A Quantitative Study of Leadership Self-Efficacy and Peer Mentorship at the University of Wisconsin-La Crosse

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A Quantitative Study of Leadership Self-Efficacy and Peer Mentorship at the University of Wisconsin-La Crosse

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We recommend acceptance of this thesis in partial fulfillment of the candidate's requirements for the degree of Master of Science in Education, Student Affairs Administration.

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ABSTRACT


This quantitative study was conducted to examine peer mentoring, gender, and leadership self-efficacy of students at the University of Wisconsin-La Crosse (UW-La Crosse). Using the 2009 Multi-Institutional Study of Leadership instrument, a random sample of 4,000 students at UW-La Crosse were invited to participate in the study. A two-tailed t-test was used to examine if peer mentoring relationships made a significant difference in the leadership self-efficacy of UW-La Crosse students. This study found that students who engaged in peer mentoring relationships did have a significantly different leadership self-efficacy score than their peers who did not engage in peer mentoring activities. Additionally, a univariate analysis of variance was used to examine the differences that peer mentoring and gender had on leadership self-efficacy. While peer mentoring was found to have a significant difference, gender did not. The mean self-efficacy scores and standard deviations for the University of Wisconsin-La Crosse were compared against the averages of several comparison categories. The averages were very close, indicating that UW-La Crosse is on par with similar institutions regarding the leadership self-efficacy of their students.
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CHAPTER ONE

INTRODUCTION

On the campus of South Dakota State University, there is a young organization whose members are having a significant impact on the students, campus, and the entire local community. In 2002, a colony of the Delta Chi fraternity was founded by a group of student leaders who were unsatisfied with the status quo. They were looking for an opportunity to surround themselves with individuals who were looking to make a difference, to grow and develop as ethical leaders. In that time, members have served in a variety of leadership roles across campus ranging from orientation, residence life, and student government. Since their founding, a Delta Chi team has won the executive office of the South Dakota State University Students’ Association every year. The lessons of ethical leadership development are transferred from one generation of students to the next, preparing future leaders to continue and finish projects started by their predecessors, as well as the knowledge of how to be successful in starting their own projects. This legacy of leadership is a cornerstone of the organization, and they strive to ensure that the future leaders of Delta Chi have the skills necessary to continue the work of the organization, and for the individual members to develop the traits and values of an ethical leader.

The men of Delta Chi are able to continue their tradition by mentoring their fellow students. This could be through a formal “Big Brother/Little Brother” pairing,
where the established member takes it upon himself to educate the new member about the history, traditions, and values of the organization, as well as the expectations of membership. Or it may be through informal methods, where a Delta Chi member notices a young student leader with potential, and works with him or her to develop their natural abilities and provide the tools and knowledge to become a stronger leader. Regardless of the method, it ultimately comes down to students mentoring other students. It occurs on campuses across the country, whether through peer advising sessions offered from the math department or a resident assistant in the residence halls. Students are helping other students succeed. Studies indicated that these student communities, like fraternities and sororities, could help pass the organizational values and views of leadership from one generation to another (Shertzer et al., 2005). When a university provides support to student communities, it may even lead students to value leadership at a greater level than their peers (Arboleda, Wang, Shelley II, & Whalen, 2003).

**Statement of the Problem**

If there were no upside to the practice of mentoring, individuals and organizations would not spend their time, energy, and money on the practice. In 2002, five million American youths participated in mentoring programs across the country (Grossman & Rhodes, Spencer, Keller, Liang, & Noam, 2006). Through mentoring, we are able to share information, best practices, and new skill sets. Organizations that encourage this practice can help ensure employees are not only trained, but also continuing to grow as professionals. The institutional wisdom and history is passed on from one generation to the next. In college, tradition can begin or end in four years. The turnover of leadership in organizations of all backgrounds has increased in frequency, and higher education is no
exception (Manderscheid & Ardichvili, 2008). Disruptions in leadership can be detrimental to all organizations, whether it is student government or a Fortune 500 company (Watkins, 2003). In addition, the turnover in student organizations is frequent and can be a major factor in the success of these organizations.

To address the problems of turnover, individuals benefit from the prior experiences and knowledge of their mentors, which can help them overcome some challenges and pitfalls that await them, whether in business or life. Mentors can also provide a source of positive reinforcement and help to change unconstructive aspects of their mentee, which can have an impact on their self-confidence (Rhodes et al., 2006). These older peers may also serve as a motivator for students to join groups and clubs, as well as run for office (Komives, Mainella, Owen, Osteen, & Longerbeam, 2005). As students transition to a university setting, their peers begin to take on a more important role (Swenson, Nordstrom, & Heister, 2008). As students shift away from family, their friends are there to support them (Fraley & Davis, 1997). Providing support, understanding, compassion, and empowerment are pivotal during periods of development for young adults (Liang, Tracy, Taylor, & Williams, 2002). The community that students can experience from their peers on a college campus helps to make this happen. This can be found in Greek Life housing, Residence Life programs, or with friends and roommates living together off campus. Involvement in these communities can also shape the student’s views of leadership, making the peers very influential. University officials can do many things to try and foster this sense of community, but it is the students themselves that ultimately create this type of environment (Shertzer et al., 2005).
As more research regarding mentoring relationships and leadership begins to surface, higher education must prepare for the findings. What new programs could be developed to better prepare students for success in academics as well as the workplace? Examples of ways to support the needs of students include finding ways for services provided by academic advising to become more efficient, leadership programs expanding in breadth and depth, and revolutionizing the way new student orientation operates. Institutions of higher education will need to be able to utilize best practices in order to serve its students. However, prior to implementing these changes, we need a richer understanding of the current leadership development of college students, particularly how it might fit with a peer leadership model.

**Statement of Purpose**

The purpose of this study was twofold: to understand college student leadership development at a deeper level, and to specifically assess the relationship and potential impact that student peer mentorship has on a student’s leadership self-efficacy. Would students who engage in mentoring relationships with fellow students exhibit different leadership self-efficacy outcomes than those students who did not engage in mentoring relationships with other students? This research was also conducted to determine if gender differences had an impact on students regarding participation in peer mentoring relationships and leadership self-efficacy. By conducting this study, the University of Wisconsin-La Crosse (UW-La Crosse) will be able to review student feedback regarding their leadership skills, and utilize the data to find ways to improve the services provided to students.
Significance of the Study

Institutions of higher education are expected to educate the leaders of tomorrow. This is no longer limited to academics, but also involves developing leadership skills and turning out engaged citizens (Rost, 1993). Despite this new focus on leadership, many institutions are struggling to understand their role in helping students develop as leaders (Cress, Zirnmerman-Oster, & Burkhardt, 2001). Mentoring is sometimes viewed as a component of leadership development that we do not develop thoroughly (Scandura, Tejeda, Werther, & Lankau, 1996). Specifically, mentoring processes can be an important part in building leadership methods and skills (Gibson, Tesone, & Buchalski, 2000). The theoretical implications of this study will provide additional support to the previous research conducted regarding mentoring, peer mentorship, and the leadership skills of those individuals involved in mentoring relationships. The results of this study could help to determine if a difference exists between mentorship and the leadership abilities of college students in peer mentoring relationships.

While there has been research to determine the impact of mentoring, it has traditionally focused on the hierarchical or older-younger mentoring relationships (Gregson, 1994). Much work needs to be completed in the realm of peer mentoring. Specifically, is the mentoring relationship developed between students within leadership positions as supportive and beneficial for students as other models of mentorship? This study could help to legitimize the role of student peers as mentoring partners, which could significantly change how university mentorship programs are designed and operated.
Utilizing the results of the Multi-Institutional Study of Leadership (MSL) data, UW-La Crosse will be able to analyze the current state of leadership self-efficacy of their students. Cartwright Center and the Leadership and Involvement Center will be able to utilize the results of the study to examine the strengths and weaknesses of the students they serve. A better understanding of the leadership skills and abilities possessed by UW-La Crosse students will allow the Leadership and Involvement Center to determine the types of programs and services they can implement to help meet the needs of the students they serve. Depending on the findings of the study, peer mentorship programs could be initiated across campus in both Academic Affairs and Student Affairs to maximize the effectiveness of programs. Tutoring centers could modify their methods to improve academic learning and the services they provide. First Year Experience programs instituted by the institution could include a mentoring component with upper classmen which could ease the transitions of new students to the university, and increase the retention of students while improving their leadership skills. While the mission of each institution is rooted in academic learning, institutions across the country are incorporating leadership development into their mission statements. With this increased interest in helping prepare students for future leadership roles, results of this study could help determine how best to prepare the next generation of leaders.

**Limitations of the Study**

When conducting this study, there were certain limitations that must be recognized. One of the first is the challenge of understanding peer mentorship. Students have different views of mentoring, and it can be difficult to distinguish between a peer mentoring relationship and general friendship. This study focuses on peer mentoring...
relationships, and not general mentoring relationships. Further analysis of mentoring could be beneficial for future studies. The MSL instrument is a large instrument and researches many different variables. This study focuses on a few variables specifically related to the research questions. In addition, the ethnic demographics of UW-La Crosse are limited, as it is a predominately European American student body. The lack of a diverse ethnic population makes it difficult to accurately apply an analysis to the data results.

Research Questions and Hypotheses

To guide this study, the following research questions were developed:

R1: Are there differences in the leadership self-efficacy between a group who acted as peer mentors in college and a group who did not act as peer mentors in college?

R2: Of the students who identified as being involved in peer mentoring relationships, are their differences in the leadership self-efficacy outcomes based on gender?

The following hypotheses were used in this study:

HO:1: There is no significant difference between the leadership self-efficacy of students who are engaged in peer mentoring relationships and those students who are not engaged in peer mentoring relationships.

HO:2: There is no significant difference in the leadership self-efficacy scores between genders and students who identified as being involved in peer mentoring relationships.

Definition of Key Terms

Leadership Self-Efficacy - Efficacy beliefs influence how people think, feel, motivate themselves, and act” (Bandura, 1995). Leadership self-efficacy, then, can be described as the ability of students to engage in leadership behaviors.
**Mentee**- One who is being mentored (www.merriam-webster.com, 2010). This meaning avoids the hierarchical structure that students may not recognize, and allows for the inclusion of formal or informal relationships.

**Mentor**- A mentor can be described as “a trusted counselor or guide” (www.merriam-webster.com, 2010). In practical terms, a mentor is someone who helps another person learn a new skill, gain additional knowledge, or overcome an obstacle.

**Peer mentor**- Peer mentors are college students who mentor other students. One of the difficulties in determining a peer mentorship stems from the fact that it may be difficult for students to determine if they are in this mentoring relationship. Many preconceived notions about mentoring leads inexperienced people, like students, to see these relationships as only between older and younger people. Students may perceive a peer mentoring relationship as nothing more than a friendship, failing to even see the benefits they may be receiving as a part of this relationship. In this study, peer mentoring is defined by affirmative answers to the question “I spend time mentoring other group members” in the MSL instrument.

**Conclusion**

This chapter provided an introduction to the study, the statement of the problem, purpose and significance of this study, study limitations, an overview of the research questions, and definitions of key terms used throughout the study.
CHAPTER TWO

REVIEW OF SELECTED LITERATURE

This section provides a summary of the literature regarding the Multi-Institutional Study on Leadership (MSL) survey, leadership, and mentorship. It also addresses the gender differences as they relate to leadership and mentorship for students. The existing literature is organized into the following sections: leadership development, gender differences, the role of women, gender and leadership style, mentorship, peer mentorship, leadership and mentorship congruence, and the MSL.

Leadership Development

Leadership is the great intangible. How do we measure it? How do we teach it? Burns (1978) once said, “Leadership is one of the most observed and least understood phenomena on earth” (p. 2). While there are many articles on the topic of leadership, there has been little studied on how someone develops a leadership identity (Komives et al., 2005). Leaders do not have to hold a recognized leadership position, it can be anyone who can help affect positive change around them (Astin, A. W. & Astin, H. S., 2000).

Leadership is something that can be difficult to explain, but easy to spot. Institutions of higher education across the country offer many ways to promote and teach leadership development to student on campus. Some institutions, including the University of Wisconsin-La Crosse (UW-La Crosse), spend a significant amount of resources to improve student leadership, and even have student centers devoted to the advancement of
student leadership on college campuses (Shertzer et al., 2005). Astin states that
“leadership development” is a task of a university to “empower” their students (2000, p. 289). By understanding leadership identity development, it may lead to a better design of leadership programs (Komives et al., 2005). Leadership development for students is not only a means for learning, but a cornerstone of higher education (Dugan, 2006).
Involvement, whether through a student organization, volunteering in the community, or participation in other university activities can help college students develop stronger leadership skills. Participation in these sorts of activities is essential to student pleasure and accomplishment (Astin, 1984). Getting involved in one activity or organization in college is likely to lead to increased involvement on campus, and developing a sense of connectivity to the institution (Abrahamowicz, 1988).

One of the characteristics of today’s Millennial students is their desire to get involved on campuses, whether in a student organization or in the community. Their predisposition for involvement can make the job easier for university officials in getting student participation in groups and activities (Shertzer, et al., 2005). The expectations and mind-set of today’s students are different than those of students from previous generations (Young & Kochan, 2004).

There are a variety of leadership styles and methods exhibited by college students. Students often view leadership as an attribute that people are born with when they enter the university setting. Their view on leadership may be limited to someone in a position of authority. One of the first views of leadership was the Great Man Theory, the idea that one man could shape the world as he saw fit (Burns, 2004). These great leaders were viewed as the ones behind everything, it was their work that made things happen. But as
those Great Men stumbled, this theory went with them (Burns, 2003). As they began to work with peers and experience leadership opportunities, their views on leadership shifted to a realization that leadership is a process that can be done in a group (Komives, Mainella, Longerbeam, Osteen, & Owen, 2006). Institutions themselves gain knowledge through the experiences of people working in them. An institution can learn through changes, and to have change, transformational leadership is often required (Burns, 2003). Leadership at a very simple level, is the act of change (Mavrinac, 2005). Everyone has their own personal learning style, and learning what style of leadership fits them best is no different. While some learn leadership out in front of a group, others develop their styles as a part of a leadership team (Fleming & Love, 2003).

According to Manz and Sims (1987), for those leaders who empowered those around them to take the initiative, they may have helped to increase the leadership efficacy of those around them. This leadership style is often associated with transformational leadership. Transformative leadership was the “radical change in outward form or inner character” (Burns, 2004, p. 24). The changing from one leader to another may not constitute transformative leadership, merely a transactional one, something different. Transformative leadership is a fundamental shift in the culture of a person or organization, dramatically changing their knowledge and actions (Burns, 2003). The focus of the social change model of leadership rests in the idea that leadership should reflect what is best for the common good, and what is fair to all (HERI, 1996). The social change model is a broad theory that can be applied to many situations (Moriarty & Kezar, 2000).
Despite ongoing studies, research examining the connection between leadership theory and actions are limited (Dugan, 2006). In the research the role of self-efficacy is very important (Komives, Longerbeam, Owen, Mainella, & Osteen, 2006). Leadership self-efficacy is a reflection of the confidence a person has in their skills and abilities to lead (Murphy, 2002). The decision-making ability of individuals is one skill in particular that is significantly impacted by leadership self-efficacy (Wood, Bandura, & Bailey, 1990). When an individual has a high leadership self-efficacy, the frequency in which they attempt to be a leader increases (McCormick, Tanguma, & López-Forment, 2002). Leadership self-efficacy is an important factor in decisions of an individual to attempt to lead (Dugan, Garland, Jacoby, & Gasiorski, 2008). Self-efficacy can affect a student’s persistence and performance, leading to a more successful college experience or leadership endeavor (Bandura, 1997). Student self-efficacy can be impressionable; meaning that outside influences can have a significant impact on the skills and abilities of students (Bandura & Locke, 2003).

**Gender Differences in Leadership**

After 40 years of examining differences between the genders, many of the studies found conflicting results (Dugan, 2006). Ronk was unsuccessful in finding a connection between masculine and feminine characteristics and leadership quality (1993). Other studies have found that a person’s gender had no significant impact on his or her leadership abilities (Campbell, Boomer & Yeo, 1993). In contrast, some studies have found a difference, whether perceived or real, in the leadership of men and women. One study found that women affected their environment differently than their male counterparts as a result of their leadership style (Smith & Smits, 1994). Another research
study found that groups preferred men who utilized male leadership traits and women who used female leadership traits, conforming to gender stereotypes (Eagly, Harau, & Makhyani, 1995).

If there are differences in leadership between men and women, is it really a problem, or simply a difference (Korac-Kakabadse, A., Korac-Kakabadse, N., & Myers, 1998)? While women constitute more than half of the population, their representation in leadership positions is underrepresented. Since the 1990’s, there has been an increase in the number of women in various leadership roles, ranging from business to politics. While increasing numbers of women are attaining positions of power, it is still greatly disproportionate to the number of men in similar positions (Carli & Eagly, 2001).

**The Role of Women**

Women are stereotyped as lacking the qualities and characteristics necessary for leadership (Young & Kochan, 2004). Does our society provide an environment that is supportive of women and leadership? One study suggests that the combination of the media, the lack of women in leadership positions, and our society may place women and leadership at odds with each other. In fact, they found women were “less optimistic than men about holding powerful leadership positions, and they indicated particularly strong reservations about positions of political leadership” (Lips, 2000, p.40). Lips hypothesized that the concerns of women stemmed from their judgment about the challenges they face as female leaders, not necessarily a lack of confidence in themselves (2000). An earlier study also completed by Lips stated that young women were more likely than men to be apprehensive to even take on leadership roles. While women expressed interest in high
profile careers, they were concerned how they would be perceived in those roles. Despite their career ambitions, they were still hesitant to take on leadership roles (Lips, 1993).

However, that traditional view of leadership, which focused on masculine qualities, is shifting more towards the female characteristics. Females also describe leadership in different terms as men, such as “equity” and “team building” (Kezar, 2000). The world is constantly changing; as it changes, viewpoints change, businesses change, and leadership styles change. These changes are not made instantly; it takes years to make the shift in styles (Trinadad & Normore, 2006). The limited number of women in formal leadership roles was once attributed to the lack of qualified candidates for these positions, otherwise known as the “pipeline problem.” However, Ragins, Townsend, and Mattis stated that as there has been a significant growth of females earning advanced degrees and entering the workforce, this ideal has been eroding (1998). The latest explanation for the disparity in leadership positions is credited to the “Glass Ceiling,” which originated in the Wall Street Journal. The concept states that despite all their efforts, women are only able to advance so far (“The Corporate Woman,” 1986). As women continue to play a more prominent role in various leadership positions, the concern they will yield their authority in a different ways then men is not as upsetting for some as it may have been a few years ago (Carli & Eagly 2001).

Gender and Leadership Style

While a different time may have preferred a more authoritarian approach to leadership, that is not the case today. The Great Man theory is an excellent indication that female leaders and their leadership qualities were not even a part of the discussion in the past; leadership was men’s domain (Johanson, 2003). Organizations are growing
horizontally rather than vertically, and so leadership styles are changing to reflect that.
The differences between men’s and women’s leadership styles could play a significant role in determining the success of an organization (Trinadad & Normore, 2006). Leadership theorists continue to argue that leadership today needs a more feminine approach. But what about “female” leadership styles differs from “male” leadership styles? A traditionally male style has been stereotyped as assertive, self-reliant, certain, objective, well informed, and direct, while female leadership styles incorporate themes like helpful, organized, and perceptive (Johanson, 2008).

While it is important to understand different leadership styles, it is equally important to not categorize all women leaders as following one specific style of leadership. The stereotypes associated with gender begin to play a part in our assumption of leadership stereotypes we associate with males and females (Eagly & Karau, 2002). Women face the unique challenge of displaying “feminine” leadership characteristics, while still exhibiting masculine traits (Trinadad et al., 2006). They must balance traits like candor with sociability. Failure to do so may lead men to resent their female superiors (Carli & Eagly, 2001). Even communication styles have been stereotypically broken down. Men’s communication styles are characterized by “teasing” and direct communication, while women’s styles are more considerate. If women leaders do adopt the more masculine communication style, they are less likely to receive a positive reaction to it (Page, 1996).

One could argue that men have been provided more leeway in their style of leadership without negative connotations (Eagly, Makhijani, & Klonsky, 1992), while women are more likely to be confined to stereotypical feminine leadership traits (Bennett
1982; Kierstead, D’Agostina, & Dill, 1988; Martin 1984). Another option in viewing and understanding leadership is to look as a gender-neutral concept, disregarding identifying characteristics associated with a particular leadership style (Shum & Cheng, 1997).

However, despite the different styles of leadership, is there a measurable difference in the leadership skills of men and women? According to the self-reporting of Air Force leaders, the leadership actions of males and females in similar positions were not that different (Day & Stogdill, 1972). With no solid evidence to suggest that either men or women have naturally stronger leadership skills, how have these perceived differences developed? Why are women viewed and treated differently when it comes to leadership? For many, capability and experience is more important than gender. Men are perceived to have more experience in leadership traits than women, which feeds into a stereotype of male leadership superiority (Bunyi & Andrews, 1985; Lucas & Lovaglia, 1998). One study found that in a group of mixed-gender people, a woman would need to do all the work in order to be seen as a leader. If a man contributed in any considerable way, they were likely to be viewed as the leader instead of the woman (Morgan, 1994). The selection of the leader may also depend on the task at hand, with men often being chosen for the “masculine” roles and women for the “feminine” activities. However, if the group has been together for an extended period of time, the more likely the leader will be selected based on their skills and abilities rather than their gender (Moss & Kent, 1996).

**Mentorship**

Across our culture, we see examples of mentoring relationships in the media. Whether it is Obi Wan Kenobi and Luke Skywalker in *Star Wars*, Ray Charles mentoring
fellow musician Quincy Jones, or Ralph Waldo Emerson mentoring Henry David Thoreau, the examples are there. A quick search for “mentors” in the latest periodicals will yield many articles. These can include coaching (“Big Cat says he's ready to mentor Cabrera,” 2010) to volunteering (“Woodworkers mentor Evansville youths,” 2010) to music (“Drake on Mentor’s Prison Time,” 2009) to terrorism (“Imam was undie mentor,” 2010). Why would organizations and individuals alike place any emphasis on mentorship? What benefits are there to be gained? Finding one definition of mentoring is as difficult as finding one definition of leadership.

To answer these questions, a person’s own experiences, understanding, and viewpoint will shape their understanding of the subject. People hold different views on what it is, what approaches are best, and who should be a part of a mentoring relationship (Stead, 1997). Part of the struggle in understanding the role of a mentor lies in the differing definitions (Horgan & Simeon, 1990). Traditionally, a mentoring relationship exists between two people, an older and younger person. The older member takes the younger member under his or her wing, and teaches them about the organization, about leadership styles and methods. Mentoring can be described as the sharing of information and experiences from a more experienced person to a younger one (Gregson, 1994). Moreover, Kolbe (1994) says that a “mentor should be one of three things, or a combination of them: a role model; a promoter and a sponsor; a counselor” (p. 66). The mentor is truly concerned for the well being and achievement of the mentee (Gibson, Tesone, & Buchalski, 2000). The mentoring relationship can help the mentee grow and learn quicker than their peers, and may help them prepare for leadership positions (Scanduar, Tejeda, Werther, & Lankau, 1996).
Mentors can also provide a source of positive reinforcement and help to change certain aspects of their mentee, which can have a huge impact on their self-confidence (Rhodes et al., 2006). People can also use mentoring relationships to improve and develop their professional careers, as well as increase satisfaction with those careers (Murphy, & Ensher, 2001). A study by Goldner and Mayseless (2008) found that there was a connection between mentoring relationships and academic success and social functioning. Mentoring relationships were developing in fields like education, businesses, health care, public and private alike (Garvey & Alred, 2000). Jackson, Moneta, and Nelson felt that in student affairs, discussion and reflection with mentors played a very important role in the growth of professionals (2009).

Just because someone has the skills and potential to grow professionally does not mean it will always happen, especially for women. As gender roles in society continue to change, young women may struggle with the transition from being a student into the workforce (Liang et al., 2002). While the percentage of women grows in the workforce, the numbers of women working in higher administrative positions remains low. Follon (1983) stated that in comparison to the number of women attending college, there are a disproportionate number of female administrators. Throughout the country, particularly higher education, men and women holding similar positions have the same education level, yet there are a disproportionate number of men holding higher administrative positions (Hubbard & Robinson, 1998). While many institutions or people find help in mentoring relationships, this still may place women at a disadvantage. With fewer women in positions of power in administration, women may have a more difficult time finding a mentor that they feel comfortable with and can learn from (Fobbs, 1998). To
address some of the disparities, some companies and organizations are customizing mentoring programs to provide benefits to female employees (Shea, 1995).

Women continue to crack the glass ceiling, and are changing the gender stereotypes associated with jobs in administration despite the obstacles. Creating a mentoring relationship with a female mentor that has achieved an administrative position can provide a framework for success that other women can follow (Hubbard & Robinson, 1998). A study conducted by Hubbard and Robinson found that current female administrators utilized mentors early in their career, which they felt helped them obtain their position (1998).

There are different types of mentoring relationships that can form, including the formal and informal relationships. While the informal relationships occur naturally, the formal relationships are intentional and put together by program or organization. As more studies are conducted, the popularity of mentor programs continues to grow. In 2002, there were five million American youths participated in mentoring programs (Grossman & Rhodes). These mentoring relationships and programs take time, energy, and money; so why would people put forth the effort or companies spend the money to develop mentoring relationships?

Companies are constantly looking for models and approaches that yield positive results, and do their best to avoid actions that are counterproductive (Horgan & Simeon, 1990). Recent findings indicated that a mentoring relationship provided positive opportunities for the mentor, mentee, and institution (White & Anttonen, 2007). While some felt that intentional mentoring programs yielded successful results, others felt a natural pairing would create a better pairing. Farber wrote, “mentoring is not a program.”
People who are forced into a “mentoring” situation cannot hope to have the success of a natural pairing (2000, p.126). While unprompted mentoring relationships may develop, the relationships may suffer if it is not a priority. Organizations should be intentional about their mentoring process (Scandura et al., 1996). Organizations often reap the benefits of mentoring programs. People in mentoring relationships, particularly the mentees, are often the ones going beyond the normal duties of the job (Donaldson, Ensher, & Grant-Vallone, 2000). However, simply placing two people together does not necessarily constitute a mentoring relationship. Without the mentor intentionally focused on the learning aspect of the relationship, the quality of the pairing deteriorates (Garvey & Alred, 2000). Informal mentoring relationships may even yield more successful results than intentional, formal mentorship programs (Ragins, 1999).

Mentors employ several different methods to help develop their mentees. The close relationship between the mentor and mentee allows for an environment suitable for challenge and support. Bass (1998) believed that mentors challenged their mentee mentally, getting them to think about the framework rather than the job at hand. This atmosphere allowed for a new viewpoint, pushing the mentee to examine things from a different vantage point. Mentoring relationships can also provide the mentee with first hand experience and opportunities to learn different skill sets, including decision-making. However, the mentee cannot learn skills that a mentor does not possess, or lacks the position to provide (Kram, 1983; Kram & Isabella, 1985). One study found that a mentee’s drive for influence and accomplishment was higher than their non-mentored peers (Fagenson, 1992).
There are often many obstacles to overcome before a successful mentoring relationship can be developed. People must be willing to overcome their own egos, shortcomings, and insecurities before they can hope to begin developing a mentoring relationship with another individual (Maxwell, 2008). At times, the mentor may fail to give constructive criticism, or simply try to derail the mentee’s career (Kizilios, 1990). In addition, different genders in a mentoring relationship presented its own unique challenges, including rumors and speculation regarding sexual misconduct (Ragins, 1989). The findings of one study suggested that women should serve as peer mentors, as they may help develop leadership traits associated with the social change model of leadership (Dugan, 2006). Despite these obstacles, it is possible to build collaborative, mutually beneficial, mentoring relationships. Chuck (2008) stated that to overcome a gap in access to information, people, even rivals, can come together to achieve what they cannot achieve individually.

**Peer Mentorship**

Mentoring takes place in a variety of settings. Whether through a formal mentoring program like TRIO (a federally funded program designed to assist disadvantaged groups attend college), or an informal relationship with a friend in a residence hall, the mentee will experience some kind of benefit. Specifically, the informal relationships help the mentee gain an understanding of the important information and opportunities that mentoring relationships can provide (Wallace, Abel, & Ropers-Huilman, 2000). As students transition to a university setting, their peers begin to take on a more important role (Swenson et al., 2008). In fact, as students shift away from family, their friends often take on a supporting role (Fraley & Davis, 1997). Providing support,
understanding, compassion, and empowerment are pivotal during periods of development for young adults (Liang et al., 2002). This is especially true of college students facing a barrage of new changes and challenges. While peers of the same age may be friends, older peers can serve as a model in leadership identity development. These older peers may also serve as a motivator for students to join groups and clubs, as well as run for office (Komives et al., 2005). Being involved in student organizations or in a community with their peers can shape the development of students in higher education (Moore, Lovell, McGann, & Wyrick, 1998). A study by Goldner and Mayseless (2008) indicated that increased personal, mentoring relationships among peer networks provided increased support for the self-worth of their peers. In addition, when students were actively involved in student activities and communities, they had the opportunity to learn skills that could make them marketable when searching for a job (Kuh, 1995).

**Mentorship and Leadership Congruence**

Since the Delta Chi Fraternity was founded on the South Dakota State University, a member has served either as the president or vice president of the student government, a streak that has lasted eight years. During that time, one family tree (a lineage of Big Brothers and Little Brothers) served as president for four of those years. The connection and success of these four individuals stemmed from the mentoring relationship that united them. The lessons, values, and style of leadership were passed down, from one generation to the next. In fact, the trend of a more continuous learning approach in higher education lent itself to this connection between mentorship and leadership (Garvey & Alred, 2000).
The passing of knowledge from one generation to the next is important, as the makeup and culture of the organization continues to change. Our outlook on leadership is very similar. The way we look and understand leadership is fluid, and continues to change. The popular style and method of leadership shifted as we began to gain an understanding of successful models and what works best for specific groups. Leadership was no longer exclusively viewed in the context of top-down hierarchical leadership, but as an exchange of ideas, thoughts, and values with those around them (Gibson et al., 2000). This sharing of information and connection between people can lead to potential mentoring relationships. Mentoring was viewed as a needed component of leadership development that we do not use enough (Scanduar et al., 1996). Specifically, mentoring processes can be an important part in building leadership methods and skills (Gibson et al., 2000). Traditionally, mentoring relationships were viewed in the context of a one-on-one relationship. However, in regards to leadership, we often think of one leader working with many. This allows for a system of support for those in a mentoring relationship (Wallace et al., 2000). The support student leaders received may be significant compared to the support non student leaders received. In fact, a consistent form of support student leaders looked for was encouragement (Shertzer & Schuh, 2004).

Multi-Institutional Study on Leadership

At the University of Maryland in the spring of 2006, researchers created the Multi-Institutional Study of Leadership (MLS), designed to identify the gaps in student leadership development and the services provided by institutions of higher education (MSL, 2010). Due to overwhelming demand, the MLS became a continual, year-long program. Since its conception, the MLS has been used as instrument for several theses
and dissertations. The study is able to use demographic information and comparisons to different subsets to allow for a wide range of different studies.

**Conclusion**

This chapter has provided a review of the literature regarding leadership development, gender differences, the role of women, gender and leadership styles, mentorship, peer mentorship, leadership and mentorship congruence, and the Multi-Institutional Study of Leadership.
CHAPTER THREE

METHODOLOGY

This section will discuss the methodology used in this study. It will reiterate the statement of purpose, the research questions, the hypotheses, a description of the Multi-Institutional Study of Leadership (MSL), the sampling method, an overview of the instrumentation of the study, a description of how the data was collected, and an overview of how the data was analyzed.

Research Design

The study began by inviting a random sample of 4,000 University of Wisconsin-La Crosse (UW-La Crosse) students to participate in the survey. The MSL instrument was sent to them electronically, with a message from Chancellor Joe Gow encouraging them to participate. Once a participant had completed the survey, their responses were sent to the University of Maryland, the creators of the MSL instrument. They compiled the data, and returned it to UW-La Crosse for further analysis. Additional statistical tests were used to examine peer mentorship and leadership self-efficacy at UW-La Crosse.

Multi-Institutional Study of Leadership

Each year, universities across the country participate in the annual Multi-Institutional Study of Leadership (MSL). This study, which was developed at the University of Maryland, is designed to help provide a better understanding of the influential factors and leadership abilities of college students across the nation. The MSL
was also created to help narrow the gap between the theories related to college student leadership development and the existing research. Participating institutions could also use the data results to help determine what services were most effective in creating effective leadership development opportunities for students (MSL, 2010).

The MSL examines leadership self-efficacy of students, using Astin’s “input-environment-outcome” theory, which allows the institution to gain an understanding of how their students view their leadership skills in regards to their previous experiences (MSL, 2010). This method allows students to self-identify how different experiences have shaped their leadership abilities after being in college, which can give institutions useful information regarding how their current approaches and programs are affecting current students.

Theoretically, the MSL is based upon the social change model. The social change model says that the concept of leadership development can occur within all participants, not only those who hold positions of power. It emphasizes ethical leadership decision making for the good of society, not just the individual. Leadership is no longer exclusively viewed in the context of top-down hierarchical leadership, but as an exchange of ideas, thoughts, and values with those around them (Gibson et al., 2000). The MSL’s use of the social change model provides several benefits, including that was designed particularly for students in higher education (MSL, 2010).

**Population and Sampling Method**

The participants for this study came from a sampling of 4,000 randomly selected undergraduate students at UW-La Crosse. Random numbers were assigned to an undergraduate population of full time and part time students. This method allowed each
UW-La Crosse student an equal chance to be selected. While some participating institutions utilized prizes through random drawings to help increase completion rates, UW-La Crosse chose not to use this model because the institution has a history of high participation and completion rates in surveys of this nature. The University of Maryland as a part of their 2009 Spring Semester data gathering will also use this sample from UW-La Crosse along with samples from roughly 100 other institutions.

**Instrumentation**

The MSL instrument is composed of 37 questions (see Appendix A), with some questions having several subsections for students to answer depending on their previous responses. In order to expedite the process and increase completed surveys, the MSL allows for an automatic feature that skips certain subsets of questions based on student responses. For example, if a student answers “no” to a certain question, they will automatically move on to the next question instead of viewing all questions related to a “yes” answer.

The MSL collects information on gender in the demographic section of the instrument. Students are able to identify as one of three options: 1 = female, 2 = male, or 3 = transgender. The data received had a statistically insignificant number of individuals who identified as transgender. Because of this, this information was not included in this study.

The MSL has several scales embedded in the study, including the Leadership Efficacy Scale, which is the scale that is the focus of this study. The Leadership Efficacy Scale measures students’ self-identified confidence levels when responding to several areas connected to the question “How confident are you that you can be successful at the
following: (1) Leading others, (2) Organizing a group’s tasks to accomplish a goal, (3) Taking initiative to improve something, and (4) Working with a team on a group project?” Students can then respond to a four point Likert scale with a breakdown ranging from a 1 = Not at all Confident to 4 = Very Confident.

**Instrument Reliability and Validity**

The MSL is a nationally recognized instrument whose reliability and validity has been examined thoroughly since 2006. Cronbach’s alpha is a measure of the reliability of a scale or instrument used in a study. Cronbach’s alpha for the Leadership Efficacy Scale in the MSL is $\alpha = .87$ (MSL, 2010).

In the MSL, students could answer the question “I spend time mentoring other group members” on a five-point Likert scale. Students responses could range from 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Disagree or Agree, 4 = Agree, 5 = Strongly Agree. Their answers were used to determine if they participated in peer mentoring relationships. Students who responded with a 4=Agree or 5=Strongly Agree were classified as affirming participation in peer mentoring relationships. Students who responded with a 1=Strongly Disagree, 2=Disagree, or 3=Neither Disagree or Agree were classified as not participating in peer mentoring relationships. By responding 3=Neither Disagree or Agree, it is unclear whether students participated in peer mentoring or not, so they were combined with those not engaged in peer mentoring.

**Data Collection Techniques**

The researcher completed and received Institutional Review Board (IRB) approval from UW-La Crosse before any analysis of the data was done. Before any questions on the MSL instrument could be answered, the participant was asked if they
consented to be a subject in the study. The data was collected electronically and anonymously by the University of Maryland, and sent to UW-La Crosse for further review. The data used in this study was entered into SPSS for further analysis.

**Data Analysis Procedures**

To help test the hypothesis several statistical tools will be utilized. When examining peer mentorship and leadership self-efficacy, a two-tailed t-test was used to reduce any bias in reading and analyzing the data. It also allows for a greater understanding of potential differences that may exist, and whether they are positive or negative. When studying the roles of gender, peer mentorship, and leadership self-efficacy, a univariate analysis of variance was used to analyze the data and help test hypothesis 2. In an effort to compare UW-La Crosse results against the comparison categories, including MSL national reports, other medium sized institutions, public institutions, Carnegie Masters degree granting institutions, and “Very Competitive” highly selective institutions, a comparison of their mean scores and standard deviations was conducted. However, without the sample sizes for these categories, an accurate statistical test cannot be performed. A comparison of the mean leadership self-efficacy scores and standard deviations for each of these categories will be provided. This will allow for a comparison between UW-La Crosse and the national sample.

**Conclusion**

The chapter provided an overview of the methodology, including the research design, statement of purpose and the research questions, sampling method the MSL instrument including reliability and validity, and data collection techniques and analyses.
Chapter Four will discuss the results of this study, and the analysis of the data that was used to answer the research questions.
CHAPTER FOUR

RESULTS

The purpose of this study was to answer the following questions: 1) are there differences in the leadership self-efficacy of two groups of college students, one group who acted as peer mentors in college and one group who did not act as peer mentors in college; and 2) of the students who identified as being involved in peer mentoring relationships, are there differences in the leadership self-efficacy outcomes of males and females?

Demographic Information

A random sample of 4,000 University of Wisconsin-La Crosse students were asked to participate in a survey called the Multi-Institutions Study of Leadership, which was developed by the University of Maryland. Of the 4,000 invitations sent to students, 1,302 chose to participate, yielding a response rate of 33.48%. The national response rate with this instrument was 30.07%. Of those UW-L students who started the survey, 97.24% completed it. Specific demographic information can be found in Table 1.
Table 1. Comparison of UW-L and MSL National Demographics

<table>
<thead>
<tr>
<th>Demographics*</th>
<th>UW-L</th>
<th>Percentage</th>
<th>MSL National Data</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>884</td>
<td>66.02%</td>
<td>52083</td>
<td>63.91%</td>
</tr>
<tr>
<td>Male</td>
<td>455</td>
<td>33.98%</td>
<td>29410</td>
<td>38.09%</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>18</td>
<td>1.36%</td>
<td>4320</td>
<td>4.54%</td>
</tr>
<tr>
<td>White</td>
<td>1224</td>
<td>92.24%</td>
<td>55619</td>
<td>58.34%</td>
</tr>
<tr>
<td>African American</td>
<td>-</td>
<td>0%</td>
<td>5106</td>
<td>5.36%</td>
</tr>
<tr>
<td>American Indian</td>
<td>-</td>
<td>0%</td>
<td>729</td>
<td>.76%</td>
</tr>
<tr>
<td>Asian</td>
<td>35</td>
<td>2.63%</td>
<td>5142</td>
<td>5.39%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>-</td>
<td>0%</td>
<td>411</td>
<td>.43%</td>
</tr>
<tr>
<td>Other/Missing</td>
<td>50</td>
<td>3.77%</td>
<td>24001</td>
<td>25.18%</td>
</tr>
<tr>
<td><strong>Class Standing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Year</td>
<td>320</td>
<td>24.23%</td>
<td>21419</td>
<td>22.66%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>264</td>
<td>19.98%</td>
<td>20794</td>
<td>21.99%</td>
</tr>
<tr>
<td>Junior</td>
<td>313</td>
<td>23.69%</td>
<td>23972</td>
<td>25.36%</td>
</tr>
<tr>
<td>Senior +</td>
<td>424</td>
<td>32.10%</td>
<td>28357</td>
<td>29.99%</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>1261</td>
<td>97.68%</td>
<td>86263</td>
<td>92.98%</td>
</tr>
<tr>
<td>LBGT</td>
<td>30</td>
<td>2.32%</td>
<td>4299</td>
<td>4.63%</td>
</tr>
<tr>
<td>Rather Not Say</td>
<td>-</td>
<td>0%</td>
<td>2217</td>
<td>2.39%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional (Under 24)</td>
<td>1224</td>
<td>93.87%</td>
<td>82234</td>
<td>88.66%</td>
</tr>
<tr>
<td>Non-traditional (24 and older)</td>
<td>80</td>
<td>6.13%</td>
<td>10523</td>
<td>11.34%</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Campus</td>
<td>505</td>
<td>38.73%</td>
<td>45816</td>
<td>49.46%</td>
</tr>
<tr>
<td>Off Campus</td>
<td>799</td>
<td>61.27%</td>
<td>46811</td>
<td>50.54%</td>
</tr>
<tr>
<td><strong>Educational Generation Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Generation</td>
<td>223</td>
<td>17.29%</td>
<td>13621</td>
<td>14.68%</td>
</tr>
<tr>
<td>Non-First Generation</td>
<td>1067</td>
<td>82.71%</td>
<td>77854</td>
<td>85.32%</td>
</tr>
</tbody>
</table>

*Numbers under/over the total number that completed study occur due to ability to not answer demographic questions, or select more than one category.

When examining the demographic breakdown at the University of Wisconsin-La Crosse compared to the MSL national data, several measures are noticeably different.

The demographic measures for race emphasis how little ethnic diversity there is among students at UW-La Crosse, which is a predominately European American student population. However, the results of this demographic information also indicated low
participation among multicultural students. Further discussion of this disparity will be discussed in Chapter Five.

In terms of class standing, UW-La Crosse had a higher percentage of *First Year* and *Senior +* participants than the national average. This may be indicative of the quality and inclusive nature of the MSL instrument. The instrument asks participants to reflect and respond on their leadership skills from their high school experience, which may encourage *First Year* students to participate in study. The high level of *Senior +* participation could be a reflection of their experiences at the institution, and their willingness to share their feedback.

The sexual orientation demographic information compared between UW-La Crosse and the MSL national averages shows differences in the Lesbian, Bisexual, Gay, and Transgender (LGBT) communities. UW-La Crosse had a higher percentage of students identify as *heterosexual* than the national reporting averages. They also had a smaller response rate of students who identified as *LGBT* or *Rather Not Say*, which was non-existent. Further research studies regarding the *Rather Not Say* reporting information could identify potential viewpoints held by students at UW-La Crosse.

A much higher percentage of traditional aged students (18-24 years old) responded to this survey than non-traditional students at UW-La Crosse. This could be reflective of UW-La Crosse serving a more traditionally aged student base. Or, perhaps those non-traditional students do not feel as engaged in the campus community at this institution.

UW-La Crosse has a very strong Residence Life program. However, when compared to the national averages, fewer students living on campus at UW-La Crosse
responded to the survey. The off campus population of students at UW-La Crosse responded at a much higher rate compared to the MSL national average of students.

The final piece of demographic information relates to the educational generation status of students. The number of first generation attendees was higher at UW-La Crosse than the national average. This could signify a change in the type of student attending the institution, or simply that the other participating institutions serve a lower percentage of first generational students.

**Hypotheses**

HO:1: There is no significant difference between the leadership self-efficacy of students who are engaged in peer mentoring relationships and those students who are not engaged in peer mentoring relationships.

The null hypothesis suggests that a sample from those surveyed would indicate that there is no difference in the leadership self-efficacy scores of students. A two tailed t-test was conducted to examine potential differences between student peer mentorship and leadership self-efficacy. The leadership self-efficacy scores of UW-La Crosse participants were compared to students who responded to questions regarding peer mentorship.

**Table 2. T-Test Comparison of Peer Mentoring and Leadership Self-Efficacy**

<table>
<thead>
<tr>
<th>Leadership Self-Efficacy</th>
<th>Source</th>
<th>df</th>
<th>Mean Difference</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Equal variances assumed</td>
<td>933</td>
<td>-.240</td>
<td>.162</td>
<td>.688</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>91.23</td>
<td>-.240</td>
<td>.13</td>
<td>.00</td>
</tr>
</tbody>
</table>

*p<.01.
The results of this analysis indicate that there is a significant relationship between peer mentoring and leadership self-efficacy. The two-tailed test results yielded $F = 0.13$, $df = 933$, and $p = .000$, which is significant. The findings of this test do not support the null hypothesis. In other words, there is a significant difference in the leadership self-efficacy of students who engaged in peer mentoring activities and those students who did not.

Table 3. Comparison of Means and Standard Deviations In Peer Mentoring

<table>
<thead>
<tr>
<th>Leadership Self-Efficacy</th>
<th>Peer Mentoring</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or Sometimes</td>
<td>77</td>
<td>2.85</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>Often or Very Often</td>
<td>858</td>
<td>3.09</td>
<td>.56</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01.

The findings of this study show that students who regularly participated in peer mentoring activities had a higher leadership self-efficacy score than students who did not. The mean score (and standard deviation) for the two groups were statistically significant. Students who did not regularly engage in peer mentoring activities had a mean leadership self-efficacy score of 2.85 (SD=.54). Students who identified as regularly participating in peer mentoring activities had a mean score of 3.09 (SD=.56). Table 3 shows the difference in the mean leadership self-efficacy scores for those who did not regularly engage in peer mentoring relationships and those that were actively engaged in peer mentoring.
The quantitative data indicated that there was a significant difference between peer mentoring and leadership self-efficacy, the qualitative data collected by the MSL instrument also supported this finding. As a part of the instrument, students are able to provide their own definition of leadership, and many specifically mention mentoring or mentoring activities. A first year female student described leadership in part as “Being a mentor to someone.” Another first year female stated that being a leader is someone who is “teachable.” A first year male student stated that leadership was “Being a positive role model that others can look up to for advice and as an example of good morals and ethics.” Another stated that a leader is someone who provides “guidance and support to those around them.” A sophomore female described it as “being a good example for others to follow.” A junior male explained leadership as “A trait exemplifying the initiative to take charge of a task while being a mentor to others.” Another senior female specifically used “mentor” when listing her qualities found in a leader. The theme
running through these statements is that many students related leadership to mentoring activities (role modeling, guiding, teaching, supporting, etc.). These reflections were a source of additional data, which could be used in a qualitative study in the future.

To test the second hypothesis, a univariate analysis of variance (ANOVA) was used. This test allowed for an examination of the variables gender and peer mentorship, and their potential impact on the leadership self-efficacy of students at UW-La Crosse. Leadership self-efficacy is the dependent variable, while peer mentoring and gender are the independent variables in the ANOVA.

Table 4. Univariate Analysis of Variance Examining Leadership Self-Efficacy, Peer Mentorship, and Gender

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.73</td>
<td>1</td>
<td>.73</td>
<td>2.11</td>
<td>.15</td>
</tr>
<tr>
<td>Peer Mentor</td>
<td>4.57</td>
<td>1</td>
<td>4.57</td>
<td>13.28</td>
<td>.00</td>
</tr>
<tr>
<td>Gender and Peer Mentor</td>
<td>.01</td>
<td>1</td>
<td>.01</td>
<td>.03</td>
<td>.87</td>
</tr>
</tbody>
</table>

*R Squared = .022 (Adjusted R Squared = .019)

The results of the test indicated that peer mentorship had a significant impact on leadership self-efficacy. Previous tests within this study examining the same question had similar results, indicating that peer mentorship had a significant impact related to student leadership self efficacy. This supports the findings of the two-tailed t-test conducted earlier in the study. The analysis of the test resulted in F = 13.28, df = 1, p = .000, which is significant. However, the analysis regarding gender and leadership self-efficacy resulted in a p-value of .147, which is not significant (F = 2.11, df = 1). This result indicates that the null hypothesis was supported. In other words, gender did not have a significant impact on the leadership self-efficacy of UW-La Crosse students.

The MSL instrument provides a final leadership efficacy score comprised of the responses of students who completed the survey at UW-La Crosse. The leadership
efficacy score is based on a 4-point Likert scale ranging from 1 = *Not At All Confident* to 4 = *Very Confident* using the Social Change Model Leadership Outcomes. At UW-La Crosse, students who completed the survey yielded a leadership efficacy score of 3.04. As a part of the MSL, data from the nationwide study is also provided which allows for a comparison with other participants in the study according to the classifications that UW-La Crosse meets. Specifically, we can compare our results to the MSL national reports, other medium sized institutions, public institutions, Carnegie Masters degree granting institutions, and *Very Competitive* highly selective institutions. The scores ranged from 3.04 - 3.09 on a four-point Likert scale. When compared across the other categories, UW-La Crosse leadership efficacy score of 3.04 is the lowest. A score of 3.0 or higher indicates that students feel confident in their leadership capabilities. This provided insight as to where our institution falls in comparison to similar institutions. Without the sample sizes for the different comparison categories, the accuracy of any statistical test could be called into question. However, it is still possible to compare the means and standard deviations between these categories.
Table 5. Comparison of UW-La Crosse Leadership Self-Efficacy Scores Against Comparison Categories

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UW-La Crosse</td>
<td>3.04</td>
<td>1.03</td>
</tr>
<tr>
<td>MSL National Data</td>
<td>3.08</td>
<td>1.05</td>
</tr>
<tr>
<td>Medium Sized Institutions</td>
<td>3.09</td>
<td>1.05</td>
</tr>
<tr>
<td>Public Institutions</td>
<td>3.07</td>
<td>1.06</td>
</tr>
<tr>
<td>Carnegie Peers</td>
<td>3.08</td>
<td>1.06</td>
</tr>
<tr>
<td>Selective Institutions</td>
<td>3.08</td>
<td>1.01</td>
</tr>
</tbody>
</table>

The differences of UW-La Crosse mean leadership self-efficacy scores and standard deviation against the comparison categories demonstrated how similar the institution compared on leadership self-efficacy. While the mean leadership self-efficacy score for UW-La Crosse is lowest among these categories, it is less than .05 percentage points from the top score. This slight difference is not enough to make a true impact in the practical leadership self-efficacy of students. This concept is supported when examining the standard deviations. The scores are all very close, indicating UW-La Crosse student leadership self-efficacy is comparable to other students at similar institutions.

**Conclusion**

This chapter provided an overview of the data results and analyses that were used to help answer the two research questions posed in chapter three. A two-tailed t-test was utilized to determine if there were potential differences between peer mentorship and leadership self efficacy. The results of the analysis indicated that there was a significant
difference in the leadership self efficacy of students who engaged in peer mentoring behaviors and those that do not. The null hypothesis for question one was rejected. Further analysis was conducted to determine if gender had an impact on leadership had an effect on leadership self efficacy. An ANOVA test indicated that while peer mentoring did seem to have an impact on leadership self efficacy, which was supported by earlier analysis, gender did not seem to show a difference. This null hypothesis 2 was retained. Gender did not seem to play a role in the leadership self-efficacy scores of UW-La Crosse students.

The MSL also provided an overall leadership self-efficacy score for UW-La Crosse, which allowed for comparisons to other categories that are comparable to our institution. The score of 3.04 was lower than any other comparative category. Upon closer analysis of mean self-efficacy scores and standard deviations for the comparison categories, the scores were incredibly similar, indicating that there is no real difference in the leadership self-efficacy abilities of UW-La Crosse students and participants at other institutions. Chapter Five will contain further discussion of these findings, and how we can utilize these results to make improvements to the services provided by UW-La Crosse.
CHAPTER FIVE

DISCUSSION

The purpose of this study was to determine the impact of mentoring and gender on the self-efficacy of student leaders at the University of Wisconsin-La Crosse (UW-La Crosse). The study also identified demographic characteristics of students in leadership positions at UW-La Crosse. In addition, since the research was conducted nationally, an analysis was done to compare the self-efficacy of students at UW-La Crosse to a national sample of students.

The Multi Institutional Study of Leadership (MLS) is an instrument developed by the University of Maryland and it is used by institutions across the country to examine the leadership skills of their students. UW-La Crosse was one of more than 100 institutions that participated in the 2009 MSL study. A full list of participants is available in Appendix B. The survey at UW-La Crosse was conducted in the fall of 2009, when it was sent to a random sample of 4,000 students at the institution.

When participants completed the survey, the data was electronically gathered by the University of Maryland. It was then analyzed using SPSS and a report of the findings was prepared and sent to UW-La Crosse outlining the basic findings of the study. Further analysis was conducted by the researcher using SPSS to examine two hypotheses.
Discussion of Major Findings

There was a significant difference in the leadership self-efficacy of students who engaged in peer mentoring behaviors and those that did not, resulting in the first null hypothesis to be rejected. The finding of this study supports the findings of other studies examining the effects of peer mentorship on leadership self-efficacy (Komives et al., 2005; Goldner & Mayseless, 2008; Garvey & Alred, 2000).

Further analysis was conducted to determine if gender had an impact on leadership self-efficacy. While peer mentoring did seem to have an impact on leadership self-efficacy, gender did not seem to have an impact on self efficacy. This result supports the finding of other studies, which indicate that gender does not have a significant impact on leadership (Ronk, 1993; Campbell, Boomer & Yeo 1993). The second null hypothesis was retained, as there was no significant difference between leadership self-efficacy and gender.

The MSL also provides an overall leadership self-efficacy score for UW-La Crosse, which allowed for comparisons to other categories that are comparable to our institution. These categories included the MSL national reports, other medium sized institutions, public institutions, Carnegie Masters degree granting institutions, and Very Competitive highly selective institutions. UW-La Crosse’s mean score of 3.04 was lower compared to the mean scores of any other category. However, when all the mean scores and standard deviations were examined, the differences between UW-La Crosse scores was insignificant compared to the other categories.

An additional analysis conducted during this study indicated several other factors that can impact the leadership self-efficacy of students. When the class standing
demographic information was included with peer mentoring and gender information in the statistical analysis, class standing seemed to have the greater impact on leadership self-efficacy than the other categories. The MSL instrument allows for a leadership efficacy pretest, focusing on the leadership skills of students before they came to UW-La Crosse. When this pretest was used in the statistical analysis, gender seemed to have a significant impact on leadership self-efficacy, while peer mentoring did not. This finding is the opposite when compared to the results of this study. Both of these add hoc analysis provide areas of future study to provide more information about the leadership self-efficacy skills of UW-La Crosse students.

**Implications**

The findings of this study have several theoretical implications. As mentioned previously, the results of the data analysis indicate that there are differences in peer mentoring and student leadership self-efficacy. The findings of this study support the results of other studies and the literature (Garvey et al., 2000, Gibson et al., 2000). The culture of the UW-La Crosse campus, as well as their programs and services, seem to provide an environment that allows for peer mentoring to occur. However, there are always opportunities to improve. The institution could evaluate their practices to determine ways to increase the leadership self-efficacy of their students. The literature suggests that students who are engaged in peer mentoring are more likely to be actively involved on campus. If they are more involved, they are likely to develop various leadership skills, as well as remain at the institution. If the institution looks for ways to be intentional about providing peer mentorship opportunities for their students, it may help to increase the quality of experiences as well as improve their leadership self-efficacy.
The results of this study indicated that there was no significant difference in leadership self-efficacy relative to gender. The review of the literature indicated many different viewpoints. Historically, women have been disadvantaged in terms of their opportunities for leadership development. Some of the literature indicated that the disparities between men and women in terms of leadership continue today (Carli et al., 2001). There is also literature suggesting that the gap in leadership is closing, with women making significant gains in the last few years (Korac-Kakabadse et al., 1998).

This study seemed to support the studies indicating that the leadership skills of women are comparable to the skills of men. This may indicate that the opportunities for leadership development are equal for men and women at UW-La Crosse. The findings of this study indicate that there was no significant difference in the leadership self-efficacy between men and women. While some literature supports the view that there is no significant difference in the leadership self-efficacy between men and women, other studies indicate that there is a significant difference between genders. The research on this demographic is fairly divided. In an effort to ensure that we are providing equal leadership development opportunities for men and women, the institution must be mindful of their programs and services. Future studies could be conducted to examine the impact that the specific leadership development opportunities that men and women have on campus.

Utilizing the results of this study, UW-La Crosse has the opportunity to re-evaluate their programs and services, and find new ways to serve their students. Currently, the institution has a Leadership and Involvement Center, designed to provide leadership development and involvement opportunities to UW-La Crosse students and
student organizations. The Leadership and Involvement Center can utilize the findings of this study to assess the effectiveness of their programs, and perhaps examine the need for new opportunities. As the literature review suggests, there are many different views, styles, and approaches to leadership.

To help provide a sense of direction, the Leadership and Involvement Center could choose one model of leadership as its focus. The model of servant leadership would be an excellent fit with the programs and services provided by the Leadership and Involvement Center. For example, the Leadership and Involvement Center facilitates an annual alternative spring break trip to Jamaica that focuses on service. Each year, roughly 20-30 students travel to Jamaica over spring break to work on service projects in impoverished areas of the island. The work ranges from teaching in classrooms, painting, minor construction projects, and whatever else is needed in the community. They also gather school supplies, clothes, shoes, books, and other needed items to donate to those in need on the annual trip. In addition to the alternative spring break service trip, the Leadership and Involvement Center provides volunteer opportunities for students that also focus on service opportunities on campus and in the community.

A focus on the model of servant leadership could be an excellent fit for the programs already offered by the Leadership and Involvement Center. Greenleaf stated that servant leadership “begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead” (1977, p. 27). It could also provide a central focus and mission to help develop the student leaders on campus. Many institutions across this country have adopted this model, and it could be a new approach for the Leadership and Involvement Center. In contrast, by focusing on one style of
leadership, we may limit the potential leadership development and growth of students. A narrow approach may prevent certain students from utilizing the programs and services of the Leadership and Involvement Center. Since the services offered by the Leadership and Involvement Center currently reflect a servant leadership model, providing an intentional focus may give students a way to focus their leadership development efforts.

The findings of this particular study, as well as the literature review and other studies that have been conducted regarding peer mentorship, indicated that there are differences between peer mentorship and leadership self-efficacy (Shertzer et al., 2004). If the institution agrees with these findings, it could conduct a review of established mentoring programs on campus. Currently, the Office of Residence has a program called ARM (Academic Resource Mentor). The Academic Advising Center also has a mentoring program. These services are designed to support students and encourage their growth and development. If their programs are successful, these models could be expanded and applied to other programs around campus. In addition, a mentoring program could be established during the New Student Orientation program at UW-La Crosse. A pairing of new students and current students could help increase retention rates and improve new student acclimation to the institution. The Leadership and Involvement Center could establish a formal mentoring program designed to mentor emerging leaders in different student organizations. This program could even help new student organizations to be guided by established, strong student organizations. Lessons of leadership could be shared through different generations of student leadership, helping to raise the quality of student organizations at UW-La Crosse.
Areas of Future Research

This study focused on examining if there were significant differences between peer mentoring, gender, and leadership self-efficacy. However, this study is only covering a small portion of the potential studies that could be conducted to gain a better understanding of leadership development at UW-La Crosse.

1. Similar research could be completed using other scales like the Mentoring: Leadership Empowerment scale. While the focus of the scale is very similar to the focus of the self-efficacy scale, the questions used are slightly different, and could potentially yield different results. Future studies could be conducted utilizing different scales and allow for many different studies of leadership and the potential variables to be completed.

2. A study could be conducted on the leadership self-efficacy of students in each of the different demographic groups found in Table 1. Studies could be conducted to examine these variables in greater detail, to gain more valuable insights in ways to impact the leadership development opportunities for all UW-La Crosse students.

3. The MSL instrument also includes a pretest of the leadership self-efficacy skills of students. This scale is designed to reflectively measure the leadership skills a student had developed prior to attending the institution. This scale could be used in a future study to measure the potential growth in leadership self-efficacy students experience at UW-La Crosse.

4. To determine if the servant leadership model could become the focus of the Leadership and Involvement Center, a study could be conducted examining the leadership lessons learned from participating in the alternative spring break trip. Each year, participants in the alternative spring break trip take the Global Perspective
Inventory, which is a pre and post test to measure an individual’s global learning and understanding of cultural differences. This instrument provides the opportunity to examine the impact that the trip has on participants and their viewpoints. The findings of these studies could be used as a part of future research to determine if the servant leadership approach is best for the institution.

5. Conduct a similar study using qualitative methods. The MSL allows for a comments section where survey participants can respond with detailed thoughts. A review of some of the data yielded several comments regarding mentoring and its role in leadership. A qualitative study could potentially provide additional insight into the results of this study, as well as the quality of leadership development opportunities available to the students of UW-La Crosse.

**Limitations**

When conducting this study, there were certain limitations that must be recognized. One of the first limitations is the challenge of understanding peer mentorship. Participants of this study were asked to self identify if they had been a part of a peer mentoring relationship. What one student considers a peer mentoring relationship may be different from another. These varying viewpoints, combined with a lack of a definition in the instrument, have the potential to skew the data results. If a solid definition of a peer mentoring could be determined and used in future studies, a more reliable understanding of the relationship between peer mentoring and leadership self-efficacy may be determined.
Another challenge related to this subject is the understanding of how these peer mentoring relationships start. Without knowing when a relationship starts will impact whether or not a student even recognizes their involvement in peer mentoring. The focus of this study was on the peer mentoring relationships of students. There was no review of mentoring in general. The MSL instrument allows for a study of all peer mentoring relationships that can occur on a campus, ranging from student peer mentoring to mentoring with faculty, staff, or community members. While focusing on a specific type of mentoring, understanding the role of mentoring on campuses in general, it may help to provide a more complete picture. It is possible that students at UW-La Crosse may be heavily engaged in mentoring relationships with faculty on campus, which could have a dramatic impact on their leadership self-efficacy but was not emphasized in this study.

The MSL instrument that was used to conduct this study is quite extensive. Within the instrument, there are several subscales that measure various aspects of leadership, ranging from citizenship to service. The entire MSL instrument has been studied and reviewed regularly, which indicates that these subscales are a part of the instrument for a reason. If the MSL instrument is utilized by UW-La Crosse in the future, a different approach could be used. The specific approach used in this study only showed a narrow view of the leadership skills possessed by students. By analyzing the data results from the entire MSL study, a more complete view of the leadership self-efficacy of our students could be studied.

As the demographic information indicated (see Table 1), there were several different populations of students at UW-La Crosse that are underrepresented. While UW-
La Crosse might not have a large percentage of students from a diverse racial or sexual orientation backgrounds, their voices need to be heard. If we are not meeting the leadership development needs of first generation students, we miss the opportunity to help a student develop. Each of these demographic groups represents students at the institution. Without their participation, we cannot understand the needs of our students, and help them to develop and grow as leaders.

Conclusion

The results of this study indicate that more research needs to be conducted regarding peer mentorship, gender, and leadership self-efficacy. After a review of current studies and literature, a series of research questions and hypothesis were developed to guide the study. The results indicated that peer mentoring did have a significant impact on leadership self-efficacy of students at UW-La Crosse, while gender did not. Further examination revealed that men had a higher leadership self-efficacy score than women, however this difference failed to reach significance. The results of the study were used to determine future research opportunities, as well as the theoretical and practical implications of the study. The limitations of this study were also discussed. The study has provided a glimpse of the leadership self-efficacy of students at UW-La Crosse. Further research should be conducted to determine the best practice models to provide the best leadership development opportunities for our students.
REFERENCES


Lips, H. M. (1993, March). *Women, power, and sisterhood*. Invited address (AWP publication award address) to the Association for Women in Psychology. Atlanta, GA.


APPENDIX A

2009 MSL INSTRUMENT
Appendix A
2009 MSL Instrument

MULTI-INSTITUTIONAL STUDY OF LEADERSHIP 2009 10/23/08
-1-
MULTI-INSTITUTIONAL STUDY OF LEADERSHIP 2009
This instrument may not be reproduced in whole or in part without permission of the MSL co-principal investigators.
NOTE:
This is a paper and pencil version of what will be presented as an on-line web survey.
Skip patterns will automatically take the respondent to the appropriate section.
Shaded sections/items will be used in sub-samples and will not be asked of all participants.

COLLEGE INFORMATION
1. Did you begin college at your current institution or elsewhere? (Choose One)
   Started Here = 1 Started Elsewhere = 2

2. How would you characterize your enrollment status?
   (Choose One)
   Full-Time = 1 Less than Full-Time = 2

3. What is your current class level?
   (Choose One)
   Freshman/First-year 1
   Sophomore 2
   Senior (4th year and beyond) 4
   Graduate Student 5
   Unclassified 6

4. Are you currently working OFF CAMPUS in a position unaffiliated with your school?
   If NO, skip to #5

5. Are you currently working ON CAMPUS?
   (Circle one)
   Yes No
   If NO, skip to #6

6. In an average month, do you engage in any community service?
   1 = Yes 2 = No
   If NO, skip to #7

6a-e. In an average month, approximately how many hours do you engage in community service? (Choose one from each category).
   1 = None 5 = 16-20
   2 = 1-5 6 = 21-25
   3 = 6-10 7 = 26-30
   4 = 11-15 8 = 31 or more
   As part of a class 1 2 3 4 5 6 7 8
   As part of a work study experience 1 2 3 4 5 6 7 8
   With a campus student organization 1 2 3 4 5 6 7 8
   As part of a community organization unaffiliated with your school 1 2 3 4 5 6 7 8
   On your own 1 2 3 4 5 6 7 8

7. Check all the following activities you engaged in during your college experience:
   1 = Yes 2 = No
   Study abroad
   1 2
Practicum, internship, field experience, coop experience, or clinical experience 1 2
Learning community or other formal program where groups of students take two or more classes together 1 2
Living-learning program (ex. language house, leadership floors, ecology halls) 1 2
Research with a faculty member 1 2
First-year or freshman seminar course 1 2
Culminating senior experience (ex. capstone course, thesis) 1 2
1 = Yes 2 = No

MULTI-INSTITUTIONAL STUDY OF LEADERSHIP 2009 10/23/08

YOUR PERCEPTIONS BEFORE ENROLLING IN COLLEGE

8. Looking back to before you started college, how confident were you that you would be successful in college at the following: (Select one for each response)
1 = Not at all confident 2 = Somewhat confident 3 = Confident 4 = Very confident

Handling the challenge of college-level work 1 2 3 4
Analyzing new ideas and concepts 1 2 3 4
Applying something learned in class to the “real world” 1 2 3 4
Enjoying the challenge of learning new material 1 2 3 4

Appreciating new and different ideas, beliefs 1 2 3 4
Leading others 1 2 3 4
Organizing a group’s tasks to accomplish a goal 1 2 3 4
Taking initiative to improve something 1 2 3 4
Working with a team on a group project 1 2 3 4

9. Looking back to when you were in high school, how often did you engage in the following activities: (Select one response for each)
1 = Never 2 = Sometimes 3 = Often 4 = Very Often

Student council or student government
Pep Club, School Spirit Club, or Cheerleading 1 2 3 4
Performing arts activities (ex. band, orchestra, dance, drama, or art) 1 2 3 4
Academic clubs (ex. science fair, math club, debate club, foreign language club, chess club, literary magazine) 1 2 3 4
Organized sports (ex. Varsity, club sports) 1 2 3 4
Leadership positions in student clubs, groups, sports (ex. officer in a club or organization, captain of athletic team, first chair in musical group, section editor of newspaper) 1 2 3 4

10. Looking back to before you started college, how often did you engage in the following activities: (Select one response for each)
1 = Never 2 = Sometimes 3 = Often
Very Often
Performed community service
1 2 3 4
Reflected on the meaning of life
1 2 3 4
Participated in community organizations
(ex. church group, scouts)
1 2 3 4
Took leadership positions in community organizations
1 2 3 4
Considered my evolving sense of purpose in life
1 2 3 4
Worked with others for change to address societal problems (ex. rally, protest, community organizing)
1 2 3 4
Participated in training or education that developed your leadership skills
1 2 3 4
Found meaning in times of hardship
1 2 3 4

11. Looking back to before you started college, please indicate your level of agreement with the following items:
1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree
Hearing differences in opinions enriched my thinking
1 2 3 4 5
I had low self esteem
1 2 3 4 5
I worked well in changing environments
1 2 3 4 5
I enjoyed working with others toward common goals
1 2 3 4 5
I held myself accountable for responsibilities I agreed to
1 2 3 4 5
I worked well when I knew the collective values of a group
1 2 3 4 5
My behaviors reflected my beliefs
1 2 3 4 5
I valued the opportunities that allowed me to contribute to my community
1 2 3 4 5

12. Please indicate how well the following statements describe how you were prior to college.
1 = Does Not Describe Me Well 2 = 3 = 4 = 5 = Describes Me Very Well
I attempted to carefully consider the perspectives of those with whom I disagreed
1 2 3 4 5
I regularly thought about how different people might view situations differently
1 2 3 4 5
Before criticizing someone, I tried to imagine what it would be like to be in their position
1 2 3 4 5

13. We would like you to consider your BROAD racial group membership (ex. White, Middle Eastern, American Indian, African American/ Black, Asian American/ Pacific Islander, Latino/ Hispanic, Multiracial) in responding to the following statements. Please indicate what your perceptions were prior to college.
1= Strongly Disagree 2 = Disagree 3 = Disagree Somewhat 4 = Neutral 5= Agree Somewhat 6= Agree 7= Strongly Agree
My racial group membership was important to my sense of identity
1 2 3 4 5 6 7
I was generally happy to be a member of my racial group
1 2 3 4 5 6 7
I did not feel a strong affiliation to my racial group
1 2 3 4 5 6 7

YOUR EXPERIENCES IN COLLEGE

14. How often have you engaged in the following activities during your college experience: 1 = Never 2 = Sometimes 3 = Often 4 = Very Often
Perform community service
1 2 3 4
Acted to benefit the common good or protect the environment
1 2 3 4
Been actively involved with an organization that addresses a social or environmental problem
1 2 3 4
Been actively involved with an organization that addresses the concerns of a specific community (ex. academic council, neighborhood association)
1 2 3 4
Communicated with campus or community leaders about a pressing concern
1 2 3 4
Took action in the community to try to address a social or environmental problem
1 2 3 4
Worked with others to make the campus or community a better place
1 2 3 4
Acted to raise awareness about a campus, community, or global problem
1 2 3 4
Took part in a protest, rally, march, or demonstration
1 2 3 4
Worked with others to address social inequality
1 2 3 4

15. Since starting college, how often have you: 1 = Never 2 = Once 3 = Sometimes 4 = Many Times 5 = Much of the Time
Been an involved member in college organizations?
1 2 3 4 5
Held a leadership position in a college organization(s)? (ex. officer in a club or organization, captain of athletic team, first chair in musical group, section editor of newspaper, chairperson of committee)?
1 2 3 4 5
Been an involved member in an off-campus community organization(s) (ex. Parent-Teacher Association, church group)?
1 2 3 4 5
Held a leadership position in an off-campus community organization(s)? (ex. officer in a club or organization, leader in youth group, chairperson of committee)?
1 2 3 4 5

16. Have you been involved in the following kinds of student groups during college? (Respond to each item)
1 = Yes 2 = No
Academic/Departmental/Professional (ex. Pre-Law Society, an academic fraternity, Engineering Club)
1 2
Arts/Theater/Music (ex. Theater group, Marching Band, Photography Club)
1 2
Campus-Wide Programming (ex. program board, film series board, multicultural programming committee)
1 2
Identity-Based (ex. Black Student Union, LGBT Allies, Korean Student Association)
1 2

International Interest (ex. German Club, Foreign Language Club)
1 2

Honor Societies (ex. Omicron Delta Kappa, Mortar Board, Phi Beta Kappa)
1 2

Media (ex. Campus Radio, Student Newspaper)
1 2

Military (ex. ROTC, cadet corps)
1 2

New Student Transitions (ex. Admissions ambassador, orientation advisor)
1 2

Resident Assistants
1 2

Peer Helper (ex. academic tutors, peer health educators)
1 2

Advocacy (ex. Students Against Sweatshops, Amnesty International)
1 2

Political (ex. College Democrats, College Republicans, Libertarians)
1 2

Religious (ex. Fellowship of Christian Athletes, Hillel)
1 2

Service (ex. Circle K, Habitat for Humanity)
1 2

Multi-Cultural Fraternities and Sororities (ex. National Pan-Hellenic Council [NPHC] groups such as Alpha Phi Alpha Fraternity Inc., or Latino Greek Council groups such as Lambda Theta Alpha)
1 2

Social Fraternities or Sororities (ex. Panhellenic or Interfraternity Council groups such as Sigma Phi Epsilon or Kappa Kappa Gamma)
1 2

Sports-Intercollegiate or Varsity (ex. NCAA Hockey, Varsity Soccer)
1 2

Sports-Club (ex. Club Volleyball, Club Hockey)
1 2

Sports-Intramural (ex. Intramural flag football)
1 2

Recreational (ex. Climbing Club, Hiking Group)
1 2

Social/ Special Interest (ex. Gardening Club, Sign Language Club, Chess Club)
1 2

Student Governance (ex. Student Government Association, Residence Hall Association, Interfraternity Council)
1 2

17a. A mentor is defined as a person who intentionally assists your growth or connects you to opportunities for career or personal development.

Since you started at your current college/university, have you been mentored by the following types of people:

1=Yes 2=No

Faculty/Instructor
1 2

Student Affairs Professional Staff (ex. a student organization advisor, career counselor, the Dean of Students, or residence hall coordinator)
1 2

Employer
1 2
Community member (not your employer)
1 2
Parent/Guardian
1 2
Other student
1 2

IF NO for all of the above, skip to Question #18.

17b. A mentor is defined as a person who intentionally assists your growth or connects you to opportunities for career or personal development.

Since you started at your current college/university, how often have the following types of mentors assisted you in your growth or development?
1 = Never 2 = Sometimes 3 = Often 4 = Very Often

Faculty/Instructor
1 2 3 4
Student Affairs Professional Staff (ex. student organization advisor, career counselor, Dean of Students, residence hall coordinator)
1 2 3 4
Employer
1 2 3 4
Other Student
1 2 3 4

17c. When thinking of your most significant mentor at this college/university, what was this person’s role?

1 = Yes 2 = No
Faculty/Instructor
1 2
Student Affairs Professional Staff (ex. student organization advisor, career counselor, Dean of Students, residence hall coordinator)
1 2
Employer
1 2
Other Student
1 2

17d. When thinking about your most significant mentor at this college/university, what was this person’s gender?
Female 1
Male 2
Transgender 3

17e. When thinking about your most significant mentor at this college/university, what was this person’s race/ethnicity?
White/Caucasian 1
Middle Eastern 2
African American/Black 3
American Indian 4
Asian American/Pacific Islander 5
Latino/Hispanic 6
Multiracial 7
Unsure 8
Race/ethnicity not indicated above 9

17f. When thinking of your most significant mentor at this college/university, indicate your level of agreement or disagreement with the following:
This mentor helped me to:
1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree
Empower myself to engage in leadership 1 2 3 4 5
Empower others to engage in leadership 1 2 3 4 5
Engage in ethical leadership 1 2 3 4 5
Live up to my potential 1 2 3 4 5
Be a positive role model 1 2 3 4 5
Mentor others 1 2 3 4 5
Value working with others from diverse backgrounds 1 2 3 4 5
Be open to new experiences 1 2 3 4 5
Develop problem-solving skills 1 2 3 4 5
Identify areas for self improvement 1 2 3 4 5

18. During interactions with other students outside of class, how often have you done each of the following in an average school year? (Select one for each) 1 = Never 2 = Sometimes 3 = Often 4 = Very Often
Talked about different lifestyles/ customs 1 2 3 4
Held discussions with students whose personal values were very different from your own 1 2 3 4
Discussed major social issues such as peace, human rights, and justice 1 2 3 4
Held discussions with students whose religious beliefs were very different from your own 1 2 3 4
Discussed your views about multiculturalism and diversity 1 2 3 4

Held discussions with students whose political opinions were very different from your own 1 2 3 4

19. Since starting college, have you ever participated in a leadership training or leadership education experience of any kind (ex. leadership conference, alternative spring break, leadership course, club president’s retreat…)? 1=Yes 2=No

If NO, skip to #20

19a. Since starting college, to what degree have you been involved in the following types of leadership training or education? 1 = Never 2 = Once 3 = Sometimes 4 = Often
Leadership Conference 1 2 3 4
Leadership Retreat 1 2 3 4
Leadership Lecture/Workshop Series 1 2 3 4
Positional Leader Training (ex. Treasurer’s training, Resident Assistant training, Student Government training) 1 2 3 4
Leadership Course 1 2 3 4
Alternative Spring Break 1 2 3 4
Emerging or New Leaders Program 1 2 3 4
Living-Learning Leadership Program 1 2 3 4
Peer Leadership Educator Team 1 2 3 4
Outdoor Leadership Program 1 2 3 4
Women’s Leadership Program 1 2 3 4
Multicultural Leadership Program
1 2 3 4

* Note that there is a skip pattern here that cannot be documented in a paper and pencil version of the instrument.

19b. Since starting college, have you been involved in the following types of leadership training or education?
1 = Yes 2 = No
Leadership Certificate Program
1 2
Leadership Capstone Experience
1 2
Leadership Minor
1 2
Leadership Major
1 2

19c. Since starting college, to what extent has participation in the following types of training or education assisted in the development of your leadership ability?

1 = Not at all 2 = Minimally 3 = Moderately 4 = A Great Deal
Leadership Conference
1 2 3 4
Leadership Retreat
1 2 3 4
Leadership Certificate Program
1 2 3 4
Leadership Lecture/Workshop Series
1 2 3 4
Positional leader training (ex: Treasurer’s training, Resident Assistant training, Student Government training)
1 2 3 4
Leadership Capstone Experience
1 2 3 4
Leadership Course
1 2 3 4
Leadership Minor
1 2 3 4

ASSESSING YOUR GROWTH

20. Please indicate your level of agreement with the following items:

For the statements that refer to a group, think of the most effective, functional group of which you have been a part.

This might be a formal organization or an informal study group. For consistency, use the same group in all your responses.

1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

I am open to others’ ideas
1 2 3 4 5
Creativity can come from conflict
1 2 3 4 5
I value differences in others
1 2 3 4 5
I am able to articulate my priorities
1 2 3 4 5
Hearing differences in opinions enriches my thinking
1 2 3 4 5
I have low self esteem 1 2 3 4 5
I struggle when group members have ideas that are different from mine 1 2 3 4 5
Transition makes me uncomfortable 1 2 3 4 5
I am usually self confident 1 2 3 4 5
I am seen as someone who works well with others 1 2 3 4 5
Greater harmony can come out of disagreement 1 2 3 4 5
I am comfortable initiating new ways of looking at things 1 2 3 4 5
My behaviors are congruent with my beliefs 1 2 3 4 5
I am committed to a collective purpose in those groups to which I belong 1 2 3 4 5
It is important to develop a common direction in a group in order to get anything done 1 2 3 4 5
I respect opinions other than my own 1 2 3 4 5
Change brings new life to an organization 1 2 3 4 5
The things about which I feel passionate have priority in my life 1 2 3 4 5
I contribute to the goals of the group 1 2 3 4 5
There is energy in doing something a new way 1 2 3 4 5
I am uncomfortable when someone disagrees with me 1 2 3 4 5
I know myself pretty well 1 2 3 4 5

I am willing to devote the time and energy to things that are important to me 1 2 3 4 5
I stick with others through difficult times 1 2 3 4 5
When there is a conflict between two people, one will win and the other will lose 1 2 3 4 5
Change makes me uncomfortable 1 2 3 4 5
It is important to me to act on my beliefs 1 2 3 4 5
I am focused on my responsibilities 1 2 3 4 5
I can make a difference when I work with others on a task 1 2 3 4 5
I actively listen to what others have to say 1 2 3 4 5
I think it is important to know other people’s priorities 1 2 3 4 5
My actions are consistent with my values 1 2 3 4 5
I believe I have responsibilities to my community 1 2 3 4 5
I could describe my personality 1 2 3 4 5
I have helped to shape the mission of the group 1 2 3 4 5
New ways of doing things frustrate me 1 2 3 4 5
Common values drive an organization 1 2 3 4 5
I give time to making a difference for someone else 1 2 3 4 5
I work well in changing environments 1 2 3 4 5
I work with others to make my communities better places 1 2 3 4 5

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I can describe how I am similar to other people
1 2 3 4 5
I enjoy working with others toward common goals
1 2 3 4 5
I am open to new ideas
1 2 3 4 5
I have the power to make a difference in my community
1 2 3 4 5
I look for new ways to do something
1 2 3 4 5
I am willing to act for the rights of others
1 2 3 4 5
I participate in activities that contribute to the common good
1 2 3 4 5
Others would describe me as a cooperative group member
1 2 3 4 5
I am comfortable with conflict
1 2 3 4 5
I can identify the differences between positive and negative change
1 2 3 4 5
I can be counted on to do my part
1 2 3 4 5
Being seen as a person of integrity is important to me
1 2 3 4 5
I follow through on my promises
1 2 3 4 5
I hold myself accountable for responsibilities I agree to
1 2 3 4 5
I believe I have a civic responsibility to the great public
1 2 3 4 5
Self-reflection is difficult for me
1 2 3 4 5
Collaboration produces better results
1 2 3 4 5
I know the purpose of the groups to which I belong
1 2 3 4 5
I am comfortable expressing myself
1 2 3 4 5
My contributions are recognized by others in the groups I belong to
1 2 3 4 5
I work well when I know the collective values of a group
1 2 3 4 5
I share my ideas with others
1 2 3 4 5
My behaviors reflect my beliefs
1 2 3 4 5
I am genuine
1 2 3 4 5
I am able to trust the people with whom I work
1 2 3 4 5
I value opportunities that allow me to contribute to my community
1 2 3 4 5
I support what the group is trying to accomplish
1 2 3 4 5
It is easy for me to be truthful
1 2 3 4 5
It is important to me that I play an active role in my communities
1 2 3 4 5
I volunteer my time to the community
1 2 3 4 5
I believe my work has a greater purpose for the larger community
1 2 3 4 5

THINKING MORE ABOUT YOURSELF

21. How would you characterize your political views?
(Choose One)
1 = Very Liberal
2 = Liberal
3 = Moderate  
4 = Conservative  
5 = Very Conservative

22. In thinking about how you have changed during college, to what extent do you feel you have grown in the following areas? (Select one response for each.)
1 = Not grown at all  
2 = Grown Somewhat  
3 = Grown  
4 = Grown very much

Ability to put ideas together and to see relationships between ideas
1 2 3 4

Ability to learn on your own, pursue ideas, and find information you need
1 2 3 4

Ability to critically analyze ideas and information
1 2 3 4

Learning more about things that are new to you
1 2 3 4

23. How confident are you that you can be successful at the following: (Select one response for each.)
1 = Not at all confident  
2 = Somewhat Confident  
3 = Confident  
4 = Very confident

Leading others
1 2 3 4

Organizing a group’s tasks to accomplish a goal
1 2 3 4

Taking initiative to improve something
1 2 3 4

Working with a team on a group project
1 2 3 4

24. How often do you…
1 = Never  
2 = Sometimes  
3 = Often  
4 = Very Often

Search for meaning/purpose in your life
1 2 3 4

Have discussions about the meaning of life with your friends
1 2 3 4

Surround yourself with friends who are searching for meaning/purpose in life
1 2 3 4

Reflect on finding answers to the mysteries of life
1 2 3 4

Think about developing a meaningful philosophy of life
1 2 3 4

25. The following statements inquire about your thoughts and feelings in a variety of situations. For each item, be as honest as possible in indicating how well it describes you.
1=Does Not Describe Me Well  
2 =  
3 =  
4 =  
5 = Describes Me Very Well

I often have tender, concerned feelings for people less fortunate than me
1 2 3 4 5

Sometimes I don't feel very sorry for other people when they are having problems
1 2 3 4 5

I try to look at everybody's side of a disagreement before I make a decision.
1 2 3 4 5

I sometimes try to understand my friends better by imagining how things look from their perspective
1 2 3 4 5

Other people's misfortunes do not usually disturb me a great deal
1 2 3 4 5

I believe that there are two sides to every question and try to look at them both. 
1 2 3 4 5
When I'm upset at someone, I usually try to "put myself in their shoes" for a while.
1 2 3 4 5

Before criticizing somebody, I try to imagine how I would feel if I were in their place.
1 2 3 4 5

YOUR COLLEGE CLIMATE

26a. Indicate your level of agreement with the following statements about your experience on your current campus
1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

I feel valued as a person at this school
1 2 3 4 5

I feel accepted as a part of the campus community
1 2 3 4 5

I have observed discriminatory words, behaviors or gestures directed at people like me
1 2 3 4 5

I feel I belong on this campus
1 2 3 4 5

I have encountered discrimination while attending this institution
1 2 3 4 5

I feel there is a general atmosphere of prejudice among students
1 2 3 4 5

Faculty have discriminated against people like me
1 2 3 4 5

Staff members have discriminated against people like me
1 2 3 4 5

BACKGROUND INFORMATION

27. Which of the following best describes your primary major? (Select the category that best represents your field of study)
Agriculture
Architecture/ Urban planning
Biological/ Life Sciences (ex. biology, biochemistry, botany, zoology)
Business (ex. accounting, business administration, marketing, management)
Communication (ex. speech, journalism, television/radio)
Computer and Information Sciences
Education
Engineering
Ethnic, Cultural Studies, and Area Studies
Foreign Languages and Literature (ex. French, Spanish)
Health-Related Fields (ex. nursing, physical therapy, health technology)
Humanities (ex. English, Literature, Philosophy, Religion, History)
Liberal/ General Studies
Mathematics
Multi/ Interdisciplinary Studies (ex. international relations, ecology, environmental studies)
Parks, Recreation, Leisure Studies, Sports Management
Physical Sciences (ex. physics, chemistry, astronomy, earth science)
Pre-Professional (ex. pre-dental, pre-medical, pre-veterinary)
Public Administration (ex. city management, law enforcement)
Social Sciences (ex. anthropology, economics, political science, psychology, sociology)
Visual and Performing Arts (ex. art, music, theater)
Undecided
Asked but not answered

28. Did your high school require community service for graduation?
1=Yes 2=No
29. What is your age?
30a. What is your gender?
   1 = Female  2 = Male  3 = Transgender

   If 1or 2, skip to #3

30b. Please indicate which of the following best describe you?
   Female to Male 1
   Male to Female 2
   Intersexed 3
   Rather not say 4

31. What is your sexual orientation?
   Heterosexual 1
   Bisexual 2
   Gay/Lesbian 3
   Questioning 4
   Rather not say 5

32. Indicate your citizenship and/or generation status: (Choose One)
   Your grandparents, parents, and you were born in the U.S.
   1
   Both of your parents AND you were born in the U.S.
   2
   You were born in the U.S., but at least one of your parents was not
   3
   You are a foreign born, naturalized citizen
   4
   You are a foreign born, resident alien/permanent resident
   5
   International student
   6

33a. Please indicate your broad racial group membership:
   (Mark all that apply)
   White/ Caucasian 1
   Middle Eastern 2
   African American/ Black 3
   American Indian/ Alaska Native 4
   Asian American/ Asian 5
   Latino/ Hispanic 6
   Multiracial 7
   Race/Ethnicity not included above 8

   * Note that there is a skip pattern here that cannot be documented in a paper and pencil version of the instrument.

33b. Please indicate your ethnic group memberships (Mark all that apply)
   African American/ Black
   Black American 1
   African 2
   West Indian 3
   Brazilian 4
   Haitian 5
   Jamaican 6
   Other Caribbean 7
   Other Black 8
   Asian American/ Asian
   Chinese 1
   Indian/Pakistani 2
   Japanese 3
   Korean 4
   Filipino 5
   Pacific Islander 6
   Vietnamese 7
   Other Asian 8
   Latino/ Hispanic
   Mexican/ Chicano 1
   Puerto Rican 2
   Cuban 3
   Dominican 4
   South American 5
   Central American 6
   Other Latino 7

34. We are all members of different social groups or social categories. We would like you to consider your BROAD racial group membership (ex. White,
Middle Eastern, American Indian, African American/Black, Asian American/Pacific Islander, Latino/Hispanic, Multiracial) in responding to the following statements. There are no right or wrong answers to any of the statements; we are interested in your honest reactions and opinions.

1 = Strongly Disagree 2 = Disagree 3 = Disagree Somewhat 4 = Neutral 5 = Agree Somewhat 6 = Agree 7 = Strongly Agree

I am a worthy member of my racial group
1 2 3 4 5 6 7

I often regret that I belong to my racial group
1 2 3 4 5 6 7

Overall, my racial group is considered good by others
1 2 3 4 5 6 7

Overall, my race has very little to do with how I feel about myself
1 2 3 4 5 6 7

I feel I don’t have much to offer to my racial group
1 2 3 4 5 6 7

In general, I’m glad to be a member of my racial group
1 2 3 4 5 6 7

Most people consider my racial group, on the average, to be more ineffective than other groups
1 2 3 4 5 6 7

The racial group I belong to is an important reflection of who I am
1 2 3 4 5 6 7

I am a cooperative participant in the activities of my racial group
1 2 3 4 5 6 7

Overall, I often feel that my racial group is not worthwhile
1 2 3 4 5 6 7

I feel good about the racial group I belong to
1 2 3 4 5 6 7

In general, others think that my racial group is unworthy
1 2 3 4 5 6 7

In general, belonging to my racial group is an important part of my self image
1 2 3 4 5 6 7

35a. Do you have any of the following conditions:
1=Yes 2=No

If no, skip to #36

a. Blindness, deafness, or a severe vision or hearing impairment;
1 2

b. A psychological, mental, or emotional condition;
1 2

c. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting);
1 2

d. A condition that affects your learning or concentration;
1 2

e. A permanent medical condition such as diabetes, severe asthma, etc.?
1 2

35b. Please indicate all that apply:
Deaf/Hard of Hearing 1
Blind/Visually Impairment 2
Speech/Language Condition 3
Learning Disability 4
Physical or Musculoskeletal (ex. multiple sclerosis) 5
Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder 6
Psychiatric/Psychological Condition (ex. anxiety disorder, major depression) 7
Neurological Condition (ex. brain injury, stroke) 8
Medical (ex. diabetes, severe asthma) 9
Other 10

36. What is your current religious preference? (Mark Your Primary Affiliation)
Agnostic 1
Atheist 2
Baptist 3
Buddhist 4
Catholic 5
Church of Christ 6
Eastern Orthodox 7
Episcopalian 8
Hindu 9
Islamic 10
Jewish 11
LDS (Mormon) 12
Lutheran 13
Methodist 14
Presbyterian 15
Quaker 16
Roman Catholic 17
Seventh Day Adventist 18
Unitarian/Universalist 19
UCC/Congregational 20
Other Christian 21
Other Religion 22
None 23

37. What is your best estimate of your grades so far in college? [Assume 4.00 = A] (Choose One)
3.50 – 4.00 1
3.00 – 3.49 2
2.50 – 2.99 3
2.00 – 2.49 4
1.99 or less 5

38. What is the HIGHEST level of formal education obtained by any of your parent(s) or guardian(s)? (Choose one)
Less than high school diploma or less than a GED 1
High school diploma or a GED 2
Some college 3
Associates degree 4
Bachelors degree 5
Masters degree 6
Doctorate or professional degree (ex. JD, MD, PhD) 7
Don’t know 8

39. What is your best estimate of your parent(s) or guardian(s) combined total income from last year? If you are independent from your parent(s) or guardian(s), indicate your income. (Choose one)
Less than $12,500 1
$12,500 – $24,999 2
$25,000 – $39,999 3
$40,000 – $54,999 4
$55,000 – $74,999 5
$75,000 – $99,999 6
$100,000 – $149,999 7
$150,000 – $199,999 8
$200,000 and over 9
Don’t know 10
Rather not say 11

40. Which of the following best describes where you are currently living while attending college? (Choose one)
Parent/guardian or other relative home 1
Other off-campus home, apartment, or room 2
College/university residence hall 3
Other on-campus student housing 4
Fraternity or sorority house 5
Other 6

40. Please provide a brief definition of what the term leadership means to you.
APPENDIX B

2009 MSL PARTICIPATING INSTITUTIONS
Appendix B
2009 MSL Participating Institutions

- Alfred University
- Baylor University
- Berry College
- Bridgewater State College
- Brigham Young University–Hawaii
- Bryant University
- Bucknell University
- California Lutheran University
- California State University–Sacramento
- Clemson University
- Colgate University
- Colorado State University
- Columbia College
- Cornell College
- CUNY Bernard M Baruch College
- CUNY Lehman College
- DePaul University
- Drake University
- Drexel University
- Duke University
- Elmhurst College
- Elon University
- Furman University
- Gallaudet University
- George Mason University
- Georgia Southern University
- Gettysburg College
- Guilford College
- Hamline University
- Harvard University
- Houghton College
- Indiana University–Bloomington
- Jackson State University
- John Carroll University
- Kansas State University
- Kent State University
- Loyola Marymount University
- Loyola University Chicago
- Mansfield University
- Marquette University
- Meredith College
- Metropolitan State College of Denver
- Millikin University
- Mills College
- Missouri Western State University
- Monroe Community College
- Montgomery College
- Moravian College
- North Carolina Central University
- North Carolina State University
- Northeastern Illinois University
- Northeastern State University
- Northwestern University
- Ohio University
- Pacific Lutheran University
- Regis University
- Roger Williams University
- Rollins College
- Saint Joseph’s University
- Saint Mary’s University of Minnesota
- Samford University
- Seattle University
- Sonoma State University
- Southern Methodist University
- Suffolk County Community College
- SUNY at Binghamton
- SUNY at Buffalo
- SUNY at Geneseo
- SUNY–Potsdam
- Temple University
- Texas A & M University
- Texas Christian University
- University of Arizona
- University of California–Berkeley
- University of Central Florida
- University of Central Oklahoma
- University of Chicago
• University of Colorado at Boulder
• University of Detroit Mercy
• University of Illinois at Urbana–Champaign
• University of Iowa
• University of Kansas
• University of Louisville
• University of Maryland–College Park
• University of Maryland Eastern Shore
• University of Massachusetts–Lowell
• University of Minnesota–Twin Cities
• University of Monterrey
• University of Nevada–Las Vegas
• University of North Carolina at Chapel Hill
• University of North Carolina at Greensboro
• University of North Carolina–Wilmington
• University of Richmond
• University of Rochester
• University of San Diego
• University of San Francisco
• University of Scranton
• University of South Florida
• University of Tampa
• University of Wisconsin–La Crosse
• University of Wisconsin–Madison
• University of Wisconsin–Oshkosh
• University of Wisconsin–Stevens Point
• Wilson College
• Wartburg College
• Youngstown State University
APPENDIX C

UW-LA CROSSE 2009 MSL CONSENT FORM
## 2009 MSL Consent Form

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Multi-institutional Study of Leadership (MSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Why is this research being done?</strong></td>
<td>This is a research project being conducted by the National Clearinghouse for Leadership Programs (NCLP) at [name of institution]. The purpose of this research project is to enhance knowledge regarding college student leadership development as well as the influence of higher education on the development of leadership capacities.</td>
</tr>
<tr>
<td><strong>What will I be asked to do?</strong></td>
<td>You have been selected to respond to an online survey about student leadership development. This survey will take about 20 minutes and asks questions about your experiences before and after you started college. For example, you will be asked about campus and community involvement, mentors, your experiences in engaging with other students, and other topics. You may leave it at any time and resume from your last completed response. You may also skip any questions that you are not comfortable answering.</td>
</tr>
<tr>
<td><strong>What are the risks of this research?</strong></td>
<td>There are no known risks associated with participating in this research project.</td>
</tr>
<tr>
<td><strong>What are the benefits of this research?</strong></td>
<td>This research is not designed to help you personally, but the results may help the investigator learn more about leadership development at [name of institution] and across the country. We hope that, in the future, other people might benefit from this study through improved understanding of college student leadership development.</td>
</tr>
<tr>
<td><strong>Do I have to be in this research? May I stop participating at any time?</strong></td>
<td>Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.</td>
</tr>
<tr>
<td><strong>What about confidentiality?</strong></td>
<td>We will do our best to keep your personal information confidential. To help protect your confidentiality, The Center for Student Studies (CSS), an independent survey-research company, has been hired to maintain all study records. They will use password-protected, 128-bit SSL-encrypted technology to receive, transmit, and store data. You have been assigned a randomly generated, one-time-use ID number as a code to access the survey, so that your responses will be separated from any information that could possibly identify you. Your name will not be included on the surveys and other collected data. Through the use of an identification key, the researchers will be able to link your survey to your identity; only the researcher will have access to the identification key. The data from this study will be retained in a secure repository for future research purposes. Records will be kept confidential to the extent provided by federal, state, and local law. CSS will retain your contact information—in a separate, secure file from data—in order to send you follow up emails if necessary. You may be contacted in future years for a follow-up study. Upon completion of the study, all names and e-mail addresses will be destroyed.</td>
</tr>
<tr>
<td></td>
<td>IF we write a report or article about this research project, your identity will be</td>
</tr>
</tbody>
</table>
protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required by law to do so.

<table>
<thead>
<tr>
<th>What if I have questions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>This research is being conducted by Susan R. Komives, Ed.D. (University of Maryland, College Park) and John P. Dugan, PhD (Loyola University Chicago) and the Center for Student Studies (CSS). If you have any questions about the research study itself, please contact CSS at:</td>
</tr>
<tr>
<td>Sara O’Brien</td>
</tr>
<tr>
<td>Center for Student Studies</td>
</tr>
<tr>
<td>220 E. Huron, Suite 440</td>
</tr>
<tr>
<td>Ann Arbor, MI 48302</td>
</tr>
<tr>
<td>(866) 561-3136</td>
</tr>
<tr>
<td><a href="mailto:info@leadershipstudy.net">info@leadershipstudy.net</a></td>
</tr>
</tbody>
</table>

If you have questions about your rights as a research subject or wish to report a research-related injury, please contact:

Institutional Review Board Office,  
University of Maryland, College Park, Maryland, 20742;  
(e-mail) irb@deans.umd.edu;  
(telephone) 301-405-0678

or

Kaye Schendel  
Asst. Director of University Centers  
(608)785-8869  
Schendal.kaye@uw-lax.edu

This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.

<table>
<thead>
<tr>
<th>Statement of Age of Subject and Consent</th>
</tr>
</thead>
</table>
| Answering “yes” indicates that:  
• You are at least 18 years of age  
• The research has been explained to you  
• Your questions have been fully answered  
• You freely and voluntarily choose to participate in this research project |
APPENDIX D

INVITATION TO PARTICIPATE IN UW-LA CROSSE 200- MSL STUDY
Appendix D
Invitation to Participate in UW-La Crosse 2009 MSL Study

SUBJECT: Multi-institutional Study of Leadership
FROM: Joe Gow, Chancellor

Dear [Student Name],

You have been randomly selected to participate in a national study which will focus on student leadership experiences in college. As Chancellor of UW-L, I often am asked what our students gain from attending college. Frequently, I point to data about student activities and learning during their college education. By completing the survey, the Multi-institutional Study of Leadership, you can help me to further demonstrate the value of higher education. Your responses—along with those of your peers at the University of Wisconsin-La Crosse and across the nation—will help us to learn more about our students' experiences and to develop leadership among our graduates.

Participation is quick and easy.

To participate in the study:

1. Click on this link or cut and paste it into your browser: https://www.ssgresearch.com/MSL
2. Where requested, enter this study ID: [Study ID]
3. Click the START SURVEY button on the screen to proceed.
4. Complete the study by following the directions on the screen.

The survey will only take about 20 minutes. Your participation is completely voluntary and you may withdraw without penalty at any time. All of your responses will be kept strictly confidential; your name and contact information will never be traced to the information you provide.

If you have any questions about the survey, please contact Kaye Schendel at 785-8869. If you have questions or require technical assistance, please contact the Survey Sciences Support Desk by sending an email to support@ssgresearch.com. Please refer to the Multi-institutional Study of Leadership and provide this Study ID: [STUDY ID].

Finally, I want to personally thank you for considering this request. I expect that the information you and other students provide will identify areas in your educational experience where we can improve and lead to constructive changes at our university. Best wishes for a successful semester!

Sincerely,

Joe Gow
Chancellor
785-8004
gow.joe@uwla.edu
Reminder 1

SUBJECT: Multi-institutional Study of Leadership
FROM: Dr. Joe Gow, Chancellor

Dear [Student Name],

Previously we contacted you concerning a national study which will focus on student leadership experiences in college. Your responses—along with those of your peers at [Institution Name] and across the nation—will help us to develop leadership among our graduates and to learn more about our students' experiences. There is still time to share your perspective.

Participation is quick and easy.

To participate in the study:

1. Click on this link or cut and paste it into your browser: https://www.ssgresearch.com/MSL
2. Where requested, enter this study ID: [Study ID]
3. Click the START SURVEY button on the screen to proceed.
4. Complete the study by following the directions on the screen.

The survey will only take about 20 minutes. Your participation is completely voluntary and you may withdraw without penalty at any time. All of your responses will be kept strictly confidential; your name and contact information will never be traced to the information you provide.

If you have any questions about the survey, please contact [Institutional Contact person]. If you have questions or require technical assistance, please contact the Survey Sciences Support Desk by sending an email to support@ssgresearch.com. Please refer to the Multi-institutional Study of Leadership and provide this Study ID: [STUDY ID].

Thank you for considering this request. The information you and other students provide will identify areas in your educational experience where we can improve and lead to constructive changes at our university. Best wishes.

Sincerely,
Joe Gow
Chancellor
785-8004
gow.joe@uwlax.edu
Reminder 2

SUBJECT: Multi-institutional Study of Leadership
FROM: Dr. Joe Gow, Chancellor

Dear [Student Name],

The Multi-institutional Study of Leadership (MSL) has now been open for several weeks, and we would like to thank everyone who has responded! Although the study is drawing to a close, there is still time for students who have not yet participated to share their perspectives. Your responses—along with those of your peers at [Institution Name] and across the nation—will help us to develop leadership among our graduates and to learn more about our students' experiences.

Participation is quick and easy.

To participate in the study:

1. Click on this link or cut and paste it into your browser:
   https://www.ssgresearch.com/MSL
2. Where requested, enter this study ID: [Study ID]
3. Click the START SURVEY button on the screen to proceed.
4. Complete the study by following the directions on the screen.

The survey will only take about 20 minutes. Your participation is completely voluntary and you may withdraw without penalty at any time. All of your responses will be kept strictly confidential; your name and contact information will never be traced to the information you provide.

If you have any questions about the survey, please contact [Institutional Contact person]. If you have questions or require technical assistance, please contact the Survey Sciences Support Desk by sending an email to support@ssgresearch.com. Please refer to the Multi-institutional Study of Leadership and provide this Study ID: [STUDY ID].

Thank you for considering this important request. The information you and other students share will be most helpful as we continue to assure we provide the best educational experience possible at UW-L. Best wishes on your studies!

Sincerely,

Joe Gow
Chancellor
785-8004
gow.joe@uwlax.edu
Reminder 3

SUBJECT: Multi-institutional Study of Leadership
FROM: Dr. Joe Gow, Chancellor

Dear [Student Name],

As we enter the final stage of the Multi-institutional Study of Leadership, we offer our sincere thanks to the students who have shared their perspectives. Your response has been tremendous and will be enormously helpful in developing leadership among our graduates and learning more about our students' experiences.

Although the study is very close to being completed, if you have not yet participated, we would still welcome your response. Participation is quick and easy.

To participate in the study:

1. Click on this link or cut and paste it into your browser: https://www.ssgresearch.com/MSL
2. Where requested, enter this study ID: [Study ID]
3. Click the START SURVEY button on the screen to proceed.
4. Complete the study by following the directions on the screen.

The survey will only take about 20 minutes. Your participation is completely voluntary and you may withdraw without penalty at any time. All of your responses will be kept strictly confidential; your name and contact information will never be traced to the information you provide.

If you have any questions about the survey, please contact [Institutional Contact person]. If you have questions or require technical assistance, please contact the Survey Sciences Support Desk by sending an email to support@ssgresearch.com. Please refer to the Multi-institutional Study of Leadership and provide this Study ID: [STUDY ID].

Thank you for considering this request. The information you and other students provide will identify areas in your educational experience where we can improve and lead to constructive changes at our university. Best wishes.

Sincerely,
Joe Gow
Chancellor
785-8004
gow.joe@uwlax.edu