ANALYSIS OF JOB SATISFACTION, PAY, AND THE CAREER INTENT OF NAVAL AVIATORS

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CHAPTER I

INTRODUCTION

In recent years the retention rate for aircraft pilots in the military services has decreased. Historically, military and civilian leadership has held that inadequate pay (Anton, 1997) and increased commercial airline hiring (Galvin, 1999; Kleinman & Zuhoski, 1980) are the main causes of decreased retention. While research indicates that opportunity (airline hiring) may have a significant impact on retention (Price & Mueller, 1986), pay is not as clearly identifiable (Kohn, 1993).

Career development, motivation, management and human relations, and supporting psychological theories all have findings from research that can be related to the retention problems that the services are now experiencing. While the military is actively identifying and taking interventions on programs and issues that have been contributors to job dissatisfaction among military members (U.S. General Accounting Office, 1999c), bonuses have been the main instrument utilized to attempt to increase military pilot retention (Asch & Hosek, 1999; Brown, 2000).

Research, especially in the last two decades, has revealed that job commitment is made up of many factors. The most clearly defined variables influencing career intentions have shown to be job satisfaction (Mobley, 1977; Spector, 1997; Agho, Mueller, & Price, 1993), organizational commitment (Brief, 1998; Fenton-O'Creevy, Winfrow, Lydka, & Morris, 1997; Lee, Ashford, Walsh, &

Mowday, 1992; Kacmar, Carlson, & Brymer, 1999; Meyer & Allen, 1997), opportunity (Agho et al.; Ermel & Bohl, 1997), met expectations (Meyer, Bobocel, & Allen, 1991; Vroom, 1964), individual disposition (Brief, 1998; Ford, 1992; Shaw, 1999; Shaw, Duffy, Jenkings, & Gupta, 1999; Weiss, Nicholas, & Daus, 1999) and job motivation (McNerney, 1996; Deci & Ryan, 1985; Herzberg, 1987; Highhouse & Becker, 1993; Kohn, 1993, 1998). Many facets make up each of these variables to different degrees and vary between individuals and populations, thereby making it difficult to definitively describe the constructs of any one variable. With a clearly defined organizational environment, job characteristics, and a fairly homogenous population, the military can initiate measures to identify factors affecting Naval Aviator retention, and the interventions to improve deficiencies.

Justification for the Study

There are many Navy manpower and personnel planning practices that contributed to current Naval Aviator shortages. In fiscal year 1990 the Navy accessed 1,039 Naval Aviators and in fiscal year 1994 only 471 Naval Aviators, a decrease of 55% (U.S. General Accounting Office, 1999a). At the same time accessions were decreasing, the military was experiencing it's largest personnel draw down since the end of World War II. In short, the Navy was bringing in fewer Naval Aviators while increasing involuntarily separations. Decreases in Naval Aviator retention rates greatly exacerbated the effect of manning practices and the draw down. Military Naval Aviators were leaving the services in record numbers with Naval Aviator retention rates decreasing from 39% in FY 1997 to 30% in FY

1999 (Ryan & McGann, 2000). In fiscal year 1999 the Navy was undermanned by 1153 Naval Aviators, or 15% of Naval Aviator requirements (U.S. General Accounting Office, 1999c). Even with monetary increases in Naval Aviator ACCP (Aviation Career Continuation Pay), acceptance rates in Fiscal year 1999 decreased by 50% from two years prior (Anton, 1997). The main argument given by political and military leadership on decreasing Aviator retention centered on pay and external job opportunities with the airlines. Since the military cannot influence external factors, increases in pay have been utilized in an attempt to increase retention. With vacancies that are higher than manning availability, increased operational requirements, long lead times required for training to meet requirements, and training costs that average $6 million per Naval Aviator (U.S. General Accounting Office, 1999c), the military must identify all factors that are contributing to Naval Aviator losses to minimize their impact. Funding constraints also dictate that programs be effective and achieve their desired outcome at the lowest cost to the government.

Statement of the Problem

The aggregate retention rate for Naval Aviators steadily declined in the latter 1990's and in 1999 reached 30%. In June 1999 the Navy was 1,150 Naval Aviators, or 15%, short of its manning requirement of 7,712 Naval Aviators. Historically, when Naval Aviator retention rates are low, Navy manpower programmers utilize continuation bonuses to increase Naval Aviator pay levels in an attempt to improve retention. However, the acceptance rates for these bonuses have decreased from

50% in fiscal year 1994 to 21% in fiscal year 1998 (U.S. General Accounting Office, 1999b). Naval Aviator pay satisfaction and its affect on job satisfaction and career intentions have not been assessed prior to initiating bonus programs, therefore the extent of the need is not identified.

Purpose of the Study

In assessing Naval Aviator retention issues the predicted effectiveness of pay interventions, bonuses, or monetary initiatives, should be evaluated in relation to the perceived needs and deficiencies of the population. Those variables that have the strongest influence on career intentions and retention should be identified. If pay satisfaction is assessed as being low and that it negatively impacts career intentions and retention, then facets of pay should be evaluated to identify practices that can alleviate the deficiency. If pay satisfaction is high, then other variables contributing to negative career intentions and decreased retention should be assessed, evaluated and identified to clearly define the most effective interventions for increasing retention.

The purpose of this study is to evaluate pay satisfaction, job satisfaction, and the career intentions of Naval Aviators and evaluate the relationship between pay and job satisfaction relative to career intentions.

The following research questions are utilized in identifying the relationships between pay satisfaction, job satisfaction and the career intentions of Naval Aviators.

Research Questions

1) How satisfied are Naval Aviators with their pay?
2) How satisfied are Naval Aviators with their job?
3) What are the career intentions of Naval Aviators?
4) What is the relationship of job satisfaction; pay satisfaction and the career intentions of Naval Aviators?

Definitions

The following terms and definitions are furnished to provide clear and concise meanings of terms as presented in this study.

ACCP - Aviation Career Continuation Pay. ACCP is a bonus that is paid to Naval Aviators who agree to remain on active duty for a determined length of time. The current bonus structure pays Naval Aviators $25,000 a year for 5 years following their initial required commitment of naval service.

ACIP - Aviation Career Incentive Pay is monthly pay that is given to all qualified aviators as long as they maintain medical and flight currency requirements. ACIP increases with longevity and is currently between $125 to $850 a month.

Billet - Term utilized by the Navy that is equivalent to a job position.

Commanding Officer - Otherwise known as CO or Skipper. In a Navy organization the Commanding Officer is normally in the grade of O-5, which is the Navy rank of Commander.

Executive Officer - Otherwise known as XO. In a Navy organization the Executive Officer is second in command to the Commanding Office and is normally in the grade of O-5, which is the Navy rank of Commander. The XO normally serves for 12 – 18 months and then assumes the duties and title of Commanding Officer.

Naval Aviator - Title of a Navy pilot.

NFO - Naval Flight Officer. An NFO is a naval officer designated and trained to perform aircrew duties, not as a Naval Aviator. NFO's normally fill aircrew positions such as navigator, Airborne Communications Officer (ACO), Radio Intercept Officer (RIO), and Electronic Counter Measures Officer (ECMO).

Service members – A member of the Armed Forces.

Squadron – Term used to identify a Navy organization whose primary mission is to fly aircraft.

CHAPTER II

REVIEW OF LITERATURE

The literature review traces the historical and theoretical foundations of motivation, career development, management/human relations and covers Naval Aviator careers, pay and retention issues and their affect on Naval Aviation.

Naval Aviators are very selectively chosen and as such many of the career development theories based on interests, personality and abilities (both physical and mental) are accounted for prior to their entrance into military service. Due to the extensive pre-employment screening and training requirements of Naval Aviators, this study will not review literature on career development pertaining to personality traits, job characteristics, personal abilities and person/job match. The military has a long history of extensive personnel screening and subsequent training programs designed to ensure that the individuals selected for assignments to Naval Aviator positions have the physical ability, aptitude, desire and skills required for successful job accomplishment.

Motivational and psychological theories cross many areas that parallel career development and identify factors that pertain to personal goals and performance that transcend interests, abilities and personality.

In assessing the factors that contribute to Naval Aviator pay satisfaction, job satisfaction and career intentions, a review of psychological, motivational and organizational development theories follows.

Motivation

Fundamental to the study of motivation is what, and why, of behavior causation. Steers and Porter (1987) held that, "When we discuss motivation, we are primarily concerned with (1) what energizes human behavior; (2) what directs or channels such behavior; and (3) how is this behavior maintained or sustained" (Steers & Porter, 1987, p. 5). Motivation theory and study addresses the question of why people want to behave, and the desire to exhibit that behavior. The understanding of how motivation participates with and influences behavior is described by various motivational theories. Reeve identified motivation theory as the processes that give behavior its energy and direction. Energy can be inferred to be the strength and intensity of the behavior, while direction implies a purpose or goal. Motive is a term that generalizes needs, cognitions, and emotions, each of which guides behavior through their associated goals (Reeve, 1997).

Motivation can be classified into internal motives that are made up of needs, cognitions and emotions, and external events (Reeve, 1997). Motivational studies center on the relationship, description and explanation of these factors.

Needs and Goals

Needs are physiological or psychological states that motivate action in either a deficiency-remedying or growth-promoting way (Herzberg, 1987). Maier and Verser (1982) identified both subjective and objective aspects of a motivating situation. The subjective aspect is the individual's needs, drives, motives, or desires. The objective aspect is an object outside the individual, which may be called a goal (Maier & Verser, 1982). When a goal is realized that satisfies, and therefore removes a need, then the situation is termed motivating.

Intrinsic and Extrinsic Motivation

Deci identifies internal, or intrinsic, motivation as "the innate propensity to engage one's interests and exercise one's capabilities and in doing so, seek out and master optimal challenges" (Deci & Ryan, 1985, p. 32). Intrinsic motivation develops from psychological needs, internal growth desires, and curiosities. Intrinsic motivation has a natural, internal origin that fosters personal learning and development without external rewards or pressure. People do not always generate their own motivation as environmental factors that are external or extrinsic often contribute to the motive. Those external factors that act upon an individual may be positive or negative in nature. The determination of intrinsic or extrinsic motivators is not always clear, the difference being the source of the motivation. Rewards, punishment, and incentives that are contingent on behavior drive extrinsically motivated behavior, while intrinsic motivation is driven by internalized individual needs (Reeve, 1997). Although it would appear intuitive, the interrelationship of

intrinsic and extrinsic motivation is not always summative. An extrinsic reward has a negative impact on an intrinsically driven behavior and reduces future intrinsic motivation to exhibit that behavior (Lepper & Green, 1978). The locus of control and perception of self-determination are no longer driven internally and the locus of causality becomes external and less contingent on intrinsic motivation (Riipinen, 1996). Extrinsic rewards in themselves are not detrimentally motivating factors as long as the condition and circumstances are conducive to their usage.

In our behavior we are motivated intrinsically or extrinsically. Extrinsic motivators tend to meet short-term needs or requirements, either desired personally or required by law. A fine is an extrinsic motivation to not demonstrate a behavior; monetary payments (bonuses) are extrinsic rewards for a behavior. The problem with extrinsic motivation is that it does not meet the higher growth needs of an individual (Maslow, 1943, 1970). Intrinsic motivation effects an individual's interest, stimulates growth and fosters development. Intrinsic motivation is longer lasting and farther reaching than extrinsic or reward motivators (Csikszentimihalyi & Nakamura, 1989).

Motivation in Management Theories

Motivational theories have evolved and transitioned through many stages while influencing prominent management philosophies. Tracing the history of motivational development reveals the evolution of thought, while many theories influence management ideologies across eras and continue unchanged. The divergent understandings and application of reward systems effect on behavior and

retention can in part be blamed on the confusion of conflicting ideologies, theories and historical examples.

Scientific Management. In the early 1900s the closed model of management was prevalent in Max Weber's bureaucratic theory and Fredrick Taylor's principles of scientific management (Henry, 1999). These theories portrayed man as machine and relied on manipulative and anti-humanistic processes and time-motion analysis to achieve what they deemed efficient behavior. Management in this era believed that employees were driven toward one goal, and that was making as much money as possible. Pay was linked to production and elaborate earning systems were devised based incrementally on output. When researchers found that behavior at work could not be explained entirely by the desire to earn money the search turned toward intervening variables. The primacy of money as a motivator was not discarded, but extraneous factors such as fatigue, nourishment, and environmental factors were sought out.

The Hawthorne Effect. This line of discovery on Taylor's principles led to research by Elton Mayo and a team from Harvard University at a textile mill in the 1920's. The findings of their research showed that employees who were given extra breaks and meals at work improved their performance, and when these benefits were removed productivity decreased. The follow on of this research was a 10-year study at the Hawthorne Works of the Western Electric Company. The Hawthorne study assessed the effects of many suspected fatigue inducing factors such as lighting, breaks, and temperature. The research at Hawthorne was based on the currently

held Scientific Management Theory, the hypothesis was that workers would respond in a machine like behavior to changes in working conditions and the environment. In their attempts to ensure that no other variables intervened in the study, the researchers unknowingly intensified one of the most important, although unknown, variables of all. The interest of the company in its employees was increased through their regular questioning on health, welfare and morale. The questioning was intended to assess personal variable effects on the research and in doing so, changed the quality of interpersonal relationships at work. The effect was that employee productivity increased regardless of the improvement or deterioration of environmental conditions introduced by the team. The results of the research, now known as "The Hawthorne Effect", had an almost revolutionary impact on prevailing management and work motivation theories. The centrality of money in motivation was replaced by the importance of "Human Relations". Motivation theories that developed following the Hawthorne studies were built in part upon human relation findings.

Management Theory evolved concurrently with findings in motivation, organizational structures shifted from a bureaucratic, hierarchical orientation to that of an open structure with Human Relations and Organizational Development (Henry, 1999) as precepts.

Needs Theory

Maslow's Hierarchy of Needs. In 1954 Maslow introduced his "needs hierarchy" (Maslow, 1954), which was based upon human needs arranged in a

hierarchical, or pyramid orientation. Maslow held that individuals are motivated to seek satisfaction at the lower levels, which were survival needs, out of a "deficiency motivation"; a condition where something is lacking that must be fulfilled before attending to higher needs. Maslow's Self-Actualization needs are "growth" motivated and fulfill individual satisfaction needs. The orientation of need hierarchy has a foundation of basic needs (water, food, and shelter), which are built upon and progress through physical well being, social acceptance, self-esteem and finally, self-actualization. The overall premise of Maslow's theory held that unfulfilled lower level needs are normally met before higher level needs are attended to. Conversely, if all lower level needs are met and self esteem, social, or self-actualization needs are not fulfilled, the individual will do whatever is necessary to meet those needs.

Manifest Needs Theory. Henry A. Murray structurally described personality in terms of traits, or needs and motives (Steers & Porter, 1987). Murray proposed that a core universal set of human needs governed most behaviors. Murray contended that individuals could be classified according to the strengths of various personality-need variables. These needs were thought to represent a central motivating force with directional and intensity components for goal directed behavior. Every individual is made up of any combination of these needs that direct behavior toward the satisfaction of those needs central to the personality. Murray identified 19 needs that he believed directed behavior; of which achievement, affiliation, autonomy, and dominance (power) have received the greatest attention.

n Ach. n Ach, or n Achievement are abbreviations on Murray's achievement personality need. David C. McClelland is best known for his development of the theories based on achievement motives (McClelland, 1966). The need for achievement is the desire to do well and it motivates people to seek "success in competition with a standard of excellence" (Reeve, 1997). A high need for achievement is characterized by: "1) a strong desire to assume personal responsibility for finding solutions to problems; 2) a tendency to set moderately difficult achievements goals and take calculated risks; 3) a strong desire for concrete feedback on task performance; and 4) a single-minded preoccupation with task and task accomplishment." (Steers & Porter, 1987, p. 60).

Hygiene Theory. Herzberg developed the two-factor content theory of motivation (Gibson, Ivancevich, Donelly, 1997). The two factors are labeled as dissatisfiers - satisfiers or hygiene - motivators. Herzberg held that humans must attend to "hygiene factors" before they are able to attend to "motivators", or work requirements. The hygiene and motivator factors identified by Herzberg parallel Maslow's need theory. The term's satisfiers and dissatisfiers are used pervasively in literature to identify the two polar origins of motivating forces. A distinct difference of hygiene theory from previous need theories is the relationship of the factors. Herzberg identified hygiene - motivator profiles based on the nature of the job, organization, and employee. Hygiene factors are only dissatisfiers if they are not present, but their presence does not make them a satisfier. Pay is not identified as a satisfier. However, inadequate pay (hygiene) is a dissatisifier. Motivation

factors are predominately satisfiers, and their absence does not necessarily create dissatisfaction (Herzberg, Mausner, & Snyderman, 1959).

Cognitive Theories

Psychological research and studies in cognitive processes brought unobservable intervening variables to light. Behavior determinants began to change from stimulus-response associations to that of choice and decision-making. Most cognitive theorists have treated all behaviors as if they were chosen and based on expectations about future outcomes (Vroom, 1964) or future reinforcements (Bandura, 1977). By setting personal goals, people help to organize, guide and sustain their own behavior (Lent, Brown & Hackett, 1986).

Motivational theories continued to develop and evolve from needs identification to cognition and mental activity as related to plan and goal setting, expectancies, and dissonance. Two main paths on expectancy theory developed; self-efficacy theory and expectancy or VIE (Valence-Instrumentality-Expectancy) theory.

Self-Efficacy Theory. Bandura's theory on self-efficacy, SCCT (Social Cognitive Career Theory) incorporates self-efficacy, outcome expectations, and personal goals as the foundation of individual career decision determinates (Bandura, 1977). Outcome expectations are derived from experiences while individual goals are the activities identified to achieve a future outcome. Perceived self-efficacy expectations are a judgment of one's capability to accomplish a certain level of performance, not outcome.

Expectancy Theory. VIE, or expectancy times value theory (Vroom, 1964) relates to job satisfaction based on the premise employees enter the work organization with expectations and values; and, if these preconceived expectations are met, they will normally retain membership in the organization. Expectations are beliefs about the characteristics of an organization and values are concepts based on preferred action. Pivotal to the basis of expectancy theory is expectations, which are based on perceptions influenced by internal values and experience, which may or may not be valid.

Equity Theory. A theory of motivation that is regularly referred to in pay research is that of equity theory. Equity theory (Steers & Porter, 1987) is based on social exchange processes. In short, the theory holds that individuals evaluate social and financial transactions that they make. Transactions occur when individuals make contributions (investments) for which they expect certain outcomes. It is assumed that individuals have expectations about the outcomes that should occur when they contribute an investment or resource in the course of interaction. Equity theory centers on the evaluation that is made on each transaction. If the individual making the contribution has their expectations of the outcome exceeded, then the transaction has a positive influence on the individual. If the outcome is less than expected, then the influence is negative. Equity theory extends beyond the direct transaction to external transactions as well. Individuals develop their expectations on the outcome of a transaction based on other transactions that they observe occurring. If an individual observes another individual receiving pay for a transaction, and then personally receives less pay for contributing the same

investment into their own transaction, they will be negatively affected. In short equity theory is based on the concept of perceived fairness.

Psychological, cognitive, and sociological theories all address internal factors that determine individual actions and behaviors in everyday activities and in setting goals and objectives for the future. The military must make an accurate assessment of the individual internal factors that are influencing Naval Aviators goals and intentions that lead to departure behavior. In current articles (Lewis, 1998) and surveys (Natter, 1998) Naval Aviators have not identified with the goals or aspirations of achieving higher positions (promotion, or squadron command) in the military. Naval Aviators identify a change in work responsibilities (needs) that have shifted from operational flying to that of administrative work, 90% (Natter) of which is unproductive in their opinion. Without individual self-efficacy (self-actualization) and the accomplishment of goals within an accepted framework of expectations, the military cannot pay Naval Aviators enough to endure the long hours, family separation, and operational requirements that are asked of them.

Job Satisfaction

J. L. Price identified satisfaction as the difference between actual and anticipated fulfillment (Price & Mueller, 1986). Job satisfaction is the extent that an employee likes their work and different aspects of their job. E. A. Locke defined job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences", A. Brief offered a redefinition as "job satisfaction is an internal state that is expressed by affectivity and/or cognitively

evaluating an experienced job with some degree of favor or disfavor" (Brief, 1998, p. 8). Historically job satisfaction was evaluated from the perspective of need fulfillment (Porter & Steers, 1987); that is, whether or not the job met the individual physical and psychological needs for the things provided through and by work. This avenue of needs research though still referred to (Ting, 1996) has not received the focus of recent studies. Most current researchers tend to focus on cognitive processes rather than underlying needs; however, there are situations and conditions that are relevant to need theory. Job satisfaction is generally assessed as an attitudinal variable that can be considered a global feeling about one's job, or made up of many related attitudes about various aspects, or facets, of the job. Some researchers argue that dispositional factors may be equally predictive of outcomes, as are situational variables (Shaw et al., 1999). To effectively understand and make application of the attitudinal constructs that make up job satisfaction, they must be defined and evaluated. The facet approach to job satisfaction can give a more complete picture of a person's job satisfaction than the global approach. However, when evaluating the relationship of job satisfaction to other variables of interest a global assessment of job satisfaction is preferable (Wanous, Reichers, & Hudy, 1997).

Facets of Job Satisfaction

Extensive research in the field has identified many factors that have been linked to job satisfaction. As the intent of this study is on the relationship of job and pay satisfaction as it relates to Naval Aviator retention, the variables of a

revised model (Figure 1) of organizational turnover (Kim, Price, Mueller, & Watson, 1996; Agho et al., 1993) that has job satisfaction structured at the first mediating variable in a system of causal factors that lead to turnover, will be utilized.

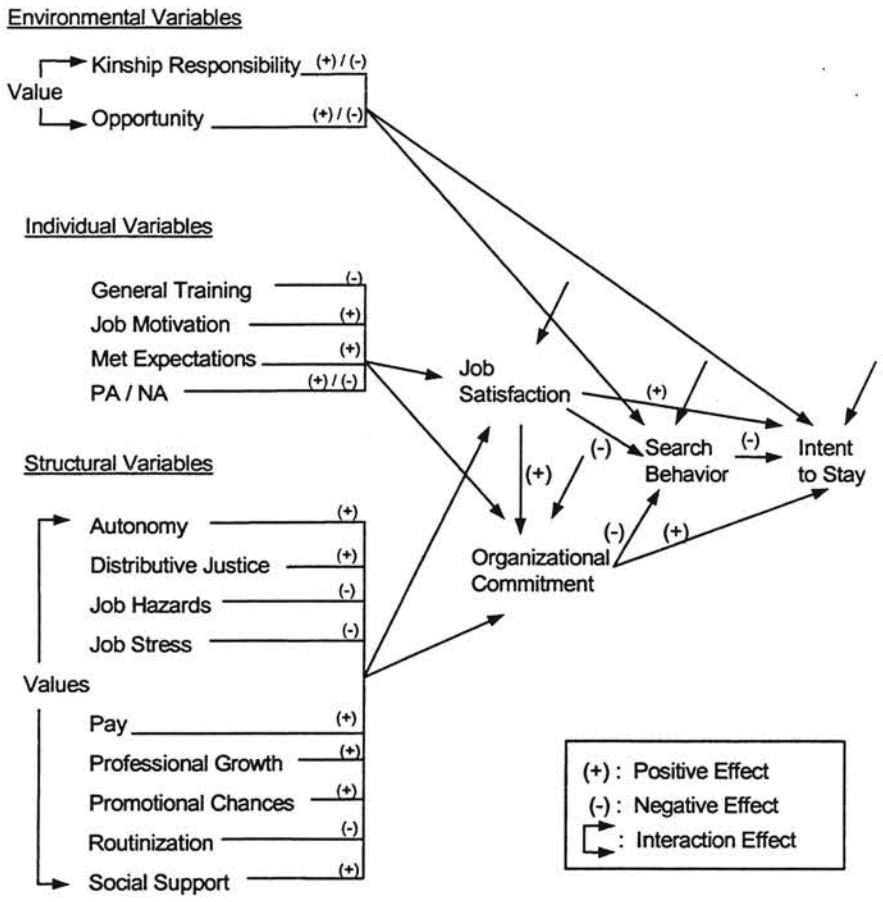

Figure 1. A causal model of intent to stay. (Kim et al., 1996)

Price and Mueller (1996) showed that while theoretical variables can be used to explain variations in job satisfaction, it is not possible to link demographic variations to observed changes in satisfaction. An example of tenure on satisfaction shows that "tenure, per se, cannot cause the level of job satisfaction to increase or decrease. Rather there is something more abstract that is related to tenure that is causing the degree of job satisfaction to change" (Agho et al., p. 3). Recent research has not focused on demographic variables relative to job satisfaction due to numerous prior studies that have showed no relevance between the two.

Autonomy. Autonomy refers to the distribution of power from the individual's job perspective (Price & Mueller, 1986). Autonomy leads to experience, or feelings, of responsibility and centers around an internal locus of control that supports intrinsically oriented behavior and goals. A meta-analysis on job characteristics found a correlation ($r = .34$) between autonomy and global job satisfaction (Fried & Ferris, 1987).

Distributive Justice. Distributive justice relates to the fairness in the outcomes of managerial decision-making (Dailey & Kirk, 1992). Previous research (Leigh, Lucas, & Woodman, 1988) investigating potential moderators between role variables and employee attitudes suggested that research should assess employees' perceptions of organization characteristics. Their premise held that employees look more to the broader organizational environment that to their particular role in attributing their satisfaction to the job (Leigh et al.). This line of research is also centered on the fairness or equity of the conditions perceived. In summary,

distributive justice relates to individuals' perception and concerns about the fairness of managerial decisions relative to the distribution of outcomes such as performance evaluations, pay, and promotions. Dailey and Kirk found a relationship between distributive justice and job satisfaction ($r = .451$, $p < .001$). This research indicates that organizations should ensure that performance appraisals, job assignments and pay programs are perceived as being administered fairly.

Promotion Opportunities. Promotions can be viewed as positive feedback on personal achievement, which are normally tied to increases in pay and allow for greater autonomy and professional growth. Individuals high in n Ach would require positive promotion opportunities to realize their goals. In a public service organization such as the Navy, officer's growth is tied directly to promotion. Promotion opportunities have been shown to correlate to job satisfaction ($r = 0.40$, $p < .01$) and organizational commitment ($r = 0.42$, $p < .01$) (Kim, et al., 1996). However, a study on officer resignations found that promotion policies and opportunities were not identified in the top 10 reasons for Naval Aviator resignations (Bruce, Russell, & Morrison, 1991). Interestingly, in the same study NFO's ranked promotion policies and opportunities as the fifth leading factor leading to their resignation.

Pay. When assessing pay satisfaction as a construct of job satisfaction it is viewed as a global measure most strongly influenced by pay level. Research reveals that pay in itself does not significantly impact job satisfaction, as pay satisfaction does not correlate highly with overall job satisfaction ($r = .17$, Spector, 1997)($r =$

.12, Young, Worchel, & Woehr, 1998). If pay level is competitive relative to the job, position, and industry, then a pay increase does not necessarily produce increased job satisfaction. However, if pay is below comparable positions and industry norms it can be a dissatisfying factor toward job satisfaction. Pay fairness does matter, and would be reflected on the facet of pay and distributive justice. A study on cognitive complexity and pay satisfaction revealed that pay satisfaction facets are weighted relative to their cost, the greater the cost of a benefit (medical, dental, retirements), the stronger it's weight in determining pay satisfaction (Daily & Kirk, 1992).

Job Stress. In the Price and Mueller (1986) job satisfaction model, job stress is made up of four dimensions; resource inadequacy, role ambiguity, role conflict and workload. Describing job stress through facet traits is difficult in general terms due to the variations between each and every job. However, the dimensions identified in the model utilized are existent in almost every job. In recent years naval officers have identified resource inadequacy as the number one concern for job accomplishment and satisfaction (COMNAVSURFLANT Message). If Naval Aviators don't have aircraft available to fly, parts to fix them, or fuel allowances to operate with, then job stress is dramatically impacted. Another facet of job stress that has increased interest in operational environments is that of workload, described either by working hours or deployment schedules (days away from home). Both resource availability and operational tempo are significant factors in everyday naval operations and organizations.

Social Support. The dimensions of family support, supervisor support, and workgroup cohesion define social support. Evaluation of supervisor support and workgroup cohesion can be traced back to human relations practices that came to prominence following the Hawthorne experiments. All three dimensions have strong relationships to military service due to an environment that has frequent deployments and relocations. Conflicting role pressures exist when roles between family and work are incompatible so that the participation in one role is made more difficult by virtue of participation in the other. A meta-analysis of the relationship between work-family conflict and job satisfaction identified a negative correlation ($r = -.31$) in all conflict comparisons, and $r = -.34$ for male Navy service members (Kossek & Ozeki, 1998).

Person Based Tendencies

Positive Affect

Positive affect (PA) is can be characterized by the extent to which a person feels enthusiastic, active, and alert, and is related to the personality trait of extraversion (Shaw, et al., 1999). An individual high in PA is commonly referred to as someone with a positive attitude. Affect is identified with cognition and behavior as the structural components of attitude (Gibson et al, 1997). PA is considered stable over time and is directly related to many work associated outcomes (Steel & Rentsch, 1997). A growing body of research on dispositions is identifying the influence of affective traits on attitudes cognitive processing and social behaviors, the consequences of which are far reaching (Shaw et al). Findings of research by

Shaw, Steel, and Rentsch have shown that individuals high in PA exhibit high levels of job satisfaction over extended periods of time and various jobs, and correlate positively with many job and pay satisfaction antecedents and requisite facets. In a study on organizational commitment PA was found to correlate with organizational commitment both before ($r = .37$, $p < .05$), and during employment ($r = .27$, $p < .05$) (Lee et al., 1992). Without correcting for PA many job and pay satisfaction structural variables could be corrupted due to the influence of PA. Correcting for affects of PA allows for more valid identification of stable predictors of job satisfaction.

Job Motivation

Job motivation, or job involvement, has been researched, described, and titled numerous ways; common coinages are 'personal work ethic' or 'Protestant work ethic'. Schermerhorn, Hunt, and Osborn (1991) describe the motivation to work as forces within an individual that account for the level, direction, and persistence of effort expended at work. Job motivation has traditionally been viewed as coincidental with stable personality factors that include intrinsic needs, n Ach, autonomy and control (Lawler & Hall, 1970). Because work involvement is based on past socialization, it is not dependent upon present need satisfaction in a job (Kanungo, 1982). A study by Steven Pool (1997) identified job motivation as the strongest predictor of job satisfaction with a correlation between job motivation and job satisfaction of $r = .57$, $p < .001$. (Pool, 1997)

Turnover Intention

Most theories on turnover relate job dissatisfaction as antecedent to turnover behavior (Mobley, 1977). It is intuitive that people who dislike their jobs will try to find alternative employment. It appears that the correlation between job dissatisfaction and turnover is causal due to the fact that job satisfaction studies on turnover are based on evaluating the satisfaction levels of individuals that have been measured prior to job termination. A meta-analysis study identified a negative correlation between job satisfaction and career intention ($r = -.58$) (Tett & Meyer, 1993).

Organizational commitment is another factor that has been identified to relate turnover intentions with job satisfaction. The model (Figure 1) utilized for this study identifies organizational commitment relating to job satisfaction variables; while they correlate, organizational commitment is constructed of it's own facets that are distinct and separate from those that make up job satisfaction.

Turnover intention is relative to the opportunity for turnover; without job prospects the intent to leave an organization is diminished (Wilcove, Burch, Conroy, & Bruce, 1991).

Organizational Commitment

Steers and Porter defined organizational commitment as "an agreement on the part of the employees with the goals and objectives of an organization and a willingness to work towards those goals" (Steers & Porter, 1987, p. 369). If an employee's personal values and goals are in agreement with the organizations then

organizations objectives. Common variations in the definition of organizational commitment include commitment as a psychological state, which characterizes employee's relationship with the organization and that have implications in the employee's decision to continue membership in the organization (Meyer & Allen, 1997). Meyer and Allen described three variables that make up organizational commitment; affective commitment, continuance commitment, and normative commitment. Defining the variables that have been universally identified in making up organizational commitment Meyer and Allen offered the following analysis:

> Affective commitment refers to the employee's emotional attachment to, identification with, and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they want to do so. Continuance commitment refers to an awareness of the costs associated with leaving the organization. Employees whose primary link to the organization is based on continuance commitment remain because they need to do so. Finally, normative commitment reflects a feeling of obligation to continue employment. Employees with a high level of normative commitment feel that they ought to remain with the organization. (Meyer & Allen, 1997, p. 11)

Affective and continuance commitments relate positively to the probability an individual will remain with an organization. Individuals with high affective commitment stay because they want to, while those high in continuance commitment remain because the cost of leaving is too high. Individuals high in normative commitment can be thought of as having a moral obligation to an organization.

Research has shown that affective commitment is developed early in employment (Meyer et al., 1991). Affective commitment is based upon met expectations, or expectancy theory. Many studies have shown that individuals with

unrealistic expectations about a job and its characteristics are more likely to realize dissatisfaction when their expectations are not met (Wilcove et al., 1991).

Organizational commitment has been shown to relate to job satisfaction ($r = .67$, $p < .01$; Young et al., 1998)($r = .63$, $p < .05$; Kacmar et al., 1999). Organizational commitment and career intentions relate ($r = -.65$, $p < .05$) more strongly to each other than job satisfaction and career intentions (Kacmar et al.). The nature of the relationship between organizational commitment and job intentions appears to be stronger than the relationship between job satisfaction and career intentions due to the nature of their measures. Organizational commitment measures are all related to the strength of an individual's relationship directly to the organization, while job satisfaction measures are much broader in their scope, assessing factors that are not tied directly to the organization and include environmental and relational factors.

Opportunity

Opportunity is the reasonably assured availability of a job outside of the current organization. Job opportunity has been found to relate to job commitment and job intentions (Wilcove et al., 1991). Opportunity has also been found to relate negatively with job satisfaction (Agho et al., 1993). In the causal model of intent to stay (Figure 1) opportunity is related directly to job intentions and search behavior, and indirectly to job satisfaction and organizational commitment.

Opportunity relates most directly and strongly to the organizational commitment variable continuance commitment (Lee, et al., 1992). Numerous

studies on job availability and turnover have shown that when employment opportunities are good turnover increases, and when employment opportunities are poor turnover rates decrease. A study conducted by the Center of Naval Analysis found a direct relationship between airline hiring and Naval Aviator retention (Kleinman & Zuhoski, 1980). Over a 15-year period Naval Aviator retention increased when airline hiring decreased and when airline hiring increased (by 12,000 over normal rates) Naval Aviator retention rates decreased by 8% to 10%.

Naval Aviator Manning, Pay and Retention

Naval Aviator Manning

There are a number of factors that make Naval Aviators more visible and of concern when retention is low. In order to gain a better understanding of the problem a review of the circumstances and background specific to Naval Aviator manning, training, and pay is required.

Naval Aviator retention is a priority primarily due to the training cost ($6 million per Naval Aviator) and training time (approximately 4-5 years) to fully qualify a Naval Aviator (U.S. General Accounting Office, 1999a). Due to the long training time and obligation agreements of Naval Aviators the impact of manning and personnel decisions instituted are not realized until 7 to 8 years after they are initiated in Naval Aviator accession plans. With the high cost of training a Naval Aviator the goal of personnel planners is to access only the number of Naval Aviators required to meet force structure requirements. Any unplanned variances in

force structure, requirements, or retention rates can have dramatic implications on manning.

Naval Aviator Career Progression

After entering the service Naval Aviators are assigned to operational flying and support assignments and fill critical warfighting (operational) positions until 14 years of commissioned service. After 14 years of Naval service as Officers, Naval Aviators are not critical to manning operational Naval Aviator billets but are assigned to leadership and support positions (Figure 2).

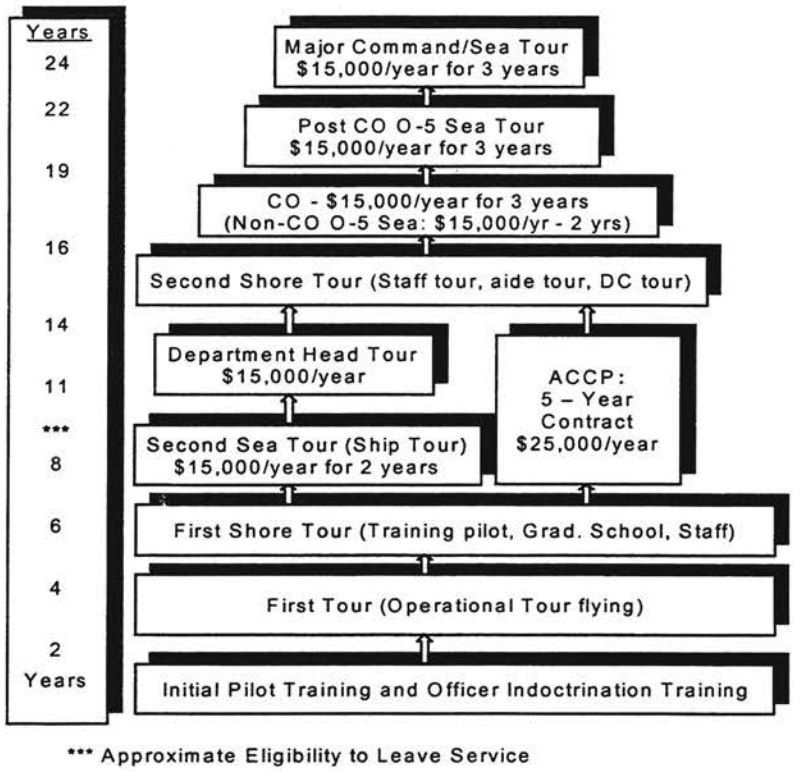

Figure 2. Naval Aviator Career Progression and bonus Gates

Accession and Assignment

Personnel promotion rates are very controlled in the military as the billets designated for senior officers are clearly identified. The goal of personnel planners is to access only those officers required to fill recognized operational billets while maintaining established promotion rates. Maximum promotion rates are set by Congress and adjusted by military planners to meet the senior officer manning requirements of the service. The main 'choke' point for Navy planners are manning requirements at the department head level, which are filled by officers with 11 to 14 years of officer service.

Initial accession numbers are set to meet operational manning levels. Retention rates are forecast and set to meet the promotion timing, promotion rates, and manning needs of the service. In 1999 the Naval Aviator retention rate requirement for the Navy was 38% while the realized rate was 30%. (Ryan & McGann, 2000). Exasperating this process is the unique training and experience requirements of each operational community. You can't take a helicopter pilot and put him/her in an F/A-18 fighter aircraft and tell them to 'go at it'. Each operational community has a micro level experience of the Navy's overall manning.

A progressive example of manning can be described within a small warfighting community. If an aviation community has 14 aircraft requiring three (3) Naval Aviators per plane, and an operational requirement of two (2) crews for each plane assigned, the total Naval Aviator manning requirement would be 84 (14 x 3 x 2). Of the 84 operational Naval Aviators required, six (6) would be designated as department heads, in the grade of O-4, and at the 11-14 year point in their

careers. The remaining Naval Aviators would be in their first operational tour and have 2-5 years of service. With the requirement to have 78 (84-6) first tour Naval Aviators, the Navy would have to assess 26 (78/3) Naval Aviators a year, with each Naval Aviator serving three (3) years in their first squadron tour.

Initial accessions also relate to the retention and promotion rates of officers. If there is a requirement for six (6) O-4's to meet department head requirements, and with a promotion rate of 70% from O-3 to O-4, nine (9) officers (9 x .70 = 6) from the original 26 assessed would have to remain in service to meet that need. If the officer retention rate dropped below 35% (9/26 = .35) then there would not be enough personnel available to meet department head manning requirements. Military planners adjust the promotion rates based on initial accessions and retention rates to meet the O-4 requirements of the service. After the grade of O-4 the number of senior officer billets decrease, while the retention rates historically increase for senior officers. This contraction in the manning process creates a 'choke point' for personnel planners at the O-4 department head level.

Continuation Bonus Pay

Personnel planners coordinate the accession timing and billet requirement of the service with the career progression of officers. ACCP, and it's predecessor ACP, were designed to pay Naval Aviators a bonus with their agreement to remain in the Navy until reaching 14 years of service, thereby ensuring continuous service through their department head assignment.

Due to the high cost of training a Naval Aviator the military requires prospective Naval Aviators to sign an agreement to stay in the military a set length of time (currently 8 years for jet pilots) commencing from the completion of initial Naval Aviator training. Initial Naval Aviator training times range from 15 to 24 months at which time a Naval Aviator earns their "wings". Naval Aviators are not fully qualified in a mission aircraft until 18-30 months after winging (3 - 4.5 years of service). With approximately two years of training prior to winging, a Naval Aviator will serve the Navy 9-11 years before getting her/his first opportunity to voluntarily leave the Navy. These long obligatory contracts are another method for manpower planners to assure that Naval Aviator manning levels meet requirements.

In the mid 1980's the military had a higher than planned exodus of Naval Aviators at the 7-8 year career point. Initial Naval Aviator commitment requirements were 6 years at the time. In order to reduce the number of Naval Aviators leaving the Navy congress authorized Naval Aviator bonuses called Aviation Continuation Pay (ACP) which allowed the Navy to pay up to $12,000/yr to Naval Aviators that agreed to remain in the military until 14 years of commissioned service. ACP was authorized to only those Naval Aviators that had completed their initial Naval Aviator obligation (7-8 years). It was possible for many Naval Aviators to receive bonuses of up to $84,000 (7 years x $12,000/yr); half of which was paid up front and the remainder divided and distributed annually until 14 years of service were reached. Many variations of this program were instituted in the Air Force and Navy, from single year contracts to bonus amounts that were set by the services. Traditionally the Navy only authorized ACP to Naval

Aviators in aviation communities (FA-18, F-14, E-6, etc) that had difficulty retaining Naval Aviators, and the amount of ACP varied according to the need ($4,000 - $12,000 annually). In addition to ACP all military pilots receive Aviation Career Incentive Pay (ACIP) that ranges from $125-$840 per month based on years of aviation service. Both ACP and ACIP are paid to Naval Aviators as long as they remain qualified to fly and meet minimum flight requirements, even during extended non-flying assignments (Graduate College, Pentagon assignments, etc.).

Naval Aviator Assignments

Naval Aviator bonuses (ACP) were linked directly to the current needs of the Navy. In 1997 the Government Accounting Office provided a letter report to the Subcommittees on National Security, Committee on Appropriations, and the House of Representatives (United States GAO, 1997) stating that training requirements and incentive pay could be reduced. The report held that Naval Aviator inventory greatly exceeded the designated operational billets of the Navy. The Navy had designated 47% of its Naval Aviator billets to operational flying, 32% to non-operational flying (training units), 10% to non-flying operational (airwing and ship billets that require the experience of a Naval Aviator to fulfill the job requirements), and 11% to non-operational and non-flying billets (staff assignments, graduate college)(U.S. General Accounting Office, 1999b). While there were 57% of Naval Aviator billets assigned as operational it would be difficult, if not impossible, for military planners to reach a 60% assignment rate of Naval Aviators to operational billets (flying and non-flying) as operational assignments are designated as sea duty

and require high deployment rates. The traditional career progression requires Navy service members to alternate between sea (operational) and shore (non-operational) assignments. The ratio of months assigned between sea and shore duty is continually adjusted by personnel planners to ensure that operational manning requirements are met. The ideal assignment ratio from sea to shore is 1:1, with individuals serving 36 months at sea duty assignments followed by 36 months at shore duty assignments. It is not uncommon for the ratio to be adjusted to 1.4:1 (42 months sea to 30 months shore) or higher if necessary to fill operational billet requirements. The 1997 GAO report did not address the rotation requirements of Naval Aviators between operational sea duty assignments and shore duty assignments in their study, instead focusing only on the ratio of active Naval Aviators to operational billets.

Despite the GAO report in 1999 the Service Chiefs posture statement showed concern for Naval Aviator shortages. The Robb Amendments to S.4, the Soldiers', Sailors', Airmen's and Marines Bill of Rights Act of 1999, passed congress unanimously modifying ACP to $25,000/year with payments until 25 years of aviation service.

Although Congress passed major revisions on bonuses, they still had doubts on their effectiveness and the underlying reasons for decreasing retention rates. In April 1999 Congress questioned the effectiveness of monetary incentive bonuses and required the Military Services to evaluate the impact of increased pay and bonuses on retention. The fallout of Congressional inquiries was realized when the Fiscal Year 2000 National Defense Authorization Act was approved, requiring the

military to conduct a comprehensive exit survey of all military personnel leaving the services to gauge their attitudes toward military service (U.S. House Armed Services Committee report on H.R. 1401).

ACP was modified following the FY 1999 Defense Authorization bill and again in FY 2000 and become Aviation Career Continuation Pay (ACCP). Major modifications to the existing ACP program were due in part to decreasing bonus take rates which had fallen from 50% in fiscal year 1994 to 21% in fiscal year 1998 (U.S. General Accounting Office, 1999b). To ensure that ACCP did not become viewed as an entitlement the Navy tied bonus payments to career milestones. Upon completion of initial Naval Aviator service obligation, Naval Aviators that agree to a 5-year commitment are paid $25,000/year. Navy personnel officials hope that the new plan will increase retention rates by 2% - 6% (Matthews, 1999). Naval Aviators that are not under a commitment bonus during their department head tour are eligible for a $15,000/year bonus up to $30,000 maximum.

Naval Aviator Pay and Promotion Opportunities

Pay. In FY 2001 Naval Aviators that have completed their initial obligation (10 years service - average age, 32) and accept ACCP earn approximately $99,800/year ($74,800 + $25,000 ACCP)(Table 1). In comparison, an O-5 at 16 years of service earns approximately $91,000/year and if remaining until retirement eligible (O-5 at 20 years of service) would make $94,750/year.

TABLE 1

Naval Aviator Pay

	O-3 8 YR	O-3 9 YR	O-4 10 YR	O-4 12 YR	O-4 14 YR	0-5 16 YR	O-5 18 YR	O-5 20 YR
Base Pay	3840	3840	4410	4630	4782	5482	5637	5790
BAS*	160	160	160	160	160	160	160	160
**BAQ*	950	950	1050	1050	1050	1100	1100	1100
ACIP	650	650	650	650	650	850	850	850
ACCP		2083	2083	2083	2083	1250	1250	0
Monthly Income	5605	7689	8359	8581	8735	8853 [a]	9010 [b]	7915
Annual Income	$67K	$92K	$100K	$103K	$105K	$106K	$108K	$95K
Annual w/o [a] & [b]	$67K	$92K	$100K	$103K	$105K	$91K	$93K	$95K
Air Force Pilot	$67K	$92K	$100K	$103K	$105K	$116K	$118K	$120K

* Non-taxable income
** Based on location, amount is average of squadron locations
[a] Only for XO/CO Sea Duty assignments 3yrs, Non-CO 2 yrs.
[b] Only for Sea Duty assignments for O-5's that held CO.
Based on FY 2001 pay tables

Promotion Opportunities. Following the department head tour (14 years) a Naval Aviator is normally assigned to a staff position (from year 14-17) that is identified as requiring an aviation designator (Naval Aviator or NFO). If a Naval Aviator is not selected for aviation command (at 15 years), then the tour following year 17 (years 17-20) is a sea duty assignment requiring a Naval Aviator to accomplish duties that do not normally include flying. A Naval Aviator that has not been selected for command will probably retire at 20 years, as promotion opportunities are virtually nonexistent, and will have not flown an aircraft since completing his/her department head tour at the end of 14 years. In addition, the last

3 years of service could be at sea, much of the time away from home. The previous two facts are reasons commonly sited by Naval Aviators for leaving the Naval service.

Airline career opportunities are good for qualified and current Naval Aviators; however, without currency it is difficult if not impossible to acquire a flying position with the airlines. One concern with ACCP is due to the fact that ACCP payments ending at year 15 may be viewed as a pay cut. In recent years the number of Naval Aviators resigning after the 14-year point has been increasing (U.S. General Accounting Office, 1999a).

Air Force Pilot Pay. The US Air Force pays all pilots a $25,000/year bonus upon completion of their initial commitment until 25 years of aviation service. An Air Force O-5 at 16 years of service earns approximately $116,000/year and if remaining until retirement eligible (O-5 at 20 years of service) would make $119,750/year. Normal career progression for all Air Force pilots allow for continued flying through 20 years of service.

Airline Pilot Pay. In comparison to military pay, airline salaries start at $32,000/year, reaching $75,000 by 5 years, and $140,000 at 10 years with top salaries over $200,000 at the major airlines (Average airline pilot pay, 1999). Airline retirement (at 30 years) averages 53% of pre-retirement income, not including 401(K) benefits. Military retirement (at 20 years) is 50% of a 3-year average of base pay (O-5 with 20 years service, FY 2000 = $2,515/mo.). Many military pilots that leave the active military service to pursue airline careers

continue serving in the military reserves and draw military retirement beginning at 60 years of age. The airlines have given military pilots a strong opportunity for employment with record major and regional hiring rates that have increased each of the last 5 years. Projections are that 50% of all major airline pilots will retire between 1998-2008 (U.S. General Accounting Office, 1999b). Job prospects with the airlines are good with potentially large salaries and retirement packages giving military pilots an attractive career option.

Summary

Career intentions are most strongly related to environmental, individual and job related variables (Agho, et al., 1993; Brief, 1998; Kim, et al, 1996; Shaw, 1999; Steers & Porter, 1987). Modeling this relationship has been most clearly defined in the career intent model of Kim, Price, Mueller and Watson (Kim, et. Al, 1996), revised from the earlier work of Price and Mueller. The model itself was developed on the major theoretical traditions from the study of job satisfaction and turnover (Agho, et al., 1993) and has its basis in expectancy theory. While expectancy theory is important, individuals have characteristics beyond expectations and values that influence their perception of the work environment. Expectancy theory (Vroom, 1964) focuses only on expectations and values, while recent research (Shaw et al., 1999; Steel & Rentsch, 1997; Weiss, et al., 1999) has extensively assessed individual characteristics and their influence on individuals and their behavior. Of these individual traits, that of affect (PA/NA) has been identified as the most influential. Dispositional factors, such as PA may be equally predictive of

outcomes as they are not situational variables and have exhibited consistency over time.

Environmental factors have a very strong relationship to Naval Aviator retention as the environmental variable is made up of opportunity and kinship responsibility. Commitment, or responsibility, to family are clearly present factors in the Naval Aviator population and are ranked at or near the top of numerous studies of resignation factors (Wilcove et al., 1991). Airline hiring and operational tempo, or time away from home, are both at contemporary all time highs, both of which correlate negatively to career commitment.

Job induction is important, especially indoctrination and early career development due to organizational commitment characteristics (affective and normative commitment). Job orientation and indoctrination should initially present a positive and accurate view of the job and career so that primary job expectations are valid and not set unrealistically high. In a study of Naval Aviators that resigned, 44% said they made their decision to leave in their first operational tour and 38% in their second tour (Bruce, Russell, & Morrison, 1991). These findings could indicate that pre-tour expectations were not met.

Job satisfaction is the most utilized measure of an organization's health, efficiency, and indicator of personnel productivity. Job satisfaction also correlates negatively with career intentions.

Pay satisfaction research revealed that pay in itself is not strongly related to job satisfaction as long as pay level is adequate and equitable.

Initial service commitments of Naval Aviators require that they remain in the Navy until approximately nine to ten years of service. Naval Aviator retention from initial designation to 12 years was recently 30% when personnel requirements dictated a 38% retention rate. Aviation Career Continuation Pay is a $25,000/year bonus lasting five years and is designed to increase retention rates. Military planners are hopeful that program increases will increase retention two to six percentage points (Maze, 1999).

The literature supports that pay will not be a strong influence on job satisfaction and therefore on career intentions. With a salary of approximately $75,000/year at 31-32 years of age with no graduate education required, it should be safe to assume that the income of a Naval Aviator is meeting more than their basic needs and is compatible with contemporaries of experience, education and background. A GAO report found that 77% of officers said they are financially secure (Mathews, Oct 4, 99).

CHAPTER III

METHOD

Job satisfaction, pay satisfaction and career intentions of Naval Aviators were assessed to determine if pay satisfaction is relevant to job satisfaction and subsequent career intentions of Naval Aviators. In researching questions that analyze the relationship of pay satisfaction, job satisfaction and career intentions of Naval Aviators global measurements were utilized to determine their relationship relative to the intent to stay model (Figure 1).

Problem

Does pay satisfaction relate strongly to job satisfaction and the subsequent career intentions of Naval Aviators?

Research Questions

1) How satisfied are Naval Aviators with their pay?
2) How satisfied are Naval Aviators with their job?
3) What are the career intentions of Naval Aviators?
4) What is the relationship of job satisfaction; pay satisfaction and the career intentions of Naval Aviators?

Data Collection

All data in this study are taken from the eighth annual Navy-wide Personnel Survey (NPS), which was sponsored by the Chief of Naval Personnel and performed by the Navy Personnel Research and Development Center (NPRDC). The Navy-wide Personnel Survey report is unclassified and has been approved for public release, unlimited distribution. The survey collected data on job satisfaction, the detailing and assignment process, organizational climate, and health issues. The data was collected through a 137-item mail survey that the Navy Personnel Research and Development Center conducted between August and November 1997.

For the purpose of this research Navy Personnel Research and Development Center queried the Navy-wide personnel survey database on survey questions that assessed global pay satisfaction, job satisfaction and career intentions of three demographic groups: Naval officers, Naval Flight Officers and Naval Aviators.

Naval Officers (All) were assessed in this study as Naval Aviators and Naval Flight Officers are subgroups of Naval Officers. Naval Flight Officers were assessed specifically as Naval Flight Officers and Naval Aviators are nearly identical in all individual and job characteristics except for the fact that Naval Aviators are trained to physically command and fly an aircraft. NFO's hold the same jobs, are in the same organizational units (squadrons), operate in the same environment, have the same responsibility, authority, and pay. The only difference between Naval Aviators and NFO's are on the basis of Naval Aviator training and flight responsibilities. The only variable in intent to stay model (Figure 1) that differs between NFO's and Naval Aviators is that of career opportunity, which is

which is due to increased airline pilot hiring rates and the job experience of Naval Aviators. Comparison of Naval Aviators to Naval Flight Officers allows for the assessment of more homogenous groups as Naval Aviators have very divergent job characteristics to many Naval Officer communities.

This study compared Naval Aviator responses to subject items and the overall Naval Officer population and NFO's. Specifically, a comparison and evaluation of Naval Aviator pay satisfaction relative to job satisfaction and career intentions relative to the overall Naval Officer population, and more specifically to the NFO population, was intended.

The Navy-wide Personnel Survey consisted of a random sample of 14,958 active duty enlisted personnel and officers (Table 2). The sampling represented approximately 3.1% of the total enlisted population and 7.1% (Table 3) of the total officer population. Of the original sample approximately 1,996 surveys could not be delivered and were returned unanswered. The adjusted total return rate for Officers was 58%.

TABLE 2

Officer Return Rates

	Population N	Surveys Sent	Surveys Returned	Percent Return
Total	57,412	3,335	1,949	58

TABLE 3

Survey Returns by Officer Communities

Community	Total
Fleet Support	103 5.9%
Surface Warfare Officer (SWO)	274 15.9%
Submariner	139 7.9%
SWO Training	167 9.6%
Naval Aviator	263 15.0%
NFO	182 10.4%
Naval Aviator Training	10 0.6%
Medical Corps	126 7.2%
Medical Service Corps	114 6.5%
Nurse Corps	159 9.1%
Supply Corps	143 8.2%
Special Duty	69 4.0%
Total	1749 100.0%

Reliability

Global survey items on pay and job satisfaction were designed to measure overall job and pay satisfaction levels. In addition to the global pay and job satisfaction items on the survey were facet measures designed to identify specific variables in pay and job satisfaction of interest to the convening authority but were not intended to determine overall satisfaction. As the purpose of this study was to identify overall satisfaction levels and not contributing factors, only those items that pertained to job satisfaction, pay satisfaction, and career intention were evaluated.

Items assessed:

Pay: I think I am adequately paid for the job I do.

Job: I am generally satisfied with my current job.

Intentions: What are your current Navy career plans?

Measure: Questions were measured using a 5-point Likert scale.

Global single item measures utilized in the survey have been long recognized as reliable in the assessment of overall pay (Ting, 1996) and job satisfaction (Wanous et al., 1997). In a meta-analysis on single-item measures to overall job satisfaction the mean corrected correlation for the best group of scale measures was $r = .72$ (SD= .05) (Wanous et al), when corrected for attenuation the estimated minimum level of reliability for a single-item measure was $r = .67$. Wanous et al determined that a minimum estimated reliability for the single item measure would be close to $r = .70$.

Data Analysis

Navy Personnel Research and Development Center provided overall results of the Navy-wide survey and queried the data on requested variables to determine overall Naval Officer, Naval Aviator, and NFO responses to subject items. Research question responses from the Navy-wide Personnel Survey on job satisfaction, pay satisfaction and career intentions are assessed by level of response (mean) and divergence of response (deviation) relative to all Naval Officers, Naval Flight Officers and Naval Aviators; as well as the relationship (Pearson Product Moment Correlation) of research question items within and between groups. The findings of the research are presented in table format for ease of review.

CHAPTER IV

FINDINGS

Following are the findings on Naval Aviators job satisfaction, pay satisfaction, career intentions and their relationships. Job satisfaction, pay satisfaction and career intentions were assessed to determine if pay satisfaction is relevant to job satisfaction and subsequent career intentions of Naval Aviators.

The relationship of pay satisfaction, job satisfaction and career intentions of Naval Aviators did not support pay influencing job satisfaction or career intentions. Results of analysis on pay satisfaction, job satisfaction, and the career intentions of Naval Aviators were congruent with previous research reviewed. Data evaluated from Navy Personnel Research and Development Center on the Navy-wide Personnel Survey showed that Naval Aviators are no less satisfied with their pay or job than contemporaries in other Naval Officer specialties. Results from the survey showed that pay satisfaction would correlate positively, but not strongly, with job satisfaction and career intentions for Naval Aviators.

Research Questions

1) How satisfied are Naval Aviators with their pay?
2) How satisfied are Naval Aviators with their job?
3) What are the career intentions of Naval Aviators?

4) What is the relationship of job satisfaction; pay satisfaction and the career intentions of Naval Aviators?

Overall; Officers, Naval Aviators and NFO's are satisfied with their job (M=3.95, SD=1.04, Likert 5-point scale), but are only moderately, neither satisfied or dissatisfied, with their pay (M=3.08). The range (SD=1.29) of pay satisfaction indicates that individuals hold divergent levels of satisfaction toward their pay. The career intentions of all officers are only slightly above moderate (M=3.54, SD=1.47).

TABLE 4

Survey Data for All Officers

	N	Mean	SD
Job Satisfaction	2397	3.95	1.04
Pay Satisfaction	2415	3.08	1.29
Career Intent	2061	3.54	1.47

Pay Satisfaction

Research Question 1) How satisfied are Naval Aviators with their pay? (Table 5)

TABLE 5

Pay Satisfaction

	Naval Aviators	NFOs	All Officers
Strongly Agree	32 12.3%	13 7.1%	310 12.8%
Agree	86 33.0%	48 26.4%	853 35.3%
Neither Agree or Disagree	37 14.2%	36 19.8%	303 12.6%
Disagree	65 24.9%	52 28.6%	626 25.9%
Strongly Disagree	41 15.7%	33 18.1%	323 13.4%
Total	261 100.0%	182 100.0%	2415 100.0%

Pay satisfaction is divergent among Naval Aviators (45% satisfied and 40% dissatisfied) and NFO's (33.5% satisfied and 48.4% dissatisfied). Naval Aviator's are fairly split between being satisfied and dissatisfied with their pay, and 14.2% are undecided.

Job Satisfaction

Naval Officers indicated they are satisfied with their jobs; 75% in agreement, 13.6% undecided, 10.8% dissatisfied, and 3.5% strongly dissatisfied.

Research question #2) How satisfied are Naval Aviators with their job? (Table 6)

TABLE 6

Job Satisfaction

	Naval Aviators	NFOs	All Officers
Strongly Agree	80 30.7%	57 32.0%	810 33.8%
Agree	120 46.0%	72 40.4%	997 41.6%
Neither Agree or Disagree	35 13.4%	42 23.6%	326 13.6%
Disagree	18 6.9%	6 3.4%	181 7.5%
Strongly Disagree	8 3.1%	1 0.6%	83 3.5%
Total	261 100.0%	178 100.0%	2397 100.0%

Naval Aviators responded that they agreed, or strongly agreed that they are satisfied (76.7%) with their jobs with a job satisfaction rate slightly higher than NFO's (72.4%) and all Officers (75.4%).

Career Intention

Career intentions among Naval officers were as expected from the literature, especially among Naval Aviators.

Research question #3) What are the career intentions of Naval Aviators? (Table 7)

TABLE 7

Navy Career Plans

	Naval Aviators	NFOs	All Officers
Definitely decided to stay	58 22.1%	57 31.5%	806 33.3%
Probably will stay	46 17.5%	24 13.3%	356 14.7%
Don't know if I'll stay	48 18.3%	45 24.9%	358 14.8%
Probably will not stay	20 7.6%	28 15.5%	229 9.5%
Definitely will not stay	51 19.4%	7 3.9%	312 9.5%
Other (not eligible)	40 15.2%	20 11.0%	362 12.9%
Total	263 100.0%	181 100.0%	2423 100.0%

Only 39% of surveyed Naval Aviators had current intentions to remain in the Navy, while the rate for NFO's was 45% and all Naval Officers at 48%. These figures agree with the literature and retention rates that the Navy is realizing with Naval Aviator career intentions lagging other Naval Officer communities by 8% - 9% while airline hiring rate is high.

Naval Aviator Findings

Job satisfaction for Naval Aviators (M=3.94, SD=0.99) was almost identical to that of all Naval Officers (M=3.95, SD=1.04) and NFO's (M=4.00, SD=0.86). Pay satisfaction (M=3.01, SD=1.30) was also comparable to all officers (M=3.08, SD=1.29), and actually faired slightly better that NFO's (M=2.76, SD=1.23).

Research question #4) What is the relationship of job satisfaction; pay satisfaction and the career intentions of Naval Aviators? (Table 8)

TABLE 8

Survey Data for Naval Aviators

	N	Mean	SD
Job Satisfaction	261	3.94	0.99
Pay Satisfaction	261	3.01	1.30
Career Intent	223	3.18	1.49

The findings showed that Naval Aviators are no less satisfied with their pay than the Naval Officer population as a whole. Naval Aviator career intentions (M=3.18) agreed with expectations, responding 8.4% lower than NFO's (M=3.60).

Findings showed that pay satisfaction did not correlate strongly with job satisfaction (r=.125), or career intentions (r=.094). The data also showed that job satisfaction correlated to career intentions (r=.463). (Table 9)

TABLE 9

Correlation of Naval Aviator Data

	Job Sat.	Pay Sat.	Career Intent
Job Satisfaction	1.00	.125	.463
Pay Satisfaction	.125	1.00	.094
Career Intent	.463	.094	1.00

Correlation is significant at the .05 level (2 tailed)

NFO Findings

NFO data was evaluated to provide a strong comparable group to Naval Aviators. Job satisfaction for NFO's was almost identical to Naval Aviators and the overall Naval Officer population. Pay satisfaction (M=2.76) was lower than Naval Aviators (M=3.01) and the overall Naval Officer population (M=3.08) with no measurable effect on career intentions. (Table 10)

TABLE 10

Survey Data for NFOs

	N	Mean	SD
Job Satisfaction	182	4.00	0.86
Pay Satisfaction	182	2.76	1.23
Career Intent	161	3.60	1.25

NFO Pay satisfaction showed no correlation (Table 11) to either job satisfaction (r=.034) or career intentions (r= -.028). These findings are not contrary to the literature on previous studies; the correlation is lower than the norms realized previously (r=.14, Kim et al, 1996).

TABLE 11

Correlation of NFO Data

	Job Sat.	Pay Sat.	Career Intent
Job Satisfaction	1.00	.034	.461
Pay Satisfaction	.034	1.00	-.028
Career Intent	.461	-.028	1.00

Correlation is significant at the .05 level (2 tailed)

Summary

Common assumptions held about Naval Aviator's dissatisfaction with pay and it's suspected negative effect on job satisfaction and career intentions is not supported by this study. Naval Aviator's report either being satisfied or dissatisfied (bi-modal) with their pay, however pay satisfaction was shown to not be a good predictor of job satisfaction or career intentions. Data evaluated showed that Naval Aviators are no less satisfied with their pay or job than Naval Officer contemporaries in other specialties.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMENDATIONS

Summary

Job satisfaction, pay satisfaction and the career intentions of Naval Aviators were assessed to determine if pay satisfaction is relevant to job satisfaction and subsequent career intentions of Naval Aviators.

The relationship of pay satisfaction, job satisfaction and career intentions of Naval Aviators did not support pay inducements influencing job satisfaction or career intentions. Results of analysis on pay satisfaction, job satisfaction, and the career intentions of Naval Aviators were also congruent with previous research reviewed. Data evaluated from the Navy Personnel Research Center on the Navy-wide Personnel Survey revealed that Naval Aviators are no less satisfied with their pay or job than their Naval Officer contemporaries in other communities.

The literature and findings were in agreement. Pay satisfaction, although not high in Naval Aviators, had a weak relationship to job satisfaction and career intentions.

While Naval Aviators indicated that career intentions outside of the Navy were likely, this fact did not negatively influence job satisfaction.

Conclusions

Naval Aviators are moderately satisfied with their pay while responding more positively to their pay than NFO's. More importantly, pay satisfaction did not relate to job satisfaction or career intentions.

The literature supported Positive Affectiveness as a strong influencing factor toward job and pay satisfaction. It is very possible that the stereotypical outgoing and extrovert behavior of most Naval Aviators could be influencing their perspective toward the job in a positive direction, regardless of organizational commitment.

If prior research on Naval Aviator retention and airline hiring is accurate the current 8% deficit in required manning may be attributed mainly to the variable of opportunity (Figure 1). NFO retention was only 9% above Naval Aviator rates; all other things being equal, opportunity could possibly be the only differentially contributing factor to decreased retention.

The effectiveness of continuation pay is arguable due to previous research and the findings of this study. Pay above what is necessary to meet the basic needs and goals of the individual have not been shown to influence behavior or attitudes. While pay satisfaction is moderate at best in Naval Aviators, it is still comparable to all other officers. This being the case, the goal of continuation pay is drawn into question. The only factor that continuation pay could positively influence is the organizational commitment variable of continuance commitment. If continuance commitment were affected by continuation pay it would be through making the cost of leaving the Navy greater than the benefit. The problem with this hypothesis lies

in the cost of leaving; from a long-term perspective there isn't a cost in leaving, there is a cost in staying. Basically, the continuance commitment factor is biased toward opportunity with the airlines. A Naval Aviator leaving the Navy at 10 years of service would incur a deficit in income over the short term, but within six years would return to the income level realized when leaving the service with potential for much greater earnings over the long term. The same individual has the prospect of ten years of stable pay levels (Table 1) if he/she remains in the Navy, albeit above society norms based on comparable experience and education.

From a practical perspective Navy retention does not appear poor. The services are experiencing a low of 30% retention, however this rate is for those individuals that stay beyond 12 years of service. Research on industry norms may reveal that in reality this is a high retention rate, especially relative to the initial age of service. Most Naval Aviators begin their Naval careers at 22 years of age for a non-academy graduate and 17-18 years of age for a Naval Academy or ROTC (Reserve Officer Training Corp) scholarship student. In reality almost 1 in 3 Naval Aviators that committed to Naval service at 18-22 years of age continues service beyond 12 years at approximately 34 years of age. A decision to continue service beyond 12 years is a strong indication that an individual will remain until retirement eligible at 20 years of service. With initial commitment requirements so long, Naval Officers only have a few years to exercise an option to depart the Navy before retirement eligibility is near.

Decreasing take rates on Aviation Continuation Pay could indicate that regardless of the pay offered, Naval Aviators are going to pursue their goals if those

relates to individual goals increases the turnover intention. If a Naval Aviator's career goal is to someday be an airline pilot, it is easy to rationalize departing the Navy regardless of the short term cost due to a strong job prospect that meets long term goals and aspirations.

Naval Aviators also realize that airline hiring is cyclical and flying currency is imperative for employment. With the very real prospect of being out of the airplane cockpit for the last six years of Navy service the only strong opportunity to fly for the airlines could very well be at 10 years of service with the Navy.

It is possible that based on distributive justice, equity theory, and expectancy theory that continuation bonuses could be more detrimental than beneficial. The Navy has taken steps to tie continuation pay to major career milestones so that all Naval Aviators and NFO's receive payments based upon career progression. However, if the expectation is for a 2% - 6% increase in Naval Aviator retention due to the payment of continuation pay, then a lot of officers that were intending to stay in the Navy received generous bonuses to do something that they already intended to do.

The timing of continuation pay is coincidental with increases in pay based on longevity and promotion to O-4, so the increase in monthly pay is very large at the 9-10 year point in a Naval Aviators career. However, when continuation pay ends, realized pay will actually decrease for most Naval Aviators. Expectancy theory would indicate that an individual would be dissatisfied with a decrease in pay with increasing tenure and promotion. Equity theory would predict individual dissatisfaction in more senior Naval Aviators due junior Naval Aviators on ACCP

dissatisfaction in more senior Naval Aviators due junior Naval Aviators on ACCP earning a higher income. Individuals who did not select to a bonus eligible position (XO/CO) are therefore ineligible for continuation pay and would experience negative distributive justice; as would all other officers in the Navy that are not Naval Aviators. Study findings on lower pay satisfaction among NFO's could be attributed to distributive justice and perceived inequalities between Naval Aviator and NFO bonus pays.

Of the many factors that affect career intentions the impact of pay appears to be minimal. Pay interventions may be overcome by events and could possibly create greater dissatisfaction then intended satisfaction. Aside from interventions, individuals appear to inject the strongest variable of all toward Job Satisfaction and Career Intentions through dispositional influences and traits.

Recommendations

Due to the moderate results of pay satisfaction in this study, comprehensive pay and benefit facets should be included in future officer pay assessments. Those officers that have lower pay satisfaction could be reflecting their intentions to depart the Navy in their assessment of pay satisfaction. In other words, it's hard to say that you're satisfied with your pay when you're planning on departing the organization, individuals tend to justify personal intentions for leaving and pay is a clearly definable item.

An additional item in the Navy-wide survey, though not integral to the intent of this study, revealed interesting collateral information. Of those Naval Aviators

options, while 15.5% were undecided and only 5% disagreed. There were no Naval Aviators that strongly disagreed. Since 80% of Naval Aviators have a positive perspective on their Naval career choice then the decision to depart the Navy does not appear to be influenced by the Navy itself. Future research should attempt to determine the influence of Navy service factors on career choice over external influences such as opportunity and career goals.

Future Navy-wide surveys should assess dispositional (PA/NA) influences on career commitment and job satisfaction so a realistic real measure of their effect can be identified.

A study on the direct relationship of continuance commitment to airline hiring may reveal the measured impact of airline hiring and the limitations of intervening programs on Naval Aviator retention.

Many Naval Aviators may be leaving the service due to the uncertainty of their ability to continue flying beyond 14 years of service. Future research should attempt to measure the perceived impact of non-flying status on Naval Aviators beyond their department head (14 years of service) tour.

Factors other than pay have been reported as contributing to Naval Aviator dissatisfaction. Numerous formal and informal surveys have identified inadequate spare parts and equipment, frequency of deployments, pace of operations between deployments, erosion of medical benefits, and uncertain career progression and job assignments beyond 14-years of service (Wilcove et al., 1991). Future research should attempt to measure the impact of these factors on Naval Aviator retention.

In light of the findings in this study retention rates may not be all that bad. Comparisons of Naval Aviator career commitment to other professions should accurately assess this fact. However, pay does not appear to significantly impact career intentions; furthermore, continuation bonuses may have a very minimal impact relative to their cost, and could possibly be more detrimental than beneficial.

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APPENDIXES

APPENDIX A

INSTITUTIONAL REVIEW BOARD

An Institutional Review Board application for Exemption was submitted however the IRB stated that "Research using only secondary data for the unit of analysis does not require IRB approval".

VITA

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Candidate for the Degree of

Doctor of Education

Thesis: ANALYSIS OF JOB SATISFACTION, PAY, AND THE CAREER INTENT OF NAVAL AVIATORS

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