606	1.00000

6 Levels

Distributions
Years between undergrad and AFIT

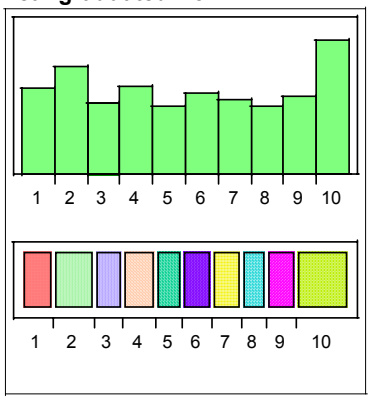


Frequencies

Level	Count	Prob
1	55	0.09076
2	116	0.19142
3	172	0.28383
4	115	0.18977
5	148	0.24422
Total	606	1.00000

5 Levels

Distributions
Year graduated from AFIT

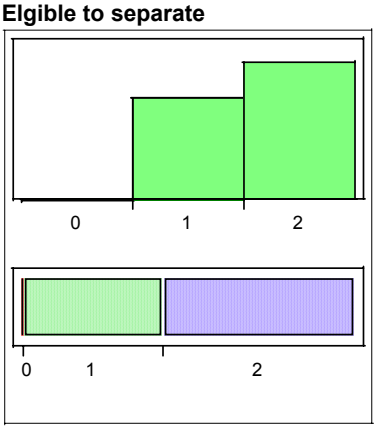


Frequencies

Level	Count	Prob
1	61	0.10066
2	76	0.12541
3	51	0.08416
4	62	0.10231
5	48	0.07921
6	57	0.09406
7	53	0.08746
8	48	0.07921
9	55	0.09076
10	95	0.15677
Total	606	1.00000

10 Levels

Distributions
Elgible to separate

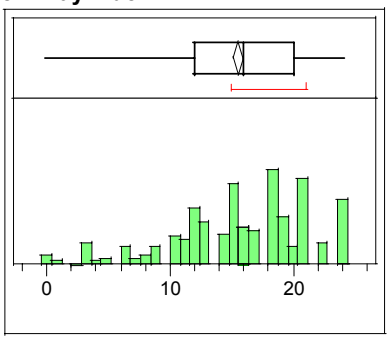


Frequencies

Level	Count	Prob
0	4	0.00660
1	256	0.42244
2	346	0.57096
Total	606	1.00000

3 Levels

Distributions
JDI Pay Index



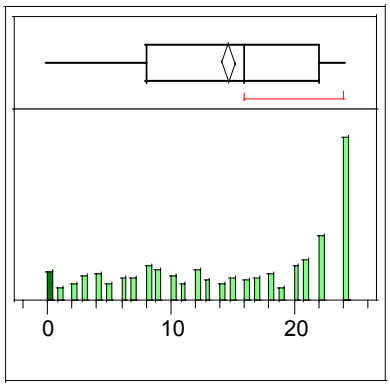
Quantiles

100.0%	maximum	24.000
99.5%		24.000
97.5%		24.000
90.0%		22.000
75.0%	quartile	20.000
50.0%	median	16.000
25.0%	quartile	12.000
10.0%		8.000
2.5%		3.000
0.5%		0.000
0.0%	minimum	0.000

Moments

Mean	15.582508
Std Dev	5.5320814
Std Err Mean	0.2247254
upper 95% Mean	16.023845
lower 95% Mean	15.141172
N	606

Distributions
JDI Promotion Index



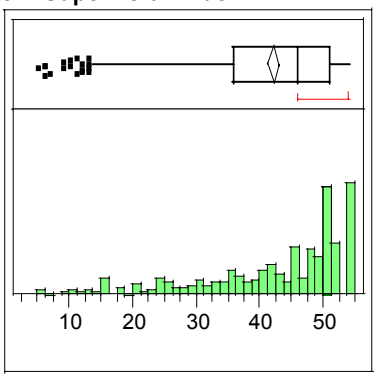
Quantiles

100.0%	maximum	24.000
99.5%		24.000
97.5%		24.000
90.0%		24.000
75.0%	quartile	22.000
50.0%	median	16.000
25.0%	quartile	8.000
10.0%		3.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

Moments

Mean	14.688119
Std Dev	7.87905
Std Err Mean	0.3200645
upper 95% Mean	15.316691
lower 95% Mean	14.059546
N	606

Distributions
JDI Supervision Index



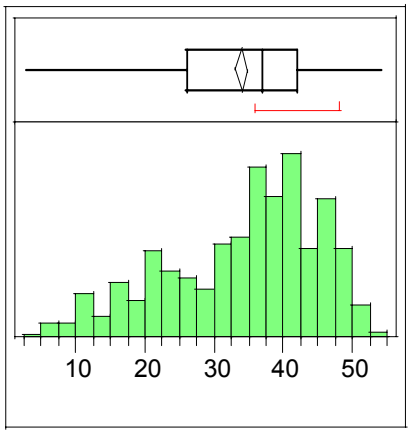
Quantiles

100.0%	maximum	54.000
99.5%		54.000
97.5%		54.000
90.0%		54.000
75.0%	quartile	51.000
50.0%	median	46.000
25.0%	quartile	36.000
10.0%		24.000
2.5%		13.000
0.5%		6.000
0.0%	minimum	5.000

Moments

Mean	42.150165
Std Dev	11.764025
Std Err Mean	0.4778809
upper 95% Mean	43.088672
lower 95% Mean	41.211658
N	606

Distributions
JDI Work Index



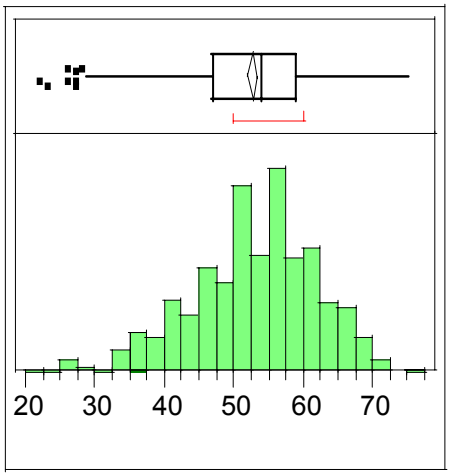
Quantiles

100.0%	maximum	54.000
99.5%		52.000
97.5%		49.825
90.0%		47.000
75.0%	quartile	42.000
50.0%	median	37.000
25.0%	quartile	26.000
10.0%		17.000
2.5%		10.000
0.5%		6.000
0.0%	minimum	3.000

Moments

Mean	33.978548
Std Dev	11.002383
Std Err Mean	0.4469413
upper 95% Mean	34.856293
lower 95% Mean	33.100803
N	606

Distributions
Commitment



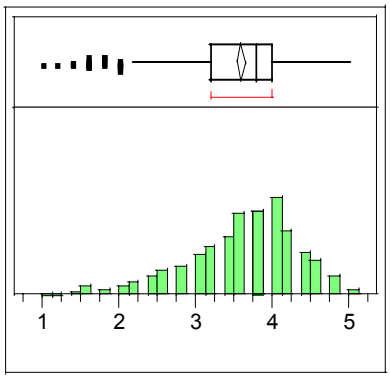
Quantiles

100.0%	maximum	75.000
99.5%		70.000
97.5%		68.000
90.0%		64.000
75.0%	quartile	59.000
50.0%	median	54.000
25.0%	quartile	47.000
10.0%		41.000
2.5%		34.000
0.5%		26.000
0.0%	minimum	22.000

Moments

Mean	52.679868
Std Dev	8.9211323
Std Err Mean	0.3623962
upper 95% Mean	53.391575
lower 95% Mean	51.968161
N	606

Distributions
Perceived No-Grow



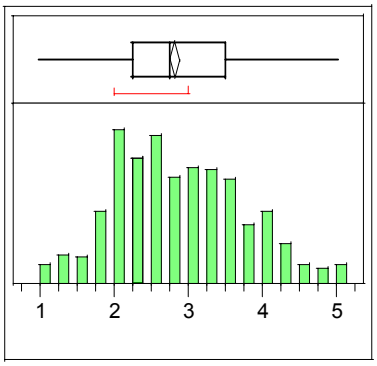
Quantiles

100.0%	maximum	5.0000
99.5%		5.0000
97.5%		4.8000
90.0%		4.4000
75.0%	quartile	4.0000
50.0%	median	3.8000
25.0%	quartile	3.2000
10.0%		2.6000
2.5%		1.8000
0.5%		1.4000
0.0%	minimum	1.0000

Moments

Mean	3.5963696
Std Dev	0.7287621
Std Err Mean	0.0296039
upper 95% Mean	3.6545086
lower 95% Mean	3.5382307
N	606

Distributions
Perceived Mismatch



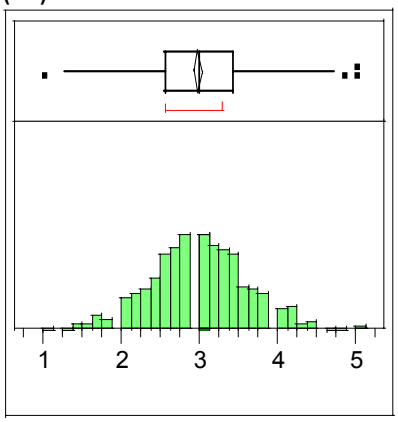
Quantiles

100.0%	maximum	5.0000
99.5%		5.0000
97.5%		4.7500
90.0%		4.0000
75.0%	quartile	3.5000
50.0%	median	2.7500
25.0%	quartile	2.2500
10.0%		1.7500
2.5%		1.2500
0.5%		1.0000
0.0%	minimum	1.0000

Moments

Mean	2.8226073
Std Dev	0.8758045
Std Err Mean	0.0355771
upper 95% Mean	2.8924769
lower 95% Mean	2.7527376
N	606

Distributions
(AF) Perceived Mismatch



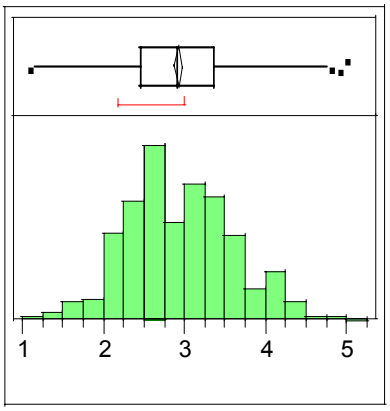
Quantiles

100.0%	maximum	5.0000
99.5%		4.8521
97.5%		4.1429
90.0%		3.8571
75.0%	quartile	3.4286
50.0%	median	3.0000
25.0%	quartile	2.5714
10.0%		2.1429
2.5%		1.7143
0.5%		1.4286
0.0%	minimum	1.0000

Moments

Mean	2.9863272
Std Dev	0.624956
Std Err Mean	0.0253871
upper 95% Mean	3.0361848
lower 95% Mean	2.9364697
N	606

Distributions
Combined Mismatch



Quantiles

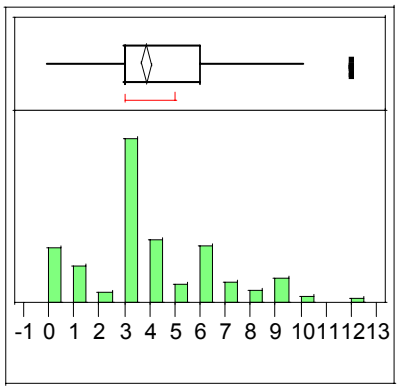
100.0%	maximum	5.0000
99.5%		4.8150
97.5%		4.2727
90.0%		3.8182
75.0%	quartile	3.3636
50.0%	median	2.9091
25.0%	quartile	2.4545
10.0%		2.1818
2.5%		1.7273
0.5%		1.2727
0.0%	minimum	1.0909

Moments

Mean	2.9267927
Std Dev	0.6529137
Std Err Mean	0.0265228
upper 95% Mean	2.9788806
lower 95% Mean	2.8747047
N	606

Distributions

Turnover Intent Index



Quantiles

100.0%	maximum	12.000
99.5%		12.000
97.5%		10.000
90.0%		8.000
75.0%	quartile	6.000
50.0%	median	3.000
25.0%	quartile	3.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

Moments

Mean	3.879538
Std Dev	2.6386217
Std Err Mean	0.1071867
upper 95% Mean	4.0900411
lower 95% Mean	3.6690348
N	606

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Vita

Captain Thomas E. Hoskins was born 2 October 1973 in Monmouth, Illinois. He graduated from Moline High School in Moline, Illinois in 1991. In 1995, he graduated from Virginia Military Institute with a Bachelor of Arts degree in Economics and Business. His first assignment was to the 355th Operational Contracting Squadron at Davis-Monthan AFB, Arizona. While there he served as a buyer in the construction, commodities, and services branches. In 1998, he was assigned to the Launch program office at Space and Missile Systems Center at Los Angeles AFB, California. While there he worked as the procurement contracting officer for Atlas and IUS programs. Captain Hoskins entered the school of Engineering and Management at the Air Force Institute of Technology in August of 2001.

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13. SUPPLEMENTARY NOTES

14. ABSTRACT

The U.S. Air Force provides multiple programs to increase the educational skills of its workforce. This study focuses on the Air Force Institute of Technology (AFIT) graduate level, in-residence degree program. The Air Force is making a significant investment in the education of its members. Studies on perceived overqualification, overeducation, and match quality suggest that utilization plays a role in an individual's job satisfaction and organizational commitment. Job satisfaction and organizational commitment levels can be used as predictors of turnover. This research studies the levels of perceived overqualification in AFIT graduates and how it effects their job satisfaction, organizational commitment, and turnover. Data for this research was collected using an on-line survey tool, Facilitate.com. Analysis indicates that US Air Force officers who perceived that they were overqualified for their AFIT follow-on assignment did experience lower levels of job satisfaction and organizational commitment. The hypotheses, results, and analysis of this study are presented along with recommendations and suggestions for future research..

15. SUBJECT TERMS

Job Satisfaction, Organizational Theory, Organizational Commitment, Perceived Overqualification, Turnover, Overeducation

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