THE RELATIONSHIP BETWEEN LEADERSHIP

STYLES, ORGANIZATIONL COMMITMENT, AND

ORGANIZATIONAL OUTCOME IN OKLAHOMA'S

VOLUNTEER FIRE DEPARTMENTS

By

YOUNGSHIX SHIN

Bachelor of Public Administration

Ajou University

Suwon, Korea

1989

THE RELATIONSHIP BETWEEN LEADERSHIP

STYLES, ORGANIZATIONL COMMITMENT, AND

ORGANIZATIONAL OUTCOME IN OKLAHOMA'S

VOLUNTEER FIRE DEPARTMENTS

Thesis Approved:

Dr. Anthony Brown
_____
Thesis Adviser

Dr. William Focht
_____

Dr. Brenda Phillips
_____

Name: YOUNGSHIX SHIN

Date of Degree: MAY, 2013

Title of Study: THE RELATIONSHIP BETWEEN LEADERSHIP STYLES,
ORGANIZATIONL COMMITMENT, AND ORGANIZATIONAL
OUTCOME IN OKLAHOMA'S VOLUNTEER FIRE DEPARTMENTS

Major Field: FIRE AND EMERGENCY MANAGEMENT ADMINISTRATION

Abstract: The intent of this study is to determine dominant leadership styles, and to examine whether a relationship exists between the leadership styles of fire chiefs and organizational commitment among the volunteers in their departments. Additionally, this study examines how the individual factors of transformational leadership can impact levels of organizational commitment among volunteer firefighters. Furthermore, this study explores the relationship between leadership style and organizational commitment and organizational outcome.

This study employed quantitative research and data collected through a survey. This study used correlation analysis that was conducted to analyze the relationship between leadership styles and organizational commitment. This study also used the t-test to determine the difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation. To further examine the impact of transformational leadership factors upon organizational commitment, this analysis incorporated prediction study.

The results of this study indicate that the most prominent leadership style is transformational leadership. Second is transactional leadership. Laissez-faire leadership is the least common form of leadership practiced. This study demonstrates that transformational and transactional leadership styles are positively connected to organizational commitment. Laissez-faire leadership style is negatively related to organizational commitment. Transformational leadership possesses a stronger relationship with organizational commitment than transactional leadership. Transformational and transactional leadership styles are positively related to affective and normative commitment while laissez-faire leadership style is negatively related to affective and normative commitment. All three leadership styles bear no relationship with continuance commitment. This study reveals that five factors of transformational leadership collectively and individually have a positive impact on organizational commitment. Inspirational motivation was discovered to have the strongest effect on organizational commitment. Regarding the difference in the levels of organizational commitment between volunteers with no compensation and volunteers with partial compensation, the results indicate that there is no difference between volunteers without compensation and those who receive partial compensation. Finally, transformational and transactional leadership styles are positively related to organizational outcome. Affective and normative commitments are positively related to organizational outcome.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Figure   Page

CHAPTER I

INTRODUCTION

Developing effective leadership in fire departments and helping members become highly

motivated are two key factors for the future success of the fire service (Brunacini, 1996).

Milakovich (1993) considers effective leadership as one of the most important elements used to

accomplish an organization's mission and vision. Measuring efficiency and effectiveness

internally and externally serves as a substantial challenge for the leaders of almost any

organization. Service quality and desired outcomes are key performance goals for fire service

organizations (Compton, 2010). The fire service possesses these goals because it is confronting a

variety of new emergency responsibilities, and the need for effective leadership is even greater

than in the past.

Fire personnel frequently face the need to sacrifice themselves for other people in

dangerous situations. They often perform special assignments which are outside of the required

job description. Firefighters work together as a team; running to emergency calls as one

coordinated group. Sheldon (1971) described commitment as "an attitude or an orientation toward

the organization, which links or attaches the identity of the person to the organization" (p. 143).

Organizational commitment is defined in various ways. Definitions include concepts such as

identification with the organization's goals and values, considerable involvement in

organizational activities, and a feeling of membership to the organization (Porter, Steers,

Mowday, & Boulian, 1974; Mowday, Steers, & Porter, 1982; Steers, 1977; Becker, Billings, & Gilbert, 1996).

Many researchers (Rachid, 1994; Catano, Pond, & Kelloway, 2001; Emery & Barker, 2007; Dale & Fox, 2008; Dunn, Dastoor, & Sims, 2012) have demonstrated that there is a positive relationship between leadership factors and organizational commitment. Organizational commitment among group members is directly impacted by leadership. Leadership factors are also positively linked to organizational outcomes. Moreover, leadership is a critical factor that extends employee retention.

A variety of studies (Schein, 1970; Steers, 1977; Balfour & Wechsler, 1991; Rhoades, Eisenberger, & Armeli, 2001; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002) have identified that organizational commitment plays an important role in determining organizational outcomes. Additionally, there is a positive relationship between organizational commitment and member retention. Fire chiefs and other leaders in volunteer fire departments can better manage their organization and provide leadership to their members by understanding the roles of leadership and organizational commitment. This study examines how different types of leadership affect organizational commitment and organizational outcome in volunteer fire departments. Organizational commitment is also positively linked to organizational outcome. Organizational commitment is a critical factor that facilitates longer employee retention.

This study expands on previous leadership and organizational commitment research by applying it to a different sector; the volunteer fire service. This study mainly examines the relationship between leadership styles, as perceived by volunteer firefighters, and organizational commitment within volunteer fire departments. The leadership styles of volunteer fire chiefs and

organizational outcome are observed using the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (2004). Additionally, the organizational commitment levels of volunteer firefighters are measured using Meyer and Allen's 2004 Three Component Model Employee Commitment Survey (revised version). These two questionnaires examine the relationships between leadership style, organizational commitment, and organizational outcome. This research generates useful knowledge that improves the understanding of leadership and organizational commitment in volunteer fire departments.

Background of the Study

In 2011, fire departments in the United States responded to over thirty million emergency situations including fire, rescue, hazardous materials, emergency medical, and other emergency calls. Because of the 1,389,500 fires that occurred, 3,005 lives were lost, 17,500 people were injured, and billions of dollars in property occurred (U.S. Fire Administration, 2011). Firefighters help protect the public from these dangers by quickly responding to emergencies.

Today's fire departments do much more than in the past. They are responsible for fire prevention, public fire and life safety education, and fire suppression. They also play an important role in the nation's response plan for natural disasters and terrorist attacks (Compton, 2010). This evolving, all-hazards role has strengthened and expanded the responsibilities of firefighters. Firefighters are now engaged in protecting people against many diverse emergency situations (Compton, 2010). Fire departments provide a variety of emergency services to most communities in the United States. Fire departments have become critical components of emergency management systems.

The fire service organization is constantly changing, and has learned to manage the changes in its environment. To adapt to this new environment, it must change and develop the organization's culture by redefining the fire service and by eliminating waste. To overcome new challenges, fire departments will inevitably rely more on their fire chief's leadership (Compton, 2010). Hersey & Blanchard (1981) define leadership as the concept that impacts activities of members in attaining organizational goal in a given situation. There is currently a greater need to develop effective leadership in the modern fire service than that which existed in the past. As Compton (2010) stated, the fire service focused on fire prevention and suppression in the past. However, the all-hazards approach has expanded the roles of modern firefighters. The fire service now protects people against a plethora of emergency situations (Compton, 2010).

Leadership styles can be categorized into three groups: transactional, transformational, and laissez-faire (Bass & Avolio, 1994). Gaines, Worrall, Southerland, and Angell (2003) define leadership style as "actual leadership behavior and actions toward employees as opposed to innate qualities which a person might possess" (p. 191). A transactional leadership style is identified by task clarification and exchanges between leader and follower through rewards or punishments based on behavior (Bass & Avolio, 1994). A transformational leadership style is intended to obligate a leader and follower to hold high moral, ethical, and performance levels through the inspiration and motivation of the leader (Bass & Avolio, 1994). A laissez-fair leadership approach employs an avoidance approach to taking action, making decisions, or accepting responsibility (Bass & Avolio, 1994). Many researchers have examined effective leadership as it relates to organizational performance (Cohen, 1993; Kolb, 1995; Luke, 1998; Ackoff, 1999;

Brunacini, 2000; Kayworth & Leidner, 2002). They found that effective leadership can operate in a functional role to improve organizational task performance (Kolb, 1995; Luke, 1998).

Many studies have demonstrated that organizational commitment affects organizational outcomes like effectiveness and performance (Schein, 1970; Mowday, Porter, & Dubin, 1974; Steers, 1975). Some studies have displayed a positive relationship between organizational commitment and effectiveness (Angle & Perry, 1981; Yousef, 2000; Mehmud, Ali, Baloch, & Khan, 2010). Others have shown that organizational commitment influences performance through mediator or moderator variables (Leong, Randoll, & Cote, 1994; Brett, Cron, & Slocum, 1995).

Several studies show that the level of organizational commitment of members is affected by leadership styles. Leadership style can influence worker commitment. Exercising a leadership style that utilizes flexibility and adaptation in the public sector is the most important factor for increasing organizational commitment (Rachid, 1994). The transformational leadership style has a positive relationship to organizational commitment in both volunteer and professional organizations (Catano, Pond, & Kelloway, 2001; Emery & Barker, 2007). Leadership style variables, such as initiating structure and consideration for group members, increase organizational commitment (Dale & Fox, 2008). Affective commitment and normative commitment are linked with leadership practices (Dunn, Dastoor, & Sims, 2012).

Leadership and organizational commitment are especially critical in the volunteer fire service. The majority of volunteer fire departments face difficult financial conditions. Additionally, firefighters are not driven by financial gain in volunteer departments. They respond to a vast variety of emergencies such as fires, emergency medical incidents, natural disasters, and hazardous material spills (Thompson & Bono, 1993). According to the National Fire Protection

Association (NFPA) (2012), there are 1,100,450 firefighters in the U.S. Of these, 756,400 are volunteers. Volunteers comprise 69% of all firefighters in the U.S. There are 30,145 fire departments in the U.S. As of 2013, 20,200 are all volunteer, 5,530 are mostly volunteer, 1,865 are mostly career, and 2,550 departments are all career. Volunteer fire departments play a critical first responder role in many types of emergencies. They provide the first line of defense for avoiding loss of life and property damage stemming from a wide array of emergencies (National Volunteer Fire Council [NVFC], 2013).

Volunteer fire departments can be categorized into two groups: members who perform their duties without receiving any compensation and members who are partially compensated. Swichtenberg (2003) describes the role of volunteers in the fire service as "a fire brigade that would not only respond to burning property of its members but also to any calls in their vicinity" (p. 8). Volunteer fire departments provide a variety of emergency services to most communities in the United States. Most volunteer fire departments serve low population density rural communities that lack the funds to maintain a professional fire department. Even though their basic task is still fire suppression, volunteer fire departments currently respond to all-hazards and perform diverse operations (Thompson & Bono, 1993).

Most volunteer fire departments endure more difficult financial conditions than professional departments due to a lack of public funds. Volunteer departments are bound by time constraints on the individual firefighters (Jenaway, 2004). Smaller budgets result in shorter training for staff and older equipment for volunteer fire departments (Lasky, 2004). They often do not possess the necessary equipment, and their rural environments tend to not facilitate sufficient mutual aid networks (Gamache, Hall, Ahrens, Penney, & Kirtley, 2007). Fire chiefs in volunteer

fire departments do not experience many opportunities for setting a vision, goals, and objectives for their organizations (Tierney, 2006). This condition may result in lower levels of personal motivation among volunteer firefighters (Chiaramonte, 2004).

In addition to problems associated with poor motivation, diminishing membership is another issue that currently affects volunteer fire departments (Scott & Buckman, 2004). The number of volunteer members has been in general decline over recent years. According to the NFPA (2012), there was a significant decrease in volunteer membership of 5.5% in 2011. The NFPA (2012) also states that there has been a 14% decline in the overall number of volunteer firefighters since 1984. McLennan, Birch, Cowlishaw, and Hayes (2009) also pointed out that the issue of resignation of members is a major challenge in volunteer-based fire agencies. To address this problem, the U.S. Fire Administration (2007) recommended developing leadership and increasing commitment for the fire service.

Organizational commitment and leadership are important factors for effectively maintaining volunteer membership. Meyer and Allen (1991) noted that commitment consists of three different aspects: affective, normative, continuance. They described affective commitment as "a desire", normative commitment as "an obligation", and continuance commitment as "a need" to maintain membership in an organization (p. 61). According to Meyer et al. (2002), affective commitment is linked to actual turnover behavior. Leadership strategies can also impact member participation and retention in the organization (Thompson & Buchanan, 2004).

The volunteer fire service is confronting a variety of emergency responsibilities, and the need for effective leadership is even greater than in the past. The volunteer fire service is also faced with the challenge of retaining their members. The leaders must understand and

acknowledge the influence of their management styles. They need to recognize that their own personal credibility results from their leadership style. Additionally, their leadership style directly impacts their subordinates' level of organizational commitment. By understating leadership and commitment, leaders in the volunteer fire service can know how to handle new challenges and meet their followers' needs. Volunteer fire departments perform an important role in protecting the lives of people in their communities. Fire chiefs need to understand the importance of organizational commitment, and how it results in improved organizational outcomes and member retention. According to Abrams (2004), money is the best retention strategy to maintain membership. However, most volunteer firefighters serve without getting any formal wages. Therefore, the best way to maintain membership is for them to become "emotionally vested in their organization" (p. 19).

Statement of the Problem

Leadership style and organizational commitment are very important issues for the fire service. Leadership can influence organizational commitment, which results in increasing organizational outcomes, and helps to maintain membership within an organization. According to the NFPA (2012), 69% of all firefighters currently serving in the U.S. are volunteers. Volunteer fire departments have more funding issues and time constraints than professional fire departments. Volunteer fire departments face diminishing membership as an ever more prevalent problem (McLennan et al., 2009). Poor management is one reason members often leave an organization (Bush, Schaenman, & Thiel, 1998). Developing effective leadership strategies, encouraging commitment, and maintaining membership have strong potential for enabling the survival of the volunteer fire service.

Volunteer fire departments play an important role in many communities. Volunteer firefighters also occupy a truly unique position in society. Firefighting is an inherently hazardous profession. Routine work details include combatting structure and woodland fires, managing hazardous material incidents, entering confined spaces, and a variety of other dangerous and labor-intensive tasks. In addition to maintaining their physical health, firefighters need to undergo extensive training and education to perform their responsibilities. Modern firefighters are not simply running around on big red trucks pouring water on fires. The trade is highly developed and complicated. As volunteer fire brigades place themselves in harm's way continuously, they also provide needed services to their communities. Volunteer departments are often responsible for providing emergency medical services. They respond to fires that jeopardize developed areas, farm land, and wildland areas. Volunteer firefighters provide all these services and more, and generally receive no compensation. Volunteer firefighters devote their time, energy, and often their money to their communities.

Volunteer fire departments have unfortunately been overlooked by most academic researchers examining the relationship between leadership styles and organizational commitment. Volunteer firefighters serve their department and their communities because they willing choose to do so. However, many departments are beginning to face volunteer shortages, and volunteer membership is in decline nation-wide. This study aims to address the absence of research on volunteer fire departments by answering five well-constructed and relevant research questions. The questions are intended to explore the relationship between leadership styles and organizational commitment within volunteer fire departments. The effects of leadership style and organizational commitment are measured through an examination of organizational outcome.

The researcher conducted an in-depth literature review of relevant findings. The researcher applied the findings from the literature review to form a list of independent variables associated with leadership styles and a list of dependent variables associated with organizational commitment.

Most studies that relate leadership of fire chiefs to commitment of firefighters have focused exclusively on paid firefighters. Very little research (Lee & Olshfski, 2002a; Perkins & Metz, 1988) has been conducted within the volunteer fire service concerning firefighters' organizational commitment. Likewise, there is a dearth of research on the relationship between leadership styles and organizational commitment in volunteer departments. Notably, no study has been conducted on how the leadership styles of fire chiefs impacts the three different aspects of organizational commitment: affective, continuance, and normative.

Patterns of commitment within volunteer fire departments can be different from paid departments. Some members of volunteer fire departments consider volunteering as a process of becoming a paid firefighter (Volunteerfirefighter.org, 2013). Some volunteer firefighters, especially younger members of a department, use volunteer departments as a means of acquiring the skills and training necessary to join a professional department. This reality reduces levels of continuance commitment, and may increase attrition within a volunteer department. Most volunteer firefighters serve without getting any formal wages.

Transformational leadership offers many avenues for increasing organizational commitment. Unfortunately, even after an exhaustive literature review, this researcher was unable to find any research relating the transformational leadership factors to their potential impacts on organizational commitment in the volunteer fire service. The five factors of transformational

leadership are idealized influence (attributes), idealized influence (behaviors), inspirational motivation, intellectual stimulation, and individual consideration (Bass, 1985). More research needs to be conducted on the relationship between leadership styles and organizational commitment. These are critical tools to elevate organizational effectiveness and maintain membership.

Purpose of the Study

The intent of this study is to determine dominant leadership styles, and to examine whether a relationship exists between the leadership styles of fire chiefs and organizational commitment among the volunteers in their departments. Additionally, this study examines how the individual factors of transformational leadership can impact levels of organizational commitment among volunteer firefighters. Furthermore, this study explores the relationship between leadership style and organizational commitment and organizational outcome.

To determine leadership styles (transformational, transactional, and laissez-faire) and organizational outcome, firefighters were surveyed with the MLQ developed by Bass and Avolio (2004). Levels of organizational commitment were measured by Meyer and Allen's 2004 Three-Component Model Employee Commitment Survey (revised version). Volunteer firefighters also were asked to complete a demographic questionnaire, which collected age, gender, current occupation, type of volunteer fire department, length of time working at current fire department, length of time working under current fire chief, and fire department's location information. This data describes general demographics of samples. It was used to determine if the sample is representative of Oklahoma fire firefighters. This information also enabled a deeper analysis of the survey.

The results of this study will provide the leaders of volunteer fire departments and human resource managers with useful information. A better understanding of leadership styles and how they relate to organizational commitment of the subordinates is important for the management of an organization. Increasing the level of effectiveness and performance among firefighters is an important role for all supervisors in the fire service (Buckman, 2004). It is possible to broaden our knowledge in order to identify what kinds of leadership factors have an impact on the organizational commitment of volunteer firefighters. Knowing the effects of various leadership styles is also helpful in selecting and instituting management strategies for a successful organization. It is necessary to disseminate our knowledge of leadership and organizational commitment to volunteer fire departments. By doing so, it is possible to teach current and future fire leaders how to develop their own leadership strategy that encourages firefighter motivation and attains their organizational goals effectively.

Research Questions

This study first identifies prominent leadership styles at the fire chief level in the volunteer fire service. Second, it examines the relationship between leadership styles and organizational commitment among members of that chief's department. Third, it investigates the differences that exist in the level of organizational commitment of firefighters relative to three different aspects of organizational commitment; affective, continuance, and normative. Fourth, it examines how the transformational leadership factors impact the level of organizational commitment of volunteer firefighters. Finally, this study explores the relationship between leadership style and organization commitment and organizational outcome.

Question 1: Which type of leadership style is most prominent among fire chiefs in volunteer fire departments: transactional, transformational, or laissez-faire?

Question 2: How are leadership styles (transactional, transformational, and laissez-fair) connected to the level of overall organizational commitment?

Question 2-1: How are leadership styles (transactional, transformational, and laissez-fair) connected to the three different aspects of organizational commitment (affective, continuance, and normative)?

Question 3: How do transformational leadership factors (idealized influence [attributes and behaviors], inspirational motivation, intellectual stimulation, and individual consideration) impact the overall organizational commitment of members?

Question 4: What is the difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation?

Question 5: How is leadership style connected to organizational outcome (effectiveness, extra effort, and satisfaction)?

Question 6: How is organizational commitment of the members connected to organizational outcome (effectiveness, extra effort, and satisfaction)?
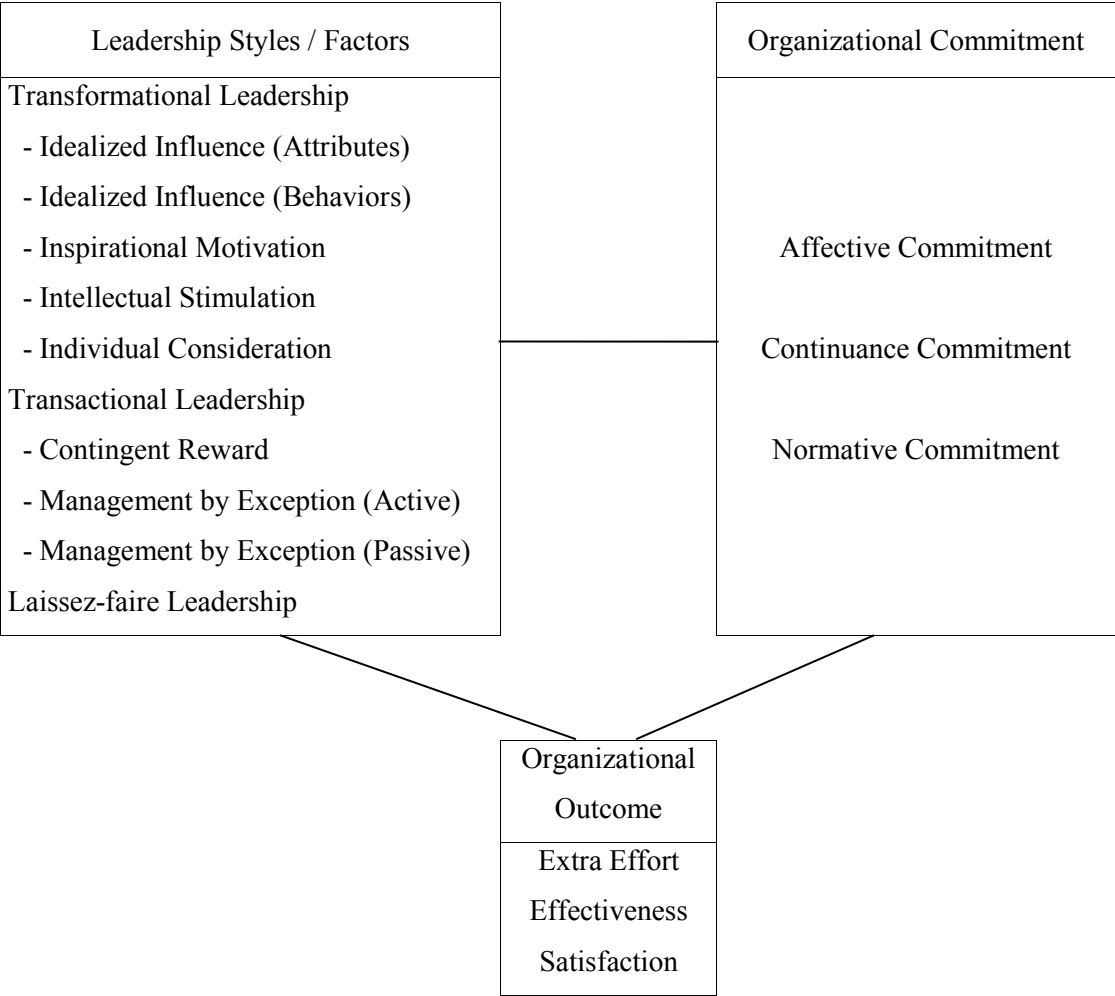
Figure 1: Model of Research and Variables in the Study

Operational Definitions of Terms

For the purpose of this study, the following terms are operationally defined in the context of this study.

Affective commitment: It refers to the employee's emotional attachment to, identification with, and involvement in the organization (Meyer & Allen, 1991).

Continuance commitment: An awareness of the costs associated with leaving the organization (Meyer & Allen, 1991).

Laissez-Fair Leadership Style: A leadership style that employs an avoidance approach to taking action, making decisions, or accepting responsibility (Bass & Avolio, 1994).

Leadership: The ability of an individual to lead other members to contribute to the organizational goals and successes (Yukl, 2002).

Leadership Factors: Idealized influence (attributes), idealized influence (behaviors), inspirational motivation, intellectual stimulation, individual consideration for the transformational leadership, contingent reward, management-by-exception (active), management-by-exception (passive) for the transactional leadership, and laissez-faire (Bass & Avolio, 2004).

Leadership style: The consistent patterns of behavior which a leader exhibits, as perceived by members, when attempting to influence members (Hersey & Blanchard, 1981).

MLQ: Multifactor Leadership Questionnaire developed by Bass and Avolio (2004). It is used to determine the leadership styles of fire chief by firefighters and assess organizational outcome.

Normative Commitment: A feeling of obligation to continue employment (Meyer & Allen, 1991).

Organizational Commitment: It contains three commitments: affective, continuance, and normative commitment (Meyer & Allen, 1991).

OCQ: Organizational Commitment Questionnaire. It is used to determine the OC level of the volunteer firefighters (Meyer & Allen's 2004 Three Component Model Employee Commitment Survey [revised version]).

Organizational Outcome: Member outcomes such as extra effort, leader effectiveness and satisfaction with the leader (Bass & Avolio, 2004).

Paid fire department: A department in which all members get paid to perform their duties.

Retention: The ability to maintain members of an organization.

Transactional Leadership Style: A leadership style identified by task clarification and transactional exchanges between leader and member through rewards or punishments based on behavior (Bass & Avolio, 1994).

Transformational Leadership Style: A leadership style that is intended to raise leader and member to high moral, ethical, and performance levels through the inspiration and motivation of the leader (Bass & Avolio, 1994).

Volunteer firefighter: Firefighters who perform their tasks without wages or who receive partial compensation.

Volunteer fire chief: The chief executive officer in a volunteer fire department.

Volunteer fire department: A department that has all volunteers (including some cases in which some volunteers get compensation for calling) and responds to fires and all nature of emergencies.

Significance of the Study, Assumptions, and Limitations

It has been noted that leadership plays a critical role in attaining organizational goals. According to Brunacini (1996), the chief of a fire department will deal with important issues that face the fire service such as budget, safety, liability, training, succession planning, and morale. Encouraging firefighters to be motivated and committed to the organization is an important part of the leadership responsibilities assigned to fire department leaders. This study will contribute to the current body of knowledge on leadership styles in the volunteer fire service organization.

Understanding how organizational commitment is related to leadership in the volunteer fire organization is a critical first step in raising the level of organizational commitment. Organizational commitment has the potential to raise organizational outcome and maintain volunteer membership. There have been many studies on the relationship between perceived leadership styles by leaders themselves and organizational commitment. However, not many studies exist on the relationship between leadership styles perceived by members and organizational commitment of the member. If one can determine leadership styles that have an impact on members' organizational commitment, then one can prepare for future challenges more effectively. One can also teach current and potential leaders how to manage members to effectively meet organizational goals, modify leadership styles to raise organizational commitment, and how to keep up with a constantly changing environment.

This study applies the theories of leadership and organizational commitment to the volunteer fire service organization. It fills a gap in the research regarding leadership and organizational commitment in the volunteer fire service organization. There are two significance areas of this study. It provides important information for future organizational development for current and potential volunteer fire chiefs. Additionally, the outcomes of this study also apply to other emergency service organizations such as paid fire departments, police, emergency management agencies, disaster management teams in private organizations, etc.

This study has several assumptions and limitations. This study includes the following assumptions. First, given the guarantee of absolute anonymity, participants will complete the research questionnaire with independent and accurate information. Second, participants have sufficient knowledge and information about their fire chiefs to provide an accurate determination of leadership styles.

This study includes the following limitations. First, because of the scope of the study, it is limited to the fire service organization. As a result, generalizing the findings to private sector or general populations may not be appropriate. More myopically, because only volunteer fire departments participated, generalizing to all fire departments may not be appropriate (This study examined only Oklahoma volunteer fire departments. According to Firefighters Online (2013), within the state, there are 369 Volunteer fire departments, 42 paid fire departments, and 67 combination fire departments). Finally, because most of these departments are heavily male-dominated organizations, reservations exist when generalizing to other emergency organizations that possess a more balanced gender ratio.

Summary and Organization of the Study

Chapter one addressed the gap between the important functions of leadership and organizational commitment as well as current organizational challenges found in the volunteer fire service. Leadership and organizational commitment are two distinctly important issues for the volunteer fire service organization. The two factors are strongly linked to organizational outcomes and member retention. The research questions contained within this study are related to identifying dominant leadership styles among fire chiefs in Oklahoma's volunteer fire departments. Answering these questions will hopefully determine if a relationship exists between leadership styles and the organizational commitment in Oklahoma volunteer fire service organizations. Exploring the research questions also addresses the relationship between leadership style and organizational commitment with organizational outcome.

This study consists of five chapters. Chapter one provides an overview of the study. Chapter two presents a review of the relevant literature on the theory of leadership styles, organizational commitment, and related studies. Chapter three describes the methodology of the research. Chapter four contains the results of the study and an examination of the relationships between leadership styles, organizational commitment, and organizational outcome. Chapter five provides a discussion of the results and recommendations for future study.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter reviews the theory of leadership, the concept of organizational commitment, and related studies. This study was conducted to answer the six major research questions. The first research question was designed to identify if a relationship exists between leadership styles of volunteer fire chiefs and the organizational commitment level of volunteer firefighters. The second research question examines if a relationship exists between leadership styles of the volunteer fire chiefs and the three different aspects of commitment. The third research question aims to explore how the factors of transformational leadership impact the level of organizational commitment of volunteer firefighters. The fourth research question examines the difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation. The fifth research question investigates if a relationship exists between leadership styles and organizational outcome. The sixth and final major question asks whether or not organizational commitment and organizational outcome are related.

To accomplish these six objectives, five steps are taken for this review. First, leadership and organizational outcome including the introduction of the theory of transactional leadership style, the transformational leadership and the laissez-faire leadership style are reviewed. Second, this study reviews the concept of organizational commitment and the connection between

organizational commitment and organizational outcome, and organizational commitment among volunteers. Additionally, the connection between leadership and both member retention and organizational commitment are analyzed. Third, antecedents of organizational commitment are presented. Fourth, the relationship between leadership styles and organizational commitment is observed. Finally, this study reviews leadership styles and organizational commitment in the fire service organization.

Leadership and Organizational Outcome

It is not an easy task to define leadership in just one way. Researchers have tried to use the concept of leadership widely in different academic fields. This results in making a solitary definition of the term difficult to determine. There are many different definitions for the term "leadership." Burns (1978) defines leadership as "A leader induces followers to act for certain goals that represent the values and the motivations - the wants and needs, the aspirations and expectations - of both leaders and followers and the genius of leadership lies in the manner in which leaders see and act on their own and their followers' values and motivations" (p. 19). Chemers (1997) defines leadership as "a process of social influence in which one person is able to enlist the aid and support of others in the accomplishment of a common task" (p. 1).

Many researchers have examined the relationship between leadership effectiveness and its impact on organizational effectiveness (Cohen, 1993; Kolb, 1995; Luke, 1998; Ackoff, 1999; Brunacini, 2000; Kayworth & Leidner, 2002; Haverty, 2003). Organizational effectiveness is defined as the ability of an organization to minimize the use of resources when converting inputs to outputs (Thompson, 2004). Developing effective leaders in the fire service organization and helping firefighters become highly motivated is considered critical to the future of the fire service

industry (Brunacini, 1996). The large amounts of research that have studied leadership

effectiveness in a variety of organizational environments are based on leadership behavior

(Javitch, 1997). Most organizational concern is focused on improving organizational performance

(Kolb, 1995). Effective leadership can operate as a functional role to improve organizational task

performance (Kolb, 1995). As a result, the interest of organizations has focused upon the

relationship between leadership and organizational task performance (Kolb, 1995). Findings

reported by many studies in organizational behavior have suggested that effective leadership

should be an indispensable factor for successful organizational outcomes (Choi, 2006).

Furthermore, many researchers have emphasized leadership as an essential factor toward the

success of any outcome (Choi, 2006). Most studies demonstrate that the transformational

leadership style is positively linked to organizational outcome (Fuller, Patterson, Hester, &

Stringer, 1996; Avolio & Bass, 2002).

A number of leadership studies have identified extra effort, leader effectiveness, and

employee satisfaction with the leader as major variables that determine the level of organizational

outcome. Most of these studies focused on examining the relationship between leadership styles

and organization outcome by using the MLQ instrument developed by Bass and Avolio (2004).

Extra effort is the variable that evaluates the quantity of members' participation, which is the

tendency of employees to do more than require. Leader effectiveness is the variable that evaluates

the ability of a leader, which leads to attainment of desired results. Employee satisfaction with the

leader is the variable that measures the satisfaction level of working relationship that employees

have with their leader (Bass & Avolio, 2000).

Bass and Avolio (2004) suggested that "Transformational and transactional leadership are both related to the success of the group. Success is measured with the Multifactor Leadership Questionnaire by how often the raters perceive their leader to be motivating, how effective raters perceive their leader to be at interacting at different levels of the organization, and how satisfied raters are with their leader's methods of working with others" (p. 96). They suggested three components of organizational outcome. First, they described extra effort as "Get others to do more than they expected to do", "Heighten others' desire to succeed", and "Increase others' willingness to try harder." They described effectiveness as "Am effective in meeting others' job-related needs", "Am effective in representing their group to higher authority", "Am effective in meeting organizational requirements", and "Lead a group that is effective." Finally, they described satisfaction with the leadership as "Use methods of leadership that are satisfying", and "Work with others in a satisfactory way" (p. 96).

Leadership Styles

The definition of "leadership style" has been used widely. Hersey and Blanchard (1981) defined leadership style as "the consistent patterns of behavior which you exhibit, as perceived by others, when attempting to influence others" (p. 34). Leadership style is also defined as a technique that the leader uses to achieve the goal of organization (Stojkovic, Kalinich, & Klofas, 2003). Casimir (2001) states leadership style as "a pattern of emphases, indexed by frequency or intensity of specific leadership behavior or attitudes, which a leader places on the different leadership functions" (p. 246). In summary, leadership style is a technique that leaders use to achieve the goals of an organization (Stojkovic et al., 2003). This study focuses on three major leadership styles such as transformational, transactional, and laissez-faire leadership.

23

Burns (1978) conceptualized the concept of transformational and transactional leadership characteristics. Transformational leadership is based on the leader and follower engaging where the leader encourages followers to raise their level of motivation, whereas transactional leadership is based on the exchange relationship between leader and follower. This study focused on the leadership of politicians. Bass's (1985) work extended this specific area into general organizations. In this study, Bass utilized three types of leadership styles: transformational leadership, transactional leadership, and laissez-faire leadership (Schimmoeller, 2010).

Transactional Leadership Style

Bass (1985) argued that transactional leaders operate by recognizing what actions their followers must take to accomplish the desired outcome or performance, and then subsequently facilitating those actions. Bass emphasized that contingent reward and punishment have an effect on the performance of followers. Therefore, this approach is labeled as the "carrot or stick" (Bass, 1997b). Yukl (1998) refers to transactional leadership as a tool to stimulate followers by appealing to their self-interest. Yukl (1998) also argued that "Transactional leadership involves values, but they are values relevant to the exchange process, such as honesty, fairness, responsibility, and reciprocity" (p. 325). Waldman, Bass, and Einstein (1987) stated that transactional leadership is useful when the goals are short-term. Zaleznik (1977) pointed out the available tasks within transactional leadership as "Management selects goals, directs resources and activities, rewards performance, strategizes the best ways to accomplish tasks, negotiates and bargains, penalizes for non-performance, and ensures the skills for task completion" (p. 69).

Factors of Transactional Leadership

Transactional leadership can be divided into three dimensions: contingent reward, active management-by-exception, and passive management-by-exception. According to Bass (1985), contingent reward refers to the agreement to roles and responsibilities between the leader and follower to achieve agreed goals and tasks. Bass (1997a) describes contingent reward as "leader engage in a constructive path-goal transaction of reward for performance" (p. 134). Active management-by-exception is the characteristic of a leader in which a leader monitors followers to avoid mistake while passive management-by-exception is characteristic of acceptance of the status-quo until they become a serious problem (Avolio & Bass, 1990; Bass, 1997a). Bass (1997a) defines active management-by-exception as "leaders monitor followers' performance and take corrective action if deviations from standards occur" (p. 134). Bass (1997a) also defines passive management-by-exception as "leaders fail to intervene until problems become serious" (p. 134). Of the three characteristics of transactional leadership, contingent reward is the more effective element. The middle recommended strategy is active management-by-exception. The worst of the three choices is passive management-by-exception (Avolio & Bass, 1990; Bass, 1997a).

Bass and Avolio (2004) described contingent reward as "Provide others with assistance in exchange for their efforts", "Discuss in specific terms who is responsible for achieving performance targets", "Make clear what one can expect to receive when performance goals are achieved", and "Express satisfaction when others meet expectations" (p. 95). They described management by exception (active) as "Focus attention on irregularities, mistakes, exceptions, and deviations from standards", "Concentrate my full attention on dealing with mistakes, complaints and failures", "Keep track of all mistakes", and "Direct my attention toward failures to meet

standards" (p. 95). They also described management by exception (passive) as "Fail to interfere until problems become serious", "Wait for things to go wrong before taking action", "Show a firm belief in if it ain't broke, don't fix it", and "Demonstrate that problems must become chronic before I take action" (p. 95-96).

Transformational Leadership Style

Burns (1978) explained that leaders who employ the transformational theory operate by encouraging followers to do more than they believed they could. He explained that a transforming leader transcends transactional leadership to a higher level where a leader knows the needs of followers and works together to meet their expectations. Burns (1978) describes transforming leader as "looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower" (p. 4). Pounder (2008) argued that the association between transformational leadership and positive outcomes is the most important concept related to leadership. This association makes followers consider transformational leaders positively, namely in regard to effectiveness and motivation. Yukl (1989) described transformational leadership as "the process of influencing major changes in the attitudes and assumptions of organizational members and building commitment for the organization's mission and objects" (p. 204). Bass (1985) suggested that characteristics of transformational leadership are charismatic leadership, inspirational leadership, an individualized approach that focuses on the particular needs of their followers, and intellectual stimulation that focuses on innovative ways to handle organizational issues.

Factors of Transformational Leadership

Bass (1985) claims transformational leadership encompasses four dimensions of leadership behavior: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Idealized influence refers to charisma, attitude, and behavior. It includes not only the behavioral facets, but also attitude facets of the transformational leader (Avolio, Bass, & Jung, 1999; Bass, 1985). Bass (1997b) defines idealized influence as "The leader shares a vision and sense of mission with the followers. Radical, innovative solutions to critical problems are proposed for handling followers' problems. The leader has the followers' respect, faith, and trust. The followers want to identify with the leader. The leader shows determination and conviction" (p. 22). It refers to the characteristic of a leader that makes followers consider him as a role model. This characteristic is based on a high level of ethical behavior (Bass & Avolio, 2004). Followers can respect and believe in their leaders with high levels of expectation and trust (Bass & Avolio, 2000). Bass and Avolio (2004) described idealized attributes as "Instill pride in others for being associated with me", "Go beyond self-interest for the good of the group", "Act in ways that build others' respect for me", and "Display a sense of power and confidence." They described idealized behaviors as "Talk about my most important values and beliefs", "Specify the importance of having a strong sense of purpose", "Consider the moral and ethical consequences of decisions", and "Emphasize the importance of having a collective sense of mission." (p. 94).

Inspirational motivation is a leadership characteristic that imparts an exact vision and values to followers. This approach makes followers inspired to have a shared vision with their leader. Bass (1997b) defines inspirational motivation as "The leader increases the optimism and

enthusiasm of followers. The leader communicates with fluency and confidence using simple language and appealing symbols and metaphors" (p. 22). In order to attain the organizational goals, the leader who has good communication skills tends to appeal to the emotions of his followers (Bass & Avolio, 2000). Bass and Avolio (2004) described inspirational motivation as "Talk enthusiastically about what needs to be accomplished", "Articulate a compelling vision of the future", and "Express confidence that goals will be achieved" (p. 94).

Intellectual stimulation is a process that motivates followers to improve their work, beliefs, and values by using the problem solving process. Bass (1997b) defines intellectual stimulation as "The leader encourages new ways of looking at old methods and problems. The leader provokes rethinking and reexamination of assumptions on which possibilities, capabilities, and strategies are based" (p. 22). The leader who possesses a strong ability to persuade others will guide his followers to find better ways of solving problems (Bass & Avolio, 2000). Bass and Avolio (2004) described intellectual stimulation as "Re-examine critical assumptions to question whether they are appropriate", "Seek differing perspectives when solving problems", "Get others to look at problems from many different angles", and "Suggest new ways of looking at how to complete assignments" (p. 95).

Individualized consideration is an ongoing process that identifies followers' needs continuously. This characteristic focuses on satisfying followers by meeting individual needs. Bass (1997b) defines individualized consideration as "The leader gives personal attention to followers and makes each feel valued and important. The leader coaches and advises each follower's personal development" (p. 22). The leader who has this characteristic tends to focus on finding the needs of individual followers in the organization, and attempts to address their wants

28

and fulfill their needs (Bass & Avolio, 2000). Bass and Avolio (2004) described individual consideration as "Spend time teaching and coaching", "Treat others as individuals rather than just as a member of the group", "Consider each individual as having different needs, abilities and aspirations from others", and "Help others to develop their strengths" (p. 95).

Laissez-faire Leadership Style

Bass and Avolio (2004) stated that the laissez-faire leader is considers more of a hands-off approach to leadership. Bass (1997b) defines laissez-faire leadership as "leadership in not attempted. There is abdication of responsibility, indecisiveness, reluctance to take a stand, lack of involvement, and absence of the leader when needed" (p. 22). Bass (1997a, 1997b) further argues that this style of leader does not make a decision. According to the empirical studies, many researchers showed that this leadership style is less effective than transformational leadership (Burn, 1978; Judge & Piccolo, 2004; Silins, 1994). Laissez-faire leaders can be called passive-avoidant leaders whose behavior is passive and reactive. This style of leader will not take a systematic approach and will not handle issues until the problems become conditions that must be addressed through corrective actions (Bass & Avolio, 2004). Bass and Avolio (2004) described laissez-faire as "Avoid getting involved when important issues arise", "Am absent when needed", "Avoid making decisions", and "Delay responding to urgent questions" (p. 96).

The objective of transactional leadership is to improve an organization's effectiveness. It can be conceptualized as the actual transaction or interaction between the leader and follower. The leader provides achievement, power, affiliation, and security as the follower offers productivity and buy-in (Haverty, 2003). Transactional leadership can be transferred to transformational leadership. Haverty (2003) describes this as a transforming process.

29

Transactional leadership develops trust and credibility, establishes values, lays foundations for communication, establishes rewards, and creates constructive transactions. These constructive transactions can be transferred to factors of transformational leadership such as charismatic influence, motivation to higher goals, engaging followers intellectually, and individualized transactions.

Burn (1978) pointed out that the transactional leadership style can be effective in some situations, but it has a critical weak point that makes it an inappropriate management style in other situations. This leadership style is not sufficient to attain the long-term goals of an organization, nor can it meet the long-term needs of leader and subordinates. According to Yukl (1999), research related to transactional and transformational leadership styles indicated that the transformational leadership style can show stronger and more consistent results when associated with leadership effectiveness. Judge and Poccolo (2004) support this conclusion. They insisted that the transformational leadership style is more effective and makes followers more satisfied than the transactional leadership style. They also suggested that best leadership style is to combine transformational and transactional leadership.

Bass (1985) ordered leadership styles from most to least effective as: transformational leadership, contingent reward, active management by exception, passive management by exception, and laissez-faire leadership. Transformational leadership factors have a stronger impact on organizational outcomes such as extra effort, leader effectiveness, and employee satisfaction with leader than transactional factors (Bass, 1985). Many studies have shown that transformational leadership is positively linked to work outcomes. Geyer and Steyrer (1998) used Australian bank branches to test the relationship between leadership and organizational

performance. They identified that transformational leadership has an impact on organizational performance. Moreover, Kahai, Sosik, and Avolio (2003) analyzed the relationship between transformational leadership and group performance. In this study, they found that transformational leadership can increase group performance by overcoming social loafing among team members. Parallel to these findings, the transformational leadership style has a direct influence on followers' motivation, morality, and empowerment (Dvir, Eden, & Shamir, 2002). Volunteer fire departments do not provide any formal wage for volunteer firefighters to perform their duties. Therefore, there is a need for more research on transformational leadership than has previously existed.

Organizational Commitment and Organizational Outcome

Steers (1977) insisted that "the concept of employee commitment to organizations has received increased attention in the research literature recently as both managers and organizational analysts seek ways to increase employee retention and performance" (p. 46). Buchanan (1974) argued that there is a need for an acceptable definition about organizational commitment. Sheldon (1971) describes commitment as "an attitude or an orientation toward the organization which links or attaches the identity of the person to the organization" (p, 143). Meyer and Allen (1991) noted that "Employees with a strong affective commitment continue employment with the organization because they want to do so. Employees whose primary link to the organization is based on continuance commitment remain because they need to do so. Employees with a high level of normative commitment feel that they ought to remain with the organization" (p. 67).

31

According to Porter et al. (1974), organizational commitment contains three factors as "(a) a strong belief in and acceptance of the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; (c) a definite desire to maintain organizational membership" (p. 604). There are many definitions of organizational commitment depending on research topics. Therefore, it is not an easy endeavor to define this academic concept as a single idea. Meyer and Allen (1991) conceptualized a variety of definitions into three general themes: "affective attachment to the organization, perceived cost associated with leaving the organization, and obligation to remain with the organization" (p. 63-64). They conceptualized commitment into three categories; affective, continuance, and normative commitment. They defined affective commitment as "the employee's emotional attachment to, identification with, and involvement in the organization" (p. 67). Moreover, they defined continuance commitment as "an awareness of the costs associated with leaving the organization" (p. 67). They defined normative as "a feeling of obligation to continue employment" (p. 67).

Meyer and Allen (1991) also described the three components of organizational commitment based on the psychological nature of those commitments. They insisted that members with higher level of affective commitment contain emotional attachment to their organizations, which leads them to have a higher motivation encouraging positive contribution to their organization. When it comes to continuance commitment, they suggested that the reason why members stay with their organizations is based on not emotional attachment but the cost associated reasons such as side bets, investments, and the availability of alternatives. Therefore, there is no reason for members to contribute to their organizations. They also insisted that continuance commitment has no connection with positive performance of a member. Regarding

normative commitment, they insisted that a member with higher level of normative commitment will feel an obligation to their organizations. This leads them to have higher motivation to behave properly toward their organizations. This feeling of obligation is associated with positive performance and retention.

Organizational studies seek to explain how people interact and perform their tasks. Current organizational studies focus on the individual's mindset serving in an organization. Dunham, Grube, and Castañeda (1994) argued that "most commitment studies can be categorized as assuming either an attitudinal or behavioral perspective" (p. 370). According to Mowday, Steers, and Porter (1979), behavioral commitment refers to employee behaviors that "represent sunk costs in the organization where individuals forgo alternative courses of action and choose to link themselves to the organization" (p. 225). Attitude commitment refers to employee attitude that "represents a state in which an individual identifies with a particular organization and its goal and wishes to maintain membership in order to facilitate these goals" (p. 225).

Many studies on organizational commitment have focused on either one sector or on a comparison between public and private sectors. Liou and Nyhan (1994) studied organizational commitment in the public sector. They used the categories of tenure, supervisory, and nonprofessional as the independent variables and affective and continuance commitment as the dependent variables. The researchers investigated the multidimensional aspects of organizational commitment. The pair found that public employee characteristics, such as supervisory positions, years of service, and nonprofessional status, can increase levels of affective commitment, but not continuous commitment. They argued that the effective public leader needs to focus on affective commitment to motivate public employees.

Goulet and Frank (2002) examined organizational commitment across public, non-profit, and for-profit sectors. The results of this study present that for-profit employees are likely to be the most committed to their organization. Organizational commitment of employees in non-profit organizations is next. Of the three sectors, public employees show the least amount of commitment to their organization.

Flynn and Tannenbaum (1993) observed the differences of organizational commitment between the public and private sectors. They analyzed relationships between varying characteristics of the two sectors, organizational commitment, and general sector differences. The results indicated that no significant difference in organizational commitment exists between two sectors. However, this study demonstrates that certain job characteristics such as challenge and clarity partly influence organizational commitment.

In a study that focused on the factors that influence on organizational commitment, Himmet, Unal, and Cuhadar (2008) explored the relationships between role conflict and ambiguity and their effect on organizational commitment. In this study, they collected and mixed data from two public organizations and two private organizations. They found that employees with increased levels of role conflict and ambiguity demonstrated a decreased level of organizational commitment.

Markovtis, Davis, Fay, and van Dick (2010) studied the connection between job satisfaction and organizational commitment. They analyzed the differences between public and private sector employees in Greece. The results clearly showed a strong positive relationship between affective commitment and intrinsic satisfaction. The researchers also found that the relationship between affective commitment and intrinsic satisfaction for the private sector is

much weaker than for the public sector. When it comes to the relationship between normative commitment and intrinsic satisfaction, the results showed a strong positive relationship. However, the relationship between these variables was discovered to be much stronger among public sector employees than those working in the private sector.

The consequences of organizational commitment are related to member retention and organizational outcome. Johnson (2004) emphasized the leader's ability to create an organizational environment that makes members committed to the job and satisfied with their roles. This type of environment should elevate employee retention rates. Snook and Olsen (1989) insisted that a prevalent and common cause for member decline is ineffective leadership. Parallel to these points, to manage an organization effectively and maintain membership, active participation by leaders is a more effective tool than a dictatorial leadership style (Bush et al., 1998). They also suggested that communication problems between leaders and member are the most common cause linked to the issue of retention. Leadership strategies can impact and encourage member participation and retention in the organization. This situation results in encouraging members to function effectively (Thompson & Buchanan, 2004).

Steers (1977) believed that organizational commitment is linked to the membership retention. The researcher states "the concept of employee commitment to organizations has received attention in the research literature recently as both managers and organizational analysts seek ways to increase employee retention and performance" (p. 46). One major variable positively effecting organizational commitment is a strong desire to retain membership in the organization (Mowday et al., 1979).

Meyer et al. (2002) conducted a meta-analysis to identify the connection between affective commitment and actual turnover behavior. In this study, they found a negative correlation between these two variables. As the affective commitment increased, the researchers quantified a tangible decrease in employee turnover.

Moreover, Meyer and Hercovitch (2001) demonstrated that higher levels of organizational commitment can motivate employees to engage in special behavior that is not in their own self-interest. This finding implies that even though they have an ability to qualify for better job, once employees are committed to the organization, they tend to remain there with the current organization.

By using a longitudinal analysis, Farkas and Tetrick (1989) identified that organizational commitment can reduce employee turnover in the organization. According to Rhoades, Eisenberger, and Armeli (2001), increasing a favorable work environment creates a mediator variable of affective commitment, and subsequently reduces voluntary employee turnover. Several other studies have also shown that organizational commitment is a critical determinant to increases in tenure in the organization (Porter, Crampon, & Smith, 1976; Williams & Hazer, 1986; Whitener & Walz, 1993). Retaining and motivating members is an important task for all fire chiefs (Thompson & Bono, 1993).

The leadership factor can directly influence the membership retention. Strong transformational leadership practices have demonstrated impressive results in increases member satisfaction and reducing voluntary turnovers. This in turn helps to combat the problem of retention. Retention is a critical issue in the volunteer fire service, where the average firefighter remains with a department for only four years. Organizational commitment is also a critical

variable for maintaining member retention. Creating favorable work environments and catering

to the needs of staff members fosters organizational commitment. These are tools that can be

employed in the volunteer fire service to further mitigate retention issues.

Several studies (Schein, 1970; Steers, 1977; Balfour & Wechsler, 1991; Meyer &

Hercovitch, 2001; Sarah, Jolian, Robert, & Karl, 2011; Meyer et al., 2002) have demonstrated

that organizational commitment plays an important role in determining organizational outcomes.

Balfour and Wechsler (1991) examined the relationship between organizational commitment and

organizational outcomes in public organizations. Performance and productivity were used to

quantify organizational outcomes on their study. The findings of this study indicated that there is

a positive relationship between organizational commitment and effectiveness variables such as

performance and productivity. This study also suggests that managers can develop effective

mechanisms to raise the level of motivation and performance.

Meyer et al. (2002) examined how three aspects of organizational commitment can

impact organizational outcomes such as attendance and performance. In this study, the three

aspects of organizational commitment related positively to organizational consequences.

Paralleling the above result, Sarah et al. (2011) investigated the relations between worker

commitment and workplace performance. In this study, they identified that affective commitment

is positively associated with workplace performance.

Meyer and Hercovitch (2001) analyzed how organizational commitment develops and

how it can impact employees' behavior. In this study, they provided two recommendations for

leadership strategies. One is to "Carefully consider the desired outcomes of employee

commitment and the behavior required to achieve those outcome" (p. 322). The other

recommendation is to "Carefully consider what the most appropriate target of commitment might be in any given situation and help employees to see how the desired course of action is relevant to the goals and values of that target" (p. 322).

When the research concerning the correlation of the independent variables public, private, and non-profit sector and the dependent variable organizational commitment are viewed in their collective entirety, an interesting reality emerges. There is simply not one consistent and overarching finding from the research. Some researchers found strong positive ties between private sector employees and organizational commitment, while other researchers developed directly contrasting conclusions. Meanwhile, other researchers found no correlation between employment sector and employee levels of organizational commitment. As stated in the first chapter, one critical challenge for the volunteer fire organization is member retention and recruitment. Scott and Buckman (2004) described the issue of retention of volunteer firefighters as "a substantial concern for the fire service. It is estimated that the national retention average of volunteer firefighters is approximately four years per person, per department" (p. 14). This finding clearly illustrates the importance of retention in the volunteer fire service. In addition, this review shows that organizational commitment is an important factor that determines the level of organizational outcome.

Organizational Commitment of Volunteers

Ilsley (1990) suggested eight factors that motivate an individual to engage in volunteering: commitment, altruism, free will, learning, absence of financial remuneration, organization, psychological benefits, and sacrifice. The writer pointed out that the volunteer cannot provide his or her service without commitment. Commitment is an important factor in

volunteerism. Volunteers commit to their organization when they perceive a certain level of satisfaction derived from their work (Burke & Lindsay, 1985; Ross-Gordon & Dowling, 1995).

Boezeman and Ellemers (2007) investigated the commitment of volunteers. They used two dependent variables; the pride that one gains from serving as a volunteer and the respect displayed toward the volunteer organization. They also tested two forms of organizational commitment; normative and affective commitment. The results of their analysis yielded two pieces of evidence. They discovered that both the volunteer's pride in their work and the respect of the organization influence organizational commitment. They also realized that some perceived variables such as the importance of volunteer and organizational support are connected with organizational commitment.

Similarly, Boezeman and Elleemers (2008) examined the organizational commitment among volunteers. They analyzed the relationships between organizational commitment and the feelings of pride and respect. They found that the perceived importance of volunteer work has a relationship with the pride variable. The perceived organizational support is associated with the respect variable.

Liao-Troth (2001) studies commitment differences between paid employees and volunteers with similar job tasks in the same hospital organization. The findings demonstrated no difference in an affective and normative organizational commitment between groups of workers. The researcher conducted this test while controlling for age, gender, ethnicity, income, and related control variables. Regarding the continuance commitment, the results indicate paid workers showed a higher level of continuance commitment.

Perkins and Metz (1988) examined the commitment levels of volunteer firefighters. The results of this study showed that seventy-five percent of volunteer firefighters have more than half of their close friends in fire departments. In the survey, sixty-seven percent of firefighters considered that working as a firefighter is more important than being a member of church. Seventy-five percent of firefighters indicated they would seldom or never consider leaving their jobs.

The above findings are directly applicable to the volunteer fire service. When volunteer employees feel a sense of pride in their occupation and believe their volunteer organization is publicly respected, they will exhibit higher levels of organizational commitment. Elevated organizational commitment increases employee retention rates and encourages employees to strive to achieve the organization's goals. Fire chiefs of volunteer fire departments should not forget to remind their firefighters of the noble and righteous nature of their volunteerism.

Antecedents of Organizational Commitment

Numerous studies have used a variety of independent variables to examine how their variables impact organizational commitment. These variables in these studies can be classified into four categories: personal characteristic antecedents, job characteristic antecedents, group-leader relation antecedents, and role change antecedents (Steers, 1977; Stvens, Beyer, & Trice, 1978; Luthans, Baack, & Taylor, 1987; Mathiieu & Zajac, 1990).

According to Steers (1977), personal characteristics, job characteristics, and work experience are major variables that influence organizational commitment. Personal characteristics include need for achievement, age, and education. Task identification, optional interaction, and

feedback are components of job characteristics. Work experiences consist of group attitude, organizational dependability, and personal importance. Steers demonstrated that organizational commitment has a partial impact on outcomes. Outcome variables include desire to remain, intent to remain, attendance, employee retention, and job performance.

According to Luthans et al. (1987), leadership is one antecedent of organizational commitment. It influences the relationship between locus of control and organizational commitment. Many other studies focus primarily on how the transformational and transactional leadership styles build organizational commitment (Catano et al., 2001; Emery & Barker, 2007; Dunn et al., 2012).

Luthans et al. (1987) tested five demographic variables to determine their effect on organizational commitment. The research team tested age, education, tenure, time with supervisor, and achievement level can as their five independent variables affecting organizational commitment. The group also observed some workplace attributes that serve as external variables and can also impact organizational commitment. Examples of these external variables include high investment levels from the leader of the organization, leader initiating structure behavior, and satisfaction with the leadership. In this analysis, demographic variables were discovered to have a strong relationship with organizational commitment.

Mathieu and Zajac (1990) examined antecedent variables of organizational commitment by using a meta-analysis. They employed five types of antecedent variables; personal characteristics, job characteristics, group-leader relations, organizational characteristic, and role status. In their analysis, several variables were found to possess a small negative correlation with organizational commitment. Education, organization size, organization centralization, role

ambiguity, role conflict, and role overload variables all had a slight negative impact on organizational commitment. Both leader initiating structure and consideration have a moderate positive influence on the organizational commitment.

Stevens et al. (1978) examined organizational commitment by using a role and exchange theory framework. They use personal attributes, role-related factors, and organizational factors as the antecedents of organizational commitment. In this analysis, they demonstrated that time invested in the organization has the greatest positive impact on organizational commitment. Time invested in the organization had the strongest positive relationship to organizational commitment of all independent variables tested. Work-load had the most negative impact of all variables tested in the analysis. When the researchers explored the manager's style, they found that a manager who is change oriented tends to reduce organizational commitment.

The examination of antecedent variables and their effect on organizational commitment is highly pertinent to volunteer fire departments. Volunteer fire chiefs need to pay attention to the antecedent variables that apply to their staff. Of primary concern is to avoid making decisions that might dissuade firefighters from continuing their service. Overworking and over-tasking firefighters will lead to reduced organizational commitment. Additionally, a fire chief who sets ambiguous standards and frequently introduces changes to the organizational will reduce the organizational commitment of his or her staff.

Leadership Styles and Organizational Commitment

As previously mentioned, leadership styles have been defined in various ways. Burns (1978) distinguished between transformational leadership and transactional leadership styles.

Many subsequent studies have been conducted to examine the connection between leadership styles and organizational commitment (Rachid, 1994; Catano et al., 2001; Dale & Fox, 2008; Emery & Barker, 2007; Dunn et al., 2012). Most of studies focused on transformational and transactional leadership. Transformational leadership is based on the relationship between leader and follower. The leader encourages followers to increase their levels of motivation. Transactional leadership is based on the exchange relationship between leader and follower.

Rachid (1994) explored the relationship between organizational commitment and perceived leadership styles. The researcher also analyzed the differences between public and private sectors. The results of this study indicated that leadership style can influence worker commitment. A leadership style that utilizes flexibility and adaptation is the most important variable that increases the level of organizational commitment in the public sector. The researcher attributes this result to the bureaucratic culture in the public sector.

Catano et al. (2001) observed the connection between leadership and organizational commitment in volunteer organizations focusing on two organizations. The Lions Club is a volunteer charity organization and the Newfoundland Association of Public Employee (NAPE) is a union organization. In this study, the researchers found that a transformational leadership style had a positive relationship with organizational commitment in volunteer organizations. They also discovered that the Lions Club members demonstrated a higher level of commitment than the employees of NAPE. Additionally, transactional leadership style was found to have a negative connection with organizational commitment in both organizations.

Emery and Barker (2007) studied how leadership styles influence and strengthen organizational commitment. They collected data from banking organizations and national food

43

chain. They analyzed two leadership styles; transformational and transactional. Charisma, intellectual stimulation, and individual consideration are all components of the transformational leadership style. Contingency rewards and management-by-exception are factors of transactional leadership style. The findings indicate that the transformational leadership style had a positive relationship with organizational commitment among the sample organizations. However, the transactional leadership style presented only a weak connection to organizational commitment.

Dale and Fox (2008) also examined the relationship between leadership style and organizational commitment. They use initiating structure and supervisory consideration as the independent variables and role stress as the mediator. Initiating structure was defined as "the degree to which a supervisor defines his/her own role and the roles of subordinates toward attainment of the group's goals" (p. 111). Supervisory consideration was defined as "the degree to which a superior develops a work climate of psychological support, mutual trust and respect, helpfulness, and friendliness" (p. 112). The findings of this study showed that leadership styles that include initiating structure and consideration increase the level of organizational commitment. It further demonstrated that leadership styles with initiating structure and consideration have a negative relationship with role stress. Role stress also has a negative relationship with organizational commitment. Role stress can effectively mediate the relationship between the variables of initiating structure and organizational commitment. However, role stress is not able to mediate the relationship between the variables of consideration and organizational commitment.

Dunn et al. (2012) observed the relationship between transformational leadership and organizational commitment. Organizational commitment is broken down into three separate categories; affective, continuance, and normative organizational commitment. This study was

conducted within a cross cultural perspective. The results showed that affective commitment and normative commitment are linked with leadership practices in the United States and Israel. However, continuance commitment has no relationship with leadership practices.

Kara (2012) explored the effects of various leadership style characteristics on members' organizational commitment. The researcher collected data from employees in five-star hotels in Turkey. In this study, the researcher used five independent variables of transformational leadership: idealized influence (attributes and behaviors), inspirational motivation, intellectual stimulation, and individual stimulation. The researcher identified that all characteristics of transformational leadership are associated with organizational commitment. Idealized behaviors and intellectual stimulation are more positively connected with organizational commitment than the other characteristics.

Lo et al. (2009) examined leadership styles and organizational commitment. The focus of their study was to investigate how two leadership styles (transformational and transactional leadership) related to employees' organizational commitment. The researchers collected data from employees of manufacturing facilities in Malaysia. They found that managers who practiced transformational leadership achieved higher levels of organizational commitment from their employees than managers who practiced transactional leadership styles. Idealized influence, a component of transformational leadership, possessed a stronger connection to organizational commitment than any other characteristics examined by the group. The transactional characteristics of contingent reward and management by exception (active) were both found to affect organizational commitment, but their effects were weaker than idealized influence. They

concluded that transformational leadership styles were discovered to be generally more effective than transactional leadership styles.

Brown (2003) examined supervisors' leadership styles and members' organizational commitment. The researcher collected data from city workers in the U.S. They found that relation-oriented leaders were able to increase levels of organizational commitment from their employees. These leaders achieved better results than their task-oriented counterparts. Idealized influence (attributes) and inspirational motivation are strongly related to the organizational commitment achieved by transformational leaders. Brown learned that leadership factors are related to affective and normative commitment, but not continuance commitment. Most factors of task-oriented management actually had a negative impact on organizational commitment. All factors of task-oriented management are negatively related to normative commitment and possess only a weak positive connection with continuance commitment.

Klinsontorn (2007) explored the influence of leadership styles on organizational commitment and organizational outcome. The researcher gathered data from company workers in Bangkok, Thailand. The results of this study demonstrated that transformational and transactional leadership have a positive relationship with organizational outcomes such as extra effort, effectiveness, and satisfaction with a leader. The researcher also identified that one of five factors of transformational leadership is related to organizational commitment. Idealized influence (behaviors) has a positive relationship with organizational commitment.

The results of these studies quantified that transformational leadership is positively connected with the follower's organizational commitment. Within the scope of transactional leadership, contingent reward and active management by exception demonstrated positive

relationships. However, most studies revealed that transformation leadership yields a stronger positive relationship that transactional leadership. Transformational leaders who employ initiating structure and supervisory consideration typically see increases in the overall level of organizational commitment. Although all five factors of transformational leadership will enhance organizational commitment, idealized influence has a stronger relationship with the organizational commitment. Based on the studies examined, volunteer fire departments would benefit from exercising transformational leadership practices rather than transactional ones.

Leadership and Organizational Commitment in Fire Service Organizations

This researcher was unable to discover any studies that have been conducted to identify how individual characteristics of transformational or transactional leadership impact organizational commitment in the volunteer fire services. Most of these studies have focused on how transformational leadership style builds organizational commitment in fire service organizations (Perkins & Melz, 1988; Pillai & Williams, 2004; Lowe, 2000; Lee & Olshfski, 2002b; Alyn, 2010; Napp, 2011). Some studies have analyzed a difference of organizational commitment between paid and volunteer firefighters (Lee & Olshfski, 2002a; Alyn, 2010).

Not many studies have been conducted to examine a relationship between leadership styles and organizational commitment in the fire service. The major goals of these studies focused on how leadership behavior raises the firefighters' level of commitment. Pillai and Williams (2004) studied the connection between transformational leadership and commitment in the fire service organization. The researchers used transformational leadership as an independent variable and cohesiveness and self-efficacy as mediators. Commitment and perceptions of unit performance are used as a dependent variable. The researchers concluded that the

47

transformational leadership style can have an influence on raising the levels of perceptions of performance and organizational commitment. This impact can be processed through self-efficacy and cohesiveness.

Lowe (2000) examined the connection between leadership behavior and organizational commitment in fire departments. The researcher used five leadership practices as an independent variable. The leadership practices were challenging the process, inspiring a shared vision, enabling others to act, modeling the way, and encouraging the enthusiasm. The researcher used organizational commitment as a dependent variable. The results of this study displayed that there is a positive connection between the five leadership practices and the level of organizational commitment. Enabling others to act indicated the strongest connection with organizational commitment. Enabling others to act progressed by fostering collaboration and strengthening members. Inspiring a shared vision demonstrated the weakest connection with organizational commitment.

Alyn (2010) explored the connection between perceived leadership style and organizational commitment among firefighters. The researcher addressed two research questions. The first was to test the relationship between supervisors' leadership styles and the level of followers' organizational commitment. The second was to explore the difference in the level of organizational commitment between paid and volunteer firefighters. The findings indicated that there is a positive connection between transformational leadership style and organizational commitment. Transactional leadership style also has a positive relationship with organizational commitment. Transformational leadership show stronger relationship than transactional leadership. However, laissez-faire leadership style was found to have a negative relationship with

48

organizational commitment. The results of this study also revealed that the volunteer firefighters show a higher level of organizational commitment than the paid firefighters.

Napp (2011) demonstrated the differences between leadership styles and level of affective commitment in the fire service. This study used the followers' perceived and preferred leadership style as an independent variable and the level of followers' commitment as a dependent variable. Findings showed that transformational and contingent reward leadership styles have a positive relationship with organizational commitment. However, no association was discovered between exception-active and exception-passive leadership styles and firefighters' organizational commitment.

Lee and Olshfski (2002a) examined the differences of organizational commitment between paid firefighters and volunteer firefighters. Commitment to the supervisor, commitment to the group, and commitment to the organization are the three dimensions of employee commitment utilized in the study. They found that the level of commitment to the supervisor is higher than the level of commitment to the work group in the paid sample. In the volunteer sample, the level of commitment to the organization is higher than that of other two dimensions. The researchers found no differences between the two groups concerning the level of commitment to the supervisor. However, commitment to the work and commitment to the organization, were both found to exist at higher levels among the volunteer sample than the paid sample. They concluded that different management strategies for each group are needed since each group shows different aspects of organizational commitment in three dimensions of commitment examined in the study.

Lee and Olshfski (2002b) conducted a follow-up study to evaluate public-sector employees' commitment. The researchers collected data from the twelve volunteer fire departments and one paid fire department. In this study, they added commitment to the job to the three dimensions of employee commitment that were explored in their previous experiment. The findings indicated that firefighters have a high level of organizational commitment in all four dimensions. The level of commitment to the job is higher than the other three dimensions. The results clearly showed that the commitment to the job positively influences the extra-role behavior. These findings are highly relevant to determining the most effective means of managing a volunteer fire department. By appealing to firefighter's strongest internal levels of commitment, a fire chief can get the most out of his staff.

The results of these studies indicate that transformational leadership has a strong positive connection with the follower's organizational commitment. Additionally, the organizational commitment of volunteer firefighters showed a higher level than that of their paid counterparts. Furthermore, fostering collaboration and strengthening members were discovered to be critical factors that increase the level of organizational commitment. Workplace camaraderie is a significant force that generates organizational commitment within volunteer fire departments. This brotherhood among firefighters should not be treated lightly by fire chiefs. Encouraging and fostering this family-like atmosphere within a department could easily help combat poor levels of motivation and/or retention problems. A forward thinking fire chief could consider friendly softball and/or soccer matches between departments to potentially serve as a means of enhancing this departmental brotherhood.

Summary of the Literature Review

Chapter two provided a comprehensive literature review. The review suggests several meaningful concepts to consider regarding leadership styles and organizational commitment. First, leadership and organizational commitment factors are clearly demonstrated to be associated with organizational outcome. Effective relationship and strong levels of organizational commitment encourage employees to serve beyond their required capacities, and strive to benefit the greater organization. Second, employee organizational commitment is affected not only by the organization itself, but also by various additional factors. Leadership factors have been demonstrated to serve as critical antecedents of organizational commitment. Among several core leadership styles, the transformational leadership style continuously presented a strong positive impact on the level of employees' organizational commitment. The transformational leadership style is simply the most effective method for increasing levels of commitment and organizational outcome. Leadership factors play an important and far-reaching role in increasing the levels of organizational commitment. Factors associated with ill-chosen leadership styles can easily produce negative consequences, and subsequently lower levels of organizational commitment. Finally, leadership and organizational commitment are linked to membership retention. Organizational commitment is related negatively to employee turnover.

Most studies that relate to the commitment of firefighters have focused on paid firefighters. Relatively little effort has been expended studying organizational commitment levels in the volunteer fire service. Furthermore, analyzing organizational commitment has been limited to the analysis of the overall commitment among firefighters. A distinctly small amount of research has been conducted on the relationship between leadership styles of volunteer fire chiefs

and the three aspects of organizational commitment. These three aspects are affective, continuance, and normative commitment. This researcher was unable to uncover a single study that directly examined the interplay between transformational leadership factors and organizational commitment in the volunteer fire service. Therefore, this study proposes to address these shortcomings in the academic research.

CHAPTER III

METHODOLOGY

Introduction

This chapter presents the research design for examining whether or not a relationship exists between the perceived leadership styles of volunteer fire chiefs and the organizational commitment level of their subordinate firefighters. Additionally, it explores how transformational leadership factors (idealized influence [attributes and behaviors], inspirational motivation, intellectual stimulation, and individual consideration) impact the organizational commitment of members. It also presents methodological approaches, variables, hypotheses, instrumentation (valid and reliability), a sample plan, and procedures.

Research Design

This study employed quantitative analysis and data collected through a survey. This study used correlation analysis that was conducted to analyze the relationship between leadership styles and organizational commitment. Gay, Mills, and Airasian (2009) describe correlation analysis as that which "involves collecting data to determine whether, and to what degree, a relationship exists between two or more quantifiable variables" (p. 196). This study also used the t-test to determine the difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation. Gay et al. (2009) describe the t-test as

53

that which is "used to determine whether two groups of scores are significantly different at a selected probability level" (p. 335). To further examine the impact of transformational leadership factors upon organizational commitment, this analysis incorporated prediction study. Gay et al. (2009) also noted that prediction study is often an attempt to "determine which of a number of variables are most highly related to the criterion variable. Prediction studies are often conducted facilitate decision making about individuals or to aid in the selection of individuals" (p. 208). Gay et al. (2009) further describe the predictor as a variable that is used for predicting and criterion as a variable that is used for predicted. The predictor serves the same purpose as an independent variable. Likewise, criterion acts as the dependent variable in Gay, Mill, & Airasian's methodology. Prediction study is used to seek casual effect of transformational leadership factors upon organizational commitment.

Variables in the study

The first of four analyses has been conducted to examine the relationship between the independent variables of leadership style and the dependent variables of organizational commitment. Organizational commitment will be measured by three aspects; affective commitment, continuance commitment, and normative commitment.

The second focus of our analysis examines the impact of the independent variable, the five transformational leadership factors, on the dependent variable, organizational commitment. The five transformational leadership factors are also used as a predictor. Additionally, organizational commitment is used as a criterion.

The third portion of our study analyzes the relationship between leadership style and organizational outcome. The three leadership styles serve as the independent variables, and the organizational outcome exist as the dependent variable.

Lastly, this study examines the relationship between organizational commitment and organizational outcome. The three aspects of organizational commitments are independent variables, and the organizational outcome is dependent variable.

Hypotheses

This study yields answers to two research questions. Each of these two research questions can be divided into two secondary questions. All questions are answered in their entirety. The first research question asks what independent variables affect organizational commitment. To answer this query, the researcher first examines the relationship between leadership styles and levels of organizational commitment. Next, the researcher investigates the effects of transformational leadership factors upon organizational commitment.

The second general research question that this study addresses is to discover the link between two sets of independent variables and organizational outcome. The researcher first examines the relationship between leadership styles and organizational outcome. The researcher then examines the relationship between organizational commitment and organizational outcome. Based on the knowledge gleaned from answering the research questions, the following are proposed null hypothesizes:

Relationship between the leadership styles and overall organizational commitment (research question two)

Hypothesis 1

H_{O1}: there is no significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their subordinates (overall commitment).

H_{A1}: there is a significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their subordinates (overall commitment).

Hypothesis 2

H_{O2}: there is no significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (affective commitment).

H_{A2}: there is a significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (affective commitment).

Hypothesis 3

H_{O3}: there is no significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (continuance commitment).

H_{A3}: there is a significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (continuance commitment).

Hypothesis 4

H_{O4}: there is no significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (normative commitment).

H_{A4}: there is a significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (normative commitment).

Impact of the transformational leadership factors upon organizational commitment (research question three)

Hypothesis 5

H_{O5}: there is no significant relationship between the transformational leadership styles factor (idealized influence [attributes and behaviors], inspirational motivation, intellectual stimulation, and individual consideration) of the fire chiefs and the organizational commitment level of their members (overall commitment).

H_{A5}: there is a significant relationship between the transformational leadership styles factor (idealized influence [attributes and behaviors], inspirational motivation, intellectual

stimulation, and individual consideration) of the fire chiefs and the organizational commitment level of their members (overall commitment).

The difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation (research question four)

Hypothesis 6

H_{O6}: there is no significant difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation.

H_{A6}: there is a significant difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation.

Relationships between leadership style and organizational commitment and organizational outcome (research question five and six)

Hypothesis 7

H_{O7}: there is no significant relationship between leadership styles and the level of organizational outcome (effectiveness, extra effort, and satisfaction).

H_{A7}: there is a significant relationship between leadership styles and the level of organizational outcome (effectiveness, extra effort, and satisfaction).

Hypothesis 8

H_{O8}: there is no significant relationship between the level of organizational commitment and the level of organizational outcome (effectiveness, extra effort, and satisfaction).

H_{A8}: there is a significant relationship between the level of organizational commitment and the level of organizational outcome (effectiveness, extra effort, and satisfaction).

Instruments

The researcher collected data from volunteer firefighters. The firefighters volunteered at various fire departments in Oklahoma. The researcher attempted to determine how volunteer firefighters perceive the leadership styles of their volunteer fire chiefs. Two survey tools were used to collect data for this study. Both have been used and validated in a variety of other academic studies.

Multifactor Leadership Questionnaire (MLQ-5X Short)

Leadership styles and organizational outcome will be assessed by the Multifactor Leadership Questionnaire (MLQ-5X Short, developed by Bass & Avolio). The current version of the MLQ has forty-five items evaluating leadership behaviors and organizational outcome (Appendix A). The MLQ consists of two forms: leader form and rater form. The leader form is used for self-evaluation, and is completed by leaders. The rater form is used by the subordinates to assess leadership of their leader (Bass & Avolio, 2004). In this study, the researcher used the rater form.

According to Bass and Avolio (2004), MLQ can be used for measuring transformational, transactional, and passive/avoid behavior, and outcomes of leadership. Transformational leadership factors consist of Idealized Attributes (IA), Idealized Behaviors (IB), Inspirational Motivation (IM), Intellectual Stimulation (IS), and Individual Consideration (IC). Item numbers 10, 18, 21, and 25 are components of IA. Transactional leadership factors consist of Contingent

Reward (CR), Management by Exception (Active) (MBEA), and Management by Exception (Passive) (MBEP). Given its relatively simple concept, Laissez-Faire leadership (LF) does not have any factors pertaining to it.

Organizational outcome factors consist of Extra Effort (EE), Effectiveness (EFF), and Satisfaction (SAT). As the subordinate fills out the rater form, he or she answers each question by selecting a number on a scale of 0 to 4: 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, and 4 = frequently, if not always.

The IA scores are calculated by summing the total IA points of each respondent, and then dividing that number by 4. Item number 6, 14, 23, and 34 are components of IB. The scores of IB are likewise calculated by acquiring the total IB score, and dividing by 4. Item number 9, 13, 26, and 36 are components of IM. Item number 2, 8, 30, and 32 are components of IS. Item number 15, 19, 29, and 31 are components of IC. The scores of IM, IS, and IC are determined by the same simple algorithm as IA and IB.

The CR scores are calculated by summing the total CR points of each respondent, and then dividing that number by 4. Item number 1, 11, 16, and 35 are components of CR. The scores of MBEA are likewise calculated by acquiring the total MBEA score, and dividing by 4. Item number 4, 22, 24, and 27 are components of MBEA. The scores of MBEP are calculated by taking the total MBEP score and dividing by 4. Item number 3, 12, 17, and 20 are components of MBEP. The scores of LF are calculated by summing the composite LF score, and once again, dividing by 4. Item number 5, 7, 28, and 33 are components of LF.

Item number 39, 42, and 44 are components of EE. The scores of EE are calculated by taking the total EE score and dividing by 3. Item number 37, 40, 43, and 45 are components of EFF. The scores of EFF are calculated by summing the composite EFF score, and once again, dividing by 4. Item number 38 and 41 are the only two components of SAT. The scores of SAT are determined by adding the two scores together, and dividing by 2.

Organizational Commitment Questionnaire (OCQ)

The level of organizational commitment will be measured by Meyer and Allen's 2004 Three-Component Model Employee Commitment Survey (revised version). The previous version by Meyer and Allen (1991) had eight items for each of three scales measuring commitment; affective, continuance, normative commitment. This revised version (1993) has six items for each scale, thus presenting eighteen items for measuring organizational commitment (Appendix A). In our attempt to use only the most recent and relevant testing methodologies, this study utilized the revised six items model. The affective commitment scale is based on a subordinate's desire to stay with the organization. The normative commitment scale is based on a subordinate's obligation to stay within the organization. Lastly, the continuance commitment scale is based on cost orientation, which is the amount of time, money, and/or energy the subordinate has invested into the organization (Meyer, Allen, & Topolnytsky, 1998). Each scale has six statements to which the respondent provides a numeric response. The selection of a number from the scale indicates the degree of agreement or disagreement with each statement. The respondent selects a number from 1 to 7, with 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = undecided, 5 = slightly agree, 6 = agree, and 7 = strongly agree.

Participants Demographic Questionnaire (PDQ)

Participants are also asked to answer a number of demographic questions in the Participants Demographic Questionnaire (PDQ). PDQ includes age, gender, current occupation in the department, type of volunteer fire department, length of time working at current fire department, length of time working under current fire chief, and county where respondents work (Appendix A). If they have several current occupations (positions within the department), they check the highest position among several tasks. Volunteer fire departments are categorized into two groups: departments that have all volunteers without any compensation and departments in which some volunteers get partial compensation for responding to fires and other of emergencies. The questions were general in nature and no personally identifiable information was collected to ensure anonymity among the participants.

Validity and Reliability

Gay et al. (2009) describe validity as "the degree to which a test measures what it is supposed to measure and, consequently, permits appropriate interpretation of scores" (p. 154). Validity of measuring instruments consists of 4 forms of validity: content, criterion-related, construct, and consequential validity (Gay et al., 2009). The writers also identify reliability as "the degree to which a test consistently measures whatever it is measuring" (p. 158). Reliability of measuring instruments consists of five types of reliability: stability, equivalence, equivalence and stability, internal consistency, and scorer/rater (Gay et al., 2009).

The validity and reliability of the MLQ were consistently confirmed as an effective means of measurement through their application in a large volume of credible studies (Bass &

Avolio, 2004). The validity of MLQ has been demonstrated by a large number of studies throughout a diverse group of organizations and in a variety of countries (Bass & Avolio, 2004). Bass and Avolio (1994) also repeatedly tested the reliability of MLQ. The results showed its accuracy ranged from 0.63 to 0.94 in the initial sample, and it possessed a reliability of 0.74 to 0.94 in their replication sample. Additionally, the reliability of the MLQ was confirmed through a vast selection of separate outside studies. One study demonstrated that the reliability ranged from 0.63 to 0.92 in the initial sample. This same study presented a reliability of 0.64 to 0.92 in the replication sample (Moore, 2007). An additional study by Muenjohn and Armstrong (2008) identified the reliability of MLQ, and showed a Cronbach alpha of 0.86 for the original MLQ, and 0.87 for the translated MLQ with a reliability value greater than 0.70. Antonakis, Avolio, and Sivasubramaniam (2003) suggested the current version of the MLQ (Form 5X) is "a valid and reliable instrument that can adequately measure the nine components comprising the full-range theory of leadership" (p. 286).

A number of studies also confirmed the validity and reliability of the OCQ. Meyer and Allen (1996) examined the construct validity of the OCQ. The researchers reviewed a number of studies which employed the use of the OCQ. They suggested that "the continued use of the commitment measures in substantive research is justified" (p. 271). In an attempt to further justify the conclusions of Meyer and Allen, Meyer et al. (2002) analyzed the generalizability and reliability of OCQ by using a meta-analysis. In this study, the researchers suggested that "Interestingly, although we found some differences, for the most part, the results were very similar for studies conducted within and outside North America" (p. 41). The variety of studies additionally confirmed the reliability of the OCQ. According to Meyer and Allen (1991), a

number of studies that used OCQ showed internal consistency (coefficient alphas) that ranged

from 0.69 to 0.89. Meyer, Allen, and Smith (1993) tested the generalizability of the OCQ through

a three component model. Affective, continuance, and normative commitment served as the three

components that the researchers examined. In this study, internal consistency indicated a range

from 0.73 to 0.87 (beginning of year) and 0.77 to 0.85 (end of year). Meyer and Allen (1996)

identified the internal consistency of OCQ as 0.85 for affective commitment, 0.79 for continuance

commitment, and 0.73 for normative commitment. Additionally, Irving, Coleman, and Cooper

(1997) estimated internal consistency would most likely agree with the findings acquired by

Meyer and Allen. Their study produced scores of 0.79 for affective commitment, 0.83 for

continuance commitment, and 0.83 for normative commitment.

Sample Selection

The present study focused upon the target population of volunteer firefighters in the state

of Oklahoma who serve their communities through 369 fire departments scattered across the state

(Firefighters Online, 2013). This research utilized the convenience sampling technique since the

researcher was unable to acquire a detailed database covering volunteer firefighters in Oklahoma.

Therefore, it would be helpful in future research to have a better database. Convenience sampling

is simply defined "as accidental sampling or haphazard sampling, is the process of including

whoever happens to be available at the time" (Gay et al., 2009, p. 134). This technique is used

most often when we have difficulty using probability sampling techniques, which employ true

random sampling approaches. A major disadvantage of convenience sampling technique stems

from the inherent difficulty of acquiring a thoroughly representative sample. As with snowball

sampling, there is an innate bias in this methodology since the sample is not acquired at random.

Obtaining a representative sample becomes a critical issue for this technique. Typically, a study cannot be generalized without a random sample. Gay et al. (2009) noted the advantages and disadvantages of convenience sampling. As a positive, the sample selection is a simple and relatively easy endeavor. However, a negative consequence of the approach is that it is "difficult to describe the population from which the sample was drawn and to whom results can be generalized" (p. 136).

The researcher attempted to overcome the inherent problems of convenience sampling. The sample in the study was collected from firefighters serving in a multitude of volunteer departments all around the state of Oklahoma. Survey participants were selected from student firefighters attending fire training courses held at Oklahoma State University Fire Service Training and regional fire training centers. The researcher also visited a volunteer fire department to survey additional volunteer firefighters attending a training course that attracted firefighters from a variety of regional departments. For the sake of performing a comprehensive state-wide study, the researcher subdivided Oklahoma into four geographic regions: the Northeast, the Northwest, the Southeast, and the Southwest. The four areas were loosely based on the four regional areas of the state as determined by the Oklahoma Department of Wildlife Conservation (2013). Interstate-40 separates the northern two areas from the southern two, and Interstate-35 divides the eastern two areas from the western two (Figure 2).
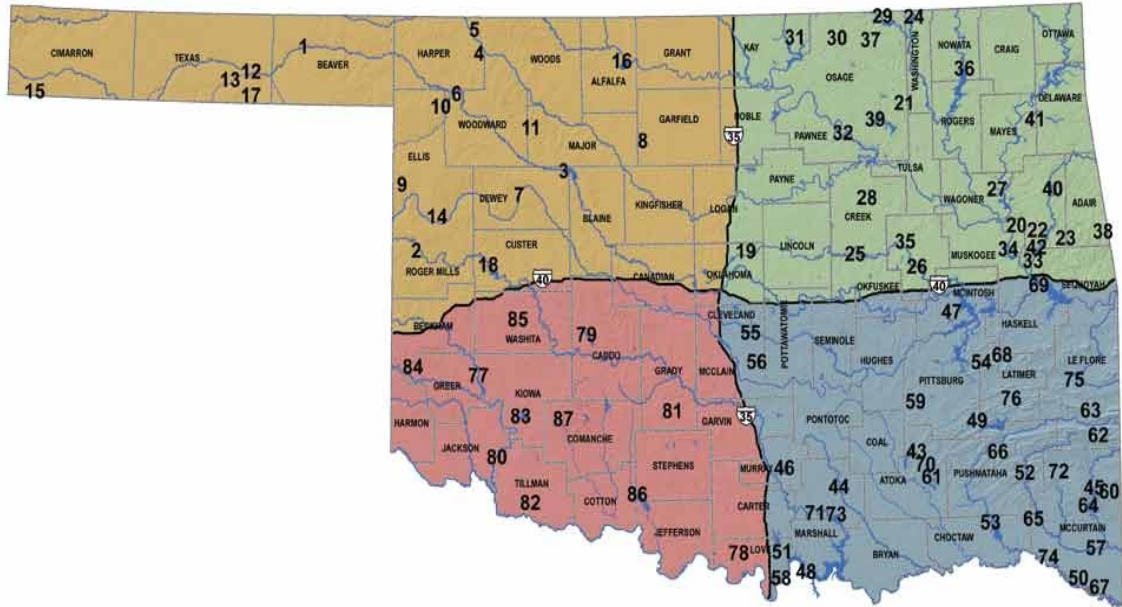
Figure 2: Geographic Regions of Oklahoma

Volunteer firefighters in the Northern two areas often attend fire training courses held at the Oklahoma State University Professional Skills Center (OSU-PSC) located just west of the city of Stillwater. These firefighters also attend courses at the Southeast Regional Fire/Emergency Medical Services (EMS) School located in the city of Seminole. Volunteer firefighters in the Southeast area often attend fire training courses that are conducted at the Southeast Regional Fire/EMS School. Volunteer firefighters in the Southwest and Northwest areas often attend fire training courses held at the Southwest Regional Fire/EMS School in the city of Fort Sill.

The innovative, yet academically grounded and justifiable, sampling methodologies utilized by the researcher allowed a comprehensive analysis of volunteer firefighters serving departments in all four regions of the state. By focusing on classes that included firefighters from all over the state of Oklahoma, the researcher was able to conduct surveys from firefighters

66

serving all over the state in both rural and urban locations. The research even included firefighters from the Oklahoma panhandle. If the researcher had chosen to simply visit volunteer fire departments, and interview the firefighters who were present at the station, this far-reaching survey would have been unattainable. Not only would a site-by-site approach be financially and logistically difficult, but many volunteer firefighters do not have firefighters consistently present and on duty. Many of the departments represented in this study rely on firefighters who only go to their stations when emergencies mandate their presence. After a fire or other emergency event occurs, the firefighters are activated, they arrive at their fire department, and then deploy. Unless there is an emergency, many of these departments are routinely unoccupied. All surveys included in this research were conducted between January and February, 2013.

Data Collection Procedures

The data for this analysis was collected through surveys and the convenience sampling method. The data collection procedure started only after the researcher received approval from the OSU Institutional Review Board (IRB) (Appendix B). The three questionnaires discussed in the sections above were administered to Oklahoma volunteer firefighters participating in classes conducted at the OSU-PSC, regional fire schools, and a local volunteer fire department. The course instructors gave the researcher permission to utilize a portion of their time to administer the questionnaires. The researcher visited the classes, and described this research in detail. The researcher willingly answered any and all questions that participants asked. In addition, the researcher explained that their participation in the study was completely voluntary. The researcher then asked them to read the provided participant information. The survey was completely anonymous, and the researcher did not ask any questions which may have revealed

any participants' identity. This process was held in the course classroom, and in the presence of the researcher.

Data Analysis and Software

This research focused on the concepts of relationship study and prediction study. The major means of data analyses within this study are correlation analysis (Pearson r), t-test, and bivariate regression analysis. Pearson r is an appropriate measure to employ in research when variables are expressed as continuous data (Gay et al., 2009). Correlation analysis was used to identify the relationship between independent variables and dependent variables. According to Gay et al. (2009), "correlational studies may be designed either to determine whether and how a set of variables are related or to test hypotheses regarding expected relations" (p. 207). Research questions (one, two, five, and six) and hypothesis one, two, three, four, seven, and eight were answered and tested by this means of analysis.

This study implemented the t-test to determine the difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation. Research question four and hypothesis six were answered and tested by this means of analysis.

The regression analysis was used to determine the impact of the predictor variables upon the criterion. The researcher utilized this methodology to answer research question three and hypothesis five. According to Gay et al. (2009), a prediction study produces a regression equation, which involves "Correlating each predictor variable with the criterion variable" (p. 204).

68

The demographic questionnaire acquired descriptive statistics that enabled the researcher to examine how the volunteer firefighters' age, gender, position, geographic location, and other factors may have affected their responses to the survey questions. The survey data was subsequently entered into Statistical Analysis System (SAS) software. This study used the 9.2 version of the software to conduct the analysis. The SAS program is useful and popular software for conducting quantitative analysis. Then results of the analysis were scrutinized by the researcher, and the results are presented in the following sections.

Summary

The grand purpose of this study was to determine if a relationship exists between leadership styles of fire chiefs and organizational commitment levels of volunteer firefighters. Members of volunteer fire departments in the state of Oklahoma were selected as the target population for the study. Chapter three addressed the methodological approaches, including quantitative analysis, which were included in this research. These correlations, t-test and regression analyses were designed to test the hypotheses. These hypotheses were constructed and developed based on previous leadership, organizational commitment, and organizational outcome research. Participants were selected from several fire training classes, which were conducted at multiple locations within the state of Oklahoma. As a result of the chosen survey and selection process, the researcher effectively acquired a state-wide sample of volunteer firefighters.

CHAPTER IV

FINDINGS

Introduction

The purpose of this study was to determine prominent leadership styles, and to examine whether a relationship exists between the leadership styles of fire chiefs and the level of organizational commitment among the volunteers in their departments. Additionally, this study examines how the individual components of transformational leadership can impact levels of organizational commitment among volunteer firefighters. Furthermore, this study explores the relationships between leadership style, organizational commitment, and organizational outcome. This chapter presents the results of this study including respondent characteristics and testing of hypotheses.

During the study, 220 volunteer firefighters from all across the state of Oklahoma completed the survey. In 2013, 7,800 volunteer firefighters served in Oklahoma's volunteer fire departments (Oklahoma Firefighters Pension and Retirement System, 2013). The sample group in this study comprised 2.8% of the total volunteer firefighter population. After finishing data collection, 205 completed surveys were used for analysis. Fifteen survey sheets were excluded because of inadequate or inappropriate responses.

Oklahoma has seventy-seven counties. This research includes survey feedback from volunteer firefighters serving in over half of them. To ensure that the researcher performed a comprehensive state-wide study, the researcher subdivided Oklahoma into four geographic regions: the Northeast, the Northwest, the Southeast, and the Southwest. The researcher surveyed firefighters from fourteen counties in the Northeast, ten in the Southeast, twelve in the Southwest, and five in the Northwest. Northwestern Oklahoma has a low population density and geographically large counties. The survey data was converted into a numerical code, and input into an SAS program.

Demographic and Descriptive Data

The demographic questionnaire collected respondent information including age, gender, current occupation, type of volunteer fire department, length of time working at current fire department, length of time working under current fire chief, and fire department's location. This information enabled a deeper analysis of the survey. The researcher was able to examine trends in leadership styles, organizational commitment, and organizational outcome as they relate to the firefighter's age, time served in the department, and time served under the supervision of the current fire chief.

The age range demographic data was categorized into five groups: less than 21, 21-30, 31-40, 41-50, and more than 50. Of the 203 respondents, the majority of respondents were in 21-30 age range group (31.53%). Those less than 20 years old comprised 13.30%, the 31-40 age range group made up 27.59%, the 41-50 age range group contained 21.18%, and the 51 and over age range group contributed 6.40%. Data indicated that volunteer firefighters are predominantly male; 92.61% male and 7.39% female (Table 1 and Table 2).

Table 1: Frequencies and Percent for Age

Age	Frequency	Cumulative Frequency	%	Cumulative %
less than 21	27	27	13.30	13.30
21-30	64	91	31.53	44.83
31-40	56	147	27.59	72.41
41-50	43	190	21.18	93.60
More than 50	13	203	6.40	100.00
Total	203	203	100.00	100.00

Table 2: Frequencies and Percent for Gender

Gender	Frequency	Cumulative Frequency	%	Cumulative %
Male	188	188	92.61	92.61
Female	15	203	7.39	100.00
Total	203	203	100.00	100.00

Cross tabulation analysis was conducted to display further information. The cross tabulation data for age and leadership style indicates that age and transformational leadership styles are directly related. As age increases, so does the mean for transformational leadership styles (Table 3). The table revels that contrary to previous findings, the less than 21 age group had the highest mean for perceiving their leaders as utilizing a transactional leadership style. The table presents no real relationship between age and laissez-faire leadership styles. To some extent it is positively related to age, but the 41-50 age group had the lowest mean. However, laissez-faire leadership had distinctly the lowest means of the three leadership styles.

Table 3: Cross Tabulation between Age and Leadership Style

| Age | Leadership Style | | | | | |
| | Transformational | | Transactional | | Laissez-faire | |
	Mean	SD	Mean	SD	Mean	SD
less than 21	2.61	0.90	2.68	0.74	0.92	1.01
21-30	2.65	0.91	2.61	0.75	0.94	0.99
31-40	2.74	0.94	2.55	0.81	0.99	0.97
41-50	2.91	0.91	2.60	0.69	0.79	0.96
more than 50	2.94	1.09	2.56	0.80	1.10	1.14

Cross tabulation data for age and organizational commitment and organizational outcome are presented in table 4. Organizational commitment levels were consistent among all age groups except for the 21-30 group. Interestingly, this group was the only anomaly with a lower than average mean of 4.68. All other age groups had a mean between 4.93 and 4.96. Organizational outcome produces something of an inverted bell curve by age. The youngest group and the two oldest groups had higher means than the two in-between groups.

Table 4: Cross Tabulation among Age, Commitment, and Outcome

| Age | Organizational Commitment | | Organizational Outcome | |
	Mean	SD	Mean	SD
less than 21	4.96	1.06	3.09	0.89
21-30	4.68	0.88	2.89	0.96
31-40	4.95	0.87	2.92	1.18
41-50	4.96	0.98	3.09	0.96
more than 50	4.93	0.78	3.18	1.17

The category of current occupation was divided into five groups: firefighter, engineer (or driver), paramedic, company officer, and others. If the firefighter undertakes several job positions, he or she was asked to check only the one highest position. Of the 202 respondents, the majority of respondents indicated they currently serve as a firefighter (73.29%). Only a few respondents (0.99%) answered that their current position is that of paramedic. 3.96% of the group claimed to serve as engineer (or driver). 14.85% identified themselves as company officer. 6.93% of the sample answered the question as other (Table 5).

Table 5: Frequencies and Percent for Current Occupation

Current Occupation	Frequency	Cumulative Frequency	%	Cumulative %
Fire fighter	148	148	73.29	73.27
Engineer (or Driver)	8	156	3.96	77.23
Paramedic	2	158	0.99	78.22
Company officer	30	188	14.85	93.07
Others	14	202	6.93	100.00
Total	202	202	100.00	100.00

Volunteer fire departments can be categorized into two groups: members who perform their duties without receiving any compensation and members who are partially compensated. Data determined that 73.37% of the group serves in a purely volunteer capacity. The other 26.63% of the survey group identified themselves as a volunteer with partial pay (Table 6).

Table 6: Frequencies and Percent by Type of Volunteer Fire Department

Type of Fire Department	Frequency	Cumulative Frequency	%	Cumulative %
Uncompensated	146	146	73.37	73.37
Compensated	53	199	26.63	100.00
Total	199	199	100.00	100.00

Cross tabulation analysis was conducted to illustrate the relationship between compensation and leadership styles (Table 7). Both transformational and transactional leadership styles were more common in departments where firefighters received partial compensation than the purely volunteer ones. Conversely, laissez-faire leadership was more common among departments without compensation than those with partial compensation. However, laissez-faire leadership was still distinctly less common in all departments than the other two styles.

Table 7: Cross Tabulation between Type of Department and Leadership Style

Type of Fire Department	Leadership Style					
	Transformational		Transactional		Laissez-faire	
	Mean	SD	Mean	SD	Mean	SD
Uncompensated	2.67	0.97	2.54	0.79	1.00	0.99
Compensated	2.95	0.76	2.75	0.61	0.75	0.97

The cross tabulation data for type of volunteer fire department and organizational commitment and organizational outcome are presented in Table 8. Both groups possessed high levels of organizational commitment, with compensated firefighters just slightly higher. Compensated firefighters had a higher level of organizational outcome.

Table 8: Cross Tabulation among Type of Department, Commitment, and Outcome

Type of Fire Department	Organizational Commitment		Organizational Outcome	
	Mean	SD	Mean	SD
Uncompensated	4.86	0.92	2.91	1.06
Compensated	4.89	0.92	3.20	0.88

When asked the length of time working at their current fire department, a slight majority (56.59%) answered indicated that they have worked there for between one and five years. Those serving less time than that constituted 17.56% of the survey group. 15.12% of the group fell into the six to ten year category. Only a few respondents (2.44%) landed in the eleven to fifteen year bracket. Finally, 8.29% identified themselves as having served more than 15 years (Table 9).

Table 9: Frequencies and Percent by Length of Time Working at Current Department

Length of Time Working at Current Fire Department	Frequency	Cumulative Frequency	%	Cumulative %
less than 1 year	36	36	17.56	17.26
1-5 years	116	152	56.59	74.15
6-10 years	31	183	15.12	89.27
11-15 years	5	188	2.44	91.71
more than 15 year	17	205	8.29	100.00
Total	205	205	100.00	100.00

A cross tabulation analysis for the length of working time at current fire department and leadership style was conducted. The results are presented in Table 10. The data reveals almost no discernible connection between a firefighter's tenure at their department and leadership styles. A

76

visual representation of the data would resemble a sin curve. Based on this information it is fair to conclude these two variables are unrelated.

Table 10: Cross Tabulation between Length of Time and Leadership Style

Length of Time Working at Current Fire Department	Leadership style					
	Transformational		Transactional		Laissez-faire	
	Mean	SD	Mean	SD	Mean	SD
less than 1 year	2.56	1.08	2.57	0.89	1.10	1.03
1-5 years	2.80	0.87	2.67	0.70	0.83	0.92
6-10 years	2.72	0.92	2.40	0.77	1.16	1.06
11-15 years	2.95	0.78	2.58	0.91	0.55	0.87
more than 15 year	2.79	1.10	2.57	0.70	1.00	1.20

The cross tabulation data for the length of working time at current fire department and organizational commitment and organizational outcome is presented in Table 11. The results mimicked those of the relationship between time served at the department and leadership styles. There was not recognizable relationship between time served and organizational commitment and organizational outcome.

Table 11: Cross Tabulation among Length of Time, Commitment, and Outcome

Length of Time Working at Current Fire Department	Organizational Commitment		Organizational Outcome	
	Mean	SD	Mean	SD
less than 1 year	4.86	1.04	2.85	1.31
1-5 years	4.79	0.85	3.02	0.93
6-10 years	4.93	1.04	2.97	1.02
11-15 years	5.33	0.92	3.16	1.05
more than 15 year	5.23	0.99	3.03	1.07

A review of the time served under the current chief suggested a high turnover rate among volunteer fire chiefs. The majority of respondents (55.61%) answered that they have worked with their current fire chief between one and three years. Another 21.95% had served under their current fire chief for less than one year. 18.05% of the respondents answered that they had served under their current chief for between four and seven years. Only a mere four respondents had served under their current chief for eight to ten years, and just five had served their current chief for a time longer than that. Representatively, these two groups comprised 1.95% and 2.44% of the total survey group (Table 12).

Table 12: Frequencies and Percent by Length of Time Working under Current Chief

Length of Time Working under the Current Chief	Frequency	Cumulative Frequency	%	Cumulative %
less than 1 year	45	45	21.95	21.95
1-3 years	114	159	55.61	77.56
4-7 years	37	196	18.05	95.61
8-10 years	4	200	1.95	97.56
more than 10 year	5	205	2.44	100.00
Total	205	205	100.00	100.00

The cross tabulation data for length of working time under current fire chief and

leadership style is presented in Table 13. Cross tabulation analysis produced somewhat

interesting results. Initially the results appeared to indicate a minimal relationship between the

variables. However, the researcher noticed that the last two groups represented less than five

percent of the total survey group. These two groups were combined to see if a trend might emerge.

A gentle bell curve exists between the relationship between time under current chief and both

transformational and transactional leadership styles. Meanwhile a gentle inverted bell represents

the relationship between time under current chief and laissez-faire leadership. Firefighters that

had served under the current fire chief between 1 and 3 years group had the highest levels of

transformational and transaction leadership, as well the lowest level of laissez-faire leadership.

Firefighters who had either served under their current chief for less than one year or for between

four and seven years all reported slightly lower levels of transformational and transactional

leadership and higher levels of laissez-faire leadership. The combined eight years or more group

had the lowest levels of transformational and transactional leadership styles along with the highest level of laissez-faire leadership.

Table 13: Cross Tabulation between Length of Time and Leadership Style

Length of Time Working under the Current Fire Chief	Leadership Style					
	Transformational		Transactional		Laissez-faire	
	Mean	SD	Mean	SD	Mean	SD
less than 1 year	2.62	1.05	2.60	0.85	1.07	0.97
1-3 years	2.81	0.87	2.67	0.69	0.83	0.95
4-7 years	2.78	0.89	2.49	0.77	0.95	0.93
8-10 years	2.24	1.58	1.96	1.16	1.58	1.67
more than 10 year	2.55	0.95	2.35	0.61	1.35	1.49

The cross tabulation data for length of working time under current fire chief and organizational commitment and organizational outcomes is presented in Table 14. As with the relationship between time served under current chief and leadership style, the relationship between time served under current chief and organizational commitment and organizational outcomes initially appeared hazy. However, when to last two smallest groups were once again combined, a pattern appeared. There exists a modest inverted bell curve relationship between time served under current chief and organizational commitment. Oddly enough, there is a polar opposite relationship between time served under current chief and organizational outcome. The one to three years served under current chief group has the lowest level of organizational commitment and the highest level of organizational outcome.

80

Table 14: Cross Tabulation among Length of Time, Commitment, and Outcome

Length of Time Working under Current Chief	Organizational Commitment		Organizational Outcome	
	Mean	SD	Mean	SD
less than 1 year	4.93	1.11	2.90	1.21
1-3 years	4.82	0.83	3.06	0.94
4-7 years	4.92	0.85	2.94	1.04
8-10 years	4.32	1.61	2.39	1.61
more than 10 year	5.84	0.99	2.84	0.76

Basic information about leadership styles, organizational commitment, and organizational outcome are presented in Table 15. The data indicates that the most prominent leadership style is transformational leadership. Transactional leadership style is next. Laissez-faire leadership style indicated the least level of mean. Of the three dimensions of organizational commitment, affective commitment is the most prominent. Normative is next. Continuance commitment displays the least level of mean. The data also displays that most prominent indicator of organizational outcome among three indicators is satisfaction with a leader. Leader effectiveness is next. Of the three indicators, volunteer firefighters rated the lowest mean of organizational outcome in extra effort.

Table 15: Means for Leadership, Commitment, and Outcome

Variables	Sub-variables	N	Mean	SD
Leadership style	Transformational	202	2.75	0.93
	Transactional	201	2.60	0.75
	Laissez-faire	201	0.93	0.98
Organizational commitment	Affective	203	5.72	1.20
	Continuance	200	3.62	1.24
	Normative	199	5.25	1.26
Organizational outcome	Extra effort	195	2.93	1.05
	Effectiveness	196	3.01	1.06
	Satisfaction	196	3.03	1.12

Basic information about the sub-variables of leadership styles is presented in Table 16. The data indicates that the most prominent factor among five transformational leadership factors is the idealized attributes. Inspirational motivation is next. Intellectual stimulation is third. Of the three dimensions of transactional leadership factors, contingent reward is the most prominent. Management by exception (passive) is next. Management by exception (active) displays the lowest average level.

Table 16: Means for Leadership Factors

Leadership style	Leadership Factor	N	Mean	SD
Transformational	Idealized attributes	199	2.96	0.99
	Idealized behaviors	198	2.68	0.97
	Inspirational motivation	199	2.87	1.00
	Intellectual stimulation	201	2.71	0.98
	Individual consideration	199	2.59	0.99
Transactional	Contingent reward	201	2.82	0.99
	Management by exception (Active)	199	2.33	0.99
	Management by exception (Passive)	199	2.66	0.94
Laissez-faire	Laissez-faire	201	0.93	0.98

Research Questions and Testing Hypotheses

To verify the eight hypotheses, Pearson *r* correlation, t-test, and bivariate regression analysis were conducted.

Research Question 1

Which type of leadership style is most prominent among fire chiefs in volunteer fire department: transactional, transformational, or laissez-faire? As seen in Table 15, the results of this study display that most prominent leadership style among fire chiefs is transformational leadership (mean = 2.75). Transactional leadership is next (mean = 2.60). Of the three leadership styles, firefighters rated the least number of fire chiefs as the laissez-faire leadership styles (mean = 0.93).

Research Question 2

How are leadership styles (transactional, transformational, and laissez-fair) connected to the level of overall organizational commitment?

<u>Hypothesis 1</u>

H_{O1}: there is no significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (overall commitment).

H_{A1}: there is a significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (overall commitment).

Correlation analysis was conducted to test this hypothesis. Table 17 presents the results of correlations between leadership styles and organizational commitment and the associated *p*-values.

Table 17: Correlations between Leadership Styles and Organizational Commitment

Leadership Styles	Transformational Leadership	Transactional Leadership	Laissez-faire Leadership	Organizational Commitment
Transformational Leadership	1.00			
(p-value)				
(observations)				
Transactional Leadership	0.85***	1.00		
(p-value)	<.0001			
(observations)	201			
Laissez-faire Leadership	-0.54***	-0.65***	1.00	
(p-value)	<.0001	<.0001		
(observations)	201	200		
Organizational Commitment	0.41***	0.36***	-0.31***	1.00
(p-value)	<.0001	<.0001	<.0001	
(observations)	201	200	201	

*** Significant at <.0001 level

This result suggests that the null hypothesis should be rejected. This also suggests that a positive relationship exists between transformational and transactional leadership styles and organizational commitment of firefighters. Furthermore, there is a negative relationship between the laissez-faire leadership style and organizational commitment of firefighters.

Research Question 2-1

How are leadership styles (transactional, transformational, and laissez-fair) connected to the three different aspects of organizational commitment (affective, continuance, and normative)?

<u>Hypothesis 2</u>

H_{O2}: there is no significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (affective commitment).

H_{A2}: there is a significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (affective commitment).

Correlation analysis was conducted to test this hypothesis. Table 18 presents the results of correlations between leadership styles and organizational commitment (affective commitment) (r: 0.48, 0.42, and -0.42) and the associate p-values ($p < .0001$).

This result suggests that the null hypothesis should be rejected. This also suggests that a positive relationship exists between transformational and transactional leadership styles and affective commitment of firefighters. Additionally, there exists a negative relationship between laissez-faire leadership style and affective commitment of firefighters.

Table 18: Correlations between Leadership Styles and Affective Commitment

Leadership Styles	Transformational Leadership	Transactional Leadership	Laissez-faire Leadership	Affective Commitment
Transformational Leadership	1.00			
(p-value)				
(observations)				
Transactional Leadership	0.85***	1.00		
(p-value)	<.0001			
(observations)	201			
Laissez-faire Leadership	-0.54***	-0.65***	1.00	
(p-value)	<.0001	<.0001		
(observations)	201	200		
Affective Commitment	0.48***	0.42***	-0.42***	1.00
(p-value)	<.0001	<.0001	<.0001	
(observations)	201	200	201	

*** Significant at <.0001 level

Hypothesis 3

H_{O3}: there is no significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (continuance commitment).

H_{A3}: there is a significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (continuance commitment).

Correlation analysis was conducted to test this hypothesis. Table 19 presents the results of correlations between leadership styles and organizational commitment (continuance commitment) and the associate *p*-values.

Table 19: Correlations between Leadership Styles and Continuance Commitment

Leadership Styles	Transformational Leadership	Transactional Leadership	Laissez-faire Leadership	Continuance Commitment
Transformational Leadership	1.00			
(p-value)				
(observations)				
Transactional Leadership	0.85***	1.00		
(p-value)	<.0001			
(observations)	201			
Laissez-faire Leadership	-0.54***	-0.65***	1.00	
(p-value)	<.0001	<.0001		
(observations)	201	200		
Continuance Commitment	0.05	0.06	0.00	1.00
(p-value)	0.40	0.38	0.97	
(observations)	198	197	197	

*** Significant at <.0001 level

This result suggests that the null hypothesis should be accepted. There is no relationship between transformational, transactional, laissez-faire leadership styles and continuance commitment exists (*r*: 0.05, 0.06, and 0.00; *p* = 0.40, 0.38, and 0.97).

H_{O4}: there is no significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (normative commitment).

H_{A4}: there is a significant relationship between the leadership styles (transformational, transactional, and laissez-faire) of the fire chiefs and the organizational commitment level of their members (normative commitment).

Correlation analysis was conducted to test this hypothesis. Table 20 presents the results of correlations between leadership styles and organizational commitment (normative commitment) and the associate *p*-values.

This result suggests that the null hypothesis should be rejected. There is a relationship between transformational, transactional, laissez-faire leadership styles and normative commitment of firefighters (*r*: 0.37, 0.32, and -0.28).

Table 20: Correlations between Leadership Styles and Normative Commitment

Leadership Styles	Transformational Leadership	Transactional Leadership	Laissez-faire Leadership	Normative Commitment
Transformational Leadership	1.00			
(p-value)				
(observations)				
Transactional Leadership	0.85***	1.00		
(p-value)	<.0001			
(observations)	201			
Laissez-faire Leadership	-0.54***	-0.65***	1.00	
(p-value)	<.0001	<.0001		
(observations)	201	200		
Normative Commitment	0.37***	0.32***	-0.28***	1.00
(p-value)	<.0001	<.0001	<.0001	
(observations)	197	196	196	

*** Significant at <.0001 level

Research Question 3

How do transformational leadership factors (idealized influence [attributes and behaviors], inspirational motivation, intellectual stimulation, and individual consideration) impact the overall organizational commitment of members?

Hypothesis 5

H_{O5}: there is no significant relationship between the transformational leadership styles factor (idealized influence [attributes and behaviors], inspirational motivation, intellectual

stimulation, and individual consideration) of the fire chiefs and the organizational commitment level of their members (overall commitment).

H_{A5}: there is a significant relationship between the transformational leadership styles factor (idealized influence [attributes and behaviors], inspirational motivation, intellectual stimulation, and individual consideration) of the fire chiefs and the organizational commitment level of their members (overall commitment).

Bivariate regression analysis was utilized to test this hypothesis rather than a multi regression analysis. Multi regression analysis can be a problem if dependent variables are highly correlated. This leads to difficulty in knowing how important independent variables operate as predictors (Acock, 2010). Correlation matrix analysis was conducted to examine inter-correlation among sub-independent variables. The results of correlation analysis indicated high inter-correlations range from 0.78 ($p <.0001$) to 0.86 ($p <.0001$) among the variables of transformational leadership factors (independent variables). Table 21 presents the inter-correlations between independent variables and associate p-values.

Table 21: Correlations between Transformational Leadership Factors and Commitment

Transformational Leadership Factors	Idealized Attributes	Idealized Behaviors	Inspirational Motivation	Intellectual Stimulation	Individual Consideration	Organizational Commitment
Idealized Attributes	1.00					
(p-value)						
(observations)						
Idealized Behaviors	0.83***	1.00				
(p-value)	<.0001					
(observations)	198					
Inspirational Motivation	0.84***	0.84***	1.00			
(p-value)	<.0001	<.0001				
(observations)	198	197				
Intellectual Stimulation	0.86***	0.82***	0.84***	1.00		
(p-value)	<.0001	<.0001	<.0001			
(observations)	199	198	198			
Individual Consideration	0.84***	0.80***	0.78***	0.78***	1.00	
(p-value)	<.0001	<.0001	<.0001	<.0001		
(observations)	198	197	198	198		
Organizational Commitment	0.37***	0.38***	0.40***	0.37***	0.38***	1.00
(p-value)	<.0001	<.0001	<.0001	<.0001	<.0001	
(observations)	198	197	198	200	198	

*** Significant at <.0001 level

Table 22 illustrates the specific impact of idealized influence (attributes) on organizational commitment as realized through regression analysis. Bivariate regression analysis presents F=31.79, $p<.0001$, and R-Square=0.1396. The result of regression was significant, which suggests the null hypothesis should be rejected. Idealized influence (attributes) is related to organizational commitment.

Table 22: Idealized Influence (attributes) predicting Organizational Commitment

Variable	DF	Parameter Estimate	SE	t Value	p
Intercept	1	3.86	0.18	20.53	<.0001
Idealized Attributes	1	0.33	0.06	5.64	<.0001

Dependent Variable: Organizational Commitment

The results of regression analysis indicate that there is a positive relationship between idealized influence (attributes) and organizational commitment. The nature of this relationship displays that 13.96% of the variance in organizational commitment is the result of idealized influence (attributes). Bivariate regression analysis also indicates the size of this relationship. The results of regression revealed the mathematical equation as $Y = 3.86 + 0.33X$. As idealized influence (attributes) increases, a continuous rise in organizational commitment is anticipated.

Table 23 illustrates the specific impact of idealized influence (behaviors) on organizational commitment as realized through regression analysis. Bivariate regression analysis reveals that the idealized behaviors factor of transformational leadership possesses F=33.50, $p<.0001$, and R-Square=0.1466. The result of regression was significant, which suggests the null hypothesis should be rejected. Idealized influence (behavior) is related to organizational commitment.

Table 23: Idealized influence (behaviors) predicting organizational commitment

. Variable	DF	Parameter Estimate	SE	t Value	p
Intercept	1	3.90	0.17	21.78	<.0001
Idealized Behaviors	1	0.36	0.06	5.79	<.0001

Dependent Variable: Organizational Commitment

The results suggest that there is a positive relationship between idealized influence (behaviors) and organizational commitment. The nature of these relationships displays that 14.66% of the variance in organizational commitment is the result of idealized influence (behaviors). Bivariate regression analysis indicated the size of these relationships. The results of regression revealed the mathematical equation as $Y = 3.90 + 0.36X$. As idealized influence (behaviors) increases, a continuous rise in organizational commitment is anticipated.

Table 24 illustrates the specific impact of inspirational motivation on organizational commitment as realized through regression analysis. Bivariate regression analysis presents $F=37.80$, $p<.0001$, and R-Square=0.1617. The result of regression was significant, which suggests the null hypothesis should be rejected. Inspirational motivation is related to organizational commitment.

Table 24: Inspirational Motivation predicting Organizational Commitment

Variable	DF	Parameter Estimate	SE	t Value	p
Intercept	1	3.80	0.18	20.96	<.0001
Inspirational Motivation	1	0.36	0.05	6.15	<.0001

Dependent Variable: Organizational Commitment

The results indicate that there is a positive relationship between inspirational motivation and organizational commitment. The nature of these relationships displays that 16.17% of the variance in organizational commitment is the result of inspirational motivation. Bivariate regression analysis indicated the size of this relationship. The results of regression revealed the mathematical equation as $Y = 3.80 + 0.36X$. As inspirational motivation increases, a continuous rise in organizational commitment is anticipated.

Table 25 illustrates the specific impact of intellectual stimulation on organizational commitment as realized through regression analysis. Bivariate regression analysis reveals $F=33.24$, $p<.0001$, and R-Square=0.1438. The result of regression was significant, which suggests the null hypothesis should be rejected. Intellectual stimulation is related to organizational commitment.

Table 25: Intellectual Stimulation predicting Organizational Commitment

Variable	DF	Parameter Estimate	SE	t Value	p
Intercept	1	3.92	0.17	22.30	<.0001
Intellectual Stimulation	1	0.35	0.06	5.77	<.0001

Dependent Variable: Organizational Commitment

The results demonstrate that there is a positive relationship between intellectual stimulation and organizational commitment. The nature of these relationships displays that 14.38% of the variance in organizational commitment is the result of intellectual stimulation. Bivariate regression analysis indicated the size of this relationship. The results of regression revealed the mathematical equation as $Y = 3.92 + 0.35X$. As intellectual stimulation increases, a continuous rise in organizational commitment is anticipated.

Table 26 illustrates the specific impact of individual consideration on organizational commitment as realized through regression analysis. Bivariate regression analysis presents $F=34.12$, $p<.0001$, and R-Square=0.1483. The result of regression was significant, which suggests the null hypothesis should be rejected. Individual consideration is related to organizational commitment.

Table 26: Individual Consideration predicting Organizational Commitment

Variable	DF	Parameter Estimate	SE	t Value	p
Intercept	1	3.93	0.17	23.06	<.0001
Individual Consideration	1	0.35	0.06	5.84	<.0001

Dependent Variable: Organizational Commitment

The results of regression analysis indicate that there is a positive relationship between individual consideration and organizational commitment. The nature of this relationship presents that 14.83% of the variance in organizational commitment is the result of individual consideration. Bivariate regression analysis also indicates the size of this relationship. The results of regression analysis revealed the mathematical equation as $Y = 3.93 + 0.35X$. As individual consideration increases, a continuous rise in organizational commitment is anticipated.

Research Question 4

What is the difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation?

<u>Hypothesis 6</u>

H_{O6}: there is no significant difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation.

H_{A6}: there is a significant difference in the level of organizational commitment between volunteers with no compensation and volunteers with partial compensation.

T-test analysis was conducted to verity this hypothesis. Table 27 and Table 28 present the results of t-test between two group variables. There is no significant difference when comparing means of two groups (df = 196, t = -0.24, p = 0.81). The result of t-test was not significant, which suggests the null hypothesis should be accepted.

Table 27: Means for Organizational Commitment

Type of Volunteer Fire Department	N	Mean	SD	SE
Uncompensated (group 1)	145	4.85	0.91	0.07
Compensated (group 2)	53	4.89	0.92	0.12

Table 28: Results of t-test

Samples	Mean Difference	SD	t	DF	p
Group 1 - Group 2	-0.03	0.91	-0.24	196	0.81

Research Question 5

How is leadership style connected to organizational outcome (effectiveness, extra effort, and satisfaction)?

Hypothesis 7

H_{O7}: there is no significant relationship between leadership styles and the level of organizational outcome (effectiveness, extra effort, and satisfaction).

H_{A7}: there is a significant relationship between leadership styles and the level of organizational outcome (effectiveness, extra effort, and satisfaction).

Correlation analysis was conducted to test this hypothesis. Table 29 presents the correlations between leadership styles and organizational outcomes and associate *p*-values.

Correlation analysis displays that there exists a relationship between leadership styles and the level of organizational outcome (effectiveness, extra effort, and satisfaction) of firefighters. There is a significant relationship between two variables. This result suggests that transformational and transactional leadership styles are positively related to organizational outcomes (transformational leadership [*r*: 0.90, *p*<.0001] and transactional leadership [*r*: 0.86, *p*<.0001]). Laissez-faire leadership is negatively related to organizational outcome (*r*: -0.62, *p*<.0001). Therefore, the null hypothesis should be rejected.

Table 29: Correlations between Leadership Styles and Organizational Outcome

Leadership Styles	Transformational Leadership	Transactional Leadership	Laissez-faire Leadership	Organizational Outcome
Transformational Leadership	1.00			
(p-value)				
(observations)				
Transactional Leadership	0.85***	1.00		
(p-value)	<.0001			
(observations)	201			
Laissez-faire Leadership	-0.54***	-0.65***	1.00	
(p-value)	<.0001	<.0001		
(observations)	201	200		
Organizational Outcome	0.90***	0.86***	-0.62***	1.00
(p-value)	<.0001	<.0001	<.0001	
(observations)	202	196	196	

*** Significant at <.0001 level

Research Question 6

How is organizational commitment of the members connected to organizational outcome (effectiveness, extra effort, and satisfaction)?

<u>Hypothesis 8</u>

H_{O8}: there is no significant relationship between the level of organizational commitment and the level of organizational outcome (effectiveness, extra effort, and satisfaction).

H_{A8}: there is a significant relationship between the level of organizational commitment and the level of organizational outcome (effectiveness, extra effort, and satisfaction).

Correlation analysis was conducted to test this hypothesis. Table 30 presents the correlations between organizational commitment and organizational outcome and p-values.

Table 30: Correlations between Organizational Commitment and Organizational Outcome

Organizational commitment	Organizational commitment	Affective commitment	Continuance commitment	Normative commitment	Organizational outcome
Organizational commitment	1.00				
(p-value)					
(observations)					
Affective commitment	0.74***	1.00			
(p-value)	<.0001				
(observations)	203				
Continuance commitment	0.64***	0.12	1.00		
(p-value)	<.0001	<.0830			
(observations)	200	200			
Normative commitment	0.83***	0.55***	0.30***	1.00	
(p-value)	<.0001	<.0001	<.0001		
(observations)	199	199	198		
Organizational outcome	0.42***	0.50***	0.04	0.39***	1.00
(p-value)	<.0001	<.0001	<.5637	<.0001	
(observations)	195	193	193	192	

*** Significant at <.0001 level

Correlation analysis displays that there exists a relationship between organization commitment and the level of organizational outcome (effectiveness, extra effort, and satisfaction)

of firefighters. There is a significant relationship between two variables (r: 0.42, $p<.0001$). Therefore, this result identifies that the null hypothesis should be rejected.

Summary of the Results

Seven research questions and eight hypotheses are answered and verified. Of the eight hypotheses, null hypothesis one, two, four, five, seven, and eight are rejected and null hypothesis three and six are accepted. The relationships between leadership style, organizational commitment, and organizational outcome are verified.

CHAPTER V

CONCLUSION

The major purpose of this study is to extend organizational commitment literature into the domain of volunteer fire service. Additionally, this study explores the relationships between leadership style, organizational commitment, and organizational outcome.

Overview

The first question of this study asks which type of leadership style is most prominent among fire chiefs in volunteer fire departments: transactional, transformational, or laissez-faire. These leadership styles serve as the independent variables within this study. The first question also asks how these independent variables affect organizational commitment. To answer this query, the researcher first examines the relationship between leadership styles and levels of organizational commitment. Next, the researcher investigates the effects of specific elements of transformational leadership upon organizational commitment.

The second general research question that this study addresses is to discover the link between two sets of independent variables and organizational outcome. The researcher first examines the relationship between leadership styles and organizational outcome. The researcher then examines the relationship between organizational commitment and organizational outcome. The following is a summary of the findings that answer our research questions.

Research question one dissects the most prominent leadership style among fire chiefs in volunteer fire departments in our study group. The results of this study indicate that the most prominent leadership style is transformational leadership. Second is transactional leadership. Laissez-faire leadership is the least common form of leadership practiced.

Research question two examines how leadership styles (transactional, transformational, and laissez-faire) are connected to the level of overall organizational commitment. The results of this study demonstrate that transformational and transactional leadership styles are positively connected to organizational commitment. Laissez-faire leadership style is negatively related to organizational commitment. Transformational leadership possesses a stronger relationship with organizational commitment than transactional leadership.

The secondary thrust of research question two examines how leadership styles (transactional, transformational, and laissez-faire) are connected to the three different dimensions of organizational commitment (affective, continuance, and normative). The results of this study indicate that transformational and transactional leadership styles are positively related to affective and normative commitment. The laissez-faire leadership style is negatively related to affective and normative commitment. All three leadership styles bear no relationship with continuance commitment.

Research question three addresses how transformational leadership factors (idealized influence [attributes and behavior], inspirational motivation, intellectual stimulation, and individual consideration) impact the overall organizational commitment. Bivariate regression analysis indicates that the five factors of transformational leadership and organizational commitment possess a significant relationship. These results reveal that idealized influence

(attributes and behaviors), inspirational motivation, intellectual stimulation, and individual consideration collectively and individually have a positive impact on organizational commitment. Inspirational motivation was discovered to have the strongest effect on organizational commitment.

Research question four examines the difference in the levels of organizational commitment between volunteers with no compensation and volunteers with partial compensation. The results of this study indicate that there is no difference between volunteers without compensation and those who receive partial compensation.

Research question five explores how the three types of leadership style influence organizational outcome (effectiveness, extra effort, and satisfaction). The results of this study indicate that transformational and transactional leadership styles are positively related to organizational outcome. Transformational leadership displays a stronger relationship with organizational outcome than transactional leadership. The laissez-faire leadership style is negatively related to organizational outcome. The research determined this indirect relationship to be substantial.

Research question six examines how organizational commitment correlates to organizational outcome (effectiveness, extra effort, and satisfaction). The results of this study show that organizational commitment is positively related to organizational outcome. Affective and normative commitments are positively related to organizational outcome, with affective commitment possessing a stronger relationship. Continuance commitment has no relationship with organizational outcome.

Interpretation of Findings

This study suggests findings that will create a better understanding of how leadership, organizational commitment, and organizational outcome influence the volunteer fire service. The results of this study show that transformational leadership is the most prominent form of leadership utilized by fire chiefs in volunteer departments. Cross tabulation analysis for age and leadership style indicates that age and transformational leadership styles are directly related. As age increases, so does the likelihood of a volunteer fire chief employing transformational leadership. Both transformational and transactional leadership styles were more common in departments where firefighters received partial compensation than in purely volunteer departments. A gentle bell curve would display the relationship between time under current chief and both transformational and transactional leadership styles. Fire chiefs that that have served the longest period of time and the least amount of time are less likely to use these two leadership styles than fire chiefs that had served between one and seven years.

Transformational leadership possesses a stronger relationship with organizational commitment and organizational outcome than does transactional leadership. The results of this study are consistent with other studies that demonstrated a significant correlation between leadership styles and organizational commitment, including Bass's 1985 study. Bass discovered that transformational leadership factors have a stronger impact on organizational outcomes than transactional factors. Results of this study also support the findings of Lo et al. Lo, et al.'s 2009 research examined leadership styles and organizational commitment. They found that leaders who practiced transformational leadership achieved higher levels of organizational commitment from their employees than leaders who practiced transactional leadership. The transactional factors of

contingent reward and management by exception (active) were both found to positively affect organizational commitment, but their effects were weaker than transformational factors. Previous studies also determined that transactional leadership possesses either only a weak relationship, or no relationship at all, with organizational commitment (Catano et al., 2001; Emery & Barker, 2007; Napp, 2011). However, this study verified that there is indeed a relationship between transactional leadership and organizational commitment. The positive relationship between transactional leadership and organizational commitment was almost as strong as the relationship between transformational leadership and organizational commitment. These are unique results that may be influenced by the sample population. The majority of the respondents (73.37%) were purely volunteers, who served without any compensation. However, most of the previous studies examined leadership styles and their influence on financially compensated employees.

Most studies discovered that leadership styles are related to overall organizational commitment. This study utilized Meyer and Allen's (2004) three dimension model. It divides organizational commitment into the three different aspects; affective, continuance, and normative commitment. Of these three dimensions, the researcher found no relationship between continuance commitment and leadership styles. This parallels the findings of previous studies (Brown, 2003; Dunn et al., 2012). There is a positive relationship between transformational leadership and affective and normative commitment. There is a positive relationship between transactional leadership and affective and normative commitment. However, there is no relationship between either leadership style and continuance commitment. Even though some volunteers receive partial compensation, the amount of money is not considered a salary. Meyer and Allen (1991) describe continuance commitment as "an awareness of the costs associated with

leaving the organization" (p. 67). This cost simply does not affect members of a voluntary organization.

The study demonstrated that transformational leadership style has a strong positive relationship with affective commitment. Correlation analysis between leadership styles and organizational commitment indicates that the correlation value is 0.48 ($p < .0001$) between transformational leadership and affective commitment. Of Meyer and Allen's three dimensions, affective commitment has the strongest connection with organizational outcome (r: 0.50, $p < .0001$). Cross tabulation analysis indicated that affective commitment is the most prominent type of commitment (mean score: 5.72). These results suggest that affective commitment is most important factor for increasing organizational commitment and organizational outcome.

The results of this study are consistent with previous studies, which identified a significant correlation among leadership styles, organizational commitment, and organizational outcome. Pillai and Williams (2004) found that the transformational leadership style may elevate levels of perceptions of performance and organizational commitment. The study also identified that transformational leadership has a critical impact on the level of organizational commitment and organizational outcome. Markovtis, et al. (2010) identified that a strong positive relationship exists between affective commitment and intrinsic satisfaction. Liou and Nyhan (1994) also demonstrated the importance of affective commitment for influencing organizational commitment. Meyer et al. (2002) demonstrated that affective commitment among has a strongest correlation with organizational outcomes such as attendance and performance. Normative commitment is also associated with organizational outcome. These studies also identified that continuance commitment has no connection with positive performance.

The results the previously referenced studies conclusively determined that transformational leadership is positively related to organizational commitment. When transformational leadership is broken down into its constituent parts, it becomes clear that the different factors of leadership affect organizational commitment with varying degrees of intensity. In this study, the researcher discovered that inspirational motivation is the strongest factor influencing organizational commitment. Individual consideration factor came next. Idealized influence (behaviors) is third, followed by intellectual stimulation. Idealized influence (attitudes) has the least impact on organizational commitment. However, our results differed from those of several other studies (Kara, 2012; Lo et al., 2009; Brown, 2003; Klinsontorn, 2005), which determined that idealized influence normally has a stronger relationship with organizational commitment.

The majority of the volunteer firefighters in this study indicated that idealized influence (attributes) is the most prominent factor experienced when the chief employs transformational leadership (mean score: 2.96). However, regression analysis revealed an alternative explanation for the relationship between transformational leadership factors and organizational commitment. Although idealized influence (attributes) is the most commonly experienced factor of transformational leadership, the analysis indicated that inspirational motivation is the most powerful factor influencing organizational commitment. This phenomenon can be explained by acknowledging how volunteer fire chiefs work in close proximity to their firefighters. Firefighters get to intimately understand the chief's vision and share it. The ability to impact a shared goal from leader to follower is the cornerstone of inspirational motivation. To supplement our theory, the researcher examines the findings of Bang, Ross, and Reio (2013) who pointed out the

importance of volunteers' motivation. The group based their theory in social exchange theory; in which individuals are motivated by exchanging their time and effort in order to meet their desires and goals.

Research exploring the relationship between employment status and organizational commitment has produced wide and varied findings. Many researchers identified differences in organizational commitment levels between private, public, and volunteer organizations. Some researchers found strong positive ties between private sector employees and organizational commitment, while other researchers developed directly contrasting conclusions. Meanwhile, other researchers found no correlation between employment sector and employee levels of organizational commitment. This study supports Liao-Troth's 2001 study. Liao-Troth studied organizational commitment differences between paid employees and volunteers with similar job tasks in the same hospital organization. The findings demonstrated no difference in an affective and normative organizational commitment between groups of workers.

Volunteer fire departments are organizations that rely on an all volunteers workforce (including some cases in which some volunteers get compensation for calling) that respond to a vast nature of hazards and emergencies. In this study, volunteers without any wage demonstrated similar levels of organizational commitment to their partially-compensated counterparts. The researcher suspects this is in part due to the mindset and finances of volunteer firefighters receiving compensation. Volunteer firefighters with partial compensation might not consider the money from fire department as a salary. The compensation is dispensed only after responding to an emergency. Furthermore, the amount of money is often not much; typically just enough to compensate for personal expenses.

Implications

Leadership and organizational commitment are two distinctly important issues for the volunteer fire service organization. Fire chiefs in volunteer fire departments have a more direct and less hierarchical relationship with their firefighters than those in paid fire departments. In a paid fire department, rigid job roles are maintained. The departments operate in strict, top-down, Weberian style of bureaucratic management, and typically they are larger, more specialized, and serve a larger urban population. The line firefighters are distant and removed from their chief. Conversely, in volunteer fire departments all members learn each of the necessary skills, duties, and job obligations that would enable a response to any emergency.

Most volunteer departments utilize a flatter and less rigidly bureaucratic structure that places the individual firefighter in a position that is more intimately associated with the chief of his or her department. Furthermore, given the basic nature of voluntary agencies, firefighters are not driven by financial gain in volunteer departments. This reality reduces competitiveness and cut-throat behavior within volunteer departments, and instead, fosters a sense of unity and camaraderie.

Transformational leadership styles appeal to volunteer fire departments. In this form of leadership, the leader works directly with the followers. The leader appeals to the individual needs of his or her followers, and encourages all followers to excel beyond their perceived capacities. The leader is not distant or removed from the group, but rather serves as an intimate member of the group, who motivates and leads through example. This leadership style is extremely well-suited to the role of volunteer fire department chief. Fire chiefs of volunteer fire departments who effectively employ transformational leadership styles should anticipate higher

110

levels of organizational commitment and organizational outcome. By elevating the levels organizational commitment and organizational outcome retention problems should subside.

The results of this study clearly demonstrate that a relationship does exist among transformational leadership styles, organizational commitment, and organizational outcome. Effective transformational leadership elevates organizational commitment in most organizations. Volunteer fire departments perform a critical role in many communities, and the levels of organizational commitment among volunteer firefighters needs to be keep as high as possible. By maintaining high levels of organizational commitment, volunteer fire chiefs will achieve higher levels of organizational outcome from their members, and cut down on volunteer attrition rates.

It is possible to broaden knowledge in order to identify what kinds of leadership factors have an impact on the organizational commitment of firefighters. As demonstrated by the results of this study, transformational factors have a relationship with the organizational commitment. The five factors of transformational leadership relate to, and affect, organizational commitment at varying rates. To develop proper and effective leadership one should focus on utilizing the stronger factors such as inspirational motivation and individual consideration. Knowing the effects of various leadership styles is also helpful in selecting and instituting management strategies for a successful organization. It is necessary to disseminate knowledge of leadership and organizational commitment to volunteer fire departments. By doing so, it is possible to teach current and future fire leaders how to develop their own leadership strategy that encourages firefighter motivation and attains their organizational goals effectively.

Suggestions for Future Study

This study focused on analyzing of the relationships between leadership styles, organizational commitment, and organizational outcome in Oklahoma's volunteer fire departments. Relationship, comparison, and prediction study methods were used as part of this study. Organizational commitment served as both independent and dependent variables. In some previous studies, organizational commitment was also used as a mediator variable. Some studies have shown that organizational commitment influences performance through mediator or moderator variables (Leong et al., 1994; Brett et al., 1995). There is more need to examine the relationship among leadership style, organizational commitment, and organizational outcome. Path analysis offers one potential means of exploring these relationships. Gay et al. (2009) describe path analysis as that which "allows us to see the relations and patterns among a number of variables. The outcome of a path analysis is a diagram that shows how variables are related to one another" (p. 205).

The results of cross tabulation analysis indicate that there exists a modest inverted bell curve or curvilinear relationship between time served under current chief and organizational commitment. Oddly enough, there is a reverse relationship between time served under current chief and organizational outcome. Although not entirely profound, examining it does pose some merit. The bell curve relationships between leadership styles and time served under the current chief may indicate greater issues in the fire service. After firefighters have served under their current chief for more than seven years the frequency of transactional and transformational leadership declines, while the frequency of laissez-faire leadership noticeable increases. The relationship between age of firefighters, time served under current chief, and leadership styles

112

may be worth examining. A deeper examination may suggest how higher levels of zeal or vigor in chiefs that have served in that capacity for only a few years impacts leadership style. Chiefs who have served many years may need to strive to avoid complacency, which may lead to undesirable laissez-faire leadership. Nonetheless, this may present an area for future study.

Finally, this study indicated the higher percent of female firefighters in the sample compared to the national average of paid firefighters. This may be an anomaly that arose due to the sample size and/or geographic location. However, if female firefighters consistently constitute a larger percentage of firefighters in volunteer department than in professional ones, this may present an area for future studies.

REFERENCES

Abrams, M. N. (2004). Employee retention strategies: Lessons from the best. *Healthcare Executive, 19*(4), 18-22.

Acock, A. C. (2010). *A Gentle introduction to Stata* (3rd ed.). Third edition. College Station, TX: Stata Press.

Ackoff, R. L. (1999). Transformational leadership. *Strategy and Leadership*, *27*(1), 20-25.

Alyn, K. (2010). *The relationship between perceived leadership style and firefighter organizational commitment.* Retrieved from ProQuest Dissertations and Theses. (UMI No. 3409311)

Angle, H. L., & Perry, J. L. (1981). An empirical assessment of organizational effectiveness. *Administrative Science Quarterly*, *26*(1), 1-14.

Antonakis, J., Avolio, B. J., & Sivasubramaniam, N. (2003). Context and leadership: An examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire, *The Leadership Quarterly, 14*(3), 261-295.

Avolio, B. J., & Bass, B. M. (1990). *The full range of leadership development: Basic/advanced manuals*. Binghamton, NY: Bass/Avolio and Associates.

_____. (2002). *Developing potential across a full range of leadership: Cases on transactional and transformational leadership*, Lawrence Erlbaum Associates, Mahwah, NJ.

Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Reexamining the components of

transformational and transactional leadership using the Multifactor Leadership

Questionnaire. *Journal of Occupational & Organizational Psychology, 72*(4), 441-462.

Balfour, D. L., & Wechsler, B.. (1991). Commitment, performance, and productivity in public

organizations. *Public Productivity & Management Review*, *14*(4), 355-367.

Bang, H., Ross, S., & Reio, T. G. (2013). From motivation to organizational commitment of

volunteers in non-profit sport organizations: the role of job satisfaction. *Journal of

Management Development*, *32*(1), 96-112.

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.

_____ (1997a). Does the transactional - transformational leadership paradigm transcend

organizational and national boundaries? *American Psychologist Association, 52*(2), 130-

139.

_____ (1997b). Personal selling and transactional/transformational leadership. *The Journal

of Personal Selling and Sales Management*, *17*(3), 19-28.

Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through

transformational leadership*. Thousand Oaks, CA: Sage Publications.

_____. (2000). *Manual for multifactor leadership questionnaire* (2nd ed.). Redwood City,

CA: Mind Garden.

_____. (2004). *Manual for the Multifactor leadership questionnaire: Manual and sampler

s*et (3rd ed.). Menlo Park, CA: Mind Garden.

Becker, T., R. Billings, D. E., & Gilbert, N. (1996). Foci and bases of employee commitment:

Implications for job performance. *Academy of Management Journal*, *39*(2), 464-482.

Boezeman, E. J., & Ellemers, N. (2007). Volunteering for charity: Pride, respect, and the

    commitment of volunteers. *Journal of Applied Psychology*, *92*(3), 771-785.

———. (2008). Pride and respect in volunteers' organizational commitment. *European Journal*

    of Social Psychology, *38*(1), 159-172.

Brett, J. F., Cron, W. L., & Slocum, J. W. Jr. (1995). Economic dependency on work: a moderator

    of the   relationship between organizational commitment and performance. *Academy of*

    Management Journal, *38*(1), 261-271.

Brown, B. B. (2003). *Employees' organizational commitment and their perception of*

    supervisors' relations-oriented and task-oriented leadership behaviors. Retrieved from

    ProQuest Dissertations and Theses. (UMI No. 3082584)

Brunacini, A. V. (1996). *Essentials of fire department customer service*. Stillwater, OK: Fire

    Protection Publications.

———. (2000). What you got is what you get. *Fire Economics*. July, 64.

Buchanan, Bruce. (1974). Building organizational commitment: The socialization of managers in

    work organizations. *Administrative Science Quarterly*, *19*(4), 533-546.

Buckman, J. (2004). A time to direct, a time to support. *Fire Chief*, *48*(9), 18-19.

Burke, R. J., & Lindsay, L. (1985). Motivation and goal setting. In L. Moore (Ed.), *Motivating*

    volunteers: How the rewards of unpaid work can meet people's needs. (pp. 93-128).

    Vancouver, Canada: The Vancouver Volunteer Centre.

Burns, J. M. (1978). *Leadership*. New York: Harper Row.

Bush, R., Schaenman, P., & Thiel, K. (1998). *Recruitment and retention in the volunteer fire*

    service: Problems and solutions (National Volunteer Fire Council and United States Fire

    Administration Fire Report). Emmitsburg, MD: USFA.

Casimir, G. (2001). Combinative aspects of leadership style: The ordering and temporal spacing of leadership behaviors. *Leadership Quarterly, 12*(3), 245-278.

Catano, Victor M., Pond, M., & Kelloway, E. K. (2001). Exploring commitment and leadership in volunteer organizations. *Leadership & Organization Development Journal*, *22*(6), 256-263.

Chemers, M. M. (1997). *An integrated theory of leadership*. Mahwah, NJ: Lawrence Eribaum Associates.

Chiaramonte, M. (2004). Crews blind without organizational vision. *Fire Chief, 48*(3), 34-35.

Choi, J. H. (2006). *The relationship among transformational leadership, organizational outcomes, and service quality in the five major NCAA conferences*. Retrieved from ProQuest Dissertations and Theses. (UMI No. 3270720)

Cohen, S. A. (1993). Defining and measuring effectiveness in public management. *Public Productivity and Management Review, 17*(1), 45-56.

Compton, D. (2010). *Progressive leadership principles, concepts, and tools*. Stillwater, OK: Fire Protection Publications.

Dale, K. & Fox, M. (2008). Leadership style and organizational commitment: Mediating effect of role stress. *Journal of Managerial Issues*, *20*(1), 109-130.

Dunham, R. B., Grube, J. A., & Castañeda, M. B. (1994). Organizational commitment: The utility of an integrative definition. *Journal of Applied Psychology*, *79*(3), 370-380.

Dunn, M. W., Dastoor, B., & Sims, R. L. (2012). Transformational leadership and organizational commitment: A cross-cultural perspective. *Journal of Multidisciplinary Research, 4*(1), 45-59.

Dvir, T., Eden, D., Avolio, B. J., & Shamir, B. (2002). Impact of transformational leadership on

    follower development and performance: A field experiment. *Academy of Management*

    Journal, *45*(4), 735-744.

Emery, C. R., & Barker, K. J. (2007). The effect of transactional and transformational leadership

    styles on the organizational commitment and job satisfaction of customer contact

    personnel. *Journal of Organizational Culture, Communications and Conflict, 11*(1), 77-

    90.

Farkas, A. J., & Tetrick, L. E. (1989). A three-wave longitudinal analysis of the causal ordering

    of satisfaction and commitment on turnover decisions. *Journal of Applied Psychology,*

    74(6), 855-868.

Firefighters Online. (2013). *Fire departments* (volunteer fire departments). Retrieved January 6,

    2013 from http://www.firefightersonline.com/engine/v/oklahoma.asp.

Flynn, D. M., & Tannenbaum, S. I. (1993). Correlates of organizational commitment: Differences

    in the public and private sector. *Journal of Business and Psychology*, *8*(1), 103-116.

Fuller, J. B., Patterson, C. E. P., Hester, K., & Stringer, D. Y. (1996). A quantitative review of

    research on charismatic leadership. *Psychological Reports*, *78*(1), 271-287.

Gaines, L. K., Worrall, J. L., Southerland, M. D., & Angell, J. E. (2003). *Police administration*

    (2nd ed.). New York, NY: McGraw-Hill.

Gamache, S., Hall, J., Ahrens, M., Penney, G., & Kirtley, E. (2007). *Mitigation of the rural fire*

    problem, Washington, D.C.: FEMA.

Gay, L. R., Mills, G. E., & Airasian, P. (2009). *Educational research: Competencies for*

    analysis and applications (9nd ed.). Upper Saddle River, NJ: Pearson.

Geyer, A. L. J., & Steyrer, J. M. (1998). Transformational leadership and objective performance in banks. *Applied Psychology: An International Review, 47*(3), 397-420.

Goulet, L. R. & Frank, M. L. (2002). Organizational commitment across three sectors: Public, non-profit, and for-profit. *Public Personnel Management, 31*(2), 201-210.

Haverty, D. M. (2003). *California's fire chiefs: Building relationships between effective leadership and organizational performance*. Retrieved from ProQuest Dissertations and Theses. (UMI No. 3103898)

Hersey, P., & Blanchard, K. H. (1981). So you want to know your leadership style? *Training and Development Journal*, *35*(6), 34-54.

Himmet, K., Unal, A., & Cuhadar, T. M. (2008). The effect of role conflict and role ambiguity on job satisfaction and organization commitment: A study in the public and private sectors. *Journal of American Academy of Business, Cambridge*, *13*(2), 176-181.

Ilsley, P. J. (1990). *Enhancing the volunteer experience: New insights on strengthening volunteer participation, learning, and commitment*. San Francisco: Jossey-Bass Publishers.

Irving, P. G., Coleman, D.F., & Cooper, C. L. (1997). Further assessments of a three component model of occupational commitment: Generalizability and differences across occupations. *Journal of Applied Psychology*, *82*(3), 444-452.

Javitch, M. W. (1997). *A model of leadership effectiveness in professional service firms: Linking transformational leadership, influence tactics, and role conflicts to client satisfaction*. Retrieved from ProQuest Dissertations and Theses. (UMI No. 9809727)

Jenaway, W. (2004). Just like a business. *Fire Chief, 48*(8), 126-128.

Johnson, G. (2004). Retention reality check. *Training, 41*(9), 17.

Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative value. *Journal of Applied Psychology*, *89*(5), 755-768.

Kahai, S. S., Sosik, J. J., & Avolio, B. J. (2003). Effects of leadership style, anonymity, and rewards on creativity-relevant processes and outcomes in an electronic meeting system context. *The Leadership Quarterly, 14*(4), 499-524.

Kara, D. (2012). The effects of managers transformational leadership style on employees organizational commitment. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *2*(1), 16-24.

Kayworth, T. R., & Leidner, D. E. (2002). Leadership effectiveness in Global Virtual Teams. *Journal of Management information Systems, 18*(3), 7-40.

Klinsontorn, S. (2007). *The influence of leadership styles on organizational commitment and employee performances*. Retrieved from ProQuest Dissertations and Theses. (UMI No. 3255207)

Kolb, J. A. (1995). Leader behaviors affecting team performance: Similarities and difference between leader/member assessments. *The Journal of Business Communication*, *32*(3), 233-248.

Lasky, R. (2004). Pride and ownership: For the love of the Job. *Fire Engineering, 157*(12), 75-76.

Lee, S. H., & Olshfski, D. (2002a). An examination of variations in the nature of employee commitment: The case of paid and volunteer firefighters. *International Review of Public Administration*, *7*(1), 29-37.

_____. (2002b). Employee commitment and firefighters: It's my job. *Public Administration Review*, *62*(S1), 108-114.

Leong, S. M., Randoll, D. N., & Cote, J. A. (1994). Exploring the organizational commitment-performance. *Journal of Business Research*, *29*(1), 57-63.

Liao-Troth, M. A. (2001). Attitude differences between paid workers and volunteers. *Nonprofit Management & Leadership*, *11*(4): 423-442.

Liou, K. T., & Nyhan, R. C. (1994). Dimensions of organizational commitment in the public sector: An empirical assessment. *Public Administration Quarterly*, *18*(1), 99-118.

Lo, M. C., Ramayah, T., & Min, H. W (2009). Leadership styles and organizational commitment: A test on Malaysia manufacturing industry. *African Journal of Marketing Management, 1*(6), 133-139.

Lowe, W. A. (2000). *An examination of the relationship between leadership practices and organizational commitment in the fire service*. Retrieved from ProQuest Dissertations and Theses. (UMI No. 9971372)

Luke, J. S. (1998). C*atalytic leadership: Strategies for an interconnected world*. San Francisco: Jossey-Bass.

Luthans, F., Baack, D., & Taylor, L. (1987). Organizational commitment: Analysis of antecedents. *Human Relations*, *40(4),* 219-236.

Markovits, Y., Davis, A. J., Fay, D., & van Dick, R. (2010). The link between job satisfaction and organizational commitment: Differences between public and private sector employees. *International Public Management Journal*, *13*(2), 177-196.

Mathieu, J. E., & Zajac, D. M. (1990). A review of meta-analysis of the antecedents, correlates and consequences of organizational commitment. *Psychological Bulletin*, *108*(2), 171-194.

McLennan, J., Birch, A., Cowlishaw, S., & Hayes, P. (2009). Maintaining volunteer firefighter numbers: Adding value to the retention coin. *The Australian Journal of Emergency Management, 24*(2), 40-47.

Mehmud, S. T., Ali, N, Baloch, Q. B., & Khan, Z. (2010). Relationship between organizational commitment and perceived employees performance. *Interdisciplinary Journal of Contemporary Research in Business*, *2*(8), 225-233.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*(1), 61-89.

_____ (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*, *49*(3), 252-276.

_____ (2004). *TCM employee commitment survey academic users guide 2004*. London, ON, Canada: University of Western Ontario.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*(4), 538-551.

Meyer, J. P., Allen, N. J., & Topolnytsky, L. (1998). Commitment in a changing world of work. *Canadian Psychology, 39*(1/2), 83-93.

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, *11*(3), 299-326.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*(1), 20-52.

Milakovich, M. E. (1993). Leadership for public service quality. *Manager Public*, *22*(3), 49-52.

Moore, E. M. (2007). *The impact of leadership style on organizational effectiveness: Leadership in action within United Way of America*. Retrieved from ProQuest Dissertations and Theses. (UMI No. 3277647)

Mowday, R. T., Porter, L. W., & Dubin, R. (1974). Unit performance situational factors and employee attitudes in spatially separated work units. *Organizational Behavior and Human Performance*, *12*(2), 231-248.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*(2), 224-247.

————. (1982). *Organizational linkage: The psychology of commitment, absenteeism and turnover*. New York, NY: Academic Press.

Muenjohn, N. & Armstrong, A. (2008). Evaluating the structural validity of the Multifactor Leadership Questionnaire (MLQ), capturing the leadership factors of transformational-transactional leadership. *Contemporary Management Research, 4*(1), 3-14.

Napp, C. F. (2011). *Generational differences between perceived and preferred leadership styles and relationships to affective commitment among firefighters*. Retrieved from ProQuest Dissertations and Theses. (UMI No. 3507459)

National Fire Protection Association (2012). *U.S. fire department profile through 2011* (NFPA #USS07). Quincy, MA.

National Volunteer Fire Council (2013). *Retention and recruitment*. Retrieved February 4, 2013 from http://www.nvfc.org/hot-topics/recruitment-and-retention.

National Volunteer Fire Council. (2013). *Volunteer as a first responder*. Retrieved February 4, 2013 from http://www.nvfc.org/fire-line/volunteer-as-a-first-responder.

National Volunteer Fire Council. (2013). *Statistics and fact sheet*. Retrieved February 5, 2013 from http://www.nvfc.org/hot-topics/statistics-and-fact-sheets.

Oklahoma Department of Wildlife Conservation. (2013). *Wildlife management areas*. Retrieved February 13, 2013 from http://www.wildlifedepartment.com/facts_maps/wmastate.htm.

Oklahoma Firefighters Pension and Retirement System. (2013). *Important notice*. Retrieved March 15, 2013 from http://www.ok.gov/fprs/.

Perkins, K. B., & Metz, C. W. (1988). Note on commitment and community among volunteer firefighters. *Sociological Inquiry, 58*(1), 117-121.

Pillai, R., & Williams, E. A. (2004). Transformational leadership, self-efficacy, group cohesiveness, commitment, and performance. *Journal of Organizational Change Management, 17*(2), 144-159.

Porter, L. W., Crampon, W. J., & Smith, F. J. (1976). Organizational commitment and managerial turnover: A longitudinal study. *Organizational Behavior and Human Performance, 15*(1), 87-98.

Porter, L. W, Steers, R., Mowday, R., & Boulian, P. (1974). Organizational commitment, job satisfaction and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609.

Pounder, J. S. (2008). Transformational leadership: Practicing what we teach in the management classroom. *Journal of Education for Business*, *84*(1), 2-6.

Rachid, Z. (1994). Patterns of organizational commitment and perceived management style: A comparison of public and private sector employees. *Human Relations*, *47*(8), 977-1010.

Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization:

 The contribution of perceived organizational support. *Journal of Applied Psychology,*

 86(5), 825-836.

Ross-Gordon, J. M., & Dowling, W. D. (1995). Adult learning in the context of African-

 American women's voluntary organizations. *International Journal of Lifelong Education*

 14 (4), 306-319.

Sarah, B., Jolian, M., Robert, M., & Karl, T. (2011). Workplace performance, worker

 commitment, and loyalty. *Journal of Economics & Management Strategy, 20*(3), 925-

 955.

Schein, E. (1970). *Organizational psychology*. Englewood Cliffs, NJ: Prentice-Hall.

Scott, G. S., & Buckman, J. M. (2004). *Preserving and improving the future of the volunteer fire*

 service. Fairfax, VA: International Association of Fire Chiefs.

Sheldon, M. E. (1971). Investments and involvements as mechanisms producing commitment to

 the organization. *Administrative Science Quarterly, 16*(2), 143-150.

Schimmoeller, L. J. (2010). Leadership styles in competing organizational cultures. Kravis

 Leadership Institute, *Leadership Review*, *10*, 125-141.

Silins, H. C. (1994). The relationship between transformational and transactional leadership and

 school improvement outcomes. *School Effectiveness and School Improvements*, 5(3),

 272-298.

Snook, J. W., & Olsen, D. C. (1989). The volunteer firefighter: A breed apart. (Revised June

 1993). Fort Collins, CO: Emergency Resource, Inc.

Steers, R. M. (1975). Problems in the measurement of organizational effectiveness.

 Administrative Science Quarterly, *20*(4), 546-558.

Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. *Administrative Science Quarterly*, *22*(1), 46-56.

Stevens, J. M., Beyer, J., & Trice, H. M. (1978). Assessing personal, role, and organizational predictors of managerial commitment. *Academy of Management Journal, 21(3),* 380-396.

Stojkovic, S., Kalinich, D., & Klofas, D. (2003). *Criminal justice organizations: Administration and management* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning.

Swichtenberg, B. (2003). Firefighting in America: Some of the pioneers. *Water Engineer and Management*, *150*(3), 8-9.

Thompson, J. D. (2004). *Organizations in action: Social science bases of administrative theory*. Somerset, NJ: Transaction Publishers.

Thompson, A., & Bono, B. (1993). Work without wages: The motivation for volunteer firefighters. *American Journal of Economics and Sociology, 52*(3), 323-343.

Thompson, S., & Buchanan, E. (2004). It's all about attitude. *Fire Engineering,* 157, 59-66.

Tierney, T. J. (2006). Understanding the nonprofit sector's leadership deficit. *Leader to Leader, S1*, 13-19.

U.S. Fire Administration (2011). *Statistics* (National Fire Protection Association Estimates), Retrieved January 25, 2013 from

http://www.usfa.fema.gov/statistics/estimates/nfpa/index.shtm.

U.S. Fire Administration (2007). *Detention and recruitment for volunteer emergency services*, Retrieved March 15, 2013 from

http://www.usfa.fema.gov/downloads/pdf/publications/fa-310.pdf.

Volunteerfirefighter.org. (2013). *FAQs.* (Are there advancement opportunities?). Retrieved February 6, 2013 from http://volunteerfirefighter.org/faqs.php.

Waldman, D. A., Bass, B. M., & Einstein, W. O. (1987). Leadership and outcomes of

      performance appraisal processes. *Journal of Occupational Psychology, 60* (3), 177-186.

Weber, M. (1946). Bureaucracy. *From Max Weber: Essays in sociology* (pp. 196-244). Trans. H.

      H. Gerth and C. Wright Mills. New York: Oxford Univ. Press (Original work published

      1922)

Whitener, E. M., & Walz, P. M. (1993). Exchange theory determinants of affective and

      continuance commitment and turnover. *Journal of Vocational Behavior, 42* (3), 265-281.

Williams, L. J., & Hazer, J. T. (1986). Antecedents and consequences of satisfaction and

      commitment in turn over models: A reanalysis using latent variable structural equation

      methods. *Journal of Applied Psychology, 77*(2), 219-231.

Yousef, D. A. (2000). Organizational commitment: a mediator of the relationships of leadership

      behavior with job satisfaction and performance in a non-western country. *Journal of*

      Managerial Psychology, *15*(1), 6-28.

Yukl, G. A. (1989). *Leadership in organizations* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

      _____. (1998). *Leadership in organizations* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

      _____. (1999). An evaluation of conceptual weaknesses in transformational and charismatic

      leadership theories. *Leadership Quarterly*, *10*(2), 285-305.

      _____. (2002). *Leadership in organizations* (5th Ed.). Upper Saddle River, NJ: Prentice Hall.

Zaleznik, A. (1977). Managers and leaders: Are they different? *Harvard Business Review, 55*(5),

      67-80.

APPENDICES

Personal Characteristics Questionnaire

Please answer the following questions on Computer Use

1. Age:

   Less than 21 (   )   21 - 30 (   )   31 – 40 (   )   41 – 50 (   )

   More than 50 (   )

2. Sex:

   Male (   )   Female (   )

3. Current occupation (check one, highest position)

   Fire Fighter   (   )

   Engineer (or Driver)   (   )

   Paramedic   (   )

   Company Officer   (   )

   Others (   )

4. Type of volunteer fire department

   Volunteer (uncompensated)   (   )

   Volunteer (compensated)   (   )

5. Length of time working at current fire department (   ) years

6. Length of time working under current fire chief (   ) years

7. In what county is your fire department located?

   (   )

Multifactor Leadership Questionnaire (Rater Form)

This questionnaire is used to **describe** the **leadership style** of **your Fire Chief** as you perceive it. Answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.** Please answer this questionnaire anonymously.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Use the following rating scale:

Not at all	Once in a while	Sometimes if not always	Fairly often	Frequently,
0	1	2	3	4

The Person I Am Rating. . .

1. Provides me with assistance in exchange for my efforts.	0 1 2 3 4
2. Re-examines critical assumptions to question whether they are appropriate.	0 1 2 3 4
3. Fails to interfere until problems become serious.	0 1 2 3 4
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards.	0 1 2 3 4
5. Avoids getting involved when important issues arise.	0 1 2 3 4
6. Talks about his/her most important values and beliefs.	0 1 2 3 4
7. Is absent when needed.	0 1 2 3 4

Organizational Commitment Questionnaire

Please circle the one number for each question that comes closest to **reflecting your opinion** about it.

1: strongly disagree   7: strongly agree

Affective Commitment Scale

1. I would be very happy to spend the rest of my career with this organization.	1 2 3 4 5 6 7
2. I really feel as if this organization's problems are my own.	1 2 3 4 5 6 7

Continuance Commitment Scale

1. Right now, staying with my organization is a matter of necessity as much as desire.	1 2 3 4 5 6 7
2. It would be very hard for me to leave my organization right now, even if I wanted to.	1 2 3 4 5 6 7

Normative Commitment Scale

1. I do not feel any obligation to remain with my current employer.	1 2 3 4 5 6 7
2. Even if it were to my advantage, I do not feel it would be right to leave my organization now.	1 2 3 4 5 6 7

Appendix B: IRB Approval

133

PARTICIPANT INFORMATION
OKLAHOMA STATE UNIVERSITY

Title: The Impact of Fire Chief Leadership Styles on Organizational Commitment of Firefighters in Oklahoma State Volunteer Fire Departments.

Investigator(s): Youngshix Shin, I am a fire officer from South Korea. I am pursuing a master's degree program in Political Department (Fire and Emergency Management Program), Oklahoma State University. This survey is designed for my thesis.

Purpose: The purpose of the research study is to identify dominant leadership styles among fire chiefs in selected volunteer fire departments and to determine if a relationship exists between the leadership styles of the fire chiefs and the organizational commitment level of members in the Oklahoma State fire service organizations.

What to Expect: Participation in this research will involve completion of two questionnaires. The first questionnaire will ask for Multifactor Leadership Questionnaire (MLQ), the second questionnaire will ask for Organizational Commitment Questionnaire (OCQ). You are asked to complete each question before moving on to the next, or you may skip any questions that you do not wish to answer. You will be expected to complete the questionnaire once. It should take you about 30 minutes to complete.

Risks: There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits: The research findings may provide better understanding of leadership styles of volunteer fire chiefs and organizational commitment of volunteer fire fighters.

Compensation: There is no compensation for your participation in the research.

Your Rights: Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time, without penalty.

Confidentiality: All information about you will be kept confidential and will not be released. Any written results will discuss group findings and will not include information that will identify you. **Moreover, the surveys collected from participants will be stored in the computer on-campus where allows limited access only from the investigator and advisor (233 Murray, OSU / the computer be password protected) and destroyed as soon as the study completes (It will be stored in the computer until may, 2013).**

Contacts: You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: 1) Youngshix Shin, Dept. of Political Oklahoma State University, Stillwater, OK 74078, 405-473-1162, youngshi@okstate.edu. 2) Dr. Brown, Dept. of Political Oklahoma State University, Stillwater, OK 74078, 405 - 744-0420, 233 Murray, anthony.brown@okstate.edu. If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Okla. State Univ.
IRB
Approved 12/31/12
Expires 12/24/13
IRB # HE-12-105
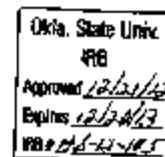
VITA

YOUNGSHIX SHIN

Candidate for the Degree of

Master of Science

Thesis: THE RELATIONSHIP BETWEEN LEADERSHIP STYLES,
ORGANIZATIONL COMMITMENT, AND ORGANIZATIONAL
OUTCOME IN OKLAHOMA'S VOLUNTEER FIRE DEPARTMENTS

Major Field: Fire and Emergency Management Administration

Biographical:

    Education:

    Completed the requirements for the Master of Science in Fire and Emergency
    Management Administration at Oklahoma State University, Stillwater,
    Oklahoma in May, 2013.

    Completed the requirements for the Bachelor of Public Administration in Social
    Science at Ajou University, Suwon, Korea in February, 1989.

    Experience: Fire Officer in South Korea
    Building Inspection Team Director, February 2011—Present
    Planning Team Director, July 2009—February 2011
    Fire Investigation Team Director, May 2008—July 2009
    Fire Protection Team Director, August 2007—May 2008
    Fire Suppression Team Director, November 2006—May 2007
    Fire Instructor, November 2004—August 2005
    Rescue & EMS Team Director, March 2003—November 2004

    Professional Memberships: