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## Officer Career Development: Modeling Married Aviator Retention

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**Officer Career Development:  
Modeling Married Aviator Retention**

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## FOREWORD

This effort was conducted within program element 62233N (Mission Support Technology), project RM33M20 (Manpower and Personnel Technology), task RM33M20.06 (Career and Occupational Design). The purpose of the work unit is to develop prototype models of unrestricted line (URL) officer career decisions that can be used to assess the impact of present and proposed URL career policy and practices upon those decisions and the officers' career activities.

This is the thirteenth report completed within this program element and work unit number under the sponsorship of the Chief of Naval Research (ONR-222). This present report develops a model of retention for married aviation warfare officers (pilots and naval flight officers).

Appreciation is expressed to CAPT T. Beard (formerly NMPC-431) for his support in the design of the project.

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### Prior PDCD Publications:

1. Cook, T.M., & Morrison, R.F. (1982, August). Surface warfare junior officer retention: Early career development factors (NPRDC TR 82-59). San Diego, CA: Navy Personnel Research and Development Center.
2. Cook, T.M., & Morrison, R.F. (1983, January). Surface warfare junior officer retention: Background and first sea tour factors as predictors of continuance beyond obligated service (NPRDC TR 83-6). San Diego, CA: Navy Personnel Research and Development Center.
3. Morrison, R.F. (1983, July). Officer career development: Surface warfare officer interviews (NPRDC TN 83-11). San Diego, CA: Navy Personnel Research and Development Center.
4. Morrison, R.F., Martinez, C., & Townsend, F.W. (1984, March). Officer career development: Description of aviation assignment decisions in the antisubmarine warfare (ASW) patrol community (NPRDC TR 84-31). San Diego, CA: Navy Personnel Research and Development Center.
5. University of San Diego (1984, October 23-25). Proceedings: Volume 1. Group reports. Tri-service career research workshop. San Diego, CA: Continuing Education, University of San Diego.

6. Morrison, R.F., & Cook, T.M. (1985, February.). Military officer career development and decision making: A multiple-cohort longitudinal analysis of the first 24 years (NPRDC TN 85-4). San Diego, CA: Navy Personnel Research and Development Center.
7. Wilcove, G.L., Bruni, J.R., & Morrison, R.F. (1987, August). Officer Career development: Reactions of two unrestricted line communities to detailers (NPRDC TN 87-40). San Diego, CA: Navy Personnel Research and Development Center.
8. Morrison, R.F. (1988, March). Officer career development: URL officers in joint- duty assignments (NPRDC TN 88-26). San Diego, CA: Navy Personnel Research and Development Center.
9. Wilcove, G.L. (Ed.) (1988, August). Officer career development: Problems of three unrestricted line communities (NPRDC TR 88-13). San Diego, CA: Navy Personnel Research and Development Center.
10. Wilcove, G.L. (1988, September). Officer career development: General unrestricted line officer perceptions of the dual-career track (NPRDC TN 88-62). San Diego, CA: Navy Personnel Research and Development Center.
11. Bruni, J.R. and Wilcove, G.L. (1989, January). Officer Career Development: Preliminary surface warfare officer perceptions of a major career path change (NPRDC TN 89-5). San Diego, CA: Navy Personnel Research and Development Center.
12. Bruce, R.A. (In press). Officer career development: Fleet perceptions of the aviation duty officer program (NPRDC TN). San Diego, CA: Navy Personnel Research and Development Center.

## SUMMARY

### Problem

Since fiscal year 1982, the aviation warfare community has been confronted with decreasing percentages of pilots who remain in the Navy more than 2 years beyond their Minimum Service Requirement (MSR). Additionally, a shortage exists for naval flight officers (NFOs) within certain aviation subcommunities. The retention problem of today gives rise to future pitfalls. For example, a lieutenant commander who resigns with 14 years of service cannot be replaced one-for-one by an increase in today's Pilot Training Rate. Finally, low retention rates may be indicative of declining morale that could adversely impact operational readiness.

### Purpose

The purpose of this report is to describe the factors leading to naval aviator retention and to create a prototype model that can be used for predictive purposes.

### Procedure

The sample used for this study was extracted from a much larger sample of aviation warfare officers (AWOs) (N = 5,051) from commissioning years 1961 to 1980, who participated in a survey of officer career development during 1982. A matched random sample (commissioning years 1972 to 1980) of stayers (N = 237) and leavers (N = 237) was selected. Only married officers were used in the analyses. Path analyses were conducted on the data and the results were summarized in subsequent structural models.

### Findings

As expected, stated career intent was the strongest predictor of retention. Furthermore, individuals' level of promotability (based on previous fitness reports) and support from their spouses significantly added to explanation of retention behavior. This study was able to account for 48 percent of the variance in retention behavior, even up to 4 years after the survey was taken. Results also indicated that levels of spousal support, job challenge, evaluation of sea duty, career satisfaction, and organizational commitment accounted for 49 percent of the variance in stated career intent. Interestingly, evaluation of sea duty (and family separation because of deployments) did not add to our ability to predict actual retention behavior.

### Conclusions

This study supported previous research findings, in that, an individual's stated career intent is the best single predictor of future retention behavior. Attention should be drawn to the fact that retention was assessed up to 4 years after the survey was taken. This relatively long time period most likely resulted in attenuation of observed relationships because of changes in levels of the independent variables that occurred between the time of their measurement and the time at which retention was measured. And yet, nearly half of the variance in retention behavior was accounted for. Such a finding is unprecedented in retention research. The positive relationship between promotability and retention is very promising. It may be that the highly structured career system in Navy aviation provides feedback about the probability of promotion via the fitness report system. The higher-rated officers perceive that their career opportunities are good and stay; lower-rated officers leave. Spousal support was found to have a very

important role--both in the explanation of retention behavior and in the explanation of career intent. Furthermore, spousal support buffered the negative effect that family separation, because of sea duty, had on career intent. The high degree of consistency between the present findings and past research, as well as the high face validity of the model presented, lends credence to these results. Our findings suggest a possible causal chain from individual, organizational, and environmental factors, through career intent, and finally, depending upon past performance evaluations, to retention.

### Recommendations

Although some research has been undertaken in the area of spousal support for officers' careers, it is apparent that more is needed--particularly to learn what tangible factors under control of Navy policymakers lead to spousal support (e.g., health care, job locator assistance for the spouse, etc.). In addition, while this study has developed a model accounting for a substantial amount of the variance of actual turnover behavior, more research is needed in the development of a more comprehensive model of military retention. As a preliminary step, analyses must be carried out on a similar sample of unmarried Navy aviators. Additional confirmation of the prototype model is necessary. Two proposed approaches are to: (1) cross-validate findings using a hold-out sample and (2) collect data from another cohort of Navy aviators, with similar years-in-service as the present sample. Both of these approaches could be used to confirm the present findings and to expand upon the prototype model. Following this, research must focus on more divergent military populations (e.g., U.S. Air Force pilots). Additionally, there is still work to be done in measuring turnover and career intent. Perceived employment opportunities (e.g., civilian airline hirings) may be one unmeasured variable that further moderates the career intent--retention linkage as well as the past performance--retention linkage.

From a more applied perspective, it is important that:

1. Policymakers, detailers, and squadron commanding officers understand the important role that spouses have in junior officers' career decisions.
2. Schedule more detailer meetings with junior officers and their spouses.
3. Stress the importance of developing spousal support and assistance in the perspective commanding officer (PCO) perspective executive officer (PXO) course.
4. Publish realistic deployment schedules and then try to beat them.
5. Focus on basic squadron leadership principles (e.g., provide inspiration, give accurate information on career choices, foster a team spirit in the squadron, and provide realistic performance feedback).

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## INTRODUCTION

### *Problem*

Since fiscal year 1982, the aviation warfare community has been confronted with decreasing percentages of commissioned unrestricted line (URL) officers from within unique subcommunities who remain in the Navy more than 2 years beyond their Minimum Service Requirement (MSR). These shortages, particularly among pilots, have led to difficulties for the Aviation Distribution Control Division (NMPC-43) and the fleet wings in maintaining squadron manning levels. Additionally, a shortage exists for Naval Flight Officers (NFOs) within certain aviation subcommunities. The retention issue is further compounded by the fact that these shortages also exist among more experienced junior officers (i.e., lieutenant commanders (LCDRs)).

The retention problem of today gives rise to future pitfalls. For example, a LCDR who resigns with 14 years of service cannot be replaced one-for-one by an increase in today's Pilot Training Rate (PTR). As an illustration of this, the cumulative continuation rate for carrier-based electronic warfare squadrons (15.2%) may not allow every squadron to have a minimum of four LCDRs to fill department head billets. Finally, low retention rates may be indicative of declining morale that could adversely impact operational readiness. A recent study demonstrated that the resignation of more experienced pilots has led to increased probability of aircraft mishaps (Borowsky, 1986).

### *Purpose*

The primary purpose of this report is to describe the factors leading to naval aviator retention and to create a prototype model that could be used for predictive purposes.

### *Previous Research: Civilian Settings*

In the study of voluntary turnover, researchers have typically focused on identifying the major influences on the decision to stay or leave and on modeling predictors in such a way that a consistent pattern emerges across studies and populations. At the core of most models of leaving behavior is an assumption that the major determinant of turnover is job dissatisfaction (or some other affective response to the job situation). Model development has proceeded in the direction of bringing additional variables (e.g., tenure) into this fundamental job dissatisfaction--turnover relationship, albeit their additional explanatory power is often questionable. Simply put, the argument underlying most previous research has been: Other things being equal, happy workers will stay, unhappy workers will leave. Of course, other things are rarely, if ever equal. This study develops and tests an open systems perspective of turnover. That is, one in which individual, organizational, and environmental factors together determine career intent and turnover.

The study of career decisions and behavior has focused primarily on certain milestone decisions in the careers of individuals. Studies of job entry, mid-career transition, advancement, turnover, and retirement are published frequently in journals of organizational behavior. Steers and Mowday (1981) noted that over the past 25 years more than 13 articles reviewing the turnover literature have appeared.

Price (1977) hypothesized that internal organizational processes (i.e., integration, instrumental communication, pay, formal communication, and centralization) were determinants of a person's level of satisfaction. The satisfaction-turnover linkage was then moderated by

opportunities external to the organization. His central thesis was that to explain organizational turnover one must examine not only characteristics of the organization and employee, but also characteristics of the environment.

A model proposed by Mobley (1977) suggested that job dissatisfaction led to an elaborate job search process that led to an intent to stay or leave. Intention was hypothesized as the best predictor of subsequent turnover behavior. This model has been widely tested and has received moderate support (e.g., Mobley, Horner, & Hollingsworth, 1978).

Some recent studies have been conducted to test portions of the Mobley model (Michaels & Spector, 1982; Mowday, Koberg, & McArthur, 1984). In addition to testing the variables already described, Michaels and Spector (1982) tested organizational commitment and "confirmed pre-employment expectancies" to assess their impact on turnover. In general, these analyses supported the model, with pre-employment expectancies affecting job satisfaction, and organizational commitment contributing to intentions to quit. The causal chain begins with individual and organizational factors affecting job satisfaction and organizational commitment. These two factors then determine intentions to stay or leave. Perceived alternative employment opportunities were not found to be a significant factor in the turnover process. However, further investigation by Mowday, Koberg, and McArthur (1984) found that mobility cognitions, or the incumbent's belief regarding how likely it is that another job will be found, did play a role in turnover.

Attempts to cross-validate the Mobley model among diverse samples have had mixed results. For example, Dalessio, Silverman, & Schuck (1986) assessed past research on the Mobley model in order to form an integrated model that could be used to evaluate the original hypotheses proposed by Mobley (1977). Again, the general path was supported (i.e., dissatisfaction to intent-to-leave), but several other paths were not consistent with the model. It was suggested that a single model of turnover may not be applicable to all populations.

The model developed by Steers and Mowday (1981) holds that turnover is a result of the relationship between affective responses to the job (i.e., job satisfaction, organization commitment, and job involvement) and availability of alternative job opportunities. Affective responses are a result of job expectations, organizational characteristics, and job performance level. Job expectations are a result of a combination of several individual characteristics (e.g., occupation, education, age, tenure, family responsibilities, and personal work ethic). Individual characteristics and economic conditions determine available job opportunities, which ultimately influence turnover.

A "unified" model was developed by Bluedorn (1982) and was intended to meld aspects of the models by Price (1977), Mobley (1977), and Steers and Mowday (1981). This model holds that the influence of job satisfaction on subsequent job search is indirect, mediated by organizational commitment. The important difference between this model and previous models is the role of alternative opportunities in the turnover process. In the previous models, alternative opportunities serve as a moderator between job dissatisfaction and turnover. In the model proposed by Bluedorn (1982), alternative opportunities are viewed as a determinant of job dissatisfaction.

Arnold and Feldman (1982) analyzed the results of four studies (Miller, Katerberg, & Hulin, 1979; Mobley, Griffeth, Hand, & Meglinc, 1979; Mobley, Horner, & Hollingsworth, 1978; and Steers & Mowday, 1981) and proposed a model that hypothesized that tenure, perceived job security, and intention to search for alternatives directly affect turnover. The results of this study indicated that the influence of personal, cognitive, and affective variables on turnover is not strictly through intentions to change positions. The results also showed that

turnover was more strongly related to intention to search for alternatives than intention to turnover.

Mitchel (1981) looked specifically at the role of intentions to leave, tenure, and personal and organizational factors on managerial turnover. As predicted by the model, intentions and tenure were related to management turnover. However, the relationship of personal and organizational factors to turnover was not supported. It is possible that these factors have their influence through role perceptions, such as work overload. Mitchel concluded that this relationship needs to be investigated further in order to successfully cross-validate the model within a management population.

A study by Spencer and Steers (1981) identified job performance as a moderator variable between job satisfaction and turnover. The results showed that job satisfaction plays a more important role among low performers than among high performers in decisions to remain in a job. This study is unique, since very little empirical work has been done on the role of performance in the turnover process.

Other variables that have been shown to predict turnover are absenteeism, job stress, age, and tenure (Parasuraman, 1982). Steel and Ovalle (1984) noted that turnover intentions can be an excellent predictor of turnover depending on the time span between the collection of the predictor data and measurement of actual turnover. The strength of the relationship tends to decrease as the time span increases.

#### *Previous Research: Military Settings*

The previous research, reviewed above, has investigated turnover research in civilian settings. The following studies demonstrate what has been learned based on research within military settings with commissioned officers.

Holzbach (1979) identified several factors that contribute to low surface warfare junior officer retention rates (e.g., family separation, aspects of job assignments (i.e., restriction of initiative), the nature of the work, difficulty in obtaining professional qualifications, and the lack of consistency in administering professional qualification programs from ship to ship). Problems with career development, inadequate career counseling, relationships with superior officers affecting working relationships, and the job assignment process were also mentioned.

A follow-up study assessed spouses' influence on officers' career decisions and officer retention (Mohr, Holzbach, & Morrison, 1981). The findings show that the spouse of a junior officer has significant influence on the officer's career decisions. Specifically, officers with supportive spouses are most determined to stay in the Navy. As reported by the junior officers, spouses considered separation the worst aspect of the Navy, followed by pay. These findings tend to underscore the importance of the relationship between officers and their spouses as it relates to their career decisions. Also of interest is the finding that among dual-career families spousal support is lower than that in families where the spouse is not employed outside the home.

The Organizational Effectiveness Center at Naval Air Station Whidbey Island sought to identify factors affecting aviation officer retention (Martinsen & Hansen, 1985). Again, family separation was considered the most negative aspect of the Navy, but changes in the military retirement system, benefits, job dissatisfaction, and improper utilization of talents and abilities were also mentioned. When asked about the most positive aspects of the Navy, numerous officers said that flying, providing it was meaningful, was the best aspect. Job security and job satisfaction were also important.

Results of a survey examining the retention problem among Navy reservists attributed retention problems to inadequate officer indoctrination programs, ineffective unit sponsor programs, and a lack of advancement counseling and adequate training. In addition, lack of training of program managers and lack of utilization of civilian skills were also mentioned (Martin, 1986).

Numerous other studies have addressed the question of what factors influence officers' decisions to remain in the Navy (Cook & Morrison, 1983; Sheposh, White, Magnusson, & Harvey, 1980). It was determined that an officer's expressed career intent prior to the end of obligated service was the best predictor of subsequent turnover behavior. Career intent seems to be a reflection of officers' early career experiences and their perceptions of these experiences. Attempts at improving initial career experiences may have a positive effect on retention. Other factors affecting career intent were professional development opportunities and attractiveness of the career path (Cook & Morrison, 1983). Factors that may improve retention among aviators are sufficient flight time in terms of both quality and quantity, job satisfaction, and job security. Aviators' suggestions of possible ways to keep officers in the Navy were: increased Aviation Career Incentive Pay (ACIP), increased pay, bonuses, improved benefits, and more and better flying (Sheposh, White, Magnusson, & Harvey, 1980).

Research on retention in the Air Force reveals the same underlying reasons for high turnover. How committed aviators are to the Air Force seems to have a significant effect on whether they stay or leave. Commitment, in turn, is influenced by desirability of alternatives, intrinsic satisfaction, importance of Air Force benefits, impact of others on career decisions, sensitivity to bonus policy adjustment, and satisfaction with assignments (Watson & Appel, 1986). Attrition is also influenced by the type of aircraft flown, the openings offered by airlines, present salary levels for officers, and Air Force personnel management policies (Gregory & Rosenbach, 1985).

A study examining Army officers' satisfaction indicated that interesting and challenging work, having a say in their careers, perceptions of co-workers, and work schedules were the most important aspects of their military careers in relation to satisfaction (Hayden, 1985).

Finally, Jans (1985) found that officer turnover is influenced greatly by a combination of personal, family, and career/organizational factors. He further demonstrated that these factors were of greater importance than economic factors in determining officers' continuance. In addition to the numerous factors listed above, retention was also greatly influenced by the hiring practices of airlines and the electronics industry.

If any single difference emerges between previous turnover research in the civilian and military sectors, it is the shortage of any systematic development of theory on retention in the military. This shortcoming is reflected in a proliferation of small-scale surveys that have failed to be replicated and that have only limited generalizability across populations. Furthermore, most research on turnover within military settings does not integrate what has been learned from research done in civilian settings. Therefore, a theory of military retention is needed--one that is robust enough to have meaning and power across military populations.

Previous research on military retention has also suffered from two methodological deficiencies: studying intended turnover rather than actual turnover behavior and studying widely divergent sizes of stayer and leaver cohorts. While career intent is a respectable substitute for turnover behavior (Kraut, 1975), it typically accounts for only 16 to 21 percent of the variance in actual turnover behavior. It is imperative that we use actual turnover behavior in our studies if we are to develop a robust model of military retention. Additionally, those studies that have used actual turnover behavior have not developed equal-sized cohorts of stayers and leavers. Because of sample limitations, previous studies have, for the most part, included all

respondents in the final analyses--leading to divergent sample sizes of stayers and leavers. For example, Spencer and Steers (1981) reported analyses based on 242 stayers and only 53 leavers. The statistical methods that we typically use are not powerful enough to handle samples of such disparate size. If at all possible, it is critical, therefore, that we match the number of stayers and leavers in our analyses.

### *Hypothesized Model*

The model presented in Figure 1 integrates previous theory and research on retention. Career intent is hypothesized to result from commitment to the Navy, job challenge, career satisfaction, spousal career support, and performance feedback to the individual via past fitness reports. Actual retention behavior (stay or leave), however, depends on perceptions of sea duty as well as on career intent.

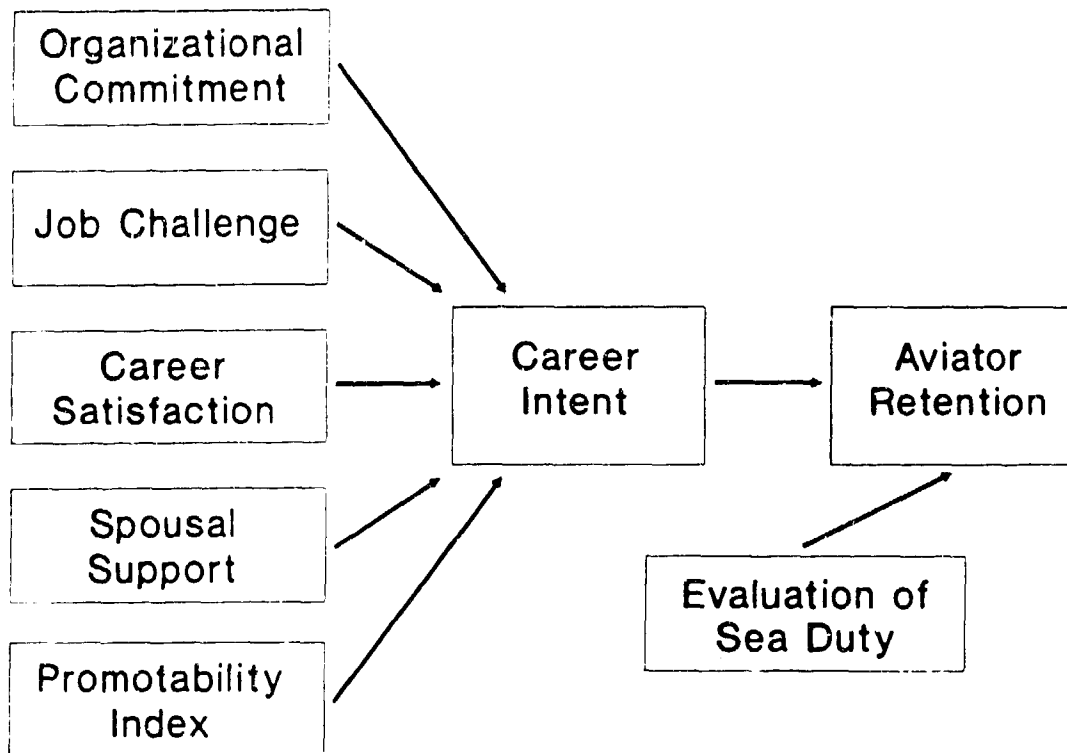


Figure 1. Hypothesized model of aviator retention.

## METHOD

### *Sample*

The sample used for this study was extracted from a much larger sample of aviation warfare officers (AWOs) (N = 5,051) from commissioning years 1961 to 1980, who participated in a survey of officer career development during 1982 (Morrison & Cook, 1985). For the present study, a matched random sample (commissioning years 1972 to 1980) of stayers (N = 237) and leavers (N = 237) was selected, and their responses to the survey were analyzed to develop a framework for understanding aviator retention. Leavers were first assessed by matching the 1982 data against the Officer Master File (a computerized personnel record of current Navy

officers) and by identifying those who were not on the file as of January 1985. These "non-matched" individuals were then matched against the Officer Attrition File (a computerized personnel file of all attrited officers). Loss codes for the individuals indicated general reasons for their attrition (e.g., resigned unqualified general or retired involuntary). Those individuals who clearly resigned voluntarily were coded as having resigned, without qualification. We identified 237 individuals from our 1982 data who were in this category and who were also married at the time of their response to the questionnaire. Next, a stratified random sample (based on commissioning year and aviation subcommunity) of stayers was selected. The total sample of 474 AWOs (lieutenants (LTs) and LCDRs at the time retention was assessed) represented most of the aviation subcommunities. Table 1 details the sample used for the present study. There was no difference between stayers and leavers in regard to their distribution across subcommunity ( $\chi^2 = 2.37, df = 4, ns$ ) or designator ( $\chi^2 = .33, df = 1, ns$ ).

Table 1

*Married Aviation Officer Sample  
(Grades O-3 and O-4)*

Subsamples	Stayers N = 237	Leavers N = 237
<u>Aviation Subcommunity</u>		
TacAir-1 (VAL, VAM, VF)	74 (31%)	68 (29%)
TacAir-2 (VAW, VAQ, VS)	40 (17%)	51 (21%)
VP	72 (30%)	73 (31%)
Helo	25 (11%)	25 (11%)
Other (e.g., fleet support)	26 (11%)	20 (8%)
<u>Designator</u>		
Pilot	149 (63%)	156 (66%)
NFO	88 (37%)	81 (34%)

It should be noted that the officers in this study are not representative of all Navy officers. In order to assess the relative contribution of organizational, career, and family factors to career intention and retention, only married officers were used in the analyses. A separate set of analyses is planned for unmarried officers.

### *Research Instruments*

The survey used for this particular study is provided in the Appendix. The major variables used in the analyses are described below.

#### *Organizational Commitment*

The 15-item instrument used to assess organizational commitment was initially developed by Porter, Steers, Mowday, and Boulian (1974). Angle (1983) and Angle and Perry (1983) found that the items in the Porter et al. (1974) scale measured an attachment that results more from actions taken by the organization, rather than the commitment of investments by the individual. They termed the former type of commitment affective attachment and the latter form of commitment instrumental attachment. This affective attachment scale has a coefficient alpha of .85 for the present sample.

#### *Career Satisfaction*

A 5-item scale was used to measure the degree to which an individual obtains a sense of worth and enjoyment from his or her career. This scale has a coefficient alpha of .84 for the present sample.

#### *Spousal Support*

This variable consisted of a single item: "How do you think your spouse feels towards your Navy career?" The 5-point response scale ranged from completely opposed to completely supportive.

#### *Job Challenge*

This set of 4 variables assessed the degree to which individuals believed they could obtain more challenge, initiative, recognition, and responsibility in a civilian career compared to their present Navy career. This scale has a coefficient alpha of .85 for the present sample.

#### *Evaluation of Sea Duty*

This scale consisted of two items. The first item was a general evaluation of sea duty with regard to a Navy career. The second item was an assessment of the degree to which the individual thought that "family separation because of deployment makes my Navy career less attractive."

#### *Promotability Index*

A policy-capturing study (Morrison, Martinez, & Townsend, 1984) developed a measure of aviation officer quality based on officers' fitness report data that was used in the present

study. Later work (Bjerke, Cleveland, Morrison, & Wilson, 1987) has shown that the fitness report is a tool used primarily for promotion decisions. This index, therefore, cannot be construed as a surrogate measure of performance. It can, nonetheless, be considered as one indicator of performance--promotability. The index of quality used in the present study was constructed from fitness report data provided by the officers and was based on the following information:

1. Normalized average ratings on the comparison data,
2. Normalized average position among peers who are recommended for early promotion, and
3. Normalized relative standing among peers with the average number rated below one on the comparison data.

### *Career Intent*

Officers' intent to remain in the Navy until eligible for retirement was measured by a single 8-point item. The item asked respondents to answer the following question: "How certain are you that you will continue an active Navy career at least until you are eligible for retirement?" This item is an adaptation of Butler and Bridges' (1976) military career gradient for Army officers.

### *Retention*

Aviator retention was a dichotomous variable. Individuals resigning from the Navy prior to January 1985 were given a value of 1. Those individuals who were still in the Navy as of January 1985 were given a value of 2.

## RESULTS

### *Correlations*

Correlations between major study variables are shown in Table 2. The results indicate that the variables having the strongest zero-order relationship to retention are career intent ( $r = 0.52$ ), job challenge ( $r = 0.38$ ), career satisfaction ( $r = 0.37$ ), spousal support ( $r = 0.37$ ), and organizational commitment ( $r = 0.32$ ).

Except for spousal support, however, the effects of job challenge, career satisfaction, and organizational commitment on retention, however, are indirect through career intent. This can be seen by examining their respective partial correlations with retention, when career intent is controlled for: job challenge ( $r_p = 0.02$ , n.s.), career satisfaction ( $r_p = 0.12$ , n.s.), and organizational commitment ( $r_p = 0.04$ , n.s.).



Table 2

*Means, Standard Deviations, and Correlations of Major Study Variables*

Variable	M	SD	1	2	3	4	5	6	7
1. Retention	1.5	0.5							
2. Career intent	5.0	2.1	.52**						
3. FitRep index	3.7	0.8	.25*	.02					
4. Spouse support	3.5	1.3	.37**	.54**	-.14				
5. Sea duty	1.7	0.6	.29**	.47**	-.05	.42**			
6. Career sat.	5.6	1.1	.37**	.53**	.01	.44**	.38**		
7. Org. commitment	5.0	1.1	.32**	.53**	-.03	.44**	.46**	.70**	
8. Job challenge	4.5	1.1	.38**	.54**	.08	.39**	.36**	.56**	.54**

Note.  $N = 474$ .

\* Significant at the .01 level.

\*\* Significant at the .001 level.

*Path Analysis (Part 1)*

In the first stage of the analysis, the hypothesized model (Figure 1) was tested by regressing retention on career intent and evaluation of sea duty; this was followed by regressing career intent on organizational commitment, job challenge, career satisfaction, spousal support, and the fitness report index. Figure 2 indicates paths with statistically significant beta weights (i.e., path coefficients). As can be seen, evaluation of sea duty and the fitness report index had nonsignificant path coefficients to retention and career intent, respectively. The hypothesized model accounted for 27 percent ( $R = 0.52$ ) of the variance in retention.

Further investigation of the correlation matrix revealed strong relationships between evaluation of sea duty and both spousal support and career intent. In addition, there was a significant degree of association between the fitness report index and retention. A second path analysis was performed and the final model is presented in Figure 3. As can be seen, there is a significant direct relationship between the fitness report index and retention. Finally, evaluation of sea duty appears to have both a direct influence on the formation of career intent, as well as an indirect influence on career intent, through its impact on spousal support. This final model accounted for 48 percent ( $R = 0.69$ ) of the variance in retention. The differences in  $R^2$  between the hypothesized model and this final model was significant ( $p < .001$ ), indicating that the final model is substantially better than the hypothesized model in accounting for retention.

*Path Analysis (Part 2)*

Exploratory path analysis was used to assess possible factors contributing to those variables leading to career intent. Because of limitations in the data, factors that might contribute to job challenge are absent from these analyses.

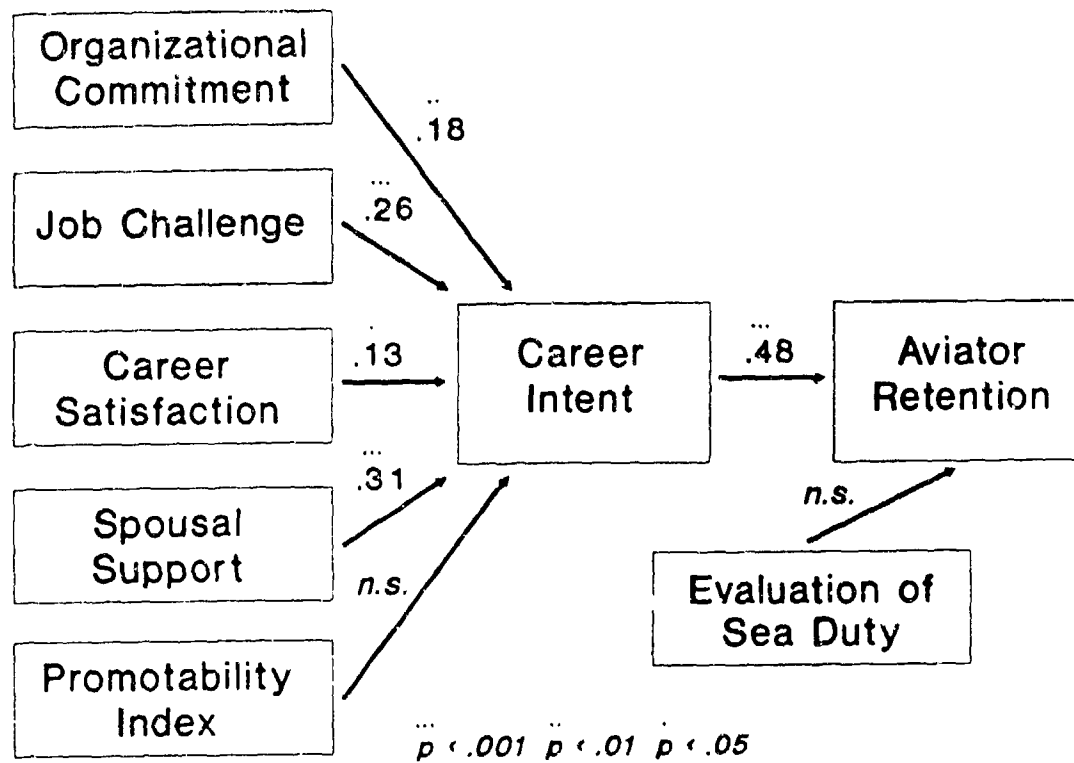


Figure 2. Results of hypothesized model.

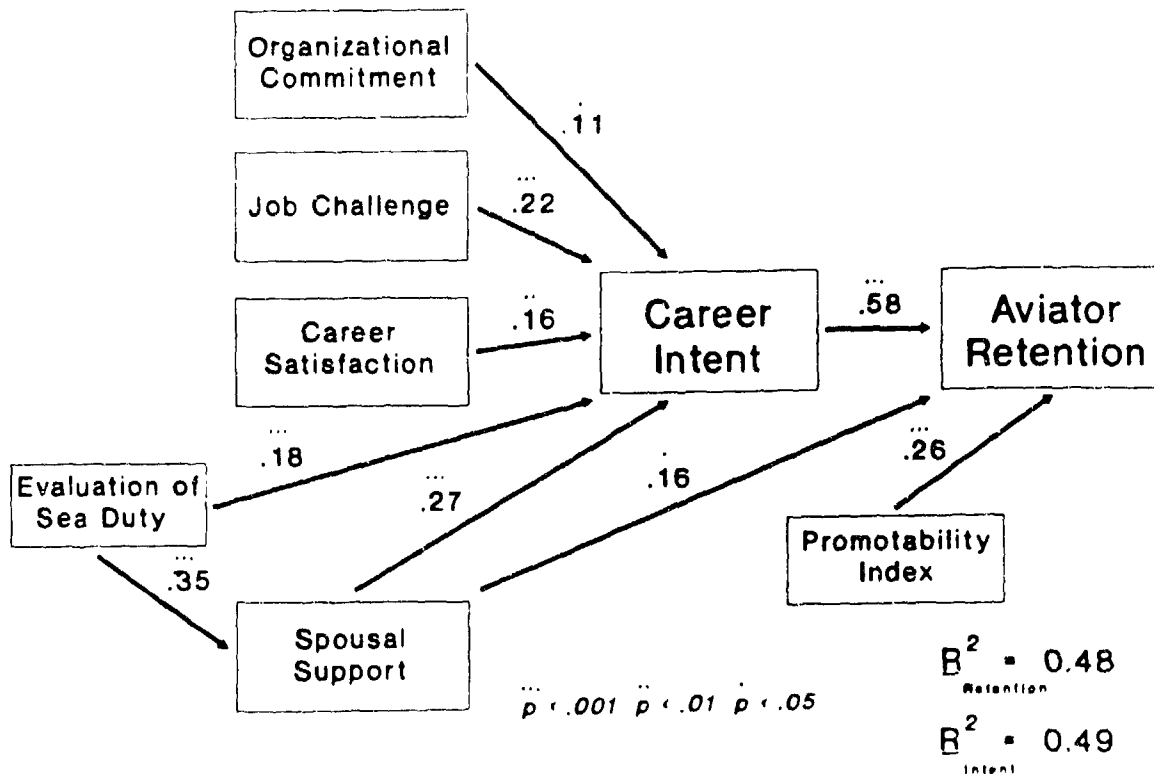


Figure 3. Modified model of aviator retention.

In addition, we were unable to find substantial differences whether we modeled the retention behavior of pilots or NFOs. A path analysis conducted with a dummy variable of aviator type (1 = pilot; 0 = NFO) failed to find this factor as a significant contributor to the explanation of career intent or retention. The inclusion of this dummy variable failed to create change in the amount of variance accounted for in career intent ( $R^2 = 0.49$ , difference in  $R^2 = 0.0$ , n.s.). Furthermore, there was no change in the amount of variance accounted for in retention ( $R^2 = 0.48$ , Difference in  $R^2 = 0.0$ , n.s.).

Figure 4 portrays the relative strength of relationship of the contributors to spousal support that were within the data. Evaluation of sea duty has a major influence on perceptions of family attitudes and clearly is the strongest single predictor of spousal support. At the same time, however, it should be noted that only 25 percent ( $R = 0.50$ ) of the variance in spousal support is accounted by these four contributors. It appears that there are other factors affecting the degree to which a spouse provides support for a naval aviator's career.

This analysis makes an assumption regarding the relationship between evaluation of sea duty and level of spousal support -- that evaluation of sea duty leads to perceptions of amount of spousal support received. In all likelihood this relationship is nonrecursive. However, since spousal support had larger zero order correlations with retention ( $r_{\text{SPOUSAL SUPPORT}} = .37$ ;  $r_{\text{SEA DUTY}} = .297$ ) and career intent ( $r_{\text{SPOUSAL SUPPORT}} = .54$ ;  $r_{\text{SEA DUTY}} = .47$ ), the decision was made to assess the amount of variance accounted for in spousal support (as opposed to assessing the amount of variance accounted for in evaluation of sea duty). Additional support for this approach comes from looking at the partial correlations between career intent and these two variables. After controlling for sea duty, the first order partial correlation between spousal support and career intent ( $r_p = .43$ ) remains significantly different ( $z = 3.32$ ,  $p < .01$ ).

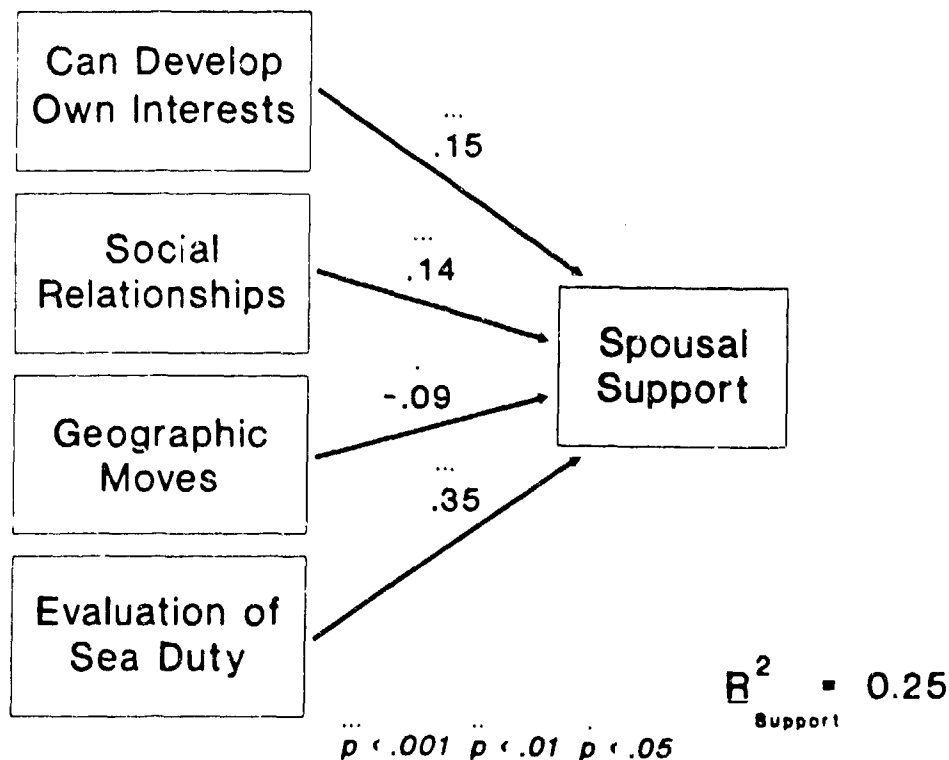


Figure 4. Factors leading to spousal support.

Contributors to career satisfaction are presented in Figure 5. The first thing that should be noted is that nearly half of the variance in career satisfaction ( $R^2 = 0.46$ ) is accounted for by the six items presented. Of these items, the aviators' perceptions of past assignments that they have received and the attractiveness of the naval aviator career path account for the largest proportion of variance.

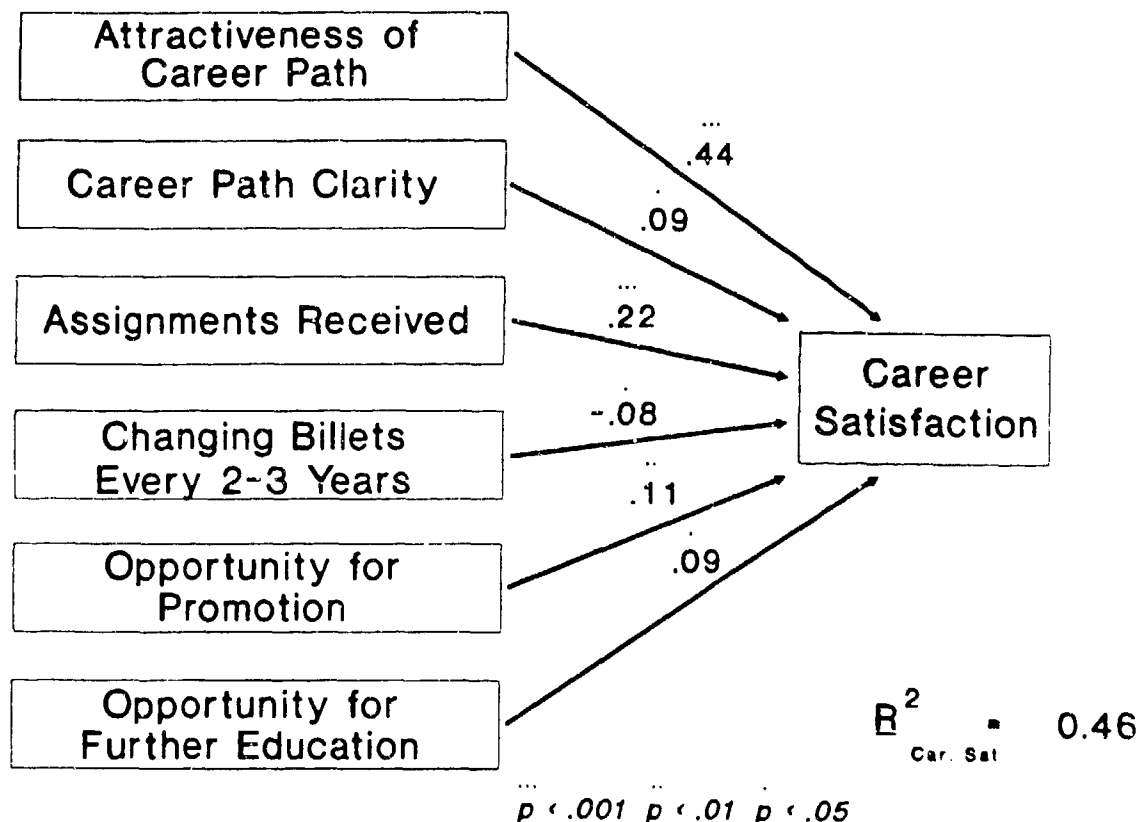


Figure 5. Factors leading to career satisfaction.

Finally, Figure 6 displays six hypothesized contributors to organizational commitment. These items were selected because they appear to be related to the formation of interpersonal linkages within the organization. This is important, particularly if one follows the findings of Angle (1983) and assumes that the scale of organizational commitment used measures affective attachment to the organization. It can be seen that 39 percent ( $R^2 = 0.62$ ) of the variance in organizational commitment is accounted for by these six factors. Of these contributors, intrinsic motivation from work and coworker relationships are the strongest predictors.

One final note must be made regarding the relationship between career satisfaction and organizational commitment. It is clear that these two constructs are highly associated ( $r = 0.70$ ). Furthermore, the hypothesized contributors to each are, as expected, highly correlated with both scales. However, the mean correlation of organizational commitment with its contributing factors ( $r_m = 0.30$ ) is higher than career satisfaction with those same factors ( $r_m = 0.26$ ). Conversely, the mean correlation of career satisfaction with its contributing factors ( $r_m = 0.38$ ) is higher than organizational commitment with the same items ( $r_m = 0.35$ ). These mean correlations were based on the  $r$  to  $Z$  transformation (Silver & Dunlap, 1987). In the final analysis, it is apparent that more investigation is needed to evaluate the linkages between career satisfaction and organizational commitment.

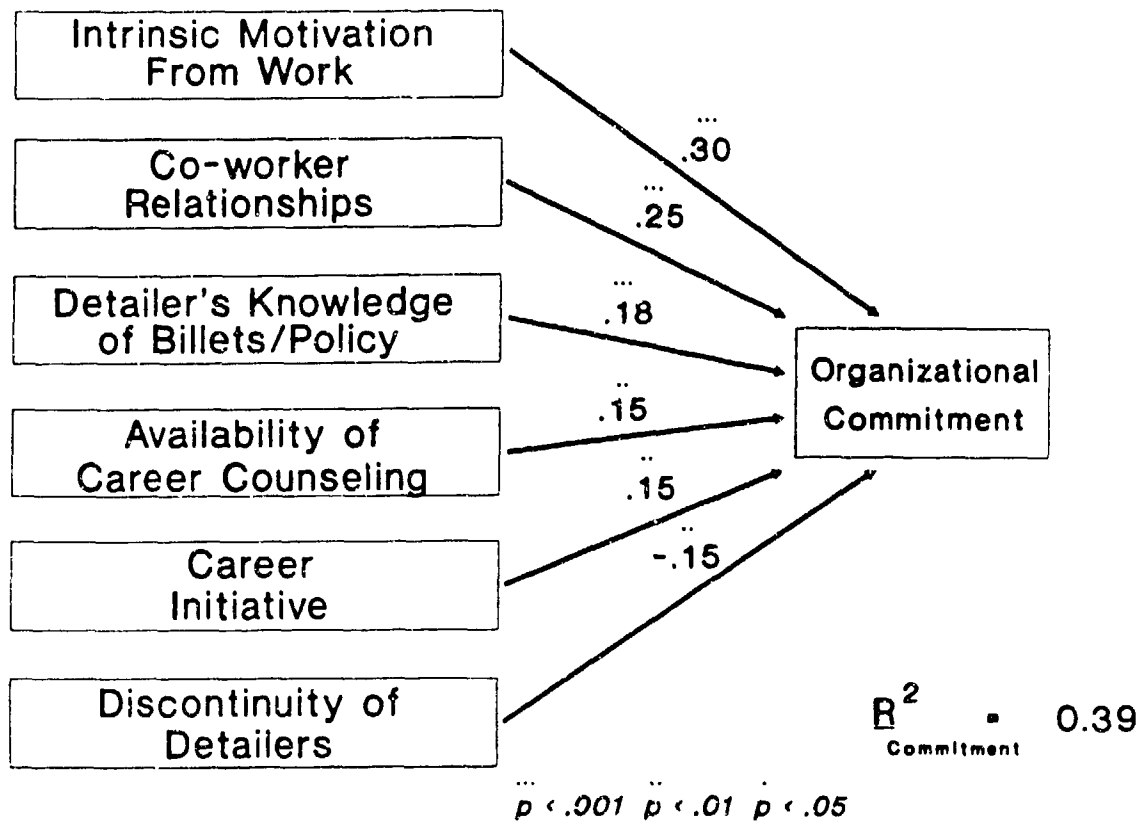


Figure 6. Factors leading to organizational commitment.

## DISCUSSION

The major purpose of this study was to evaluate a hypothesized model of retention based on prior research. The results were supportive of major portions of the model but suggested significant modifications were needed.

The path analysis was consistent with a perspective of turnover in which individual, organizational, and environmental factors together determine career intent and retention. More specifically, it was found that career intent, promotability, and spousal support led to a better predictive model of retention. An individual's stated intent to remain in the Navy is the best single predictor of future turnover behavior. This supports previous models of retention (Bluedorn, 1982; Price, 1977; Steers & Mowday, 1981). Those who said they would remain in the Navy until eligible for retirement were much less likely to turnover.

Attention should be drawn to the fact that retention was assessed up to 4 years after measurement of the other variables used in the study. This relatively long time period most likely resulted in attenuation of observed relationships because of changes in levels of the independent variables that occurred between the time of their measurement and the time at which retention was measured.

Interestingly, promotability (one facet of performance), as reflected in past fitness report evaluations, was found to have a significant and direct path coefficient on retention, but was not related to career intent. This result appears contrary to previous theory and research. For example, Steers and Mowday (1981) hypothesized that performance may interact with job attitudes to determine intention to leave and actual turnover as presented in the hypothesized model (Figure 1). Furthermore, Spencer and Steers (1981) presented data suggesting that performance moderates the satisfaction-turnover relationship. In the present study, no evidence of such an interaction was present. Higher quality officers are remaining in the Navy.

The positive relationship between promotability and retention is very promising. It may be that the highly structured career system in naval aviation provides feedback about the probability of promotion via the fitness report system. Higher-rated officers perceive that their career opportunities are good and stay; lower-rated officers leave. Higher-quality officers receive the message that they are valued and wanted by the organization. This, most likely, results in greater affective attachment to the organization. We would expect that the organization--and perhaps the officer's coworkers as well--would make few attempts to retain poor performing officers. The findings support this.

Another result of this study was further clarification of the important role that spousal support plays in career intent and retention. It was shown that this factor has both direct and indirect effects on retention, the latter through career intent. This finding supports earlier work on the importance of spouses' influence on retention decisions of junior surface warfare officers (Mohr, Holzbach, & Morrison, 1981). Clearly, more investigation into this relationship is imperative.

Related to this, the finding that evaluation of sea duty did not have a significant relationship to actual retention is important for several reasons. First, its effect on retention is indirect and relatively minor. This suggests that family separation is not the major direct influence on the voluntary turnover decisions of Navy aviators, as many believe. Family separation and sea duty are facets of a Navy career that most married officers find undesirable, at least to a certain degree (Bruce, 1986). Improvement in this aspect of the aviation career, through changes in policies, would probably result in improvements in aviators' quality of work life, but would affect retention statistics negligibly. Second, evaluation of sea duty is shown to account for a fair proportion of the variance in spousal support. At the same time, it must be remembered that the majority of the variance in spousal support was unaccounted for in this investigation (75%). This suggests that developing a framework for understanding spousal support is a logical follow-up study. Although some research has been undertaken in this area, it is apparent that more is needed--particularly to learn what tangible factors under control of Navy policy makers lead to spousal support (e.g., health care, job locator assistance for the spouse, etc.).

Also, as discussed earlier, it is also equally likely that the amount of spousal support one receives has a direct bearing on one's evaluation of sea duty and family separation. While this study did not have the data to assess the probable nonrecursive relationship between evaluation of sea duty and spousal support, it would be prudent for future data collection efforts to delve into this issue.

It should be noted that in the determination of career intent, organizational commitment and career satisfaction were less important than either spousal support or job challenge. These findings caution against undue reliance on satisfaction and commitment measures as sole indicators of organizational health. The additional question arises as to what leads to the perception of high job challenge and fulfillment. Recent interviews conducted with 228 aviators (Bruce, 1986) suggest that job challenge is related to high quality flight time. That is, flight time

that is both important and meaningful--not flying around simply to use up the squadron's allocation of fuel so that the quantity won't be reduced during the next fiscal period.

While this study has developed a prototype model accounting for a substantial amount of the variance of actual turnover behavior, additional research is needed to develop a more comprehensive model of military retention. As a preliminary next step, analyses must be carried out on a similar sample of unmarried officers. Additional confirmation of the prototype model is necessary. Future studies should have sample sizes large enough (i.e.,  $N > 800$ ) for the sample to be split. Specification analyses would then be conducted on the first half of the sample. The second half of the sample (the hold-out sample) would then be used to validate the solution obtained from the first half (cf. Cliff, 1983; Cudeck & Browne, 1983).

Furthermore, data should be collected from another cohort of Navy aviators, with years-in-service similar to the present sample. This new sample could then be used to validate and confirm the present results--possibly expanding on these preliminary findings. Such confirmation is important prior to extending this study across services.

Following this, research must focus on more divergent military populations (e.g., U.S. Air Force pilots). Additionally, there is still work to be done in measuring turnover and career intent. Perceived employment opportunities (e.g., civilian airline hirings) may be one such unmeasured variable that moderates the career intent--retention linkage as well as the past performance--retention linkage. Future research would do well to examine such extra organizational alternatives.

Future analyses would do well to use more elaborate forms of structural equation modeling (e.g., Jöreskog, 1969; Jöreskog & Sörbom, 1986). The Analysis of Linear Structural Relationships by the Method of Maximum Likelihood (LISREL VI) has the power to separate questions of measurement from questions about the relationships under study. LISREL VI is a computer program that is able to estimate the unknown coefficients in a set of linear structural equations simultaneously. The variables in the equation system may be manifest variables (i.e., directly observed) or latent variables (i.e., unmeasured hypothetical constructs).

The results of this study emphasize the complexity of the aviator retention issue. There are no simple answers. The change of any single factor will, most likely, have little ultimate influence on overall retention rates. At the same time, one must certainly be cautious in drawing causal conclusions from these data. Although they certainly support the model, they do not establish causal linkages. Opportunity for promotion may lead to career satisfaction, which may lead to career intent, which may lead to retention. However, manipulating opportunity for promotion at the beginning of the chain may not affect retention at the end, even though career satisfaction and career intent might change. Furthermore, the interpretation of beta weights with correlated predictors must be viewed with caution, as variable dependencies can lead to unstable coefficients (Asher, 1976).

The above caveats notwithstanding, it is important to reiterate the apparent strength of the model developed in the present study. The high degree of consistency between the present findings and past research, as well as the high face validity of the model, lend credence to these results. Our findings suggest a possible causal chain from individual, organizational, and environmental factors, through career intent, and finally, depending upon past fitness report evaluations, to retention.

## REFERENCES

- Angle, H. (1983). *Correlates of instrumental and affective attachment to organizations*. Paper presented at the 91st Annual Convention of the American Psychological Association, Anaheim, CA.
- Angle, H., & Perry, J. (1983). Organizational commitment: Individual and organizational influences. *Work and Occupations*, 10, 123-146.
- Arnold, H., & Feldman, D. (1982). A multivariate analysis of the determinants of turnover. *Journal of Applied Psychology*, 67, 350-360.
- Asher, H. (1976). *Causal modeling*. Everly Hills, CA: Sage.
- Bjerke, D., Cleveland, J., Morrison, R., & Wilson, W. (1987). *Officer fitness report evaluation study* (NPRDC Tech. Rep. 88-4). San Diego, CA: Navy Personnel Research and Development Center.
- Bluedorn, A. (1982). A unified model of turnover from organizations. *Human Relations*, 35, 135-153.
- Borowsky, M. (1986). *Readiness and retention: Pilot flight experience and aircraft mishaps*. Norfolk, VA: Naval Safety Center.
- Bruce, R. (1986). The family separation catchall. *U.S. Naval Institute Proceedings*, 112, 110-111.
- Butler, R., & Bridges, C. (1976). *Cross-validation of the MCCOG as a predictor of officer retention* (No. 77-007). West Point: U.S. Military Academy.
- Cliff, N. (1983). Some cautions concerning the application of causal modeling methods. *Multivariate Behavioral Research*, 18, 115-126.
- Cook, T., & Morrison, R. (1983). *Surface warfare junior officer retention: Background and first sea tour factors as predictors of continuance beyond obligated service* (NPRDC Tech. Rep. 83-6). San Diego: Navy Personnel Research and Development Center.
- Cudeck, R., & Browne, M. (1983). Cross-validation of covariance structures. *Multivariate Behavioral Research*, 18, 147-167.
- Dalessio, A., Silverman, W., & Schuck, J. (1986). Paths to turnover: A re-analysis and review of existing data on the Mobley, Horner, and Hollingsworth turnover model. *Human Relations*, 39, 245-263.
- Gregory, R., & Rosenbach, E. (1985). *Officer retention in the United States Air Force* (Unpublished manuscript), United States Air Force Academy.
- Hayden, L. (1985). *Factors influencing the career orientation of junior officers in the United States Army*. Monterey, CA: Naval Postgraduate School. (AD-A156 564)
- Holzbach, R. (1979). *Surface warfare junior officer retention: Problem diagnosis and a strategy for action* (NPRDC Tech. Rep. 79-29). San Diego: Navy Personnel Research and Development Center.



- Jans, N. A. (1985). *Careers in conflict: Service officers' careers and families in peace time*. Canberra, Australia: Personnel Branch, Department of Defence (Army Office).
- Jöreskog, K. (1969). A general approach to confirmatory maximum likelihood factor analysis. *Psychometrika*, 34, 183-202.
- Jöreskog, K., & Sörbom, D. (1986). *LISREL VI: Analysis of linear structural relationships by maximum likelihood instrumental variables, and least squares methods*. University of Uppsala, Department of Statistics.
- Kraut, A. (1975). Predicting turnover of employees from measured job attitudes. *Organizational Behavior and Human Performance*, 13, 233-243.
- Martin, P. (1986). *Retention study of selected reservists serving with Naval Air Reserve San Diego* (Unpublished manuscript), San Diego: ASWWINGPAC 0194.
- Martinsen, L., & Hansen, J. (1985). *What makes the difference...?: The 1985 COMMATVAQWINGPAC aviation officer retention study* (Unpublished manuscript). NAS, Whidbey Island, Organizational Effectiveness Center, Whidbey Island, WA.
- Michaels, C., & Spector, P. (1982). Causes of employee turnover: A test of the Mobley, Griffeth, Hand, and Meglino model. *Journal of Applied Psychology*, 67, 53-59.
- Miller, H., Katerberg, R., & Hulin, C. (1979). Evaluation of the Mobley, Horner, and Hollingsworth model of employee turnover. *Journal of Applied Psychology*, 64, 509-517.
- Mitchel, J. (1981). The effect of intentions, tenure, personal, and organizational variables on managerial turnover. *Academy of Management Journal*, 24, 742-751.
- Mobley, W. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62, 237-240.
- Mobley, W., Griffeth, R., Hand, H., & Meglino, B. (1979) Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86, 493-522.
- Mobley, W., Horner, S., & Hollingsworth, A. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology*, 63, 408-414.
- Mohr, D., Holzbach, R., & Morrison, R. (1981). *Surface warfare junior officer retention: Spouses' influence on career decisions* (NPRDC Tech. Rep. 81-17). San Diego: Navy Personnel Research and Development Center.
- Morrison, R. & Cook, T. (1985). *Military officer career development and decision making: A multiple-cohort longitudinal analysis of the first 24 years* (MPL TN 85-4). San Diego, CA: Navy Personnel Research and Development Center.
- Morrison, R., Martinez, C., & Townsend, F. (1984). *Officer career development: Description of aviation assignment decisions in the antisubmarine warfare (ASW) patrol community* (NPRDC Tech. Rep. 84-31). San Diego: Navy Personnel Research and Development Center.

- Mowday, R., Koberg, C., & McArthur, A. (1984). The psychology of the withdrawal process: A cross-validation test of Mobley's intermediate linkages model of turnover in two samples. *Academy of Management Journal*, 27, 79-94.
- Parasuraman, S. (1982). Predicting turnover intentions and turnover behavior: A multivariate analysis. *Journal of Vocational Behavior*, 21, 111-121.
- Porter, L., Steers, R., Mowday, R., & Boulian, P. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603-609.
- Price, J. (1977). *The study of turnover*. Ames, IA: Iowa State University.
- Sheposh, J., White, M., Magnusson, P., & Harvey, P. (1980). *Factors related to naval aviator career decisions* (NPRDC Spec. Rep. 80-3 Rev.). San Diego: Navy Personnel Research and Development Center.
- Silver, N., & Dunlap, W. (1987). Averaging correlation coefficients: Should Fisher's z transformation be used? *Journal of Applied Psychology*, 72, 146-148.
- Spencer, D., & Steers, R. (1981). Performance as a moderator of the job satisfaction-turnover relationship. *Journal of Applied Psychology*, 66, 511-514.
- Steel, R., & Ovalle, N. (1984). A review and meta-analysis of research on the relationship between intentions and employee turnover. *Journal of Applied Psychology*, 69, 673-686.
- Steers, R., & Mowday, R. (1981). Employee turnover and postdecision accommodation processes. In L. Cummings & B. Staw (Eds.), *Research in organizational behavior*, 3. Greenwich, CT: JAI Press.
- Watson, T. & Appel V. (1986). *Implications of the results of recent turnover research for Air Force policy* (AFHRL Tech. Rep. 86-5). Brooks AFB, TX: Manpower and Personnel Division, Air Force Human Resources Laboratory.

APPENDIX

1982 AVIATION WARFARE OFFICER QUESTIONNAIRE

1. \_\_\_\_\_ 2. SSN \_\_\_\_\_  
 First M.I. Last

AVIATION OFFICER CAREER QUESTIONNAIRE

Privacy Act Notice

Under the authority of 5 USC 301, information regarding your background, attitudes, experiences, and future intentions in the Navy is requested to provide input to a series of studies on officer career processes and retention. THE INFORMATION PROVIDED BY YOU WILL NOT BECOME PART OF YOUR OFFICIAL RECORD, NOR WILL IT BE USED TO MAKE DECISIONS ABOUT YOU WHICH WILL AFFECT YOUR CAREER IN ANY WAY. It will be used by the Navy Personnel Research and Development Center for statistical purposes only. You are not required to provide this information. There will be no adverse consequences should you elect not to provide the requested information or any part of it. Return of the questionnaire constitutes acknowledgement of these Privacy Act provisions.

I. Background Information

3. Grade: O- \_\_\_\_\_ 4. Designator: \_\_\_\_\_

5. Marital Status: ( ) 1. Never Married ( ) 2. Married - Year \_\_\_\_\_

( ) 3. Widow(er) - Year \_\_\_\_\_; and ( ) 4. Remarried - Year \_\_\_\_\_

( ) 5. Divorced - Year \_\_\_\_\_; and ( ) 6. Remarried - Year \_\_\_\_\_

6. Children living with you: Number \_\_\_\_\_ Age(s) \_\_\_\_\_

7. Precommissioning Class Ranks:

	0	1	2	3	4	5
	Don't Know	Bottom 20%	Next 20%	Mid 20%	Next 20%	Top 20%

a. Academic (Undergraduate) ( ) ( ) ( ) ( ) ( ) ( )

b. Military (AOCS, USNA, etc.) ( ) ( ) ( ) ( ) ( ) ( )

8. What was your composite score for Advanced Flight Training? \_\_\_\_\_ ( ) Don't know ( ) N/A

II. Professional Qualifications

1. When were you awarded your wings? \_\_\_\_\_ / \_\_\_\_\_ ( ) N/A  
 Month Year

2. What specific aircrafts are you qualified to be a pilot of or an NFO? \_\_\_\_\_

3. I have obtained the following Surface Warfare qualifications (check best one):

- ( ) 1. None
- ( ) 2. OOD(U)
- ( ) 3. One qual, not OOD(U)
- ( ) 4. Several but not SWO qualified
- ( ) 5. Am SWO qualified

4. Please complete the following table by providing the indicated information from all of the fitness reports you received during your present tour and the tour preceding it. If you are enroute to a new assignment, use your last two tours. Start with your most recent FITREP. Include dates of fitness reports that are not available and write in the word "missing." Please circle your position on the Evaluation and Summary rankings. The first three lines are filled in as examples. Omit information which is not relevant or available. Since this is privileged information, you are not required to complete it, but your help is essential to our ability to provide useful results. No information from an individual will be reported.

Date Block (13)	Sea/Shore*	Evaluation and Summary (blocks 51 & 52)							EARLY PROMOTION			
						TYPICALLY EFFECTIVE		BOTTOM	(block 62) RECMD	(block 66) RANKING	(block 65) NUM RECMD	
		1%	5%	10%	30%	50%	50%	30% MARG UNSAT				
05/81	1	2	1	1		1			YES	2	of	2
11/80	1	1	3		1			1	NO		of	
11/79	2	MISSING									of	
											of	
											of	
											of	
											of	
											of	
											of	
											of	

\* 1=Sea; 2=Shore

### III. PRESENT ASSIGNMENT EXPERIENCE

In this section (pages 2 and 3) information is sought about your present tour of duty. If you are enroute to a new duty station, refer to your last tour to answer the items. The last 3 months should be your frame of reference when a specific time period is required

1. My present tour is: ( ) 1. Sea ( ) 2. Shore

2. My PRD \_\_\_\_\_ / \_\_\_\_\_ ( ) Don't Know  
Month Year

3. Airplane Type/Activity (e.g., HSL, VP, VF, VT, NAVSTA): \_\_\_\_\_

4. Home Port/Location: \_\_\_\_\_

5. Have you been (or will you be) extended in this tour beyond your initial PRD? ( ) 1. No ( ) 2. Yes - how long? \_\_\_\_\_ months?  
( ) 3. Don't know
6. If you answered YES to question 5, what was/is the reason (choose best one)?  
( ) 1. Awaiting relief ( ) 4. No reason given  
( ) 2. Awaiting opportunity to enter school ( ) 5. Other \_\_\_\_\_  
( ) 3. Short time remaining in Navy \_\_\_\_\_
7. What is your evaluation of the following aspects of your present job and related duties? (Respond using the following scale. Omit if not applicable).

1	2	3	4	5	6	7
Very Negative			Neutral			Very Positive
___ a. Challenge						___ h. Ability to plan and schedule activities
___ b. Separation from family/friends						___ i. Adventure
___ c. Use of skills & abilities						___ j. Sense of accomplishment
___ d. Working environment						___ k. Opportunity to grow professionally
___ e. Hours of work required						___ l. Doing something important
___ f. Work pressure						___ m. Relationships with co-workers
___ g. Interesting duties						___ n. Relationship with CO or reporting senior

8. How effective was the command's sponsor program in helping you settle into your present assignment?  
( ) 0. None present ( ) 2. Poor ( ) 4. Good  
( ) 1. Very poor ( ) 3. Average ( ) 5. Excellent

9. About how long (in months) did it take you to be a regular member of your -  
\_\_\_ a. Squadron/Command ( ) still aren't  
\_\_\_ b. Local community ( ) still aren't  
\_\_\_ c. SWO Wardroom at sea ( ) still aren't

10. Overall, how do you evaluate this tour in terms of (omit if not applicable) -

	(1) Highly Unfavorable	(2) Unfavorable	(3) Neutral	(4) Favorable	(5) Highly Favorable
a. Squadron/Command	( )	( )	( )	( )	( )
b. Type duties	( )	( )	( )	( )	( )
c. Readyroom/peers	( )	( )	( )	( )	( )
d. Superiors	( )	( )	( )	( )	( )
e. Immediate Subordinates	( )	( )	( )	( )	( )
f. Wardroom at sea (the SWOs)	( )	( )	( )	( )	( )

IV. ASSIGNMENT PROCESS

1. For your most recent experience with a completed PCS change, how many days relative to your PRD did you receive (not applicable = 0):
  - a. Informal notification? \_\_\_ days prior to, or \_\_\_ days after PRD.
  - b. Formal notification (orders)? \_\_\_ days prior to, or \_\_\_ days after PRD.
2. When did you detach from your last assignment (use numbers such as 10-79; 0-0 equals no reassignment)? \_\_\_\_\_ / \_\_\_\_\_  
   Month  Year
3. Was the new assignment sea or shore duty?  
   ( ) 0. Never reassigned   ( ) 1. SEA   ( ) 2. SHORE
4. Did the reassignment involve a change in geographic location?  
   ( ) 0. Never reassigned   ( ) 1. YES   ( ) 2. NO
5. How satisfactory was the amount of notification time you received for--
 

	<u>N/A</u>	<u>More than</u> <u>enough</u>	<u>Just about</u> <u>right</u>	<u>Cut it</u> <u>too close</u>	<u>Totally</u> <u>unsat</u>
a. Informal notification ( )	( )	( )	( )	( )	( )
b. Formal notification ( )	( )	( )	( )	( )	( )
6. If you answered question 5 with "cut it too close" or "totally unsatisfactory," were there special circumstances that may have affected the timing of your notification (choose best response)?
  - ( ) 1. No
  - ( ) 2. Yes--and it was justifiable.
  - ( ) 3. Yes--and it wasn't justifiable.
7. Prior to your most recent transfer, how many days of lead time did you have to make travel arrangements and household effects shipment?  
   \_\_\_\_\_ Days   ( ) Never transferred or not applicable.
8. How many months prior to your PRD to your current assignment did you submit a new preference card (none submitted = 0)? \_\_\_\_\_ Months  
   ( ) Don't remember.
9. If you did not submit one, why not (check best choice)?
  - ( ) 1. It doesn't do any good.
  - ( ) 2. I talked to my detailer by phone to discuss my desires and the available options.
  - ( ) 3. I didn't need to submit a new one, the old one was O.K.
  - ( ) 4. I got my new assignment before I could submit one.
  - ( ) 5. Other \_\_\_\_\_

10. When I completed my most recent preference card, I (check the best choice):
- ( ) 0. Did not complete one.
  - ( ) 1. Put down choices I personally wanted regardless of how they might affect my Navy career.
  - ( ) 2. Put down primarily what I wanted but tempered them a little with what I thought would help my Navy career.
  - ( ) 3. Put down choices which I wanted, and I felt the Navy would want me to have, because Navy requirements and my interests are alike.
  - ( ) 4. Put down choices which I thought would help my Navy career but tempered with my personal desires.
  - ( ) 5. Put down choices which I thought would help my Navy career even though they weren't personally desirable.
11. How did you rank the following in importance on your last preference card (rank the highest as a 1. List zeroes if none submitted or out of date or not transferred):
- \_\_\_\_\_ a. Location      \_\_\_\_\_ b. Type Billet      \_\_\_\_\_ c. Type Activity
12. Assess the acceptability of your current assignment in comparison with what was expressed on your preference card using the scale below:
- 0 - Preference card not sent/out of date or never transferred.
- |               |               |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| _____ 1 _____ | _____ 2 _____ | _____ 3 _____ | _____ 4 _____ | _____ 5 _____ | _____ 6 _____ | _____ 7 _____ |
| Very Poor     |               |               | Neutral       |               |               | Very<br>Good  |
- \_\_\_\_\_ a. Location      \_\_\_\_\_ b. Type Billet      \_\_\_\_\_ c. Type Activity
13. Which one of the following statements best describes your experience in obtaining your current assignment?
- ( ) 0. Haven't been through reassignment.
  - ( ) 1. Tended to run smoothly--my detailer located an acceptable billet relatively quickly.
  - ( ) 2. Tended to run smoothly but there was a certain amount of uncertainty and discussion with my detailer along the way.
  - ( ) 3. Tended to be a very difficult, unhappy experience. However, I eventually received a satisfactory or acceptable assignment.
  - ( ) 4. Tended to be a completely frustrating situation. No amount of effort on my part or by others was successful in influencing the system.
14. About how often did you interact with your detailer during your most recent assignment? Provide your best estimate.
- a. About \_\_\_\_\_ times within a year of PRD.
  - b. About \_\_\_\_\_ times a year otherwise.
  - ( ) c. Haven't been through reassignment.



15. What was the purpose of these interactions (check one or more)?

- ( ) a. Not applicable ( ) f. To determine status of requests, letters, etc.  
 ( ) b. To keep in touch ( ) g. To obtain an answer to a specific question  
 ( ) c. To determine potential openings ( ) h. Other \_\_\_\_\_  
 ( ) d. To learn more about recent trends and policies \_\_\_\_\_  
 ( ) e. To seek career advice \_\_\_\_\_

16. How many times did you use the following ways of interacting with your detailer during your most recent complete tour, including the reassignment process (Leave blank if not reassigned)? How effective do you feel each is as a method (answer all even if not reassigned)?

	Number of Times Used	Effectiveness				
		(1) Very Ineffective	(2) Ineffective	(3) So-So	(4) Effective	(5) Very Effective
a. Preference Card	<input type="text"/>	( )	( )	( )	( )	( )
b. Letter	<input type="text"/>	( )	( )	( )	( )	( )
c. Telephone	<input type="text"/>	( )	( )	( )	( )	( )

17. My detailer's designator is \_\_\_\_\_. ( ) Don't know.

18. My detailer is from my community (VF, VAW, HS, etc.) Yes \_\_\_ No \_\_\_

19. What is your evaluation of your current detailer in the following areas (Respond using the following scale.)?

0	1	2	3	4	5	6	7
Don't Know	Very Negative			Neutral			Very Positive
___ a. Knowledgeable of current policy trends							___ g. Shares information
___ b. Knowledgeable of which billets are available							___ h. Knowledgeable of previous communications
___ c. Knowledgeable of requirements and duties of available billets							___ i. What (s)he says can be trusted
___ d. Knowledgeable of my career development needs							___ j. Looks out for my best interests
___ e. Knowledgeable of my personal desires							___ k. Listens to my problems, desires, needs, etc.
___ f. Returns telephone calls							___ l. Provides useful career counseling
							___ m. Responds to correspondence
							___ n. Availability.

20. When was the last time you communicated with your current detailer (give month and year in digits such as 10-79; 0-0 equals none)?

\_\_\_\_\_/\_\_\_\_\_  
 Month Year

21. How did you prepare for your initial contact with your detailer during your last reassignment (check all that apply)?
- a. No reassignment.
  - b. Did not prepare.
  - c. Reanalyzed my preference card.
  - d. Submitted an updated preference card.
  - e. Reviewed my whole career plan.
  - f. Contacted others at my present duty station for advice.
  - g. Discussed it with my spouse.
  - h. Checked instructions, personnel manual and other policy(ies).
  - i. Checked the URL Career Planning Guide or "Perspective."
  - j. Other \_\_\_\_\_
22. I, not my detailer, initiated the first contact regarding my most recent reassignment.
0. Never reassigned.       1. YES       2. NO
23. Have you attended a detailer field trip meeting in the last two years?
- 1. No - Meeting has never been scheduled in my command(s).
  - 2. No - I was not available when trip was scheduled.
  - 3. No - I chose not to attend a scheduled meeting.
  - 4. Yes - \_\_\_\_\_ months prior to my PRD.
24. During my most recent transfer, I was promised one type of duty or duty station location, and it was changed in the orders I received just before I transferred.
- 1. Yes
  - 2. No
  - 3. Have never discussed orders with my detailer.
  - 4. Have never been transferred.
25. If you have attended a detailer field trip meeting, to what extent--(Respond using the following scale. Omit if one not attended)
- |                     |                |          |          |          |          |          |               |
|---------------------|----------------|----------|----------|----------|----------|----------|---------------|
| <u>0</u>            | <u>1</u>       | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u>      |
| Not App-<br>licable | Very<br>Little |          |          | Some     |          |          | Very<br>Great |
- \_\_\_\_\_ a. Did it provide clarification of assignment policies and practices?
  - \_\_\_\_\_ b. Did it give you an appreciation of officer career paths and alternatives?
  - \_\_\_\_\_ c. Did it resolve some assignment problems you had?
  - \_\_\_\_\_ d. Was it conducted in an open and honest manner?
  - \_\_\_\_\_ e. Was it a useful and beneficial meeting?

26. What individuals did you use to intervene on your behalf to obtain the assignment you wanted during your last reassignment (check all that apply)?
- a. No previous reassignment.
  - b. No one.
  - c. My CO/XO/ISIC.
  - d. The CO/ISIC of the billet I wanted.
  - e. Other \_\_\_\_\_
27. When you received your last Officer Data Card (ODC), did you verify each block?
- 1. Yes, I'm sure no corrections were required.
  - 2. Yes, it seemed to me that no corrections were required, but I'm not positive
  - 3. Yes, corrections were required, but I didn't follow-up.
  - 4. Yes, corrections were required, and I sent them to Washington.
  - 5. No, but I checked a few blocks.
  - 6. No, I gave it hardly a glance.
  - 7. Have never received an ODC.
  - 8. I don't know what an ODC is.
28. Has your Administrative Office offered to help you to verify your latest ODC?
- 1. Yes
  - 2. No
  - 3. Have never received one.
  - 4. Still don't know what an ODC is.
29. On the average with respect to your last reassignment, how many times did you have to dial your detailer's number before you were able to talk to him (her) or another detailer? \_\_\_\_\_  Did not try to call him.  Never reassigned.
30. With respect to your most recent transfer, did your detailer inform you that orders were being forwarded, but they were not received in a timely fashion?
- 0. Not applicable
  - 1. Yes
  - 2. No
31. Did you have a copy of your preference card or official correspondence (i.e., fitness report, application for Navy PG school, etc.) mailed or telecopied for your detailer's use?
- 1. Yes, and it was received.
  - 2. Yes, and it was lost somewhere in the system.
  - 3. Yes, but I don't know what happened to it.
  - 4. No.
32. Are you presently on an overseas tour of duty?
- 1. Yes--accompanied
  - 2. Yes--unaccompanied
  - 3. No
- If yes, please answer question 32.a. Otherwise go directly to Section V.
- a. Did your transferring command provide timely and accurate support for your overseas transfer?
- 0. Not applicable
  - 1. Yes
  - 2. No
  - 3. Did not inform me of the requirements.

V. DECISION PROCESS

1. When did you begin the following activities in regard to your last reassignment? (Use the following scale to respond to items a through g:)

- 0. Not applicable
- 1. Systematically throughout my tour.
- 2. More than 14 months before my PRD.
- 3. 11 to 14 months before my PRD.
- 4. 7 to 10 months before my PRD.
- 5. 3 to 6 months before my PRD.
- 6. Within 3 months before my PRD.
- 7. I didn't do this.

- \_\_\_ a. Contacting your detailer.
- \_\_\_ b. Specifically seeking the advice of a senior officer.
- \_\_\_ c. Specifically seeking the advice of peers.
- \_\_\_ d. Discussing possible assignments with my spouse/family.
- \_\_\_ e. Considering choices of location.
- \_\_\_ f. Considering choices of types of billets.
- \_\_\_ g. Considering choices of types of duty.

2. How important was your desire for a post-Navy career in your preference for your most recent reassignment? (Circle most appropriate response)

- |                |              |              |                    |              |              |                  |
|----------------|--------------|--------------|--------------------|--------------|--------------|------------------|
| <u>  1  </u>   | <u>  2  </u> | <u>  3  </u> | <u>  4  </u>       | <u>  5  </u> | <u>  6  </u> | <u>  7  </u>     |
| Not Considered |              |              | Some Consideration |              |              | A Primary Factor |

3. How important was your desire for a change in your Navy career (for example, change in designator outside present community) in your preference for your most recent assignment? (Circle appropriate response)

- |                |              |              |                    |              |              |                  |
|----------------|--------------|--------------|--------------------|--------------|--------------|------------------|
| <u>  1  </u>   | <u>  2  </u> | <u>  3  </u> | <u>  4  </u>       | <u>  5  </u> | <u>  6  </u> | <u>  7  </u>     |
| Not Considered |              |              | Some Consideration |              |              | A Primary Factor |

4. Looking at an aviation career, for approximately how many years from now do you have a relatively clear idea of what your career path (billets, promotions, etc.) will be?  
\_\_\_\_\_ (years)

5. How many more years do you plan to remain on active duty? \_\_\_\_\_ years; ( ) Don't have any idea.

6. How attractive does the aviation career path appear to you (circle the appropriate number)?

- |                   |              |              |              |              |              |                 |
|-------------------|--------------|--------------|--------------|--------------|--------------|-----------------|
| <u>  1  </u>      | <u>  2  </u> | <u>  3  </u> | <u>  4  </u> | <u>  5  </u> | <u>  6  </u> | <u>  7  </u>    |
| Very Unattractive |              |              | Neutral      |              |              | Very Attractive |

7. How attractive would it be to change your designator and pursue a different career path (circle the appropriate number)?

- |                   |              |              |              |              |              |                 |
|-------------------|--------------|--------------|--------------|--------------|--------------|-----------------|
| <u>  1  </u>      | <u>  2  </u> | <u>  3  </u> | <u>  4  </u> | <u>  5  </u> | <u>  6  </u> | <u>  7  </u>    |
| Very Unattractive |              |              | Neutral      |              |              | Very Attractive |

8. This item requires two types of information on the career options a through m listed below. First, indicate what your decision was, if one has been made, regarding each career option. Second, indicate when you made, or plan to make, your decision - - don't indicate when you carried it out (or plan to carry it out). Regarding the timing of your decision, if you are enroute to a new assignment, consider your just-completed one to be your present tour.

CAREER OPTION	DECISION			WHEN YOU MADE, OR PLAN TO MAKE, THE DECISION			
				Decided in Previous Tour	Present tour		Decision Deferred Till later
	Yes	No	Undecided		Decided on MO/YR	Will decide on MO/YR	
a. Request PG School							
b. Make the Navy a career							
c. Qualify for a different aircraft							
d. Seek a designator change from aviation							
e. Obtain a proven Subspecialty							
f. Request Staff or War College							
g. Remain geographically stable							
h. Accept a Washington headqtrs staff assignment							
i. Prepare for a career outside the Navy							
j. Remain in the Navy beyond eligible retirement date							
k. Strive for operational squadron command							
l. Strive for CAPT.							
m. Strive for flag rank							

9. Do you feel that the Navy wants you to continue your career as an active duty Naval officer? Circle best response.

1      2      3      4      5      6      7  
 Definitely      Don't      Definitely  
 Does Not      Know      Does

10. If you were to seek civilian employment, how prepared are you to do so?

1      2      3      4      5      6      7  
 Essentially      Neither      Essentially  
 Unprepared      Prepared      Prepared  
    nor  
    Unprepared

11. In reference to your present assignment, evaluate each of the following 14 sources of information according to how much you use them, how accurate, honest, and available they are in providing you with career planning information and guidance, and how much influence each source exerts on your career decisions. Indicate whether the influence is positive or negative. Respond using the following scale:

1      2      3      4      5      6      7      0  
 Very      Moderate      Very      Not  
 Low                High      Applicable

INFORMATION SOURCE	USE	ACCURACY	HONESTY	AVAILABILITY	INFLUENCE	DIRECTION OF INFLUENCE (CHECK ONE)	
						Positive	Negative
CO/ISIC						( )	( )
XO						( )	( )
Department Head						( )	( )
Other Senior Officers in my Community						( )	( )
Senior Officers outside my Community						( )	( )
Peers						( )	( )
Detailers						( )	( )
"Perspective"						( )	( )
"URL Officer Career Planning Guidebook"						( )	( )
"Commanding Officer's Addendum"						( )	( )
"Officer Billet Summary"						( )	( )
Navy Times						( )	( )
Public Media						( )	( )
Publication put out only for my community						( )	( )

12. What is your evaluation of the following aspects with regard to a Navy career?  
Respond using the following scale:

1      2      3      4      5      6      7  
 Very                     Neutral                          Very  
 Negative                                              Positive

- |   |  |
|---|--|
| <u>    </u> a. Continuity of detailers  | <u>    </u> e. Sea duty                            |
| <u>    </u> b. Assignments received   | <u>    </u> f. Shore duty                          |
| <u>    </u> c. Change of billets at 2-3 year intervals                          | <u>    </u> g. Overseas assignments, accompanied   |
| <u>    </u> d. Possibility of change of geographic location with billet changes | <u>    </u> h. Overseas assignments, unaccompanied |
|   | <u>    </u> i. Commissary and exchange benefits    |

Respond to items 13 and 14 using the following scale:

1      2      3      4      5      6      7  
 Definitely                     Somewhat                          Definitely  
 Do Not                                              Do

13.      When you are (or "should be") completing your Officer Preference Card, do you have a good idea of available billets for which you would be fully competitive?
14.      Do you feel the billets you have received reflected your experience and past performance?
15. Place a check (✓) to the left of the following sea and shore assignments in which you have experience. Next, use your personal impressions to rate every assignment below on its potential contribution to an aviator's career (your community and designator). Finally, assess the desirability of each assignment to you, independent of its impact on your career. Respond by using the following scale (use a "0" if an assignment is not an option in your community/designator):

1      2      3      4      5      6      7  
 Strongly      Substanti-      Moderately      Neutral      Moderately      Substanti-      Strongly  
 Negative      ally                               ally      Positive

<u>SEA ASSIGNMENTS</u>	<u>Navy Career Contributions</u>	<u>Desirability</u>
( ) CO - Carrier	<input type="checkbox"/>	<input type="checkbox"/>
( ) XO - Carrier	<input type="checkbox"/>	<input type="checkbox"/>
( ) XO - LHA	<input type="checkbox"/>	<input type="checkbox"/>
<u>Flag/Wing</u>		
( ) Flag Aide	<input type="checkbox"/>	<input type="checkbox"/>
<u>Ship's Company (CV, LHA, LPH)</u>		
( ) A. Communications Officer	<input type="checkbox"/>	<input type="checkbox"/>
( ) B. Navigator	<input type="checkbox"/>	<input type="checkbox"/>
( ) i. Assistant Navigator	<input type="checkbox"/>	<input type="checkbox"/>
( ) C. Weapons Officer	<input type="checkbox"/>	<input type="checkbox"/>
( ) i. ASW Officer	<input type="checkbox"/>	<input type="checkbox"/>
( ) ii. Nuclear Weapons Officer	<input type="checkbox"/>	<input type="checkbox"/>

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Strongly Negative	Substanti- ally	Moderately	Neutral	Moderately	Substanti- ally	Strongly Positive

Navy Career  
Contributions      Desirability

Ship's Company (CV, LHA, LPH)

- |  |                          |                          |
|--|--------------------------|--------------------------|
| ( ) D. Safety Officer                      | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) E. Operations Administrative Assistant | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) F. Air Operations Officer              | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) i. Assistant Air Ops. Officer          | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) ii. CATC Officer                       | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) G. Strike Operations Officer           | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) i. Assistant Strike Ops. Officer       | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) H. CIC Officer                         | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) i. Assistant CIC Officer               | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) ii. Assistant for Air Warfare          | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) iii. Assistant for ASW                 | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) iv. Electronics Warfare Officer        | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) v. NTDS Officer                        | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) I. Air Boss (Air Officer)              | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) i. Aircraft Handling Officer           | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) ii. Catapult Officer                   | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) iii. Flight Deck Officer               | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) iv. Hangar Deck Officer                | <input type="checkbox"/> | <input type="checkbox"/> |

Air Wing

- |                              |                          |                          |
|------------------------------|--------------------------|--------------------------|
| ( ) CAG (Air Wing Commander) | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) i. CAG Staff             | <input type="checkbox"/> | <input type="checkbox"/> |

Squadron

- |   |                          |                          |
|---|--------------------------|--------------------------|
| ( ) A. XO/CO                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) B. Department Head (DH) - Administration  | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) C. DH - Maintenance                       | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) D. DH - Operations                        | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) E. DH - Safety                            | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) F. DH - Training                          | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) G. Aviation Officer (OIC Helo Detachment) | <input type="checkbox"/> | <input type="checkbox"/> |

SHORE ASSIGNMENTS

- |                                 |                          |                          |
|---------------------------------|--------------------------|--------------------------|
| ( ) A. Flag Aide                | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) B. FRS (RAG) Instructor     | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) C. Naval Academy Instructor | <input type="checkbox"/> | <input type="checkbox"/> |



1	2	3	4	5	6	7
Strongly Negative	Substanti- ally	Moderately	Neutral	Moderately	Substanti- ally	Strongly Positive

Navy Career  
Contributions

Desirability

- |  |                          |                          |
|--|--------------------------|--------------------------|
| ( ) D. NROTC Instructor                      | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) E. AOCS Instructor                       | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) F. CO/XO - Training Squadron             | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) G. XC - Fleet Replacement Squadron (RAG) | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) H. CO - Fleet Replacement Squadron (RAG) | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) I. Test Pilot School                     | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) J. PEP                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) K. Detailer                              | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) L. Washington Tour                       | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) M. Wing Staff                            | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) N. Recruiting                            | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) O. Naval Aviation Training Instructor    | <input type="checkbox"/> | <input type="checkbox"/> |
| ( ) P. Navy PG School Student                | <input type="checkbox"/> | <input type="checkbox"/> |

16. Please indicate the relative opportunity of obtaining each of the following characteristics in the Navy versus your expectations of obtaining them in a civilian career if you left the Navy.

	<u>CIVILIAN</u>				<u>NAVY</u>		
	1. Substan- tially Better	2. Much Better	3. Better	4. Comparable	5. Better	6. Much Better	7. Substan- tially Better
a. Interesting and challenging work	( )	( )	( )	( )	( )	( )	( )
b. Ability to plan work	( )	( )	( )	( )	( )	( )	( )
c. Work hours	( )	( )	( )	( )	( )	( )	( )
d. Minimal work stress	( )	( )	( )	( )	( )	( )	( )
e. Freedom from hassle	( )	( )	( )	( )	( )	( )	( )
f. Own initiative	( )	( )	( )	( )	( )	( )	( )
g. Pay and allowances	( )	( )	( )	( )	( )	( )	( )
h. Health benefits/care	( )	( )	( )	( )	( )	( )	( )
i. Job security	( )	( )	( )	( )	( )	( )	( )
j. Family stability (omit if NA)	( )	( )	( )	( )	( )	( )	( )
k. Desirable place to live	( )	( )	( )	( )	( )	( )	( )
l. Desirable co-workers	( )	( )	( )	( )	( )	( )	( )
m. Recognition	( )	( )	( )	( )	( )	( )	( )
n. Responsibility	( )	( )	( )	( )	( )	( )	( )

CIVILIAN

NAVY

	<u>1. Substan-</u>	<u>2. Much</u>	<u>3.</u>	<u>4.</u>	<u>5.</u>	<u>6. Much</u>	<u>7. Substan-</u>
	<u>tially Better</u>	<u>Better</u>	<u>Better</u>	<u>Comparable</u>	<u>Better</u>	<u>Better</u>	<u>tially Better</u>
o. Chance for spouse to develop own interests (omit if NA)	( )	( )	( )	( )	( )	( )	( )
p. Quality of superiors	( )	( )	( )	( )	( )	( )	( )
q. Retirement program	( )	( )	( )	( )	( )	( )	( )
r. Variety of assignments	( )	( )	( )	( )	( )	( )	( )
s. Educational opportunities	( )	( )	( )	( )	( )	( )	( )
t. Promotional opportunities	( )	( )	( )	( )	( )	( )	( )
u. Social relationships	( )	( )	( )	( )	( )	( )	( )
v. Amount of crisis management	( )	( )	( )	( )	( )	( )	( )

17. PLEASE GO BACK TO QUESTION 16 AND CIRCLE THOSE 5 CHARACTERISTICS THAT ARE MOST IMPORTANT TO YOU AND CROSS OUT THOSE 5 CHARACTERISTICS THAT ARE LEAST IMPORTANT TO YOU.

The following ten items (18-27) cover the family's impact on your career. Skip to the next section (VI. Career Management) on page 16 if you are not currently married or are a single parent.

18. How is your spouse primarily employed? (Choose best response)

- |   |   |
|---|---|
| ( ) 1. Full-time homemaker<br>( ) 2. Secretary/clerical<br>( ) 3. Teacher<br>( ) 4. Nurse<br>( ) 5. Engineer<br>( ) 6. Other professional | ( ) 7. Consultant<br>( ) 8. Business/Finance<br>( ) 9. Navy officer<br>( ) 10. Navy enlisted<br>( ) 11. Other military<br>( ) 12. Other _____ |
|---|---|

Respond to items 19-23 using the following scale:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Strongly disagree			Uncertain			Strongly agree

- \_\_\_\_ 19. My spouse's career limits considerably the options available in my career decisions.
- \_\_\_\_ 20. At the present time, my career is more important to me than my spouse's career.
- \_\_\_\_ 21. I am actively involved in my spouse's career.
- \_\_\_\_ 22. Family separation because of deployment makes my Navy career less attractive.
- \_\_\_\_ 23. Family separation because of in-port working hours is not a problem.

24. Rank order the following items according to the severity of their impact on your most recent PCS move (the most severe =1; no impact/not applicable = 0):

- |   |  |
|---|--|
| <input type="checkbox"/> a. My spouse's employment          | <input type="checkbox"/> e. The moving process itself                                    |
| <input type="checkbox"/> b. Disruptions in family schooling | <input type="checkbox"/> f. My unavailability to help the family (deployed, for example) |
| <input type="checkbox"/> c. My out-of-pocket expenses       | <input type="checkbox"/> g. Obtaining child-care   |
| <input type="checkbox"/> d. Disruptions in social relations |  |

25. How do you think your spouse feels towards your Navy career?

- |  |   |
|--|---|
| <input type="checkbox"/> 1. Completely Opposed | <input type="checkbox"/> 4. Moderately supportive |
| <input type="checkbox"/> 2. Moderately Opposed | <input type="checkbox"/> 5. Completely supportive |
| <input type="checkbox"/> 3. Neutral            |   |

Respond to items 26 and 27 using the following scale:

0	1	2	3	4	5	6	7
Not Applicable	I defer to spouse's wishes			Equal Participation			I decide alone

26. How involved was your spouse when you made decisions during your last reassignment (completing the Preference Card, for example)?

27. How involved is your spouse when you are making major career decisions such as staying in the Navy, choosing a second career, retiring, etc.?

#### VI. Career Management

1. On the scale below, check the statement which most applies to you.

- 1. I am an aviator.
- 2. I am primarily an aviator and secondarily a Navy officer.
- 3. I am an equal balance of both.
- 4. I am primarily a Navy officer and secondarily an aviator.
- 5. I am a Navy officer.
- 6. Other \_\_\_\_\_.

2. Which of the following best describes the warfare specialty (community) you are in (place a check next to only one);

- |                                 |                                 |  |
|---------------------------------|---------------------------------|--|
| <input type="checkbox"/> 1. VAL | <input type="checkbox"/> 6. VF  | <input type="checkbox"/> 11. HM            |
| <input type="checkbox"/> 2. VAM | <input type="checkbox"/> 7. VP  | <input type="checkbox"/> 12. HS            |
| <input type="checkbox"/> 3. VAW | <input type="checkbox"/> 8. VQ  | <input type="checkbox"/> 13. HSL           |
| <input type="checkbox"/> 4. VAQ | <input type="checkbox"/> 9. VS  | <input type="checkbox"/> 14. Other Support |
| <input type="checkbox"/> 5. VC  | <input type="checkbox"/> 10. HC | <input type="checkbox"/> 15. Other _____   |

3. How long have you been a member of your warfare speciality community? \_\_\_ years.

4. Of how many other communities have you been a member? \_\_\_

---

Using your warfare specialty as your community (VAL, HM, etc.), respond to items 5-18 using the following scale:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Strongly Disagree			Uncertain			Strongly Agree

- 
- \_\_\_ 5. My community has some programs to help me with my career which are different from other Navy aviation communities.
- \_\_\_ 6. My community has a higher rate of promotion for senior officers than other aviation communities.
- \_\_\_ 7. My community tries to take care of its own in regards to promotions.
- \_\_\_ 8. Officers in other aviation communities get the billets which contribute most to their Navy careers.
- \_\_\_ 9. It is important to have someone available with whom I am comfortable and trust to discuss my career.
- \_\_\_ 10. My senior officers interact with me frequently.
- \_\_\_ 11. I use senior officers as role models when I make career decisions.
- \_\_\_ 12. I have been counseled on how the Navy's career system works for members of my community.
- \_\_\_ 13. I have been counseled on the Navy's career opportunities outside of my community.
- \_\_\_ 14. I have been counseled on the timing and proper career progression which will help me reach my career goals in the Navy.
- \_\_\_ 15. I have had good counsel on the Navy's norms and values for officers.
- \_\_\_ 16. I have counseled a more junior officer in career-related matters.
- \_\_\_ 17. Officers need a special career counseling system for them.
- \_\_\_ 18. Visibility is very important at this stage in my Navy career.
- \_\_\_ 19. Officers in my community make flag rank because they (rank order the following four statements with 4 being the most important):
- |                                |                                      |
|--------------------------------|--------------------------------------|
| ___ a. are highly specialized  | ___ c. are superb performers         |
| ___ b. are not overspecialized | ___ d. have the right career pattern |
|                                | ___ e. other _____                   |
- \_\_\_ 20. In comparison with other communities, officers in my community make flag rank (circle best choice):

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Very Infrequently			At the same rate			Very Frequently

VII. CAREER ATTITUDES

1. Career Intentions: The following item concerns the intensity of your desire to continue your career as a Navy officer at least until you are eligible for retirement. Areas on the scale are described, both verbally and in terms of probability, to provide meaningful reference points. Check the response which most closely represents your current level of commitment.

How certain are you that you will continue an active Navy career at least until you are eligible for retirement?

- ( ) 1. 99.9-100% I am virtually certain that I will not leave the Navy voluntarily prior to becoming eligible for retirement.
- ( ) 2. 90.0-99.8% I am almost certain I will continue my military career if possible.
- ( ) 3. 75.0-89.9% I am confident that I will continue my Navy career until I can retire.
- ( ) 4. 50.0-74.9% I probably will remain in the Navy until I am eligible for retirement.
- ( ) 5. 25.0-49.9% I probably will not continue in the Navy until I am eligible for retirement.
- ( ) 6. 10.0-24.9% I am confident that I will not continue my Navy career until I can retire.
- ( ) 7. 0.2-9.9% I am almost certain that I will leave the Navy as soon as possible.
- ( ) 8. 0-0.1% I am virtually certain that I will not voluntarily continue in the Navy until I am eligible for retirement.

2. Career Satisfaction: The following items deal with your attitudes toward your career and location. Please respond as honestly and accurately as you can. It is important that you complete each item even though it appears to be the same statement. Indicate how much you agree or disagree with each statement by using the scale below and responding to each item.

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Strongly Disagree			Neither Agree nor Disagree			Strongly Agree

- \_\_\_ a. I would be very dissatisfied if I had to change my career.
- \_\_\_ b. I would definitely not recommend my location to friends.
- \_\_\_ c. The more I think about it, the more I feel I made a bad move in entering my career.
- \_\_\_ d. I am fortunate to be located where I am.
- \_\_\_ e. I thoroughly enjoy my career.
- \_\_\_ f. I thoroughly enjoy my location.
- \_\_\_ g. I take great pride in my career.
- \_\_\_ h. I would live anywhere in order to stay in my career.
- \_\_\_ i. I often think about being in a different location.

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree nor Disagree			Strongly Agree

- \_\_\_ j. I would definitely like to change my career.
- \_\_\_ k. I would be more satisfied in a different location.
- \_\_\_ l. I feel I could be much more satisfied in a different location.
- \_\_\_ m. I am very satisfied with my present location.
- \_\_\_ n. Where I live is much more important to my satisfaction than my career.

#### VIII. EDUCATION, TRAINING AND PROFESSIONAL DEVELOPMENT

Indicate your level of agreement to the next 15 items. Respond using the following scale:

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

In evaluating the first four items, consider ASW, CIC, etc. as technical schools and LMET, PAO, etc. as non-technical ones. Omit consideration of major professional schools such as NPGS or War College.

- \_\_\_ 1. Navy school(s) that I completed during my most recent transfer or present assignment were valuable to me in performing my job (score "0" if none completed).
- \_\_\_ 2. The Navy has provided me with adequate training in the general (managerial) aspects of how to perform as a Naval officer.
- \_\_\_ 3. I believe that non-technical schools improve my ability to do my job.
- \_\_\_ 4. Technical schools will increase my promotion opportunities much more than non-technical service schools.
- \_\_\_ 5. Obtaining one or more surface warfare qualifications will enhance my chances of being selected for command.
- \_\_\_ 6. I must obtain at least one operational tour FITREP as department head before I can screen for command.
- \_\_\_ 7. My squadron has a planned program for rotating junior officers through several departments during their first sea tour (Omit if on shore duty).
- \_\_\_ 8. I have been provided all of the opportunity I need to progress toward my squadron professional qualifications (omit if not applicable).
- \_\_\_ 9. I have been encouraged by many of my seniors (CO, XO, department head, etc.) to pursue a graduate education.
- \_\_\_ 10. Obtaining a postgraduate degree will strengthen my chances for promotion.
- \_\_\_ 11. I would rather receive a postgraduate degree from a civilian institution than NPGS.
- \_\_\_ 12. If I leave my warfare specialty area for any reason, including attendance at NPGS, my Navy career will suffer.
- \_\_\_ 13. The development of a subspecialty is important for my Navy career.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

\_\_\_ 14. The development of a subspecialty is important for my career beyond the Navy.

\_\_\_ 15. Attending one of the war colleges is important for my Navy career.

#### IX. SUPPLEMENTAL QUESTIONS

Indicate your level of agreement with items 1 through 36. Respond using the following scale:

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

- \_\_\_ 1. I am willing to put in a great deal of effort beyond that normally expected in order to help the Navy be successful.
- \_\_\_ 2. I talk up the Navy to my friends as a great organization to work for.
- \_\_\_ 3. I feel very little loyalty to the Navy.
- \_\_\_ 4. I would accept almost any type of job assignment in order to remain in the Navy.
- \_\_\_ 5. I find that my values and the Navy's values are very similar.
- \_\_\_ 6. I am proud to tell others that I am part of the Navy.
- \_\_\_ 7. I could just as well be working for a different organization as long as the type of work were similar.
- \_\_\_ 8. The Navy really inspires the very best in me in the way of job performance.
- \_\_\_ 9. It would take very little change in my present circumstances to cause me to leave.
- \_\_\_ 10. I am extremely glad that I chose the Navy to work for, over other organizations I was considering at the time I joined.
- \_\_\_ 11. There's not too much to be gained by staying with the Navy indefinitely.
- \_\_\_ 12. Often, I find it difficult to agree with the Navy's policies on important matters relating to its personnel.
- \_\_\_ 13. I really care about the fate of the Navy.
- \_\_\_ 14. For me this is the best of all possible organizations for which to work.
- \_\_\_ 15. Deciding to join the Navy was a definite mistake on my part.
- \_\_\_ 16. The Navy should provide clear, specific career paths with associated plans.
- \_\_\_ 17. I don't really think about the career decision; it's in the back of my mind for a while, then it will suddenly hit me, and I know what I will do.
- \_\_\_ 18. Career opportunities are unpredictable so you must be ready to make a decision when one arises.

1	2	3	4	5	6	7
Strongly Disagree			Neutral			Strongly Agree

- \_\_\_ 19. I am willing to invest considerable time in exploring career opportunities.
- \_\_\_ 20. I like to imagine what it would be like to be the very top person in my field.
- \_\_\_ 21. I research, plan, and find my own billets.
- \_\_\_ 22. It helps to know exactly what you want in your next assignment.
- \_\_\_ 23. I cannot depend upon the detailing system to find a job that I want.
- \_\_\_ 24. I know the steps that I need to take to achieve my Navy career goals.
- \_\_\_ 25. I know the steps that I need to take to achieve my post-Navy career goals.
- \_\_\_ 26. I feel that I'm a person of worth, at least on an equal plane with others.
- \_\_\_ 27. I feel that I have a number of good qualities.
- \_\_\_ 28. All in all, I am inclined to feel that I am a failure.
- \_\_\_ 29. I feel I do not have much to be proud of.
- \_\_\_ 30. I wish I could have more respect for myself.
- \_\_\_ 31. I am able to do things as well as most other people.
- \_\_\_ 32. At times I think I am no good at all.
- \_\_\_ 33. On the whole, I am satisfied with myself.
- \_\_\_ 34. I take a positive attitude toward myself.
- \_\_\_ 35. I certainly feel useless at times.
- \_\_\_ 36. I feel competent at the present time as a pilot/NFO.

37. Career Satisfaction II: The following items are similar to those you covered earlier. However, we would like your assistance to see how Navy officers look at their career in relation to their occupation and organization. Multiple items help us obtain stable estimates of attitudes. Respond using the following scale:

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree nor Disagree			Strongly Agree

- \_\_\_ a. I am very satisfied with my occupation.
- \_\_\_ b. Being in the Navy is more important than my location.
- \_\_\_ c. I thoroughly enjoy my field of work.
- \_\_\_ d. My career is significantly more important to me than the Navy.
- \_\_\_ e. I would definitely like to change my field of work.
- \_\_\_ f. The occupation in which I work is more important to me than my location.
- \_\_\_ g. I would feel happier with a different occupation.
- \_\_\_ h. The occupation in which I work is more important than my career.



1	2	3	4	5	6	7
Strongly Disagree			Neither Agree nor Disagree			Strongly Agree

- \_\_\_ i. I definitely feel I am in the right field of work.
- \_\_\_ j. I am very sorry I chose my occupation.
- \_\_\_ k. The Navy is more essential to me than my field of work.
- \_\_\_ l. I feel very good about my career.
- \_\_\_ m. I take great pride in my field of work.
- \_\_\_ n. Location is not nearly as important to me as being in the Navy.
- \_\_\_ o. If I could do it over again, I would not choose my occupation.
- \_\_\_ p. I definitely feel that I am in the wrong career.
- \_\_\_ q. The Navy is materially more essential to me than my career.
- \_\_\_ r. I think I made a serious mistake in choosing my field of work.
- \_\_\_ s. I often think about changing my career.
- \_\_\_ t. My career takes precedence over my field of work.
- \_\_\_ u. Location is more important to me than the field in which I work.
- \_\_\_ v. My occupation is more vital to me than the Navy.

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