Leadership Programming Offered by a Fraternity Central Office from 2003-2007: A Multi-Year Evaluation and Strategic Assessment Plan

A Dissertation submitted
to the Graduate School
Valdosta State University

in partial fulfillment of requirements
for the degree of

DOCTOR OF PUBLIC ADMINISTRATION

in the Department of Political Science
of the College of Arts and Sciences

July 2011

John T. Wright

M.P.A., Valdosta State University, 2003
B.F.A., Valdosta State University, 2000

This Dissertation, "Leadership Programming Offered by a Fraternity Central Office from 2003-2007: A Multi-Year Evaluation and Strategic Assessment Plan," by John T. Wright, is approved by:

Dissertation Committee Chair	_____ Gerald A. Merwin, Ph.D. Assistant Professor of Public Administration
Dissertation Committee Co-Chair	_____ J. Patrick Biddix, Ph.D. Associate Professor of Higher Education
Committee Member	_____ Michael Capece, Ph.D. Professor of Sociology
Dean of the College of Arts and Sciences	_____ Connie L. Richards, Ph.D. Professor of English
Dean of the Graduate School	_____ Alfred F. Fuciarelli, Ph.D. Professor of Chemistry

FAIR USE

DUPLICATION

I authorize the Head of Interlibrary Loan or the Head of Archives at the Odum Library at Valdosta State University to arrange for duplication of this dissertation for educational or scholarly purposes when so requested by a library user. The duplication shall be at the user's expense.

Signature _____

John T. Wright, Author

I refuse permission for this dissertation to be duplicated in whole or part.

Signature _____

ABSTRACT

Many fraternities and sororities promote leadership development through leadership programs. However, these programs are rarely assessed to determine if they are producing positive outcomes. The purpose of this study was to determine if fraternity central office leadership programs had an impact on group outcomes, including Grade Point Average (GPA), recruitment class size, initiation rates, risk management violations, and chapter recognition as well as provide a strategic assessment plan for organization. The independent variables for the study were the leadership programs offered by a national fraternity, while the dependent variables were chapter outcomes, including GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition.

Descriptive statistics, bivariate correlations, and multiple regressions were used to analyze the data collected on leadership programs and chapter outcomes. The results revealed significant correlations between recruitment rates and chapter recognition and the independent variables in most years, while other variables such as GPA, initiation rates, and risk management violations were inconsistently related from year to year. Findings also indicated that two of the leadership programs, Phi Institute and Phi College, had the most impact on chapter outcomes.

TABLE OF CONTENTS

LIST OF TABLES

ACKNOWLEDGEMENTS

I would like to thank Dr. Gerald Merwin, my committee chair, for his guidance and support through this entire process.

I am grateful to Dr. Patrick Biddix, my committee co-chair, for sharing his knowledge of research, providing continual feedback, and dedicating a tremendous amount of time to this research.

I am appreciative of Dr. Michael Capece for his encouragement and meaningful feedback.

I would like to thank the Phi organization. This research would not have been possible without its cooperation and willingness to provide data.

I am appreciative of Mary Murphree for providing her editing skills on this project.

I am grateful for my second family at the U for their constant support and encouragement.

I would like to thank my parents, Bob and Tanya Wright, for always supporting me and encouraging me to set the bar high.

I especially want to thank my loving wife, Holly, for her patience, support, and constant encouragement. I could not have completed this project without her.

Chapter I

INTRODUCTION

Colleges and universities often stress the importance of students developing leadership skills, which is supported in their mission statements and the amount of leadership opportunities provided for students (Astin & Astin, 2000; Cress et al., 2001; Dugan, 2006). However, there are questions on the amount of effort universities dedicate to these programs and opportunities (Cress et al., 2001). Recent arguments suggest that leadership development in higher education only focuses on key positions in student organizations instead of providing opportunities for all students (Tyree, 1998). This idea of training is contradictory to most student development theories that emphasize the importance of developing students into leaders during their collegiate experience (Astin, 1993). Leadership development can affect all students, not just those in roles of leadership.

Because leadership has so many definitions, the concept of leadership development can be difficult to understand. A more holistic and contemporary definition of student leadership development, proposed by Astin and Astin (2000), states that the main purposes of leadership are:

- To enable and encourage faculty, students, administrators, and other staff to change and transform institutions so that they can more effectively enhance

student learning and development, generate new knowledge, and serve the community.

- To empower students to become agents of positive social change in the larger society. (p. 9)

The idea of collaboration and social change as outcomes of leadership development is a fairly new paradigm. While the industrial paradigm of leadership had an individualistic approach to leadership, the value-based postindustrial paradigm of leadership is the foundation for current leadership development theory (Komives, Lucas, & McMahon, 2007; Rost, 1991). Combined with transformational theories of student development, the postindustrial model has allowed administrators to focus on relationships and the greater good as outcomes for students involved in leadership development. The focus of a born leader and one way of leading a group have developed into the idea that all students have the potential to lead.

Campus administrators have focused on leadership training programs to assist students in developing their leadership skills. Many of these programs focus on value-based outcomes and use postindustrial models such as the Social Change Model of Leadership Development (HERI, 1996) and Relational Leadership (Komives, Lucas, & McMahon, 2007). In these models, leadership is a concept that is based on students building trust and working toward a common goal (HERI, 1996; Komives et al., 2006). Leadership programs enhance student development and thus will continue to remain important on the landscape of higher education (Astin, 1993; Cress et al., 2001).

Students also develop leadership skills though being involved on campus. Students can become involved in the classroom by interacting with faculty and peers.

Astin (1993) found that faculty and peer-to-peer interaction provided positive outcomes in student development. Students can also become involved in the community (Astin & Sax, 1998; Pascarella & Terenzini, 2005). Service to the community has one of the highest influences on student development outcomes. Another significant form of involvement is through student organizations. Participating in student organizations has a significant impact on the leadership development of students (Pascarella & Terenzini, 2005). It provides students the chance to assume leadership roles and develop leadership skills, such as collaboration, commitment, and self-awareness. Student organizations also give members a chance to get involved in the community and interact with other students in that specific student organization.

Fraternities and sororities are among some of the most observed and analyzed student groups in higher education. College fraternal organizations have been part of campuses for over 200 years. Fraternities and sororities were meant to be a social outlet from the strict control of campus administrators but, through the decades, fraternities and sororities have displayed an image of drunken and disorderly students. This image is reinforced through the media and the entertainment industry with movies such as *Animal House, School Daze,* and *Old School*. In a multi-institution study, results indicated that over half of incoming freshmen based their knowledge of fraternities and sororities on television and movies (Fouts, 2010). Fouts found these stereotypes discouraged incoming freshmen to join fraternal organizations. Some argue that these organizations may not benefit the university system or have a positive impact on student development (Pascarella, Flowers, & Whitt, 2006). These arguments are reinforced through negative stereotypes, media portrayal, and actions of individual members of the organizations.

Fraternities and sororities struggle to resolve issues such as alcohol abuse, hazing, poor community relations, and insensitivity toward diversity (Perkins, Zimmerman, & Janosik, 2011). However, it is now being noted that involvement in fraternities and sororities can have a positive impact on academic achievement, retention, interaction with faculty, and service to the community (Asel, Seifert, & Pascarella, 2009; DeBard & Sacks, 2010; Hayek et al., 2002).

Purpose of the Study

The impetus for this study was developed from research analyzing the outcomes of individual fraternity members who attended a leadership program provided by a fraternity central office. After examining outcomes such as program attendance, leadership, alumni involvement and donor rosters from 2,065 attendee records, Biddix and Underwood (2010) found that 63% of the conference attendants assumed roles of involvement after the program, 8% became advisors, and 8% became donors. It is evident that the leadership program had a significant effect on the attending students.

This research has two purposes. First, the study will use the same historical data as Biddix and Underwood (2010). However, it has been broadened to the chapter level in order to determine if fraternity central office leadership programs had an impact on group outcomes including Grade Point Average (GPA), recruitment class size, initiation rates, risk management violations, and chapter recognition. Second, it serves as an organizational analysis for the fraternity, which uses a tremendous amount of resources to provide leadership programs for its undergraduate students.

Statement of the Problem

One of the main concerns with leadership training and outcomes is assessment. Many fraternity and sorority central offices state that they enrich student development, but they do not use data to reinforce their statements (Strayhorn & Colvin, 2006). For example, the organization used for this analysis already has all the data needed to create a report on their programs but has failed to create a comprehensive document. This study will help the involved national organization understand the impact its leadership programs have on its chapters and serve as a model for future assessment efforts.

Research Questions

Three research questions guided this study:

1. What is the relationship between fraternity central office leadership programs and chapter outcomes such as GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition?
2. How does attending fraternity central office leadership programs affect chapter level outcomes, including GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition?
3. Based on the results comparing leadership programs and chapter outcomes, what would be a strategic assessment plan for the national organization and local chapters?

Theoretical Framework

The Social Change Model of Leadership Development is the framework for this research. This model is based on research concerning leadership development and student engagement (HERI, 1996). In the early nineties, Helen Astin and Alexander Astin

extended their research on the impact that college experiences have on students. They found that peer groups had a greater influence on social issues and leadership (Astin & Astin, 2000). The Social Change Model was created to help students understand that they can effect change without being in traditional positions of leadership (HERI, 1996). This model was created in 1994 with a working ensemble of student affairs practitioners and experts in the field of leadership development (hereafter, the ensemble). After two years, the finished product was a model based on the assumption that leadership is a value-based, collaborative process that is concerned with effecting change (HERI, 1996).

The goals for the Social Change Model are the enhancement of student learning and development and to enable positive social change (HERI, 1996). The ensemble designed the model in hopes that students will learn more about themselves and gain valuable leaderships skills to be used for positive change. They built the model around seven constructs that represent social responsibility. The constructs are referred to as the seven C's with change as the central theme for the model. Each construct is categorized into three sections: individual, group, and community. The constructs work together to produce positive change (HERI). Definitions of the constructs are provided in Table 1 to demonstrate how they relate to the goals of the Social Change Model. The Social Change Model was useful in this study as it relates directly to the research that examines leadership development in student organizations. This is dicussed further in the review of literature.

Table 1.1. *Constructs of the Social Change Model of Leadership Development*

Construct	Definition
Consciousness of Self	Being aware of the beliefs, values, attitudes, and emotions that motivate one to take action.
Congruence	Thinking, feeling, and behaving with consistency, genuineness, authenticity, and honesty toward others.
Commitment	Psychic energy that motivates the individual to serve and that drives the collective effort.
Collaboration	Work with others in a common effort. It constitutes the cornerstone of the group leadership effort because it empowers self and other through trust.
Common Purpose	Work with shared aims and values.
Controversy with Civility	Recognize two fundamental realities of any creative group effort: that differences in viewpoint are inevitable, and that such differences must be aired openly but with civility.
Citizenship	The process whereby the individual and the collaborative group become responsibly connected to the community and the society through the leadership development activity.

Note: Higher Education Research Institute (HERI). (1996). *A social change model of leadership develoopment: Guidebook version III.* College Park, MD: National Clearinghouse for Leaderhip Programs.

Summary

The purpose of this study was an outcome assessment of fraternity central office leadership programs. The research will analyze outcomes including chapter GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition. Chapter 2 will focus on the relevant literature dealing with leadership development, including leadership programs and involvement. It will also review literature concerning fraternal organizations and their impact on higher education. The last section will focus on the Social Change Model and each of the constructs. Chapter 3 will discuss the research design for this study and include the case setting. It will also provide a description of data sources and analysis. Chapter 4 presents the results of the study. Chapter 5 discusses the implications of the findings and provides an assessment plan for the organization.

Chapter II

REVIEW OF LITERATURE

This chapter will review literature related to college student development. The main purpose of this research was to determine the impact leadership development has on student organizations; therefore, the focus is on literature pertaining to leadership programming and identifiable outcomes. This includes the evolution of leadership, training programs, and how student involvement affects leadership development, mainly in fraternities and sororities. Because the case study for this research focuses on a fraternity, the review will include literature dealing with fraternities and sororities. The last section of the chapter will describe the theoretical framework for this research: The Social Change Model of Leadership Development. This description includes definitions and research focusing on each of the constructs.

Leadership Development

While leadership development has been a concern for higher education administrators, it is difficult to find agreement on a common definition that accurately describes leadership (Middlehurst, 2008; Rost, 1991; Shertzer & Schuh, 2004). Rost (1991) pointed out that there are over 200 definitions of leadership throughout the literature. Middlehurst (2008) also found it difficult to find a consensus on the definition of leadership development in higher education literature. The difficulty in defining this concept could be attributed to a student's perception of leadership (Kelly, 2008).

Each student has a different idea of leadership so when asked to define the term, multiple ideas and concepts, stemming from a variety of belief systems, are given. Ideas and beliefs of leadership can also change as the administration changes on a campus (Eddy & VanDerLinden, 2006). These transitions on a campus can shape how a campus views leadership development. The progression of leadership theory has made it even more difficult to construct a common definition. Leadership theory has shifted from an industrial model to a postindustrial model (Komives, Lucas, & McMahon, 2007), creating a fluid concept of leadership development.

The industrial paradigm of leadership was the predominant theoretical framework for most of the twentieth century. It is individualistic in nature and typically focuses primarily on the leader with no regard to the followers (Tyree, 1998). This system includes only one leader per group. The system is built around a hierarchical system that was focused on achieving goals and producing quantifiable outcomes (Rost, 1991).

There were many misconceptions of leadership in the industrial paradigm. For many scholars, these ideas of leadership have been labeled as myths (Shertzer & Schuh, 2004). Some myths about leadership include:

- leaders are born not made
- leaders must be charismatic to be effective
- there is only one way to lead (Komives, Lucas, & McMahon, 2007)

There were several movements during the popularity of the industrial paradigm that perpetuated stereotypes about leadership. For example, the great man theory and trait theory were predominate in the early twentieth century and were based on the hereditary traits and characteristics of the leaders (Komives, Lucas, & McMahon, 2007). Leading

into the middle of the century, ideas of leadership were based on the "one best way" approach and later moved to the idea that the situation predicted the leader. These ideas were based on the behavioral and situational theories of leadership (Komives, Lucas, &McMahon, 2007). While these theories had different characteristics, they all focused on the fundamental concepts of the industrial paradigm.

A shift from the industrial paradigm to the postindustrial began in the late twentieth century. This movement fostered a change from the goal achievement and rank system to a more value-based approach (Komives et al., 2005). Relationships between individuals became greater than an outcome or goal. Theorists developed concepts and assumptions opposite of those from the industrial paradigm, which included:

- leadership is based on relationships and is not delegated to one individual
- change is the main objective of leadership
- anyone can be a leader not just a specific group or individual. (Rost, 1991)

In a postindustrial model, leadership is taught to anyone and occurs at every level of an organization (Komives, Lucas, & McMahon, 2007). This framework concentrated on the relationship between individuals and also put the leader and the follower on the same level of importance (Tyree, 1998).

Value-centered leadership that stemmed from the postindustrial paradigm has influenced several models created for college student leadership development. The models focus on social change or the greater good. For example, the Social Change Model of Leadership focuses on individuals, groups, and communities working together for change (HERI, 1996). In the Relational Leadership Model, Komives, Lucas, and McMahon (2007, p. 74) emphasize that "leadership is a relational and ethical process of

people together attempting to accomplish positive change." Both models stress concepts that are central to the postindustrial paradigm, relationships and change. The importance of leadership is service, and it makes a difference for everyone involved in the process (HERI, 1996; Kouzes & Posner, 2007; Tyree, 1998).

Leadership Programs

Because leadership development can be an important component for student development in higher education, many colleges and universities have incorporated leadership training through co-curricular activities (Astin & Astin, 2000; Posner, 2004). At the beginning of the twenty-first century, there were over 700 leadership programs on college campuses in the United States (Cress et al., 2001). Universities designed and implemented programs such as Emerging Leaders or used large-scale programs like LeaderShape to help students develop life skills and self-awareness (Freeman & Goldin, 2008). Freeman and Goldin suggested leadership programs were intended to create a sense of civil responsibility and help students develop leadership identity. Cress et al. (2001) conducted a longitudinal study to determine if participation in leadership programs had an impact on student development. After using descriptive and multivariate analysis on data from ten institutions, Cress et al. (2001) found three common elements that had a direct affect on student development. These elements were:

- opportunities for service
- experiential activities
- active learning through collaboration (p. 23)

These findings are congruent with the purpose of leadership programs presented by Freeman and Goldin (2008). The results from Cress et al. (2001) also stress the concepts

of a postindustrial paradigm and models such as the Social Change Model and the Relational Leadership Model.

Cress et al. (2001) reported that leadership programs enhanced student development. They also found that leadership programs had positive effects on students that were not involved in a position of leadership in a student organization. The positive effects included growth in civic responsibility, leadership skills, multicultural awareness, understanding of leadership theories, and consciousness of self (Cress et al., 2001). The findings indicated that "leadership potential exists in every student and that colleges and universities can develop this potential through leadership programs and activities" (Cress et al., 2001, p. 23).

Evaluating Leadership Programs

An important component of leadership programming is the evaluation process. Kirkpatrick (2006) provides three specific reasons why evaluation is a necessity:

1. to justify the existence and budget by showing how the program contributes to the organization's objectives and needs
2. to decide whether to continue or discontinue training programs
3. to gain information on how to improve future training programs (p. 17).

While these reasons demonstrate the need for evaluation, it is often an overlooked or minimally considered step in the process. In fraternity and sorority programming there is a lack of data collection to properly evaluate the program (Strayhorn & Colvin, 2006).

Kirkpatrick (2006) created four levels of evaluating programs. Each step has an impact on the next and thus it is important to use each step in the evaluation process. The four steps are reaction, learning, behavior, and results (Kirkpatrick, 2006). The first step,

reaction, is simply measuring how participants react to the program. This is usually the only step that is analyzed during the assessment process. The second step focuses on learning. According to Kirkpatrick, learning can be defined as, "the extent to which participants change attitudes, improve knowledge, and/or increase skill as a result of attending the program" (Kirkpatrick, 2006, p. 22). The third step, behavior, measures whether or not a behavior has occurred because of attendance to the program. The fourth step focuses on results, which occur based on attendance.

Leadership and Student Involvement

Research shows that students who are involved in extracurricular activities show positive leadership outcomes (Astin, 1993). Membership in student organizations, clubs, fraternities, and sororities has a significant impact on leadership development (Astin, 1993; Haber & Komives, 2009; Komives et al., 2006; Pascarella & Terenzini, 2005). While membership in a student organization has a positive impact on leadership development, there are other ways for students to develop their leadership skills. Interaction with faculty/staff, community service, and student-to-student interaction also show a positive affect on leadership outcomes (Astin, 1993, 1999; Pascarella & Terenzini, 2005; Thompson, 2006). Based on the research, it is beneficial for students to get involved during their collegiate experience. This could be through peer-to-peer or faculty interaction and even participation in student organizations, such as fraternities and sororities.

College Fraternal Organizations

In 1776, five men came together at William and Mary to form the first fraternity, Phi Beta Kappa, based on secrecy, camaraderie, and intellectual discussion (Baird, 1991).

Today, there are over 800 campuses that have fraternities and sororities (North-American Interfraternity Conference, 2011). As with many groups in the late eighteenth century, early fraternities only admitted Christian men who were wealthy and white (DeSantis, 2007). Because fraternities became a popular outlet for students, disenfranchised students began to see the need for their own groups. Women began to meet and sororities started to emerge with the first being Alpha Delta Pi, Pi Beta Phi, and Kappa Alpha Theta (Baird, 1991). African Americans also realized the benefits of these elite social organizations and created Alpha Phi Alpha and Alpha Kappa Alpha (Ross, 2000).

Research on Fraternity/Sorority Membership

After reviewing literature from popular websites, books, and journals related to student affairs, Perkins, Zimmerman, and Janosik (2011) found that some of the most relevant issues concerning fraternities and sororities were alcohol abuse, hazing, and issues dealing with diversity. These issues are consistent with Molasso's (2005) earlier review of the literature.

Pascarella and Terenzini (2005) found that men and women in fraternities and sororities were four times as likely to binge drink as nonmembers. Asel, Seifert, and Pascarella (2009) also found a strong correlation between membership in a fraternal organizations and binge drinking. Findings in a study examining drinking habits of fraternity members across the nation showed that 83% out of 2,765 respondents considered themselves heavy drinkers (Caudill et al., 2006). These habits dictate these organizations are perceived on campuses. Fraternity chapters with a reputation for heavy drinking are rated as having a higher social status among fraternities and sororities (Caudill et al., 2006). However, this type of behavior can have a negative effect on an

organization. In a study analyzing attraction and retention in fraternities and sororities, Fouts (2010) reported that the pressure to drink influenced some students not to participate or withdraw from the recruitment process. Excessive alcohol consumption can contribute to other illegal behavior including hazing.

Hazing has also been a perceived norm in fraternal organizations. Hazing is an activity that has progressively persisted partly because members want to perform the same treatment to new members that they received (Owen, Burke, & Vichesky, 2008). In most cases, new members of organizations expect some sort of hazing experience as a rite of passage into the organization. Being forced to consume excessive amounts of alcohol is the most common. Usually, substance abuse leads to more physical incidents (Owen, Burke, & Vichesky, 2008). In a recent study, Owen, Burke, and Vichesky (2008) characterized hazing based on organization harassment and harm to self and others. In regards to organizational harassment, the highest form of hazing was being blindfolded (Owen, Burke, & Vichesky, 2008). The study also shows that the highest rated form of hazing, when looking at harm to self and others, was forced alcohol consumption (Owen, Burke, & Vichesky, 2008).

Since the creation of fraternities and sororities, diversity, or the lack thereof, has been a concern. Research shows that fraternity and sorority membership has a negative effect on student views concerning racial-ethnic diversity (Pascarella & Terenzini, 2005). These negative views are formed during the student's first year of college so the trend continues as new members progress through their college experience and transmit the same traditions and customs to new members.

In some cases, members are looking for commonality. Black fraternity males who join historically black fraternities on predominantly white campuses report to have a closer connection to other members of the organization and to the campus itself (McClure, 2006). This connection leads to higher graduation rates for African Americans who are members of fraternities and sororities, and the association with the organization provides valuable contacts, which provide a better chance to obtain a job (Severtis & Christie-Mizell, 2007). Pascarella, Flowers, and Whitt (2006) found that affiliation with a fraternity or sorority has a negative impact on white students in some areas of student development but has a slightly positive impact on black students.

When examining diversity issues within fraternities and sororities, race/ethnicity is not the only issue. There has been some emphasis in the literature on the impact that sexual preference has on fraternal organizations. In a study of gay/lesbian/bisexual membership in fraternities and sororities, over 70% of the respondents had encountered homophobic or heterosexist attitudes within their chapters (Case, Hesp, & Eberly, 2005). A study conducted by Hall and La France (2007) found 53% of participants stated that they would react negatively if a fraternity member were gay. Dealing strictly with fraternities, Hall and La France believe homophobia in the organizations is based on social adjustment function. According to Hall and La France (2007), the social adjustment function "predicts that members of any given group will adopt attitudes that are in accordance with the identity and goals of the entire group" (p. 41). These attitudes reinforce the ideas that men need to be strong and masculine. This groupthink mentality makes it difficult for a student to express views that are different from the organization.

Body image and self-esteem has become an issue of concern for fraternities and sororities. Researchers examined the effects of women's recruitment on potential new members and determined that recruitment has a negative effect on the self-esteem of those women who withdraw from the recruitment process (Chapman, Hirt, & Spruill, 2008). Women who do not withdraw from the process and become new members struggle with self-esteem issues especially body image. Landa and Bybee (2007) outline a study in which eating disorders were more common among women in sororities. In a study focusing on women with purging behaviors, 72% of these women were in sororities, and 80% of the women who were considered high-frequency purgers were members of sororities (Landa & Bybee, 2007). These challenges stem from the social adjustment function discussed by Hall and La France (2007). These students try to fit in so they embrace the attitudes that the organization favors, which is a fit and thin image. One positive note is research suggests that as the women mature and graduate, the risk factor for eating disorders in sorority alumnae dramatically decreases (Landa & Bybee, 2007).

Men also feel the pressure to stay fit and thin because they are forced to play the stereotypical role of the college fraternity male. Murnen and Kohlman (2007) argue that all male groups were formed in a time when women were gaining more access and responsibilities in society. The all male groups were a way for men to reinforce their masculinity, which has produced hyper masculinity in the culture. The need to show dominance and masculinity has led to sexual aggressive tendencies and excessive competition with members of different organizations (Murnen & Kohlman, 2007).

While the issues described above have had a negative impact on fraternities and sororities, there are efforts to change perceptions and stress the positive outcomes from being affiliated with a fraternity or sorority. Within the past decade, research has produced positive outcomes of membership (Molasso, 2005). Some positive outcomes associated with affiliated members include cognitive and leadership development.

There is little research on affiliation and educational outcomes (Martin, Hevel, & Asel, Pascarella, In Press). In his content analysis of fraternity/sorority literature, Molasso (2005) indicated that only 10% of the examined literature focused on cognitive or academic achievement. However, within the last five years, there has been a focus on what effects fraternities and sororities have on a student's cognitive skills. Nelson et al. (2006) found that affiliation with a fraternity or sorority has a negative effect on academics during the semester in which they are being recruited. These results are similar to a study by Pascarella, Flowers, and Whit (2006) which concluded that affiliation has a negative effect on a student academically, but these negative effects fade throughout the student's college career. Results from research involving 6,000 undergraduates concluded that while affiliation with a fraternity or sorority has a negative effect on incoming freshmen, affiliation actually has a positive effect on senior members (Pike, 2003).

These results provide an argument for deferred recruitment. This would mean that chapters would have their formal recruitment for new members during the spring semester instead of the fall. In their research, DeBard and Sacks (2010) found strong evidence that supports the idea of deferred recruitment with a significant difference between the spring GPA of spring recruits and non-affiliated recruits, as well as spring recruits and fall recruits. The adjustment to campus life can be difficult to a new student.

The deferred recruitment process can allow the student to adjust to the new environment before adding a new component to an already stressful time.

There have been some conflicting results in the research concerning academic achievement and class standing. Results from a multi-institutional study show that there is positive academic performance in first year freshmen that are involved in a fraternal organization (DeBard & Sacks, 2010). Research has proven that positive effects of members apply not only to seniors, but also all levels of students (Hayek et al., 2002). This data is a contradiction to previous finding from Pike (2003), Nelson et al. (2006), and Pascarella, Flowers, and Whit (2006).

Positive outcomes have also been associated with leadership development. While there is not much research available on leadership outcomes of members in fraternities and sororities, there are findings that suggest students who hold positions of leadership tend to have significant gains in leadership development (Harms et al., 2006). Kelly's (2008) results from a study analyzing self-perceived leadership development indicated that respondents believed serving as chapter president had a positive influence on leadership development. Presidents of organizations have more opportunity to demonstrate leadership abilities, which could affect the perception of other members. Leadership self-perception also varies between fraternities and sororities. Fraternity presidents typically have more confidence in their leadership skills than sorority presidents (Adams & Keim, 2000). These perceptions differed from a study on leadership practices among four university fraternity/sorority councils, which found no significant difference in leadership practices between the groups (DiChiara, 2009).

Leadership training may also have an effect on organizations. In a longitudinal study of individual outcomes of a fraternity central office training program, Biddix and Underwood (2010) found that over 60% of the students who attended the program became officers in the organization. This finding indicates that leadership training cultivates future leaders for the organization.

Despite the negative stereotypes, fraternities and sororities can have a positive impact for participating students. The first groups that formed were men looking to create organizations of common bonds (Baird, 1991). While fraternities started with men wanting to rebel from the formal system of the academic environment at the time, these groups became a platform for young men and women to have an active role on their campuses and in their communities and create positive change.

Social Change Model of Leadership Development

Komives, Wagner, and Associates (2009) noted that the Social Change Model of Leadership "approaches leadership as a purposeful, collaborative, values-based process that results in positive social change" (p. 50). The working ensemble of student affairs practitioners and experts in the field of leadership development who created the model (hereafter, the ensemble) emphasized that leadership should produce change. This is evident in the main goals of the model (HERI, 1996). First, there should be a development of the individual self, which includes a stronger sense of self-knowledge and leadership competence (HERI, 1996). Second, the Social Change Model should foster positive change within an institution or the community (HERI). Change is the main focus for the model. This change occurs through the individual and continues with the group, institution, and community.

The Social Change Model of Leadership follows the same theory of postindustrial leadership. The ensemble wanted to construct a model that focused on collaboration, values, and the process of leadership instead of a position of leadership. These are the basic beliefs that make up the foundation of the Social Change Model. These concepts are guided by six critical assumptions of leadership:

1. leadership is concerned with effecting change on behalf of others and society.
2. leadership is collaborative.
3. leadership is a process rather than a position.
4. leadership should be value-based.
5. all students (not just those who hold formal leadership positions) are potential leaders.
6. service is a powerful vehicle for developing student leadership skills. (HERI, 1996, p. 10)

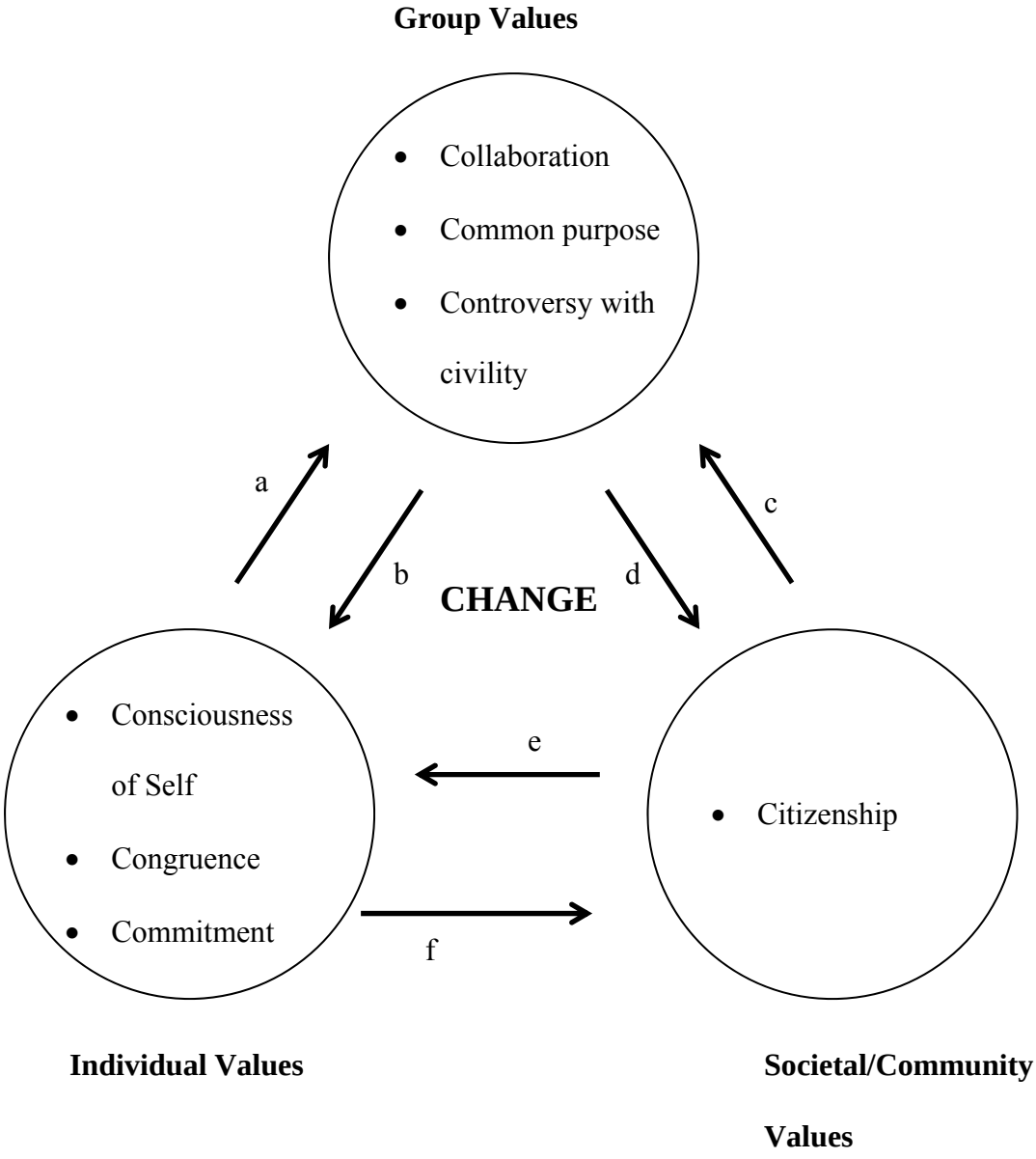
These assumptions counter the traditional views about leadership. Through these ideas of leadership, students are encouraged to participate in leadership activities because anyone can be a leader and create positive change.

The Social Change Model is structured around seven crucial elements: consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, and citizenship (HERI, 1996, p. 21). These constructs are known as the "seven C's." The ultimate goal is change, the eighth C that is the "hub" for the entire process. The seven C's are organized into three different categories, individual values, group process values, and community/societal values. Each of the groups has reciprocal relationships with one another and helps guide students to the ultimate goal of

positive change. Figure 1 shows how the seven C's are organized within the different categories and the relationship among the three categories.

Because the collaboration is an important part of the Social Change Model, the ensemble developed interrelationships between the different values in the model (HERI, 1996). The feedback loops in Figure 1 represent the reciprocity between the three values. Arrow "a" implies that individuals are more effective to a group when they have a clear consciousness of self, are committed, and congruent with their own beliefs (HERI, 1996). Arrow "b" represents the impact a group has on an individual. Groups that have a common purpose and work together with a sense of civility enhance the leadership development of the individual members in the group. Arrow "c" demonstrates how groups that work with a common purpose and civility have a greater impact on the community. The feedback loop between groups and the community is complete (arrow "d") when group values are reinforced through their connection with the community. Arrow "e" represents the community's positive response to individuals trying to facilitate change through commitment and self-understanding. Finally, arrow "f" indicates how an individual's commitment to the community can strengthen his/her personal beliefs and the knowledge individuals gain from the communities they serve.

Figure 1: *The components of the Social Change Model of Leadership and their relationship with one another.*



Note: Higher Education Research Institute (HERI). (1996). *A social change model of leadership develoopment: Guidebook version III.* College Park, MD: National Clearinghouse for Leaderhip Programs.

Consciousness of Self

Consciousness of self is "being aware of the beliefs, values, attitudes, and emotions that motivate one to take action" (HERI, 1996, p. 22). This step in the social change model not only requires individuals to make an internal evaluation but also asks participants to evaluate how external environments and behaviors are affecting them (Komives, Wagner, & Associates, 2009). This means that there is no end to the evaluation process. Because external variables are constantly changing, consciousness of self is a continual process. Leadership educators should consistently evaluate their leadership programs to ensure that they focus on the changing dynamic of the student leader. Since there is a major focus on a student's self-awareness in leadership development, leadership programs should allow students to revisit the first step in the process and allow them to reevaluate their personal values and beliefs (Dugan & Komives, 2010).

A key component of any change model is self-actualization (HERI, 1996; Komives et al., 2006). In fact, most models have some form of self-awareness, being aware of one's value system, being able to act according to one's own values, and developing and demonstrating character (HERI, 1996). Since students are trying to initiate dialog to foster positive change in an institution or community, it is important for students involved in the process to know their own beliefs and values. These beliefs and values form an identity. They are usually based on variables such as culture, faith, family, and peers, which determine how students perceive their surroundings (Komives, Wagner, & Associates, 2009). The variables also facilitate in the cultivation of a student's leadership style.

In a study that analyzed how students identify themselves as leaders, Komives et al. (2006) determined that self-awareness was an important aspect in the leadership process. Komives, Wagner, and Associates (2009) highlight several benefits for a leader with a strong sense of self. These benefits include deepening self-awareness, building self-confidence, establishing interpersonal efficacy, applying new skills, and expanding motivation. Since the Social Change model has different values that have a reciprocal relationship (HERI, 1996), a student's individual growth will have a positive effect on the other two values: group and community.

Congruence

The creators of the Social Change Model defined congruence as, "thinking, feeling, and behaving with consistency, genuineness, authenticity, and honesty toward others. Congruent persons are those whose actions are consistent with their most deeply held beliefs and convictions. Clearly, personal congruence and consciousness of self are interdependent" (HERI, 1996, p. 36). Congruence and consciousness of self are dependent on one another simply because a student must know his/her values and beliefs to be consistent with them. In the Social Change Model it is not satisfactory to just be able to express one's values or belief system. An individual must act in ways that demonstrate his or her stated values and beliefs (Komives, Wagner, & Associates, 2009).

An individual congruency is then reflected in the group values. It is important that it is congruent with his/her beliefs because it has an effect at the group level. When an individual is congruent within the group, a sense of trust is formed with other members. Since social change will most likely occur once a group is working together toward a common purpose, group congruence will help start the push toward change (HERI,

1996). This could also have a negative impact on a group and the individual if the group's congruence is moving in the opposite direction of an individual's personal beliefs and values. This can be solved with recognizing early warning signs of conflicting values and bringing them forward to the group (HERI, 1996). Being congruent is a major component of social change and will be extremely beneficial if individuals can recognize both the group's values and their own values. If an individual is true to one's own congruency and is a collaborative member of the group, this will ensure the development of both the individual and the group.

Commitment

The last construct in the individual values category is commitment. The ensemble noted that, "commitment implies intensity and duration. It requires a significant involvement and investment of one's self in the activity and its intended consequences. It is the energy that drives the collective effort and brings it to fruition" (HERI, 1996, p. 40).

Commitment is what drives individuals to complete a task. It becomes an important component in the individual value system. A person must have self-awareness and be consistent with his or her belief system to ensure total commitment. Commitment is based on personal beliefs and values gained through self-awareness. In a study examining students' leadership development based on the Social Change Model, Dugan (2006a) found that the commitment construct yielded the highest scores in individual value. The level of commitment is also determined by the amount of importance an individual places on an issue. Students are willing to devote time and resources on issues that they feel are important (Ricketts & Bruce, 2008).

It is easier for a student to acknowledge and demonstrate commitment on an individual level. However, it is harder for individuals to demonstrate commitment in a group setting. Once an individual realizes the importance of commitment on an individual level, the group becomes a more collaborative unit. Group values such as commitment begin to reinforce individual qualities (Astin & Astin, 2000). In the group setting, commitment is what bonds a group comprised of individual values and belief systems together (Tyree, 1998). While people cannot be forced to commit to an idea or action, the group can provide guidance and support to support the commitment (HERI, 1996). In a study analyzing fraternity/sorority membership and the Social Change Model, commitment had the highest significant (Dugan, 2008). This could support the ensemble's ideas of group involvement, nurturing, and stronger commitment.

Common Purpose

Collaboration is defined as, "working together toward common goals by sharing responsibility, authority, and accountability in achieving these goals" (HERI, 1996, p. 48). Through the Social Change Model, the ensemble viewed collaboration as more than individuals working together to accomplish a task. They perceived collaboration as a method in which individuals could learn from one another and embrace the differences in the group. The common purpose begins with the vision or goal of a single individual that motivates the group to accept and adopt the goal. Leaders are asked to realize common values that bond an organization and inspire members of the group to work toward a common purpose. Because it is important for a leader to inspire followers to a shared vision, Kouzes and Posner (2007) included common purpose or shared vision as one of the five practices of successful leaders.

The ensemble stresses that there are two ways to create common purpose within a group. Different individuals with similar interests and values come together and form a common purpose, or an individual joins a group with an acknowledged common purpose and accepts the goals and values upon joining membership (HERI, 1996). In both cases, the common purpose is the motivation that drives the group as a whole. Being involved in an organization also helps students develop leadership outcomes. Haber and Komives (2009) found that students involved in organizations had higher scores in leadership outcomes, including common purpose, than those who were not involved. This research parallels Astin's (1993) findings that involvement in student organizations has a positive influence on leadership outcomes.

Collaboration

Collaboration is a concept that is not a part of the traditional theories of leadership. In frameworks that involve a leader and a follower, there is not much room for collaboration. As organizations shift away from the industrial framework, a movement toward collaboration develops. At its basic level, collaboration is defined as groups working together to achieve a common goal or purpose (Tyree, 1998). In fact, membership in an organization significantly affects the collaboration construct (Dugan & Komives, 2010). However, the Social Change Model describes collaboration as more than people coming together for a common goal. Collaboration is more about how individuals relate to one another across different values, cultures, and belief systems (HERI, 1996). This idea incorporates a holistic approach to collaboration where students are able to learn from one another and base goals and common purpose not only on commonalities, but also on the differences between them.

While collaboration has been seen as important for the change process (HERI, 1996), research indicates that students do not feel that it is significant. In a study ranking students' perceptions of overall leadership skills, student collaboration was not considered important in regards to effective leadership (Ricketts & Bruce, 2008). The importance of group dynamics only increased slightly if the collaboration produced results, their contributions were recognized, and if students were able to trust the members of their group (Ricketts & Bruce, 2008). These concepts are built in the individual values of consciousness of self, congruence, and commitment. It is easier for students to grasp the individual concepts, but it becomes difficult for students to express their values and beliefs in the group setting since the group and societal are more complex in leadership identity process (Komives et al., 2005).

Controversy with Civility

In most cases, organizations want to avoid conflict. However, in reciprocal models such as the Social Change Model, conflict is unavoidable (Komives et al., 2007). As defined by the ensemble, "there will be important and potentially creative differences in viewpoints within any leadership development group and that these opposing views can be aired and eventually resolved through cooperative, open, and honest dialogue which are satisfying and beneficial to all" (HERI, 1996, p. 59). They understand the inevitability of conflict and encourage the group to embrace it as a learning process. In fact, controversy can help to reinforce the other constructs in the Social Change Model as long as it is handled with civility. The controversy fosters new ideas for the group and assists in strengthening the common purpose and commitment.

As with the other constructs in the group value category, controversy with civility is a difficult concept for a student to comprehend. In a study comparing involved and noninvolved students based on the constructs of the Social Change Model, controversy with civility has the lowest scores (Dugan, 2006a). Dugan also acknowledges none of the types of involvement has an effect on the construct. When Dugan (2008) narrowed his scope to how the Social Change Model affects fraternities and sororities, he found similar results. Controversy with civility ranked among the lowest of the eight constructs (Dugan, 2008). The research examining the differences between men and women based on the constructs of the Social Change Model yields similar results in that controversy with civility was ranked lowest among the constructs (Dugan, 2006b). The students in the study appreciated the conflict, but tried their best to avoid it (Dugan, 2006b). The idea of avoiding the controversy conflicts with the concepts of the Social Change Model. It also stresses the importance of leadership development in higher education so students can be trained to accept controversy instead of avoiding it (Dugan & Komives, 2010).

Citizenship

Combined with the other constructs of the Social Change Model, citizenship is one of the desired outcomes (HERI, 1996). Because the ultimate goal is to produce positive change, groups are able to create change through citizenship and the relationships that they build throughout their communities. Citizenship can be defined as, "the value that responsibly connects the individual and the leadership group to the larger community and society" (HERI, 1996, p. 65). The ensemble viewed citizenship as total group responsibility and something that would give purpose to the leadership group. This

idea is reinforced through research that indicates that students have a strong belief that they have the power to make a difference in their communities (Ricketts & Bruce, 2008).

One of the most recognizable and important forms of citizenship is service (Komives, Wagner, & Associates, 2009). According to the literature, participation in community service has produced statistically significant and positive results when dealing with the development of college students (Astin, 1993; Pascarella & Terenzini, 2005). Dugan (2006a) analyzed the eight constructs in the Social Change Model as they related to different types of involvement and found that involvement in service had the most influence. Astin's (1998) research indicates that service has a substantial benefit in achieving developmental outcomes such as life skills, civic responsibility, and academic achievement. Through this development, students discover that the experience of service is more beneficial than the act of service. It provides opportunities for students to talk with one another. Students find themselves working through challenges that arise as individuals with different values and beliefs work together (Keen & Hall, 2009).

The Social Change Model will serve as the framework for this project. The seven C's provide a foundation for the analysis of the student organizations in this research. The analysis will focus how chapters can apply the Social Change Model to achieve desired outcomes such academic and chapter development, life skills, and civic responsibility.

Summary

This chapter explored the literature pertinent to the impact of leadership development in student organizations. The concept of leadership development was examined with an emphasis on the evolution of leadership development, leadership

programs, and how involvement affects leadership outcomes. Because this study focuses on a fraternity, a review of research on fraternal organizations was included. The history, detrimental aspects, and benefits of fraternities and sororities provided in this chapter display a better understanding of how and why these organizations persist on college campuses. The last part of the review of literature described the Social Change Model of Leadership Development. This final section described the model and its constructs. It also outlined how each of the constructs affects leadership. The next chapter describes the methodology used for this research including the case, independent and dependent variables, procedure, and analysis.

Chapter III

METHODOLOGY

This outcomes assessment study was designed to measure the outcomes of student organizations that have attended leadership training. Specifically, it used quantitative data provided by a fraternity central office to determine if its leadership programming has an impact on its chapters. The study addressed three questions:

1. What are the relationships between fraternity central office leadership programs and chapter outcomes such as GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition?
2. How does attending fraternity central office leadership programs affect chapter level outcomes, including GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition?
3. Based on the results comparing leadership programs and chapter outcomes, what would be a long-term assessment plan for the national organization and local chapters?

In order to be a viable case for this study, an organization had to meet three basic criteria: a) since this is a multi-year study, the organization must have established programs that have been in existence for at least five years, b) the programs should be available to all members in the organizations, and c) the organization must be willing to provide data on the existing programs (Biddix & Underwood, 2010). The selected

organization met all three of the criteria. They provide programming for all members. As described later in this chapter, they have various leadership programs that have been a part of the organization for over ten years. There was no issue of accessing the data once a consent form was signed. This data included the amount of chapters involved with the organization, the size of each chapter, grade point averages (GPA) for each chapter, associate member class size, number of associate members initiated, alumni involvement, and risk management violations.

Case

The fraternity used for this study, Phi (pseudonym), was formed because students desired a greater experience than local literary societies provided. From the vision of eight students, Phi has grown in a national organization that is part of 118 campuses. For this study, research was collected on all of the chapters affiliated with Phi from 2003-2007.

The central office was created in 1949 and provided the ability for growth and expansion. There was a shift in the organization's culture in the mid-nineties with an initiative that has guided the organization for the past twelve years. This initiative was an effort to address rising concerns within the organization, as well as fraternities and sororities in general. Some of these concerns (academics, recruitment, risk management, and alumni involvement) are the same outcomes that were analyzed in this study. The new initiative also provided a plan to create leadership opportunities for their membership. This assessment used four of the seven leadership programs provided by the Fraternity central office. Because of a confidentiality agreement, pseudonyms were used

for each of the programs. These program outcomes overlap in some area, but each program provides a different experience for the students.

The Phi Institute

The Phi Institute is the most popular leadership program Phi offers, based on yearly attendance. Based on the leadership practices described by Kouzes and Posner (2007), it was created as a leadership development opportunity that focused on applying the principles rooted in the organization's ritual to every part of the students lives with outcomes including collaboration, citizenship, importance of the ritual, and leadership development. There was also an effort to encourage the men to help eliminate the negative practices within their chapters. The first institute was held the summer of 1999 and hosted 44 students. Currently, the program has grown to four sessions and has over 300 participants. Funding for the program is generated through capital campaigns and endowment funds.

The Phi College

The Phi College is an opportunity for members to gain various leadership and personal development skills. The program is held during the fraternity's annual General Convention. The Phi College is broken up into several sessions and covers various topics that stress the core values of Phi, which are mutual assistance, intellectual growth, trust, responsible conduct, and integrity. Members of Phi and non-affiliated volunteers facilitate the program.

The Phi Challenge

This program is another opportunity for members to gain leadership skills and learn more about "living the ritual." The Phi Challenge is a five-day outdoor leadership

experience that is facilitated by members of Phi and the National Outdoor Leadership School. Participants engage in activities such as hiking, backpacking, camping, rock climbing, and team building skills that focus on trust, collaboration, leadership, and communication. Because of limited resources and the high cost of the program, the Phi Challenge was discontinued in 2009. This study will use data from 2003 to 2007 that includes the Phi Challenge.

Undergraduate Interfraternity Institute (UIFI)

UIFI is a value-based program that brings fraternity men and sorority women from across the United States together to participate in leadership development opportunities. Along with workshops that focus on helping students develop leadership skills, the program also provides opportunities for students to develop skills which are congruent with the Social Change Model of Leadership Development, including personal awareness and commitment to their organization. As with the Social Change Model, one of the main goals of the program is to encourage students to leave the training committed to making positive change in their chapters and communities.

Independent Variables

The independent variables for this study are the individual leadership programs provided by Phi. These programs were described in the case setting section of this chapter and are listed in Table 3.1.

Table 3.1. *Independent and Dependent variables*

Independent Variable	Dependent Variable
The Phi Institute	Chapter GPA (2003-2007)
The Phi College	Risk Management (2003-2007)
The Phi Challenge	Initiation Rate (2003-2007)
UIFI	Recruitment (2004-2007)
	Chapter Recognition (2004-2008)

Dependent Variables

The dependent variables are chapter GPA, risk management violations, initiation rates, Recruitment class size, and chapter recognition (awards given by the fraternity central office). These variables are also listed in Table 3.1 and are the outcomes from attending the leadership programs.

Grade Point Average (GPA)

GPA is obviously an important component of academic life. It has an effect on other variables such as chapter size, initiation rate, associate member recruitment, and chapter recognition. Co-curricular activities can have a positive impact on cognitive and critical thinking (Astin, 1993). Involvement in fraternities and sororities can have a positive effect on GPA (DeBard & Sacks, 2010; Hayek et al., 2002). In this study, GPA was measured on a scale of 0.0 to 4.0, and each reported chapter GPA is an average of the individual chapter members' GPA. This study used the fall GPA for the analysis because it was the semester following the leadership program.

Risk Management Violations

This was one of the major concerns of Phi and a key reason the organization created the culture changing initiative. In the 1990's, Phi observed an increase in risk management violations and a decrease in membership. The violations were common among fraternal organizations nationwide with hazing and alcohol overconsumption being major concerns. The assessment used risk management data provided by Phi. Data was coded with a 0 or 1. Zero was used if a chapter had no risk management incidents for the year, and one was used if the chapter had any risk management violations.

Recruitment Class Size

Every year fraternities make efforts to recruit new members for their organization. This process can occur through a formal or informal process. Formal recruitment is usually a university-sponsored recruitment. Individual chapters usually hold informal recruitment sessions throughout the year. Once the potentially new members select a fraternity, they participate in a pledge process for a determined amount of time. This study used pledge class size for both fall and spring and combined them for an annual total. This accounted for chapters that have deferred recruitment. This number was converted to a percentage to account for varying chapter size. The study used the percentage of change in recruitment class from year to year.

Initiation Rate

After the pledge process has ended, associate members are initiated into the fraternity. Initiation rates are important because they are associated with the chapter's retention and overall growth. This outcome was measured by the number of pledges

initiated for the fall and spring. This number was combined for an annual total and converted to a percentage to account for varying chapter size.

Chapter Recognition

Chapters in Phi are recognized for excellence throughout the year. In fact, Phi presents 14 awards annually to chapters who excel in areas including GPA, leadership, service, marketing, and recruitment. This research focused on the Phi Award (pseudonym). Chapters must meet standard chapter expectations required criteria, including cultivation of the intellect, leadership development and self-governance, commitment to the community, member education, responsible personal conduct, member recruitment, communication, and lifelong fraternal brotherhood. Award recognition was coded 0 for no award for the year and a 1 if the chapter received the Phi Award.

Procedure

The data collection for this study began in the summer of 2009. With the assistance of a faculty member and the co-chair for this project, Phi was contacted to discuss the feasibility of the study. This discussion focused on topics including available data and permission to review data (See Appendix B). Once permission was provided by Phi, Valdosta State University Institutional Review Board (IRB) approval was sought and received to conduct the study (See Appendix A). The data collected for this research included chapter size, pledge class size, initiation rates, alumni volunteer rosters, GPA rosters for each chapter, risk management reports, and chapter recognition. All the data gathered were quantitative.

Because the provided data were in separate databases, the first step was to merge all the data into one dataset. Once the complete dataset was created, descriptive statistics were calculated to scan for inconsistencies. The initial data collection was for the time period of 1999 to 2008, but after review of the descriptive statistics, it was determined that the data was too inconsistent for the years 1999 to 2002 and 2008. The study was changed to focus on the time period of 2003 to 2007. This time period provided the most complete dataset and according to a representative from Phi, had the most growth for their leadership programs. After scanning the dataset, nine chapters were eliminated from the study because they were a new colony or there was too much missing data for the chapter. With the elimination of those chapters, the final number of cases for the study was 107.

Data Analysis

For research question one, Statistical Package for the Social Sciences, version 19.0 (SPSS) was used to calculate bivariate correlations between the leadership programs and chapter outcomes. The correlations were generated to identify and discuss the relationships between variables. A correlation matrix was created and analyzed for each year involved in the study.

For research question two, SPSS was used to calculate regression analyses to determine if attendance at fraternity central office leadership programs had an effect on chapter outcomes. Risk management violations were analyzed as a dichotomous variable because there was an extremely small amount of chapters that had multiple violations per year. Chapter recognition was also a dichotomous variable because chapters either did or did not receive the award for the year. Logistic regression was used to determine the

effect leadership programs had on those two outcomes. All regressions were calculated by chapter outcome and analyzed by years.

Summary

This chapter provided a case description of this study, as well as, a description of the independent and dependent variables. The procedures and data analysis were also discussed to provide a better understanding of the study. The next chapter will provide the results from the analyzed data.

Chapter IV

RESULTS

The purpose of this study was to determine whether Fraternity central office leadership programs had an affect on chapter outcomes such as GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition. Bivariate correlations were conducted to examine the relationships between the leadership programs and all outcomes. Multiple regressions analyses were performed to determine the predictive effect of the leadership programs on the chapter outcomes.

This chapter begins with descriptive statistics for the data. Following this, the findings related to research question one are presented. This includes a narrative and tabular description of the correlations between the variables. The final section of the chapter reports the findings for research question two which used regression analysis between independent and dependent variables.

Data Analysis and Findings

The number of cases, percentage of sample, minimum, maximum, mean, and standard deviation for the independent variables, leadership programs, are listed in Table 4.1. All statistics were calculated using SPSS v. 19 (2010).

Table 4.1. *Descriptive Statistics of Fraternity Central Office Leadership Programs*

Independent Variable	*n*	%*N*	Min	Max	*M*	*SD*
% Phi Institute 2003	107	100.00	0.00	27.80	4.66	6.57
% Phi Institute 2004	107	100.00	0.00	66.70	6.74	9.32
% Phi Institute 2005	107	100.00	0.00	40.00	7.17	8.90
% Phi Institute 2006	107	100.00	0.00	73.30	8.19	11.05
% Phi Institute 2007	107	100.00	0.00	33.30	7.59	8.26
% Phi Challenge 2003	107	100.00	0.00	6.25	0.83	1.64
% Phi Challenge 2004	107	100.00	0.00	20.00	1.12	2.64
% Phi Challenge 2005	107	100.00	0.00	50.00	1.72	5.44
% Phi Challenge 2006	107	100.00	0.00	28.60	1.61	3.69
% Phi Challenge 2007	107	100.00	0.00	50.00	1.80	5.60
% Phi College 2003	107	100.00	0.00	40.50	3.69	5.63
% Phi College 2004	107	100.00	0.00	47.06	4.02	7.32
% Phi College 2005	107	100.00	0.00	66.70	8.13	11.59
% Phi College 2006	107	100.00	0.00	60.00	5.06	8.74
% Phi College 2007	107	100.00	0.00	50.00	7.15	8.43
% UIFI 2003	107	100.00	0.00	11.10	0.87	2.12
% UIFI 2004	107	100.00	0.00	33.30	1.71	4.17
% UIFI 2005	107	100.00	0.00	66.70	2.71	8.19
% UIFI 2006	107	100.00	0.00	14.29	1.71	2.99
% UIFI 2007	107	100.00	0.00	15.00	1.85	2.75

Each of the leadership programs is separated by the years specific to this study. The data represents the percentage of the chapter members who attended the program for the given year. For the Phi Institute, Table 4.1 shows 2006 as the year with the highest percentage of chapter members attending (8.19%), while 2003 was the lowest (4.66%). Overall, during the five-year span of the study from 2003-2007, average of 6.87% (*SD* = 8.88) of chapter members attended the program.

For the Phi Challenge, Table 4.1 shows 2007 as the year with the highest percentage of chapter members attending (1.80%), while 2003 was the lowest (0.83%). Overall, during the five-year span of the study from 2003-2007, average of 1.42%

(*SD* = 3.80) of chapter members attended the program.

For the Phi College, Table 4.1 shows 2005 as the year with the highest percentage of chapter members attending (8.13%), while 2003 was the lowest (3.69%). Overall, during the five-year span of the study from 2003-2007, average of 5.61% (*SD* = 8.34) of chapter members attended the program.

For the UIFI, Table 4.1 shows 2005 as the year with the highest percentage of chapter members attending (2.17%), while 2003 was the lowest (0.83%). Overall, during the five-year span of the study from 2003-2007, average of 1.77% (*SD* = 4.04) of chapter members attended the program.

The number of cases, percentage of sample, minimum, maximum, mean, and standard deviation for the chapter outcomes are listed in Table 4.2. All statistics were calculated using SPSS v. 19 (2010).

Table 4.2. *Descriptive Statistics of Outcomes of Fraternity Chapter Outcomes*

Dependent Variable	*n*	%*N*	Min	Max	*M*	*SD*
GPA 2003	77	71.96	2.26	3.53	2.99	0.28
GPA 2004	79	73.83	2.50	3.50	3.02	0.24
GPA 2005	88	82.24	2.45	3.56	3.05	0.26
GPA 2006	92	85.98	2.34	3.53	3.04	0.25
GPA 2007	97	90.65	2.24	3.68	3.03	0.26
%Change in Recruitment04	107	100.00	-71.43	433.33	12.59	58.90
%Change in Recruitment05	107	100.00	-68.42	1800.00	22.43	180.08
%Change in Recruitment06	107	100.00	-73.33	325.00	13.56	52.64
%Change in Recruitment07	107	100.00	-88.89	500.00	19.63	72.52
Initiation Rate 2003	90	84.11	11.00	100.00	84.23	18.12
Initiation Rate 2004	91	85.05	10.00	100.00	84.07	16.75
Initiation Rate 2005	100	93.46	4.00	100.00	82.58	20.07
Initiation Rate 2006	104	97.20	7.00	100.00	80.72	20.47
Initiation Rate 2007	68	63.55	10.00	100.00	72.63	25.24
Risk Violations 2003	107	100.00	0	1	0.19	0.39
Risk Violations 2004	107	100.00	0	1	0.50	0.50
Risk Violations 2005	107	100.00	0	1	0.31	0.46
Risk Violations 2006	107	100.00	0	1	0.43	0.50
Risk Violations 2007	107	100.00	0	1	0.51	0.50
Chapter Recognition 2004	107	100.00	0	1	0.35	0.48
Chapter Recognition 2005	107	100.00	0	1	0.43	0.50
Chapter Recognition 2006	107	100.00	0	1	0.45	0.50
Chapter Recognition 2007	107	100.00	0	1	0.29	0.46
Chapter Recognition 2008	107	100.00	0	1	0.35	0.48

GPA was measured on a scale of 0.00 to 4.00 and represents a chapter GPA. For GPA, Table 4.2 shows 2005 as the year with the highest GPA (3.05), while 2003 was the lowest (2.99). Overall, during the five-year span of the study from 2003-2007, the average chapter GPA was 3.03 ($SD = 0.26$).

Recruitment class size was based on the percentage of change in recruitment classes from year to year. Because there was no data for 2002, there is no reported change for 2003. For recruitment class size, Table 4.2 shows 2005 as the year with the highest

percentage of change in recruitment class size (22.43%), while 2003 was the lowest (12.59%). Overall, during the four-year span of the study from 2004-2007, the average percentage change in recruitment rates was 17.05% (*SD* = 91.04).

Initiation rates represented the percentage of the recruitment class that is initiated. For initiation rates, Table 4.2 shows 2003 as the year with the highest initiation rate (84.23%), while 2007 was the lowest (72.63%). Overall, during the five-year span of the study from 2003-2007, the average chapter initiation rate was 80.85% (*SD* = 20.13).

Risk management violations are on a scale of 0 to 1. Zero represented chapters that did not have any reported violations. Chapters with one or more risk management violations were coded as 1. For risk management violations, Table 4.2 shows 2007 as the year with the most chapters receiving risk management violations (0.50), while 2009 had the fewest (0.19). Overall, during the five-year span of the study from 2003-2007, the average for chapter risk management violations was 0.38 (*SD* = 0.47).

Chapter recognition is based on chapters that received the Phi Award (pseudonym), which is based on specific criteria outlined in chapter 3. Chapters that were awarded the Phi were coded 1 and chapters that did not receive the award were coded 0. For GPA, Table 4.2 shows 2006 as the year with the most chapters receiving the Phi Award (0.45), while 2007 was the lowest (0.29). Overall, during the five-year span of the study from 2003-2007, the average for chapters receiving the Phi Award was 0.37 (*SD* = 0.48)

Research Question 1

What is the relationship between fraternity central office leadership programs and chapter outcomes such as GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition?

A bivariate correlation was conducted to determine if there was a statistically significant relationship between leadership programs and chapter outcomes. The analyses are separated by years ranging from 2003-2007. Tables displaying correlation coefficients between all variables by years follow brief narrative highlights.

Correlation coefficients for 2003 are presented in Table 4.3. GPA had a negative statistically significant relationship with Phi College, $r = -.30$, $p < 0.01$. There were statistically significant relationships between chapter recognition and Phi Challenge, $r = .26$, $p < 0.01$, as well as chapter recognition and Phi College, $r = .21$, $p < 0.05$. Chapter recognition also had a statistically significant relationship with two dependent variables GPA, $r = .32$, $p < 0.01$, and risk management violations, which was a negative statistically significant relationship, $r = -.25$, $p < 0.05$.

Correlation coefficients for 2004 are presented in Table 4.4. A correlation was found between recruitment class size and UIFI, $r = .31$, $p < 0.01$. A statistically significant relationship existed between risk management violations and Phi Challenge, $r = .25$, $p < 0.05$, and risk violations and Phi College, $r = .24$, $p < 0.05$.

Correlation coefficients for 2005 are presented in Table 4.5. A correlation was found between recruitment class size and Phi Institute, $r = .34$, $p < 0.01$. There was a statistically significant relationship between recruitment class size and Phi Challenge,

$r = .30$, $p < 0.01$. This is the only year that there is no correlation between the leadership programs, which are the independent variables.

Correlation coefficients for 2006 are presented in Table 4.6. There was a statistically significant relationship between initiation rates and recruitment class size, $r = -.21$, $p < 0.05$. Both of these outcomes are dependent variables. There was also a statistically significant relationship between chapter recognition and GPA, r .038, $p < 0.05$.

Correlation coefficients for 2007 are presented in Table 4.7. Recruitment class size had a statistically significant relationship with Phi Institute, $r = .40$, $p < 0.01$. A statistically significant relationship was also found between recruitment class size and UIFI, $r = .32$, $p < 0.01$. Relationships were found between dependent variables as well. Statistically significant relationships were found between chapter recognition and GPA, $r = .30$, $p < 0.01$, and chapter recognition and risk management violations, $r = .20$, $p < 0.05$.

Table 4.3. *Correlation Matrix of Fraternity Central Office Leadership Programs and Outcomes for 2003*

	Variable	1	2	3	4	5	6	7	8
1	Phi Institute	-							
2	Phi Challenge	.52**	-						
3	Phi College	.25**	.13	-					
4	UIFI	.38**	.25**	.23*	-				
5	GPA	.002	.13	-.30**	.17	-			
6	Initiation Rates	-.03	-.001	.04	-.00	.20	-		
7	Risk Violations	-.12	-.19	-.02	.09	.00	-.14	-	
8	Chapter Recognition	.18	.26**	.21*	.05	.32**	.07	-.25*	-

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Table 4.4. *Correlation Matrix of Fraternity Central Office Leadership Programs and Outcomes for 2004*

	Variable	1	2	3	4	5	6	7	8	9
1	Phi Institute	-								
2	Phi Challenge	.30**	-							
3	Phi College	.33**	.59**	-						
4	UIFI	.78**	.35**	.28**	-					
5	GPA	-.00	.16	.08	.09	-				
6	Recruitment Rates	.20*	.14	.04	.31**	-.14	-			
7	Initiation Rates	-.05	.08	.03	-.11	.06	-.05	-		
8	Risk Violations	-.01	.25*	.24*	.09	.08	-.00	.13	-	
9	Chapter Recognition	.12	-.04	.10	.05	.04	.15	.03	-.14	-

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Table 4.5. *Correlation Matrix of Fraternity Central Office Leadership Programs and Outcomes for 2005*

	Variable	1	2	3	4	5	6	7	8	9
1	Phi Institute	-								
2	Phi Challenge	.13	-							
3	Phi College	.08	.02	-						
4	UIFI	.01	-.04	-.04	-					
5	GPA	-.01	-.13	-.02	-.01	-				
6	Recruitment Rates	.34**	.30**	.05	-.06	.18	-			
7	Initiation Rates	-.01	-.02	-.07	-.13	.06	-.13	-		
8	Risk Violations	.05	.13	-.02	.04	.01	-.09	-.13	-	
9	Chapter Recognition	-.09	-.06	.09	.041	.18	-.11	.04	-.03	-

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Table 4.6. *Correlation Matrix of Fraternity Central Office Leadership Programs and Outcomes for 2006*

	Variable	1	2	3	4	5	6	7	8	9
1	Phi Institute	-								
2	Phi Challenge	.51**	-							
3	Phi College	.28**	.28**	-						
4	UIFI	.19	.12	.17	-					
5	GPA	-.06	.11	.07	.01	-				
6	Recruitment Rates	.04	-.09	.18	.06	.016	-			
7	Initiation Rates	-.13	.05	-.02	-.03	.13	-.21*	-		
8	Risk Violations	.103	.00	-.04	.13	.04	.12	.09	-	
9	Chapter Recognition	-.06	-.05	-.08	-.06	.38**	-.17	.14	.07	-

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Table 4.7. *Correlation Matrix of Fraternity Central Office Leadership Programs and outcomes for 2007*

	Variable	1	2	3	4	5	6	7	8	9
1	Phi Institute	-								
2	Phi Challenge	.14	-							
3	Phi College	.17	.46**	-						
4	UIFI	.36**	.05	.28**	-					
5	GPA	-.05	-.10	-.06	.00	-				
6	Recruitment Rates	.40**	.16	.09	.32**	.01	-			
7	Initiation Rates	.04	-.18	-.16	-.13	.19	-.052	-		
8	Risk Violations	-.05	.03	-.04	-.09	-.03	.14	.12	-	
9	Chapter Recognition	.15	-.11	.03	-.07	.30**	-.01	.18	.20*	-

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Research Question 2

How does attending fraternity central office leadership programs affect chapter level outcomes, including GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition?

GPA

A multiple regression was conducted to determine which independent variables, Phi Institute, Phi Challenge, Phi College, and UIFI were predictors for chapter GPA. GPA was measured on a scale of 0 to 4.0. For 2003, regression results indicated a model of one predictor, Phi College, that significantly predicted chapter GPA, $F(4, 72) = 3.30$, $p = 0.015$. The model accounted for 10.8% of the variance, as measured by $Adj.\ R^2$, in 2003 for chapter GPA.

In 2005, the model was not significant, $F(4, 83) = 1.83$, $p = 0.131$. However, Phi College was a statistically significant line indicator, $B = .01$, $p < 0.05$. The models for 2004, $F(4, 74) = .833$, $p = 0.509$; 2006, $F(4, 87) = .652$, $p = 0.627$; and 2007, $F(4, 92) = .277$, $p = 0.892$, were not statistically significant nor had any significant predictors. Table 4.8 presents the coefficients for the model variables.

Table 4.8. *The Effect of Fraternity Central Office Leadership Programs on GPA by Academic Year*

	2003[a]			2004[b]			2005[c]			2006[d]			2007[e]		
	B	*SE*	β	*B*	*SE*	β	*B*	*SE*	β	*B*	*SE*	β	*B*	*SE*	β
Institute	-.003	.005	-.076	-.005	.004	-.197	-.002	.003	-.076	-.003	.003	-.136	-.001	.003	-.041
Challenge	.023	.020	.141	.015	.014	.164	-.007	.005	-.155	.014	.011	.149	-.004	.005	-.085
College	-.015**	.005	-.332	.000	.004	-.009	.007*	.003	.313	.002	.003	.065	-.001	.004	-.023
UIFI	.030	.016	.226	.010	.009	.187	.006	.004	-.180	.000	.009	-.005	.003	.011	.028
Constant	3.03	0.04		3.02	.04		3.03	.04		3.04	.04		3.05	.04	
Adj. R^2	.108			-.009			.037			-.016			-.031		

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

[a] $F(4, 72) = 3.30$, $p = 0.015$
[b] $F(4, 74) = .833$, $p = 0.509$
[c] $F(4, 83) = 1.83$, $p = 0.131$
[d] $F(4, 87) = .652$, $p = 0.627$
[e] $F(4, 92) = .277$, $p = 0.892$

Recruitment Class Size

A multiple regression was used to determine which independent variables, Phi Institute, Phi Challenge, Phi College, and UIFI, were predictors for chapter recruitment class size. This outcome represents the percentage of change in recruitment classes from year to year. Regression results for 2004 indicated a model of one predictor, UIFI, that significantly predicted percentage of change in recruitment class size, $F(4, 102) = 2.958$, $p = 0.023$. The model accounted for 6.9% of the variance, as measured by *Adj.* R^2, in 2004 for the percentage of change in recruitment rates.

In 2005, regression results indicated a model of two predictors, Phi Institute and Phi College, that significantly predicted percentage of change in recruitment class size, $F(4, 102) = 6.795$, $p = 0.000$. The model accounted for 17.9% of the variance, as measured by *Adj.* R^2, in 2005 for the percentage of change in recruitment rate.

The model for 2006 was not statistically significant, $F(4, 102) = 1.547$, $p = 0.194$. However, Phi College was a statistically significant line predictor, $B = 1.25$, $p < 0.05$. The results for 2007 indicated a model of two predictors, Phi Institute and UIFI, that significantly predicted the percentage of change in recruitment class size, $F(4, 102) = 6.825$, $p = 0.000$. The model accounted for 18% of the variance, as measured by *Adj.* R^2, in 2007 for the percentage of change in recruitment rates. Table 4.9 presents the coefficients for the model variables

Table 4.9. *The Effect of Fraternity Central Office Leadership Programs on Percentage of Change in Recruitment Class Size by Academic Year*

	2004[a]			2005[b]			2006[c]			2007[d]		
	B	*SE*	β	*B*	*SE*	β	*B*	*SE*	β	*B*	*SE*	β
Institute	-.549	.960	-.087	4.996**	1.900	.247	.316	.544	.066	2.735***	.834	.311
Challenge	1.866	2.666	.084	7.948**	2.950	.240	-2.609	1.615	-.183	1.984	1.295	.153
College	-.682	.954	-.085	.2.999	1.582	.193	1.245*	.616	.207	-.832	.891	-.097
UIFI	5.216*	2.151	.369	-2.909	2.125	-.132	.569	1.736	-.032	5.935*	2.583	.225
Constant	8.03	7.20		-43.61	21.95		7.89	6.87		-9.71	9.86	
Adj. R^2	.069			.179			.020			.180		

[a] $F(4, 102) = 2.958$, $p = 0.023$
[b] $F(4, 102) = 6.795$, $p = 0.000$
[c] $F(4, 102) = 1.547$, $p = 0.194$
[d] $F(4, 102) = 6.825$, $p = 0.000$

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Initiation Rates

A multiple regression was used to determine which independent variables, Phi Institute, Phi Challenge, Phi College, and UIFI, were predictors for chapter initiation rates. This outcome represents the percentage of the men that were initiated from the recruitment class for each year. Regression models for 2003, $F(4, 85) = .081$, $p = 0.988$; 2004, $F(4, 86) = .796$, $p = 0.531$; 2005, $F(4, 95) = 1.392$, $p = 0.243$; and 2006, $F(4, 99) = .938$, $p = 0.445$ were not statistically significant nor had any significant predictors.

Regression results for 2007 indicated a model of two predictors, Phi Challenge and Phi College, that significantly predicted chapter initiation rates, $F(4, 63) = 3.041$, $p = 0.023$. The model accounted for 10.9% of the variance, as measured by *Adj.* R^2, in 2007 for the chapter initiation rates. Table 4.10 presents the coefficients for the model variables.

Table 4.10. *The Effect of Fraternity Central Office Leadership Programs on Initiation Rates by Academic Year*

	2003[a]			2004[b]			2005[c]			2006[d]			2007[e]		
	B	*SE*	β	*B*	*SE*	β	*B*	*SE*	β	*B*	*SE*	β	*B*	*SE*	β
Institute	-.156	.360	-.059	.221	.308	.128	.130	.235	.058	-.386	.215	-.210	.153	.364	.052
Challenge	.234	1.318	.022	1.022	.833	.170	-.043	.361	-.012	.889	.635	.162	-1.537**	.549	-.383
College	.144	.341	.047	-.093	.294	-.043	-.376	.194	-.221	-.020	.243	-.009	1.067**	.379	.396
UIFI	.070	1.059	.008	-1.026	.714	-.262	-.114	.260	-.048	-.045	.684	-.007	-2.189	1.195	-.228
Constant	84.20	2.76		83.31	2.42		85.28	2.85		82.68	2.78		69.76	4.58	
Adj. R^2	-.043			-.009			.016			-.002			.109		

[a] $F(4, 85) = .081$, $p = 0.988$
[b] $F(4, 86) = .796$, $p = 0.531$
[c] $F(4, 95) = 1.392$, $p = 0.243$
[d] $F(4, 99) = .938$, $p = 0.445$
[e] $F(4, 63) = 3.041$, $p = 0.023$

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$

Risk Management Violations

A logistic regression was conducted to determine which independent variables, Phi Institute, Phi Challenge, Phi College, and UIFI, were predictors for chapter risk management violations. This variable was based upon the risk management violations by a chapter. A chapter with no violations received a 0, and a chapter with a violation received a 1. The models were not statistically significant for 2003, 2005, 2006, and 2007 and did not have any significant predictors. The model for 2004 was statistically significant, $X^2(4, 107) = 15.030$, $p = 0.005$. However, there were no statistically significant predictors in the model. Table 4.11 presents the coefficients for the model variables.

Table 4.11. *The Effect of Fraternity Central Office Leadership Programs on Risk Management Violations by Academic Year*

	2003[a]			2004[b]			2005[c]			2006[d]			2007[e]		
	B	*SE*	Exp(*B*)	*B*	*SE*	Exp(*B*)	*B*	*SE*	Exp(*B*)	*B*	*SE*	Exp(*B*)	*B*	*SE*	Exp(*B*)
Institute	-.047	.058	.955	-.070	.041	.932	.023	.026	1.024	.025	.023	1.025	-.007	.026	.993
Challenge	-.524	.329	.592	.291	.159	1.338	.061	.052	1.063	-.032	.065	.969	.023	.041	1.023
College	-.001	.050	.999	.080	.050	1.083	-.038	.024	.962	-.022	.027	.979	-.011	.028	.989
UIFI	.191	.124	1.210	.130	.090	1.139	.031	.030	1.031	.090	.071	1.094	-.053	.080	.948
Constant	-1.22	.34	.295	-.306	.292	.737	-.880	.299	.415	-.485	.071	.616	.243	.304	1.275
Cox&Snell R^2	.070			.131			.046			.034			.012		

[a] $X^2(4, 107) = 7.791$, $p = 0.100$
[b] $X^2(4, 107) = 15.030$, $p = 0.005$
[c] $X^2(4, 107) = 5.028$, $p = 0.284$
[d] $X^2(4, 107) = 3.668$, $p = 0.453$
[e] $X^2(4, 107) = 1.264$, $p = 0.867$

$^*p < 0.05$. $^{**}p < 0.01$. $^{***}p < 0.001$

Chapter Recognition

A logistic regression was used to determine which independent variables, Phi Institute, Phi Challenge, Phi College, and UIFI, were predictors for chapter recognition. Chapters who received a specific award for chapter excellence, the Phi Award, determined this variable. Because the awards are given in the spring, the years, 2004-2008, are based on leadership programs from the previous year. The models were not statistically significant for 2005, $X^2(4, 107) = 4.365$, $p = 0.359$; 2006, $X^2(4, 107) = 6.953$, $p = 0.138$; 2007, $X^2(4, 107) = 1.154$, $p = 0.886$; and 2008, $X^2(4, 107) = 8.144$, $p = 0.086$. However, in 2006, Phi College was a statistically significant line predictor, $B = .05$, $p < 0.05$.

Regression results for 2004 indicated a model of one predictor, Phi Institute, that significantly predicted chapter recognition, $X^2(4, 107) = 10.756$, $p = 0.029$. The model accounted for 9.6% of the variance, as measured by *Adj.* R^2, in 2007 for the percentage of change in recruitment rates. Table 4.12 presents the coefficients for the model variables.

Table 4.12. *The Effect of Fraternity Central Office Leadership Programs on Chapter Recognition by Academic Year*

	2004[a]			2005[b]			2006[c]			2007[d]			2008[e]		
	B	*SE*	Exp(*B*)	*B*	*SE*	Exp(*B*)	*B*	*SE*	Exp(*B*)	*B*	*SE*	Exp(*B*)	*B*	*SE*	Exp(*B*)
Institute	.011	.040	1.011	.039	.035	1.040	-.039	.026	.962	-.008	.025	.992	.063*	.030	1.065
Challenge	.299*	.150	1.348	-.135	.103	.874	-.030	.047	.970	-.002	.074	.998	-.132	.093	.876
College	.074	.044	1.077	.049	.038	1.050	.049*	.022	1.051	-.018	.031	.982	.029	.031	1.030
UIFI	-.072	.120	.930	-.040	.079	.961	.012	.033	.988	-.036	.081	.965	-.138	.093	.871
Constant	-1.179	.299	.308	-.527	.263	.590	-.246	.276	.782	-.691	.291	.501	-.908	.331	.403
Cox&Snell R^2	.096			.040			.063			.011			.073		

[a] $X^2(4, 107) = 10.756, p = 0.029$
[b] $X^2(4, 107) = 4.365, p = 0.359$
[c] $X^2(4, 107) = 6.953, p = 0.138$
[d] $X^2(4, 107) = 1.154, p = 0.886$
[e] $X^2(4, 107) = 8.144, p = 0.086$

$^*p < 0.05$. $^{**}p < 0.01$. $^{***}p < 0.001$

Summary

This chapter discussed the findings and analysis of the data collected for this project. Descriptive statistics were presented for all the variables along with statistical analysis for each research question. Bivariate correlations were conducted to address the first research question. This analysis examined the relationship between independent variables (Phi Institute, Phi Challenge, Phi College, and UIFI) and dependent variables (GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition) based on a time period from 2003 to 2007. The overall results showed significant correlations between recruitment rates and chapter recognition and the independent variables in most years, while other variables such as GPA, initiation rates, and risk management violations were inconsistently related from year to year.

The second research question examined the effects of fraternity central office leadership programs on chapter outcomes including GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition. Multiple regression analyses were conducted for each dependent variable (chapter outcomes) from 2003 to 2007. While there were some statistically significant models, the predictors (independent variables) had the most effect on recruitment class size. Chapter 5 will discuss these results further. Chapter 5 will also examine research question 3, which was to determine a strategic plan for the organization (Phi) based from the results found in this study.

Chapter V

RESULTS

This chapter provides a review of the study and discusses the implications and relationships in the research. The first section of this chapter offers an overview of the study including the methodology used for the research. The next section summarizes the results. Finally, there is a discussion on how the results relate to previous research. This section also provides a strategic assessment plan for the organization (Phi). The chapter points out the limitations of the study and provides recommendations for future research.

Overview of the Study

Administrators in higher education view leadership development as an important aspect of a college education. There is abundance of leadership programs created to help students build leadership skills and develop leadership identity (Astin & Astin, 2000; Posner, 2004). The positive Effects leadership programs have on students include growth in civic responsibility, leadership skills, multicultural awareness, understanding of leadership theories, and consciousness of self (Cress et. al, 2001). Leadership skills can also be developed through interaction with peers, interaction with faculty, and participating in student organizations such as fraternities and sororities.

Involvement in fraternities and sororities can be a valuable asset to a student because the organizations can assist in leadership development (Harms et al., 2006). However, other studies have examined the negatives effects affiliation can have on

student development. The negative effects include alcohol abuse, hazing, and diversity issues (Molasso, 2005; Perkins, Zimmerman, & Janosik, 2011). Within the last five years, there has been an emphasis on the positive outcomes that affiliation can have for students that include cognitive and leadership development (DeBard & Sacks, 2010; Harms et al., 2006; Hayek et al., 2002). The major concern is that fraternities and sororities provide leadership programs, but they usually do not assess if proper outcomes are being met (Strayhorn & Colvin, 2006).

The primary purpose of this study was to determine if fraternity central leadership programs affect chapter outcomes such as GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition. This study analyzed data provided by a national fraternity, Phi (pseudonym) over a five-year period. This organization provides leadership programming for its members every year but does not assess the outcomes. Four of the organization's leadership programs were used as independent variables. Phi Institute is Phi's most popular program and is rooted in the organization's founding principles. Phi Challenge is a five-day outdoor leadership experience that focuses on team building skills such as trust, collaboration, leadership, and communication. Phi College is a leadership program held during Phi's annual General Convention. It consists of several education sessions focusing on the fraternity's core values: mutual assistance, intellectual growth, trust, responsible conduct, and integrity. Undergraduate Interfraternity Institute (UIFI) brings fraternity men and women from across the United States together to participate in leadership development opportunities.

The dependent variables used for this research were GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition. Chapter GPA was

measured on a scale of 0 to 4.0. Recruitment class size represented the percentage of change in recruitment classes from year to year. Initiation rates were based on the percentage of students in the recruitment class that were initiated. Risk management violations were based upon the risk management violations by a chapter. A chapter with no violations received a 0, and a chapter with a violation received a 1. Chapter recognition was based on whether or not a chapter received the fraternity's highest national award, the Phi Award (pseudonym).

The present quantitative study analyzed the relationship between fraternity central office leadership programs and chapter outcomes. To accomplish this task, bivariate correlations were computed to determine the statistically significant relationships between the independent and dependent variables for the years 2003 to 2007. In addition, multiple and logistic regressions were computed between each of the dependent variables and the four leadership programs.

Summary of the Findings

Results indicated that fraternity central office programs affect chapter outcomes. Research question one analyzed the relationship between fraternity central office leadership programs and chapter outcomes: GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition. Bivariate correlations were used to identify any statistically significant relationships between the leadership programs and the chapter outcomes for each year from 2003 to 2007. In 2003, chapter recognition had a statistically significant relationship with Phi Challenge (.26) and Phi College (.21). This indicated that chapters who sent men to these two leadership programs saw an increase in chapter recognition. Chapter recognition shared statistically significant relationships with

two dependent variables, GPA (.32) and risk management violations (-.25). Results indicated that an increase in GPA led to an increase in chapter recognition. Also, an increase in risk management violations led to a decrease in chapter recognition. There was also a negative statistically significant relationship between GPA and Phi College (-.30).

Correlations were found between risk management violations and Phi Challenge (.25) and Phi College (.24) in 2004. In 2004, the number of chapter with risk management violations increased as the percentage of attendance at these leadership programs increased. There was a statistically significant relationship between recruitment class size and UIFI (.31). This indicates that an increase in attendance at UIFI resulted in an increase of recruitment class size.

In 2005, there were statistically significant relationships between recruitment class size and Phi Institute (.34) and Phi Challenge (.30). Findings indicate that an increase in program attendance resulted in an increase in recruitment class size.

There were no statistically significant relationships between leadership programs and chapter outcomes in 2006. However, there was a negative statistically significant relationship between recruitment class size and initiation rates (-.21), which indicates that as recruitment class size increased, initiation rates decreased. There was also a correlation between GPA and chapter recognition (.04). These results demonstrated that an increase in chapter GPA led to in an increase in chapter recognition.

In 2007, recruitment class size had statistically significant relationships with Phi Institute (.40) and UIFI (.32). Findings indicate that an increase in program attendance resulted in an increase in recruitment class size. There were also correlations between

chapter recognition and GPA (.30) and risk management violations (.20). This indicates that as GPA and risk violations increased, chapter recognition increased.

Research question two investigated if fraternity central office leadership programs had an affect on chapter outcomes including GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition. Multiple regression analyses were conducted to determine the predictive value of the leadership programs on each of the chapter outcomes from 2003 to 2007. In 2003, regression results indicated that Phi College significantly predicted chapter GPA. While the model was not significant in 2005, Phi College was a statistically significant line predictor for chapter GPA.

In 2004 and 2007, UIFI significantly predicted the percentage of change in recruitment class size. The Phi Institute was a statistically significant predictor for percentage of change in recruitment class size for 2005 and 2007. Phi College was a statistically significant predictor for 2005. While the model was not statistically significant, Phi College was a significant line predictor for percentage of change in recruitment class size in 2006. Phi College, along with Phi Challenge, also significantly predicted chapter initiation rates for 2007.

The models used for analyzing the predictors for risk management violations were not statistically significant for 2003, 2005, 2006, and 2007 and did not have any significant predictors. The model for 2004 was statistically significant but did not have any significant predictors.

Regression results for 2004 indicated that Phi Institute significantly predicted chapter recognition. While the models for 2005, 2006, 2007, and 2008 were not

statistically significant, Phi College was a statistically significant line predictor for chapter recognition in 2005.

Discussion of Findings

Previous research argued that fraternities and sororities do not have an overall positive impact on student development (Pascarella, Flowers, & Whitt, 2006). This argument is strengthened by research that connects membership in a fraternal organization with binge drinking (Asel, Seifert, & Pascarella, 2009), hazing (Owen, Burke, & Vichesky, 2008), and the lack of chapter diversity (Pascarella &Terenzini, 2005). Other studies supported the idea that membership in a fraternity or sorority could have negative effects on cognitive development (Nelson et al., 2006; Pascarella, Flowers, & Whitt, 2006; Pike, 2003).

In contrast, results from this study indicated that affiliation with a fraternity does have a positive effect on GPA. The average chapter GPA for Phi during the five-year span of the study was 3.03. This is similar to previous research that determined membership in a fraternity or sorority has a positive impact on a student's cognitive development (Hayek et al., 2002). The literature indicates that there are positive outcomes of membership such as cognitive and leadership development (DeBard & Sacks, 2010; Harms et al., 2006), but there is little in the body of literature that analyzes the relationship between leadership programs provided by a fraternity central office and chapter outcomes.

Impact of Leadership Programs

One goal for this study was to determine which Phi programs were the most effective. It is important for an organization to know which programs are effectively

meeting their objectives and goals (Kirkpatrick, 2006). After analyzing the data from this study, Phi Institute and Phi College had the most impact on chapter outcomes. Phi College was a predictor for all of the outcomes except risk management violations. Phi Institute significantly predicted two of the outcomes. These two programs also had the highest percentage of attendance. These programs are the focus of the majority of Phi's training resources.

Recruitment class size had the most significant relationships with independent variables. This relationship indicates that the leadership programs are providing the information and skills the chapters need to have successful recruitments. However, there was a negative statistically significant relationship between recruitment class size and initiation rates for 2006, indicating that students in the recruitment class dropped out before the initiation process.

From this study, it is difficult to determine the reason for the negative relationship. However, research suggests that affiliation with a fraternity or sorority during the first year of college has a negative effect on student development (Pascarella, Flowers, & Whitt, 2006; Pike, 2003). This strengthens the argument that universities should conduct the formal recruitment process in the spring instead of the fall (deferred recruitment). Research points to a significant difference between the GPA of fall recruits and spring recruits (DeBard & Sacks, 2010). While Phi cannot predict initiation patterns based off of data from one year, the correlation with the data from 2006 does indicate initiation rates should be continuously analyzed.

Although this research focused on one fraternity's outcomes, these results could have implications for leadership training and student organizations. The study indicates

that leadership programming can have a positive effect on desired outcomes. Previous studies have had similar results. In a longitudinal study analyzing the impact that leadership training had on educational and personal development, Cress et al. (2001) found that leadership training had positive effects in the growth of civic responsibility, leadership skills, multicultural awareness, understanding of leadership theories, and consciousness of self. Posner (2009) concluded that students participating in leadership training had a significant increase in leadership behaviors.

The Social Change Model of Leadership Development

This study focused on chapter outcomes based on data provided by Phi. While it is important to realize how programs affect outcomes such as GPA, recruitment class size, initiation rates, risk management violations, and chapter recognition, there has been a shift to value-based outcomes grounded in positive change and collaboration (Dugan, 2006, 2008). Because of this shift, Phi should consider incorporating a more contemporary leadership model into their leadership programming. Dugan (2008) and Martin et al. (In Press) have analyzed the leadership development of fraternities and sororities using the Social Change Model of Leadership Development and found positive outcomes based on the model.

The Social Change Model of Leadership Development was developed by a group of experts in the field of student and leadership development (HERI, 1996). The model's main focus is to foster positive social change within involved organizations and communities (HERI, 1996). The Social Change Model is structured around seven core values: consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility, and citizenship. These constructs work together towards

ultimate goal of change. Though it is important for Phi to maintain current outcomes related to their ritual and founding principles (mutual assistance, intellectual growth, trust, responsible conduct and integrity), the organization could work to incorporate the core values of the Social Change Model into the leadership programs to provide a more meaningful experience for the members.

Phi could start the process of incorporating the Social Change Model into its leadership curriculum by having sessions at its leadership programs describing the model and how it relates to the organization. Since the constructs of the individual group (consciousness of self, congruence, and commitment) emphasize the importance of knowing one's beliefs and values (HERI, 1996), Phi could help its members identify their personal values with personal assessments such as the Myers-Briggs Type Indicator or Leadership Practices Inventory. These assessments can be administered to the members during the leadership programs. This would help the students understand their belief system and work toward building a leadership identity.

Through team building activities, Phi would be able to incorporate collaboration, common purpose, and controversy with civility into its curriculum. Team building activities could include indoor facilitation or a challenge course. Team building activities will require the participants to work together to achieve an objective or goal. They provide students with a chance to lead and learn from other students with different values and belief systems.

The last construct (citizenship) could be incorporated through a group service project. The service project allows students to integrate group skills learned during team

building exercises. The project will also help students understand the main purpose of the Social Change Model, which is positive change (HERI, 1996).

With the incorporation of the Social Change Model, there is a method (the Socially Responsible Leadership Scale) already developed to measure the constructs: consciousness of self, congruence, commitment, common purpose, collaboration, controversy with civility, and citizenship. The Socially Responsible Leadership Scale (SRLS) was created to assess values associated with the model. The SRLS has been used in previous research to determine the impact the Social Change Model has on students (Dugan 2006, 2008; Martin et al., In Press).

A Strategic Assessment Plan

Assessment practices in higher education have increased over the last few decades. Administrators are pressured by budget and resource constraints; therefore, assessment is essential to determining if resources are being used efficiently. Although it is a valuable way to determine how college experiences affect students, fraternities and sororities tend to steer away from assessment (Strayhorn & Colvin, 2006). Typically assessment focuses only on the reaction to the program instead of measuring the outcomes (Kirkpatrick, 2006).

The third research question for this study focused on the development of an assessment plan that Phi can use to measure its leadership programs. This plan was based from a model developed by Schuh, Upcraft, and Associates (2001). This model outlines ten steps in creating an effective assessment plan:

1. define the problem
2. determine the purpose of the study

3. determine where to get the information needed
4. determine the best assessment methods
5. determine who to study
6. determine how data will be collected
7. determine what instruments will be used
8. determine who should collect the data
9. determine how the data will be analyzed
10. determine the implications of the policy and practice (Schuh, Upcraft, & Associates, 2001, p. 18-23).

This study used these steps to create a plan to assess the leadership programs provided by Phi. This plan includes steps for immediate assessment and a longitudinal assessment plan.

1. Define the Problem

The main challenges for the organization are data collection and assessing the actual leadership programs. In this study, it proved difficult to sort through all the different databases provided by the organization. Biddix and Underwood (2010) encountered the same issue when analyzing outcomes of individual chapter members. For example, GPA, risk management violations, and chapter recognition were all in separate databases and were tracked under different fields in each database. Recruitment and initiation rates were in the same database, but the chapters in that database were not consistent with the chapters in the other three databases. As much as the central office would need access to data such as GPA, recruitment, initiation rates, and risk

management, it would be beneficial for the organization to have a centralized database to track individual members and chapters.

The lack of outcome assessment is also a concern. While Phi provides surveys at the end of its leadership program, the instrument only addresses a participant perception and overall satisfaction. Kirkpatrick (2006) outlined four steps in evaluating programs. Phi stops at the first step, reaction, and fails to address the remaining steps, which include learning, behavior, and results. Any long term plan created by Phi would benefit from incorporating measures to evaluate all four steps of Kirkpatrick's model.

2. Determine the Purpose of the Study

Based on the previously addressed problems, the purpose of the study would be to examine the impact that Phi's leadership programs has on its membership and to collect and centralize a more consistent body of data. For a long-term plan, Phi could use this assessment plan to analyze the impact of leadership programs on its members throughout their collegiate career. Once data is collected, Phi would be able to compare students who attend versus those who do not attend. This would allow the organization to promote the benefits of leadership training.

3 & 5. Determine Where to Get the Information Needed/Determine Whom to Study

Phi would be able to combine steps 3 and 5. The data used to assess the outcomes of leadership programs would come from students who attend leadership programs. It is important that Phi continues to collect data such as GPA, recruitment class size, initiation rates, and risk management violations, but this data should be entered into a centralized database.

For a longitudinal assessment, Phi should include all members in the fraternity. They could begin tracking students from their recruitment class to their graduation. This method would allow Phi to determine how leadership development affects members throughout their collegiate experience. This could be done with a pre-test self-rating, given when the student becomes an associate member, and a post-test self-rating. Throughout his academic career, the member will be assessed when he attends leadership programs so there will be continual flow of data from the members.

4. Determine the Best Assessment Methods

Quantitative methods provide objectivity, reliability, and validity to a study. However, Phi could use qualitative measures during the leadership program to help determine how effective the program is for the participants. There could be focus groups throughout the program continually assessing the students. Schuh, Upcraft, and Associates (2001) found that a combined method tends to work the best. Quantitative methods show what is happening, while qualitative methods indicate why it is happening (Schuh, Upcraft, & Associates, 2001).

6. Determine How Data Will Be Collected

Data can be collected at the leadership programs through questionnaires and interviews. This would provide an assessment of the student's reaction to the program. However, to evaluate learning and behavior, Phi needs to administer a pre-test and post-test at the leadership programs. These tests would allow Phi to determine outcomes from attendance.

Since the assessment process starts when students become members and because some members will not attend leadership programs, pre-tests and post-tests can be

administered in chapter meetings for the long-term assessment. This measurement will allow Phi to analyze the results of its programming, which is the last step in Kirkpatrick's (2006) evaluation model. These tests include demographic questions about which programs members attend to allow for further research on program impact.

7. Determine What Instruments Will Be Used

Strayhorn and Colvin (2006) stress that developing outcomes is a critical part of the assessment process. The outcomes dictate the purpose of the study and how data is collected. Phi has a few options for determining what methods can be used for an assessment plan. For immediate assessment, Phi could develop a survey that measures important outcomes based on its ritual and founding principles. However, it is recommended that Phi incorporate a more contemporary leadership model into their curriculum, such as the previously described Social Change Model.

If the organization is able to realign its curriculum, the Social Change Model provides a method, the SRLS, which is statistically valid (Tyree, 1998). This instrument could be used as an assessment tool at leadership programs, while measuring outcomes for the longitudinal assessment plan.

8. Determine Who Should Collect the Data

Phi should assign someone who is comfortable with data collection and entry. This individual will have control of the central database for the organization. Since data collection is a continuously, extensive task, the organization could use an intern from one of the chapters to help process the data. This will provide an opportunity for a student to gain experience at the central office in statistical research.

9. Determine How the Data Will Be Analyzed

There are several methods to analyze quantitative data. These analyses depend on the purpose of the study. Schuh, Upcraft, and Associates (2001) suggest using a consultant familiar with research methodologies for data analysis and interpretation. Phi could solicit volunteers from the alumni, or if resources are available, a consultant could be hired. The most feasible option would be to provide training for the individual who is assigned the task of data collection since he/she is the most familiar with the data.

10. Determine The Implications of the Study for Policy and Practice

After the assessment is completed, Phi should be able to determine which programs have the most impact on its members. It will also allow them to see which outcomes are being met. The assessment plan provides Phi with the data to make changes to or eliminate programs. The data determines if the organization needs to change its program outcomes or create new outcomes to meet the needs of a changing population.

Limitations of the Study

The primary limitation for this study was the data. As previously mentioned, the data used for this study was not centralized in one database making it difficult to interpret. The provided databases had missing data and resulted in a reduction of the study from seven years to five years. Lastly, outcomes for the study were based on the provided data. This data did not provide the opportunity to develop outcomes based on the organization's founding principles, which are outcomes for many of its leadership programs.

Statistically significant predictors should be interpreted with caution because the research does not measure other factors that could affect the outcomes. The majority of the regression models only explained 10% to 18% of the variance.

Recommendations for Future Research

For Phi, future research should include a study measuring the value of its leadership programs based on outcomes that structure its current leadership programs. The outcomes include mutual assistance, intellectual growth, trust, responsible conduct, and integrity. If the organization incorporates outcomes based on the Social Change Model into its programs, research can be conducted using the Socially Responsible Leadership Scale to determine if membership in Phi has an affect on the outcomes from the Social Change Model. Phi could use this data and compare members who attended leadership programs to those who did not attend the programs to have a better assessment of its programs.

There is little research on leadership development and student organizations. Future research should include a multi-campus study and multi-leadership theory designs to examine the value of leadership programming for student organizations. This data would be useful to administrators who are creating leadership programs or advising student organizations.

Conclusion

The study was conducted to determine if fraternity central office leadership programs affect chapter outcomes. The research indicated that the leadership programs did affect the outcomes. This study shows the involved organization (Phi) that its programs do have an affect on its chapters and the development of its members.

Fraternities and sororities have been and will continue to be a topic for research in higher education. While there has been a shift in the literature in the last decade that focuses on the positive outcomes of affiliation, there is little in the literature that indicates how leadership programming affects students in fraternities and sororities. This is a valid topic for research since universities, fraternities, and sororities have begun to focus on leadership development.

REFERENCES

Adams, T. C., & Keim, M. C. (2000). Leadership practices and effectiveness among Greek student leaders. *College Student Journal, 34*(2), 259-269.

Asel, A. M., Seifert, T. A., & Pascarella, E. T. (2009). The effects of fraternity/sorority membership on college experiences and outcomes: A portrait of complexity. *Oracle: The Research Journal of the Association of Fraternity Advisors, 4*(2), 1-15.

Astin, A. W. (1984). Student Involvement: A developmental theory of higher education. *Journal of College Student Personnel*, 25(4), 297-308.

Astin, A. (1999). Involvement in learning revisited: Lessons we have learned. *Journal of College Student Development*, 587-598.

Astin, A. W. (1993). *What matters in college: Four critical years revisited.* San Francisco, CA: Jossey-Bass.

Astin, A. W., & Astin, H. S. (2000). *Leadership reconsidered: Engaging higher education in social change.* Battle Creek, MI: W. K. Kellogg Foundation.

Astin, A. W., & Sax, L. J. (1998). How undergraduates are affected by service participation. *Journal of College Student Development, 39*(3), 251-263.

Atkinson, E., Dean, L. A., & Espino, M. M. (2010). Leadership outcomes based on membership in multicultural Greek council organizations. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors, 5*(2), 34-48.

Baird, W. R. (1991) *Baird's manual of American college fraternities.* Indianapolis: Baird's Manual Foundation, Inc.

Biddix, J. P., & Underwood, R. (2010). A ten year study of individual outcomes from a fraternity central office leadership program. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors, 5*(2), 1-21.

Case, D. N., Hesp, G. A., & Eberly, C. G. (2005). An exploratory study of the experiences of gay, lesbian, and bisexual fraternity and sorority members revisited. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors, 1*(1), 15-31.

Caudill, B. D., Crosse, S. B., Campbell, B., Howard, J., Luckey, B., & Blane, H. T. (2006). High risk drinking among college fraternity members: A national perspective. *Journal of American Health, 55*(3), 141-155.

Chapman, L., Hirt, J. B., & Spruill, N. R. (2008). The effects of sorority recruitment on self-esteem. *Oracle: The Research Journal of the Association of Fraternity Advisors, 3*(2), 38-51.

Cress, C. M., Astin, H. S., Zimmerman-Oster, K., & Burkhardt, J. C. (2001). Developmental outcomes of college students' involvement in leadership activities. *Journal of College Student Development, 42*(1), 15-27.

DeBard, R., & Sacks, C. (2010). Fraternity/sorority membership: Good news about first-year impact. *Oracle: The Research Journal of the Association of Fraternity Advisors, 5*(1), 12-23.

DeSantis, A. D. (2007). *Inside Greek U: Fraternities, sororities, and the persuit of pleasure, power, and prestige.* Lexington, Kentucky: The University Press of Kentucky.

DiChiara, A. N. (2009). Fraternal leadership: Differences in leadership practices among four governing councils. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors, 4*(2), 16-29.

Dugan, J. P. (2006a). Involvement and leadership: A descriptive analysis of socially responsible leadership. *Journal of College Student Development, 47*(3), 225-343.

Dugan, J. P. (2006b). Explorations using the social cahnge model: Leadership development among college men and women. *Journal of College Student Development, 47*(2), 217-225.

Dugan, J. P. (2008). Exploring relationships between fraternity and sorority membership and socially responsible leadership. *Oracle: The Research Journal of the Association of Fraternity Advisors, 3*(2), 16-25.

Dugan, J. P., & Komives, S. R. (2010). Influences on college students' capacities for socially responsible leadership. *Journal of Colleg Student Development, 51*(5), 525-549.

Eddy, P. L., & VanDerLinden, K. E. (2006). Emerging definitions of leadership in higher education. *Community College Review, 34*(1), 5-26.

Fouts, K. S. (2010). Why undergraduates aren't "going Greek": Attraction, affiliation, and retention in fraternities and sororities. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors, 5*(1), 24-33.

Freeman, J. P., & Goldin, A. (2008, February 27). The incresing importance of student leadership development programs in higher education. *NASPA Net Results*, pp. 1-5.

Haber, P., & Komives, S. R. (2009). Predictiong the individual values of the social change model of leaderhip development: The role of college students' leadership and involvement experiences. *Journal of Leadership Education, 7*(3), 133-166.

Hall, J. A., & La France, B. H. (2007). Attitudes and communication of homophobia in fraternities: Separating the impact of social adjustment function from hetero-identity concern. *Communication Quarterly* (1), 39-60.

Harms, P., Woods, D., Roberts, B., Bureau, D., & Green, A. M. (2006). Perceptions of leadership in undergraduate fraternal organizations. *Oracle: The Research Journal of the Association of Fraternity Advisors, 2*(2), 81-94.

Hayek, J. C., Carini, R. M., O'Day, P. T., & Kuh, G. D. (2002). Triumph or Tragedy: Comparing student engagement levels of members of Greek-letter organizations and other students. *Journal of College Student Development, 43*(5), 643-663.

Higher Education Research Institute (HERI). (1996). *A social change model of leadership develoopment: Guidebook version III.* College Park, MD: National Clearinghouse for Leaderhip Programs.

Keen, C., & Hall, K. (2009). Engaging with difference matters: Longitudinal student outcomes of co-curricular service-learning programs. *Journal of Higher Education, 80*(1), 59-79.

Kelley, D. R. (2008). Leadership development through the fraternity experience and the relationship to career success after graduation. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors, 3*(1), 1-12.

Kirkpatrick, D. L. (2006). *Evaluating Training programs:The four levels (3rd ed.)*. San Francisco, CA: Berrett-Koehler.

Komives, S. R., Longerbeam, S. D., & Owen, J. E. (2006). A leadership identity development model: Applications from a grounded theory. *Journal of College Student Development, 47*(4), 401-418.

Komives, S. R., Lucas, N., & McMahon, T. R. (2007). *Exploring Leadership: For college students who want to make a difference (2nd ed).* San Francisco, CA: Jossey-Bass.

Komives, S. R., Owen, J. E., Longerbeam, S. D., & Mainella, F. C. (2005). Developing a leadership identity: A grounded theory. *Journal of College Student Developoment, 46*(6), 593-611.

Komives, S. R., Wagner, W., & Associates. (2009). *Leadership for a better world: Understanding the social change model of leadership development.* San Francisco, CA: Jossey-Bass.

Kouzes, J. M., & Posner, B. Z. (2007). *The leadership challenge (4th ed).* San Francisco, CA: Jossey-Bass.

Landa, C. E., & Bybee, J. A. (2007). Adaptive elements of aging: Self-Image discrepancy, perfectionism, and eating problems. *Developmental Psychology, 43* (1), 83-93.

Martin, G. L., Hevel, M. S., Asel, A. M., & Pascarella, E. T. (In Press). New eveidence on the effects of fraternity and sorority affiliation during the first year of college. *Journal of College Student Development*.

Matney, M., & Taylor, S. H. (2008). Framing the dialogue: A new, collaborative approach to the hazing dilemma. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors, 3*(2), 1-15.

McClure, S. M. (2006). Voluntary association membership: Black Greek men on a predominantly white campus. *The Journal of Higher Education* (6), 1036-1057.

Micari, M., Gould, A. K., & Lainez, L. (2010). Becoming a leader along the way: Embedding leadership training into a large-scale peer-learning program in the STEM disciplines. *Journal of College Student Development, 51*(2), 218-230.

Middlehurst, R. (2008). Not enough science or not evough learning? Exploring the gaps between leadership theory and practice. *Higher Education Quarterly, 62*(4), 322-339.

Molasso, W. R. (2005). A content analysis of a decade of fraternity/sorority scholarship in student affairs research journals. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors,* 1(1), 1-9.

Murnen, S. K., & Kohlman, M. H. (2007). Athletic participation, fraternity membership, and sexual aggression among college men: A meta-analytic review. *Sex Roles, 57*, 145-157.

Nelson, S. M., Halperin, S., Wasserman, T. H., Smith, C., & Graham, P. (2006). Effects of fraternity/sorority membership and recruitment semester on GPA and retention. *Oracle: The Research Journal of the Association of Fraternity Advisors, 2*(1), 61-73.

North-American Interfraternity Conference. (2011, May 31). About NIC. Retrieved from http://www.nicindy.org/about/

Owen, S. S., Burke, T. W., & Vichesky, D. (2008). Hazing in student organizations: Prevalence, attitudes, and solutions. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors* (1), 40-58.

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research.* San Francisco, CA: Jossey-Bass.

Pascarella, E. T., Flowers, L., & Whitt, E. J. (2006). Research revisited: Cognitive effects of Greek affiliation in college: additional evidence. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors, 2*(2), 117-132.

Pike, G. R. (2003). Membership in a fraternity or sorority, student engagement, and educational outcomes at AAU public research universities. *Journal of College Student Development, 44*(3), 369-382.

Perkins, A. B., Zimmerman, J. D., & Janosik, S. M. (2011). Changing trends in the undergraduate fraternity/sorority experience: An evaluative and analytical literature review. *Oracle: The Research Journal of the Association of Fraternity/Sorority Advisors,* 6(1), 57-73.

Posner, B. Z. (2004). A leadership Development instrument for students: Updated. *Journal of College Student Development, 45*(4), 443-456.

Posner, B. Z. (2009). A longtudinal study examining changes in students' leadership behavior. *Journal of College Student Development, 50*(5), 551-563.

Ricketts, K. G., Bruce, J. A., & Ewing, J. C. (2008). How today's undergraduate students see themselves as tomorrow's socially responsible leaders. *Journal of Leadership Education, 7*(1), 24-41.

Ross, L. C. (2000). *The Divine Nine: The history of African-American fraternities and sororities.* New York: Kensington Publishing Corp.

Rost, J. C. (1991). *Leadership for the twenty-first century.* New York: Praeger Publishers.

Rudolph, F. (1990). *The American college and university.* Athens, GA: The University of Georgia Press.

Schuh, J. H., Upcraft, L. M., & Associates. (2001). *Assessment practice in student affairs.* San Francisco, CA: Jossey-Bass.

Severtis, R. E., & Christie-Mizell, C. A. (2007). Greek-letter membership and college graduation: Does race matter? *Journal of Sociology & Social Welfare,* (3), 95-117.

Shertzer, J. E., & Schuh, J. H. (2004). College student perceptions of leadership: Empowering and constraining beliefs. *NASPA Journal , 42* (1), 111-131.

Statistical Package for the Social Sciences (Version 19.0 for Mac) (2010). [Computer Software]. Chicago; SPSS.

Strayhorn, T. L., & Colvin, A. J. (2006). Assessing student learning and development in fraternity and sorority affairs. *Oracle: The Research Journal of the Association of Fraternity Advisors,* 2(2), 95-107.

Thompson, M. D. (2006). Student leadership porcess development: An asssessment of contributing college resources. *Journal of College Student Development, 47*(3), 343-350.

Trice, H. M., & Beyer, J. M. (1991). Cultural leadership in organizations. *Organization Science* (2), 149-169.

Tyree, T. M. (1998). Designing an instrument to measure socially responsible leadership using the social change model of leadership development. *Dissertation Abstacts International, 59*(06), 1945.

Appendix A:

IRB Approval

RECEIVED JUL 10

Valdosta State University

APPLICATION FOR USE OF HUMAN PARTICIPANTS IN RESEARCH

PLEASE RETAIN FORMAT ON ALL SEVEN PAGES

INSTRUCTIONS: Complete this form by checking all appropriate boxes, answering questions completely, attaching required documents, and signing the Certification Statement. Submit application to the Office of Grants & Contracts. *(Incomplete applications will be returned unreviewed.)*

FOR IRB USE ONLY: IRB - D2419 - 2009
Received: 7-10-09 Reviewed: 7-16-09
Exemption: ☒ Yes ☐ No Category(ies): 4
Reviewer Signature: B. Gray
Expedited: ☐ Yes ☐ No Category(ies): _____

Project Title: Beta Theta Pi Leadership Outcome Assessment

Responsible Researcher: J. Patrick Biddix

Department: Curriculum, Leadership, and Technology

E-mail: jpbiddix@valdosta.edu

Telephone: 229-333-5633

Mailing Address *(if Student):*

_____

_____

Project Dates: From 06/10/09 (MM DD YY) To: 07/31/09 (MM DD YY)

Minimum # of Participants (including controls): _____

Maximum # of Participants (including controls): _____

External Funding: ☐ Yes ☐ No

If YES, **Sponsor:** _____

(Note: If the research is or will be externally funded, include a copy of the portion of the proposal or award that describes the use of human participants with your application.)

VSU Status:
X General Faculty
☐ Adjunct Faculty
☐ Research Associate
☐ Administrator/Staff Member
☐ Graduate Student
☐ Undergraduate Student
☐ Other: _____

If you are a VSU student, please indicate the academic purpose of the proposed research:
☐ Doctoral Dissertation
☐ Master's Thesis
☐ Undergraduate/Honors Senior Project
☐ Other: _____

(Note: If your research is subject to oversight by another institution's IRB (i.e., the research is intended to satisfy degree requirements at another institution), please consult with the IRB Administrator by calling 229-259-5045.

Co-Investigator Name(s)	Institutional Affiliation*	E-mail Address	IRB FWA Number
John Wright		jowright@valdosta.edu	

**If not affiliated with Valdosta State University. If any Co-Investigator is not affiliated with an institution that has a federally-assured IRB, he/she will be required to complete IRB training and execute an "Unaffiliated Investigator Agreement" with the VSU IRB.*

Applicability of IRB Oversight of Student-Conducted Projects:

Most student-conducted **class assignments** that involve observing, surveying, interviewing, or otherwise interacting with other individuals do not constitute "research" as defined by the VSU IRB and are not are not subject to IRB oversight. Specifically, the following types of student projects that do not require IRB oversight include those that:

- Are conducted solely within the confines of the classroom or within a departmental research participant pool if they:
  - are a general requirement of a course,
  - have the sole purpose of developing the student's research skills, and
  - will be overseen by a faculty member; or
- Are conducted outside the classroom and outside departmental research participant pools, provided they do not involve minors, do not target vulnerable adult populations, do not pose a risk of physical harm to pregnant women and fetuses, do not deal with a topic of sensitive or personal nature unless data are collected anonymously, and do not involve any type of activity that places the participants at more than minimal risk. ("Minimal risk" is defined in Question 9 of this application form.)

Other student-conducted research activities that are not subject to IRB overview as independent research protocols include those that:

- Are part of a larger research project that has current Valdosta State University IRB approval, and the approved protocol includes student engagement in the specific activities; or
- Are part of a larger research project that has current approval of a federally assured IRB at another institution.

IRB-02419-2009

Helen Joy Morgan

From: Helen Joy Morgan [hjmorgan@valdosta.edu]
Sent: Friday, July 17, 2009 2:13 PM
To: 'Dr. James P Biddix'
Cc: 'Barbara Gray'; 'Dr. Don Leech'
Subject: Exempted IRB (Beta Theta Pi Leadership Outcome Assessment)
Attachments: Biddix - IRB-02419-2009 Exemption Report.doc

Please find attached the Protocol Exemption Report for your recently submitted IRB application. Your protocol has been exempted under Criterion 4, and you may begin your research immediately. Note that the attached report may contain additional comments and/or suggestions. These are offered by the IRB to enhance protection of the participants and/or strengthen the research proposal, but their implementation is not mandatory. However, should you implement any of these suggestions; the IRB asks that you provide updated documents so that your official IRB file remains current. If the nature of your project changes in the future such that exemption criteria may no longer apply, please consult with the IRB before implementing any protocol changes.

Helen Joy Morgan
Valdosta State University
Regional Center for Continuing Ed.
903 N. Patterson St.
Office of Sponsored Programs
& Research Administration, Room 213
Valdosta , GA 31698
Phone 229-259-5045
Fax 229-245-3853
hjmorgan@valdosta.edu

Appendix B:

Permission letter from Phi

APP

July 22, 2009

To Whom It May Concern:

On behalf [redacted] Fraternity, I confirm that our organization is working collaboratively with Patrick Biddix on a research project to assess the longitudinal impact of our leadership development programs on the individual, chapter and international organization.

We have reviewed the IRB application, agree to the study's methodology, and have accepted the signed Letter of Confidentiality from Dr. Biddix.

Please let me know if you need additional information from me or our organization as part of your approval process for Dr. Biddix's research study.

Sincerely,

Judson A. Horras
Administrative Secretary