NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

MENTORING EXPERIENCES AMONG MIDSHIPMEN AT THE UNITED STATES NAVAL ACADEMY

by

Brett T. Baker

March 2001

Thesis Co-Advisors: Brad Johnson
Susan Hocevar

20010328 056

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

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 March 2001	3. REPORT TYPE AND DATES COVERED Master's Thesis

4. TITLE AND SUBTITLE **Mentoring Experiences Among Midshipmen At The United States Naval Academy**	5. FUNDING NUMBERS
6. AUTHOR(S) Baker, Brett T.	
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)	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	12b. DISTRIBUTION CODE
Approved for public release; distribution is unlimited.	

13. ABSTRACT *(maximum 200 words)*

This study investigated mentoring and midshipmen at the United States naval academy (USNA). The mission of the naval academy is essentially to develop leaders, and mentoring is closely related to leadership. Therefore, this study looked at possible correlations between mentoring and midshipmen at USNA. Specifically, the extent of mentoring on midshipmen at USNA, the degree of influence mentors had on midshipmen, salient features of USNA mentors, and other psychosocial outcomes of mentoring on midshipmen were investigated in this study.

This study suggests midshipmen generally accept mentoring as an important concept, but only 45% of USNA midshipmen have mentors. Female midshipmen were more likely to have a mentor at USNA than their male counterparts. USNA mentors were typically older than their protégé, Caucasian, male and in the military. Peers were most trusted and utilized as mentors. This study also suggests that midshipmen having mentors were more satisfied with USNA, more likely to mentor others, and more likely to hold a leadership position on a sports team or in an extracurricular activity (ECA).

14. SUBJECT TERMS	15. NUMBER OF PAGES
Mentoring, mentoring and midshipmen, mentoring at the U.S. Naval Academy, mentoring military officers in training, military mentoring	94
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFI- CATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UL

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. 239-18

Approved for public release; distribution is unlimited

MENTORING EXPERIENCES AMONG MIDSHIPMEN AT THE UNITED STATES NAVAL ACADEMY

Brett T. Baker
Lieutenant, United States Navy
B.A., University of Washington, 1992

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN LEADERSHIP AND HUMAN RESOURCE DEVELOPMENT

from the

NAVAL POSTGRADUATE SCHOOL
March 2001

Author: _____
Brett T. Baker

Approved by: _____
Brad Johnson, Thesis Co-Advisor

_____
Susan Hocevar, Thesis Co-Advisor

_____
Reuben Harris, Chairman
Department of Systems Management

ABSTRACT

This study investigated mentoring and midshipmen at the United States Naval Academy (USNA). The mission of the Naval Academy is essentially to develop leaders, and mentoring is closely related to leadership. Therefore, this study looked at possible correlations between mentoring and midshipmen at USNA. Specifically, the extent of mentoring on midshipmen at USNA, the degree of influence mentors had on midshipmen, salient features of USNA mentors, and other psychosocial outcomes of mentoring on midshipmen were investigated in this study.

This study suggests midshipmen generally accept mentoring as an important concept, but only 45% of USNA midshipmen have mentors. Female midshipmen were more likely to have a mentor at USNA than their male counterparts. USNA mentors were typically older than their protégé, Caucasian, male and in the military. Peers were most trusted and utilized as mentors. This study also suggests that midshipmen having mentors were more satisfied with USNA, more likely to mentor others, and more likely to hold a leadership position on a sports team or in an extracurricular activity (ECA).

TABLE OF CONTENTS

I. INTRODUCTION.....1

A. BACKGROUND.....1

B. PURPOSE.....2

C. METHODOLOGY.....3

D. SCOPE, LIMITATIONS, AND ASSUMPTIONS.....4

II. LITERATURE REVIEW.....7

A. CONCEPT OF MENTORING.....7

B. SIGNIFICANCE OF MENTORING RELATIONSHIPS.....10

1. Benefits to the Protégé.....11

2. Benefits to the Mentors.....13

3. Benefits to the Organization.....15

4. Cross-Gender Mentoring.....17

5. Racial Issues.....21

6. Formal and Informal Mentoring.....22

7. Negative Experiences and Outcomes of Mentoring.....24

C. CHARACTERISTICS OF MENTORS AND PROTÉGÉS.....25

1. Mentor Characteristics.....26

2. Protégé Characteristics.....28

D. CREATING A POSITIVE MENTORING ENVIRONMENT.....29

E. SUMMARY.....31

III. METHODOLOGY.....33

A. SAMPLE.....33

B. MEASURES.....35

C. PROCEDURE.....36

IV. RESULTS.....39

A. PREVALENCE OF MENTORING RELATIONSHIPS.....39

1. Importance of Mentoring.....40

2. Outcomes of Mentoring.....41

B. NATURE OF MENTORING RELATIONSHIPS.....44

1. Characteristics of Mentors.....44

2. Initiation of Mentor Relationships.....50

3. Duration of Mentor Relationships.....52

4. Functions of Mentoring.....53

V. DISCUSSION.....57

A. COMPARISION WITH THE PREVIOUS STUDY.....58

B. MENTOR CHARACTERISTICS.....60

C. GENDER DIFFERENCES.....62

D. MENTORING FUNCTIONS.....63

E. BENEFITS OF MENTORING.....66

VI. CONCLUSION AND RECOMMENDATIONS.....69

LIST OF REFERENCES.....73

INITIAL DISTRIBUTION LIST.....77

LIST OF TABLES

Table 1 Rank Order (By Gender) Of Important Mentor Characteristics.....26

Table 2 The Three Areas Of Order Of Merit And Self-Reported Quartiles.....34

Table 3 Respondents Mentored At USNA By Class.....39

Table 4 Rating Of Importance Of Mentor Relationships By Rating Category.....41

Table 5 Likert Scale Ratings For Satisfaction With USNA 42

Table 6 Variables Of Interest Compared To Having A Mentor At USNA.....44
Or Not Having A Mentor At USNA

Table 7 Frequency And Percentage For Mentors' Rank.....45

Table 8 Mean Ratings Of The Extent To Which Others Could.....46
Reasonably Serve As Mentors And Paired T-Test Results

Table 9 Mentor Characteristics Listed In Order Of Respondents'.....47
Mean Ratings Scale (1=Strongly Disagree, 5=Strongly Agree)

Table 10 Pearson Correlation (r) Values For Mentor Characteristics.....48
And Important Independent Variables

Table 11 Comparison Between Gender Of Respondents And Mentors.....49

Table 12 Variable Of Interest Compared To Gender Of Respondent.....49

Table 13 Gender And Mentor Relationship Initiation.....51

Table 14 Initiation Of Own Mentor Relationship And Mentoring Other People.....52

Table 15 ANOVA F-Values And Means And Standard Deviations.....53
For Key Variables That Relate To Mentor Relationship Duration

Table 16 Means And Standard Deviation For Ratings Of Mentor Functions.....55
And Paired T-Test Values For Mentor Functions

Table 17 Pearson Correlation Between Mentor Functions.....56
And Key Outcomes Of Having A Mentor At USNA

ACKNOWLEDGEMENT

I wish to express my sincerest gratitude to all those who contributed to this thesis. Its completion would not have been possible without the midshipmen of the United States Naval Academy, Nimitz Library staff, USNA Office of Institutional Research and specifically Mr. Alan Harmon. I also extend my deepest appreciation to my advisors, Dr. Brad Johnson and Susan Hocevar, whose mentorship, wisdom and patience contributed greatly to the quality of this study. Finally, I would like to thank my wonderful wife, Lisa, and my three children, Ashlyn, Hailey and Aris, whose faith, support and patience were paramount to the successful completion of this work.

I. INTRODUCTION

A. BACKGROUND

Mentoring has become an integral part of modern managerial development (Monaghan & Lunt, 1992) since the late 1970's. Unlike recent fads in the business and managerial culture, the practice of mentoring has a substantial history and the term originated itself in Greek mythology with Homer's epic poem, *The Odyssey*. Odysseus entrusted his friend, Mentor with his son, Telemachus, while he fought the Trojan War (Buhler, 1998). Mentor became a teacher, friend, guide and father to Telemachus while Odysseus was away at war. In fact, before reading became widespread, mentoring was used extensively as a means to transfer knowledge from one generation to the next (Buhler, 1998).

Mentoring can be broadly defined. However, mentoring typically denotes the relationship between an older, wiser, and more experienced person, the mentor, and a younger person, the protégé (Kram, 1983). Torrance (1984) specified the mentor concept even further describing the mentor as an older person within the same occupational or educational field as the protégé. The mentor supports, guides, councils and helps the protégé navigate through the sometimes-precipitous waters of life, education, and career. Protégé comes from the French word proteger, which means 'to protect' (Phillips-Jones, 1982).

Mentoring is a complex concept composed of intricate details and numerous components, a mosaic if you will. For example, mentoring can be considered a formal or informal process (Chao & Walz, 1992). Mentoring can also be broken down into phases and functions (Kram, 1983). Additionally, issues of race, gender, age and position are

strands of reality tightly and irrevocably interwoven into the fabric of mentoring. Mentoring can be further distilled into important mentor characteristics, protégé characteristics, outcomes of mentoring (Dreher & Ash, 1990), and mentor roles (Noe 1988) or functions (Kram, 1988).

B. PURPOSE

The concepts of mentoring and leadership are closely related. In most contexts, strong leadership includes many mentor functions. As leadership development is an essential aspect to Midshipmen at the United States Naval Academy (USNA), it stands to reason that the nature and function of mentoring should be a key focus of evaluation at the Naval Academy since mentoring and leadership are so closely tied together. The mission of the United States Naval Academy is to develop Midshipmen morally, mentally and physically and to imbue them with the highest ideals of duty, honor and loyalty in order to provide graduates who are dedicated to a career of naval service and have potential for future development in mind and character to assume the highest responsibilities of command, citizenship and government.

The purpose of this research is to answer the following questions regarding mentoring as it applies to Midshipmen at the Naval Academy:

- What is mentoring?
- What are the advantages and disadvantages of mentoring?
- What is the prevalence of mentoring at the United States Naval Academy?
- Who serves in mentor roles?
- What are the effects of mentoring on Midshipmen?

- What is the level of satisfaction with mentor relationships?
- To what extent is mentoring correlated with satisfaction with the Academy?
- Is it difficult to get mentored? Why? Why not?
- What factors influence whether a Midshipman will be mentored?
- What are the most salient features of mentors at the Academy?
- What functions do mentors provide to Midshipmen?
- Is mentoring correlated with attitudes toward the USN and intent to pursue a naval career?
- What are some of the qualitative features of the mentor process?

C. METHODOLOGY

The literature review consisted of 32 books and journal articles on mentoring and leadership. Kathy Kram is a recognized expert in the field of mentor study. Many of the mentor categories discussed in this study are organized around Kram's (1983) mentor functions and other discussions about mentor characteristics. A detailed methodology chapter follows the literature review.

The methodology briefly starts with the survey instrument, which was derived from and developed as an improvement to a similar existing survey given to retired Navy Admirals. A draft questionnaire was reviewed and approved by U.S. Naval Academy faculty and the Academy's Human Subjects Review Board. The survey requested general demographic information. Then questions were asked regarding general mentor relationship experience. Finally, specific questions about one's most significant mentor where asked. Ten of 30 companies were randomly selected to participate in the survey.

This initial sample totaled 1368 midshipmen representing each year group of midshipmen.

The results chapter discusses the concepts of mentoring prevalence and the nature of mentor relationships. The prevalence of mentoring relationships is discussed in terms of the importance of mentoring and outcomes of mentoring. The nature of mentoring relationships is discussed through (1) characteristics of mentors, (2) initiation of mentor relationships, (3) duration of mentor relationships, and (4) functions of mentoring.

A detailed discussion of findings of this study follows the results. The discussion focuses on comparisons with previous studies, mentor characteristics, gender differences, mentor functions, and mentor benefits.

This study closes with a conclusion and recommendations section, which provides suggestions and recommendations as well as a quick recap of the study's research objectives. Some of the suggestions include the idea that midshipman satisfaction with USNA is related to having a mentor, mentoring occurs with over 45% of midshipmen, and indicates the importance of training USNA staff and officers to be proactive in establishing mentor relationships.

D. SCOPE, LIMITATIONS, AND ASSUMPTIONS

The scope of this research is a study of mentoring experiences among Navy midshipmen across the Brigade. This study is more thorough than has been done previously, but not comprehensive. Furthermore, as few studies on mentoring and the military exist, this research also suggests the need for further and more comprehensive studies. By examining aspects of mentoring as it pertains to midshipmen, this research

offers general profiles indicating the extent of mentoring, who are most likely to be mentors, and effects of mentoring on the midshipmen. This study focuses on the Naval Academy graduating classes of 2000 through 2003.

The limitations of this research are: (1) The definition of mentoring varies from study to study and greater incidence of mentoring is found in studies where subjects are interviewed in depth rather than queried by survey (Merriam, 1983). Merriam (1983) suggests that people respond differently to interviews rather than survey, and respond differently to surveys depending on how specifically the term 'mentor' was defined. (2) There are inherent limitations to self-reported assessments. (3) Limitations of sample size. (4) There is only a limited time for midshipmen to have a mentor while at USNA. The maximum duration of a USNA mentor relationship is less than four years.

This study assumed that mentoring relationships were personal relationships between two people of varied experience levels. The assumption is also made that the more experienced person acts as the mentor and provides a role model, guidance, advice, and other means of support. The study assumes that each respondent answered the survey instrument truthfully and accurately. Finally, this study assumes answers to questions involving feelings and emotions accurately reflect the respondents' true feelings and emotions with little influence of the quality of the respondents' day(s) prior to answering the survey instrument. In other words, personal mood variations are not considered.

THIS PAGE INTENTIONALLY LEFT BLANK

II. LITERATURE REVIEW

A. CONCEPT OF MENTORING

It is typically agreed that mentoring has positive affects on protégés in business and education. However, few studies have been published regarding mentoring and the military. Much of the literature about mentoring focuses on how mentors help their protégés. Phillips-Jones (1982) emphasized the difference between the skill and knowledge levels of the mentor and protégé. Zey (1984) centered his arguments on the visibility a mentor offers a protégé.

Kram (1983) described mentoring functions as falling into two primary areas. First, career functions encompass sponsorship, exposure of the protégés to rules, regulations and other people of power, as well as coaching, protecting and challenging protégés. Second, psychosocial functions serve to enhance the protégé's sense of competence, clarify identity and improve effectiveness in a professional capacity. The mentor becomes a role model for the protégé and, in effect, is someone the protégé would like to become. Some argue that the key to mentoring relationships is not age or position, but the idea that a mentor has skills and knowledge that a protégé needs (Phillips-Jones, 1982). Phillips-Jones (1982) also noted that mentors have the power to promote their protégés' welfare, training, and career.

Kram (1983) described mentoring as developing throughout four stages. The first stage is the initiation stage when the young person starts a career. This is a period of six months to a year from which the relationship begins and grows in importance to both the

mentor and protégé. Any fantasies held by either party either dissolves or becomes reality. When expectations are met, the senior manager provides necessary coaching, work opportunities, and visibility. The junior manager provides technical assistance, respect for the instructor's skill and desire to learn. The second stage is the cultivation stage. This occurs when the mentor and protégé maximize their relationship. Both individuals continue to benefit from the relationship. Opportunities for important interaction increase. Emotional bonds deepen between the two individuals. This stage covers a period between two to five years into the relationship. The third phase, separation, occurs when the nature of the relationship is altered by structural and organizational changes. This could be due to job rotation or promotional opportunities. In some cases, career and psychosocial functions can no longer be adequately provided at the third stage. The protégé may also want independence and autonomy, or the mentor may have reached a career juncture, which limits his or her ability to be a good mentor. This stage often occurs anywhere from six months to several years after a significant change in an organization or an emotional event in the relationship. Finally, the redefinition phase describes how the relationship evolves into a completely new form or ends altogether. At this stage, the mentor relationship is no longer needed in its original form. Peer status is achieved between the mentor and protégé. At this point, stresses of separation decrease and the relationship either ends or changes to more of a friendship. The redefinition phase occurs after an indefinite period of time following the separation phase.

Mentoring has most often been likened to coaching (Collie, 1998) where executives focus on interpersonal, communication, leadership and management skills. It involves collaboration between mentor and protégé to achieve new breakthroughs and accomplish goals, both developmentally and organizationally. Coaching and leadership are closely related topics and both are key elements of character development among the brigade of Midshipmen.

Gender and race issues also play an important role in the form and function of mentoring. While this thesis will not specifically evaluate gender and race factors in mentoring at the Naval Academy, some attention will be given to major differences in mentoring experiences based on these variables. Subsequent analysis of gender and racial issues as they relate to mentoring at the Naval Academy may be important follow-up research.

Dreher and Cox (1996) described mentoring as access to people of knowledge and power. Often in contemporary society, that means white male executives. Women and people of non-Caucasian race are often at a disadvantage in finding an effective mentor. This may be at least partially due to the psychological phenomenon of interpersonal attraction in which people are most attracted to people like themselves (Byrne, 1969; Carli, Ganley, & Pierce-Otay, 1991; Hill & Stull, 1981). This phenomenon, coupled with the fact that the majority of the executives in America today are white males, indicates that white men may have an advantage over women and other racial groups when seeking mentors.

Some misconceptions about mentoring exist. Kram (1983) mentioned four primary misconceptions. One, the primary beneficiary of mentoring is the protégé. In fact, there are substantial advantages, which accrue to mentors and the organization in addition to the protégé as a result of a mentoring relationship. Second, mentoring is always a positive experience for the mentor and the protégé. There is a range of negative outcomes and experiences that may arise from a mentoring relationship. Third, mentor relationships are readily available to those who want them. This topic will be discussed in greater detail later in this thesis, particularly in reference to gender and racial issues. Finally, finding a mentor is the key to individual growth and career advancement. Although research consistently confirms the value of mentoring, mentor relationships do not always lead to career growth and development.

B. SIGNIFICANCE OF MENTORING RELATIONSHPS

This research addressed mentoring experiences among Midshipmen at the United States Naval Academy. The Johnson, Lall, Holmes, Huwe, and Nordlund (in press) study has been the only study previously conducted on students at any U.S. military academy. The Johnson et al, 1999 study was conducted to explore the prevalence, nature, duration and overall evaluation of mentor relationships, which may have been experienced by future naval officers, specifically U.S. Naval Academy midshipmen. The authors surveyed third year midshipmen, and 62% of the class responded to the survey. The study found that about 40% of those surveyed reported having at least one significant mentor relationship. The following section on the significance of mentoring is divided

into seven major subsections, which address the major components of mentor-protégé research and theory.

1. Benefits to the Protégé

Kathy Kram, considered a leading expert in the study of mentoring, Kram (1988), emphasized that mentor relationships positively contribute to both the mentor and protégé in regards to professional and personal growth. The relationship often leads to individual growth and self-improvement on the part of both parties. Mentor relationships increase an overall sense of well being and satisfaction (Kram, 1988). Mentoring helps develop a sense of competence, confidence, and effectiveness in managerial roles (Phillips-Jones, 1982). Phillips-Jones (1982) also noted that mentors can teach protégés both the big picture and smaller nuances of an organization; advise protégés about how to do things and when to do things based on experience and corporate knowledge; open doors for the protégé that would otherwise remain forever closed; cut red-tape and other bureaucratic mazes that generally waste precious time and resources; provide exposure and visibility to other people of power in the business who may be in a position to promote the protégé in the future; the mentor may also provide important personal and professional encouragement on day-to-day routine as well as major projects.

Furthermore, mentors give advice on career goals. Clear, concise goals are the first step to a successful business and career (Phillips-Jones, 1982). Buhler (1998) added that mentors can provide protégés a more objective and broader perspective toward goal setting. This will help make the goals more specific and challenging. Mentors may help improve skills and knowledge especially particulars about the current organization.

Mentors also provide protégés a model to follow and make available otherwise scarce resources and opportunities (Collie, 1998, & Phillips-Jones, 1982).

Torrance (1984) demonstrated that the achievements by those who have mentors are significantly greater than those who do not have mentors. Furthermore, these differences cannot be explained merely by chance. One important component of mentoring is training and education. The protégé is provided the opportunity to participate on an accelerated learning curve. This allows the protégé to get ahead of the non-mentored competition. Particularly in a competitive environment in which training and knowledge and skill are rewarded, protégés quickly gain an advantage (Buhler, 1998). Those people with mentors generally receive more and better education than those without a mentor's influence Torrance (1984). This is a double-edged sword in effect because not only can the mentor help promote the protégé, but also the increased training and education make the protégé more valuable to the organization. Buhler (1998) added that mentors provide protégés opportunities they might not otherwise experience. This includes valuable contacts, associations, and related networking.

Roche (1979) studied 1250 executive respondents of which 66% had a mentor. Roche (1979) found that mentor relationships have increased and become more common. Furthermore, mentor relationships are most likely to occur within the first fifteen years of a person's career with more than 70% of those in the first five years. He noted that these relationships often turn into close and enduring friendships. Roche's (1979) study also found that executives that had mentors were better educated, received higher compensation, earned more money at a younger age, were more likely to follow a career

plan, and reported greater job satisfaction than their non-mentored peers. Roche did not address the correlation between specific mentor functions and success. Interestingly, Roche found that most protégés credit their fortune and success more to luck than to a mentor.

Most studies report a positive correlation between mentoring and career success, career satisfaction and income level (Collins, 1994). Furthermore, Fagenson (1989) found protégés had more power within their organizations than their peers without mentors did. They also had a higher promotion rate. Fagenson (1989) reinforced this idea in research, which showed that protégés report having more advantageous career outcomes than individuals without mentors regardless of their position or gender. In other words, according to Fagenson (1989), mentoring appears to work equally well for both men and women, and across the spectrum of positional hierarchy within an organization. Scandura (1998) noted also that protégés typically have an accelerated learning curve within organizations, which gives them an advantage in comparison with their non-mentored peers.

> Mentoring creates an enabling system, which helps the hires to absorb our culture quickly, and forge ties with customers, both internal and external. It also synergizes with our core values of customers, integrity, performance, people, and innovation, and our policy of growing our own timber. - Simon J. Scarff, CEO, SmithKline Beechum (Choudhury, 1998, p. 74).

2. Benefits to the Mentors

Not all of the benefits, which stem from mentoring, go to the protégé. The mentor benefits substantially as well (Buhler, 1998). Mentors report getting more done,

developing a crucial and dependable subordinate, and enjoying the experience of investing in the organization's future by training a protégé (Phillips-Jones, 1982). The mentor may also get tangibly rewarded for developing new talent, or intrinsically rewarded with a sense of repaying past debts to the organization and mentors who went before and taught the current mentor the rules of the business. Collie (1998) described this benefit as the fulfillment of a mentor seeing a younger version of him/herself in a protégé and getting the satisfaction of passing on hard-earned wisdom as well as generating the next generation of upper level management. Buhler (1998) described this idea as a protégé carrying on the legacy of his/her mentor. This legacy allows a protégé to move on without reinventing the wheel. The mentor also gets satisfaction from knowing they will continue to have some influence over others in the organization and industry (Buhler, 1998). The mentor's job becomes more manageable for several reasons. First, mentors tend to communicate well with a protégé (Dreher & Ash, 1990). As described later in greater detail, this is an important characteristic of a mentor. Second, mentors tend to delegate more to a protégé than other employees simply as a matter of trust. This may be because protégés are often selected based on a solid work ethic and demonstration of the skills desired by the mentor.

Perhaps most important is that having a protégé keeps the mentor on the cutting edge and enhances his or her ability to be a good role model (Buhler, 1998). Mentors must stay on the cutting-edge of their field of expertise. Mentors must also be able to take their own advice. Acting as a mentor increases a person's own intrinsic value and develops personal creativity (Buhler, 1998). Buhler (1998) added that mentors are

generally more creative as a result of trying to challenge increasingly competent protégés. Also, helping protégés solve problems and make decisions and set goals stimulates creativity. Buhler (1998) found that mentors may benefit most simply because they gave something of themselves to others. Psychologically, this serves to give the mentor a great sense of accomplishment and generally rewarding experience (Buhler, 1998).

3. Benefits to the Organization

The organization is typically a beneficiary of effective mentoring relationships as well. Protégés have higher expectations of career progression and prospects as well as reduced role ambiguity, which leads to increased efficiency (Kram, 1988; Zey 1984). Increased efficiency may occur as a result of reduced training time and improved communications between and across hierarchical levels of power within the organization. Zey (1988) also noted that organizations benefit from mentor relationships because creativity and innovation result from close communication between a mentor and protégé.

Protégés also tend to have lower stress levels (Kram, 1988) and are less likely to seek employment external to the organization (Scandura & Viator, 1994). Buhler (1998) discussed retention as a soft benefit that has hard and quantifiable positive outcomes for the company. Protégés stay longer because they are more comfortable and enjoy the attention they receive from their mentor(s). Protégés develop a loyalty to their mentor first and then the organization. This ultimately results in a lower turnover rate among employees. Protégés develop more quickly within the norms of the organizational culture than non-mentored employees, which makes the organization more productive (Buhler, 1998). Buhler (1998) stated also that socializing new employees into the

organization's culture is often time consuming and challenging. Mentoring overcomes these challenges effectively by integrating the protégé into the organizational norms and culture more quickly and smoothly. The protégé also more quickly understands the power and politics of the organization, which has immediate and long lasting effects on the protégé's success. Zey (1984) supported this idea as well when he claimed that the organization benefits from mentoring through better integration of its employees. Mentoring can help companies develop and capitalize on diversity issues that are imperative to successful business in today's global marketplace (Reid, 1994). Improved socialization among personnel in the organization is enhanced as a result of mentoring, which in turn promotes the productivity and efficiency of the organization (Zey, 1984). Collie (1998) indicated that group mentoring improves the quality of those in the succession pipeline, as mentored employees are more poised, confident, and crisp when dealing with peers and customers. Zey (1988) added that companies benefit from recruitment as a result of having mentoring programs because this shows that the company cares about the well being of the employees. This is important in a competitive job market.

A final benefit to the company from mentoring is the accurate and expedient identification of future managers and executives (Buhler, 1998). Not only can organizational executives get a good look at the most skilled employees, they also have a chance as mentors to focus the protégé's training and experience in a direction that will best benefit the company and protégé (Buhler, 1998).

4. Cross-Gender Mentoring

The influx of women into the work place has generated new dimensions for mentoring and new dilemmas for mentors. Women now make up over half of the workforce (Collie, 1998). Cross-gender mentor relationships have potential for both positive and negative outcomes, yet there are some potential negative outcomes, which are unique to cross-gender relationships. Kram (1983) described several features that explain these relationships. First, men and women are inclined to assume stereotypical roles and positions when relating to each other in the work place. Second, role model functions tend to be unsatisfactory to both individuals for a variety of reasons. Among those reasons are differences in perceptions of cross-gender relationships, potential communications barriers, distrust of the opposite sex when it comes to very important matters, and a power struggle based in the past stereotypical gender-related positions and organizational roles. For example, Dreher and Cox (1996) explained that junior men generally avoid developing mentor relationships with senior women because the women are perceived as having less power than male mentors. Third, developing cross-gender relationships often leads to sexual tension, which is both exciting and distressing. The excitement is derived from the natural attraction between men and women. The distress develops when either or both parties have concerns over how the relationship is perceived by others inside and outside the organization such as spouses, relatives, media, bosses, clients, and suppliers. For these reasons, men in particular are more likely to mentor other men than women. Fourth, there are often concerns over affirmative action. In such cases, a senior may take little interest in a junior if the senior believes the junior holds his

or her position due to a quota system or affirmative action. In fact, there may be a certain degree of resentment. Fifth, relationships are subject to public scrutiny and destructive rumors. The outcomes of this are obvious to even the most casual observer. Finally, peer resentment can develop. This has a negative result on the individuals and the organization. It blocks cooperation and open communication, both of which are important to effective and efficient operations of any organization.

However, not all cross-gender, mentor relationships are negative. There are some advantages that emerge as well (Dreher & Ash, 1990). First, these relationships tend to be complimentary in that the greater range of perspective, gender awareness, etc., may enhance the pairs' output and performance. Second, both individuals can broaden their skills and modes of expression. This enhances each party's ability to relate to others within and outside the organization. Finally, more synergy, enjoyment and excitement are sometimes reported in cross-gender relationships (Phillips-Jones, 1982).

Many studies indicate that women are not well represented in mentor relationships. However, Dreher and Ash (1990) contributed research which countered the supposition that women are not well integrated into mentoring systems. Their study was designed to explore the differences between men and women regarding mentoring experiences. Additionally they looked at differences in outcomes of men and women in managerial and professional occupations. Dreher and Ash (1990) mailed surveys to masters and bachelor degree graduates from two state universities. The sample group consisted of 500 people, half women and half men, from each of four graduating classes. The response rate was 45%, equally distributed between the two universities and split

among men and women. Dreher and Ash (1990) found that men and women reported experiencing essentially the same frequency of mentoring. From these findings, the authors concluded that women were as well integrated into mentoring relationships as men.

In spite of this apparent equity in mentor access, Dreher and Ash (1990) also found that the difference in annual income was $12,227 in favor of the men. Men were also more likely to have a master's degree, have been working longer, and be married than their female peers were. It seems that mentoring relationships alone are not adequate to account for the observed gender differences in income (Dreher & Ash, 1990, Phillips-Jones, 1982). Although women in some settings may obtain mentors as often as men, they are still not receiving the same career benefits as their male counterparts. Roche (1979) noted that although only a small percentage of executives were female, about 1%, those responding to his study had more mentors than the men who responded. Only one in fifty of the men in Roche's study had a female as a mentor and only a few of those mentors were in business. Roche (1979) also mentioned that women executives proportionally had more protégés than their male counterparts.

Kram (1988) described the cross-gender mentor relationship as having two essential manifestations. The first is a senior man mentoring a junior woman. Intimacy, stereotypical gender-roles and issues of protectiveness often limit this relationship. The second version is a senior woman mentoring a junior man. These relationships typically are restricted to counseling and friendship roles. Baugh, Lankau and Scandura (1996) conducted a study that showed gender influences mentoring outcomes. More

specifically, women perceive less access to mentoring relationship and greater exclusion from networking than their male counterparts. Additionally, due to gender-role stereotyping, women endure incongruent and inconsistent work roles at a greater rate than men do, putting women at a disadvantage in executive and management positions.

Burke (1984), showed that male protégés had more mentors, were older, reported greater influence on career choice, and less psychosocial functions than female protégés. Burke (1984) also showed that male mentors were older and had a greater age difference between mentor and protégé while female mentors had a greater impact on career aspirations and performed more psychosocial functions. The Burke (1984) study also compared male mentor and male protégé relationships with male mentor and female protégé relationships. Again, male protégés had more mentors. Mentors of female protégés had more influence on their careers, and were viewed as having greater job satisfaction. Finally, female mentors were shown to have more influence on protégé personality characteristics. Some research indicates that women mentors as a group are less organizationally powerful than male mentors. Women mentors tend to be less able to promote, provide resources to, and protect protégés (Dreher & Cox, 1996).

Mentor relationships will be increasingly important for women as women are expected to comprise nearly 62% of the labor force by the year 2000 (Dreher & Ash, 1990). Bowden (1982) noted that women who have made it to a position of power such that they can be good mentors are in such short supply, that accepting the responsibility of protégés may over tax an already over burdened group of executives. Bowden (1982) further claimed that to the extent women receive the mentoring they need, they will be

perceived as needing the mentoring they get. This paradox does not hold true for men, and this discrimination further burdens those women who do make it to the top.

5. Racial Issues

Greenhaus, Parasuraman, and Wormley (1990) reported that African-American managers felt less accepted, received lower evaluation marks, perceived themselves as having less direction, were less satisfied, and reached career plateaus earlier than their Caucasian counter parts. Another study by Thomas (1990) indicated three important racial characteristics of mentor relationships. First, Caucasian protégés rarely had cross-race mentors. Second, African-American protégés often had cross-race mentor relationships. Finally, same-race mentor relationships offered greater psychosocial support than cross-racial mentor relationships. There is some evidence that each racial group identifies with and trusts members of its own group more than members of other racial groups (Reid, 1994).

Mentoring has traditionally involved Caucasian men helping other Caucasian men advance in an organization (Collie, 1998). Collie (1998) noted that over 33% of the workforce is now non-white. There is a tremendous need for mentor-protégé relationships incorporate women and minority group members as mentors. Several significant findings from a Dreher and Cox (1996) study highlight the need for such change. First, the highest levels of compensation were among those who established mentoring relationships with Caucasian males. Second, Caucasian men reported higher compensation than women and African-American men with similar qualifications.

Finally, African-American and Hispanic managers were less likely to establish mentor relationships with Caucasian men than their Caucasian male peers.

6. Formal and Informal Mentoring

Traditionally, mentoring in business settings has been ad hoc, unexplained and generally not formalized (Collie, 1998). Informal mentoring relationships are not managed by the organization, but by the individuals engaged in the relationship. These relationships are also not formally structured or recognized by the organization (Chao & Walz, 1992). Informal mentoring relationships are generally more effective than assigned relationships because participants have similar goals, interests and other factors that help foster a strong relationship between the mentor and protégé (Chao & Walz, 1992). Chao and Walz (1992) found that protégés involved in informal mentoring relationships reported more career-related support and higher salaries than their peers in formal mentoring relationships. Informal mentoring works best because mentors and protégés select one another based on characteristics with which they can identify. Furthermore, mentors must be willing to devote a tremendous amount of time, energy and resources in the development of a protégé. This commitment is difficult to achieve when mentoring is forced or assigned.

In addition, formal mentoring relationships provide the mentors and protégés with little choice and flexibility in forming a connection (Chao & Walz, 1992, & Zey, 1988). Assigned mentors may not view their formal protégés as worthy or willing to accept special attention and support in comparison to their informally mentored protégés. There is also a longer adjustment and acquaintance period for formal mentors and protégés to

get to know one another than exists in informal mentoring relationships (Chao & Walz, 1992).

Both formally and informally mentored protégés showed advantages over non-mentored peers as far as salaries, satisfaction and promotion (Chao & Walz, 1992). In support of formalized mentoring, Reid (1994) claimed that formal mentorship programs might serve to break through barriers that would otherwise hold people (non-mentored) back. For this reason, she argued that human resource departments should formalize mentoring systems within an organization to ensure that mentoring is available to everyone. This also helps overcome the gender and racial issues discussed previously (Reid, 1994, & Collie, 1998). Scandura (1998) also argued that mentoring should be formalized given the much touted and widely documented benefits to the protégé, mentor and organization. Despite the advantages and preference for informal mentoring, the advantage still remains with any type of mentoring vice no mentoring at all. Scandura (1998) did mention, however, that dysfunctional mentor relationships are more likely to occur from formal mentoring programs than from informal mentoring relationships. Dysfunctional mentoring relationships are discussed below.

Chao and Walz (1992) evaluated data collected as part of a longitudinal study examining the career development of graduates from a large midwestern university. Graduates were randomly selected from nine graduating classes and based on survey results were categorized as 1) formally mentored, 2) informally mentored, or 3) non-mentored. All respondents held managerial or professional positions in various industries and organizations. No significant difference in age, gender, tenure, and position type

were noted across the field of respondents. The Chao and Walz (1992) study has been the most in-depth study on the differences between formal and informal mentoring relationships. The authors found that formal mentor relationships were not as beneficial and enduring as informal mentor relationships.

7. Negative Experiences and Outcomes of Mentoring

It is also important to note the negative aspects of mentoring. Torrance (1984) mentioned several drawbacks of mentor relationships. For example, mentors and protégés sometimes compete with each other in a negative way. Both parties may also hold excessively high or unrealistic expectations about the other, which can lead to a failed relationship. Scandura (1998) conducted a study of dysfunctional mentor relationships and concluded that not all mentoring relationships are positive. In fact, some mentor relationships end quite badly or are completely ineffective. Not only can the mentor and protégé have a poor personal relationship, but also they may have a perfectly pleasant relationship that is ineffective professionally.

Scandura (1998) described several types of destructive relationships. First, mentors and protégés may have negative relationships when the mentor is tyrannical and exploitive. Here the mentor can be egocentric and power hungry, demanding that everything be done his or her way. The protégé must elect to stay in an abusive relationship or risk the political, social and organizational consequences of pushing the mentor away. Second, either the mentor, protégé, or both sometimes sabotage mentor relationships. This situation can occur when communication is weak between the mentor and protégé. When an action by one party is viewed as offensive or threatening, there

may be a counteraction of revenge. This can often lead to a continual volley of sabotage until the relationship is beyond repair. Third, mentor relationships may become strained and difficult to manage. This may occur when one of the parties, normally the protégé, is given an ultimatum. For example, a mentor may advise a female protégé not to have children, as that would interfere with career aspirations. Fourth, mentors or protégés may betray the other party, thereby destroying the relationship. An example of this occurs when a mentor accepts credit for a protégé's ideas and passes those ideas off as his or her own. The protégé subsequently feels betrayed and disappointed. Fifth, protégés may be too submissive as a result of the inherent imbalance of power in mentor relationships. Sixth, over-dependence on the mentor by the protégé may predict a negative outcome. The dependent protégé may quickly become a hindrance to the mentor. Finally, harassment of any sort often produces a dysfunctional relationship. Interestingly, Scandura (1998) noted that as a potential paradox, a mentor relationship may "work" if the relationship meets the needs of both parties. This may be true even when it fails to produce much career promotion.

C. CHARACTERISTICS OF MENTORS AND PROTÉGÉS

Perhaps one of the most significant components of mentor-protégé relationships is the combination of characteristics among both successful mentors and successful protégés. Researchers from various disciplines have explored both broad characteristics and more specific personality and behavioral traits between both parties to mentoring relationships.

1. Mentor Characteristics

From a demographic perspective, mentors generally share three common characteristics (Kram, 1983). First, the mentor is senior in age and position to the protégé. Second, the mentor is more experienced than the protégé, and finally, the mentor has significantly more organizational influence than the protégé. Kram used these characteristics to help define the term mentor. Zey (1984) discussed more specific characteristics stating that good mentors: (1) are good teachers, (2) have strong support because they often have, or had, mentors of their own, (3) are well connected with other people of power and influence within the organization, (4) are motivators, (5) ensure that they and their protégés have similar goals, (6) have sufficient power and are well received in their organization, and (7) are secure in their position as mentor and in the organization. Torrance (1984) identified the positive characteristics most often mentioned by males and females about their mentors (Table 1).

Table 1

Rank Order (by gender) of Important Mentor Characteristics

Described by Women	**Described by Men**
(1) Encouraging	(1) Skilled
(2) Skilled	(2) A friend
(3) A friend	(3) Encouraging & prodding
(4) Inspiring	(4) Respectful
(5) Energizing	(5) Guiding
(6) Supportive	(6) Caring
(7) Acknowledges talent	(7) Motivating
(8) Gives confidence	(8) Committed & dedicated
(9) Caring	(9) Hard working
(10) Persistent	(10) Honest

Phillips-Jones (1982) discussed how traditional mentors were often strict and demanding managers, expecting much from their protégés. However, supportive bosses are the most common today. Other qualities that reoccur throughout the literature are things like good interpersonal skills, timing, and a sense for proper quality and quantity of mentoring (Phillips-Jones, 1982).

Buhler (1998) offered four criteria that predict a good mentor. First, good mentors give freely of their time. Training a protégé is time consuming and sometimes tedious. For some mentors or would be mentors, it is more difficult to invest the time up front to carefully training a protégé than it is to just get the job done by the most efficient means available. Second, mentors have the required skills and knowledge to be of value to a protégé. This trait is closely related to the first one. A mentor must know the details of how things are done so that those details can be explained and demonstrated to the protégé. Furthermore, a mentor must know when things are not right so that corrective action can be initiated immediately. Third, good mentors communicate well and effectively share their skills and knowledge with a protégé. A mentor with great professional knowledge may be willing to share that information with a protégé yet ineffective due to poor communication skills. Finally, good mentors are committed to the relationship. Lack of commitment causes discouragement on the part of the protégé. Buhler's (1998) conclusions are supported by the findings in Torrance's (1984) study in which women mentors mentioned persistence and male mentors specifically mentioned commitment as important mentor characteristics.

2. Protégé Characteristics

Mentors also look for certain characteristics in a protégé. Ideal protégés are intelligent, ambitious, desire power, are willing to take risks, have the ability to perform their mentor's job and are steadfastly loyal (Zey, 1984). Newby and Heide (1992) added that the most relevant protégé characteristics are ambition, loyalty, respectfulness, ability to learn, and a strong work ethic. Most protégés learn to achieve visibility while they avoid boasting about the mentor relationship in order to minimize negative peer reactions and undermining their efficiency and credibility (Zey, 1984).

Boyles (1998) mentioned that a protégé must be respectful and attentive to a mentor. In some cases, a protégé may get key assignments to gain the necessary interface with a potential mentor. A protégé must also show a keen desire to learn and willingness to help the mentor achieve his or her own goals. Furthermore, the most successful protégés take the initiative and make themselves available (Zey, 1984). A sound protégé is willing to accept power and take risks necessary to succeed. Baugh, Lankau, and Scandura (1996) discussed protégé characteristics in a broader sense. They noted that a protégé must fit the organization, and that fit affects both job satisfaction and career commitment. Part of this fit includes gaining the trust of seniors. Lall, Holmes, Johnson and Yatko (?) discussed trust as a large part of personality and linked that closely with leadership efficacy. Fagenson (1989) noted that despite the overwhelming evidence that mentoring helps protégés succeed, there are also many successful leaders that have not been mentored. Scandura (1998) suggested that mentors do not make protégés better performers, but that high quality and high performing people become protégés because

they seek and get mentors. It is then perhaps the character of the protégé that makes them successful with or without a mentor. The individuals studied just happen to have mentors or been mentored, and perhaps most successful people seek and get mentors.

D. CREATING A POSITIVE MENTORING ENVIRONMENT

Mentoring has consistently been shown to produce a variety of positive benefits. Further, these positive outcomes outweigh any negative outcomes from mentoring. Considering the value of mentoring across fields, contemporary research has begun to evaluate what environment best fosters informal and formal mentoring relationships.

Newby and Heide (1992) mentioned several important structural characteristics of good mentoring. Clearly established and well-defined goals and objectives are important for all relationships. This further allows participants to determine a starting point as a basis for evaluating progress. It also focuses the energies of the mentor and protégé. It is also important to orient the protégé, and in the case of formal mentoring programs, orient mentors as well. Roles, responsibilities and qualifications of both the mentor and the protégé may be clarified within the context of an orientation to the relationship. The orientation phase can be compared to a screening of sorts. A solid set of ground rules may be established. In formal mentoring programs this may become a written contract. Informal relationships may develop from ground rules, which are more implicit, and intuitively discerned by the individuals involved. Phillips-Jones (1982) described the orientation process as a means to structure flexibility into the relationship.

Evaluating and matching the mentor's characteristics with the protégé's characteristics and needs is also important. This will be done formally in a formal mentoring program. It will be done gradually as part of the selection process in informal mentoring relationships. The relationship is more likely to succeed and be rewarding for everyone when the mentor and protégé compliment each other. Mentors and protégés may also elect to work together on a trial basis before committing to a solid relationship. This stage allows for scheduling conflicts to be worked out, logistical problems to be resolved, and a general mutual assessment of the relationship.

Zey (1984) claimed that some organizational structures were just not conducive to mentor relationships. The trial phase will help the mentor and protégé determine if the organizational structure will support their relationship. This is an important step considering the enormous time, energy and other resources, which often accompany a mentor relationship. Another step in structuring the relationship includes monitoring and evaluating the relationship so that necessary adjustments can be made as the relationship develops. This results from good communication. This step is a necessary response to the growth and development of the protégé as well as the dynamics of the external environmental. It may be helpful to track which phase the mentor relationship is in at various points in time Kram (1988).

Finally, the mentor must encourage the independence of the protégé. A protégé's independence should increase as the relationship develops. Independence on the pert of the protégé prevents over-dependence on the mentor and allows the mentor to utilize the protégé to the fullest extent. Similarly, Gerstein (1985) discussed minimizing rules and

maximizing freedom. Problematically, Kram (1988) warned that competitive environments are not conducive to protégé development or mentor relationships in general.

Kram (1988) discussed a number of factors important to the development of mentor relationships in an organization. First, the organization must be supportive and not demand bottom-line results. Extremely competitive organizations destroy the conditions conducive to mentor relationships. Second, organizations must change traditional paradigms about interrelationships, hierarchies, race, and gender. Third, an organization must consciously change its norms; values, procedures and structure to accommodate and nurture mentor relationships. Finally, training and education will help enhance an environment that supports mentor relationships and programs.

E. SUMMARY

A voluminous literature exists in the fields of mentoring and leadership. Leadership has been a popular subject throughout history. Mentoring on the other hand has only been popular as a concept for several decades. Mentors generally are sponsors to their protégés. They oversee to some extent the career and personal development of their protégés. Mentors are usually older and more experienced and provide guidance, counseling, support, coaching, and protection and may directly promote their protégés. The relationship is typically considered mutual and positive for both mentor and protégé. It is also limited in duration and scope. The mentor is an expert in a particular field. Since mentoring appears to be an important ingredient to many leadership positions, it is

important to enhance our understanding of the role mentoring plays in developing leaders. This study evaluated mentoring at the United States Naval Academy. The Academy is in the business of developing leaders, and the focal purpose of this study was to evaluate the mentoring experiences among the developing leaders at the Naval Academy (Midshipmen) in relation to specific indicators of success.

For the purposes of this study, mentoring is defined as a personal relationship in which a more experienced individual acts as a guide, role model, and teacher to a less experienced protégé. Mentors provide protégés with knowledge, advice, challenges, counsel and support in their pursuit of becoming full members of a particular profession.

Although leadership development is part of the mission of the Naval Academy, mentoring is not specifically addressed in the Academy's mission statement. Considering the benefits of mentoring, as evidenced throughout the existing literature, and the close link between mentoring and leadership, it seems important to determine how mentoring relates to and contributes to the Naval Academy's mission.

III. METHODOLOGY

A. SAMPLE

Ten companies were randomly selected from among the 30 companies at USNA in order to obtain a cross-section of students from graduating classes of 2000 through 2003. The initial sample for this research included 1368 Midshipmen: 319 First Class (1/C), 316 Second Class (2/C), 358 Third Class (3/C), and 375 Plebes (4/C). This sample accounted for one third of all USNA midshipmen. The First Class Midshipmen (seniors) are in their fourth and final year at the Academy. Second Class Midshipmen (juniors) are in their third year at the Academy. Third Class Midshipmen (sophomores) are in their second year at the Academy, and Plebes (freshmen) are in their first year.

Five hundred and sixty-eight usable surveys were returned for a response rate of 41.5%. A comparison of the sample with the population of midshipmen shows that the sample was highly representative of the Brigade of Midshipmen. Among the respondents, 69 (12%) were First Class, 135 (24%) were Second Class, 150 (26%) were Third Class, and 214 (38%) were Plebes. Across the brigade of midshipmen, 23.3% were First Class, 23.2% were Second Class, 25.9% were Third Class, and 27.6% were Plebes. Regarding gender, 474 (83.5%) were male and 94 (16.5%) were female. Across the brigade of midshipmen, 85% of the midshipmen are male and 15% are female. Respondents ranged in age from 18 to 25 years with a mean age of 20 years ($\underline{SD}$ = 1.37). Across the brigade of midshipmen, the average age is 20.9 years. Concerning ethnicity, nearly 86% of respondents described themselves as European American, 5.3% as

Hispanic, 4.8% as African American, 2.3% as Asian, 1.4% as Philippine, 0.4% as Native American, and .02% as Pacific Islander. Across the brigade of midshipmen, 81.3% were European American, 7.5% Hispanic, 6.1% African American, 4.3% Asian, 0.8% Native American, and .08% were classified as "other." Respondents reported a mean grade point average of 2.85 (SD=0.54). Across the brigade of midshipmen, the mean cumulative grade point average was 3.01. With regard to class standing, 29% reported they were in the first quartile, 29% the second quartile, 26% the third quartile, and 16% the bottom quartile. Academic (M=2.28, SD=1.08) and military (M=2.19, SD=1.02) order of merit reported by the respondents (see Table 2) were both 31% in the first quartile, and 17% and 13% in the bottom quartile. Ten percent of respondents reported prior military service. Across the brigade of midshipmen, 12% have prior military service.

Table 2

The Three Areas Of Order Of Merit And Self-Reported Quartiles

	Academic Order Merit of		Military Order Merit of		Overall Order Merit of	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1st Quartile	177	31.2	176	31.0	161	28.3
2nd Quartile	152	26.8	182	32.0	172	30.3
3rd Quartile	142	25.0	135	23.8	148	26.1
4th Quartile	97	17.1	75	13.2	87	15.3
Total	568	100	568	100	568	100

Each year 1,200 highly qualified individuals are selected to become midshipmen from a very competitive field of 9,800 applicants. Midshipmen at the Naval Academy are highly motivated and well-rounded men and women who excel not only academically, but also in athletics, leadership, and service. Midshipmen desire challenges and want to be leaders serving their country. The rigorous application process includes an appraisal of academic performance, medical and dental health, physical fitness, leadership potential and several personal characteristics such as motivation and good moral character.

B. MEASURES

The instrument developed for this study was a double-sided, four-page questionnaire entitled "Mentoring Survey" (see Appendix A). The survey instrument consisted of questions derived from previous studies and research on mentoring. A draft questionnaire was reviewed, critiqued and approved by U. S. Naval Academy faculty and the Academy's Human Subjects Review Board. Varying definitions for the term mentor are common in the literature. In addition, research has shown that differences in interpretation of the term "mentoring" can affect research outcomes. It was therefore determined that a specific definition of mentoring would be utilized in this study. Respondents were provided the following definition of mentoring:

> Mentoring is a personal relationship in which a more experienced individual acts as a guide, role model, and teacher to a less experienced protégé. Mentors provide protégés with knowledge, advice, challenges, counsel and support in their pursuit of becoming full members of a particular profession.

The directions specified that the questions pertained to the experience of having been mentored, using the definition provided. The first group of questions asked about academic and military standing, followed by a series of standard demographic questions. Respondents were then questioned about mentors, mentoring and their general satisfaction with the Naval Academy. Respondents who indicated they had never been mentored were then asked to stop. Those who had at least one mentor were asked to continue. The second part of the questionnaire inquired about the respondent's single most significant Naval Academy mentor and the nature of that mentoring relationship. Specific questions asked about the mentor's age, military affiliation, duration of the mentoring relationship, the nature of the relationship, defining characteristics of the relationship, and potential benefits of having been mentored. Finally, respondents were asked to explain and describe an event or experience from this mentoring relationship, which best illustrated how they benefited from being mentored. Only the quantitative responses to the survey will be address in this study.

C. PROCEDURE

During the spring intercessional of 1999, each of the 1368 midshipmen were given a survey by their Company Officer. Each survey included a cover letter, with consent for participation and a four-page, double-sided Mentoring Survey. Anonymity of responses was guaranteed and participation was voluntary. The surveys were issued on a Monday to the Company Officers of the randomly selected companies. The surveys were picked up on the subsequent Friday from the same Company Officers.

Five hundred and eighty-four midshipmen returned surveys. Twenty-six surveys were unusable due to incomplete responses. The remaining 568 surveys were carefully entered into a database by company. The data were then analyzed with an SPSS statistical package. Those midshipmen who reported having mentors at the Naval Academy and those who did not were compared with respect to demographic characteristics, performance indicators and attitudinal variables. Respondents who reported at least one mentor, (57%) served as the subgroup for evaluating the characteristics and descriptions of mentors and mentoring relationships experienced by midshipmen.

THIS PAGE INTENTIONALLY LEFT BLANK

IV. RESULTS

A. PREVALENCE OF MENTORING RELATIONSHIPS

Of the 568 midshipmen who completed the survey, 323 (57%) reported having experienced one or more mentor relationship. Two hundred and fifty-six (45%) respondents had one or more mentor relationship while at the Naval Academy. Mentored respondents were asked to report the number of mentor relationships they had experienced during their time at the Naval Academy. Midshipmen reporting mentor relationships had an average of two mentors (M=1.98, SD=2.74), with a range from 1-20, during their Naval Academy careers. The percentage of respondents reporting one mentor was 21%, 25% reported two mentors, 22% reported three mentors, and 32% reported four or more mentors. The percentage of respondents in each class reporting a mentor and number of respondents having a mentor at USNA are listed in Table 3. Overall, there is a constant trend across classes showing approximately 45% of midshipmen have had at least one mentor at USNA.

Table 3

Respondents Mentored At USNA By Class

Class (grade)	**of Respondent**	**1st Class**	**2nd Class**	**3rd Class**	**4th Class**	**Total**
Mentor at USNA	**Yes**	**32**	**58**	**66**	**100**	**256**
	(of total)	(12.5%)	(22.6%)	(25.8%)	(39.1%)	(100%)
	[by class]	[46.3%]	[43%]	[44%]	[46.7%]	
	No	37	77	84	114	312
Total		69	135	150	214	568

Participants who did not experience a mentor relationship at the Academy were asked to specify the reason they were not mentored. Seventy percent of respondents indicated they did not need a mentor, 13.7% stated that they were unable to find a mentor, 5.8% had not heard of mentoring, and 5.8% had never considered being mentored. Less frequent reasons for not having a mentor relationship included not wanting a mentor, and not having anyone offer to be a mentor.

1. Importance of Mentoring

All respondents were asked to rate (1 = extremely unimportant, 5 = extremely important) the importance of mentoring relationships at the Naval Academy ($M = 3.50$, $SD = 0.90$). A majority of the total set of respondents indicated mentoring was extremely or moderately important (51%) (Table 4), while 11% indicated mentoring was unimportant. However, nearly 75% of the respondents having a USNA mentor indicated that mentoring was extremely or moderately important, and less than 5% indicated that was unimportant. Twenty-one percent were neutral on the subject. Only 31% of the respondents not having a USNA mentor indicated that mentoring was important, while 16% indicated that it was unimportant. Fifty-three percent were neutral on the subject. T-test analyses revealed a significant difference between those who had a mentor at USNA and those who do not in their rating of the importance of having a mentor. Those who had a mentor rate having a mentor as significantly more important than those who did not, $t(564) = 10.29$, $p < .001$ (see Table 4).

Respondents who had a mentor rated the importance of mentoring (1 = extremely unimportant 5 = extremely important) for their personal and professional growth.

Regarding personal growth, 82% of the respondents indicated mentoring was extremely or moderately important, and only 4.5% indicated mentoring was unimportant (M = 4.07, SD = .86). With respect to professional growth, 73.3% indicated that mentoring was extremely or moderately important, while 5.7% indicated mentoring was unimportant (M = 3.93, SD = .90).

Table 4

Rating Of Importance Of Mentor Relationships By Rating Category

	Had a USNA Mentor Number (%)	**Did not have a USNA Mentor Number (%)**	**Total # (%)**
Extremely Unimportant	2 **(.7%)**	11 **(4%)**	13 **(2%)**
Moderately Unimportant	10 **(4%)**	39 **(13%)**	49 **(9%)**
Neutral	54 **(21%)**	162 **(52%)**	216 **(38%)**
Moderately Important	138 **(54%)**	81 **(26%)**	219 **(39%)**
Extremely Important	52 **(20.3%)**	17 **(5%)**	69 **(12%)**
Total	256	310	566

2. Outcomes of Mentoring

Respondents were asked the extent of their agreement (1 = strongly disagree, 7 = strongly agree) that their success at USNA could be attributed to themselves and the extent of agreement that their success could be attributed to their mentor. T-test analyses revealed that respondents were also more inclined to attribute their success at USNA to themselves (M = 5.94, SD = 1.32), than to their mentor (M = 3.95, SD = 1.73), ($t(316) = 14.0$, $p < .001$). Respondents were more inclined to attribute their success at

USNA to themselves (M = 5.94, SD = 1.32), than to "others" (M = 2.27, SD = 1.19), ($t(78) = 12.86$, $p < .001$). Eighty-three respondents attributed their success at USNA to "others." Respondents most often listed family (43.4%), friends (26.5%), God (22.9%), luck (4.8%), or professors and coaches (2.4%) as "others."

Respondents were asked to rate their overall level of satisfaction (1 = extremely dissatisfied, 7 = extremely satisfied) with USNA (see Table 5). There was moderate satisfaction with USNA (M = 4.68, SD = 1.32). Only 7% rate their satisfaction in the lowest two categories while 27.8% rate their satisfaction in one of the top two categories. Disregarding the "midpoint" rating, 20.2% fall on the side of dissatisfied while 64.7% rate themselves as satisfied with USNA. T-test analyses revealed a significant relationship between having a mentor at USNA and satisfaction at USNA, $t(565) = 3.22$, $p < .001$, with higher satisfaction reported by those with a mentor (see Table 6).

Table 5

Likert Scale Ratings For Satisfaction With USNA

Rating	1 Extremely Dissatisfied	2	3	4	5	6	7 Extremely Satisfied
Percent	1.9%	5.1%	13.2%	15%	36.9%	23.6%	4.2%

Respondents were asked about their intent to make the military a career (1 = positively not, 5 = positively will). Respondents generally were unsure or did not know (M = 3.24, SD = 1.03) whether they wanted to make the military a career. There was no

difference between those midshipmen with a mentor and those without on ratings of military career intentions (see Table 6). Similarly, having a mentor did not have a significant effect on any of the following outcome variables (see Table 6): personal or professional growth, overall order of merit, class standing or GPA.

Forty-five percent of respondents having a USNA mentor also acted as a mentor to someone else. This compares to 12% of non-mentored respondents. Chi-square analyses revealed a significant relationship between having a mentor at USNA and serving as a mentor to others χ^2 (1, N = 568) = 78.43, $p < .001$. Fifty-four percent of respondents having a USNA mentor also held a leadership position within and extra curricular activity (ECA) or sport. Chi-square analyses revealed a significant relationship between having a mentor at USNA and holding a leadership position on a sports team or within an extracurricular activity χ^2 (1, N = 568) = 4.44, $p < .05$. Additionally, Chi-square analyses revealed a significant relationship between respondent gender and having a mentor at USNA χ^2 (1, N = 568) = 14.25, $p < .001$. Just 42% of male midshipmen report having a mentor at USNA compared to 63% of female midshipmen. Chi-square analyses revealed no significant relationship between having a mentor at USNA and the following characteristics: (a) class; (b) ethnicity; and (c) prior military service.

Table 6

Variables Of Interest Compared To Having A Mentor At USNA Or Not Having A Mentor At USNA

	Had a USNA Mentor	Did not have a USNA Mentor	
	Mean & Standard Deviation	Mean & Standard Deviation	T-test
Satisfaction with USNA	M = 4.87 SD = 1.19	M = 4.51 SD = 1.41	t (565) = 3.22 **
Importance Rating of Mentor Relationships	M = 3.89 SD = .79	M = 3.17 SD = 0.85	t (564) = 10.29 **
Overall Order of Merit	M = 2.30 SD = 1.05	M = 2.26 SD = 1.03	t (566) = .44
Class Standing	M = 2.32 SD = 1.07	M = 2.27 SD = 1.03	t (566) = .66
Grade Point Average	M = 2.83 SD = .55	M = 2.86 SD = .54	t (561) = -.59
Rating of Military Career Intention	M = 3.31 SD = .96	M = 3.17 SD = 1.08	t (566) = 1.61

** $p < .001$

B. NATURE OF MENTOR RELATIONSHIPS

1. Characteristics of Mentors

Respondents who indicated one or more mentor relationship at USNA were asked about the characteristics of their "most significant USNA mentor." The primary mentor was most likely to be Caucasian (91.9%), and male (86.7%), and a member of the military (69.7%). Disregarding the number of civilian mentors, military mentors, by rank, were most likely to be midshipmen (40.4%) or military officers with ranks of O4 (13.3%), O3 (12.9%), O5 (11.5%) and O6 (9.6%). As shown in Table 7, most mentors

were military officers (41.6%). Civilian mentors (30.3%) were the second most commonly reported mentors, followed by Midshipmen mentors (28.1%). Peer mentoring is apparently important and occurs frequently at the Naval Academy. Most respondents (96.5%) reported that their mentor was older than they were by an average of 17.4 years (SD = 12.97). Only 3.5% reported having a mentor younger than they were, and none reported having a mentor relationship with someone the same age.

Table 7

Frequency And Percentage For Mentors' Rank

MENTOR RANK	FREQUENCY	PERCENTAGE
ENLISTED	14	4.5
O-1	5	1.6
O-2	4	1.3
O-3	28	8.9
O-4	29	9.3
O-5	25	8.0
O-6	21	6.7
O-7 & ABOVE	4	1.3
MIDSHIPMEN	88	28.1
CIVILIAN	95	30.3

Respondents were asked to rate the extent (1 = lowest, 10 = highest) to which various groups of people could reasonably serve as mentors to them. Peers received the highest rating followed by chaplains, professors and instructors, coaches, and company officers. Paired T-tests revealed that peers were significantly preferred over all of the

other mentors listed (Table 8). Chaplains were significantly preferred over company officers.

Table 8

Mean Ratings Of The Extent To Which Others Could Reasonably Serve As Mentors And Paired T-Test Results

	Peers	**Chaplains**	**Professors**	**Coaches**	**Company**
Mean	M = 6.75	M = 6.31	M = 6.25	M = 6.11	M = 6.02
Standard Deviation	SD = 2.57	SD = 2.74	SD = 2.41	SD = 2.62	SD = 2.78
Chaplains	t (564) = 3.29 ***	ns	ns	ns	ns
Professors	t (565) = 3.92 ***	ns	ns	ns	ns
Coaches	t (559) = 5.06 ***	ns	ns	ns	ns
Company Officers	t (564) = 4.96 ***	t (563) = 1.99 *	ns	ns	ns

*** = $p < .001$ ** = $p < .01$ * = $p < .05$ ns = not significant

Respondents were asked to indicate their agreement or disagreement (1 = strongly disagree, 5 = strongly agree) with ten salient mentor characteristics in terms of how descriptive they were of their most significant mentor (Table 9). "Honest and ethical" (M = 4.53, SD = 0.84) was the most highly rated characteristic of mentors, and over 80% of respondents moderately or strongly agreed that this described their mentor. After honest and ethical, mentors were most likely to be described as caring, intelligent, friendly and wise. Interestingly, "warm" was the least descriptive term for mentors. All ten traits were endorsed in the "agree" direction (rating greater than 3.0). While these ten traits were significantly correlated with helping the protégé develop personally and

professionally, only the 'ethical and honest' trait significantly correlated with satisfaction with USNA ($r = .11$, $p < .05$). Only the 'professional' trait significantly correlated with intent to make the military a career, and just three characteristics (caring, friendly, warm) significantly correlated with the importance rating of mentors (Table 10).

Table 9

Mentor Characteristics Listed In Order Of Respondents' Mean Ratings
Scale (1 = Strongly Disagree, 5 = Strongly Agree)

	M SD	(1) t	(2) t	(3) t	(4) t	(5) t	(6) t	(7) t	(8) t	(9) t	(10) t
HONESTY (1)	4.53 0.84	-------	t (317) = 2.29 *	t (317) = 3.14 ***	t (317) = 3.47 ***	t (317) = 4.38 ***	t (317) = 5.18 ***	t (317) = 4.62 ***	t (317) = 4.66 ***	t (317) = 5.06 ***	t (317) = 9.98 ***
CARING (2)	4.43 0.86		-------	ns	ns	t (317) = 2.51 *	t (317) = 2.79 **	t (317) = 3.17 **	t (317) = 3.10 **	t (317) = 3.04 **	t (317) = 9.37 ***
INTELLIGENT (3)	4.39 0.85			-------	ns	ns	ns	t (317) = 2.05 *	t (317) = 2.14 *	t (317) = 2.41 *	t (317) = 7.15 ***
FRIENDLY (4)	4.36 0.92				-------	ns	ns	ns	t (317) = 2.08 *	ns	t (317) = 7.68 ***
WISE (5)	4.32 0.88					-------	ns	ns	ns	ns	t (317) = 6.26 ***
LEADER (6)	4.30 0.95						-------	ns	ns	ns	t (317) = 5.14 ***
AVAILABLE (7)	4.29 0.85							-------	ns	ns	t (317) = 5.74 ***
SENSE OF HUMOR(8)	4.28 0.97								-------	ns	t (317) = 5.08 ***
PROFESSIONAL (9)	4.25 1.07									-------	t (317) = 3.77 ***
WARM (10)	3.98 1.02										-------

*** = $p < .001$ ** = $p < .01$ * = $p < .05$ ns = not significant

Table 10

Pearson Correlation (r) Values For Mentor Characteristics
And Important Independent Variables

	Personal Growth	Professional Growth	Career Intentions	Mentor Importance	USNA Satisfaction
HONESTY	r = .30 **	r = .30 **	ns	ns	r = .11 *
CARING	r = .35 **	r = .25 **	ns	r = .14 *	ns
INTELLIGENT	r = .13 *	r = .13 *	ns	ns	ns
FRIENDLY	r = .26 **	r = .18 **	ns	r = .12 *	ns
WISE	r = .23 **	r = .20 **	ns	ns	ns
LEADER	r = .28 **	r = .29 **	ns	ns	ns
AVAILABLE	r = .26 **	r = .15 **	ns	ns	ns
SENSE OF HUMOR	r = .28 **	r = .17 **	ns	ns	ns
PROFESSIONAL	ns	r = .32 **	r = .21 **	ns	ns
WARM	r = .32 **	r = .19 **	ns	r = .13 *	ns

** = $p < .01$ * = $p < .05$ ns = not significant

Respondents were asked to report their gender and the gender of their USNA mentor. Ninety-five percent of the male respondents reported having a male mentor, while just 54% of the female respondents reported having a male mentor. Forty-six percent of the female respondents reported having a female mentor, while 5% of the male respondents reported the same (Table 11). Chi-square analyses revealed a significant relationship between gender of respondent and gender of mentor χ^2 (1, N = 315) = 76.34, $p < .001$.

Table 11

Comparison Between Gender Of Respondents And Mentors

	Male Respondent	Female Respondent	Total
Male Mentor	238 **(95.2%)**	35 **(53.8%)**	273
Female Mentor	12 **(4.8%)**	30 **(46.2%)**	42
Total	250	65	315

Independent sample T-test analyses revealed a significant relationship between respondent gender and the independent variable of the importance rating of mentor relationships. All other dependent variables showed no significant difference by gender (Table 12).

Table 12

Variable Of Interest Compared To Gender Of Respondent

	Male Respondent	**Female Respondent**	**T-test**
Mentored Others	M = 1.74 SD = .44	M = 1.67 SD = .47	t (474) = 1.49 ns
Satisfaction w/USNA	M = 4.65 SD = 1.35	M = 4.78 SD = 1.20	t (474) = -.87 ns
Importance Rating of Mentor Relationships	M = 3.42 SD = .89	M = 3.87 SD = .86	t (474) = -4.50 ***
Rating of Military Career Intentions	M = 3.25 SD = 1.03	M = 3.15 SD = .99	t (474) = .90 ns
Personal Growth	M = 4.06 SD = .83	M = 4.12 SD = .97	t (252) = -.55 ns
Professional Growth	M = 3.92 SD = .91	M = 3.97 SD = .88	t (252) = -.36 ns

*** = $p < .001$ ns =not significant

2. Initiation of Mentor Relationships

Respondents were asked to provide information regarding the initiation of the mentor relationship. Nearly 48% of mentored midshipmen reported that the mentor initiated the relationship. An additional 47% reported that their mentoring relationship was started mutually or "just happened." Only 5% of respondents reported that a third party introduced mentors or that the relationship was somehow formally arranged, (for example, the Naval Academy has a formal mentor program for midshipmen requiring honor remediation). Surprisingly, none of the respondents reported that the relationship was initiated by the protégé.

An ANOVA revealed a significant relationship between satisfaction with USNA and initiation of the mentor relationship $F(3, 563) = 3.39$, $p < .05$. There were three categories of mentor relationship initiation evaluated. These categories were mentor initiated, mutually initiated or "other". However, post-hoc Tukey HSD tests revealed no significance between group differences based on the categories of initiation. Respondents reporting a mentor-initiated relationship had a mean USNA satisfaction rating of 4.82 ($SD = 1.29$). Those with a mentor relationship that started mutually reported a statistically equivalent mean USNA satisfaction rating of 4.79 ($SD = 1.22$). The few respondents whose mentor relationship started via a formal program, or introduction through a third party, reported had a higher mean USNA satisfaction rating of 5.46 ($SD = .88$). While the overall ANOVA was significant, the amount of sampling error resulting from the small sample size of the third group ("others") may have resulted in insignificant post hoc analyses.

Male respondents were more likely to be involved in a mentor relationship initiated by the mentor (51%), while female respondents were more likely to be in a mentor relationship initiated mutually (58%) (Table 13). Chi-square analyses revealed no significant relationship between initiation of the mentor relationship and respondent gender χ^2 (2, N = 248) = 3.26.

Table 13

Gender And Mentor Relationship Initiation

	Male Respondent	Female Respondent	Total
Mentor Initiated	99 **(50.5%)**	19 **(36.5%)**	118
Mutually Started	87 **(44.4%)**	30 **(57.7%)**	117
Other, introduced, or program	10 **(5.1%)**	3 **(5.8%)**	13
Total	196	52	248

Most respondents who mentored others had a mentor relationship of their own initiated by their mentor (53.7%), (Table 14). Forty percent of respondents had a mutually initiated relationship and subsequently mentored others. Finally, just 6.3% of respondents were introduced to their mentor and then mentored others. Chi-square analyses revealed no significant relationship between initiation of the mentor relationship and mentoring others χ^2 (2, N = 248) = 3.23.

Table 14

Initiation Of Own Mentor Relationship And
Mentoring Other People

	Mentored Others	Did Not Mentor Others	Total
Mentor Initiated	51 **(54%)**	67 **(44%)**	118
Mutually Started	38 **(40%)**	79 **(52%)**	117
Other, introduced, or program	6 **(6%)**	7 **(5%)**	13
Total	95	153	248

3. Duration of Mentor Relationships

Duration of the mentor relationship was another area of interest. Mentor relationships ranged from 1 month to 24 years. More than 58% of mentor relationships lasted less than one year, 24.5% lasted between one and two years, and 17.1% lasted for more than 2 years.

ANOVAs for duration of the mentor relationship revealed significance between duration and the following variables (Table 15): importance of the mentor relationship, satisfaction with USNA, and promotion of personal growth. The importance rating of mentor relationships was lowest for those having a mentor relationship less than one year. The promotion of personal growth increased with longer mentor relationships. Satisfaction with USNA shows the highest mean for mentor relationships lasting one to two years. ANOVAs for duration of the mentor relationship revealed no significance between duration and the following variables: intent to make the military a career; and mentoring helped promote professional growth. Duration of mentor relationships was

separated into three categories. The means and standard deviations for ratings of key variables by duration of mentor relationship are provided in Table 15.

Table 15

ANOVA F Values And Means And Standard Deviations For Key Variables That Relate To Mentor Relationship Duration

	F	M & SD < 1 Year Duration	M & SD 1-2 Years Duration	M & SD > 2 Years Duration
Importance Rating of Mentor Relationship	(565) = 28.84 ***	M = 3.27 SD = .85	M = 3.89 SD = .86	M = 3.70 SD = .88
Promotion of Personal Growth Rating	(317) = 4.77 **	M = 3.90 SD = .87	M = 4.02 SD = .88	M = 4.28 SD = .77
Satisfaction with USNA	(565) = 3.20 *	M = 4.60 SD = 1.34	M = 4.92 SD = 1.18	M = 4.58 SD = 1.43
Intent to Make the Military a Career	(565) = 1.98 ns	M = 3.23 SD = 1.05	M = 3.36 SD = .93	M = 3.09 SD = 1.05
Promotion of Professional Growth	(317) = .33 ns	M = 3.87 SD = .93	M = 3.98 SD = .88	M = 3.93 SD = .90

df = 2 *** = $p < .001$ ** = $p < .01$ * = $p < .05$ ns = not significant

4. Functions of Mentoring

Respondents were asked to rate 15 mentor functions (Kram, 1988) provided by the mentor during the relationship. Table 16 provides means and standard deviations for ratings of each mentor function. Table 16 also shows paired T-test values for each mentor function.

T-test analyses revealed that support and encouragement from a mentor was significantly more important than all other mentor functions. Increased self-esteem was significantly more important than ten of the 15 mentor functions listed. The concept that

a mentor gives a protégé opportunity was significantly more important than eight other mentor functions. Mentor functions such as providing direct training, advocating on behalf of the protégé, providing emotional support, and promoting the development of personal ethics and values all were significantly more important than seven of the 15 listed mentor functions.

Table 17 provides Pearson's correlation results for each mentor function and several key factors associated with having a mentor at USNA. Satisfaction with USNA was significantly correlated with just two mentor characteristics, enhancement of military career and development of military skills. Personal growth rating was significantly correlated with all but three characteristics. However, support and encouragement, increased self-esteem, emotional support and building personal ethics and values have the highest correlation with this outcome. Professional growth rating was significantly correlated with all but one characteristic, development of academic skills. Enhanced military career, developed military skills and building of professional networks have the highest correlation with this outcome. The importance rating of mentor relationships were significantly correlated with three characteristics; development of military skills, enhanced military career and support and encouragement. Intent to make the military a career was significantly correlated with two characteristics, enhanced military career and development of military skills.

Table 16

Means And Standard Deviations For Ratings Of Mentor Functions
And Paired T-Test Values For Mentor Functions

Mentor Function **THE MENTORING RELATIONSHIP:**	M SD	(1) t	(2) t	(3) t	(4) t	(5) t	(6) t	(7) t	(8) t	(9) t	(10) t	(11) t	(12) t	(13) t	(14) t	(15) t
(1) SUPPORT & ENCOURAGEMENT	4.32 0.86	---	6.06 ***	6.01 ***	5.49 ***	6.19 ***	7.96 ***	7.10 ***	9.78 ***	10.09 ***	10.39 ***	10.37 ***	12.00 ***	11.74 ***	13.04 ***	7.16 ***
(2) INCREASED SELF-ESTEEM	4.05 0.91		------	ns	ns	ns	2.71 **	2.20 *	5.28 ***	5.67 ***	6.21 ***	6.53 ***	8.43 ***	8.21 ***	9.23 ***	3.02 **
(3) GAVE OPPORTUNITIES	3.99 1.05			------	ns	ns	6.01 ***	ns	4.15 ***	5.15 ***	5.22 ***	5.85 ***	7.19 ***	7.92 ***	8.03 ***	ns
(4) DIRECT TRAINING	3.98 1.12				------	ns	ns	ns	3.75 ***	3.67 ***	4.70 ***	5.58 ***	6391 ***	7.62 ***	7.66 ***	ns
(5) ADVOCATED FOR PROTÉGÉ	3.95 1.06					------	ns	ns	3.20 **	3.93 ***	4.80 ***	4.79 ***	6.73 ***	7.92 ***	7.03 ***	ns
(6) EMOTIONAL SUPPORT	3.92 0.97						------	ns	3.05 **	3.29 **	3.64 ***	4.48 ***	5.85 ***	6.27 ***	7.06 ***	ns
(7) BUILT PERSONAL ETHICS AND VALUES	3.92 1.08							------	3.09 **	2.96 **	3.44 **	4.76 ***	5.86 ***	5.81 ***	6.66 ***	ns
(8) CREATIVITY & PROBLEM SOLVING	3.73 1.04								------	ns	ns	2.03 *	3.42 **	3.59 ***	5.03 ***	ns
(9) PROTECTION	3.73 1.10									------	ns	ns	3.49 **	4.01 ***	3.81 ***	ns
(10) INCREASED VISIBILITY& EXPOSURE	3.67 1.11										------	ns	2.81 **	3.43 **	3.56 ***	2.69 **
(11) DEVELOPED MILITARY SKILLS	3.59 1.14											------	ns	ns	2.13 *	5.54 ***
(12) BUILT PROFESSIONAL NETWORKS	3.50 1.11												------	ns	ns	6.06 ***
(13) BYPASS BUREAUCRACY	3.45 1.20													------	ns	5.58 ***
(14) DEVELOPED ACADEMIC SKILLS	3.43 1.11														------	5.64 ***
(15) ENHANCED MILITARY CAREER	3.86 1.06															------

N=315 Ratings are based on a scale of 1 to 5 where 5 is strong agreement that the characteristic was true of the mentor.

(* $p < .05$) (** $p < .01$) (*** $p < .001$) (ns not significant)

Table 17

Pearson Correlation Between Mentor Functions And Key Outcomes Of Having A Mentor At USNA

Mentor Function	Satisfaction W/USNA Rating	Personal Growth Rating	Professional Growth Rating	Importance Rating of Mentor Relationships	Intent to make the military a career
SUPPORT & ENCOURAGEMENT	r = .09	r = .41**	r = .20**	r = .13*	r = -.01
ENHANCED MILITARY CAREER	r = .17**	r = .19**	r = .43**	r = .19**	r = .16**
BUILT PROFESSIONAL NETWORKS	r = .10	r = .10	r = .33**	r = .11	r = .07
INCREASED SELF-ESTEEM	r = .001	r = .35**	r = .23**	r = .06	r = -.02
EMOTIONAL SUPPORT	r = .05	r = .36**	r = .20**	r = .03	r = -.05
DEVELOPED ACADEMIC SKILLS	r = .-.03	r = .07	r = .06	r = -.02	r = -.03
DEVELOPED MILITARY SKILLS	r = .11*	r = .17**	r = .39**	r = .20**	r = .13*
BUILT PERSONAL ETHICS AND VALUES	r = .09	r = .38**	r = .28**	r = .11	r = .05
CREATIVITY & PROBLEM SOLVING	r = -.03	r = .23**	r = .18**	r = .02	r = -.01
INCREASED VISIBILITY& EXPOSURE	r = .04	r = .14*	r = .18**	r = .03	r = .07
ADVOCATED FOR PROTÉGÉ	r = .04	r = .20**	r = .12*	r = .03	r = .06
DIRECT TRAINING	r = .09	r = .17**	r = .24**	r = .10	r = .09
PROTECTION	r = .02	r = .27**	r = .19**	r = .07	r = -.06
GAVE OPPORTUNITIES	r = .02	r = .28**	r = .24**	r = .03	r = -.02
BYPASS BUREAUCRACY	r = .04	r = .06	r = .14*	r = -.33	r = -.07

*** = p < .001 ** = p < .01 * = p < .05

V. DISCUSSION

This was the second study to offer an assessment of mentoring relationship experiences at the United States Naval Academy. There are no other studies exploring mentor relationships among students at any of the U.S. military academies. In fact, there are only a few studies regarding mentor relationships and the military in general. This section will highlight the major findings of this study and accentuate the primary implications

The finding that 55% of respondents do not view themselves as having been mentored at USNA raised several salient issues. First, 70% of respondents not having a USNA mentor indicated that they did not need a mentor. This suggests that many midshipmen, nearly 40% of the Brigade, are either uninformed regarding the benefits of mentoring or unfortunately dismiss the potential value of being mentored at USNA. Literature on mentoring suggests that those who are mentored are afforded greater career and personal benefits as well as greater career and life satisfaction (Johnson et al in press; Roche, 1979). Second, senior military personnel have reported that having mentors in the military is very important for career success, career satisfaction, and promotion (Johnson et al, 1999). Third, military personnel in training, the primary mission of USNA, report markedly positive outcomes from modeling themselves after a mentor (Johnson et al, 1999). Fourth, this finding raises some concerns about the availability of mentor relationships for early-career midshipmen (e.g. those in the first two years of training). If most students are not currently mentored, and being mentored is a strong predictor of

subsequent mentoring (Roche, 1979), then there are concerns about the actual availability of such relationships at USNA. Finally, the finding that most non-mentored midshipmen believe they do not need a mentor may suggest a lack of information regarding the benefits of mentoring, or a belief among many midshipmen that mentoring is unnecessary or irrelevant.

However, importance ratings of mentoring indicate this is not the case. Midshipmen clearly indicated that mentor relationships at USNA were important whether they had a mentor or not, though this perception is less dominant among those without a mentor. In fact, 74% of respondents with a mentor rate having a mentor as important while only 31% of respondents without a mentor see having a mentor as important. This strong endorsement of the importance of mentoring relationships indicates that on the whole, midshipmen may view mentoring as important for personal and professional development at USNA.

A. COMPARISON WITH THE PREVIOUS STUDY

A preliminary study by Johnson, Lall, Holmes, Huwe, and Nordlund (1999) had several limitations. It concentrated solely on third year midshipmen, and did not limit mentor relationships to those experienced at USNA. The Johnson et al (1999) study did not compare outcome data between midshipmen who had a mentor and those who did not. Finally, the exploratory study did not address who the mentor was or mentor impact.

The current study involved midshipmen from all academic years and found that 57% of respondents reported having a mentor at some time in their lives, while 45% of

respondents reported having a mentor at USNA. This means that 43% of the respondents have never had a mentor and 55% have not had a mentor at USNA. This is surprising in that one of the roles of company officers and senior enlisted advisors at USNA is to mentor midshipmen. While rates of mentor relationships tend to be higher in graduate education (Clark, Harden, & Johnson, 2000) there are no comparative data in equivalent undergraduate institutions.

The current research confirms several findings from the preliminary study with midshipmen (Johnson et al, 1999). First, women (63%) are more likely to be mentored than their male (42%) counterparts at USNA. Second, most USNA mentors are older than their protégé. Third, most USNA mentors are members of the military. Fourth, both studies suggest that mentoring is viewed as important and evaluated favorably. Fifth, both studies confirm a Brigade prevalence rate for mentoring between 40% and 45%.

In some cases, the current research findings conflicted with previous research using USNA midshipmen. First, previous research reported an average of 2.79 (SD = 2.27, Range = 1-16) mentors compared to the current research showing an average of 1.98 (SD = 2.74, Range = 1-20). This may be explained by the fact that Johnson et al (1999) utilized only second-class midshipmen, while the current study included classes across the entire Brigade. More advanced midshipmen would have more opportunity to forge mentorships. Second, previous research with USNA midshipmen indicated that mentor relationships at USNA were largely initiated mutually (68%). Current research indicates nearly half of all mentor relationships at USNA are initiated by the mentor (48%), and 47% are mutually initiated. Third, the previous study found that most mentor

relationships lasted more than two years. However, the current study found that most USNA mentor relationships last less than one year. Again, this may be a function of inclusion of all midshipmen in the latter study. Those midshipmen in their first year or two at USNA could not have had a USNA mentor for more than 1.5 years at the time of the survey.

B. MENTOR CHARACTERISTICS

Respondents of the current research were asked to report the extent to which they thought company officers, instructors, peers, chaplains and coaches could reasonably serve as mentors. Peers were rated as the most likely mentors with company officers, chaplains and coaches significantly rated lower than peers in terms of perceived likelihood to be mentors. Peers were rated most likely to serve as mentors perhaps as a function of their close interaction with one another. Another influence that may have influenced peer ratings is the idea of a role model. Since the younger midshipmen have little or no concept of what life at the Academy or in the Navy is like, they look to the more senior midshipmen as role models of how to behave at the Academy. The intensity of the Academy environment may preclude most of the younger midshipmen from even considering what their lives will be like in several years. Therefore, the company officer, professor and coaches do not necessarily represent people that younger midshipmen immediately inspire to emulate. The older midshipmen appear to be the best choice of mentors to help the younger midshipmen 'learn the ropes,' be successful at the Academy, and teach the 'culture.'

Consistent with the literature review, and previous research using USNA midshipmen, duration of the mentor relationship was positively and significantly correlated with respondents' evaluation of mentor relationship importance, satisfaction with USNA and personal growth. Thus in general, longer-lasting mentor relationships produce greater personal development and institutional satisfaction.

Additionally, all ten mentor characteristics (Kram, 1983) were significantly correlated with helping the protégé develop personally and professionally. Thus, both career and psychosocial mentor functions appear important in the development of USNA midshipmen. Many of the characteristics discussed by Kram (1983) are part of the character and professional development programs midshipmen are required to complete at USNA.

"Honest and ethical" was the most highly rated characteristic of USNA mentors. Further, the "honest and ethical" trait was the only mentor trait significantly correlated with respondents' satisfaction with USNA. This indicates a strong valuing of the honor code embraced by the Brigade of midshipmen as well as the fundamental character virtues of honesty and integrity. While all ten mentor characteristics (Kram 1983) were rated as descriptive of mentors by respondents, the characteristic of "warm" received the lowest rating. It is not surprising that warmth received such a low rating. Military leaders are seldom rewarded for or evaluated on interpersonal traits such as warmth. Such characteristics may have low correlation with job performance.

Only the "professional" trait was significantly correlated with the intent to make the military a career. Thus, respondents who rated their mentor as "professional" were

more inclined to indicate "probably will" or "definitely will" for their intent to make the military a career. It is difficult to know whether midshipmen who intend to remain in the military seek out "professional" mentors, or whether "professional" mentors influence midshipmen to try the Navy as a career.

Three characteristics among the ten described by Kram (1983), caring, friendly and warm, were significantly correlated ratings of the importance of mentors. These three traits describe how the mentor interacts personally with the protégé. Those respondents having a primary USNA mentor who was rated highly on one or more of these three traits also rated their mentor relationship as more important. It seems that mentors with good interpersonal skills may develop more impactful and important relationships with protégés.

C. GENDER DIFFERENCES

The current study found that initiation of a mentor relationship was significantly related to gender. Male midshipmen were most likely to have a mentor relationship initiated by the mentor while their female counterparts were most likely to have a mentor relationship that started mutually. This is an interesting finding and may reflect either an actual difference in initiation based on gender or a gender-related difference in experiencing or perceiving relationship formation (Dreher & Ash, 1990; Dreher & Cox, 1996; Kram, 1985), or both.

Consistent with the literature review, 95% of the male respondents reported having male mentors while 46% of the female respondents reported having female

mentors. Just 5% of male respondents had female mentors and 54% of the female respondents had male mentors. Similar to the business and academic sectors, USNA mentors tend to be male. Thus at USNA, women midshipmen have fewer opportunities for same-gender mentorships. However, it is also possible that more women select male mentors due to beliefs that men have more access to organizational resources (Kram, 1985).

In contrast to previous research (Johnson et al, 1999), importance ratings of mentor relationships were significantly correlated to gender. Specifically, females reported greater satisfaction with the primary USNA mentor than their male counterpart. It is possible that women benefit more from mentoring in the USNA environment. Considering the adversity found by women in the military, this finding is not surprising.

D. MENTORING FUNCTIONS

In the current study, all fifteen of the mentor functions proposed by Kram (1988), were endorsed positively by USNA midshipmen, indicating some agreement that mentor relationships at USNA provide career or psychosocial functions. The most salient mentor functions included support and encouragement, increased self-esteem, opportunities, training, and advocating on behalf of the protégé. Support and encouragement, as well as increased self-esteem, were also identified as primary mentor functions in the survey conducted with retired Navy Admirals (Johnson et al, 1999).

It is interesting that support and encouragement was the most highly rated mentor function. The USNA is a high stress environment by design and therefore midshipmen

may be helped by the offering of support and encouragement from a mentor. Furthermore, it was noted in the previous section that when mentors were rated as being high on traits such as "caring, warm and friendly" the mentorship was viewed as more important. It is likely that those mentors rated as more caring, warm and friendly, are also more likely to be perceived as highly supportive and encouraging.

It is interesting that increased self-esteem was rated more highly than many other mentor functions described by Kram (1988). Mentors perceived as offering considerable support and encouragement, and possibly traits such as caring, warmth and friendliness, are likely to provide the necessary psychosocial functions and positive interactions that allow protégés to feel good about themselves, thereby increasing their self-esteem. Self-esteem is an important characteristic for midshipmen to possess in the fast paced, high-stress, and competitive environment at USNA.

Other mentor functions (Kram, 1988) viewed by midshipmen as quite important included providing opportunities, direct training, advocating on behalf of the protégé, providing emotional support, and promoting the development of personal ethics and values. Mentors that were perceived as providing midshipmen opportunities were not necessarily faculty and staff because midshipmen effectively lead and manage the Brigade of midshipmen; and peers were most frequently cited as mentors. However, the provision of opportunities can come from those in a variety of roles within the Brigade (e.g., faculty, staff member, officer representative, or coach). The fact that direct training was a significant function is not surprising at an institution designed for the sole purpose of training young men and women professionally and academically. Considering the

bureaucracy that characterizes government organizations, it is surprising that the function of advocating on behalf of the protégé was significant. USNA has most of the same structural concerns and issues that any major university must contend with, compounded by military specific bureaucracy and a high public profile. Greater institutional power and effectiveness will at times depend on advocacy. Finally, the promotion of personal ethics and values is a key function of USNA as developing midshipmen mentally, physically and morally is the mission of USNA.

Personal and professional growth ratings were significantly and positively correlated with nearly all of the mentor functions (Kram, 1988). Again, USNA emphasizes the personal as well as professional growth of all midshipmen. USNA is fundamentally an institution designed to develop people of character with a solid ethical and moral foundation as well as immerse midshipmen in a military environment. In addition to regular academic curriculum, midshipmen are required to successfully complete a core of professional course including military orientation, seamanship, small arms training, naval science, naval engineering, military ethics, military leadership, navigation, military strategy and tactics, military law, and weapons systems. Furthermore, midshipmen must commit to professional development activities such as character development seminars and summer training programs. These summer programs provide hands-on professional training to midshipmen as they spend several weeks around the globe in the fleet they will one day lead. Considering the emphasis placed on both personal and professional consolidation of USNA students, it makes sense

that each of the primary mentor functions were rated as present in USNA mentor relationships.

Two mentor functions (development of military skills, enhanced military career) were significantly and positively correlated with intent to make the military a career. It is possible that midshipmen whose mentors provide more of these functions are influenced to remain in the Navy. It is more likely, however, that students who intend to stay on active duty seek mentors who offer more of these military-specific functions.

E. BENEFITS OF MENTORING

While mentoring is important for career success and satisfaction (Collins, 1994; Fagenson, 1989; Merriam, 1983), it appears to be especially significant in the early years of an officer's career as evidenced by a recent survey of all retired Navy flag officers. The Flag Officer study found that 67% were mentored during their naval careers. Many indicated that their most important mentor had been their commanding officer early in their career (Johnson et al, 1999).

Consistent with the literature, the significance of mentor influence on protégés' leadership development is suggested by the fact that 76% of midshipmen who acted as mentors reported having a USNA mentor themselves. The current research shows most respondents who subsequently acted a mentor to others were protégés to a mentor-initiated relationship (Clark et al, 2000; Kram, 1988; Roche, 1979). This suggests that an excellent method of ensuring that midshipmen invest personally and professionally in USNA is to provide them with strong developmental mentoring relationships.

Additionally, mentor-initiated relationships resulted in higher satisfaction with USNA, which is consistent with the literature indicating that improved satisfaction with an organization often accompanies mentor relationships (Burke, 1984; Chao & Walz, 1992; Fagenson, 1989; Newby & Heide, 1992; Roche, 1979). Nearly 65% of respondents were satisfied with USNA. Satisfaction with USNA was positively correlated with having a USNA mentor relationship.

Finally, there was a significant and positive correlation between having a USNA mentor relationship and holding a position of leadership on a sports team or ECA. It is unclear whether these midshipmen are leaders because they have a USNA mentor or if they have a USNA mentor and are leaders because they are more outgoing and aggressively pursue leadership positions and mentors as a personal character or personality trait.

THIS PAGE INTENTIONALLY LEFT BLANK

VI. CONCLUSION AND RECOMMENDATIONS

The current research suggests that mentoring at USNA occurs with over 45% of the midshipmen. Mentoring is generally accepted as an important concept even from those who reported not having a mentor at USNA. Female midshipmen were more likely to have mentors. Mentors were most likely older than the protégé, Caucasian, male and in the military. Honesty is the most highly rated personality characteristic of mentors. This study suggests that peers are most trusted and utilized as mentors.

The current research suggests that having a mentor at USNA is related to midshipman satisfaction with USNA. Additionally, those midshipmen having a USNA mentor were subsequently more likely to act as mentors. This has several advantages. These midshipmen were exposed to such mentor qualities as (1) support and encouragement, (2) increased self-esteem, (3) opportunities, (4) emotional support, (5) development of personal ethics and values, (6) improved military skills, and (7) enhance military career. Not only were they exposed to these qualities, but they were able to pass these qualities on to other midshipmen they subsequently mentored. Midshipmen having mentors were also more likely to hold leadership positions on a sports team or ECA. Mentoring relationships at the Naval Academy also enhances career intentions, personal and professional growth of midshipmen.

The current data highlight the importance of training USNA officer staff and faculty to be proactive in establishing mentor relationships with likely protégé candidates, since it does not appear that many mentor relationships occur as a result of formal

assignment. Nearly all USNA mentor relationships were initiated by the mentor, or mutually initiated. Therefore, in order to promote mentoring, USNA faculty and staff should consider intentional initiation of mentoring relationships with midshipmen. These findings differ slightly from trends reported by other research on protégés in higher education, which suggests that protégé initiation is significant to establishing mentor relationships (Clark, Harden & Johnson, 1998). Relationships initiated by the mentor, or even mutually, may promote a long-lasting sense of being intentionally chosen as a result of high performance or strong potential. If this is true, the process of initiation may play a pivotal role in developing confident military officers.

It may prove beneficial to educate the military and civilian faculty and staff on the numerous benefits of mentoring relationships and the characteristics and functions of effective mentors. Following this training, it may prove beneficial to establish a mentor program or requirement for the faculty and staff to identify several midshipmen that they would be willing to mentor and then initiate a mentor relationship with those midshipmen. In other words, it is not mandatory for the midshipmen, but the faculty and staff must seek out those midshipmen that they would be willing to mentor. As a form of development, this program may eventually develop to a point that would encompass midshipmen into the education and training of mentor relationship benefits. As with any formalized or organized program, this should be evaluated, potentially even using a survey similar to the one used in this research and the data presented here as a baseline.

Additional benefits may be realized through educating and training midshipmen on the benefits of mentoring relationships. With the predominance of peers acting as

mentors, it seems like a logical action to educate midshipmen about not only the benefits and potential value of mentoring relationships, but to prepare them to be receptive to mentoring relationships as both mentors and protégés. The idea of being open to mentoring relationships as both a mentor and a protégé is important for several reasons. Peer mentoring has been discussed in great detail in this study. However, midshipmen must also realize the importance of balancing their mentoring relationships with experienced leaders outside the midshipman 'culture' of the Naval Academy. This might be effectively communicated through carefully structure education and training or perhaps this study might even be incorporated into an ongoing leadership class.

In conclusion, the current study sought to answer several research questions. First, the prevalence of mentoring at USNA was found to be consistent with a previous study on third class midshipmen, but slightly less prevalent than among retired Navy Admirals. Second, mentor functions described by Kram (1988), were provided to respondents experiencing a mentor relationship at USNA. The current study found that USNA midshipmen positively endorsed all fifteen mentor functions. Third, career and psychosocial functions provided to mentored midshipmen were related to satisfaction with USNA and the positive evaluation of the mentor relationship. Those midshipmen experiencing a mentor relationship were significantly more satisfied with USNA than their unmentored counterparts. While most midshipmen indicated mentoring relationships were important at USNA, those midshipmen having a mentor were generally more positive about the importance of mentoring relationships.

For greater understanding of the significance of mentoring on military officers in training in general, a similar study at the United States Air force and Military Academies as well as the Coast Guard Academy would be invaluable. Comparative data may provide ways to enhance areas of training and improve mentor relationship initiation at all service academies. Further details should be gathered from the mentor perspective of the relationship. Learning how current military mentors learned the skills necessary to succeed leads directly into promoting effective leadership programs. Additionally, research and details on non-mentored military officers-in-training affords the opportunity to better assess the difference between those who are mentored, and those who are not. Similar research comparing commissioned officers having been mentored to their non-mentored counterparts regarding their effectiveness in operational and training environments would be beneficial. Finally, continue to monitor mentoring trends in the Navy. It is hoped that continued influence of more experience personnel guiding junior officers through significant mentor relationships will promote quality leadership development and training.

LIST OF REFERENCES

Baugh, S.G., Lankau, M.J., Scandura, T.A. (1996). An investigation of the effects of protégé gender on responses to mentoring. Journal of Vocational Behavior, 49, pp. 309-323.

Bhasin, R. (1998). "Career Development; Column." Pulp & Paper, Vol. 72, No. 9, pp. 31.

Bowden, D.D. (1982). On considering aspects of the mentoring process. Behavior Today, 15, pp. 4-5.

Boyles, D. (1998). "Find Your Guide; Self-employed and Seeking a Mentor." Success, Vol. 45, No. 7, pp. 20.

Buhler, P.A. (1998). "A New Role for Managers: The Move from Directing to Coaching; Managing in the 90's." Supervision, Vol. 59, No. 10, pp. 16.

Burke, R.J. (1984). Mentors in organizations. Group and Organizational Studies, 9, pp. 353-372.

Byrne, D. (1969). Attitudes and Attraction. In Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 4, pp. 35-89). New York: Academic Press.

Carli, L.L., Ganley, R., & Pierce-Otay, A. (1991). Similarity and satisfaction in roommate relationships. *Personality and Social Psychology Bulletin*. 17, pp. 419-426.

Chao, G.T., & Walz, P.M. (1992). "Formal and Informal Mentorships: A Comparison on Mentoring Functions and Contrast with Nonmentored Counterparts." Personnel Psychology, Vol. 45, pp. 619-636.

Clark, Harden & Johnson, B. (2000). "Mentor relationships in clinical psychology doctoral training: Results of a national survey." *Teaching of Psychology*. 27, pp. 262-268.

Collie, S.V. (1998). "Moving up Through Mentoring." Workforce, Vol. 77, No. 3, pp. 35.

Collins, P.M. (1994). "Does Mentorship among Social Workers Make a Difference? An Empirical Investigation of Career Outcomes."" National Association of Social Workers, pp. 413-419.

Cronshaw, S.F., & Ellis, R.J. (1991). "A Process Investigation of Self-monitoring and Leader Emergence." Small Group Research, Vol. 22, No. 4, November 1991, pp. 403-420.

Dreher, G.F., & Ash, R.A. (1990). "A Comparative Study of Mentoring among Men and Women in Managerial, Professional, and Technical Positions." Journal of Applied Psychology, Vol. 75, No. 5, pp. 539-546.

Dreher, G.F., & Cox, T.H. (1996). "Race, Gender, and Opportunity: A Study of Compensation Attainment and the Establishment of Mentoring Relationships." Journal of Applied Psychology, Vol. 81, No. 3, pp. 297-308.

Fagenson, E.A. (1989). The mentor advantage: Perceived career/job experiences of protégé versus non-protégés. Journal of Organizational Behavior, 10, pp. 309-320.

Gerstein, M. (1985). Mentoring: An age-old practice in a knowledge-based society. Journal of Counseling and Development, 64, pp. 156-157.

Greenhaus, J.H., Parasuraman, S., & Wormley, W.M. (1990). "Effects of Race on Organizational Experiences, Job Performance Evaluations, and Career Outcomes." Academy of Management Journal, 33, pp. 64-86.

Hill, C.T., & Stull, D.E. (1981). Gender differences in effects of social and value similarity in same gender friendship. *Journal of Personality and Social psychology*, 41, pp. 4848-502.

Hogan, R. (1994). "Trouble at the Top: Causes and Consequences of Managerial Incompetence." Consulting Psychology Journal, Vol. 46, No. 1, winter 1994, pp. 9-15.

Johnson, B., Lall, R., Holmes, E., Huwe, J. & Nordlund. (2001). Military Medicine, 166, pp. 27-31.

Kram, K.E. (1983). Phases of the mentor relationship. Academy of Management Journal, 26, 4, pp. 608-625.

Kram, K.E. (1988). Mentoring at work: Developmental relationships in organizational life. New York: University Press of America.

Knoop, R. (1994). "A Model of Universal Leadership Based on Psychological Type." Journal of Social Behavior and Personality, Vol. 9, No. 1, pp. 43-62.

Lall, R., Holmes, E., Johnson, B., & Yatko, B. "Personal Characteristics of Future Military Leaders." Military Medicine. Vol. 164, 1999, pp. 906-910.

Lubinski, D., and Dawis, R.V., eds., Assessing Individual Differences in Human Behavior (Palo Alto, California: Davies-Black Publishing, 1995), pp. 145-175.

Merriam, S. (1983). Mentors and protégés: A critical review of the literature. Adult Education Quarterly, 33, 3, pp. 161-173.

Monaghan, J. (1992). "Mentoring: Person, Process, Practice and Problems." British Journal of Educational Studies, Vol. XXXX, No. 3, pp. 248-263.

Newby, T.J., & Heide, A. (1992). The value of mentoring. Performance Improvement Quarterly, 5, pp. 2-15.

Orpen, C. (1995). "The Effects of Mentoring on Employee's Career Success." The Journal of Social Psychology, 135(5), pp. 667-668.

Phillips-Jones, L. (1982). Mentors & protégés. New York: Arbor House.

Reid, B.A. (1994). "Mentorships Ensure Equal Opportunity; Viewpoint." Personnel Journal, Vol. 73, No. 11, pp. 122.

Roche, G.R. (1979). "Much Ado about Mentors." Harvard Business Review, January/February 1979, pp. 14.

Scandura, T.A. (1998). "Dysfunctional Mentoring relationships and Outcomes." Journal of Management, Vol. 24, No. 3, pp. 449.

Thomas, D.A. (1990). "The Impact of Race on Managers' Experiences of Developmental Relationships (Mentoring and Sponsorship): An Intra-Organizational Study." Journal of Organizational Behavior, 11, pp. 479-492.

Torrance, E.P. (1984). Mentor relationships. New York: Bearly.

Vickers, R.R. Using Personality Assessment for Leadership Selection. Report 95-16, (San Diego, California.: Naval Health Research Center, 1995), pp. 1-35.

Zaccaro, S.J., Gilbert, J.A., Thor, K.K. & Mumford, M.D., (1991). "Leadership and Social Intelligence: Linking Social Perspectiveness and Behavioral Flexibility to Leadership Effectiveness." Leadership Quarterly. 2(4), pp. 317-342.

Zey, M.G. (1984). Chapter 7, Establishing the mentor connection in; Mentor Connection, Homewood, Illinois. Dow Jones-Irwin.

Zey, M.G. (1988). Amentor for all reasons. Personal Journal, 67, 1, pp. 46-51.

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

No. Copies

1. Defense Technical Information Center.....2
   8725 John J. Kingman Rd., STE 0944
   Ft. Belvoir, VA. 22060-6218

2. Dudley Knox Library.....2
   Naval Postgraduate School
   411 Dyer Rd.
   Monterey, CA. 93943-5101

3. Nimitz Library.....1
   U.S. Naval Academy
   589 McNair Rd.
   Annapolis, MD. 21402-5029

4. United States Naval Academy.....1
   Office of Institutional Research
   Stop 2B
   Annapolis, MD. 21402-5029

5. Superintendent.....1
   U.S. Naval Academy
   Annapolis, MD. 21402-5029

6. Dr. Brad Johnson.....1
   U.S. Naval Academy
   Department of Leadership, Ethics & Law
   Luce Hall, Stop 7B
   Annapolis, MD. 21402-5029

7. Susan Hocevar.....1
   Code SM/CR
   Naval Postgraduate School
   555 Dyer Rd.
   Monterey, CA. 93943

8. Brett T. Baker.....3
   7 Perry Circle
   Apt. D
   Annapolis, MD. 21402-1223