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Assessing what are the optimum years of experience for highly effective recruit mentors in the Chesapeake Fire Department

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ASSESSING WHAT ARE THE OPTIMUM YEARS OF EXPERIENCE FOR
HIGHLY EFFECTIVE RECRUIT MENTORS IN THE
CHESAPEAKE FIRE DEPARTMENT

By
George Michael Best

A Thesis

Submitted to the Graduate Faculty of the University of Richmond

In Candidacy

For the Degree of Master

Human Resource Management

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Richmond, Virginia

ABSTRACT

Assessing what are the Optimum Years of Experience for Highly Effective Recruit Mentors in the Chesapeake Fire Department

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Masters Human Resource Management

University of Richmond

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Thesis Director: Dr. Marcia R. Gibson.

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The Chesapeake Fire Department will experience an unprecedented rate of retirements that will include a large number of senior firefighters and officers. The exodus of personnel will result in the loss of valuable experience. As a result Chesapeake Fire Department started a mentor program in 1999 between senior firefighters, and recruit firefighters. Recruit firefighters have been assigned a senior firefighter mentor for the duration of their 18-month probation period that occurs after graduation from the recruit academy. There has been no evaluation to determine optimum number of years experience required for a highly effective recruit mentor.

The question was operationalized in a survey of recruits. They were asked how satisfied they were with their mentors and whether their mentors demonstrated perceived knowledge? Survey respondents reported the recruits surveyed were highly satisfied with their mentors and their perceived knowledge, however, no clear optimum age was revealed.

I certify that I have read this thesis and find that, in scope and quality, it satisfies the requirements for the degree of Master of Arts/Master of Science

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Assessing what are the Optimum Years of Experience for Highly Effective Recruit Mentors in the Chesapeake Fire Department

The focus of this thesis is the mentor program currently in operation within the City of Chesapeake's Fire Department. To overcome a potential loss of experienced senior firefighters over the next decade, Chesapeake started a mentor program in 1999 between senior firefighters and recruit firefighters. Recruit firefighters have been assigned a senior firefighter mentor for the duration of their 18-month probation period that occurs after graduation from the recruit academy. However, there has been no evidence gathered to two key issues: 1) optimum number of years experience required for a highly effective recruit mentor and 2) success of the mentorship program. This study will provide data with regard to both of these issues.

The thesis consists of five chapters that will describe the study. A description of each chapter is provided below.

Chapter 1, Introduction contains an introduction which includes a statement of the problem, an overview of the study, the significance of the study [its purpose, importance and application(s)], how and why it is important. It states the rationale and the scope of the study and describes in detail evidence to assess the optimum number of years of experience for highly effective mentors.

Chapter 2, Literature Review focuses on the research that has already been done on this topic and provides a review of related literature, which to include past research and writings and their impact on the study. Also, the work of renowned or unknown

authors, who have written on similar subjects, has been researched with both the negative and positive perspectives.

Chapter 3, Methods explains the research plan for gathering data. It provides a description of specific tools, statistical procedures and techniques used extensively.

Chapter 4, Results provides an evaluation of study findings; the factors that could limit the data, where possible omission/errors could occur and the reliability of the data.

Chapter 5, Conclusion summarizes the study and provides a discussion of study results, significant findings and conclusions drawn.

This chapter discusses the rationale for selecting this topic, scope of the study, study methodology, target population, definitions, and delimitations of the study.

Background

The loss of experience and knowledge through the retirement of senior personnel can be devastating to any organization. This author has determined The Chesapeake Fire Department has the potential to lose over 73% of its leadership and senior fire personnel in the next two years. To overcome this potential loss of experience, a mentoring program has been developed and implemented for entry level personnel of the Chesapeake Fire Department. The program pairs seasoned fire personnel with new personnel “recruits” upon their graduation from recruit academy. The purpose is to assist new personnel through the transition from a civilian structure to a paramilitary organization and to further the training they received in the recruit academy.

The recruit training program in Chesapeake is 24 weeks long and teaches basic firefighting/EMT skills. The academy exposes the recruit firefighter to all of the skills necessary to perform the job requirements of a firefighter/EMT. It does not allow, due to the time constraints, the recruit to perfect those skills. Prior to 1999, recruits were expected to assume the role of a firefighter after graduation from the academy. They were given a little red skills book that had to be checked off by their officer within the first year. The little red book consisted of firefighting skill sets that the recruit had to demonstrate to the officer prior to them signing the book. This proved to be a failure. The recruit did not have anyone to explain topics in which they were weak. In some cases, it was determined, the officer would just sign the skill set in order to expedite the release of the recruit. This vague and somewhat ambiguous program proved to be a failure, and is what led to the establishment of the firefighter recruit mentor program.

When a recruit leaves the academy he has acquired the basics of firefighting. There is a need for him to practice and learn the intricacies of the job. For many this is a first job or the first time they have been exposed to a fire station environment. The fire service generally works twenty four hour shifts and the personnel live at the station for the twenty four hours. If one has not been exposed to this type of environment it can prove to be stressful. The senior firefighter assists the recruit in this transition and in furthering his fire suppression skills, methodology and wellness/fitness techniques.

Reason for Selecting this Specific Topic

It is not enough to establish a mentor program. It will be necessary to evaluate the effectiveness of such a training program in the organization. Evaluation is an essential part of any program to ensure the program is accomplishing what it is designed to accomplish (Poister, 2003). As public agencies are constantly changing and are being pressured to utilize their resources more effectively through strategic management, quality improvement programs, and benchmarking practices, the success and value of costly training programs becomes even more important (Poister, 2003). Since 1999, recruits have been paired with senior firefighters to complete their training program. However, no one has surveyed the recruits or the senior firefighters to see if the program is working or what improvements could be made. Are senior personnel the right personnel to pair with young recruits? We have found that some pairings do not work and little information transfer occurs between the older firefighter and younger recruit. Should a firefighter who is closer in age to the recruit be used as a mentor? Should firefighters that are married be paired with married recruits so that issues involving family life are addressed? These are issues that need to be researched and resolved so the program can be effective.

Reasons for Selecting Organization

Chesapeake Fire Department was selected as the organization for study due to the researcher's affiliation with it and by direction of the Deputy Chief of the department. The researcher became associated with the Chesapeake Fire Department in 1972 as a

young volunteer firefighter. In 1977, he became a paid professional firefighter with the Chesapeake fire Department. To date he has approximately 35 years of service invested. The focus on the recruit firefighter program is two fold. First, the Deputy Chief of the Department requested that the researcher focus on this particular program to determine if the department is using the right senior firefighters to mentor the recruits coming out of the academy (E. E. Elliott, personal communication, December 20, 2006). Second, the researcher has a stake in the department maintaining the high quality of service to the citizens, the visiting public, and the employees of the Chesapeake fire Department.

The recruit firefighter is the future of the department. The probation period, which is eighteen months in length, is a critical learning period. The recruit receives a tremendous amount of information and skill sets during the academy. It is during the eighteen-month probation period that he solidifies and refines the skills and knowledge taught during the academy. The recruit is assigned a senior firefighter to assist him during the first critical eighteen months after graduating from the academy. If this pairing is not productive, then the recruit does not develop as he should.

The importance of these first critical months for each recruit, and the fact that the future of the department is dependent on the development of these personnel, along with the request made by the Deputy Chief are the reasons the researcher chose this area as the focus for this study.

Significance of the Topic

The Chesapeake Fire Department has always focused on developing the technical training necessary to assure that the technical skills are in place to meet the challenges faced by fire personnel in the performance of fire and emergency medical duties. The Chesapeake Human Resource Department provides supervisory training; it does not address the unique types of supervisory skills that are needed by fire department officers and senior personnel to assist the new employees in their transition into a unique and different way of life. As a result, the Chesapeake Fire Department established a recruit mentor program in 1999. As stated previously, there will be a marked reduction of experienced fire personnel in the next two or more years. The constant changes that take place in the operation and the diversity of the department have demanded that a development program be established which has been proven to show an accomplishment. However, there is no program in place to evaluate the successfulness of the program that has been established.

Research Question

In order to develop and evaluate a mentor program that will be successful in preparing the recruit firefighter for ascension into the next professional career step. There is a need to determine how many years of service a mentor must have in order to be highly effective in that role. The number of year's experience the mentors have can determine how effective they will be either in the transfer of knowledge or the ability to relate and connect to the recruit. The researcher feels both the transfer of knowledge and

mentors' experience relates to one another; synergistically combined they denote what is a highly effective recruit mentor. Within this scope the research question is:

What are the optimum years of experience that would make a highly effective recruit mentor?

Methodology Overview

The research problem concerns the absence of an instrument to properly evaluate what are the optimum years of experience to be a highly effective recruit mentor. The research purpose is to create an instrument necessary to receive input from those who have participated in the mentor program to make this determination. The instrument will solicit input from program participants about the impact the program has had on their professional development and how effective their assigned mentor was to them. The use of the instrument will aid in the gathering of input to be used by future trainers so the mentor program can be improved and enhanced especially as it relates to the mentors chosen to participate.

Definitions

The following definitions are provided to help the reader understand how they are used for this study.

E.M.T.: Emergency Medical Technician

Engine Company: A group of firefighters, normally three to four personnel, assigned to a fire engine company or ladder company.

I.R.B.: Institutional Review Board

Recruit: Probationary firefighter with less than two years of experience in the fire service. The first six months of employment the recruit is assigned to the fire academy, the remaining eighteen months are spent assigned to an engine company.

Recruit Academy: School where firefighting and E.M.T. skill sets are taught.

Rookie: A recruit firefighter.

Delimitations

This research covers the recruit mentor program currently in place. It will not delve into mentoring senior firefighters or an officer development mentor program. This area desperately needs to be researched and developed in order to groom personnel to assume leadership roles due to the high number of retirements.

The recruit mentor program has several facets that could be the focus point for any researcher. Besides the optimum years of experience for mentor firefighters, there exists a need to explore how to best integrate recruits into a paramilitary fire station environment. This is especially needed for those individuals that have never had exposure to the fire service through association with a firefighter family member or by participating in a fire volunteer organization. Through out this researcher's career in the fire service there have been individuals that have not been able to adapt to the twenty-four hour duty assignments required of most agencies. The constant strain of an alarm

sounding at any moment takes its toll on the uninitiated. The family style association with the other firefighters assigned to the station can be, at first, hard to grow accustomed to especially as the new person, rookie, in the station. The station environment lends itself to a large amount of practical jokes being levied toward the recruit.

An area that appears to be difficult for anyone not exposed to a military background is the paramilitary structure of the fire service. As an officer in the fire service, the researcher had to counsel new recruits on the chain of command found in the Chesapeake Fire Department. There seems to be hesitancy or complete disregard for the rank structure on the part of those recruits having never been exposed to the military prior to entering the fire service. The recruits seem to not understand the background or the importance of following orders given by officers. This lack of understanding or disregard leads some to leave the service due to a dislike for having to follow orders.

The Deputy Chief of the Chesapeake Fire Department requested that the recruit mentor program be the topic of this research (E. E. Elliott, Deputy Chief Chesapeake Fire Department, December 20, 2006). It is a program which is continually coming under extreme criticism by the field forces. This researcher has found there is a large segment of the Chesapeake field forces that has the impression new personnel should graduate with the knowledge of a three- to five-year veteran. This is due in part to the lack of knowledge on the senior firefighters' part of what the curriculum entails in the academy and the needs of new personnel. The recruit mentor program attempts to accelerate the acquisition of knowledge that only comes with time in grade by placing recruits with senior, 10- to 30-year, firefighters. A study conducted by the Spokane Washington Fire

Department concerning its recruit mentor program found that the optimum years of service for mentors in the Spokane Washington fire recruit program was three (Inman, M., January 05, 2006). Hopefully, this study will show what the optimum years of service are for mentors to be highly effective in the Chesapeake program.

Client

The City of Chesapeake was incorporated in 1963 when the City of South Norfolk merged with Norfolk County. At more than 353 square miles of land area, Chesapeake is a city of diverse communities, with high density urban and suburban districts along with an agricultural rural district. Chesapeake is Virginia's third largest city with more than 224,000 citizens. It is located in Virginia's Hampton Roads region together with the cities of Norfolk, Portsmouth, Virginia Beach, and Suffolk. The average household income is \$72,000 with 32% being greater than \$75,000. Over 74% of the homes are owner-occupied. The City of Chesapeake also has the distinction of being the safest city of its size on the United States East Coast (Economic Development, 2006). The Chesapeake Fire Department is charged with providing fire and emergency medical service to the 224,000 citizens, and visitors, located within the more than 353 square mile border.

The Chesapeake Fire Department is comprised of 15 fire stations with a total compliment of 424 firefighters on a three shift, 24 hour, seven day a week schedule. The mission of the Chesapeake Fire Department is to provide responsive, caring service and to protect and improve the quality of life for all citizens and visitors to the City of Chesapeake (Chesapeake Fire Department Standard Operating Procedure, 2006). The

Chesapeake Fire Department is comprised of five divisions to meet the mission of the department. The five divisions are operations, training, finance, fire prevention, and emergency management. Operating objectives for each division are reviewed and updated yearly.

The Training Division, the focus of this paper, is charged with the delivery, development, and continuing education of new and incumbent personnel. The philosophies of training include: providing an atmosphere of educational enrichment and encouragement; providing relevant, timely, and informative training programs; utilizing technology as a tool to deliver high quality training, and utilizing all members of the department in achieving the mission of training (Chesapeake Fire Department Training Division Mission Statement, 2007).

The training division having made the commitment to provide the highest quality training possible does so with an understaffed bureau. As a result training is constantly turning to field personnel to assist in the training of all firefighters. This was the origin for the recruit firefighter mentor program. Having identified the potential loss of senior personnel through retirement, the urgency to develop training for junior personnel to fill the voids initiated the recruit mentor program in 1999. Since the inception of the program there has been no review to determine if the mentors are effective. As indicated earlier this was the basis for the request for this author to determine the optimum years of experience a mentor should have to be a highly effective mentor in the recruit mentor program.

The next chapter will present the results of the literature search related to determining optimum years a mentor should have to be highly effective and other mentor program successes or failures.

Chapter 2

Literature Review

Introduction

This author through research has found little evidence of studies that focus on the construct of what constitutes the optimum years of service to be a highly effective firefighter mentor.

Optimum Years of Service for Firefighter Mentors

The only literature found was an article written by Captain Michael G. Inman of the Spokane Washington Fire Department (Inman, 1999). This author contacted Captain Inman and requested a copy of the study conducted. The author was informed by Captain Inman that there was no study conducted only an interview of the recruits that had completed the probationary period with a mentor (Inman, M., January 05, 2007). Captain Inman further stated “through the interview process they were able to determine the ideal firefighter mentor would have three to five years experience in the fire service” (Inman, M., January 05, 2007).

Due to the lack of research studies available that address the issue of optimum years of service for highly effective recruit mentors, this study will attempt to establish the gravity of the problem facing fire departments as it relates to workforce shrinkage and the effect it will have both now and into the future. The author will also describe what attributes a mentor should possess, the status of succession planning

(mentoring), and the benefits of a mentoring program. The summary will discuss the research question.

Workforce Shrinkage

The U. S. Department of Labor reports that the population of available workers, the 16 to 24, and 25 to 34 age groups, is growing smaller while the 55 and older category is increasing (Holinsworth, 2004). This means that there is a smaller work force moving into the labor market while at the same time there is a larger “baby boomer” labor force retiring out of the market (Holinsworth, 2004). This author believes The Chesapeake Fire Department is currently experiencing this trend. This author has also found through the review of literature that this trend is causing grave concern to both the private and public business sectors. A recurring theme throughout the literature reviewed has been a fear of losing intellectual capital through retirement, and a decreasing number of younger workers available to fill the voids created by the retirement of the “baby boomers” (Holinsworth, 2004).

Status of Succession Planning, Mentoring

Even with the knowledge that there is an impending loss of older workers through retirement, death, illness, or the decision to relocate to a different geographical location many organizations are not preparing themselves for this eventual loss (Hattingh, 2005). In a survey of 502 human resource professionals, 63 percent responded that they felt their organization did not have a well-developed management succession program (Public

Sector Management, 2001). In a survey of federal US agencies and public sector organizations, 56 percent of 27 respondents indicated that they believed their organizations were seriously short of leaders to meet the emerging trend of loss due to retirement. Only 28 percent of the 27 respondents indicated their organization had, or planned to have, a succession management program in place to over-come the loss of positions of leadership (Public Sector Management, 2001). Within the next two years, the Chesapeake Fire Department has the potential to loose over 73 percent of its leadership and senior firefighters due to retirement. Fire Administration, realizing the impact this will have on the overall effectiveness and productivity of the department, started a recruit mentor program in 1999 to try to capture some of the knowledge that may leave the department as a result of retirements. Mentoring is a part of the leadership dynamic and mentoring of any kind is beneficial to employees (Gibson, Tesone, & Buchaski, 2000). Mentors provide mentees support and the sense that someone cares (Hagevick, 1998).

Due to budget constraints, there has been no additional expansion of a mentor program to officers and senior firefighters. As organizations, both public and private, begin to realize this potential loss of leadership, they are turning to an initiative known as succession management (Howe, 2004). Mentoring is but one part of an overall succession management program.

Mentoring

Mentoring links employees with an experienced professional for career development. It can be very simple, informal, and natural or very sophisticated and

structured (Phillips-Jones, 1998). Mentoring allows the employee to start his new job on the right foot and off to a running start (Sosik, & Lee, 2002). Mentors can be business coaches. Additionally, they can be career consultants with special insights due to their positions and familiarity with the organization. Mentoring is a learning partnership between a learned and experienced individual and one who is less experienced and not as knowledgeable (Pullins & Fine, 2002). This is the basis for choosing senior firefighters as mentors to recruit firefighters. The mentor provides valuable insight into how to achieve goals and objectives (Berk, Berk, 1991). Mentors' oversee the career and development of another, usually junior, person. Roles they will often play are coach, teacher, counselor, guide, motivator, advisor, role model, and sponsor (USCG, 2005). The senior firefighter will play the roles outlined above and hopefully be an inspiration to the recruit firefighter.

Robert Rosen and Paul Brown (1996, 177) in their book *Leading People* write:

We are reflections of our experience. That experience includes whom we have and how we make use of those contacts. Because of our diverse back grounds, all of us are inspired by different kinds of people at different points in our lives.

Benefits of Mentoring

There are some benefits to the person who is going to be a mentor, such as career advancement. Assigning mentees to special projects can show that the mentor can get things done. Additionally, instructing others on how to follow an example can also help build a mentors reputation. Information gathering is another benefit the mentor receives.

Mentors receive a great deal of information and fresh ideas from the younger person they mentor. Often, senior personnel are isolated from the younger employees and the mentor relationship is a portal to that group of employees (USCG, 2003). It is this researcher's belief that some senior firefighters have been isolated from the younger firefighters to the point that there is very little understanding between the two. Due to the large number of recruits graduating, it has become necessary to place recruits in stations where the junior firefighter is a 15-year veteran. Most of these crews have worked together for long periods of time. The recruit finds himself in situations where there is very little communication between him and his crew. When a recruit is placed into a company with this particular make-up, the recruit and the other firefighters often find themselves at odds. This is where the mentor can assist the recruit in assimilating into the company. The mentor can provide two broad functions: career development and psychosocial support (Sosik & Lee, 2003). In the career development role, the mentor can expose, sponsor, coach, and protect the recruit (Sosik & Lee, 2003). This is essential when the recruit finds himself in a fire station comprised mainly of veteran firefighters. The mentor in the psychosocial role can provide friendship, acceptance, and confirmation (Sosik & Lee, 2003). Lastly, mentors can receive personal satisfaction by acting as mentors. The overall mentor process also allows the mentor to sharpen his interpersonal skills as well as his leadership abilities (USCG, 2003).

A mentor program is often a difficult and a time consuming process to initiate. There are often funding issues, problems recruiting mentors, problems supervising both mentors and the program, and problems evaluating the effectiveness of the program

(Shark, 2006). The role of mentoring in the workplace is important, but more important is what the participants perceive as vital (Young, & Perrewe, 2004). It is about the organization securing the best outcome from its mentoring program and the organization developing and managing its mentor program effectively and consciously (Young, & Perrewe, 2004). Trying to find the proper evaluation instrument and collecting data for program evaluation is often difficult to achieve (Shark, 2006).

Survey Scales

The Likert scale was developed by Rensis Likert in the 1920's and has become a frequently used and effective method of measuring attitudes and opinions through the use of standardized response categories (Porter, 1985). The typical Likert scale questions include categories such as: number 1 "Very Poor" to number 4 "Very Good" with number 5 being "Don't Know" (Trochim, 2005). The importance of this type of scale method reflects the participant's attitude or belief in each question, and the five ratings can be easily evaluated to obtain an overall rating from the participant (Porter, 1985). Dichotomous Response Format is a question that only has two responses possible. When a dichotomous response format is used in a survey, the questions often only request a yes/no, true/false/, or agree/disagree (Trochim, 2005).

Following is an example of the Likert style of question utilized. See (e.g., 'Appendix A') for complete survey.

15. My mentor was easy to get along with.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

Below is an example of the dichotomous style of question and the filter question. See (e.g., 'Appendix A') for complete survey.

13. I had a mentor when I started my career.

- Yes
- No

If you answered NO to the above question, please skip to question 26

Summary

The overall purpose of a mentoring program is to allow a person the opportunity to gain knowledge and skills, as well as to understand the culture and obtain new opportunities and contacts. "To establish a relationship between a more experienced person and the less experienced" is another purpose (Duffy, 2004). For this experience to be effective, this researcher feels, there has to be some instrument in place to assure a quality program is functioning, and the pairing of a highly effective mentor to recruit will be beneficial to both the personnel involved and the Chesapeake Fire Department.

The literature, the researcher's past experiences, and the request by the Deputy Chief of Chesapeake Fire Department, led to the formulation of the following research question which has guided this study.

Operationalizing the Research Question

The overarching research question of this research study as stated in the Introduction is:

1. What are the optimum years of experience that would make a highly effective recruit mentor?

To specify the research question within the parameters of the recruit mentor, the researcher attempted to explore highest satisfaction as reported by the firefighter being mentored and perceived knowledge that a firefighter should exhibit in order to be considered a highly effective recruit mentor.

The research question was operationalized by the following:

1. Did Mentors receive high satisfaction scores on the survey?
2. Did Mentors demonstrate perceived knowledge during the recruit mentor period?

Summary

Through the review of literature a large collection of information concerning mentoring has been found, however; there is very little literature available to support the conceptual paradigm of the proposed construct, *what are the optimum years of service for a highly effective fire recruit mentor.*

Based on the review of literature, this research study is aimed at exploring the interactions of mentor and recruit in the station environment. The methodology and methods used in this study will be discussed in the following chapter.

Chapter 3

Methods

Sampling

The purpose of this descriptive research study is to investigate what are the optimum years of service a mentor should have to be a highly effective mentor to recruit firefighters. Trochim (2005, 4) in his book, *Research Methods the Concise Knowledge Base*, writes,

Descriptive studies are designed primarily to document what is going on or what exists. Public opinion polls that seek to describe the proportion of people who hold various opinions are primarily descriptive in nature.

In this study, the dependant variable is “highly effective” and will be operationalized by the “high satisfaction” scores received by the mentor from the recruit on the survey, and the “perceived knowledge” of firefighting skills demonstrated by the mentor.

Due to the amount of time that is available for this study, and the thesis requirement for the University of Richmond, a cross-sectional study will be used in lieu of a longitudinal study. A cross-sectional study is one that takes place in a single point in time. Basically, a slice or cross-section is taken from the area under study (Trochim, 2005).

A longitudinal study takes measures on several occasions over time (Trochim, 2005). A more comprehensive study should be conducted to overcome any validity problems that may occur due to the one time sample. Unlike this study, demographic information should be obtained from participants. This would allow comparisons of various groups to occur within the target population contained within the one study survey. Demographic information was not obtained due to concerns by the IRB of the University of Richmond, and the inability to guarantee anonymity due to the target population size and location, which is contained within the Chesapeake Fire Department.

Target Population

The sampling frame for this study was firefighters that have participated in the Chesapeake recruit mentor program since 1999. This particular sample, firefighters assigned the first 18 months after graduating from recruit school, was used in order to answer the research question of the optimum years of experience required to be a highly effective firefighter mentor. In order to determine optimum years of experience, participants of the program since 1999 will be surveyed.

Data Gathering

A non-random selection process consisted of sending out the survey instrument to all members of the Chesapeake Fire Department via electronic, interdepartmental e-mail. This was done to capture all participants of the recruit mentor program. The survey was sent to 392 participants. The survey itself was unable to collect demographic information due to concerns by the IRB of the University of Richmond. The concern was about the

size of the target population, recruit firefighters ($n \geq 48$, $n \leq 53$), and the ability to identify participants if years of service, age, or sex of the recruit was requested. As a result of the inability to collect demographic data, a descriptive study will be used. Future surveys that will not be published and the information collected used internally by the Chesapeake Fire Department will request demographic data so that T-Tests: Mann-Whitely, ANCOVA: Kruskal-Wallis, tests can be applied to the data. Demographic data would allow an analysis of covariance to be conducted which would investigate the differences between groups (Salkind, 2004). The differences between the recruit classes such as intelligence or strength of the recruits would not be allowed to impinge on determining the over-all effectiveness of the recruit mentor program (Salkind, 2004).

Measures

This study is interested in answering the question--*what are the optimum years of experience that would make a highly effective recruit mentor?* In order to answer this question a survey instrument was developed that utilized both a Likert scale and a dichotomous format. A commercial online survey service "Zoomerang", (Zoomerang. 2007), was used as a platform for distributing, and gathering responses.

The construct for this study is:

What are the optimum years of experience that would make a highly effective recruit mentor?

The research question was operationalised by the following:

1. Did mentors receive *high satisfaction* scores on the survey?

2. Did the recruits perceive their mentors as having a *high degree of knowledge* during the recruit mentor period?

The instrument used for this study was a survey constructed by the researcher. The questions that comprised the survey (e.g., 'Appendix A') were constructed to have the target population ($n \geq 48$, $n \leq 53$) rate various theoretical construct that would attempt to answer the research question.

Construct validity will be accessed by face validity. Although face validity is one of the weakest ways of accessing construct validity (Trochim, 2005). Face validity fits the type of instrument being used to test the construct, what are the optimum years of experience that would make a highly effective recruit mentor. If both the operationalised constructs "high satisfaction", and "demonstrated perceived knowledge" are validated by the number of respondents reporting "Highly Agree", and "Agree" on the instrument. The construct will be validated on the face of the scores (percentages) that are recorded in the "Highly Agree" and "Agree" categories from the researchers' perspective.

Due to the descriptive nature of this study, the type of statistical analysis used will determine the central tendency (mean, median, mode), standard deviation, variance, and sum of squares. No statistical program was used to obtain the values listed. All computations were completed by the researcher. Although individual scores were not obtained, Zoomerang reports how many respondents scored each individual factor. From (e.g. Figure 3), you will note that there were 25 respondents reporting "Very Good". From this the researcher used 25 times 1 "one is the score assigned to the Likert response" to obtain the number of responses for statistical determination.

Design

As mentioned previously, this will be a descriptive study. The target population will consist of past recruit program participants since 1999 to present. Participation in the study will be voluntary and the target population will self administer the survey instrument. Due to the nature of this study, past participation in the recruit mentor program, the design will be a posttest-only non-experiment.

X O

X = Administer Program, Recruit Mentor

O = Measure outcomes, survey instrument

The internal validity threats to this study will be mortality, and a memory recollection threat. The mortality threat is due to the length of the survey instrument used. This particular instrument contained two separate surveys. The first survey concerned the awards program for the department and the second part was the recruit mentor instrument used. The combining of the two instruments into one was at the request of the Deputy Chief of the Chesapeake Fire Department. The design requests that only those firefighters who had a mentor participate. This is done by the use of a filter question. There is always the threat that a non-mentored subject could complete the survey. The survey instrument did not contain a means to counteract this possibility. Mortality could be in the form of participants growing weary of answering questions due to the length of the survey. Frequency of answers that begin to occupy “don’t know” or a decrease in overall responses by the target population toward the end of the survey instrument will be watched.

The responses to key questions within the survey will be used to demonstrate convergent and discriminant validity. Convergent validity will be shown if high percentage ratings are reported by the target population on those questions used to operationalise the construct. There will be evidence of discriminant validity if there is a low response to the overall usefulness of the recruit mentor program. There is a measure within the instrument that will test the discriminant variable “overall usefulness” of the program.

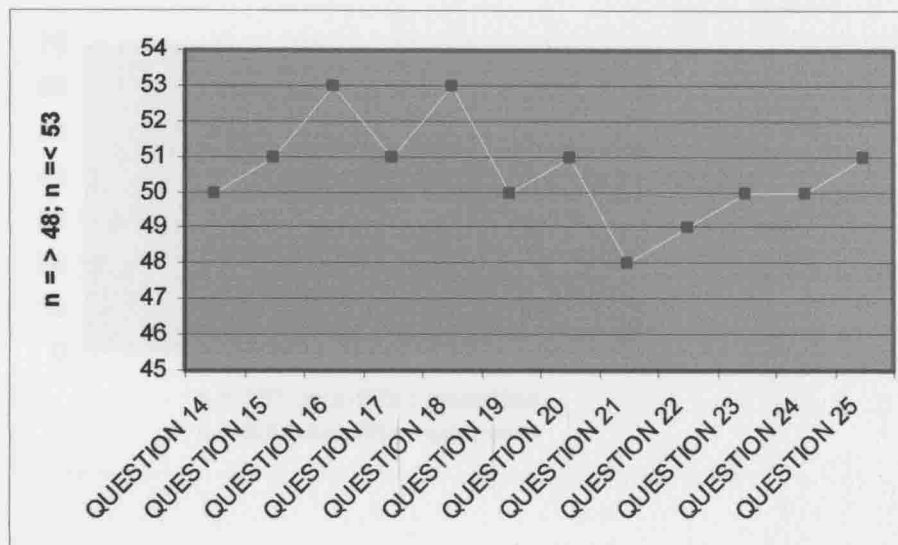
The research design for this study is not the optimum design. There is a high internal validity issue by not having a pre and post test design. The intent is to develop such a design for application to future recruit academy populations. Due to the absence of demographic data, random sampling, and using a one group survey the only statistics used will be descriptive. As to the current research, the desire is that the instrument used will be able to identify overall satisfaction, and perceived knowledge of recruit mentors by program participants. Furthermore, this instrument is hoped to be able to identify the optimum years a recruit mentor should possess to be a highly effective mentor.

Procedures

This was a non-randomized descriptive study. The population was the 392 active duty members of the Chesapeake Fire Department. The target population ($n \geq 48$, $n \leq 53$) consisted of those firefighters that had been assigned a recruit mentor during their probation period since 1999. There is no clear explanation why respondents chose to

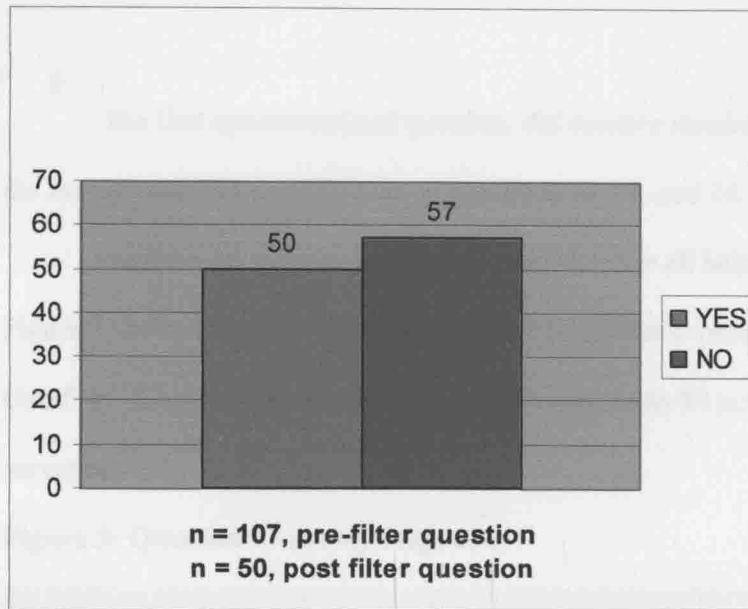
answer certain questions and omit others. There was no consistency in the omission of responses that would indicate a mortality threat was occurring (e.g. 'Figure 2').

Figure 2: Target Population Responses to each Question



The recruit mentor program was formed to assist the new employee, probationary firefighters, in the acquisition of knowledge and skill sets. The recruit mentor works with the probationary firefighter for the first 18 months after graduation from the recruit academy. The population was chosen as a result of a requirement to include an additional study along with this study. By using a filter, only those members who had a recruit mentor, and participated in the program responded to this survey instrument. Figure 1 shows the target population that responded "yes" to having a recruit mentor.

Figure1: Subjects That Had Recruit Mentors Assigned



To meet the IRB requirements for the University of Richmond, a copy of the consent form for this study was sent via electronic mail to the population (e.g., 'Appendix B'). Attached to the electronic mail containing the consent form was the internet link to "Zoomerang" a commercial on-line survey service utilized by the Chesapeake Fire Department (Zoomerang, 2007). The electronic link to "Zoomerang" was attached at the end of the consent form. This was to ensure that all participants first read through the consent form in order to reach the electronic link to access the commercial survey service. There were no inquiries about the consent form or the survey instrument. Participation in the study was voluntary and the survey instrument was self administered

Chapter 4

Results

The first operationalised question, *did mentors receive high satisfaction scores on the survey*, was addressed by survey questions 19, 21, and 24.

Question 19 requested the subject rate the over all helpfulness of the mentor. Figure 3 shows that 25 (50%), and 17 (34%) respondents rated their mentor as “Very Good” to “Good” respectively. Together this represents 84 percent of the respondents surveyed.

Figure 3: Question 19 survey responses

| 19. Rate the overall helpfulness' of your mentor. | | |
|---|-----------|-------------|
| Very Good | 25 | 50% |
| Good | 17 | 34% |
| Fair | 4 | 8% |
| Poor | 0 | 0% |
| Very Poor | 0 | 0% |
| Other, please specify | 4 | 8% |
| Total | 50 | 100% |

Four subjects (8%) rated their mentor as being “Fair”, while four (8%) rated their mentor as “Other”. The eight percent of subjects that rated their mentor as being “Poor”, when it comes to helpfulness, could be attributed to other factors not revealed in this survey. Table 1 contains the standard deviation of 1.9. Of the three questions there is very little spread between the deviations.

Table 1: Survey Questions; 19: Overall Helpfulness, 21: Easy to Get Along with, 24: Development as Firefighter.

| Variable | Mean | Standard Deviation | Variance | Sum | Median | Mode | Range |
|----------------|----------|--------------------|-----------|-----------|--------|------|-------|
| Helpfulness | 1.9 | 1.7915437 | 1.673111 | 157.2725 | 2 | 2 | 5 |
| Get Along With | 1.895833 | 1.096214 | 1.201684 | 56.479169 | 2 | 2 | 5 |
| Development | 2.12 | 11.269063 | 126.99179 | 6222.5976 | 2 | 2 | 5 |

Question 21 asked how easy their mentor was to get along with. 22 (46%), and 15 (31%) rated their mentor as “Strongly Agree”, and “Agree” as reported in figure 4.

Figure 4: Question 21 survey responses

| 21. My mentor was easy to get along with. | | |
|---|-----------|-------------|
| Strongly Agree | 22 | 46% |
| Agree | 15 | 31% |
| Neither Agree nor Disagree | 7 | 15% |
| Disagree | 3 | 6% |
| Strongly Disagree | 0 | 0% |
| Other, please specify | 1 | 2% |
| Total | 48 | 100% |

Together this represents 77 percent of the respondents surveyed. Seven (15%) respondents rated their mentor as “Neither Agree nor Disagree”, three (6%) rated theirs as “Disagree”, no respondents used the rating of “Strongly Disagree”, and one (2%) rated their mentor as “Other” (e.g. figure 4). The seven respondents that represent 15 percent of those surveyed took a neutral stance as to the ease with which their mentor was to “get along with”. Another one respondent or two percent used “Other”. Together, this

Table 1: Survey Questions; 19: Overall Helpfulness, 21: Easy to Get Along with, 24: Development as Firefighter.

| Variable | Mean | Standard Deviation | Variance | Sum | Median | Mode | Range |
|----------------|----------|--------------------|-----------|-----------|--------|------|-------|
| Helpfulness | 1.9 | 1.7915437 | 1.673111 | 157.2725 | 2 | 2 | 5 |
| Get Along With | 1.895833 | 1.096214 | 1.201684 | 56.479169 | 2 | 2 | 5 |
| Development | 2.12 | 11.269063 | 126.99179 | 6222.5976 | 2 | 2 | 5 |

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| Neither Agree nor Disagree | 7 | 15% |
| Disagree | 3 | 6% |
| Strongly Disagree | 0 | 0% |
| Other, please specify | 1 | 2% |
| Total | 48 | 100% |

Together this represents 77 percent of the respondents surveyed. Seven (15%) respondents rated their mentor as “Neither Agree nor Disagree”, three (6%) rated theirs as “Disagree”, no respondents used the rating of “Strongly Disagree”, and one (2%) rated their mentor as “Other” (e.g. figure 4). The seven respondents that represent 15 percent of those surveyed took a neutral stance as to the ease with which their mentor was to “get along with”. Another one respondent or two percent used “Other”. Together, this

represents 17 percent who not comment to some dissatisfaction with their mentor. For the purpose of this survey question, responses that represent a neutral response or “Other” will be scored as a possible problem existed between the recruit and the mentor assigned and will carry the score of 6 for statistical determination. Table 1 contains the standard deviation of 1.895833 for this question. This is extremely close to question 19 and shows little deviation between the two valuables, helpfulness and get along with.

Question 24 requested the target population rate their mentor as to the role they played in their development as a firefighter. Twenty (40%) gave a rating of “Strongly Agree”, 16 (32%) scored a rating of “Agree”, and nine (18%) gave a rating of “Neither Agree nor Disagree”. For the negative, one (2%) gave their mentor a “Disagree”, one (2%) “Strongly Disagree”, and three (6%) responded “Other” as shown in figure 5. 72 percent of the respondents reported that their mentor played a role in their development as a firefighter.

Figure 5: Question 24 survey responses

| 24. My mentor played a valuable role in my development as a firefighter. | | |
|---|-----------|-------------|
| Strongly Agree | 20 | 40% |
| Agree | 16 | 32% |
| Neither Agree nor Disagree | 9 | 18% |
| Disagree | 1 | 2% |
| Strongly Disagree | 1 | 2% |
| Other, please specify | 3 | 6% |
| Total | 50 | 100% |

The 28 percent that responded to the other survey choices represent one fourth of the respondents. Of the 28 percent, four percent gave positive responses as to their feeling

that the mentor did not play a role in their development. From the overall responses, the recruit mentor played a part in the development of the recruit into an effective, functioning firefighter.

The high percentage totals evident from the responses to the three questions 19, 21, and 24. All three reveal high percentages in both the “Strongly Agree” and “Agree” categories. This would suggest there is a relationship present to confirm the first operationalised question. Recruit mentors did receive high satisfaction scores on the survey. This would further suggest that, over all, the recruits participating in the program were satisfied with their recruit mentors. The three standard deviations, Table1, show that there is little deviation between the three scores from the different distributions.

Table 1: Survey Questions; 19: Overall Helpfulness, 21: Easy to Get Along with, 24: Development as Firefighter.

| Variable | Mean | Standard Deviation | Variance | Sum | Median | Mode | Range |
|----------------|----------|--------------------|-----------|-----------|--------|------|-------|
| Helpfulness | 1.9 | 1.7915437 | 1.673111 | 157.2725 | 2 | 2 | 5 |
| Get Along With | 1.895833 | 1.096214 | 1.201684 | 56.479169 | 2 | 2 | 5 |
| Development | 2.12 | 11.269063 | 126.99179 | 6222.5976 | 2 | 2 | 5 |

The second operationalised question, *did mentors demonstrate perceived knowledge during the recruit mentor period* was addressed by questions 14, 16, and 18.

Question 14 was a straight forward inquiry that requested information pertaining to the amount of experience the recruit mentor had in the fire service. The results for this question are reported in Table 2. The years of experience reported were predominately

between three to twenty years (74%), 18 percent had $n \geq 21$ years. The standard deviation for this question is 2.94.

Table 2: Survey Questions; 14: Mentor Years of Experience, 16: Perceived Knowledge, 18: Understood Responsibility.

| Variable | Mean | Standard Deviation | Variance | Sum | Median | Mode | Range |
|----------------------------|----------|--------------------|-----------|-----------|--------|------|-------|
| Mentor Years of Experience | 2.94 | 1.0768435 | 1.15959 | 56.82 | 3 | 3 | 4 |
| Perceived Knowledge | 3.8333 | 1.982416 | 3.929973 | 208.28857 | 4 | 4 | 4 |
| Understood Responsibility | 2.132076 | 2.9180131 | 8.5148002 | 442.76961 | 2 | 2 | 3 |

Question 16, figure 7, shows that the recruit mentor assisted the recruit with the learning of skill sets that encompassed all facets of what is required of a firefighter/EMT in the Chesapeake Fire Department. The overall response was that the mentor assisted greatly in the acquisition of the necessary knowledge needed to successfully complete the probationary period. For the variables, fire skills, EMS skills, daily station duties, and administrative regulations there was a high report of good to very good by the respondents.

Figure 7: Question 16 survey responses

| 16. With 1 being Very Poor, and 4 being Very Good, please rate the following knowledge and skill sets that your mentor helped you with. | | | | | |
|--|-----------|-----------|-----------|-----------|-------------------|
| Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option. | 1 | 2 | 3 | 4 | Don't Know |
| Fire skills | 1 2% | 2 4% | 10 19% | 33 61% | 8 15% |
| EMS skills | 10 19% | 14 26% | 10 19% | 14 26% | 6 11% |
| Daily station duties | 2 4% | 2 4% | 16 30% | 28 52% | 6 11% |
| Policies and Administrative Regulations | 1 2% | 11 20% | 19 35% | 18 33% | 5 9% |

Question 18 dealt with the mentor's ability to explain what was required of the recruit as a participant in the recruit program. The high percentage responses, 26 percent "Strongly Agree", and 42 percent "Agree" demonstrate the recruit mentor's ability to adequately communicate the program and what the responsibilities were of the participant. It is interesting that no respondent reported they strongly disagreed with their mentor (e.g. figure 8).

Figure 8: Question 18 survey responses

| 18. I understood my responsibility as a participant in the mentor program. | | |
|---|-----------|-------------|
| Strongly Agree | 14 | 26% |
| Agree | 22 | 42% |
| Neither Agree nor Disagree | 13 | 25% |
| Disagree | 4 | 8% |
| Strongly Disagree | 0 | 0% |
| Total | 53 | 100% |

The high percentage totals of the three questions demonstrate that the recruits perceived their mentors as having knowledge. Further, the mentors were able to transfer this knowledge and assist the recruits in completing their probation period. Further study will be needed to determine if any of the recruits had their probation extended past the eighteen months. From the results of the responses, for this study, there appears to be a high satisfaction level between the recruit and their mentor.

Question 25 requested how many years of experience would a mentor have and still be able to relate to them. From figure 9, 53 percent of the respondents reported recruit mentors with six to ten years would be better able to relate to them. This is contrary to what the Spokane Washington Fire Department was able to determine through an interview process with recruits completing a recruit mentor program. The Spokane Washington Fire Department found that recruit mentors with three years were better able to relate with recruits and should mentor probationary personnel (Inman, 1999). Figure 9 also contains the responses for the other years reported.

Figure 9: Question 25 survey responses

| 25. A mentor with the following years of experience would relate better with me. | | |
|---|-----------|-------------|
| 3 to 5 years | 5 | 10% |
| 6 to 10 years | 27 | 53% |
| 11 to 20 years | 12 | 24% |
| 21 years or greater | 7 | 14% |
| Total | 51 | 100% |

With 48 percent of the respondents reporting different time periods than the 53 percent (6 to 10 years), there is not a strong enough percentage difference to report that six to ten years would be the optimum years for recruit mentors to relate to recruit firefighters. Further study will be needed to determine the optimum years needed to be an effective recruit mentor.

Chapter 5

Conclusions

The purpose of this study was to determine the optimum years of experience that would make a highly efficient recruit mentor. The research question was operationalised into two separate research questions. Through the use of the survey instrument those two questions were answered and the descriptive percentages obtained from the results determined that for question one, the target populations were highly satisfied with the recruit mentors in the program. Further, the results indicated for question two, the respondents did perceive their recruit mentors as having perceived knowledge.

As mentioned in the results section, question 25 asked the target population to report how much seniority did a recruit mentor need to be able to relate to them. The response (53%) reported that recruit mentors with six to ten years would relate better to them than those with less than or greater than the years of seniority reported. I would be remiss to not mention again that this is directly opposite of what the Spokane Washington Fire Department reported in the article *Mentor Program Develops with New Recruits* published in Fire Chief Command Post (Inman, 1999) where they found mentors with three years of seniority related better.

The response rate of 53 percent for the number of years, six to ten, a recruit mentor should have to relate to the target population is just above half. With only a 53 percent response rate for the six to ten years category, this researcher feels there is no optimum years of experience needed to be a highly effective firefighter.

1994). The qualitative paradigm views the study as an inquiry into the process of understanding a social or human problem based on building a complex, holistic picture that is formed with words. In contrast the quantitative paradigm views the study of a human or social problem as testing a theory composed of variables, measured with numbers that are analyzed with statistical procedures (Creswell, J. W., 1994).

Due to the lack of individual data a descriptive study paradigm was used. I was able to describe the data collected as data sets and organized the data so as to report the central tendency, standard deviation, variance, and sum of squares (Salkind, 2004). I was not able to generate a hypothesis as a result of only using descriptive statistics. As a result this study is exploratory in nature and further study will be needed in order to report if findings are significant or not significant.

References

- Beck, Joseph & Beck, Susan. (1991). *Managing Effectively, A Handbook for First-Time Managers*. New York: Sterling Publishing (p 93)..
- Chesapeake Fire Department. (2002). *Standard Operating Procedures*. Revised September 2002. Available from Chesapeake Fire Department, 304 Albemarle Drive, Chesapeake, Virginia, 23322.
- Creswell. J. W. (1994). *Research Design Qualitative & Quantitative Approaches*. Thousand Oaks, CA. Sage Publications, (p. 4).
- Doody, Michael F. (2003). A Mentor is a Key to Career Success. *Career Development*. Practical suggestions for healthcare professionals wanting to develop fruitful mentoring relationships. *Healthcare Financial Management*, 57, 92.
- Duffy, William J. (2004). Celebrating the art of mentoring by sharing the gift of knowledge. *AORN Journal*, 80, 1021.
- Economic Development. (2006). Chesapeake Virginia, Known by the Companies we Keep. Retrieved October 24, 2006 from www.yeschesapeake.com
- Gibson, J.W., Tesone, D.V., Buchalski, R.M. (2000). The Leader as a Mentor. *Journal of Leadership Studies*, 7,3,56.
- Hagevik, Sandra (1998). What's a Mentor, Who's a Mentor. *Journal of Environmental Health*, 61, 59.
- Hattingh, Bryan. (2005). Put success into succession planning. *The manager.org*. Retrieved November 30, 2005, from http://www.themanager.org/Strategy/Succession_planning_success.htm
- Hollinsworth, S. R. (2001). Case Study, Henrico County, Virginia: Succession Management: A Developmental Approach. Retrieved September 13, 2005, from <http://www.charityvillage.com/cv/research/rhr.12.html>
- Howe, T. (2004). Succession Planning and Management. Retrieved September 7, 2005, from <http://www.charityvillage.com/cv/research/rhr.12.html>

- Inman, M. G. (1999). Mentor program develops with new recruits. Fire Chief Command Post. Retrieved December 06, 2006, from http://firechief.com/mag/firefighter_mentor_program_develops/
- Phillips-Jones, Linda. (1998). Tips for Mentors, Where to Draw the Line. CCC / The Mentoring Group. Retrieved November 30, 2005, from <http://www.mentoringgroup.com/mentors.html>
- Poister, T.H. (2003). *Measuring performance in public and nonprofit organizations*. San Francisco: Jossey-Bass.
- Porter, D.T. (1985). The validity of communication needs assessment. *Journal of Applied Communication Research*, 10, 59-69
- Public Sector Management. (1999, May). *Managing Succession in the Western Australian Public Sector*, Summary Paper, Government of Western Australia. Retrieved November 30, 2005, from <http://www.dpc.wa.gov.au/psmd/pubs/wac/managesucc/execsumm.html>
- Pullins, E. B. & Fine, L. M. (2002). How the Performance of Mentoring Activities Affects the Mentors Job Outcomes. *Journal of Personal Selling and Sales Management*, 22, 259-272.
- Rosen, Robert H., & Brown, Paul B. (1996). *Leading People, Transforming Business From the inside out*. New York, NY: Viking, (p.177).
- Salkind, N. J., (2004). *STATISTICS for People Who think they Hate Statistics* (2rd ed.). Thousand Oaks, CA. Sage Publications, Inc. (p. 299)
- Shark, J. (2006). Best Practices for Mentoring Programs, Looking for What Works. The E.M.T. Group, 1, 1 - 10.
- Sosik, J.J., & Lee, D. L. (2002). Mentoring in Organizations: A Social Judgment perspective for Developing Tomorrow's Leaders. *Journal of Leadership Studies*, 8, 17.
- Trochim, William M. K., (2005). *Research Methods The Concise Knowledge Base* Cincinnati, OH: Atomic Dog.
- United States Coast Guard. (2003). Frequently Asked Questions About Mentoring. Retrieved November 30, 2005, from <http://www.uscg.mil/hg/g-w/g-wt/g-wtl/mentfag.htm>

Young, A. M. & Perrewe P.L. (2004). The role of expectations in the mentoring exchange: an analysis of mentor and protégé expectations in relation to perceived support. *Journal of Managerial Issues*, 16, 103.

Zoomerang (2007). Zoomerang Survey. [Online Survey Software Tool] MarketTools, Inc. Retrieved March 01, 2007. from <http://www.zoomerang.com>

Tables

Table 1: Survey Questions; 19: Overall Helpfulness, 21: Easy to Get Along with, 24: Development as Firefighter.

| Variable | Mean | Standard Deviation | Variance | Sum | Median | Mode | Range |
|----------------|----------|--------------------|-----------|-----------|--------|------|-------|
| Helpfulness | 1.9 | 1.7915437 | 1.673111 | 157.2725 | 2 | 2 | 5 |
| Get Along With | 1.895833 | 1.096214 | 1.201684 | 56.479169 | 2 | 2 | 5 |
| Development | 2.12 | 11.269063 | 126.99179 | 6222.5976 | 2 | 2 | 5 |

Table 2: Survey Questions; 14: Mentor Years of Experience, 16: Perceived Knowledge, 18: Understood Responsibility.

| Variable | Mean | Standard Deviation | Variance | Sum | Median | Mode | Range |
|----------------------------|----------|--------------------|-----------|-----------|--------|------|-------|
| Mentor Years of Experience | 2.94 | 1.0768435 | 1.15959 | 56.82 | 3 | 3 | 4 |
| Perceived Knowledge | 3.8333 | 1.982416 | 3.929973 | 208.28857 | 4 | 4 | 4 |
| Understood Responsibility | 2.132076 | 2.9180131 | 8.5148002 | 442.76961 | 2 | 2 | 3 |

Table 3: Descriptive Values for Years of Experience, Perceived Knowledge, and Optimum Years of Experience Recruit feels Mentor should possess.

| Variable | Mean | Standard Deviation | Variance | Sum | Median | Mode | Range |
|----------------------------|----------|--------------------|-----------|-----------|--------|------|-------|
| Mentor Years of Experience | 2.94 | 1.0768435 | 1.15959 | 56.82 | 3 | 3 | 4 |
| Perceived Knowledge | 3.8333 | 1.982416 | 3.929973 | 208.28857 | 4 | 4 | 4 |
| Understood Responsibility | 2.132076 | 2.9180131 | 8.5148002 | 442.76961 | 2 | 2 | 3 |

Figures

Figure 1: Subjects That Had Recruit Mentors Assigned

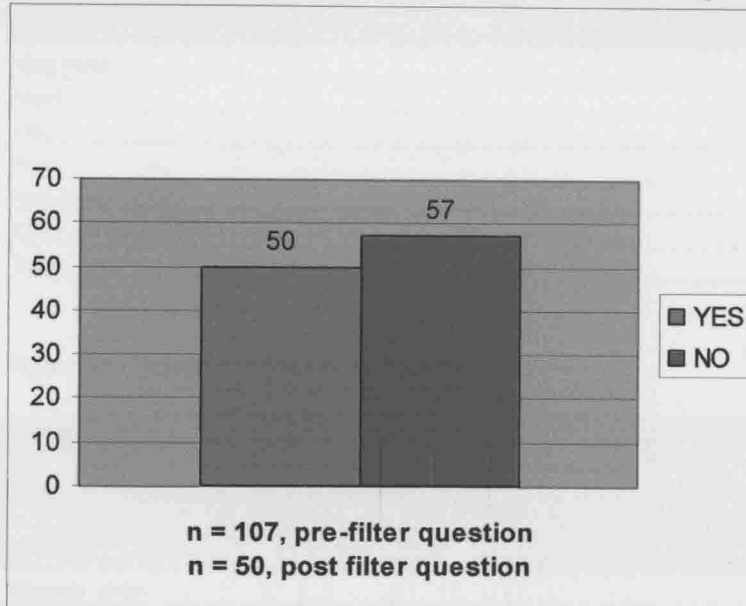


Figure 2: Target Population Responses to each Question

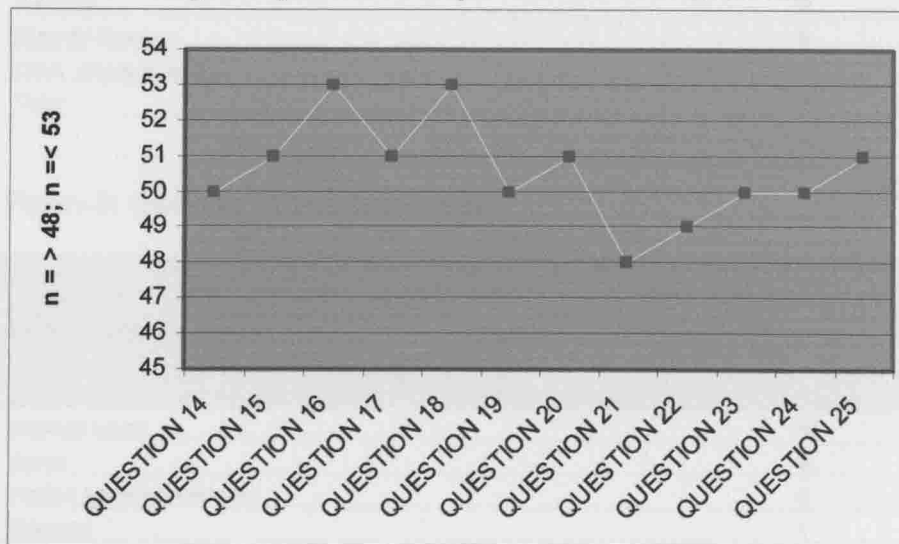


Figure 3: Question 19 survey responses

| 19. Rate the overall helpfulness' of your mentor. | | |
|---|-----------|-------------|
| Very Good | 25 | 50% |
| Good | 17 | 34% |
| Fair | 4 | 8% |
| Poor | 0 | 0% |
| Very Poor | 0 | 0% |
| Other, please specify | 4 | 8% |
| Total | 50 | 100% |

Figure 4: Question 21 survey responses

| 21. My mentor was easy to get along with. | | |
|---|-----------|-------------|
| Strongly Agree | 22 | 46% |
| Agree | 15 | 31% |
| Neither Agree nor Disagree | 7 | 15% |
| Disagree | 3 | 6% |
| Strongly Disagree | 0 | 0% |
| Other, please specify | 1 | 2% |
| Total | 48 | 100% |

Figure 5: Question 24 survey responses

| 24. My mentor played a valuable role in my development as a firefighter. | | |
|--|-----------|-------------|
| Strongly Agree | 20 | 40% |
| Agree | 16 | 32% |
| Neither Agree nor Disagree | 9 | 18% |
| Disagree | 1 | 2% |
| Strongly Disagree | 1 | 2% |
| Other, please specify | 3 | 6% |
| Total | 50 | 100% |

Figure 6: Question 14 survey responses

| 14. My mentor had the following amount of experience in the fire service: | | |
|--|-----------|-------------|
| 3 to 5 years | 6 | 12% |
| 6 to 10 years | 8 | 16% |
| 11 to 20 years | 23 | 46% |
| 21 years or greater | 9 | 18% |
| Other, please specify | 4 | 8% |
| Total | 50 | 100% |

Figure 7: Question 16 survey responses

| 16. With 1 being Very Poor, and 4 being Very Good, please rate the following knowledge and skill sets that your mentor helped you with. | | | | | |
|--|-----------|-----------|-----------|-----------|-------------------|
| Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option. | 1 | 2 | 3 | 4 | Don't Know |
| Fire skills | 1 2% | 2 4% | 10 19% | 33 61% | 8 15% |
| EMS skills | 10 19% | 14 26% | 10 19% | 14 26% | 6 11% |
| Daily station duties | 2 4% | 2 4% | 16 30% | 28 52% | 6 11% |
| Policies and Administrative Regulations | 1 2% | 11 20% | 19 35% | 18 33% | 5 9% |

Figure 8: Question 18 survey responses

| 18. I understood my responsibility as a participant in the mentor program. | | |
|---|-----------|-------------|
| Strongly Agree | 14 | 26% |
| Agree | 22 | 42% |
| Neither Agree nor Disagree | 13 | 25% |
| Disagree | 4 | 8% |
| Strongly Disagree | 0 | 0% |
| Total | 53 | 100% |

Figure 9: Question 25 survey responses

| 25. A mentor with the following years of experience would relate better with me. | | |
|---|-----------|-------------|
| 3 to 5 years | 5 | 10% |
| 6 to 10 years | 27 | 53% |
| 11 to 20 years | | 24% |
| 21 years or greater | 7 | 14% |
| Total | 51 | 100% |

Appendixes

A. Recruit Mentor Survey. *The actual survey administered online via “Zoomerang” did not copy well to this document. The following is a rendition of the actual survey.*

13. I had a mentor when I started my career.

Yes

No

If you answer NO to the above question, please skip to question 26.

14. My mentor had the following amount of experience in the fire service.

3 to 5 years

6 to 10 years

11 to 20 years

21 years or greater

Other, please specify

15. The overall usefulness of the mentor program experience was:

Very Good

Good

Fair

Poor

Very Poor

Other, please specify

16. With 1 being “Very Poor”, and 4 being “Very Good”, please rate the following Knowledge and skill sets your mentor helped you with.

| | | | | | |
|-------------|---|---|---|---|------------|
| Fire Skills | 1 | 2 | 3 | 4 | Don't Know |
|-------------|---|---|---|---|------------|

| | | | | | |
|------------|---|---|---|---|------------|
| EMS Skills | 1 | 2 | 3 | 4 | Don't Know |
|------------|---|---|---|---|------------|

| | | | | | |
|----------------------|---|---|---|---|------------|
| Daily Station Duties | 1 | 2 | 3 | 4 | Don't Know |
|----------------------|---|---|---|---|------------|

| | | | | | |
|--|---|---|---|---|------------|
| Policies and Administrative Regulations | 1 | 2 | 3 | 4 | Don't Know |
|--|---|---|---|---|------------|

17. My mentor and I had adequate time for training.

Strongly Agree
Agree
Neither Agree nor Disagree
Disagree
Strongly Disagree
Other, please specify

18. I understood my responsibility as a participant in the mentor program.

Strongly Agree
Agree
Neither Agree nor Disagree
Disagree
Strongly Disagree

19. Rate the overall helpfulness of your mentor.

Very Good
Good
Fair
Poor
Very Poor
Other, please specify

20. My mentor set clear boundaries and expectations.

Strongly Agree
Agree
Neither Agree nor disagree
Disagree
Strongly Disagree

21. My mentor was easy to get along with.

Strongly Agree
Agree
Neither Agree nor Disagree
Disagree
Strongly Disagree

22. Check the answer that compares the assignment locations between you and your Mentor.

- Same company, same shift
- Same station, same shift, different company
- Same station, different shift
- Same shift, different station
- Different shift, different station
- Other, please specify

23. Although my mentor was assigned to a different shift, it posed no problems with Scheduling time together.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree
- N/A
- Other, please specify

24. My mentor played a valuable role in my development as a firefighter.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree
- Other, please specify

25. A mentor with the following years of experience would relate better with me.

- 3 to 6 years
- 6 to 10 years
- 11 to 20 years
- 21 years or greater

26. If given the opportunity, I would like to be considered as a mentor in the future.

Strongly Agree
Agree
Neither Agree nor Disagree
Disagree
Strongly disagree
Other, please specify

B. Participant Consent Notification to Meet IRB Requirements.

Support Services Survey Survey Participants Consent Information

Thank you for taken the time to respond to the survey. The information collected will be used to improve the recruit mentor program. Due to the high amount of retirements occurring in our department it is crucial that the new recruit firefighters receive quality, and timely training. Your responses will assist in this endeavor.

The information collected through this survey will also be used by me in the preparation of my master's thesis. The results of this survey, as in past surveys, will be sent out to the department. Your input on how we can improve the recruit mentor program will be welcomed.

As everyone is aware Zoomerang surveys ensures that all responses are completely confidential. The only part of the survey that is reported is the responses made. At **NO** time will I or anyone else be able to see your individual response if you choose to participate in this survey.

Again, thank you so very much for helping the department and me by taking this survey. If you have any questions please feel free to call me.

Chief M. Best, Support Services Chief
Office: 382 – 6054
Cell: 636 - 5766

Biography

G. M. Best received his Associates in Science, and Fire Science from Tidewater Community college in 1974, and 1984 respectively, and in 1992 a Bachelors of Science “Psychology” from Old Dominion University was awarded. Battalion Chief Best has been affiliated with the fire service since January 1972, first as a volunteer in the City of Chesapeake, then becoming a member of the paid Chesapeake Fire Department in 1977.

Pledge

On my honor I hereby affirm that this work was created by me, the writings and conclusions are entirely my own, I actually completed the research (surveys, interviews, etc.) noted in this thesis, and all ideas from others are properly cited and referenced.

Signed: G. Michael Best