

NAVAL POSTGRADUATE SCHOOL Monterey, California



THESIS

**CAREER ANCHORS: UNDERSTANDING DIFFERENCES
AMONG DEMOGRAPHIC GROUPS AT THE NAVAL
POSTGRADUATE SCHOOL**

by

Hannah Shin

December 2001

Thesis Advisor:

Erik Jansen

Approved for public release; distribution is unlimited.

Report Documentation Page

Report Date 19 Dec 2001	Report Type N/A	Dates Covered (from... to) -
Title and Subtitle Career Anchors: Understanding Differences Among Demographic Groups at the Naval Postgraduate School	Contract Number	
	Grant Number	
	Program Element Number	
Author(s) Shin, Hannah	Project Number	
	Task Number	
	Work Unit Number	
Performing Organization Name(s) and Address(es) Naval Postgraduate School Monterey, California	Performing Organization Report Number	
Sponsoring/Monitoring Agency Name(s) and Address(es)	Sponsor/Monitor's Acronym(s)	
	Sponsor/Monitor's Report Number(s)	
Distribution/Availability Statement Approved for public release, distribution unlimited		
Supplementary Notes		
Abstract		
Subject Terms		
Report Classification unclassified	Classification of this page unclassified	
Classification of Abstract unclassified	Limitation of Abstract UU	
Number of Pages 114		

REPORT DOCUMENTATION PAGE			<i>Form Approved</i> <i>OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 2001	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE: Career Anchors: Understanding Differences Among Occupational Specialties at the Naval Postgraduate School			5. FUNDING NUMBERS	
6. AUTHOR(S) Shin, Hannah				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Defense Manpower Data Center 400 Gigling Road Seaside, CA 93955			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b. DISTRIBUTION CODE A	
ABSTRACT Career anchor theory, initially conceptualized by Edgar Schein, is used in an exploratory analysis of demographic sub-groups of military officers attending the Naval Postgraduate School. Demographic sub-groups were broken out by service affiliation (Marine Corps and the Navy), years of service (5-11 years and 12 or more years), and occupational type (operational occupation and support occupation). The data from the sub-groups shows that there are differences based on these demographic variables. A web-based survey of 34 items was taken by a sample of 130 students. Cronbach's coefficient alpha, Pearson's correlation, and factor analyses were used to estimate the convergent and discriminant validity of the scales. Survey items were chosen to represent the following nine career anchors: technical-functional, security/stability, autonomy/independence, managerial, creativity, ideology, challenge, identity and warrior. Items also were included to measure willingness to leave the organization and career satisfaction. Career anchor theory was chosen for its potential benefits in recruiting and retention efforts. The discussion section of this thesis focuses on the implications of career anchor theory for the military based on the differences with the demographic sub-groups, constraints on the current study, and suggestions for future research.				
14. SUBJECT TERMS Career Anchors, Recruiting and Retention, Career Development			15. NUMBER OF PAGES 114	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL	

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution is unlimited

**CAREER ANCHORS: UNDERSTANDING DIFFERENCES AMONG
DEMOGRAPHIC GROUPS AT THE NAVAL POSTGRADUATE SCHOOL**

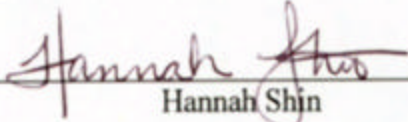
Hannah Shin
Department of Defense
B.A., University of California at Berkeley, 1998

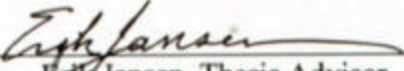
Submitted in partial fulfillment of the
requirements for the degree of

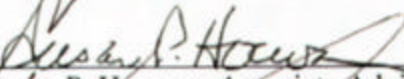
MASTER OF SCIENCE IN MANAGMENT


from the

**NAVAL POSTGRADUATE SCHOOL
December 2001**

Author: 
Hannah Shin

Approved by: 
Erik Jansen, Thesis Advisor


Susan P. Hocevar, Associate Advisor


Kenneth Euske, Dean
Graduate School of Business and Public Policy

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

Career anchor theory, initially conceptualized by Edgar Schein, is used in an exploratory analysis of demographic sub-groups of military officers attending the Naval Postgraduate School. Demographic sub-groups were broken out by service affiliation (Marine Corps and the Navy), years of service (5-11 years and 12 or more years), and occupational type (operational occupation and support occupation). The data from the sub-groups shows that there are differences based on these demographic variables.

A web-based survey of 34 items was taken by a sample of 130 students. Cronbach's coefficient alpha, Pearson's correlation, and factor analyses were used to estimate the convergent and discriminant validity of the scales. Survey items were chosen to represent the following nine career anchors: technical-functional, security/stability, autonomy/independence, managerial, creativity, ideology, challenge, identity and warrior. Items also were included to measure willingness to leave the organization and career satisfaction.

Career anchor theory was chosen for its potential benefits in recruiting and retention efforts. The discussion section of this thesis focuses on the implications of career anchor theory for the military based on the differences with the demographic sub-groups, constraints on the current study, and suggestions for future research.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
	A. BACKGROUND	1
	B. OBJECTIVES	2
	C. RESEARCH QUESTIONS	3
	D. SCOPE AND LIMITATIONS	3
	E. METHODOLOGY	3
	1. Literature Review	4
	2. Creating the Survey	4
	3. Deploying the Survey.....	4
	4. Data Collection and Analysis	4
	F. ORGANIZATION OF STUDY	5
II.	THEORETICAL FOUNDATION AND LITERATURE REVIEW.....	7
	A. CYCLE OF AN ORGANIZATIONAL CAREER.....	7
	1. Stage 1	8
	2. Stage 2	8
	3. Stage 3.....	8
	4. Stage 4.....	9
	5. Stage 5	9
	6. Stage 6.....	9
	7. Stage 7.....	9
	8. Stage 8.....	10
	9. Stage 9	10
	10. Stage 10.....	10
	B. THE CAREER ANCHOR THEORY.....	10
	1. Autonomy/Independence.....	11
	2. Security/Stability	12
	3. Technical/Functional Competence	12
	4. Managerial Competence.....	13
	5. Creativity	13
	6. Service/Ideology	14
	7. Pure Challenge	14
	C. RELATED RESEARCH	14
	1. Driver	15
	<i>a. Transitory Type</i>	<i>15</i>
	<i>b. Steady State Type.....</i>	<i>16</i>
	<i>c. Linear Type.....</i>	<i>16</i>
	<i>d. Spiral Type.....</i>	<i>16</i>
	2. Derr	16
	<i>a. Getting Ahead Orientation.....</i>	<i>17</i>
	<i>b. Getting Secure Orientation.....</i>	<i>17</i>
	<i>c. Getting Free Orientation</i>	<i>17</i>
	<i>d. Getting High Orientation.....</i>	<i>18</i>
	<i>e. Getting Balanced Orientation.....</i>	<i>18</i>

3.	Derr’s Research at the Naval Postgraduate School	18
a.	<i>Findings</i>	19
b.	<i>New Anchors – Identity/Affiliation and Warrior</i>	21
4.	Other Research.....	22
5.	Implications	23
D.	RECRUITMENT IN THE MILITARY	23
E.	RETENTION IN THE MILITARY.....	25
III.	METHOD AND ITEM ANALYSIS	27
A.	RESEARCH METHODOLOGY	27
1.	Measures	27
2.	Measures	28
3.	Data Collection Procedures.....	28
B.	ITEM ANALYSIS AND RESULTS	29
1.	Specialist Anchor	29
2.	Security Anchor.....	32
3.	Autonomy Anchor.....	33
4.	Managerial Anchor.....	35
5.	Warrior Anchor	37
6.	Challenge Anchor.....	38
7.	Creativity Anchor	40
8.	Ideology Anchor.....	40
9.	Identity Anchor.....	42
10.	Willingness to Leave Scale	43
11.	Career Satisfaction Scale	44
C.	CORRELATION BETWEEN ANCHORS	45
D.	SUMMARY	46
IV.	ANCHOR RESULTS AND ANALYSIS	49
A.	SCALE ANALYSIS AND RESULTS	49
1.	Scale Means	49
B.	MEANS BY SERVICE PROFILE	51
1.	Marine Corps	51
2.	Navy.....	52
3.	Inter-Service and Intra-Service Comparison.....	52
C.	MEANS BY YEARS OF SERVICE PROFILE.....	54
1.	Method	54
2.	Phase II.....	56
3.	Phase III.....	56
4.	Inter-Phase and Intra-Phase Comparison.....	57
D.	MEANS BY OCCUPATIONAL TYPE PROFILE.....	58
1.	Method	58
2.	Operations	59
3.	Support.....	59
4.	Inter-Occupation and Intra-Occupation Comparison.....	60
5.	Relationship Between Career Anchors and Willingness to Leave and Career Satisfaction.....	60

6.	Summary	61
V.	DISCUSSION AND CONCLUSION	65
A.	DIFFERENCES IN CAREER ANCHOR PROFILES WITHIN THE CURRENT SAMPLE AND IMPLICATIONS FOR THE MILITARY	65
1.	Service Affiliations	66
2.	Years of Service	68
3.	Occupational Type	69
4.	Implications for the Military	70
B.	SIMILARITIES AND DIFFERENCES WITHIN THE CURRENT SAMPLE AND DERR'S SAMPLE	73
C.	CONSTRAINTS OF THE CURRENT STUDY AND AREAS FOR FUTURE RESEARCH	75
D.	CONCLUSION	77
	APPENDIX A. SURVEY ITEMS BY CAREER ANCHOR	79
	APPENDIX B. SURVEY WEBSITE SCREEN SHOTS	81
	APPENDIX C. SURVEY FEEDBACK	91
	LIST OF REFERENCES	95
	INITIAL DISTRIBUTION LIST	99

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

I would like to acknowledge and thank the Defense Manpower Data Center for giving me the opportunity to pursue a degree at the Naval Postgraduate School.

Special thanks to Dr. Erik Jansen for being a wonderful thesis advisor. He has been supportive, encouraging, and has done a lot to improve the quality of this thesis.

I would also like to thank Dr. Susan Hocevar for taking time as the associate advisor. Her statistical expertise provided credibility to this thesis and support to me.

To all my friends and family who have motivated and supported me in completing this project, I say thank you.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

This chapter identifies the purpose and direction of the thesis. It is organized as follows. Section A gives background information on the value of the career anchor theory. Section B outlines the objectives for the thesis. In Section C, the primary and secondary research questions are given. Section D defines the scope of the thesis. Section E describes the methodology used to identify the relationship between career anchors and occupational specialties. Finally, Section F provides an overview for each of the subsequent chapters.

The focus of this thesis is on understanding the value of career anchor theory for the military and the relationship that exists between an individual's career anchor and the service with which he or she is affiliated, his or her occupational type, and years of service in the military. Current career satisfaction and a willingness to leave the military also are analyzed. This study is exploratory rather than definitive. The number of respondents is small, and the career anchor items used are still being tested. Specifically, the thesis aims to promote future inquiry and research and provide discussion on improvements to the measuring tool.

A. BACKGROUND

Career anchor theory was developed by Sloan Fellows Professor Edgar H. Schein (1978) at the Massachusetts Institute of Technology to identify the unique modes used by individuals in coping and developing throughout life. Edgar Schein's career anchor theory states that

A person's career anchor is his or her self-concept, consisting of 1) self-perceived talents and abilities, 2) basic values, and, most important, 3) the evolved sense of motives and needs as they pertain to the career (Schein, 1996).

Schein's theory states that individuals possess a dominant career anchor that embodies their needs, and, in the absence of compelling situational factors (e.g., financial necessity), these needs will not be compromised if a choice has to be made. The development of the career anchor is based on personal and actual work experience, where self-perceived talents, motives and values are tested and verified.

An individual's career anchor is molded by occupational and life experiences beginning at a young age. Choice is central to the realization of an individual's career anchor. The values that make up a career anchor are clarified when a decision must be made concerning self-development, family, or career (Schein, 1996). The experiences resulting from these choices lead to the formation of a dominant career anchor. An individual's career anchor can change throughout a lifetime since the formation of a career anchor is tied to current needs (Schein, 1996).

B. OBJECTIVES

The military services face problems of recruitment, development, and retention of quality individuals. Proper career management, beginning early and continuing throughout an entire career has the potential to improve recruitment and retention rates through individual career development in the context of service needs and goals.

To address the problem of recruitment, development, and retention, a solution utilizing the career anchor theory is proposed. This approach offers a web-based survey as a tool to assess the strength of individual career anchors. Career anchors are analyzed to determine if there is an association with certain service affiliations, occupational types,

and years of service in the military. The tool can also be used to better understand career satisfaction and willingness to leave the military.

C. RESEARCH QUESTIONS

There are two primary research questions to be explored in this thesis. Do career anchors and profiles of career anchors differ between services, occupational types, and years of service (or career stage) in the military? What are the benefits of knowing the career anchors of students at NPS for recruiting and retention offices? Throughout this thesis, we also define what a career anchor is and the definitions of the career anchors focused on in this study.

D. SCOPE AND LIMITATIONS

The scope of this effort is the exploration of the relationship between the specific career anchors of military members and their service affiliations, occupational type, and years of service in the military. In addition, career satisfaction and willingness to leave are explored with respect to the same demographic variables.

Specifically, the analysis was limited to a sample of military members at the Naval Postgraduate School. The sample consisted of 130 respondents. Because of the limited size of the sample, the findings can be viewed only as exploratory. This is true for research related to specific anchor measures (e.g., item analyses) and group comparisons using the measures. The survey was deployed over the intranet and open for a three-month period.

E. METHODOLOGY

A five-step methodology was adopted for the purposes of this thesis. These steps consisted of conducting a literature review, creating the survey, deploying the survey, collecting the data, and analyzing the data.

1. Literature Review

The literature review involved conducting a search of books, magazine articles, journal articles, websites, and other library information regarding career anchor theory, management processes, and retention issues within the military.

2. Creating the Survey

A majority of the items that compose the survey were adopted from a survey about career anchors administered to volunteer workers (Jansen and Chandler, 1990) based on their reliability, divergent and convergent validity in career anchor prediction.

3. Deploying the Survey

The survey was deployed over the intranet to students at the Naval Postgraduate School. Students were referred to the website through in-class announcements by the author of this thesis, recommendations from professors of other classes, and notification by the secretary for Marine Corps students at NPS.

4. Data Collection and Analysis

Data collection consisted of receiving the survey responses via electronic mail. The information was then put into a flat file that was manipulated in the NPS mainframe computer environment using Statistical Analysis Statements (SAS). Each career anchor was measured by a scale that consisted of two to four items per anchor. The individual items within each scale were analyzed, along with the scales themselves. The data were analyzed to determine trends and relationships between the career scales and occupational type, service affiliation, and years of service in the military. Once the relationships were identified, the potential use of career anchor theory within the military to better manage military careers was evaluated.

F. ORGANIZATION OF STUDY

Chapter II discusses the findings from a literature review in the area of career anchor theory, recruitment and retention in the military, and career management theory. Topics covered include the history of career anchor theory and the various career anchors, the current state of recruitment and retention within the military, the career development perspective, and the cycle of an organizational career.

Chapter III provides a discussion of the research methodology: sampling, measures, and data collection procedures. This chapter also provides an analysis of the individual items. The survey items, screen shots of the web-based survey, and a copy of the text that was sent back to survey respondents are referred to in this chapter and displayed in the appendices.

Chapter IV goes through an analysis of the career anchor scales for the sample population as a whole, and then broken out by service affiliation, years of service in the military, and occupational type. This chapter presents career anchor profiles of individuals within each sub-group.

Lastly, Chapter V discusses the findings, lessons learned and implications for the career management process within the military.

THIS PAGE INTENTIONALLY LEFT BLANK

II. THEORETICAL FOUNDATION AND LITERATURE REVIEW

The first part of this Chapter discusses the cycle of an organizational career, career anchor theory and specific career anchors, and common hurdles to understanding the value of career anchor theory. The second part of this Chapter discusses the current state of recruitment and retention in the military and offers the application of career anchor theory as a possible resource. It is organized as follows: Section A outlines the cycle of an organizational career; Section B discusses career anchor theory and defines specific career anchors; Section C summarizes the related findings of independent researchers; Section D provides an overview of the issues affecting military recruiting; and Section E discusses retention in the military today.

A. CYCLE OF AN ORGANIZATIONAL CAREER

It is important to understand the cycle of an organizational career because it defines the major stages of a relationship between an organization and an individual. Throughout these stages the individual makes an occupational choice, determines if the relationship with the organization is rewarding, and either chooses to accept and embrace the organization or realizes that a good fit does not exist (Schein, 1978). The cycle discussed here is an idealized cycle as no one cycle can be applicable to all individuals. Individuals may or may not pass through each and every stage, the length of time spent at each stage can vary dramatically and not follow any biological timeline; and the cycle may not even come to fruition in some cases.

Within the organizational career cycle, there are three unique dimensions: hierarchical, technical/functional, and inclusion/membership. The hierarchical dimension is the promotional, upwardly directed path of the career. The technical/functional

dimension describes the area(s) of expertise that are pursued throughout the life of a career. The inclusion/membership dimension is the individual's movement towards becoming a core part of the organization (Schein, 1985).

Edgar Schein has proposed that every individual goes through a series of stages, a cycle, during his or her life that affects his or her career anchor. Following are the ten stages, of which the first two occur before the individual enters the working world (Schein, 1985).

1. Stage 1

Growth, fantasy, and exploration define this stage. During this stage, the individual is a child or an early adolescent. Possibilities for future careers are based on occupational stereotypes and outside influences. Very little, if anything, is known about the realities of the job.

2. Stage 2

Education and training define this stage. The length and breadth of education and/or training is directly related to the occupational goal. Through the course of fulfilling educational requirements occupational goals may change any number of times as an individual gets more exposure to the realities of occupations. Education and training may be a life-long process, with cycles either strengthening current skills or leading to the development of new ones.

3. Stage 3

Entry into the world of work defines this stage. Individuals face a time of adjustment and realization during this stage. Perceptions are put to the test about the work, the workplace, human relationships and business interactions. Personal insight and

awareness accelerates during this stage, and a tentative career anchor slowly begins to evolve as individuals test their own abilities at work.

4. Stage 4

Although the characteristics of this stage vary by occupation, it is generally defined by basic training and socialization. At this stage the organization begins to require tangible outputs from the individual. Depending on the socialization process, the individual makes a decision as to whether to stay within the organization and the occupation.

5. Stage 5

Gaining membership defines this stage. The individual has passed the “initiation” phase and has been accepted as a full-fledged member of the organization. Depending on the organization, the individual will understand this through varying rituals or cues unique to the organization. During this time, an organizational identity begins to be defined along with personal strengths and weaknesses.

6. Stage 6

Gaining tenure and permanent membership defines this stage. Depending on the organization, this stage can range from extremely formalized procedures to implicit understandings based upon promotions and assignments. Whatever the procedure, during this stage the organization makes a decision about the future of the individual.

7. Stage 7

Mid-career crisis and reassessment defines this stage. Most individuals go through some kind of reassessment of themselves and the choices they have made in their careers when they are well into the life of their careers. These questions often deal with their initial choices, levels of attainment, and future goals.

8. Stage 8

Maintaining momentum, regaining it, or leveling off defines this stage. This stage is directly related to the previous stage and the outcomes of reassessment. Individuals make decisions about how to handle the future of their careers. One choice is not superior to any other, as it all depends on an individual's life goals.

9. Stage 9

Disengagement defines this stage. During this stage the individual's career slowly comes to an end and retirement enters the picture. Depending on the individual, reactions to this stage can vary from denial to happy acceptance.

10. Stage 10

Retirement defines this stage. At some point in time the relationship between the individual and the organization is no longer fulfilling to either or both parties. Inevitably, this leads to the last stage. Emotions and reactions vary from individual to individual.

The ten stages of the cycle of an organizational career have been summarized above. Throughout these stages the individual identifies self-perceived talents, abilities, motives, needs, attitudes and values. These components of the individual are the foundation for the career anchor.

B. THE CAREER ANCHOR THEORY

The career anchor functions in the person's work life as a way of organizing experience, identifying one's area of contribution in the long run, generating criteria for kinds of work settings in which one wants to function, and identifying patterns of ambition and criteria for success by which one will measure oneself (Schein, 1978).

Edgar Schein developed the career anchor theory while at the Massachusetts Institute of Technology (MIT) Sloan School of Business. Schein's original research from

the mid-1970's stated that three components make up an individual's "career anchor".

The components are:

- ? Self-perceived talents and abilities (based on actual successes in a variety of work settings).
- ? Self-perceived motives and needs (based on opportunities for self-tests and self-diagnosis in real situations and on feedback from others).
- ? Self-perceived attitudes and values (based on actual encounters between self and the norms and values of the employing organizations and work setting). (Schein, 1978)

An individual's career anchor will not be compromised, in most cases, if an occupational choice must be made. However, there are exceptions revolving around constraints that are uncontrollable (e.g., only job in a certain area, obligation to children or parents, economic needs). Schein's original research identified five categories that reflect the basic values, motives, and needs of an individual in relationship to a career. These five categories are: (1) Autonomy/independence, (2) Security/stability, (3) Technical-functional competence, (4) General managerial competence, and (5) Entrepreneurial Creativity. Schein's follow-up studies in the 1980's revealed three additional categories: 6) Service or Dedication to a cause; 7) Pure challenge; and 8) Life style (Schein, 1996). These eight categories have spawned the following career anchors.

1. Autonomy/Independence

Individuals who possess the autonomy/independence anchor seek to be as free as possible from organizational constraints. There are a variety of reasons as to why organizational life is so oppressive: it may be seen as restrictive, irrational or intrusive. Members of this group choose their lifestyle over anything a career could offer them. Schein (1978) says that:

...the primary need is to be on their own, setting their own pace, schedules, lifestyles and work habits...all have a sense of their own professional identity and can link the results of their work with their own efforts, a perception they share with the creativity group.

2. Security/Stability

Individuals who possess the security/stability anchor often place a lot more trust in the organization than individuals with other career anchors. Because they seek security and stability, they often accept the organizational definition of their careers. These individuals usually do not challenge or seek to change the definition of their careers to better meet their skills. They rely on the insight and the goodwill of the organization to recognize their personal contributions. Oftentimes these individuals are seen as conformists, since they often readily soak up the organization's culture and norms. In regard to the security/stability anchor, Schein (1978) says that:

[For individuals who] tied their careers to...organizations providing long-run career stability, a good program of benefits, and basic job security,...the underlying concern, driving force or set of constraints operating in these people is career stability and security.

3. Technical/Functional Competence

Individuals possessing the technical/functional career anchor want to exercise their skill. They are not attracted to management and they would rather leave a company than be moved out of their area of competence. Schein (1978) says that:

[Individuals] anchored in technical/functional competence have oriented their careers around the [sic] areas of competence and have explicitly avoided situations which would remove them from those areas or push them into general management....Success for people in this group is determined more by feedback that they are expert in their areas and by increasingly challenging work in those areas rather than promotion or monetary rewards per se...

4. Managerial Competence

Individuals who possess the managerial career anchor see the technical/functional arena as a stepping stone to the ultimate goal of management. Rather than foster technical/functional skills, they focus on developing analytical competence, interpersonal competence, and emotional competence. Analytical competence is the ability to process information in an uncertain situation and come up with a plan of action. Interpersonal competence is the ability to foster relationships with others within the organization to work more efficiently towards achieving the organizational goals. Emotional competence is the ability to be motivated and energized by working in emotionally charged situations. These individuals realized the importance of insight in emotionally taxing situations. Schein (1978) says that:

...the person who wants to rise to higher levels of management and be given higher levels of responsibility must be simultaneously good at analyzing problems, handling people, and handling his or her own emotions in order to withstand the pressures of the “executive suite.” This kind of person “needs” to be in an organization and to rise to a level within that organization where these various competencies can be exercised. He or she will seek opportunities to express the combination of analytical, interpersonal, and emotional competencies...

5. Creativity

Individuals who possess the creativity anchor will be extremely unhappy if there is too much political interference, bureaucratic red tape, or excessive micromanagement. These individuals require an environment that nurtures and fosters creativity. A lack of recognition has the potential to hurt the creativity anchor since an important motive for creativity is pride in ownership. Schein (1978) says that:

These people seem to have an overarching need to build or create something that was entirely their own product. It was self-extension through the creation of a product or process that bears their name, a company of their own, a personal fortune that reflects their accomplishment...

6. Service/Ideology

Individuals who possess the service/ideology anchor are driven to do something meaningful in their work that is part of a larger context. The individual has a strong need to make a contribution to society. (Schein, 1985) Perry and Wise (1990) say that:

...public service motives may be rational (e.g., participation in the process of policy formulation), norm-based (e.g., a desire to serve the public interest), or affective (e.g., commitment to a program from a genuine conviction about its social importance).

7. Pure Challenge

Everything in life is about overcoming the impossible – including the job. The occupation must include novelty, variety, and difficulty to retain the worker. These workers also tend to be easily bored (Schein, 1985).

C. RELATED RESEARCH

Schein's career anchor theory has been tested within a number of different populations and has been supported by research. To further support his findings, the work of independent researchers is summarized below. The theories of Driver (1979) and Derr (1979, 1986), although unique, echo the career anchor theory in their claims that a career is influenced by the many facets of an individual's life and that all individuals have core needs that drive decision making in relation to careers. Derr's research is especially pertinent as he conducted a study on career anchor concepts of U.S. naval officers while at the Naval Postgraduate School in 1979 for the Office of Naval Research.

1. Driver

My interest in career as a focus is that career is an inclusive idea that in its broadest meaning defines one's total identity. It includes not only one's job but one's avocations, hobbies, and social activities (Driver, 1979).

Driver believes that to define an individual's career purely by his or her actions and interests within the sphere of time spent at work is too narrow. An individual brings many outside influences to his or her job. Driver's career type theory proposes that there are four different career types that can be found in individuals: transitory, steady state, linear, and spiral (Driver, 1979). Driver also believes that to understand the career type of an individual is to pave the way for organizational success by finding the best relationship for the organization and the individual.

Driver's career concept theory comes in two forms. Form One is the "consistency" view. "The assumption here is that career concepts, once formed, are generally stable over a lifetime" (Driver, 1979). This assumes that a career type is inherent within a person, and that nothing that happens to them can ever change their "type." The second view is the "dynamic" view. It "suggests that career concepts continuously evolve during a lifetime" (Driver, 1979). Following are summaries of Driver's four career types.

a. Transitory Type

The transitory type corresponds most closely to Schein's autonomy/independence career anchor. Individuals who are transitory types move from job to job. Transitory types do best in organizations that use temporary teams and have loose systems of control.

b. Steady State Type

The steady state type corresponds most closely to Schein's security anchor. These individuals are content in one position as long as they are guaranteed job security. An organization with a pyramid structure and room for horizontal movement best meets their needs.

c. Linear Type

The linear type corresponds most closely to Schein's managerial anchor. Individuals with this type need to feel that they are moving in a steady progression along a career ladder. Linear types do best in organizations with tall pyramid structures in order to move up the ranks. Their climb is not all about monetary benefits, but also about recognition, authority, and other intangible benefits.

d. Spiral Type

The spiral type corresponds most closely to Schein's creativity anchor. Their creativity and curiosity drive these individuals. They seem to be on a mission for self-development: constantly seeking new challenges and opportunities. Spiral types thrive in organizations with matrix structures, in which they have the option to work in various roles and develop various talents.

2. Derr

Derr also approaches organizational career development from both the employee's point of view and the organization's point of view. For an employee, the self-knowledge that comes with identifying one's career anchor helps guide decisions. For an organization, identification of career anchors allows for a better matching of organizational needs and individual needs.

Derr believes a career is much more than just a job. Derr believes there are certain characteristics in people that help classify them into certain types of workers.

Derr has five career success orientations to explain what motivates people. These orientations can be used by the organization and the individual to ensure a better match. The five orientations are: getting ahead, getting secure, getting free, getting high, and getting balanced (Derr, 1986).

a. Getting Ahead Orientation

Upward movement (similar to Driver's linear type and Schein's managerial anchor) characterize the getting ahead orientation. They require little management as they manage themselves. Getting ahead employees enjoy responsibility and authority. Their need for a rapid promotion schedule may be difficult to meet in times of downsizing and flattening of hierarchical levels in organizations. The key to managing these types is to help them realize exactly what the promotional potential is and guide them through horizontal moves that can advance their career when vertical opportunities are not available.

b. Getting Secure Orientation

The getting secure orientation is characterized by seeking job security (Driver's steady state type and Schein's security anchor). These employees are loyal to an organization that is loyal to them. They are reliable in times of change and upheaval such as a merger. They will not abandon ship when changes are implemented, but are willing to learn new roles and procedures.

c. Getting Free Orientation

The getting free orientation (which can be seen somewhat in Driver's transitory type and Schein's autonomy anchor) is characterized by a strong desire to control their work. These people usually have deep knowledge within a narrow field. They can use this to their advantage by becoming indispensable experts. In order not to

let these types hurt the organization by hoarding all the knowledge, the organization must be sure to train and develop others to also have the same knowledge.

d. Getting High Orientation

The getting high orientation (similar to Driver's spiral type and closely related to Schein's challenge anchor) is characterized by a need for excitement, challenge, and adventure. These types are motivated by exciting work. It is important that these people find an organization that can meet their needs. If working in an environment does not provide excitement, they will end up leaving or rebelling against their work situation.

e. Getting Balanced Orientation

The getting balanced orientation (linked to Schein's lifestyle anchor but one that can not be directly linked to one of Driver's types) is characterized by a need to have a balance between work and one's life outside of work. This is an orientation that does not usually appear at the beginning of a person's career. A person usually comes to this type after going through another type and realizing they were not completely satisfied with their situation. It may also be triggered by new events, such as the birth of a child, or the aging process, whereby they realize that they want more out of life than they have been getting.

3. Derr's Research at the Naval Postgraduate School

Derr used Schein's career anchor concept while sponsored by the Office of Naval Research to report on officer career anchor profiles in an effort to better understand the officer population at the Naval Postgraduate School (Derr, 1979). Derr's research focused on a population that consisted of officers from five different naval communities. His research described the dominant anchors within the five communities, discussed new

variations on Schein's categories, and proposed theoretical implications for the navy and its officers.

Derr's study drew from both personal interviews (meant to identify an individual's career anchor) and questionnaires (meant to identify general preferences) of 136 personnel from five different communities: line officers from the surface warfare, submarine, and aviator communities and staff officers from the civil engineering corps and supply. In addition, the aviators were subdivided into helicopter pilots, multiengine pilots, jet attack pilots, and jet fighter pilots. The submariners were also subdivided into nuclear officers, non-nuclear officers, nuclear fast attack officers, and nuclear ballistic missile officers.

Derr captured many demographic variables that were not captured in this study. These include age, marital status, employment status of spouses, geographic setting (rural/urban), and education level.

a. Findings

Derr's research on the responses from the questionnaires found that in general, the naval officers had the following career preferences in the order listed: managerial, security, technical, autonomy, and creativity. However, research from the interviews determined that although still one of the lowest anchors, the creativity anchor generally had a higher value than the autonomy anchor contrary to the questionnaire findings. Also, younger officers (e.g., lieutenants) often preferred autonomy and creativity to managerial or security anchors.

In terms of differences between communities using the survey data, aviators on average preferred the security orientation, surface warfare officers the

managerial orientation, submariners the technical orientation, civil engineering corps officers the managerial orientation, and supply corps officers the security orientation. The managerial, technical, and security orientations were, overall, the most preferred.

Research from the interviews painted a somewhat different picture. Derr noted that the average scores from the questionnaires could not be directly compared to the scores from the interviews. The interview data indicated that the officers had a greater preference for the technical anchor, although the questionnaire had shown the managerial anchor to rank first. The other most significant finding was that the interviews indicated a much smaller percentage of officers identified the most with the security anchor than the questionnaires indicated.

While the interviews found that the officers generally had primarily technical and managerial career anchors with a strong security orientation, this profile differed between the communities. Interview results found that aviators associate most with the technical anchor, surface warfare officers with the managerial anchor, submarines with both the technical and managerial, civil engineering corps officers with autonomy, and supply corps officers with the managerial anchor.

The distribution of career anchor types based on the survey of the navy sample of 124 persons consisted of fifty technical (36%), forty-seven managerial (34%), nineteen security (4%), five autonomy (10%), and three creativity (16%). Schein's original MIT group was broken down as follows: technical (43%), managerial (18%), autonomy (16%), creativity (14%), and security (9%). The most obvious difference is the high percentage of naval officers with managerial career anchors. Also evident is the

higher proportion of security anchors in the navy. The lower proportion of navy officers with an autonomy or creativity anchor is not surprising (Derr, 1979).

Derr's research found that naval officers from five different communities had mostly managerial and technical career anchors. In contrast to Schein's MIT group, more naval officers had security anchors and fewer had autonomy and creativity anchors. Derr's research, conducted from 1977-1979, measured a cohort that on average was born in 1948. A generational gap may be seen in the results of the current study which focuses on a cohort which was born decades later.

b. New Anchors – Identity/Affiliation and Warrior

During Derr's research, it became clear that one major reason it was difficult to determine a career anchor for all interviewees was that Schein's five categories were not comprehensive enough. Derr suggested two new anchor profiles. The first was the identity/affiliation anchor profile. This anchor was a variation of Schein's security anchor (Derr, 1979). Through the clinical interviews that Derr conducted, he felt that he encountered individuals who were most concerned with feeling part of a group or club in their work. These individuals' primary need was a feeling of affiliation and esprit de corps. Derr believed that though the career choices of an individual with an identity/affiliation anchor may be the same as someone with a security anchor, their motivations would be different.

The second career anchor profile Derr proposed was that of the warrior. Warriors need high adventure – even life-and-death adventure – as a basic psychological requirement (Derr, 1979). Warriors thrive on carrying out dangerous missions and are

proud of their competence. In his interviews, Derr found about ten individuals in his sample that he thought possessed this career anchor profile.

4. Other Research

Feldman and Bolino used career anchors to determine which anchors were dominant among self-employed individuals. Among other findings, their research suggested that “career anchors do influence the goals individuals hope to achieve from self-employment, and that career anchors do influence individuals’ satisfaction with their jobs, careers, and lives in general” (Feldman & Bolino, 2000). Katz also focused on self-employed individuals using the career anchor theory to develop a theoretically grounded model to analyze entrepreneurs (Katz, 1994).

Jiang and Klein (2000) applied the career anchor theory to entry-level information systems professionals to understand the relationships between employees’ needs, organizational needs, the organizational environment, and career satisfaction. Analysis indicated that “IS professionals find more satisfaction with their career when...an adequate range of opportunities that satisfy career desires exist within the organization”.

Barth used career anchor theory to determine why federal employees remain in or leave the federal government and to build a conceptual framework for understanding career motivation. The data suggests that “nonmonetary factors do influence decisions to stay or leave” (Barth, 1993).

The information systems and services division of Texas Instruments uses career anchoring to help employees manage their professional development (Overman, 1993). They have established an Employee Development Center to encourage employees to be proactive in managing their career development.

5. Implications

Assessment of individuals is important for any organization. Assessment allows employees to be assigned to tasks that take advantage of their measured capabilities. The U.S. Army was one of the first organizations to use large scale assessments (General Aptitude Test Battery) in the 1930s when random assignments proved ineffective (Hagevik, 2000). Today, organizations should aim to understand more than just aptitude, they should focus on understanding fit between an individual and an occupation and how that relates to job satisfaction and performance. Meeting the needs of the organization and the individual will not only increase productivity, but it will also help attract and retain quality employees. As the military struggles to meet recruiting and retention goals, application of the career anchor theory may become a useful tool.

D. RECRUITMENT IN THE MILITARY

The defense drawdown of the early 1990s resulted in a decrease in the number of enlisted personnel needed to meet readiness requirements in the military. Despite the decline in authorized end-strength numbers, starting in the mid-1990s the services began to experience a tougher recruiting market. Recruiting has always been a challenge, but recently, the armed forces have had trouble meeting their recruitment goals. See Table 2.1 (www.defenselink.mil). This table highlights the fact that in FY99 the active components of the Marine Corps, the Navy, and the Army all met their authorized strength goals while the Air Force did not.

Component	Authorized Strength	Actual Strength*	Difference
ARMY	480,000	479,100 (99.8%)	-900
NAVY	372,696	372,696 (100%)	0
AIR FORCE	370,882	360,574 (97.2%)	-10,308
MARINE CORPS	172,200	172,517 (100.2%)	317

Table 2.1 FY99 Active Components End Strengths (www.defenselink.mil)

* Services are considered to have met end strength if they are within 0.5%.

Struggling to meet end-strength goals is a fairly recent phenomenon. Many believe it to be caused by the boom within the civilian job market, the increased opportunities for individuals to go to college, and a shrinking skilled work force (www.defenselink.mil). These are among the factors that have combined to create a new cultural environment in which past recruiting strategies are no longer competitive. Culture defines what individuals consider to be a good career, appropriate work, a good organization to work for, and what success is (Schein, 1968; Schein and Lippitt, 1966; Schein and Ott, 1962; Allen and Silverweig, 1976). As culture changes, so too do opinions about the military as a career.

Research has shown that interest in military service is declining among the high quality youth that the armed forces wish to recruit (Asch, Kilburn, and Klerman, 1999). The military is often seen as a second-tier choice. The sentiments most often expressed concerning the military as a career are rooted in the idea that the military is a wonderful opportunity for someone else. In an effort to combat this problem, the services are trying to devise better recruiting strategies. Existing recruiting programs and policy options are

coming under review and are being analyzed to determine if the military has responded to competition from the labor and college market in an appropriate manner. The situation is so dire that ex-Defense Secretary William S. Cohen personally solicited about a dozen celebrities from the entertainment and sports industries to appear in a media campaign for military recruitment (Suro and Waxman, 2000).

E. RETENTION IN THE MILITARY

Table 2.1 shows that three of the four major services were able to meet their authorized strength numbers in FY99. However, rather than attributing the success solely to recruitment efforts, the Department of Defense attributes the ability of the services to meet their end strengths to high retention rates. The Department of Defense believes that the high retention rates are due in part to the hard work of military leaders and to the high quality of individuals currently in the armed services (www.defenselink.mil).

Although the Department of Defense paints a picture of high retention rates, in 1998, Shelton, then chairman of the Joint Chiefs of Staff, described the state of recruiting and retention as slow and difficult. He believed the difficulties arose from the military's inability to compete with the better-paying and more "family-friendly" jobs offered by private sector organizations (www.cnn.com). In this light, retention should also be scrutinized to determine whether or not retention strategy is as effective as it could be.

THIS PAGE INTENTIONALLY LEFT BLANK

III. METHOD AND ITEM ANALYSIS

This chapter provides a discussion of the research methodology and an analysis of the items used in the questionnaire.

A. RESEARCH METHODOLOGY

1. Measures

Many researchers have used variations of Schein's career anchor theory to determine career profiles for different groups. A career anchor profile, in this study, was assessed with a thirty-four-item survey. A majority of the survey items used to determine career anchors were selected from a survey created by Erik Jansen and Gaylen Chandler for a study about career anchors of volunteer workers (Jansen and Chandler, 1990). The items were adopted based on their reliability, divergent and convergent validity in career anchor prediction.

Survey items were chosen to represent the following nine career anchors: technical-functional, security/stability, autonomy/independence, managerial, creativity, ideology, challenge, identity and warrior. Items also were included to measure willingness to leave the organization and career satisfaction. Respondents indicated their agreement or disagreement with each item on a six-point Likert-type scale ranging from (1) strongly disagree to (6) strongly agree. An example of a security scale item is, "It is extremely important for me to work for an organization that provides me with long range stability." An example of a challenge scale item is, "I strongly prefer a career that provides competitive challenges." For a complete table of all the items for each scale, see Appendix A.

2. Measures

Students at the Naval Postgraduate School in Monterey, CA were asked through three different means to participate in this study. Students were referred to the website through in-class announcements by the author, recommendations by professors to their classes, and notification by the secretary for Marine Corps students at NPS.

The survey website was open from May 2001 through July 2001. A total of 130 survey responses were received and used in the data analysis. The demographic features of the sample population are as follows: 119 males, 11 females; 3 members with 1-4 years of service, 72 members with 5-11 years of service, and 55 members with 12 or more years of service; 5 Asians, 7 African-Americans, 111 Caucasians, and 7 Hispanics; 9 Army members, 2 Air Force Members, 85 Marine Corps members, and 34 Navy members; 2 O1s, 67 O2s, 51 O3s, and 10 O4s.

3. Data Collection Procedures

The survey website was created using FrontPage 2000. The site used radio buttons, allowing survey respondents to choose one of the six responses that best expressed their sentiments about each statement. Usage of radio buttons allowed for one, and only one, response to each item. The questions at the end of the survey that pertained to the demographics of the individual used text boxes, which allowed the respondent to type in any answer they chose. Appendix B provides screen shots of the survey website as it appeared to respondents.

Once the website was designed and reviewed, it was published to the NPS intranet by the staff of the computer systems department at NPS. The website was accessible for a period of three months to anyone who could access the intranet at NPS. After

completing the survey, the respondent clicked on the “Submit” button. Survey results were then sent to the researcher via an electronic mail message.

Data from the mail message was then input into a Microsoft Excel worksheet which was used to calculate an individual’s career anchor profile. The highest and lowest anchors for each respondent were identified, descriptions for all the anchors were generated, and an electronic mail message containing these results was sent to the student’s electronic mail address. Appendix C contains the complete text that the respondents received after completing the survey, including a sample career anchor profile.

B. ITEM ANALYSIS AND RESULTS

This section provides an analysis of the items that compose each of the scales. Statistical Analysis Statements (SAS) was used to calculate the mean, standard deviation, Cronbach’s coefficient alpha, and Pearson’s correlation coefficient, and perform factor analysis for the sample of 130 respondents. Following Nunnally (1978), internal consistency was considered to be acceptable for research purposes if the coefficient alpha score of a scaled measure was above 0.60. If the coefficient alpha was below 0.60, then future efforts are required to revise the items so as to create an acceptable scale.

1. Specialist Anchor

In Schein’s research with MBA students at MIT, the technical anchor was meant to capture the degree to which people are concerned with increasing their proficiency in an area of technical expertise or functional specialization. When the current survey was created, the four technical anchor items that were selected were intended to capture the same needs and motivations as Schein’s original anchor. The technical/specialist scale

mean is 2.95 and the standard deviation is 0.86. The coefficient alpha for the technical anchor is low at 0.58. The low coefficient alpha (0.58) and low inter-item correlations show a lack of internal consistency among the ideas measuring this anchor. This finding lead to closer analysis of the wording of the items (see Table 3.1).

Technical/Specialist Items	Item Means (<u>n</u> =130)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)	Correlation Coefficients (Item 4)
(1) I would resist accepting work outside my area of specialization.	2.35	1.23	0.46	0.24	0.30
(2) I would change employment rather than leave my area of expertise.	2.39	1.22		0.12	0.24
(3) I strongly prefer to work in a technical, specialist position.	3.58	1.35			0.21
(4) My greatest strength is my expertise in a specialized area.	3.42	1.35			

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.1
Means, Standard Deviations, Correlations, and Alphas for the Technical/Specialist Anchor Items

The coefficient alpha improves slightly to 0.60 with the deletion of the item, “I strongly prefer to work in a technical, specialist position.” This item has the lowest correlation with the rest of the items. Upon closer inspection, this item is different from the other items in that it specifically uses the word “technical.” This item seems to be measuring more of a need to work in a technical area, rather than the need to become a specialist within any area. The other items refer to “specialization,” “area of expertise,” and “specialized area.” The wording of these items actually focuses on the degree to which people are interested in being a specialist in a very specific area, whether it is technical or not. Consequently, this section has been renamed from technical/functional to specialist, although still retaining item three for analysis of the demographic groups.

The factor analysis for the technical/specialist items show that three of the four items loaded highly (0.77, 0.68, 0.61 for items (1), (2), (3), respectively) on a single factor. These three items did not load highly on any other factors. The fourth item, “My greatest strength is my expertise in a specialized area,” had its highest loading of 0.41 on this same factor.

Only two of the technical/specialist items correlated highly with each other: “I would resist accepting work outside my area of specialization” and “I would change my employment rather than leave my area of expertise.” As discussed above, the item “I strongly prefer to work in a technical, specialist position” measures a different career orientation than the other items. One hypothesis as to why “My greatest strength is my expertise in a specialized area” has a low correlation is that it asks about an individual’s “greatest strength,” which is an intangible quality, while the other three items focus on more tangible actions.

For future research efforts within a similar population, there are two main recommendations. First, the “specialist” scale should be differentiated from a technical-functional scale. This research has determined this scale assesses the degree to which individuals prefer to work as specialists in any field – whether technical or not. As they progress along their career, they want to become more and more specialized. New items should be developed to capture the technical-functional construct, if in fact the researcher intends to capture the sentiments of the individual who is technologically driven, has a need to work with cutting edge technology, is rewarded by a career that allows him or her to remain in a technical position, and does not require promotion up the organizational hierarchy.

The second recommendation is to retain a fourth item for the specialist scale, but to modify the wording of the item. Respondents within this sample seem to not associate with items asking them to evaluate their professional strengths and weaknesses. One suggestion is to change “My greatest strength is my expertise in a specialized area” to “I am happiest when working in a specialized area that other people know little about.” The concept behind this item is to capture those people who are motivated by being in an elite group that knows a great deal about a specific subject. This item is trying to capture those that long for depth and not breadth in their careers.

2. Security Anchor

The four security anchor items are designed to identify those individuals whose underlying concern is career stability and security. The security anchor scale mean is 4.47 and the standard deviation is 0.87. The coefficient alpha for the technical anchor is good at 0.76. The coefficient alpha improved slightly to 0.78 with the deletion of the item “It is extremely important for me to work for an organization that provides me with a sense of belonging.”

The factor analysis shows that all four of the security items loaded on the same factor at 0.80, 0.79, 0.70, and 0.57 with the lowest being the item “It is extremely important for me to work for an organization that provides me with a sense of belonging.” This item is different from the other items in that it refers to a “sense of belonging.” Inclusion of this item was meant to capture a behavioral pattern that Schein identified with accompanying the security anchor. This pattern manifests itself in an individual as a need to belong to a company or occupation. However, this item also captured the motivations of the identity anchor and had a high loading on this scale. The

weakness of this item is due to its wording not being unique to the security anchor. A pattern of low inter-item relationships is shown by the inter-item correlations in Table 3.2 with item one have the lowest correlations. The other items refer to “stability” and “security” surrounding the actual work.

Security Items	Item Means ($n=130$)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)	Correlation Coefficients (Item 4)
(1) It is extremely important for me to work for an organization that provides me with a sense of belonging.	4.94	0.85	0.38	0.32	0.27
(2) It is extremely important for me to work for an organization that provides me with long range stability.	4.51	1.16		0.64	0.45
(3) It is extremely important for me to have a secure position.	4.43	1.12			0.58
(4) I strongly prefer a career with an organization that offers the security of lifetime employment.	4.01	1.36			

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.2

Means, Standard Deviations, Correlations, and Alphas for the Security Anchor Items

3. Autonomy Anchor

The three autonomy anchor items refer to the need, values and motives individuals have for freedom from close supervision and regulation throughout their careers. The autonomy scale mean is 4.11 and the standard deviation is 0.85. The coefficient alpha for the autonomy anchor is low at 0.60. Factor analysis shows that the three items that make up this anchor/scale all loaded on the same factor at 0.79, 0.68, and 0.61.

The correlation coefficient between the following two items was very low: “In my work, my major concern is to have a strong sense of freedom and autonomy” and “It is extremely important for me to work in a position where I am my own boss” ($r=.21$, see Table 3.3). In this case, the item that reads “I like to work free from supervision” correlates well with both of the other items, probably because an individual at any level of autonomy could prefer to work free from supervision. Also, the wording of this item – “I like” – may have affected the response to this item. The other two items contain wording that is much more emphatic – “my major concern” and “extremely important”. People may prefer to work free from supervision, without having a strong need to work free from supervision.

For future research efforts, the autonomy items should be revised, in the hopes of capturing the individual who truly needs to be autonomous. The difficulty assessing the autonomy anchor is that, on the surface, everyone longs to be autonomous; it is a universal intrinsic task motivation (Deci and Flast, 1995). Thus, when faced with the statement “I like to work free from supervision,” most people, even those comfortable within the constraints of a machine bureaucracy, would agree. However, some subsets of individuals have a relatively higher need for autonomy that impacts their pattern of lifetime career choices. One solution may be to make the statements more extreme to try and filter out those who really do not have autonomy anchors. Some sample items could be “I am extremely unhappy working under the direct supervision of another person” and “I would leave my job rather than work in an environment where I did not have a strong sense of freedom and autonomy.”

Autonomy Items	Means ($n=130$)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)
(1) In my work, my major concern is to have a strong sense of freedom and autonomy.	3.73	1.28	0.42	0.21
(2) I like to work free from supervision.	4.12	1.16		0.37
(3) It is extremely important for me to work in a position where I am my own boss.	4.47	0.95		

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.3

Means, Standard Deviations, Correlations, and Alphas for the Autonomy Anchor Items

4. Managerial Anchor

The three managerial anchor items are meant to designate individuals who have a strong need to be in positions of managerial responsibility and enjoy managerial activities. The managerial scale mean is 4.55 and the standard deviation is 0.74. The coefficient alpha for the managerial anchor is low at 0.52. The correlation coefficients for the managerial items show that the item, “One of my greatest strengths is achieving results by organizing and motivating people”, does not correlate highly with any of the other items within the managerial scale (see Table 3.4).

The factor analysis for these items show that “It is extremely important for me to work at a level of responsibility where I can enlist the support of key people” and “It is extremely important for me to work at a level of responsibility where I can delegate to others” load on the same factor at 0.75 and 0.63. However, “One of my greatest strengths is achieving results by organizing and motivating people” loads on a factor of its own at 0.71, while it loads on the same factor as the other two items at 0.13. This item thus has substantial unique variance not associated with the other items.

Examining the wording of the three items suggests that two items both deal with the power that comes from moving up the managerial ladder: “enlist the support of key people” and “delegate to others.” These items measure the manager who needs to be upwardly mobile. This individual has a psychological need for authority and responsibility. Derr writes that an individual with this type of managerial anchor “is highly aware of and articulate about career strategies for achieving higher rank, building important relationships with sponsors and mentors, getting the inside track on the best job assignments, handling social obligations, etc.” (Derr, 1979).

The other item, “One of my greatest strengths is achieving results by organizing and motivating people,” deals more with the human side of moving up the managerial ladder: developing and managing interpersonal relationships and “organizing and motivating people.” Thus, two of the items were capturing the idea of a need for linear advancement within an organization and the power, influence and control associated with that upward movement, and the other item was capturing the interpersonal aspect of being in a managerial role.

In Derr’s research at NPS he found through the survey and clinical interviews that there were two major categories of the managerial anchors. He labeled one category “upwardly mobile” and the other category the “evolving manager.” The upwardly mobile manager is identified by the need to “run”; he or she “has the right combination of skills to go up the ladder in the organization” (Derr, 1979). Derr’s evolving manager is not as focused on moving up the ladder, but evolves up the ladder while passing through different stages: apprentice, technical competence, leadership, high-level policy position (Derr, 1979). Future research should be cognizant of what type of manager to assess: the

“upwardly mobile” managerial anchor type, the “interpersonal” managerial anchor type, or the “evolving” managerial anchor type. Further development and analysis of items and scales to measure these elements is work yet to be done.

Managerial Items	Means ($n=130$)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)
(1) It is extremely important for me to work at a level of responsibility where I can enlist the support of key people.	4.27	1.10	0.41	0.21
(2) It is extremely important for me to work at a level of responsibility where I can delegate to others.	4.62	0.96		0.18
(3) One of my greatest strengths is achieving results by organizing and motivating people.	4.76	1.03		

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.4

Means, Standard Deviations, Correlations, and Alphas for the Managerial Anchor Items

5. Warrior Anchor

The three warrior anchor items try to identify those individuals that demand a great deal of adventure – even life-and-death adventure – in their occupations. This was a new scale proposed by Derr in his research with Naval officers at NPS. The warrior scale mean is 4.46 and the standard deviation is 0.87. The coefficient alpha for the warrior anchor is good at 0.76.

The correlation coefficients for this anchor were high across all the items which would seem to indicate that all the items should be retained (see Table 3.5). However, the results from the factor analysis reveal something different. The factor analysis shows that “I strongly prefer a career with situations that are exciting and daring” and “I like to work in adventurous situations where I can test my limits” load on the same factor at 0.80 and 0.76 while “It is extremely important for me to work in positions where I can pursue

missions few have tried before” loads at 0.41. This latter item also loads highly with the creativity items at 0.61.

It appears that the wording of this item, “It is extremely important for me to work in positions where I can pursue missions few have tried before,” is capturing the “newness” that the creativity items are capturing. This is the need for an individual to be the first one to do something. For future research purposes, I would drop this item from the warrior scale and replace it with an item that does not load highly with another factor. Some sample items could be “I would leave my job if it placed me in a life-and-death situation” or “I thrive in dangerous missions in which I must depend on my skill to succeed” or “The idea of going to war and being engaged in combat is exciting to me.”

Warrior Items	Means ($n=130$)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)
(1) I strongly prefer a career with situations that are exciting and daring.	4.85	0.95	0.64	0.43
(2) I like to work in adventurous situations where I can test my limits.	4.41	1.20		0.47
(3) It is extremely important for me to work in positions where I can pursue missions few have tried before.	4.13	1.01		

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.5

Means, Standard Deviations, Correlations, and Alphas for the Warrior Anchor Items

6. Challenge Anchor

The three challenge anchor items refer to the need people have for the “reward” of solving what may seem to some an impossible or insurmountable problem or puzzle. The challenge scale mean is 4.08, and the standard deviation is 0.92. The coefficient alpha for the challenge anchor is good at 0.75. All of the items have high inter-item correlation with the other items.

Although all the items have high inter-item correlations, the factor analysis shows that “I thrive on competition” also loads highly on the warrior factor. “I thrive on competition” loads at 0.63 with the other challenge items, and loads at 0.54 with the warrior items. For future research this item should be deleted from this scale and replaced with another item. One possible solution could be to break out the “Competing and winning are the most important and exciting parts of my career” item into “Competing is one of the most important and exciting parts of my career” and “Winning is one of the most important and exciting parts of my career”. It would be interesting to see the difference in responses to these two questions and whether they relate differently to the warrior and challenge anchors. Some people like to compete, whether or not they win. Others compete only because they like to win. Some possible replacement items could be “I enjoy situations that seem impossible or insurmountable” or “I would leave my occupation if it failed to challenge me mentally.”

Challenge Items	Means ($n=130$)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)
(1) Competing and winning are the most important and exciting parts of my career.	4.33	1.24	0.50	0.59
(2) I strongly prefer a career that provides competitive challenges.	3.28	1.25		0.39
(3) I thrive on competition.	4.62	0.90		

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.6
Means, Standard Deviations, Correlations, and Alphas for the Challenge Anchor Items

7. Creativity Anchor

The three creativity anchor items were meant to capture individuals with an overriding need to create something of their own, whether it be a new business, product, or service. This individual could also be seen to embrace entrepreneurial activities. The scale mean is 4.30 and the standard deviation is 0.93.

The coefficient alpha for the creativity anchor is good at 0.78. The correlation coefficients for all the items that compose the creativity anchor are very high. The factor analysis also supports this finding with the items loading on the same factor at 0.84, 0.82, and 0.64. The only suggestion for future research may be to either reword the item that loaded the lowest, “I want a career that allows me to develop new projects and programs” so that it would load higher on the factor or create a few new items to see if they load any higher. One possible item could be “I want a career that forces me to use my creativity on a constant basis to come up with new solutions and recommendations to problems”.

Creativity Items	Means ($\bar{n}=130$)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)
(1) I want a career that allows me to develop new projects and programs.	4.40	1.06	0.49	0.44
(2) It is extremely important for me to use my creativity to pursue new projects, ventures, programs, or enterprises.	4.35	1.05		0.70
(3) One of my greatest strengths is creating and launching new projects, programs, and products.	4.15	1.22		

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.7

Means, Standard Deviations, Correlations, and Alphas for the Creativity Anchor Items

8. Ideology Anchor

The two ideology anchor items tried to focus on the need individuals have to feel that the work they do is helpful to others. The ideology scale mean is 4.60 and the

standard deviation is 0.89. The correlation coefficient between the items is .36, which indicates they share about 13 percent common variance. With only two items, it is very difficult to assess reliability, but these two items seem to be measuring different motivating factors.

The factor analysis shows that although both items load on the same factor, they load with different weights, “I strongly prefer a career where I can use my knowledge and skills to advance an important cause “ loads at 0.83 while “I prefer a job where I feel I am fulfilling my sense of social responsibility “ loads at 0.52. The first item tries to capture ideology through “an important cause.” This is a much more specific requirement than the picture of ideology in the other item – a “sense of social responsibility.” It appears that one item is capturing the desire to work for an organization that supports a specific cause while the other item is capturing a more general attitude that can be fulfilled in a number of ways.

Future research, and indeed this research, should have at least three items per scale. Simply adding a highly correlating third item could address any measurement problems identified here. Some possible items could be “I joined the military to serve my country” or “I would leave my job if I did not believe it was benefiting the world in a positive way.”

Ideology Items	Means (n=130)	Standard Deviation	Correlation Coefficients (Item 2)
(1) I strongly prefer a career where I can use my knowledge and skills to advance an important cause.	4.55	1.03	0.36
(2) I prefer a job where I feel I am fulfilling my sense of social responsibility.	4.63	1.11	

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.8

Means, Standard Deviations, Correlations, and Alphas for the Ideology Anchor Items

9. Identity Anchor

The three identity anchor items tried to measure the extent to which individuals need to feel they are part of an institution, group or organization and the status of that association. The scale mean is 4.06 and the standard deviation is 1.12. The coefficient alpha for the identity anchor is excellent at 0.89. The correlation coefficients of the items that compose this scale are very high, with all items correlating with one another.

Factor analysis of these items tells the same story, they all load very high on the same factor at 0.89, 0.87, and 0.85. These items seem to measure the identity scale well, these items can be used again for future research efforts without modification.

Identity Items	Means (n=130)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)
(1) It is extremely important for me to work in a well-regarded and highly respected organization.	3.64	1.32	0.76	0.72
(2) It is extremely important for me to work in a distinguished organization that is known community wide.	4.29	1.20		0.75
(3) I strongly prefer positions with organizations that have distinguished reputations.	4.25	1.18		

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.9

Means, Standard Deviations, Correlations, and Alphas for the Identity Anchor Items

10. Willingness to Leave Scale

The three willingness to leave items were constructed to capture the likelihood that military members would choose to resign their commission at the end of their current tour. The willingness to leave scale mean is 2.33 and the standard deviation is 1.10.

The coefficient alpha for the willingness to leave anchor is good at 0.68. For future research, the item, “I will probably look for a new civilian job within the next year,” might be reworded. The other two items – “I sometimes feel like leaving my employment for good” and “I often think about resigning my commission” – are both actions that most people probably consider whether they are fully satisfied with their job or not. These two items focus more on feelings, while the other item focuses on action.

Willingness to Leave Items	Means ($n=130$)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)
(1) I will probably look for a new civilian job within the next year.	1.54	0.97	0.30	0.37
(2) I sometimes feel like leaving my employment for good.	2.96	1.53		0.57
(3) I often think about resigning my commission.	2.49	1.63		

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.10

Means, Standard Deviations, Correlations, and Alphas for the Willingness to Leave Anchor Items

11. Career Satisfaction Scale

The three career satisfaction items were constructed to capture how satisfied the military personnel within this sample were in their occupations at the time of the survey.

The career satisfaction scale mean is 4.96 and the standard deviation is 0.87.

The coefficient alpha for career satisfaction is excellent at 0.85. The correlation coefficient for this scale is very good in that all the items correlate highly with each.

Career Satisfaction Items	Means ($n=130$)	Standard Deviation	Correlation Coefficients (Item 2)	Correlation Coefficients (Item 3)
(1) I am basically satisfied with the career choices I have made.	5.12	0.89	0.75	0.64
(2) I am satisfied with the nature of the work I perform in my career.	4.94	0.81		0.68
(3) If I were choosing again, I would choose the same type of career.	4.85	1.21		

©Erik Jansen & Gaylen Chandler, 1991, 2001

Table 3.11

Means, Standard Deviations, Correlations, and Alphas for the Career Satisfaction Anchor Items

C. CORRELATION BETWEEN ANCHORS

Earlier in the chapter the individual items were analyzed using factor analysis and Pearson's correlation coefficients to determine if certain items were related to other items from other anchors. Pearson's correlation coefficient was also run on the career anchor scores (see Table 3.12). Based on the results, there are six anchors that have relationships with other anchors. To analyze the data, "meaningful" significance at the $r > 0.32$ level was used so the anchors which had a common variance greater than 10% would be identified. This analysis resulted in the following significant correlations: security/identity; managerial/ warrior; managerial/challenge; managerial/creativity; warrior/challenge; and warrior/ creativity. These findings suggest that the items for these anchors need to be revised to increase the discriminant validity of the scales for measuring these anchors.

	Technical	Security	Autonomy	Managerial	Warrior	Challenge	Creativity	Ideology	Identity	Willingness to Leave	Career Satisfaction
Technical	1.00	0.14	0.01	-0.10	-0.08	-0.08	-0.10	0.17	0.10	0.12	-0.04
Security		1.00	0.18	0.31	0.10	0.17	-0.03	0.32	0.43*	-0.22	0.16
Autonomy			1.00	0.27	0.21	0.10	0.25	0.17	0.06	0.08	-0.08
Managerial				1.00	0.36*	0.36*	0.36*	0.24	0.25	-0.11	0.25
Warrior					1.00	0.50*	0.53*	0.19	0.18	0.06	0.08
Challenge						1.00	0.30	0.11	0.30	-0.24	0.23
Creativity							1.00	0.13	0.04	0.10	-0.05
Ideology								1.00	0.27	-0.11	0.09
Identity									1.00	-0.04	0.13
Willingness to Leave										1.00	-0.58
Career Satisfaction											1.00

Table 3.12
 Pearson Correlation Coefficients and Probabilities Values (* = $p < 0.0001$) on Career Anchor Scales ($n=130$)

This analysis highlights the fact that some of the anchors are capturing the same or closely related sentiments through different items in the minds of the respondents. A high correlation among the anchors is not necessarily a negative result. Individuals may score high on two to three anchors that have a tendency to go together. For example, individuals who have a security anchor also may possess an identity anchor, leading to a possible conclusion that individuals who crave job security also may have their personal identity closely tied to their occupation. Another example is an individual with a managerial anchor also having strong associations with the warrior, challenge and creativity anchor. All the ideals contained in the other three anchors are traits that would appear to be found in a good manager: willing to take risks and needing adventurous situations (warrior), flourishing in work that challenges them intellectually (challenge), and enjoying situations where they are forced to use their creativity to come up with novel solutions (creativity).

It is important to recognize that certain anchors may be measuring overlapping needs, motives, and traits. Future research might focus on reviewing the items that compose these anchors to ensure that they are as distinct as possible and that there is minimal overlap. However, it also may be the case that there should be overlap. In other words, career anchors of individuals, and hence measurement results, might well be oblique rather than orthogonal factors.

D. SUMMARY

In this chapter the items have been analyzed individually and together as they compose the anchor/scale being measured. Suggestions for future research have been

made after analysis of the statistics. The next chapter will provide the data and analysis on the anchors/scales as a whole.

THIS PAGE INTENTIONALLY LEFT BLANK

IV. ANCHOR RESULTS AND ANALYSIS

A. SCALE ANALYSIS AND RESULTS

The following section discusses the mean of each scale for the total sample ($n = 130$) and analyzes sub-groups according to service affiliation, years of service and occupational type. Some sub-groups could not be analyzed because of insufficient sample size.

1. Scale Means

When determining which anchors characterize most respondents, two methods are employed. One method involves rank ordering the anchors by scale mean. A second method is by rank ordering the anchors according to the number of respondents for whom it was the highest-scoring anchor. In some cases, two or more anchors shared the highest score. This method is used to compare the demographic sub-groups. All the tables reporting on the demographic variables provide information on both methods. Table 4.1 lists the anchors with their means and standard deviations in descending order by the scale mean. The next column lists the number (and percentage) of individuals who scored highest on that anchor. The number of individuals sums up to more than 130 due to the fact that some individuals had more than one anchor with the highest score, and in those cases all the anchors were given credit for being rated highest. There were 25 cases in which individuals shared two anchors; 11 cases in which individuals shared three anchors; five cases in which individuals shared four anchors; two cases in which individuals shared five anchors; one case in which an individual shared six anchors; one

case in which an individual shared eight anchors. At the bottom of the table are the results for the willingness to leave and career satisfaction scales.

Based on confidence intervals¹, three sub-groups of anchors appear, which are referred to as higher, lower, and lowest. The respondents scored highest on the warrior, security, managerial, and ideology scales; lower on the identity, challenge, autonomy, and creativity scales; and lowest on the technical scale.

For the sub-group populations, t-tests were used to determine whether or not there were significant differences between the sub-groups. Responses were deemed to be highly significant if $p \leq 0.01$, significant if $p \leq 0.05$, and approaching significance if $p \leq 0.10$. The t-test results are presented in the tables following discussion of the sub-groups.

¹ Confidence intervals were computed at the .05 level using standard formulas. The standard error of measurement (which is the sample standard deviation divided by the square root of the sample size) was multiplied by the appropriate t value (appropriate for the sample size) and added to the mean to produce the upper confidence interval. Thus for the first value in Table 4.1, the standard deviation of the technical anchor, which is 0.86, was divided by the square root of the sample size, which is 11.4; this yielded a standard error of measurement of .075. This was multiplied by a t value of 1.98 (for a sample size of 130); which yielded 0.15. This value was then added to the mean for this anchor, which was 2.95, which yields an upper confidence limit of 3.10. Subtracting this value from the mean gave a lower confidence limit of 2.8. To interpret the meaning of these numbers, it is necessary to understand that the 95 percent confidence interval is a range that will contain the population mean 95 percent of the time. For the technical/functional anchor, the range is between 2.8 and 3.1. When making comparisons between anchors, the ranges are compared to determine if they overlap. Overlap reflects little or no difference between the means, and hence the anchors. No overlap supports the hypothesis that the means are distinct as are the ideas the anchor is measuring. Because the next highest mean, the identity anchor, is 4.06, we can be quite confident that the technical/functional mean and the identity mean can be regarded as different from each other because there is no overlap in the confidence intervals for the two means.

Anchor Scale	Anchor Scale Mean (<u>n</u>=130)	Standard Deviation	Number (%) respondents with anchor rated highest ²
Technical	2.95	0.86	2 (0.9%)
Identity	4.06	1.12	21 (9.9%)
Challenge	4.08	0.92	10 (4.7%)
Autonomy	4.11	0.85	13 (6.1%)
Creativity	4.30	0.93	30 (14.2%)
Warrior	4.46	0.87	29 (13.7%)
Security	4.47	0.87	32 (15.1%)
Managerial	4.55	0.74	34 (16%)
Ideology	4.60	0.89	41 (19.3%)
Willingness to Leave	2.33	1.10	
Career Satisfaction	4.96	0.87	

Table 4.1

Means for Career Anchors and the Willingness to Leave and Career Satisfaction Scales

B. MEANS BY SERVICE PROFILE

1. Marine Corps

Table 4.2 presents the mean anchor ratings for the total sample, and the two largest service sub-groups (Marine Corps and Navy). It also presents, for each anchor, the number of times it was chosen as the highest, or one of the highest, anchors by score,

² The n in this column is greater than 130 (sample size) due to the fact that some respondents had multiple anchors sharing the highest score.

and t-test results. It should be noted that the total sample results reported in Table 4.2 represent a high proportion of Marines which was the dominant subgroup sample.

Out of the 130 respondents, 85 were affiliated with the Marine Corps. This is attributable to the fact that one of the Marine Corps students taking the survey forwarded the survey website to the secretary for the Marine Corps students at NPS who sent out a mass electronic mail message. The demographics of this sample were as follows: 49 lieutenants, 33 captains, and 3 lieutenant colonels; 3 Asians, 4 Blacks, 4 Hispanics, and 74 Caucasians; 6 females and 79 males; 1 member with 0-4 years of service, 45 members with 5-11 years of service, and 39 members with 12 or more years of service; 40 members with operations type occupations and 45 members with support type occupations.

2. Navy

The service with the next highest representation in this sample was the Navy, with 34 respondents, which made up 26% of the sample. The demographics of this sample were as follows: 22 lieutenants, 5 captains, and 7 lieutenant commanders; 2 Asians, 3 Blacks, 3 Hispanics, and 26 Caucasians; 5 females and 29 males; 2 member with 0-4 years of service, 21 members with 5-11 years of service, and 11 members with 12 or more years of service; 13 members with operations type occupations and 21 members with support type operations.

3. Inter-Service and Intra-Service Comparison

Comparing the mean anchor ratings between the Marine Corps and Navy respondents shows that the Marine Corps respondents approached being significantly higher on the challenge ($t=-1.75$; $d.f.= 117$; $p\leq.10$) and ideology ($t=-1.95$; $d.f.= 117$;

$p \leq .10$) anchors than the Navy respondents. For all other anchors, the mean ratings are statistically equivalent.

For the Marine Corps sample, confidence intervals show three sub-groups of anchors. Respondents scored higher on the warrior, managerial, security, creativity, and ideology scales; lower on the identity, challenge, and autonomy anchors; and lowest on the technical scale. For the Navy, three sub-groups emerge based on confidence intervals. Respondents scored higher on the ideology, security, warrior, creativity, autonomy, identity and managerial scales; lower on the challenge scale; and lowest on the technical scale.

Scale	Overall Scale Mean (n=130)	t-Test Significance (d.f. = 117)	Marine Corps Scale Mean (n=85)	Marine Corps by Anchor n(%) (n=150)	Navy Scale Mean (n=34)	Navy by Anchor n(%) (n=44)
Technical	2.95	N.S.	2.89	1 (0.7%)	3.02	1 (2.3%)
Identity	4.06	N.S.	3.98	13 (8.7%)	4.18	5 (11.4%)
Challenge	4.08	p≤.10	4.14	8 (5.3%)	3.81	1 (2.3%)
Autonomy	4.11	N.S.	4.04	11 (7.3%)	4.26	2 (4.5%)
Creativity	4.30	N.S.	4.33	19 (12.7%)	4.27	9 (20.5%)
Warrior	4.46	N.S.	4.53	21 (14%)	4.28	5 (11.4%)
Security	4.47	N.S.	4.37	18 (12%)	4.55	11 (25%)
Managerial	4.55	N.S.	4.54	27 (18%)	4.54	4 (9.1%)
Ideology	4.60	p≤.10	4.68	32 (21.3%)	4.32	6 (13.6%)
Willingness to Leave	2.33	p≤.05	2.21		2.68	
Career Satisfaction	4.96	p≤.10	5.07		4.73	

Table 4.2

Means for Career Anchors and the Willingness to Leave and Career Satisfaction Scales by Service Affiliation

C. MEANS BY YEARS OF SERVICE PROFILE

1. Method

To decide how to group years of service, several officers from NPS were interviewed on what they felt were significant year marks in the careers of military officers. This resulted in the clarification by three major groups: 0-4 years (Phase I), 5-11 years (Phase II), and 12 years or more (Phase III).

Phase I correlates with Schein's "early career." Schein postulated that the early career covered the period from one to five years on a job (Schein, 1978). This is a period of mutual study and discovery between the organization and the employee. During this early career stage the individual's needs, values, attitudes, motives, and abilities develop and align with a certain theme. Phase I is the time in an officer's career when he or she decides whether the military is a career they wish to pursue. This is the initial enlistment period, during which an officer learns the requirements to succeed in Phase II. Promotion rates out of Phase I are about 95%, so if an officer decides to pursue a military career beyond the initial enlistment, the opportunity will most likely be available.

Once in Phase II, the officer has made a second commitment to the service and has had to extend his or her initial commission. Phase II matches Schein's "mid-career" stage. The mid-career is between the fifth and tenth year of employment, during which time the individual gains a clearer occupational self-concept (Schein, 1978). At this stage in an individual's career, a more consistent career anchor pattern emerges. This is still a time of discovery and exploration when pursuing several different career options could still lead to satisfaction. However, this stage is different from Phase I because the individual has developed a greater understanding of which opportunities would be fulfilling to him or her. By this phase, the officer has a great deal of responsibility in terms of equipment, manpower, or programs. By the end of Phase II the officer has solidified, at least in the mind of the military management, if not in his or her own mind, whether he or she has the potential to move up the ranks.

In Phase III, officers are either nearing the end of their careers or have decided to try and make it to the flag officer level. Officers at this level normally have established a

firm career anchor. These officers have been in long enough that they are vested in their military retirement and benefits.

Using this classification system, there were 72 respondents who fit into the Phase II category and 55 respondents who fit into the Phase III category. Only 3 respondents fit into the Phase I category, so those responses were not analyzed due to the small sample size. Results for respondents in Phase II and Phase III are presented in Table 4.3.

2. Phase II

Phase II respondents represent 55% of the survey respondents. The demographics of this sample were as follows: 19 lieutenants, 30 captains, 1 lieutenant commander, and 22 majors; 3 Asians, 2 Blacks, 5 Hispanics, and 62 Caucasians; 6 females and 66 males; 6 army members, 1 air force member, 44 navy members, and 21 marine corps members; 30 members with operations type occupations and 42 members with support type operations. Table 4.3 lists the means of the total group and of the Phase II respondents.

3. Phase III

Phase III respondents represent 42% of the survey respondents. The demographics of this sample were as follows: 2 lieutenants, 8 captains, 6 lieutenant commanders, 36 majors and 3 lieutenant colonels; 1 Asians, 4 Blacks, 3 Hispanics, and 47 Caucasians; 4 females and 51 males; 3 army members, 1 air force member, 11 navy members, and 40 marine corps members; 25 members with operations type occupations and 30 members with support type operations. Table 4.3 lists the means of the total group and of the Phase III respondents.

4. Inter-Phase and Intra-Phase Comparison

Comparing mean anchor ratings of the Phase II respondents to the Phase III population shows that Phase II respondents associated significantly more with the identity anchor ($t=2.24$; $d.f.= 125$; $p\leq.05$) than Phase III respondents.

For the Phase II population, three sub-groups of anchors emerge based on confidence intervals. Respondents scored higher on the warrior, security, managerial, and ideology scales; lower on the autonomy, identity, challenge and creativity scales; and lowest on the technical scale. Based on confidence intervals, three sub-groups emerge for the Phase III population. Respondents scored higher on the warrior, security, managerial, ideology and creativity scales; lower on the identity, autonomy and challenge scales; lowest on the technical scale.

Scale	Overall Scale Mean (n=130)	t-Test Significance (d.f.=125)	Phase II Scale Mean (5-11 years) (n=72)	Phase II by Anchor n(%) (n=125)	Phase III Scale Mean (> 12 years) (n=55)	Phase III by Anchor n(%) (n=83)
Technical	2.95	N.S.	2.98	1 (0.8%)	2.92	1 (1.2%)
Identity	4.06	p≤.05	4.23	14 (11.2%)	3.84	5 (6%)
Challenge	4.08	N.S.	4.08	6 (4.8%)	4.08	4 (4.8%)
Autonomy	4.11	N.S.	4.07	5 (4%)	4.13	8 (9.6%)
Creativity	4.30	N.S.	4.20	14 (11.2%)	4.42	15 (18.1%)
Warrior	4.46	N.S.	4.51	18 (14.4%)	4.44	11 (13.3%)
Security	4.47	N.S.	4.51	21 (16.8%)	4.44	12 (14.5%)
Managerial	4.55	N.S.	4.57	20 (16%)	4.51	13 (15.7%)
Ideology	4.60	N.S.	4.59	26 (20.8%)	4.62	14 (16.9%)
Willingness to Leave	2.33	N.S.	2.32		2.34	
Career Satisfaction	4.96	N.S.	4.98		4.95	

Table 4.3

Means for Career Anchors and the Willingness to Leave and Career Satisfaction Scales by Years of Service

D. MEANS BY OCCUPATIONAL TYPE PROFILE

1. Method

When asked the question, “What is your occupation?”, respondents replied with over 100 different answers. These were not the results that were expected. To decide how to group these occupations, each of the occupations was put on an index card. The stack of index cards was given to several officers from NPS who were then asked to sort

the occupations into “logical” groups. This sorting exercise resulted in two groups, called operations occupational types and support occupational types.

Operations occupations are the jobs that require people to be on the front-line. Some occupations that were placed in this category include pilots, artillery officers, special operations officers, and infantry officers. Support occupations are those jobs that provide support in various forms to the front-line operations occupations. These people are essential to the mission and ensure that the operations group has everything they need to be successful. Some occupations that were sorted into this category include financial managers, health care administrators, logistics officers, and supply officers.

2. Operations

There were a total of 60 respondents who were associated with the operations occupational type. This group represents 46% of the survey respondents. The demographics of this sample were as follows: 10 lieutenants, 12 captains, 3 lieutenant commanders, 34 majors and 1 lieutenant colonel; 2 Asians, 0 Blacks, 4 Hispanics, and 54 Caucasians; 0 females and 60 males; 6 army members, 1 air force member, 15 navy members, and 38 marine corps members; 1 member with 1-4 years of service, 32 members with 5-11 years of service, and 27 members with 12 or more years of service. Table 4.4 lists the means of the total group and of the operations respondents.

3. Support

There were a total of 70 respondents who were associated with the support occupational type. This group represents 54% of the survey respondents. The demographics of this sample were as follows: 12 lieutenants, 27 captains, 4 lieutenant commanders, 25 majors and 2 lieutenant colonels; 3 Asians, 7 Blacks, 3 Hispanics, and 57 Caucasians; 11 females and 59 males; 3 army members, 1 air force member, 47 navy

members, and 19 marine corps members; 2 member with 1-4 years of service, 40 members with 5-11 years of service, and 28 members with 12 or more years of service.

Table 4.4 lists the means of the total group and of the support respondents.

4. Inter-Occupation and Intra-Occupation Comparison

Comparing the mean anchor ratings of operations and support respondents shows that the operations respondents are significantly higher (or approach significance) for the challenge ($t=3.09$; $d.f.= 128$; $p\leq.01$), warrior ($t=3.03$; $d.f.= 128$; $p\leq.01$) and managerial ($t=1.92$; $d.f.= 128$; $p\leq.10$) anchors as compared with support respondents.

For the operations population, the confidence intervals show three sub-groups. Respondents scored higher on the warrior, managerial, and ideology scales; lower on the identity, creativity, security, autonomy, and challenge scales; and lowest on the technical scale. For the support population, confidence intervals show three sub-groups. Respondents scored higher on the security, managerial and ideology scales; lower on the autonomy, challenge, identity, creativity and warrior scales; and lowest on the technical scale.

5. Relationship Between Career Anchors and Willingness to Leave and Career Satisfaction

As would be expected, there is a significant negative correlation between the willingness to leave variable and the career satisfaction variable. The relationship shows that as career satisfaction decreases, willingness to leave increases. Pearson's correlation coefficient was also run between the career anchor scores and the willingness to leave and career satisfaction scores (see Table 3.12). These scores were analyzed using $p < 0.10$. Using this criteria, there were three anchors that had significant relationships with one or both of the dependent variables: security/willingness to leave; security/career

satisfaction; managerial/career satisfaction; challenge/willingness to leave; and challenge/career satisfaction. The implication of these findings on military retention will be discussed in the following chapter.

Scale	Overall Scale Mean (n=130)	t-Test Significance (*)	Operations Scale Mean (n=60)	Operations by Anchor n(%) (n=110)	Support Scale Mean (n=70)	Support by Anchor n(%) (n=102)
Technical	2.95	N.S.	2.88	1 (0.9%)	3.00	1 (1.0%)
Identity	4.06	N.S.	4.13	13 (11.8%)	4.00	8 (7.8%)
Challenge	4.08	p≤.01	4.23	8 (7.3%)	3.94	2 (2.0%)
Autonomy	4.11	N.S.	4.09	7 (6.4%)	4.12	6 (5.9%)
Creativity	4.30	N.S.	4.31	11 (10.0%)	4.29	19 (18.6%)
Warrior	4.46	p≤.01	4.69	20 (18.2%)	4.27	9 (8.8%)
Security	4.47	N.S.	4.41	10 (9.1%)	4.52	22 (21.6%)
Managerial	4.55	p≤.10	4.66	21 (19.1%)	4.46	13 (12.7%)
Ideology	4.60	N.S.	4.58	19 (17.3%)	4.61	22 (21.6%)
Willingness to Leave	2.33	N.S.	2.44		2.23	
Career Satisfaction	4.96	N.S.	5.02		4.91	

Table 4.4
Means for Career Anchors and the Willingness to Leave and Career Satisfaction Scales by Occupational Type

6. Summary

This research used t-tests to test for differences between the means. In conducting 44 t-tests at the .10 level, we would expect to have four (or five) significant results due to chance. The t-test results for the inter-service comparison showed that there were only two anchors with significant differences in the mean; the t-test results for the years of

service comparison showed that there was only one anchor with a significant difference in the mean; the t-test results for the occupational type comparison showed that there were only three anchors with significant differences in the mean. Therefore, we should continue to regard these results as exploratory and in need of replication. The logic of including results that approached significance (i.e., $p < .10$) is that a small number of items are used in each scale, and error variance is therefore higher than it might be with a future scale using more (and more iteratively developed) items. Thus the .10 level increases the probability of a Type I error (i.e., claiming that there is a difference between means where none exists) but decreases the probability of a Type II error (i.e., failing to detect a true difference).

The t-test results show that the Marine Corps respondents approached being significantly higher on the challenge ($t = -1.75$; $d.f. = 117$; $p \leq .10$) and ideology ($t = -1.95$; $d.f. = 117$; $p \leq .10$) anchors than the Navy respondents. This supports the idea that the Marine Corps and the Navy are attracting different types of people in their recruiting and retention efforts. Between the Phase II and Phase III sub-groups, t-test results show that Phase II respondents associated significantly more with the identity anchor ($t = 2.24$; $d.f. = 125$; $p \leq .05$) than Phase III respondents. This finding supports the idea that the younger members are still determining their true career anchors and may need the safety of an organization to help them. Lastly, comparing the t-test results between the operations sub-groups shows that the operations respondents are significantly higher than support respondents on the challenge ($t = 3.09$; $d.f. = 128$; $p \leq .01$) and warrior ($t = 3.03$; $d.f. = 128$; $p \leq .01$) scale and approached being significantly higher on the managerial ($t = 1.92$; $d.f. =$

128; $p \leq .10$) scale. These results support the hypothesis that challenge and warrior types would be drawn to operations type occupations.

The confidence interval results show that there is no clear delineation between each of the nine anchors within any of the subgroups. All nine of the anchors can be grouped into three sub-groups. Future scales may better capture the different ideas within each anchor concept.

THIS PAGE INTENTIONALLY LEFT BLANK

V. DISCUSSION AND CONCLUSION

The goal of this thesis is to answer two research questions. Do career anchors and profiles of career anchors differ between services, occupational types, and years of service (or career stage) in the military? What benefits to recruiting and retention offices might result from knowing the career anchors of students at NPS? In this chapter, the implications of the results are discussed as they pertain to these two questions. The research findings of this study also are compared to Derr's findings at the Naval Postgraduate School. Lastly, the constraints on the current study are discussed and suggestions for future research are offered.

A. DIFFERENCES IN CAREER ANCHOR PROFILES WITHIN THE CURRENT SAMPLE AND IMPLICATIONS FOR THE MILITARY

The general career anchor profile for officers was generally consistent across sub-groups, with a couple of exceptions. These differences are discussed below along with their implications for the military. Differences between the service sub-groups are important because attracting and retaining different types of people are key recruiting and retention service goals. To increase the effectiveness of advertising and marketing efforts, the services are trying to establish themselves as distinct brands so they appeal to different population segments.

The discussion below highlights the differences that were identified within the profiles. These differences suggest that the services could narrow in on their prospects by better understanding the issues that are captured by the anchor that differentiates one sub-group from another. The services then can work on promoting those issues and values that are associated with a specific anchor. In terms of retention efforts, the services not only are competing with each other but with the private sector. Information

on the specific values that motivate military officers can help the services to create jobs and opportunities that will satisfy officers within a specific service.

1. Service Affiliations

There was a significant difference between the means of Marine Corps officers and Navy officers on the challenge and ideology scales. Marine Corps officers scored higher on both scales. This fits with the “physically and mentally elite” image of the Marine Corps. This suggests that these Marine Corps officers are driven to do something meaningful in their work that is part of a larger context. They seek challenges and to have everything in life be about overcoming the impossible – including the job.

The Marine Corps motto is, “The few. The proud.” This encompasses both the ideology scale and the challenge scale in four words. The Marine Corps prides itself on being the most rigorous service: one must earn the title of “Marine.” On their recruiting website it states, “Once you’ve walked through fire and survived, little else can burn.” (<http://www.Marines.com>) The Marine Corps compares itself to a crucible. Only the strongest individuals will remain to become Marines after the dross is burnt away. Rather than downplaying the challenges of basic training, the Marine Corps emphasizes the challenge and the toughness needed to make it through. The Marine Corps challenges individuals to overcome difficult obstacles.

The Marine Corps also embraces the needs of those with a strong ideology anchor. Their recruiting website states, “Unhappiness does not arise from the way things are. But rather from a difference in the way things are and the way we believe they should be.” As an organization, one of their goals is to produce service members who possess the inner strength to do what is right. The Marine Corps sells itself to those who

want to be part of an elite organization that must perform under any circumstances, physically and morally.

In contrast, the Navy motto – “Accelerate your life” – welcomes everyone with open arms. The Navy does not portray itself as a service for the physically or morally elite, but rather as a service for the masses. The Navy emphasizes getting ahead in life, and it offers the opportunity to do so to anyone who is interested. Their recruiting website (<http://www.navyjobs.com>) prominently features messages focused on careers in the Navy and higher education opportunities, which are available through the Montgomery G.I. Bill and the Navy College Fund. The website name alone shows that the Navy as a service is more interested in selling itself as a counterpart to the private sector, civilian world. The focus of the Navy recruiting campaign can be seen in their advertising banners that sell the travel, excitement, and educational benefits the Navy offers. Whereas joining the Marine Corps seems like hard, grueling work, the Navy appears fun and similar to civilian life.

There obviously are many benefits to joining any of the services in today’s military. All offer benefits such as health benefits, college funds, job security, and technical training. To attract new recruits, the challenge for the services is to identify other benefits that truly differ from the other services. From the recruiting websites alone it is obvious that the Marine Corps and the Navy are pursuing different populations. The values and attitudes they emphasize in their recruiting and retention campaigns are meant to attract different types of individuals. By understanding the career profiles of the current members, career anchor theory can help refine the values and motives that are

being focused on to better appeal to the needs of the individuals attracted to each of the services.

2. Years of Service

There was a significant difference between Phase II officers (members who have served 5 – 11 years) and Phase III officers (members who have served 12 or more years) within the identity anchor. Individuals who associate highly with the identity anchor are most concerned with feeling part of a group or club in their work. These individuals' primary need is a feeling of affiliation and esprit de corps.

It is not surprising to find a high affinity to this anchor in military members with fewer years of service. In the beginning stages of a military career, it is desirable to identify with their military organization. To become a valued member of the military, it is necessary to become indoctrinated in the military lifestyle. During basic training the individual works, lives, and plays with other members of the military. The time is seen as one in which the individual is broken down and rebuilt as part of a team. Not only does the military have an environment that would be a good match for individuals with an identity anchor, but Phase II individuals also have not been in the military as long as Phase III members. Members may have a stronger affinity for the identity anchor in the first phase of their career development cycle as they test themselves and their employers, and they later may branch out and delve more into their subsidiary anchors as their identity needs are met.

An individual who does not have a high affiliation with the identity anchor would have a hard time in this type of environment, which, to some degree, suppresses individuality. These individuals may become depressed, angry, or resentful of the

environment and the organization. However, Phase III respondents had a lower association with the values captured by the identity anchor, which would seem to suggest that they would not be the ideal military members. In actuality, this may not be the case, and this finding may highlight a trend in promotion patterns. Although a high association with the identity anchor would be good in lower ranking personnel, moving into senior leadership in the military may require different qualities and characteristics. It might not be as beneficial for senior leaders to have as high of an affiliation with the identity anchor. Senior leaders are no longer part of the same group as lower ranking members. They are the leaders, and they need to lead, not follow. They cannot make decisions based on what would make them most appear to fit in; they must act according to the bigger picture.

In studying the years of service sub-groups, the goal was to determine what difference, if any, existed between Phase II and Phase III officers. The results may be due to the fact that promotion patterns favor officers that associate less with the need for a feeling of acceptance and affiliation.

3. Occupational Type

The operations occupational type officers scored higher than the support occupational type officers on the warrior, challenge, and managerial anchors. This is the type of profile that would be expected from officers of the operations group. All the generalizations that one would associate with occupations such as surface warfare and special operations are captured by the warrior, challenge, and managerial anchors. The warrior anchor identifies those individuals who need high adventure – even life-and-death adventure. The challenge anchor expresses the need to overcome the impossible.

The managerial anchor attracts individuals who choose to focus on developing analytical competence, interpersonal competence, and emotional competence. Being on the front-line, in the middle of all the action typifies the needs and motivations that were being captured by the items in the warrior scale. These individuals need to be kept in these operations-type occupations to keep them satisfied and productive.

The profile of the average support respondent shows him or her associating significantly less with the warrior career anchor, challenge anchor, and managerial anchor. This profile would be expected from members of the support group. They are behind-the-scenes performers who are integral to the mission but not physically involved themselves. They firmly believe in the cause of the organization, but they do not need to be the implementers or enforcers for the organization.

This finding highlights the military's career placement and career management strategy – or lack thereof. It would be interesting to try and determine whether respondents had a “support” or “operations” profile before they were placed in their current job, or if they developed the “support” or “operations” profile while they were in the current job. From off-line conversations with officers, it seems that there is no real method to career placement. This is one area where investing some resources might have a payoff in terms of retention. Understanding the evolution of an individual's career anchor can help guide their assignments as they progress through the ranks.

4. Implications for the Military

Officer retention has been decreasing. Anecdotal reports to DoD officials suggest that military officers are leaving the military in record numbers. Although a strong economy has been one of the culprits, data from exit interviews show a growing

disenchantment with military life. (<http://www.defenselink.mil/specials/recruiting/>) To combat this decline in continuation rates, the military services must examine other incentives and tools to retain members. Although Congress has recently completed specific legislative work and the Department of Defense has implemented policy changes to help retention, there is still more that can be done. The services need to be more creative about how to recruit and retain members and think beyond monetary bonuses and pay raises.

Based on the results of the data analysis from Chapter IV, there is a significant correlation among an individuals' association with the security, managerial, and challenge anchors and their current career satisfaction within the military and their willingness to leave the military (see Table). Because these three anchors were also among those most frequently chosen by the military participants in this study, this has implications to retention. Specifically, these three anchors suggest the characteristics of a career environment that will appeal to many in the military, and thus could have a positive impact on retention: a sense of job security and stability; an environment that requires and encourages development of analytical, interpersonal, and emotional competence; and an environment full of challenges. This strategy would emphasize working on intrinsic motivation rather than extrinsic motivation, and managing an individual's career to place them in an environment that best suits their strengths, interests and abilities.

Evidence suggests that the military has underutilized career management (Barth, 1993). As early as late mid-career (Phase II, 5-11 years of service) and through the late career (Phase III, 12 or more years of service) the individual will establish a career

anchor. Proper career management, beginning early and continuing throughout the entire career of military members, could help dramatically in recruitment and retention rates. Once the individual recognizes their career anchor, there may be several reactions. The military can either stand aside and let the individual deal with the situation on their own, or they can be proactive.

A negative reaction is to experience a crisis due to the realization that there is not a good fit between the current occupation and the newly discovered anchor. This may cause the individual to resign their commission and switch careers. This causes the military to simply lose good officers. Other officers may respond by hitting a plateau in their career. They may no longer have the motivation to achieve more because they cannot match their anchor with their work. Although these officers may stay within the military, a great amount of their potential is being untapped. Another possible response is for the officer to withdraw psychologically. Since part of their needs is not being fulfilled any longer by the service, they may psychologically withdraw from their jobs and find satisfaction in outside organizations or activities. Again, with these officers although the services are retaining the actual bodies, they are not valuable assets to the military.

A positive reaction to identification of a career anchor occurs when the individual uses the information to manage their career and make contributions to the service. To be proactive and encourage this type of response, the military services could help identify their career anchor, and then actively co-manage the career of the individual – placing them in positions in which their needs, values, and abilities are matched up with an occupation that is fulfilling for them.

To foster an environment that encourages career management, the military can help individuals hone the personal skills needed to apply career anchor theory. There are three skills the individual must become proficient in. The first skill is personal insight. The individual needs to understand what their talents, skills, needs, and motivations are. The second skill is to be able to communicate this insight to others. This communication can greatly aid a manager or employer in properly placing an employee. The last is the ability to diagnose an organization and its culture and the opportunities it will be able to afford the individual.

Not only does the military need to foster these skills within the individual member, the military as an organization also needs to develop a similar set of skills. The first being self-insight – knowing what jobs need to be filled and what the short-run and long run needs of those jobs are. The second skill is communication. To best communicate what can be expected out of a certain occupation, it is a good idea to bring in the manager of a specific area who can speak directly to the daily characteristics of the occupation. The third skill is to have the ability to match individuals with jobs that will satisfy and motivate them.

B. SIMILARITIES AND DIFFERENCES WITHIN THE CURRENT SAMPLE AND DERR'S SAMPLE

While comparing and contrasting the findings from the current research to Derr's research of the late 70's, we must keep in mind the differences in methodology and demographics. The current study was based on a questionnaire, while Derr's methodology included questionnaires and interviews. Another major difference is the generational profile of the two sample populations. The current 2001 sample drew from a cohort that was generationally quite distinct from Derr's 1979 cohort.

Within the current study, the managerial anchor was in the most important group for all the sub-groups. Derr's research at NPS found the same to be true of U.S. Naval officers. Derr stated that this finding supported the folk wisdom that officers are first and foremost interested in command (Derr, 1979). This also seems to be pertinent to today's military. The current study also found that the security anchor was in the most important group for all the sub-groups but the operations type sub-group. Derr's sample also valued basic job security coupled with good retirement benefits (Derr, 1979). This seems to show that the military still attracts individuals who need job security.

A contrasting finding from the current study is regarding the technical anchor. The third highest preference within Derr's group was technical proficiency. Derr believed this was harmonious with the fact that the navy is seen as an organization with a highly technological culture (Derr, 1979). Respondents in the current study consistently ranked the technical anchor/profile as the least preferred of all the anchors. This may be attributable partly to the fact that the items that made up the technical scale measured more of a "specialist" role.

Analysis of the creativity and the autonomy scale results within the current study show that today's military is more aware of the needs and motives of its recruits than the military was during Derr's study. Derr's research found that several junior officers that had the potential to have creativity and autonomy anchors "almost always were planning to resign their commissions because they did not find the career possibilities compatible with their needs, values, interests, and abilities (Derr, 1979)." In the past this was attributed to the military's emphasis on chain of command, rules, and regulations. However, creativity and autonomy in the current study ranked in the moderate/middle

grouping of the nine anchors. This may indicate that the military has allowed more room for officers to be creative and autonomous within their jobs. Another indicator of the contrast between the current research and Derr's findings is the lack of correlation between these two anchors and the willingness to leave variable.

Through more than twenty years, it is interesting that some things, the managerial anchor and the security anchor, have not changed, while other areas, the technical, creativity, and autonomy anchors have. The military seems to be evolving and responding to the new needs of its members.

C. CONSTRAINTS OF THE CURRENT STUDY AND AREAS FOR FUTURE RESEARCH

The research undertaken in this thesis is exploratory, and not definitive. There were constraints on the data collection and the survey that limited the conclusions that could be drawn from this research. One of the main constraints on the data analysis was the small number of respondents. This can be attributed to two main constraints: advertisement and medium.

Largely due to time constraints, advertisement of the website was limited to approximately seven classes, and the announcement by the secretary for Marine Corps students. The secretarial announcement did the most to attract students to the website, which can be shown by the overwhelming number of respondents that were affiliated with the Marine Corps.

Another constraint was the medium of the web. The web was chosen over the traditional paper-and-pencil method for two main reasons: (1) students would have complete anonymity when taking the survey, and (2) students would not feel pressured to take the survey or feel that their participation was monitored, required, or endorsed by the

class. However, having the survey on-line took away some of the respondents who would have taken the survey had it been passed out in paper to them. Students were required to take the initiative to go to a computer that had a connection to the intranet and remember the website address of the survey.

The actual survey itself fell under three main constraints: the population the items were originally created for, the self-imposed requirement to keep the survey short, and the loss of the clinical interview that had been present in Schein and Derr's work. The items from the survey, although similar to those asked by Schein, were not specifically tailored to the military population. The survey used was an abbreviated model of another survey. Due to the desire to keep the survey within 15-20 minutes, it was decided that students would be able to read and respond to the items at a rate of two items per minute. Hence, instead of using all the items associated with a scale, the three to four items with the highest predicted validity were chosen to represent the scale. This technique left an instrument that does not contain enough items to definitively determine a career anchor profile. (It did, however, contain enough items to demonstrate the promise, in both theoretical and practical terms, of further research and development.)

Another constraint due to time and manpower was the loss of the clinical interview. Many of Schein's and Derr's observations about the career anchors of individuals arose more out of the individual interviews than the survey. Derr stated in his 1979 research that "the interviews are more accurate measures than the questionnaires" (Derr, 1979). This was attributed to the fact that individuals were more likely to describe their values, attitudes, needs, and abilities associated with work in a conversation where some interpersonal trust has been established (Alderfer, 1968).

The constraints discussed in this section can all be improved upon for future research efforts. A larger respondent population would be desirable for future studies. Also, within this study, a self-imposed questionnaire item constraint limited the number of items that were used. The results of this study show that more items are needed to clearly define an individual's career anchor. Chapter III gives suggestions for future enhancements of the items. Along with the addition and enhancement of items in the questionnaire, a personal interview can provide information about the individual's career anchor that is not captured on paper.

D. CONCLUSION

Traditional recruitment and retention policies worked for the military up until the mid-1990s. Now, traditional policies are no longer enough to meet the goals of the services. To stay competitive with the civilian labor market and the civilian post-secondary educational establishments, the military must focus on non-traditional policies. The military needs to take into account all aspects of an individual's life (self-development, career development, and family development) and how these areas interact with their career. It is important to understand that a large part of the success of the military depends on how well the needs of its members are understood.

The psychological contract between an employer and an employee has changed over the last century. The old contract used to be based on the assumption that a hard worker would expect lifetime employment from the same employer. These days, employees no longer value job security above all other motivating factors. This change in the psychological contract between employees and an organization requires the

military services to offer individuals what they need and want in order to recruit, develop, and retain a strong force.

The purpose of this thesis is to provide material that will spark interest for future inquiry into the impact career anchor theory can have on the military services, by nurturing a relationship that is beneficial to both the individual and the service. This relationship can be guided by using career anchors as a starting point in establishing the talents of the individual and where they can best serve the organization. Are the career anchors discussed in this thesis sufficient to cover all types of employees? Maybe and maybe not. A single anchor is unlikely to capture all the concerns an individual takes into consideration when making decisions about their career, but the current array of anchors appear to have promise based on this exploratory research.

Identifying and understanding an individual's career anchor would seem beneficial both for the individual and the organization. For the individual, the self-knowledge that comes with identifying the career anchor helps him or her navigate through the working world into a relationship that is mutually beneficial with the organization. It helps identify possible long-term contributions to an organization, personal motives and needs when making career choices, what personal success means, and how to organize life and work experiences. For the organization, understanding the career anchor helps to insure that the highest productivity will be achieved if time and energy is put into matching organizational needs with individual interests. Organizations must be prepared to offer different career options to individuals, or to face the possibility of losing them.

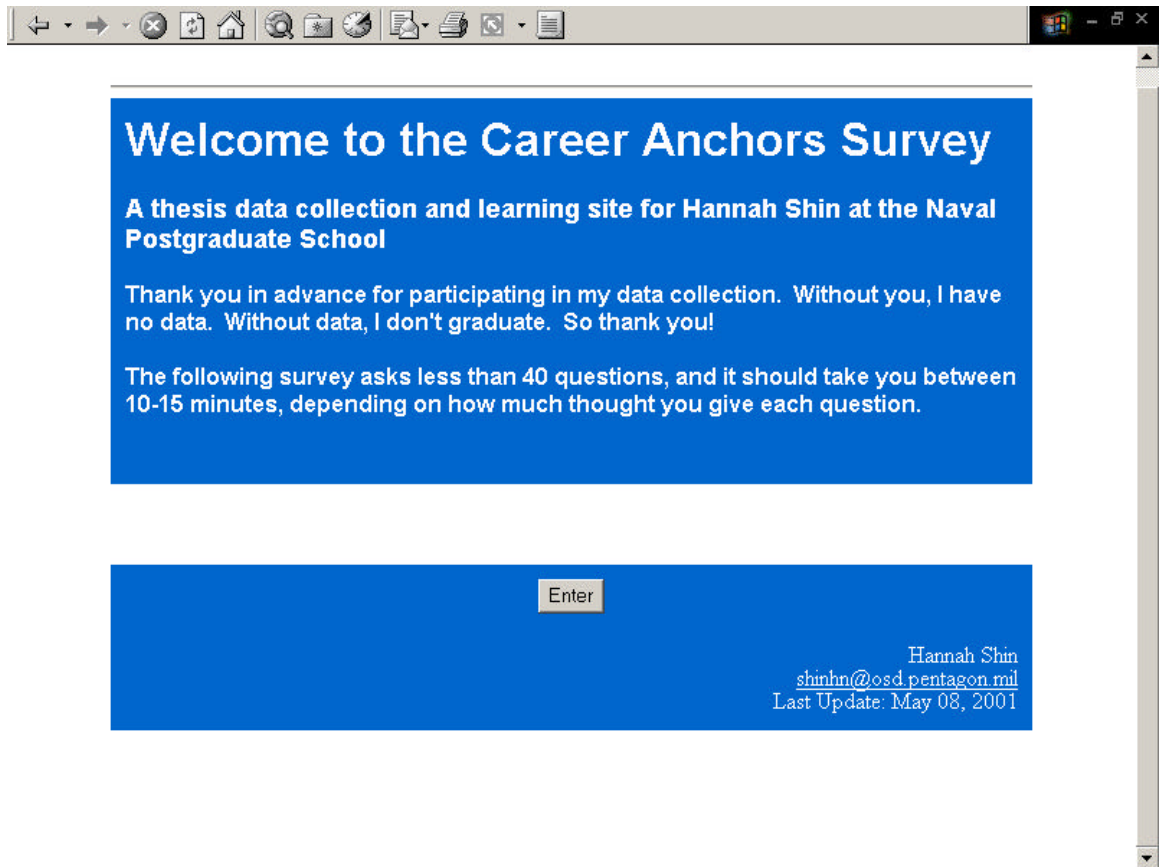
APPENDIX A. SURVEY ITEMS BY CAREER ANCHOR

Career Anchor/Measure	Survey Item
TECHNICAL ANCHOR	I would resist accepting work outside my area of specialization.
TECHNICAL ANCHOR	I would change employment rather than leave my area of expertise.
TECHNICAL ANCHOR	I strongly prefer to work in a technical, specialist position.
TECHNICAL ANCHOR	My greatest strength is my expertise in a specialized area.
SECURITY ANCHOR	It is extremely important for me to work for an organization that provides me with a sense of belonging.
SECURITY ANCHOR	It is extremely important for me to work for an organization that provides me with long range stability.
SECURITY ANCHOR	It is extremely important for me to have a secure position.
SECURITY ANCHOR	I strongly prefer a career with an organization that offers the security of lifetime employment.
AUTONOMY ANCHOR	In my work, my major concern is to have a strong sense of freedom and autonomy.
AUTONOMY ANCHOR	I like to work free from supervision.
AUTONOMY ANCHOR	It is extremely important for me to work in a position where I am my own boss.
MANAGERIAL ANCHOR	It is extremely important for me to work at a level of responsibility where I can enlist the support of key people.
MANAGERIAL ANCHOR	It is extremely important for me to work at a level of responsibility where I can delegate to others.
MANAGERIAL ANCHOR	One of my greatest strengths is achieving results by organizing and motivating people.
ENTREPRENEURIAL ANCHOR	I want a career that allows me to develop new projects and programs.
ENTREPRENEURIAL ANCHOR	It is extremely important for me to use my creativity to

	pursue new projects, ventures, programs, or enterprises.
ENTREPRENEURIAL ANCHOR	One of my greatest strengths is creating and launching new projects, programs, and products.
WARRIOR ANCHOR	I strongly prefer a career with situations that are exciting and daring.
WARRIOR ANCHOR	I like to work in adventurous situations where I can test my limits.
WARRIOR ANCHOR	It is extremely important for me to work in positions where I can pursue missions few have tried before.
CHALLENGE ANCHOR	Competing and winning are the most important and exciting parts of my career.
CHALLENGE ANCHOR	I strongly prefer a career that provides competitive challenges.
CHALLENGE ANCHOR	I thrive on competition.
IDEOLOGY	I strongly prefer a career where I can use my knowledge and skills to advance an important cause.
IDEOLOGY	I prefer a job where I feel I am fulfilling my sense of social responsibility.
IDENTITY	It is extremely important for me to work in a well-regarded and highly respected organization.
IDENTITY	It is extremely important for me to work in a distinguished organization that is known community wide.
IDENTITY	I strongly prefer positions with organizations that have distinguished reputations.
WILLINGNESS TO LEAVE	I will probably look for a new civilian job within the next year.
WILLINGNESS TO LEAVE	I sometimes feel like leaving my employment for good.
WILLINGNESS TO LEAVE	I often think about resigning my commission.
CAREER SATISFACTION	I am basically satisfied with the career choices I have made.
CAREER SATISFACTION	I am satisfied with the nature of the work I perform in my career.
CAREER SATISFACTION	If I were choosing again, I would choose the same type of career.

© Erik Jansen & Gaylen Chandler, 1991, 2001

APPENDIX B. SURVEY WEBSITE SCREEN SHOTS





The following survey has been designed to identify your career anchor profile. The career anchor is significant because it influences career choices, affects decisions to move from one job to another, shapes what individuals are looking for in life and in their career, determines their views of the future, influences the selection of specific occupations and work settings, and affects their reactions to work experiences.

The theory of career anchors was developed by Edgar Schein at the Massachusetts Institute of Technology. The career anchor can be viewed as that concern or value which an individual will not give up when a career choice has to be made. Your career anchor is related to your self-concept and consists of:

1. Self-perceived talents and abilities
2. Self-perceived motives and needs
3. Self-perceived attitudes and values

Your responses to the survey will be aggregated across all respondents and analyzed to examine the following questions:

- What kinds of career anchors most characterize military officers at the Naval Postgraduate School?
- Is there a relationship between career anchors and military communities?
- Can knowledge of a member's career anchor help in the management of their career?

All participants are guaranteed strict confidentiality. Your responses will be used for research purposes only. If you wish to be notified of the results of your survey, please include your email in the demographics section. Your career anchor profile and a brief description of each of the career anchors will be emailed to you.

• Is there a relationship between career anchors and military communities?
• Can knowledge of a member's career anchor help in the management of their career?

All participants are guaranteed strict confidentiality. Your responses will be used for research purposes only. If you wish to be notified of the results of your survey, please include your email in the demographics section. Your career anchor profile and a brief description of each of the career anchors will be emailed to you.

APPROACH

In order to determine the relationship and effect of career anchors on military careers, I am capturing input from military personnel at the Naval Postgraduate School through this web-based survey.

Disclaimer: Please see disclaimers provided at <http://www.nps.navy.mil/inps/11Disclaimer.htm>

Hannah Shin
shinhn@osd.pentagon.mil
Last Update: May 8, 2001



Please select the button that best expresses your sentiments about each statement.

	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
1. I would resist accepting work outside my area of specialization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. One of my greatest strengths is creating and launching new projects, programs, and products.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. It is extremely important for me to work for an organization that provides me with long range stability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. It is extremely important for me to work in a position where I am my own boss.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. It is extremely important for me to work at a level of responsibility where I can delegate to others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
6. I like to work in adventurous situations where I can test my limits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I would change employment rather than leave my area of expertise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I thrive on competition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. It is extremely important for me to work at a level of responsibility where I can enlist the support of key people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. It is extremely important for me to have a secure position.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
11. It is extremely important for me to use my creativity to pursue new projects, ventures, programs, or enterprises.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I prefer a job where I feel I am fulfilling my sense of social responsibility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
13. Competing and winning are the most important and exciting parts of my career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. In my work, my major concern is to have a strong sense of freedom and autonomy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I will probably look for a new civilian job within the next year.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. It is extremely important for me to work in a distinguished organization that is known community wide.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I sometimes feel like leaving my employment for good.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I strongly prefer a career with situations that are exciting and daring.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I like to work free from supervision.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I strongly prefer to work in a technical, specialist position.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
21. It is extremely important for me to work in a well regarded and highly respected organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. I strongly prefer a career with an organization that offers the security of life-time employment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. I often think about resigning my commission.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I strongly prefer a career that provides competitive challenges.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. My greatest strength is my expertise in a specialized area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
26. I strongly prefer a career where I can use my knowledge and skills to advance an important cause.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. I want a career that allows me to develop new projects and programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
28. One of my greatest strengths is achieving results by organizing and motivating people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. It is extremely important for me to work for an organization that provides me with a sense of belonging.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. It is extremely important for me to work in positions where I can pursue missions few have tried before.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. I strongly prefer positions with organizations that have distinguished reputations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career Satisfaction						
32. I am basically satisfied with the career choices I have made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. I am satisfied with the nature of the work I perform in my career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. If I were choosing again, I would choose the same type of career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Please fill out the following demographic information.

Rank	<input type="text"/>
Community	<input type="text"/>
Occupation	<input type="text"/>
Service	<input type="text"/>
Race/Ethnicity	<input type="text"/>
Gender	<input type="text"/>
Years in the Military	<input type="text"/>
Email (optional - include if you want personal feedback)	<input type="text"/>

Gender

Years in the Military

Email (optional - include if you want personal feedback)

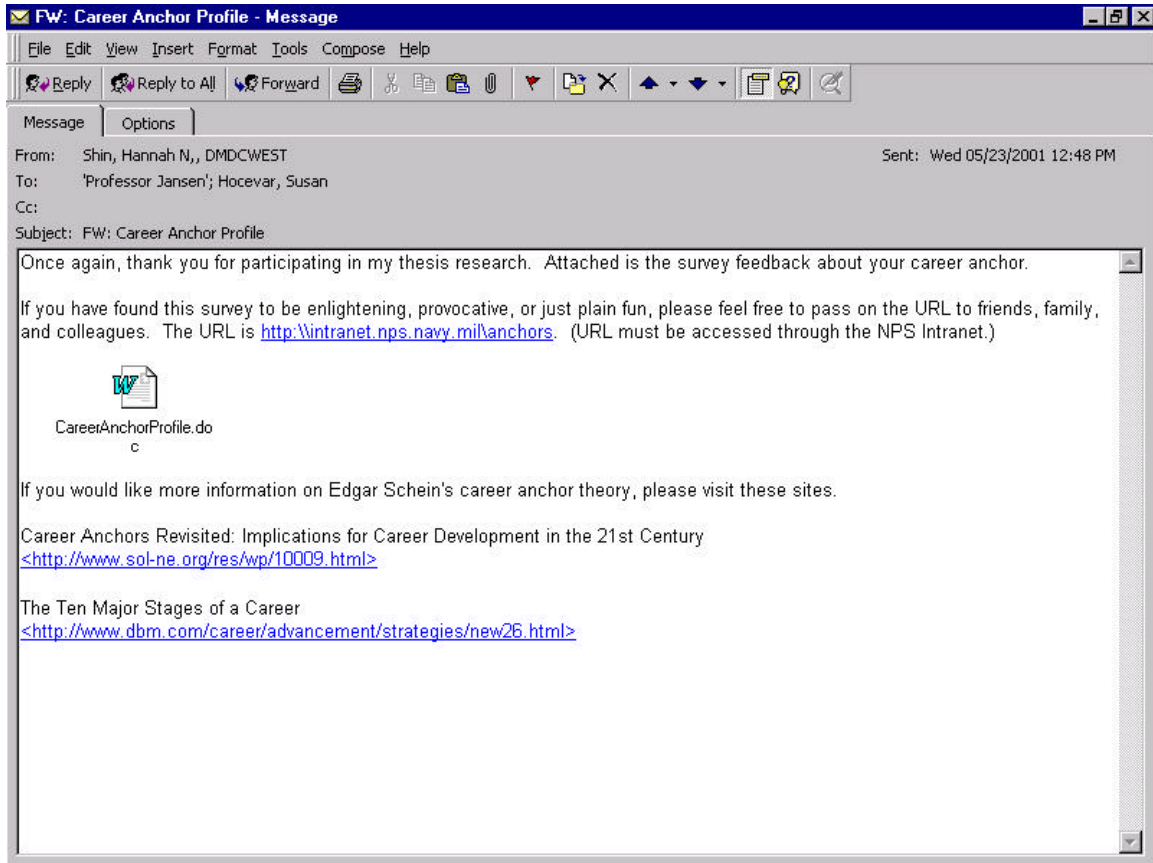
This study will be completed within the month of June. Your cooperation and candidness of response is appreciated. Please send any feedback to shinhn@osd.pentagon.mil.

[Home](#) [Submit Answers](#)

© Erik Jansen & Gaylen Chandler, 1991, 2001

Hannah Shin
shinhn@osd.pentagon.mil
Last Update: May 8, 2001

APPENDIX C. SURVEY FEEDBACK



Text contained within the Career Anchor Profile .doc attachment:

Thank you for completing the survey. Following is your career anchor profile. Each anchor was rated on a scale from 1 – 6, from lowest degree of individual association to highest degree of individual association. The results are meant to stimulate interest and reflection on your personal career anchor and the issues most important to you; they are not meant to be definitive in identifying your career anchor.

Your Career Anchor Profile

Technical	1.75
Security	4.50
Autonomy	4.00
Managerial	5.00
Warrior	5.00
Challenge	1.33

Entrepreneur	4.67
Ideology	4.00

You have scored highest on the **managerial** and **warrior** anchors, meaning these are the anchors you associate most with, and lowest on the **challenge** anchor, meaning this is the anchor you associate the least with. Below are the descriptions of your highest and lowest rated anchors.

What is a career anchor?

The career anchor can be viewed as that concern or value which an individual will not give up when a choice has to be made. An individual's career anchor is made of your self-concept consisting of:

1. Self-perceived talents and abilities (based on actual successes in a variety of work settings);
2. Self-perceived motives and needs (based on opportunities for self-tests and self-diagnoses in real situations and on feedback from others);
3. Self-perceived attitudes and values (based on actual encounters between self and the norms and values of the employing organization and work setting).

Managerial anchor.

You are filled with a strong motivation to rise to positions of managerial responsibility. Technical or functional jobs are necessary interim stages on your way up the ladder. Your competencies lie in the following three areas:

6. Analytical competence: the ability to identify, analyze, and solve problems under conditions of incomplete information and uncertainty;
6. Interpersonal competence: the ability to influence, supervise, lead, manipulate, and control people at all levels of the organization toward the more effective achievement of organizational goals;
6. Emotional competence: the capacity to be stimulated by emotional and interpersonal crises rather than exhausted or debilitated by them, the capacity to bear high levels of responsibility without becoming paralyzed, and the ability to exercise power without guilt or shame.

You particularly enjoy the emotional aspect of your job – handling people and situations that are emotionally tough. You are realistic about life and willing to confront problems and do something about them. You are able to make tough decisions where no integrative solution is possible, where you are forced to choose “the lesser of two evils.”

Edgar Schein writes:

“The skills of general management, i.e. analytical, inter-personal, and emotional competence, will therefore be needed at lower and lower levels. Team

managers, project managers, and program managers will have to have general management and leadership skills above and beyond their technical understanding of the tasks at hand. General management, like leadership, may cease to be a role or a position, and become more of a process skill that will be needed in all kinds of roles and positions. From being a noun, it will become a verb, and the skills may come to be distributed among the members of a group or team rather than residing in a single individual. Everyone will be expected to become somewhat competent at management and leadership. The career occupant with a general management anchor will be forced to examine once again what he or she is really after--power, glory, responsibility, accomplishment of a task, the ability to build and manage a team, or various combinations of these.”

Warrior/adventure anchor.

You are a true adventurer; you seek out opportunities that will lead you into new and uncharted territory – whether it is in business areas, technological areas, or geographic areas.

Derr writes:

“In general, those possessing the warrior anchor need high adventure – even life-and-death adventure – as a basic psychological requirement. They demand lots of action. Sometimes warriors express this value by other attitudes and values; patriotism is the most frequent. The warrior’s values are simply: carrying out a dangerous mission with success somewhat dependent on his skill or talent. They usually fear being promoted beyond the action; they especially fear staff positions.

Warriors are willing and ready to engage in risky endeavors at a moment’s notice. Warriors also perceive themselves as technically outstanding and wish to test this superior training and skill in competition with others. They like to feel challenged and pushed, perhaps even strained, to test themselves and acquire a better competitive edge. Lastly, these particular career characters are physically fit. They pride themselves on feats of physical stamina.”

Challenge/competition anchor.

You are driven by an inner need to succeed. Challenge and competition only fuel you to further your efforts. You will give whatever it takes – working long hours to meet goals or deadlines. Projects that are seen as impossible attract you the most.

Edgar Schein writes:

“There has always been a small group who defined their career in terms of overcoming impossible odds, solving the unsolved problems, and winning out over one's competitors. It is my impression that this group is growing in number but it is not clear whether more people are entering the labor force with this predisposition or whether it is an adaptation to the growing challenges that the world is presenting to us. In any case, there will not be a shortage of challenges to be met, so long as this group is willing to become active learners as well since the nature of these challenges will itself evolve rapidly with technological change.”

LIST OF REFERENCES

1. Allen, R.F., and S. Silverweig. (1976). "Changing the Corporate Culture." *Sloan Management Review* (17): 33-49.
2. Althaus, S.L. (1989). "Beyond the Paycheck." *Personnel Administrator* 34 (August): 119-120.
3. Asch, B.J., and M.R. Kilburn, and J.A. Klerman. "Attracting College-Bound Youth Into the Military: Toward the Development of New Recruiting Policy Options." *MR-984-OSD*, 1999.
4. Barth, T. (1993). "Career Anchor Theory." *Review of Public Personnel Administration* (Fall).
5. Coovert, M. (1995). "Technological Changes in Office Jobs." *Changing Nature of Work*: 173-208. San Francisco: Jossey-Bass.
6. Deci, E. L. with R. Flaste. (1995) *Why we do what we do: the dynamics of personal autonomy*. New York: G.P. Putnam's Sons.
7. Derr. (1986). *Managing the New Careerists – The Diverse Career Success Orientations of Today's Workers*. Jossey-Bass.
8. Derr. (1979). *More on Career Anchor Concepts: The Case of U.S. Naval Officers*. Naval Postgraduate School.
9. Dougherty, E. (1990). "Career Satisfaction: Would You Do It Again?" *R & D* 32 (July):40-50.
10. Driver. (1979). *Behavioral Problems in Organizations: Career Concepts and Career Management in Organizations*. Cary L. Cooper, Editor.
11. Feldman, D.C. and M.C. Bolino. (2000). "Career Patterns of the Self-Employed: Career Motivations and Career Outcomes." *Journal of Small Business Management* (July 2000):53-67.
12. Hagevik, S. (2000). "Career Satisfaction and the Importance of Asking Questions." *Environmental Health* (April 2000).
13. Howard, A. (1995). "Technology and the Organization of Work." *Changing Nature of Work*: 89-96. San Francisco: Jossey-Bass.

14. Jansen, E. and GN. Chandler. (1990). "The Psychological contract between volunteers and not-for-profit organizations: A career perspective." *Toward the 21st century: Challenges for the voluntary sector*. London School of Economics.
15. Jiang, J.J. and G. Klein. (2000). "Supervisor Support and Career Anchor Impact on the Career Satisfaction of the Entry-Level Information Systems Professional." *Journal of Management Information Systems* (Winter 1999-2000, Vol. 16, No.3):219-240.
16. Katz, J.A. (1994). "Modelling Entrepreneurial Career Progressions: Concepts and Considerations." *Entrepreneurship Theory and Practice*. Waco.
17. Kilburn, R., and J.A. Klerman. "Enlistment Decisions in the 1990s: Evidence from Individual-Level Data." *MR-944-OSD/A*, 1999.
18. Lane, L.M. and J.F. Wolf (1990). *The Human Resource Crisis in the Public Sector*. New York: Quorum Books.
19. Lawson, K.E. (1991). "Practical, Low-Cost Strategies for Retaining Top Talent." *Bottomline* 8 (March/April):33-36.
20. Lewis, G.B. (1991). "Turnover and the Quiet Crisis in the Federal Civil Service." *Public Administration Review* 51 (March/April):145-155.
21. Murray, M.P., and L.L. McDonald. "Recent Recruiting Trends and Their Implications for Models of Enlistment Supply." *MR-847-OSD/A*, 1999.
22. Nunnally, J.C. (1978). *Psychometric Theory* (Second Edition). New York: McGraw-Hill Book Company.
23. Overman, S. (1993). "Weighing Career Anchors." *HR Magazine* (March).
24. Panos, J.E. (1989). "Matching Manager Wants With Company Needs." *Personnel Journal* 68 (February):105-107.
25. Perry, T.L., and L.R. Wise. "The Motivational Bases of Public Service." *Public Administration Review* 50 (May/June):367-373.
26. Rosenthal, N.H. (1995). "The Nature of Occupational Employment Growth: 1983-1993." *Monthly Labor Review* 118: 45-54.
27. Schein, E.H. (1968). "Organizational Socialization and the Profession of Management." *Industrial Management Review* (M.I.T.) (9): 1-15.

28. Schein, E.H. (1978). *Career Dynamics: Matching Individual and Organizational Needs*. Reading, Mass.: Addison-Wesley.
29. Schein, E.H. (1985). *Career Anchors: Discovering your Real Values*. San Diego, CA: University Associates, Inc.
30. Schein, E.H. (1996). "Career Anchors Revised: Implications for Career Development in the 21st Century." *The Academy of Management Executive* (November).
31. Schein, E.H., and G.L. Lippitt. (1966). "Supervisory Attitudes Toward the Legitimacy of Influencing Subordinates." *Journal of Applied Behavioral Science*. (2): 199-209.
32. Schein, E.H., and J.S. Ott. (1962). "The Legitimacy of Organizational Influence." *American Journal of Sociology*. (67): 682-689.
33. Steel, B.S. and R.L. Warner (1990). Job Satisfaction Among Early Labor Force Participants: Unexpected Outcomes in Public and Private Sector Comparisons." *Review of Public Personnel Administration* 10 (Summer):4-22.
34. Sullivan, S.E. (1999). "The Changing Nature of Careers: A review and research agenda." *Journal of Management* (May-June).
35. Suro, R. and S. Waxman (2000). "Pentagon Wants Hollywood to Aid Recruiting." *Washington Post* (January 29, 2000; Page A11).
36. Thomas, J.R. "Reengineering DoD Recruiting." *IP-165*, 1997.
37. <http://www.cnn.com/US/9809/29/military.readiness/>
38. <http://www.dbm.com/career/advancement/strategies/new26.html>
39. http://www.defenselink.mil/news/Oct1999/b10051999_bt462-99.html

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
8725 John J. Kingman Road, Suite 0944
Ft. Belvoir, VA 22060-6218
2. Dudley Knox Library
Naval Postgraduate School
411 Dyer Road
Monterey, CA 93943-5101
3. Dr. Erik Jansen
Naval Postgraduate School
589 Dyer Road
Mailcode SM/EK
Monterey, CA 93943-5001
4. Dr. Susan P. Hocevar
Naval Postgraduate School
589 Dyer Road
Mailcode SM/HC
Monterey, CA 93943-5001
5. Dr. Brooklyn Derr
University of Utah
Global Business Programs/CIBER
College of Business
Salt Lake City, UT 84112
6. Ms. Hannah Shin
DoD Center Monterey Bay
400 Gigling Road
Seaside, CA 93955-6771