ABSTRACT

Title of Thesis:	COCURRICULAR INVOLVEMENT, FORMAL LEADERSHIP ROLES, AND LEADERSHIP EDUCATION: EXPERIENCES PREDICTING COLLEGE STUDENT SOCIALLY RESPONSIBLE LEADERSHIP OUTCOMES
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This thesis explored gender differences in socially responsible leadership outcomes and the extent to which cocurricular involvement, holding formal leadership roles, and participating in leadership programs contributed to these outcomes. This study utilized the Input-Environment-Outcome model and the social change model. Data was collected from a random sample of 3410 undergraduates at the University of Maryland through the Multi-Institutional Study of Leadership. Participants completed a web-based survey that included the Socially Responsible Leadership Scale-Revised2. Data was analyzed using multivariate analysis of variance to identify outcome gender differences and hierarchical multiple regression to identify the extent to which environmental variables of this study contributed to outcomes.

Women scored significantly higher than men in five of eight outcome measures. Each environmental variable emerged as significant for at least one outcome, and involvement in student organizations was the most common environmental variable. Results from this study provide implications for practice and future research.

COCURRICULAR INVOLVEMENT, FORMAL LEADERSHIP ROLES, AND
LEADERSHIP EDUCATION: EXPERIENCES PREDICTING COLLEGE STUDENT
SOCIALLY RESPONSIBLE LEADERSHIP OUTCOMES

by

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Chapter I:

Introduction

As is reflected in institutional mission statements, many colleges and universities

place emphasis on outcomes specifically related to student leadership development

(Miller, 2003; National Clearinghouse for Leadership Programs, 2006), or reaching

higher levels of developmental maturity in the area of leadership skills, abilities,

knowledge, and competence (Roberts & Ullom, 1990). The leadership development of

college students has increasingly become a strong focus of student affairs work at

institutions across the country (Roberts, 1997), and the academic study of leadership has

also become more prominent on college campuses. Student leadership programs, which

are cocurricular and curricular programs specifically designed to help develop students'

leadership skills and abilities, continue to become important elements of institutions. It is

estimated that there are over 800 student leadership programs present on college

campuses across the country (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001;

DiPaolo, 2002).

In addition to exposure to leadership program initiatives, students participate in a

number of experiences that can help contribute to the development of leadership

outcomes. For example, many students participate in or hold leadership positions in

cocurricular activities, work on or off campus, participate on athletic teams, volunteer in

the community, or are involved in other campus or community organizations.

There are a number of outcomes that are classified as leadership outcomes. These

outcomes can include the development of certain skills, such as communication skills,

teamwork, goal setting, adaptability, problem solving skills, networking skills, public

speaking skills, planning and programming skills, and supervisory skills (Daugherty & Williams, 1997; DiPaolo, 2002; Guido-DiBrito & Batchelor, 1988; Moss, 1992; Rohs & Langone, 1997; Schuh & Laverty, 1983; Zimmerman-Oster & Burkhardt, 1999). Leadership outcomes also include commitments, such as commitment to service, ethical development, desire for change, development of personal values, a focus on integrity, willingness to take responsibility, focus on community welfare, citizenship, and commitment to organizational goals (Cress et al., 2001; DiPaolo, 2002; Eklund-Leen & Young, 1997; Moss, 1992; Romano, 1996; M. Williams & Winston, 1985; Zimmerman-Oster & Burkhardt). Many leadership outcomes involve interactions and relationships with others, such as the outcomes of multicultural awareness and competence, team building, inspiring a shared vision, enabling others to act, encouraging the heart, ability to motivate others, development of a collaborative leadership style, and group dynamics (Binard & Brungardt, 1997; Cress et al., 2001; Kouzes & Posner, 1995; Moss, 1992; Romano, 1996; Sermenrsheim, 1996; M. Williams & Winston, 1985).

The social change model (SCM) (Higher Education Research Institute, 1996) is a model of leadership development that identifies seven leadership values, or outcomes, that exist on three levels: (1) individual, (2) group, and (3) community. The individual values are: Consciousness of Self, Congruence, and Commitment. The group values are: Common Purpose, Collaboration, and Controversy with Civility. The value of Citizenship comprises the community level of the model. In addition to these seven values, the value of Change was introduced, which is identified as the overall goal of the model. The term *socially responsible leadership* has been adopted to describe the philosophy of leadership presented by the SCM (Tyree, 1998). The SCM serves as the

theoretical frame of this research study. This model was chosen due to the context and focus of the research study; the model was created specifically for college students, and it reflects the emerging paradigm of leadership as a relational, change-directed, learned, and transformative process (Rost, 1993). The Socially Responsible Leadership Scale (SRLS) was developed as a way to measure the values and outcomes of the SCM (Tyree, 1998, 2001). This research study included a revised version of the SRLS to measure the values and outcomes of the SCM; the eight values of the model serve as the dependent variables of this study.

The development of the SCM was influenced in part by a study of 77 female leaders of the women's movement in the 1960s-1980s and the themes that emerged from these studies (H. S. Astin & Leland, 1991). Leadership models similar to the SCM that have a relational and non-hierarchical focus, in contrast to the traditional conceptualizations of leadership that emphasize individualism and competition, have provided a leadership framework with which traditionally underrepresented groups have been able to identify. It has been asserted that women and people of color have been empowered by different models and perspectives of leadership such as relational leadership perspectives (Ostick, in press-a).

RESEARCH ADDRESSING THE STUDY VARIABLES

Three of the independent variables consistent in the literature as variables contributing to the development of leadership outcomes are: cocurricular involvement, holding formal leadership roles, and participation in leadership training and education programs. Many studies have been conducted on the impact of these independent

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variables on the outcome of leadership. A brief overview of studies addressing the independent and dependent variables of this research study is presented below.

Studies focusing on outcomes of college students' involvement in cocurricular involvement tend to have one of two focuses. Many studies focus on comparing those students who are involved cocurricularly to those students who are not involved cocurricularly, with involved students demonstrating higher outcome levels in many of the identified leadership tasks and outcomes (Cooper, Healy, & Simpson, 1994; Eklund-Leen & Young, 1997; Kimbrough & Hutchenson, 1998; M. Williams & Winston, 1985). Another family of studies are exploratory in nature, examining the short-term and long-term impact that cocurricular involvement had on the student participants (Byer, 1998; Pascarella, Ethington, & Smart, 1988; Sutton & Terrell, 1997). There was a significant lack of literature on college students' involvement in off-campus community organizations.

Studies focusing on outcomes of holding formal leadership roles for college students are similar to those that focus on cocurricular involvement. A handful of studies compare leaders (those holding formal leadership roles) to nonleaders (those not holding formal leadership roles), with leaders exhibiting higher outcome levels on some measures than nonleaders (Cooper et al., 1994; DeJulio, Larson, Dever, & Paulman, 1981; Eklund-Leen & Young, 1997). Other studies, which are more exploratory, examine outcomes, both short-term and long-term, that are associated with holding a formal leadership role (Kuh & Lund, 1994; Pascarella et al., 1988; Romano, 1996; Schuh & Laverty, 1983; Sutton & Terrell, 1997). Positional leaders in these studies hold formal leadership roles

in campus organizations; no studies were identified that explore college students'

experiences in formal leadership roles in community organizations.

Studies focusing on outcomes of college students' involvement in leadership

training and education programs tended to be exploratory in nature, examining the impact

of participation in these programs on the student participants. Of the studies examined in

this research study, each study with the exception of one (Cress et al., 2001), focused on

the participant outcomes and how participants changed or developed without making

comparisons to non-participants (Binard & Brungardt, 1997; DiPaolo, 2002; Hobbs &

Spencer, 2002; J. R. Williams & Townsend, 2003; Zimmerman-Oster & Burkhardt,

1999).

While there are a number of studies that examine the effect of cocurricular

involvement, holding formal leadership roles, and leadership education and training on

students' leadership development, there is a lack of research and literature that examines

these constructs simultaneously and how, if at all, these experiences may contribute

differently to certain leadership outcomes. It is uncertain, for example, if holding a

leadership role helps develop different leadership outcomes than participating in

leadership training. It has not been determined which experiences contribute more

significantly to the outcome of students' leadership development.

In addition to difficulty in drawing conclusions about the extent to which the

independent variables of this study impact leadership outcomes of college students, there

is lack of substantial research on differences in leadership outcomes of college students

by gender and race. Although there has been substantial research on leadership by

gender (Eagly, Karau, & Makhijani, 1995; Eagly, Makhijani, & Klonsky, 1992), little has

focused on gender differences of leadership outcomes among college students. Some

studies have examined the experiences and leadership outcomes of just women (H. S.

Astin & Leland, 1991; Romano, 1996) or just men (DiPaolo, 2002; Sutton & Terrell,

1997), while some make comparisons of results by gender (Dugan, 2006a; Eklund-Leen

& Young, 1997; Pascarella et al., 1988). Gender differences of leadership outcome

scores have varied with a lack of consistency from which to draw conclusions.

Specifically related to the outcomes presented by the SCM, one study's results indicated

higher self-reported scores for women on all eight constructs (Dugan), while another

study indicated that overall, men reported higher self-assessed leadership abilities than

women (Kezar & Moriarty, 2000). A few research studies have focused specifically on

African American leadership (Kimbrough & Hutchenson, 1998; Sutton & Terrell, 1997),

and a few studies compared leadership outcomes of Black or White participants, with

significant differences between the different groups identified (Kezar & Moriarty, 2000;

Pascarella et al., 1988). Overall, there is a lack of research on leadership outcomes of

underrepresented student populations such as women and students of color.

There is also a lack of research that focuses on leadership as presented by the

SCM (Higher Education Research Institute, 1996). With the exception of doctoral

dissertations (Rubin, 2000; Stenta, 2001; Tyree, 1998), two theses (Meixner, 2000;

Morrison, 2001), and two articles (Dugan, 2006a, 2006b), the researcher was unable to

identify published research studies that used the SCM as a focus or theoretical frame.

With the exception of one article (Dugan, 2006b), the researcher was unable to identify

research that focuses on how cocurricular involvement, holding a formal leadership role,

and participation in leadership training and education contribute to the outcomes presented by the SCM.

Although leadership is a growing research topic, there are a number of gaps in the literature base. First, literature on leadership outcomes and experiences that contribute to the development of these outcomes in college students is sparse. Second, there is a lack of literature looking at how the combination of differing experiences of holding a formal leadership role, cocurricular involvement, and participation in leadership education and training programs impact students' leadership outcomes. Third, there was no identified research on studies addressing college student's experiences as participants and formal leaders in off-campus community organizations. Fourth, recent research that focuses on college student leadership outcome differences by gender and race is lacking. Fifth, literature is sparse in the utilization of the SCM in research. Last, there is only one identified research study addressing the independent variables of cocurricular involvement, holding a formal leadership role, and participation in leadership education and training programs on students' outcomes of socially responsible leadership (Dugan, 2006b).

PURPOSE OF THE STUDY

Accordingly, this study attempted to address some of the gaps in current literature and contribute to the research on leadership development examining experiences that contribute to students' leadership outcomes. The purpose of this study is to identify any gender differences in socially responsible leadership outcomes and the extent to which cocurricular involvement, holding formal leadership roles, and participating in leadership

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education and training programs independently and collectively contribute to undergraduate college students' outcomes of socially responsible leadership.

Two research questions were posed: (1) What, if any, gender differences exist in the mean outcome scores of college students' socially responsible leadership?(2) How much of the variance of men and women college students' leadership development outcomes is explained by cocurricular involvement, holding formal leadership roles, and participation in leadership education and training programs?

RESEARCH METHODS

In addressing the research questions, A. W. Astin's (1991) input-environment-outcome (I-E-O) college impact model was used as a conceptual framework for this study. The I-E-O model, which is described in more detail in Chapter Two, takes into consideration input variables and environmental variables when assessing identified outcomes. In the case of this study, pre-college variables, race, and class standing were identified as input variables, the three independent variables of the study serve as the environmental variables, and the eight Cs of the SCM are the outcome variables.

Data was gathered from a random sample of 3410 undergraduate students at the University of Maryland through the Multi-Institutional Study of Leadership (MSL). The MSL was a national study with 54 participating schools that examined the SCM outcomes in college students at the participating institutions. Participants in the study were students at the University of Maryland. They completed a web-based survey that consisted of the Socially Responsible Leadership Scale-Revised2 (SRLS-R2) and additional background, environmental, and outcome variables. The first research question was analyzed through multivariate analysis of variance (MANOVA) to examine

possible gender differences in each outcome measure. The second research question was analyzed using 16 stepwise multiple regression analyses to determine the environmental variables that explained the most variance in the outcome scores. Eight analyses were conducted for both men and women, with each analysis focusing on one of the eight outcome variables of the SCM. The methods of this study are explained in more depth in Chapter Three.

DEFINITION OF TERMS

While there may be many conceptualizations of the following terms, definitions are provided below that best reflect the meaning of these terms as presented in this research study.

Leadership: As presented by the Social Change Model, leadership involves "effecting change on behalf of others and society" (Higher Education Research Institute, 1996, p. 10). It is a process that involves collaboration and is values-based. All students, including those not holding a formal leadership role, have the potential to practice leadership (A.W. Astin et al.).

Leadership training and education program: Any program or activity intentionally designed with the purpose of developing or enhancing the leadership skills, knowledge, or abilities of college students. These programs can include the components of leadership training, education, and development through such means as seminars and workshops, mentoring, guest speakers, service and volunteer placement, leadership courses, outdoor education, conferences, leadership awards and recognition, leadership minors and majors, and participant advisory groups (Zimmerman-Oster & Burkhardt, 1999).

Formal leadership role: A leadership position in a campus or community organization. This can include being a President, Co-Chair, Committee Head, or Team Captain.

Cocurricular involvement: A form of involvement that occurs outside of the classroom. This has also been referred to as extra- curricular involvement. The term *cocurricular* has been chosen to reflect a cooperative rather than a supplementary form of involvement. Cocurricular involvement in this context includes organized involvement in campus groups or organizations as well as community organizations or groups.

Community organizations: Involvement in community organizations involves being part of a group experience off-campus and in the larger community, such as being a member of PTA, church groups, or community sports teams.

Leadership outcomes: Knowledge, skills or abilities that enable a student to better understand, practice or relate to the concept of leadership.

Social change model of leadership: A model of leadership development designed for college students that identifies leadership values, or outcomes, that exist on the individual, group, and community levels with the ultimate goal of creating social change (Higher Education Research Institute, 1996).

Socially responsible leadership outcomes: The eight outcomes included in the social change model of leadership. The values are: Consciousness of Self, Commitment, Congruence, Common Purpose, Collaboration, Controversy with Civility, Citizenship, and Change (Higher Education Research Institute, 1996). For the purpose of differentiating these eight outcomes from the use of these words in general use, they will be capitalized throughout the thesis.

SIGNIFICANCE OF THE STUDY

Determining and identifying the experiences that positively contribute to students' leadership development is important for colleges and universities, leadership educators, student affairs practitioners, other administrators, and students.

As stated above, leadership is an identified focus of many institutions' missions (Miller, 2003). Additionally, higher education's history reflects a focus on the development and preparation of citizens to be leaders, and today the purpose of education still reflects a strong focus on developing leaders (Roberts & Ullom, 1990). There is an increased focus and trend on developing leaders as well as providing opportunities and programs for students to develop as leaders (Miller, 2003; Reisberg, 1998). Research on the way in which students develop as leaders, and more specifically, the experiences that contribute to this development is directly in line with the missions of institutions and education today.

An additional focus on education today is developing the whole student and identifying outcomes that allow for this development. The American College Personnel Association (ACPA) and the National Association of Student Personnel Administrators' (NASPA) (2004) joint report, *Learning Reconsidered,* introduces a new understanding of student learning and development, and stresses the importance "defining integrated, intertwined academic and developmental outcomes" (p. 20). Of the seven outcomes presented in the report, the outcome of *civic engagement* is c onsistent with the concept of leadership utilized in this thesis. This outcome includes the dimensions of developing a sense of civic responsibility and practicing effective leadership. Sample developmental experiences identified for the outcome of civic engagement include: involvement in

student organizations, student governance groups, athletic teams, community organizations, leadership courses, and leadership programs. The outcome of civic engagement and the accompanying dimensions and experiences closely reflect that of this thesis. The authors of the report express the need of focusing on the outcomes in the report as a way to enhance student learning and development. Further research on the experiences impacting the educational goal of leadership will contribute a greater focus on the learning outcome of civic engagement and help to fill the need that the authors express.

As funding is becoming more scarce, there is an increased focus on assessment, accreditation and accountability, and there is a continued emphasis on student learning outcomes (Miller, 2003). Information and knowledge on the contributing experiences and sources of students' leadership development through assessment and research will help secure funding, justify the programmatic efforts to enhance students' leadership development, and better connect these experiences to identified student learning outcomes. Additionally, understanding how cocurricular experiences contribute to students' leadership development can demonstrate the value of student affairs programming as a contributing factor to the academic mission of the institution.

Additional research on leadership outcomes and contributors to these outcomes will help student affairs practitioners and leadership educators better understand the impact that different on-campus experiences have on students' leadership development. This can contribute to enhanced practices and services in the areas of leadership programming, training, education, and opportunities provided on campus, which can lead to enhanced student outcomes and greater support for programs that contribute to

students' leadership development. Similarly, better understanding the impact of community involvement on students' leadership development could lead to more intentional community and campus collaborations to facilitate student involvement off campus.

A focus on student experiences and subsequent learning outcomes is consistent with the literature on experiential learning and education. The field of experiential learning and education places a strong focus and importance on experiences as a means of learning and developing (Chickering, 1977; Dewey, 1938; Kolb, 1976, 1984). The focus of this research study will add to the literature of cocurricular experiences as a form of experiential learning. It will also provide additional information and understanding on how cocurricular involvement, holding formal leadership roles, and participation in leadership training and education programs, as forms of experiential learning, contribute to students' learning and development.

Overall, the philosophy of leadership, the concept of learning outcomes, and the presence of experiential learning opportunities for students are current and growing issues of importance and provide rationale and justification for the importance of this research study.

CONCLUSION OF CHAPTER

This chapter introduced the context of student leadership in higher education and includes research findings of studies on the dependent and independent variables of the study, the significance of the study, the purpose of the study, research study methods, and definition of terms. Chapter Two will provide more detailed insight to the existing

literature and research surrounding the constructs of the study and provide rationale for

the purpose of this research study.

Chapter II:

Literature Review

This literature review provides a context for exploring the relationships between leadership outcomes and participation in cocurricular involvement, holding formal leadership roles, and participation in leadership training and education programs for undergraduate college students. Additionally, it examines possible leadership outcome differences by gender. This chapter will provide a context for any comparisons between the three independent variables on the dependent variable of socially responsible leadership outcomes. The literature review provides this context by first presenting A. W. Astin's (1991) inputs-environment-outcome (I-E-O) model, which serves as the conceptual framework for the study. Second, the literature review will provide a foundation of and present the evolution of leadership with a strong focus on the social change model (SCM), which is a central theoretical model in this study. Third, this chapter will explore experiential learning and more specifically, cocurricular involvement, formal leadership roles, and leadership education and training programs as forms of student involvement and the impact that these forms of involvement have on leadership outcomes. In each section, existing theoretical frameworks and research studies will be presented and examined.

INPUT-ENVIRONMENT-OUTCOME MODEL

The conceptual framework of this study is based on A. W. Astin's (1991) input-environment-outcomes (I-E-O) model of student impact. The I-E-O model allowed the researcher to examine which factors of the environment impacted student leadership development outcomes. This model is comprised of inputs, environmental factors, and

outcomes, with inputs and outcomes being student characteristics at different points of time and environment being the intervening forces and experiences. Examining the model in the college context, inputs are student characteristics or qualities that students have upon entering college, environment refers to the experiences that students have during college that may impact them, and outcomes are the characteristics, talents or outputs that students have at a certain point of time during or after college.

Inputs, environments, and outcomes are not automatically or intrinsically assigned; it depends on the context of the study. A. W. Astin (1991) gives the example of grade point average (GPA); GPA could be used as an input variable, such as looking at high school GPA when assessing college academic achievement. GPA can also be used as an environmental factor, such as using a student's roommate's GPA as an environmental measure. Last, GPA can be used as an output, or what a researcher may be trying to examine as an outcome.

The I-E-O model (1991) is presented below in Figure 1. As can be seen in this model, there are arrows between inputs and environment (A), environment and outputs (B), and inputs and outputs (C). There is a relationship between each of these, and it is important to take into account both inputs and the environment when looking at outcomes. Inputs influence outcomes in two ways. They impact outcomes directly and also indirectly through influencing the environment (Thurmond & Popkess-Vawter, 2003, p. 2).

A. W. Astin (1991) states that often assessment and evaluation in the field of education focuses on the relationship between environmental factors and outcomes. He argues that student inputs should also be accounted for, stating that "the basic purpose of

Figure 1: *A. W. Astin's (1991) Input-Environment-Outcome Model*
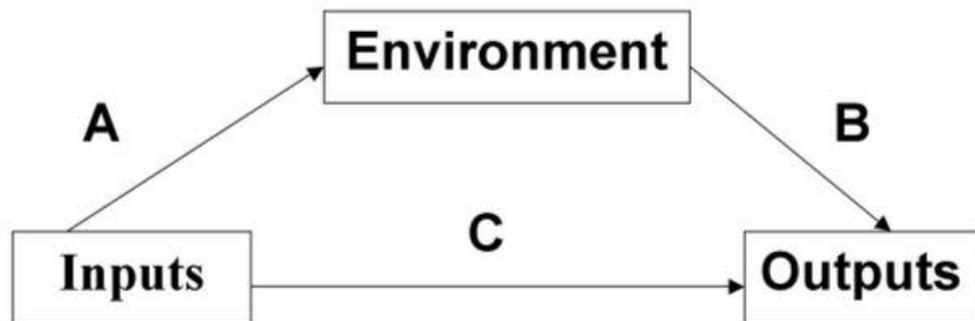
the I-E-O design is to allow us to correct or adjust for such input differences in order to

get a less biased estimate of the comparative effects of different environments and

outputs" (A. W. Astin, p. 19). The I-E-O model enables assessment of students at two

different time points (inputs and outcomes), enabling the researcher to better understand

the effect of the environment on the outcomes.

The environmental component of the model is crucial for educators, as it is the

environmental factors that educators develop and have some control over with the goal of

helping students reach the outcomes (A. W. Astin, 1991). The environmental factors are

also the most difficult to assess. A. W. Astin states that a primary purpose of research is

"to learn as much as possible about how to structure educational environments" (p. 18) in

order to maximize students' outcomes and development. Just focusing on the inputs and

the outcomes is limiting in that it is unclear what forces or environmental factors

contributed to the outcomes. Environmental variables are sometimes in educators'

control (ie. teaching method) or out of educators' control (a death in a student's family).

For those environmental factors that educators can control, knowing the impact of that

environmental factor can influence educators' decisions to utilize this information as a way to improve the learning environment, ideally enhancing student outcomes.

This thesis used the I-E-O model as a conceptual framework of the study and focused on the relationship between certain environmental factors (cocurricular involvement, holding a formal leadership role, and leadership education and training programs) on the output of specified leadership outcomes. This thesis only included eight environmental variables, which deviates from the I-E-O design, which includes all of the environmental variables believed to be predictive of the outcomes. Input variables in this design were race, pre-college measure of cocurricular involvement, holding a formal leadership role, and leadership training and education programs, and pre-test measures of the leadership outcomes. Data collection for this thesis was cross-sectional; the respondents were asked to assess their input characteristics at the same time that they are assessing their outcome variables. This cross-sectional method does not reflect a true I-E-O design, in which the data would be collected at two different points in time.

The I-E-O model is used often in educational research to assess the effect of the environment on various outputs (A. W. Astin, 1993; Campbell & Blakey, 1996; Fisher, 1995; House, 1998; Kelly, 1996; Longerbeam, 2005; Sax, Bryant, & Gilmartin, 2002; Zhao, 1999). A few studies were identified that focus specifically on outcomes that could be considered leadership outcomes.

A. W. Astin's (1993) *What Matters in College,* which will be discussed in more depth under the *involvement* section in this chapter, uses the I-E-O framework to assess a variety of cognitive and affective outcomes. The study was conducted using CIRP data from 1985 and 1989 and utilized a number of demographic and pretest measures for

inputs and 192 environmental variables, which included 57 variables of student involvement. One of the outcomes of the study was leadership abilities and the environmental variables that had the strongest correlation to this outcome were time spent in student clubs or organizations, being elected to student office, and giving presentations in class. Time spent in student clubs or organizations and being elected to student office reflect the variables of cocurricular involvement and holding a formal leadership roles included in this thesis.

Longerbeam (2005) conducted a study examining the impact of living-learning programs and other environmental factors on students' perceptions of growth in openness to diversity. Inputs used in the study included: gender, race/ethnicity, and SAT/ ACT scores. The environmental factors used in the study included many measures, such as the composite measures of positive diversity environment, residence hall climate, academic and cocurricular involvement, and peer interaction. The outcomes of critical thinking, sense of civic engagement, sense of civic empowerment, and openness to diversity were used in the study, all of which relate to the broad outcome of leadership.

This section has provided information on the conceptual framework of this thesis. The next section provides a foundation of leadership. The evolution of leadership is presented in addition to information on the SCM, the theoretical framework of this study and the model from which the outcomes used in this study are derived.

LEADERSHIP

Burns (1978) states that there is no central concept of leadership and describes leadership as "one of the most observed and least understood phenomena on earth" (p. 2). The concept of leadership has been defined and conceptualized in a number of different

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ways; it is a complex construct with many different meanings. Common components that are central to many of the conceptualizations of leadership include leadership as involving a process, influence, a group, and goal attainment (Northouse, 2004).

The concept of leadership can be traced back to the time of Plato, when it was recorded that Plato analyzed philosopher kings and the influence of the kings on their followers (Burns, 1978). Since then, the concept of leadership has been developed, explored, and studied in many different disciplines. This section will include a chronology of leadership theory and detailed information on the SCM (Higher Education Research Institute, 1996).

<div align="center">Chronology of Leadership Theory</div>

This section presents a chronology of leadership theory, highlighting early conceptualizations of leadership, shifts in paradigm of leadership theory, and leadership theory that is prevalent in leadership studies today.

<div align="center">*Early Conceptualizations of Leadership*</div>

Early conceptualizations of leadership theory included the great man, trait, behavioral, and situational approaches to leadership. The great man approach, which existed from the mid 1800s through the early 1900s, conceptualized leadership based on Darwinistic principles, which emphasized that leaders are born and not made and leaders are born with natural leadership abilities (Komives, Lucas, & McMahon, 1998). The trait approach was emphasized in the first half of the twentieth century, identifying certain traits that were characteristic of great leaders; people were born with these traits and only great leaders possessed these traits (Northouse, 2004). The behavioral approach followed the trait approach and was particularly prominent from the 1950s- 1960s (Komives et al.).

This approach focused on managers in the workplace, emphasizing behaviors practiced by successful leaders and unsuccessful leaders. This theory emphasized the best way to lead as certain behaviors that one should utilize.

The situational approach was developed and most widely practiced in the 1950s to the early 1980s and focused on the practice of different leadership styles and practices in different situations (Komives et al., 1998; Northouse). This approach to leadership has been very popular in organizational leadership training and development (Northouse) and is still prominent in the business world today. The situational leadership model focuses on manager leadership styles through different levels of supportive and directive behavior. The management styles included: (1) telling, (2) selling, (3) participating, (4) and delegating. The model also included a focus on the level of employee development and matched certain leadership styles with employee development levels (Blanchard, Zigarmi, & Nelson, 1993). These early conceptualizations of leadership can be viewed as transactional approaches (Burns, 1978) or postindustrial approaches (Rost, 1991) to leadership. Burns' and Rost's perspectives of leadership are presented below.

The chronology of leadership theory is presented by two prominent leadership theorists as two waves, or paradigms of leadership theory. Burns (1978) presents this progression of leadership evolution as transactional and transforming approaches to leadership, while Rost (1991; 1993) presents this evolution as industrial and postindustrial approaches to leadership. The shift in paradigm of the two approaches took place around the 1970s (Komives et al., 1998), with the industrial and transactional approaches more prominent prior to the 1970s, and the postindustrial and transforming approaches developed after the 1970s. Burns and Rost's perspectives are similar in the

fact that they emphasize the concept of reciprocity in the more recent approaches (transformational and postindustrial) and emphasize less the role of the leader and more the role of the followers as a key part of the process of leadership. More information about each theorists' perspectives are presented below. Leadership theories that are consistent with the transforming and postindustrial perspectives are also included in this section.

Burns' Transactional and Transforming Leadership

In Burns' (1978) seminal book, *Leadership,* he presents the concepts of transactional and transforming leadership. Transactional leadership is described as a situation where one person takes the initiative to make contact with other people for the purpose of making an exchange. While the purposes of each party are related, the people involved in this process may not rely on one another to accomplish a higher purpose.

Transforming leadership, as opposed to transactional leadership, takes place when an interaction between two or more people results in an engagement that encompasses motivation and morality of the individuals to be raised to higher levels (Burns, 1978). The purposes of the individuals engaged in this relationship are no longer separate purposes, but instead are a common purpose. Transforming and transactional behaviors and leadership are not discrete concepts; transactional and transforming behaviors can exist in unison, with the transforming behaviors contributing to the shared purposes and inspiration of followers (Burns).

Bass (1990) and Bass and Avolio (1989) operationalized Burns' (1978) concept of leadership, referring to this process of leadership as *transformational* as opposed to transforming. Bass and Avolio (1989) developed the Multifactor Leadership

Questionnaire (MLQ), which measured laissez faire, transaction, and transformational behaviors of leadership. An overview of organizational leadership highlights studies that compare managers' use of transformational and transactional leadership and the resulting perceptions of effectiveness of these managers (Bass). Bass emphasizes the importance of transformational leadership as opposed to transactional leadership in terms of success and organizational performance. Additionally, employees view their relationship more positively with managers who practice transformational behaviors of leadership.

Among the first studies of transformational leadership with college students, Komives (1991) conducted a multi-institutional study using the MLQ that examined the aspects of transformational and transactional leadership and achieving style among Hall Directors on college campus. The study focused particularly on the self-assessment of the Hall Directors and student staff members' assessment of the Hall Directors as transformational leaders. Results of the study indicated that the male and female Hall Directors had a preferred achieving style that reflected relational approaches and contributed to their transformational leadership style. Similarly, the student staff members' assessment of the Hall Directors as transformational leaders also reflected relational approaches as the common achieving style pattern.

The next section highlights Rost's focus on leadership, which was shaped by Burns' perspectives.

Rost's Industrial and Postindustrial Leadership

Rost (1997) also writes on the shift in conceptualizations about leadership and describes this shift as a paradigm shift. The first paradigm of leadership began in the late 19th century and is referred to as the industrial paradigm, which emphasizes an

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individualistic framework of leadership. The industrial paradigm of leadership is reflected in the notions of leadership as "being number one, the collectivity of leaders in an organization, and one person in charge of a group of people" (Rost, 1991, p. 98). In *Leadership For the Twenty-First Century,* Rost (1991) indicated that the "crisis of leadership" (p. 101) was that the citizens of the Western world were still operating in the industrialized leadership paradigm and that this paradigm is not suited for the twenty-first century.

In the early 1990s, Rost (1991) stated that the crisis in leadership would never be resolved if leaders, scholars, and practitioners did not alter their view of leadership and adopt a postindustrial leadership approach. This postindustrial perspective emphasized a strong, reciprocal relationship between the leader and followers. Rost posed a new definition of leadership as: "an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes" (p. 102). This definition was updated a few years later to replace the term *followers* with *collaborators*, which emphasized a more active than passive role (Rost, 1993). The key components of this definition that highlight the postindustrial perspective are: (1) leadership as an influence relationship, (2) both leaders and collaborators contribute to leadership, (3) the leaders and collaborators in the relationship are purposeful in that they intend significant or real changes, and (4) the intended changes reflect the mutual purposes of the leader and collaborators (Rost, 1991, 1993).

Modern Perspectives of Leadership

Reciprocal leadership, which covers a number of theories that emphasize the reciprocal nature of the interaction of leaders and followers engaged in the process of

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leadership, signaled the introduction of transformational leadership and a shift in paradigms to post-industrial leadership. Transforming leadership (Burns), which was presented above, is one theory included in the group of reciprocal leadership theories. Servant leadership (Greenleaf, 1977) is another reciprocal leadership theory, which is a popular and widely-used concept of leadership. Additional reciprocal leadership theories and models that are presented below are followership (Kelley, 1995), the relational leadership model (Komives et al., 1998), the fundamental practices of exemplary leadership (Kouzes & Posner, 1995), and authentic leadership (Avolio & Gardner, 2005). Additionally, this section includes information about the leadership identity development (LID) model, which examines the process in which students develop a leadership identity (Komives, Owen, Longerbeam, Mainella, & Osteen, 2005). The SCM (Higher Education Research Institute, 1996) is another reciprocal leadership theory and is presented in the next section of this chapter.

Servant leadership presents the servant leader as someone who is first a servant or one who is dedicated to the needs and purpose of others, the group, and the organization (Greenleaf, 1977). The servant leader will then, through hard work, eventually become the leader, rather than starting first in the role of the leader. Servant leaders will have, through their roles as servant, proven that they are trusted and dependable.

Kelley (1995) presents the concept of followership in which, despite holding different roles, leaders and followers are equal in terms of importance to the process of leadership. Effective followers have to ability to self-manage effectively, are committed to the organization, purpose, principle, or another person, focus their efforts and build their competence, and are courageous, credible, and honest. There are five followership

patterns that vary on the dimension of the degree in which they think independently and critically and the dimension of active/ passive.

The relational leadership model (1998) is developed around the concept of leadership as being "a relational process of people together attempting to accomplish change or make a difference to benefit the common good" (p. 68). The concept of relational leadership focuses on five core components: inclusion, empowerment, purposefulness, ethical practices, and the overall process orientation. A description of each component of the Relational Leadership Model is presented in Table 1. The relational leadership model (Komives et al., 1998) can be applied to many different contexts and provides a framework from which reciprocal and relational leadership can exist.

Kouzes and Posner's (1995) book *The Leadership Challenge* introduces the five fundamental practices of successful leaders, who can exist at all levels of a group or organization. The five practices provide a relational approach to leadership and emphasizes the importance of the process of leadership. The five practices are: (1) challenging the process, (2) inspiring a shared vision, (3) enabling others to act, (4) modeling the way, and (5) encouraging the heart. In addition to the model, the authors developed the Leadership Practices Inventory (LPI), an instrument designed to assess the presence of the five practices in its respondents. Additionally, a student version of the LPI has been developed, which is designed and tailored for college-aged students (Kouzes & Posner, 1998).

With its conceptual roots in philosophy and influenced by positive psychology, authentic leadership emphasizes not only authentic leaders, but also authentic followers,

and an authentic relationship between leaders and followers (Avolio & Gardner, 2005). The authors refer to authentic leadership as a "root construct" (p. 329), with the components of authentic leadership being: positive psychological capital, positive moral perspective, leader and follower self-awareness, leader and follower self-regulation, leadership processes and behaviors, follower development, organizational context, and performance. The authors indicate that the "key distinction [of the theory] is that authentic leaders are anchored by their own deep sense of self; they know where they stand on important issues, values and beliefs" (p. 329). Through this self awareness, authentic leaders can reflect to others these issues, values and beliefs through their actions. Congruence exists between an authentic leader's beliefs, values, and behaviors.

Komives, Owen, Longerbeam, Mainella, and Osteen (2005) developed a grounded theory and model designed to understand the process of leadership identity development (LID). LID examines the processes through which individuals develop a leadership identity and "come to an awareness that they can make a difference and can work effectively with others to accomplish change" (Komives, Owen Casper, Longerbeam, Mainella, & Osteen, 2004, p. 1). Through the findings of their grounded theory research, Komives et al. created a six-stage model of leadership development as well as levels of transition between each stage. The stages are: (1) awareness, (2) exploration/ engagement, (3) leader identified, (4) leadership differentiated, (5) generativity, and (6) integration/ synthesis. The key transition of this process is the transition between the leader identified and leadership differentiated stages. While individuals develop in a number of ways throughout the process, there is a particularly strong emphasis on individuals moving from dependence toward interdependence. This

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model is useful in understanding how students identify as leaders and how their conceptualization of leadership may change over time and through different experiences.

The Social Change Model (SCM) is another prominent postindustrial and transforming perspective of leadership. Since this model provides the theoretical foundation for this study, the next section will focus on the SCM in greater depth.

Social Change Model of Leadership

The social change model (SCM) was developed by a group of 15 people who comprised the *working ensemble* and was funded through a grant from the Eisenhower Leadership Development program of the US Department of Education (Higher Education Research Institute, 1996). The project was based on the idea that leadership involves change and "that effective leaders are those who are able to effect positive change on behalf of others and society" (Higher Education Research Institute, p. 10). The model was designed to use a social movement as the context for studying leadership (H. S. Astin & Leland, 1991).

The SCM's conceptual framework was shaped in part by H. S. Astin and Leland's (1991) in-depth study of 77 women leaders who were actively involved in the women's movement from the 1960s to the 1980s. Through the study, three prominent factors emerged as significant in the leadership accomplishments of the participants. These three factors are: (1) collective action, (2) passionate commitment, and (3) consistent performance (H. S. Astin & Leland). A conclusion from the study indicated that leadership is a collective action and "cannot prosper fully as a solitary phenomenon" (p. 161); leadership is a process that involves groups and community and goes beyond the individual. The insights from this study contributed to the main premise of the SCM,

Table 1: *Description of Relational Leadership Model Components*

Component	Basic Premise	Viewpoints/ Beliefs
Inclusive	being inclusive to other people and points of view	-diversity is valuable -everyone can make a difference -fairness and equality for all individuals.
Empowering	empowerment of others people involved in the process of leadership.	-everyone has something to valuable offer -power, information, and decision-making should be willingly shared
Purposeful	individual commitment to goal or activity and ability to collaborate with others to develop a common purpose	-individuals, groups, and organizations have the ability to change and make a difference -positive and optimistic viewpoints are beneficial to the group
Ethical	focusing on and being driven by moral or good values, standards, and practices	-high standards of behavior -encouraging socially responsible behavior -behaviors that benefit others
Process-Oriented	focus on the process that the group engages in- from how the group functions and accomplishes what it is meant to accomplish	-the process of leadership is just as important as the outcomes -high quality effort is encouraged

Note. *Exploring leadership: For college students who want to make a difference,* by S. R. Komives, N. Lucas and T. R. McMahon, T. R., 1998, San Francisco: Jossey-Bass.

which was "designed to emphasize clarification of values, the development of self-awareness, trust, and the capacity to listen and serve others, and through collaborative work to bring about change for the common good" (Higher Education Research Institute, 1996, p. 11).

The authors of the SCM present some key premises from which the model is built. These premises are (Higher Education Research Institute, 1996):

- The model is inclusive of all people and focuses on not only those people in leadership positions, but also those who are engaged in the process but do not hold formal leadership roles.

- The concept of leadership focuses on process rather than position.

- The model strongly promotes the values of "equity, social justice, self-knowledge, personal empowerment, collaboration, citizenship, and service" (p. 18).

- Activities that serve the common good (service) help develop leadership capacity in a collaborative environment, and learning comes from making meaning out of these and other life experiences.

- The model can be used for student affairs professionals, faculty, and academic administrators who engage in facilitating leadership development.

- The model serves as one of many possible leadership development models; certain components of the model may be more applicable than others, and it is encouraged that this model change and adapt with time and practice.

- The two main goals of the model are (1) to enhance and develop the capacities of self-knowledge and leadership competence in students and (2) to create and "facilitate positive social change at the institution or in the community" (p. 19).

The SCM (Figure 2) is comprised of three different levels or perspectives: (1) the individual, (2) the group, and (3) the community/ society (Higher Education Research Institute, 1996). The individual level focuses on the leadership participants and the qualities of these individuals. The group level emphasizes collaborative leadership and focuses on developing not only the individual qualities of the participants, but also developing the capacity of creating positive social change. The community/ society level of the model focuses on the intended social change of the collaborative leadership effort and the specific acts of service that energize the group while further developing the personal qualities of the participants (Higher Education Research Institute). Each level of the model has accompanying values. These values are presented below with the level of the model with which is associated.

- Consciousness of self (individual)

- Congruence (individual)

- Commitment (individual)

- Collaboration (group process)

- Common Purpose (group process)

- Controversy with Civility (group process)

- Citizenship (community/ societal)

Change is differentiated from the other values because Change is the "ultimate goal of the creative process of leadership" (Higher Education Research Institute, 1996, p. 21); Change provides meaning and direction for the other seven values, which are referred to as the "7 Cs." As signified by the arrows, the values in the model interact with one

another and influence one another (Bonous-Hammarth, 2001). The 7 C's and the value

of Change are presented in more detail below.

Figure 2: *Social Change Model of Leadership*
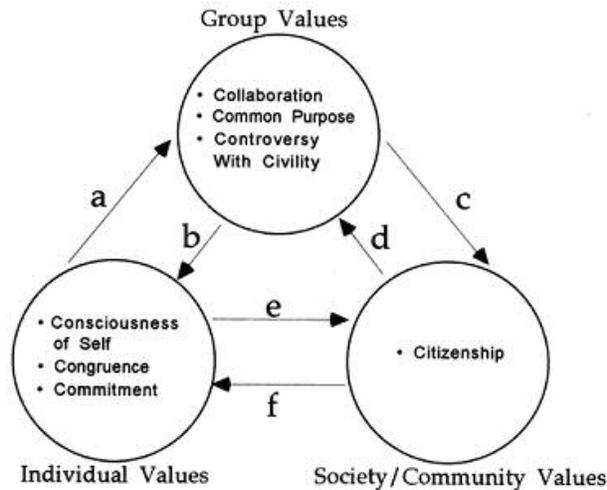
Consciousness of Self

This value refers to being aware of one's own emotions, attitudes, values, and

beliefs that drive the person to take action. This value serves as a foundation of the

model, as having self-awareness enables one to realize the other values in the model

(Higher Education Research Institute, 1996). Self-awareness is necessary when fully

engaging in collaboration with others, finding one's own purpose, and contributing and

committing to the group's common purpose.

Rogers (1980), a psychologist who focused on a person-centered approach to

therapy, writes on the importance of self-awareness. Rogers indicates that a greater sense

of self-awareness increases an individual's ability to make more conscious and informed

choices and decisions. A person with a strong consciousness of self "is more potentially aware, not only of the stimuli from outside, but of ideas and dreams, and of the ongoing flow of feelings, emotions and psychological reactions that he or she senses from within" (Rogers, p. 127).

The Leadership Challenge (Kouzes & Posner, 1995) presents the first step in becoming a leader as self-development, or discovering for yourself who you are. Self-development is coupled with self-confidence, or awareness of and belief in yourself. The authors indicate that in the process of self-development, one must examine and clarify his/ her personal values. Identifying one's personal set of values is an important foundation for collaborative leadership. Leaders must first identify and adhere to a personal set of values before they can encourage others to join them in their pursuits.

Burns (1978) emphasizes *self-actualization* in his book *Leadership* as a characteristic of leaders. Self-actualization involves one's feeling of competence as well as confidence in his/ her abilities. Self- awareness is needed to reach the ideal level of self-actualization. Similarly, Haas (1992), author of *The Leader Within,* places a strong emphasis on the importance on the process of discovery, in which introspection plays a significant role. Consciousness of Self is the first value in the SCM, and this value is present in additional literature that focuses on psychology, business, and leadership.

Congruence

This value involves being consistently genuine and authentic in one's thinking, feeling, and behavior. Congruence is reflected when one's actions reflect his/ her beliefs. The value of Congruence builds off of the value of Consciousness of Self, as it is important for one to be aware of his/ her beliefs and convictions before he/ she can

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demonstrate Congruence. The SCM also introduces the concept of Group Congruence, which is present when a group holds a common purpose and makes change based on this purpose (Higher Education Research Institute, 1996). This will be further explained in the value of *Common Purpose*. Kouzes and Posner's (1995) exemplary practice of *modeling the way* emphasizes the importance of authenticity and congruence. In order to gain credibility, leaders' actions must reflect their beliefs. The authors present this as "say" and "do"; "to set an example, leaders must be clear about their values; they must know what they stand for [or "say"]….Then they must put what they say into practice: they must act on their beliefs and 'do'" (p. 211). Kouzes and Posner touch on how authenticity, or doing what one says, is important not only as a personal value, but also important when leading others. Congruence, coupled with the first value of Consciousness of Self, leads to the third value in the individual level of the model, Commitment.

<center>*Commitment*</center>

The third and last value in the individual level of the SCM is Commitment. Commitment is "the purposive investment of time and physical and psychological energy in the leadership development process" (Higher Education Research Institute, 1996, p. 40). Commitment also involves bringing a group to identify, agree on, and put energy toward a common purpose. The level of commitment involves differing degrees of intensity; more substantial change may require a higher level of commitment than smaller or less substantial change outcomes. Commitment, combined with the other individual values of Consciousness of Self and Congruence, provides a foundation from which decisions and action can be made. The authors (1996) caution that one's individual

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commitments must be in line with those commitments of the larger group and community and state that responsibility must accompany commitment, which will be further explained in the *Citizenship* value of the model.

Brickman (1987) focuses on commitment in his book, *Commitment, Conflict, and Caring*. He defines commitment as "whatever it is that makes a person engage or continue in a course of action when difficulties or positive alternatives influence the person to abandon the action" (p. 2). Gardner (1990) writes on the importance of commitment for the individual and the larger community. People build meaning in their lives through commitment; it is important, though, that these commitments go beyond the individual level and also benefit the community. Gardner indicates that commitment does not come easy. It requires hard work, but through this hard work, it brings meaning to life. Leaders have a responsibility not only to find commitment in their own lives, but also to help move others toward commitment (Kouzes & Posner, 1995). Haas (1992) also emphasizes the importance of commitment in leadership. Haas writes, "commitment is part of the leadership identity that recognizes a higher ideal" (p. 32). Like Gardner, Haas states that meaning in one's life comes from commitments.

Collaboration

The value of Collaboration is the first group value of the SCM. Collaboration is a crucial value to any form of leadership that values the group process of leadership. Collaboration is characterized by relationships, utilizing the strengths of each group member, and recognizing the value of involving the group members in the process of leadership (Higher Education Research Institute, 1996). Collaboration exists when group members work together toward shared goals and when they share "responsibility,

authority, and accountability in achieving these goals" (Higher Education Research Institute, p. 48).

Kouzes and Posner (1995) emphasize collaboration in the exemplary practice of *enabling others to act*. The authors identify fostering collaboration as a crucial component of exemplary leadership. In their research, Kouzes and Posner "didn't encounter a single example of extraordinary achievement that occurred without the active involvement and support of many people" (p. 151). Since this research, the common message they have received has been a unified "You can't do it alone. It's a team effort" (p. 151). Kouzes and Posner continue by stating that collaboration improves performance, which can translate into effective social change.

Johnson and Johnson (1994) focus on cooperation and cooperative learning. They present an overview of studies on cooperation and cooperative learning, and present four conditions of cooperative learning: (1) perceived positive interdependence, considerable face-to-face interaction, (2) clearly understood individual accountability and responsibility in achieving common goals, (3) use of interpersonal and small-group skills, and (4) ongoing group processing of functioning to improve future performance and effectiveness.

Through extensive review of 18 studies relating to collaboration, Mattessich, Murray-Close, and Monsey (2001) identified 19 factors that influence successful collaboration. The definition on which they based their findings was the concept that collaboration is "a mutually beneficial and well-defined relationship entered into by two or more organizations to achieve common goals….The relationship includes a commitment to mutual relationships and goals; a jointly developed structure and shared

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responsibility; mutual authority and accountability for success; and sharing of resources and rewards" (p. 4). This definition emphasizes the importance of relationships, commitments, mutual responsibility, shared power, and shared authority. Collaboration is more than just working together; it involves a complex relationship.

Chrislip and Larson's (1994) *Collaborative Leadership* includes case study research on civic organizations. The results of the study focused on keys to successful collaboration and identified a number of characteristics that were present in organizations that practiced successful collaboration. The authors' premise of collaboration is if the appropriate people come together "in constructive ways with good information, they will create authentic visions and strategies for addressing the shared concerns of the organization or community" (p. 14). The book encourages citizen involvement and in the context of public policy and change, the authors identify collaboration as a critical concept in revitalizing "the 'civic infrastructure' of America's communities" (Parr, 1994, p. xiii). In other words, collaboration is crucial in accomplishing change.

Common Purpose

Common Purpose is the second group value of the SCM and is defined as "work[ing] with others within a shared set of aims and values" (Higher Education Research Institute, 1996, p. 55). When group members share similar purposes and values, it makes it easier for the group to work together to accomplish change. Kouzes and Posner (1995) emphasize common purpose through the exemplary practice of *inspiring a shared vision.* A vision in this sense is one that is inclusive of the participants in the leadership process; through collaboration, a common purpose can be identified, agreed upon, and acted upon. Kouzes and Posner indicate that through their research,

inspiring a shared vision is the least frequently applied practice out of the five exemplary practices of leadership.

Burns (1978) writes on collective purpose, which is the same concept as common purpose. Burns' transforming leadership emphasizes the importance of collective purpose by the leader and group members, rather than the individual, or transactional, purpose of the identified leader. Burns writes, "if concert of purpose provides direction for leadership-followership, then power bases of leaders and followers are social energies forceful enough to bring about real change" (p. 438). Common purpose is an important vehicle for accomplishing change, which is the overall outcome of the SCM.

Controversy with Civility

The third and final group value is Controversy with Civility. This value emphasizes respect for others and being open to others' points of view. An individual or group that practices this value recognizes that differing viewpoints are inevitable and that these differing viewpoints should be aired openly and treated with civility. When controversy arises, individuals and the group should still collaborate and work cooperatively toward "common solutions" (Higher Education Research Institute, 1996, p. 59).

The relational leadership model emphasizes inclusion. Inclusion involves openness to and appreciation of others' differing ideas and points of view, and fostering a sense of respect and equality for other people (Komives et al., 1998). Kouzes and Posner (1995) focus on integrative solutions, or making decisions, recognizing that often there are differing viewpoints and interests. In creating integrative solutions, group members must have a positive perspective of working together, despite the differences, rather than

having an either/or mentality.   Brett, Goldberg, and Ury (1995) focus on managing

conflict at an organizational level. In managing conflicts or disputes, they emphasize the

importance of consulting one another and discussing issues that could cause conflict or

disputes. Additionally, the authors discuss differing interests and viewpoints when

settling on an agreement, shedding light on an environment in which emotions and

feelings can be expressed and acknowledged and in which mutual agreements can be

made.

<p align="center">*Citizenship*</p>

The value of Citizenship is defined in the SCM as "the character of an individual

viewed as a member of a society" (Random House Dictionary, 1966, as cited in Higher

Education Research Institute, 1996). The word citizen reflects a community, making this

value a community/ societal value in the SCM. Citizenship, though, involves more than

just being a community member; citizenship emphasizes civic responsibility, active

engagement in the community, and caring for the community welfare and well-being of

individuals in that community. Mabey (1995) emphasizes the importance of action by

the civic leader; contending that "knowing is insufficient without action" (p. 316).   Civic

leadership is crucial to leadership development, and involves critical thinking, and a

balance of commitment to both the common and collective good (Brungardt, Gould,

Moore, & Potts, 1997).

Three outcome measures of attitudinal and behavioral citizenship were identified

by Sax (2000) as commitment to social activism, sense of empowerment, and community

involvement. Sax's study resulted in some key experiences that contribute to students'

citizenship development, which were the amount of time spent in religious services or

meetings, performing volunteer work, and socializing with students that have different racial or ethnic backgrounds than themselves. Experiences that discouraged citizenship development included smoking cigarettes, feeling depressed, and watching television. An overall conclusion of the study is that involvement in college increases students' citizenship development. Citizenship and civic leadership emphasize change as desired outcomes of a group's efforts, which is also identified by the SCM as the overall outcome of leadership through the model.

Change

The SCM (Higher Education Research Institute, 1996) highlights Change as the end result or ultimate goal of leadership. Through the individual, group, and community values, positive social change should be accomplished. This change should reflect a better society and world for the broader community, with the individual being part of this community.

Leadership studies tend to focus on the leaders, or the individuals involved in the leadership process, in addition to the outcomes, or measurements of change (H. S. Astin & Leland, 1991). H. S. Astin and Leland's study on women leaders in *Women of Influence, Women of Vision* emphasizes change as a key component of leadership. The women in this study exemplified the ability to help create social change.

Yukl, Gordon, and Taber (2002) discuss the importance of leading change and propose three behaviors that lead to change: (1) envisioning change, (2) encouraging innovative thinking, and (3) taking personal risks. In a study looking at leader behaviors, Yukl et al. developed a taxonomy of leadership behavior and found that empowering,

visioning, intellectual stimulation, and risk-taking were statistically significant behaviors of leading change.

Leadership is about creating change, and the focus on change is what differentiates the process of leadership from other ways in which humans interact (Brungardt et al., 1997). Leadership is not only about creating change, it involves purposefully seeking change, creating change that is transformational and fundamental, and making things better, or positive movement (Brungardt et al.).

Burns (1978) identifies *real change* in his conceptualization of leadership. By real change, Burns means intended, or purposeful, change. He continues by stating that "real change means the creation of new conditions that will generate their own changes in motivations, new goals, and continuing change" (p. 441). While change is the end goal, it does not signify the end; instead, change creates opportunities for continued change.

Much literature and many scholars focus on the values of the SCM and agree on the importance of these values in leadership and creating change. The next section will focus on assessing these values.

Assessing the SCM

Tyree (1998) developed the Socially Responsible Leadership Scale (SRLS), which is an instrument designed to measure the SCM. The 7Cs plus Change are the eight constructs for measurement of the instrument (Tyree, 2001). The instrument was developed to be used "with individuals, informal groups, or more formal organizations, in both research and practice application, and for a multitude of purposes" (Tyree, 2001, p. 240). More information about this instrument is presented in the *Instrumentation* section of Chapter Three.

The SRLS has been used in research studies. Morrison (2001) used the Citizenship scale of the SRLS in a thesis to explore service involvement of undergraduate students. Meixner (2000) used the SRLS in a thesis to explore sex differences in undergraduate students' self-perceptions of socially responsible leadership, examining the eight constructs of the SCM. Dugan (2006a; 2006b) used the SRLS in two research studies, one examining the environmental factors of positional leadership roles, community service involvement, involvement in student organizations, and involvement in formalized leadership programs on socially responsible leadership, and one on leadership styles of men and women with a focus on socially responsible leadership. Results of the first study are examined below in the *comparison studies* section. Results of the study examining sex-differences of scores indicated that women scored higher than men on all eight constructs, with significant differences on six of the eight scales (all but Collaboration and Controversy with Civility) (Dugan, 2006a).

This section of the literature review examined foundations of leadership theory and a chronology of leadership theory and approaches. Included in this section was the SCM, which provides the theoretical foundation of this research study and a foundation from which the outcomes of the study are developed. The next section focuses on the environmental factors examined in the study and is presented in a way that first examines the broad concept of experiential learning, and more specifically, forms of involvement that have been found to contribute to students' leadership development.

EXPERIENTIAL LEARNING

The focus of this section is experiential learning, which provides a means by which students interact, develop, and learn; leadership is developed through experiential

settings where students interact with others and learn from their experiences. This section of the literature review focuses on the concept of experiential learning theory, which sets the foundation for the next section, which covers student involvement. In that section, involvement theory is examined, which leads to three specific forms of involvement: cocurricular involvement, holding formal leadership roles, and participating in student leadership education and training programs.

<div align="center">Introduction to Experiential Learning and Education</div>

Humans are "learning species [whose] survival depends on [the] ability to adapt not only in the reactive sense of fitting into the physical and social worlds, but in the proactive sense of creating and shaping those worlds" (Kolb, 1984, p. 1). Humans learn in a number of different ways, with experiential learning being one approach to education. Presented below is the concept of experiential learning and education presented by different scholars.

Dewey was a very influential educational theorist in the twentieth century and his work provided the guiding principles and foundation of experiential learning in higher education (Kolb, 1984). Dewey (1938) introduced a new philosophy of education, drawing a connection between experience and learning. He writes, "I take it that the fundamental unity of the newer philosophy is found in the idea that there is an intimate and necessary relation between the process of actual experience and education" (p. 20). Dewey presents the notion that genuine education comes from personal experience, but that all experiences are not necessarily genuine or equal in educational value; in fact, some experiences may be mis-educative, or may hinder the educative potential of other experiences. Since the introduction of experiential education from Dewey in 1938, the

<div align="center">43</div>

concept has continued to grow and many of Dewey's ideas are found in "traditional" educational programs (Kolb, 1984).

Chickering (1977) developed a report promoting the concept of experiential learning and the presence of this form of learning in American education. Specifically, the report focuses on experiential learning that occurs through a student's enrollment in an educational program at a college or university. In focusing on experiential learning at the institutional level, Chickering presents the possible changes, problems, potentials, and costs that may come along with adopting an educational curriculum that embraces a stronger integration of experiences and education through intentional applications and reflection.

Kolb's (1984) book *Experiential Learning* focuses on experience, learning, and development. Drawing from past theorists to form his conceptualizations of experiential learning, Kolb presents key characteristics of experiential learning:

- Learning is best conceived as a process instead of outcomes.

- Learning is a continuous process that is grounded in experience.

- The process of learning requires the resolution of conflicts between different ways of dealing with the world.

- Learning focuses on the central, or holistic, process of human adaptation to the world.

- Learning involves interaction between the person and the environment.

- Learning is a process that results in creating knowledge.

Drawing on the characteristics of experiential learning, Kolb (1984) presents the definition of learning as "the process whereby knowledge is created through the

transformation of experience" (p. 38). This definition focuses on learning as a process

rather than an outcome, and it emphasizes knowledge, and the concept of knowledge as

one that is continuously being developed and recreated. Like Chickering (1977), Kolb

writes on the importance of higher education adopting more experiential approaches to

learning and development.

Kolb (1984) also presents his interpretation of the Lewinian Experiential Learning

Model (Figure 3), developed in the 1950s, which depicts learning as a four-stage cycle

that has a particular emphasis on the role of experience in the learning process. While

this model of learning was developed using laboratory methods and action research, it

can be adapted to the broad concept of learning.

The first stage of the model is concrete experience, and from these concrete

experiences come observations and reflections. Meaning is then made from these

observations and reflections about the experiences, and from this, abstract concepts and

generalizations are formed. From here, "these implications or hypotheses then serve as

guides in acting to create new experiences" (Kolb, 1984, p. 21), completing the circle and

initiating the next cycle. Each stage of the model is necessary in order to create learning

from the experiences. An experience without observation or reflection does not allow the

individual to make meaning out of the experience and take this meaning to new

situations. Without reflecting on and processing experiences, it is possible that learning

objectives will not be met or, depending on the experience and impact of the experience

on the individual, the experience could be detrimental to the individual.

In *Experiential Learning,* Kolb (1984) also presents the experiential learning

theory of growth and development (Figure 3). This theory presents four learning styles:

(1) converger, (2) diverger, (3) assimilator, and (4) accommodator. These styles are

determined by the "level of integrative complexity of the four learning modes" (p. 140),

or types of complexity. These four modes of complexity are: (1) affective complexity,

(2) perceptual complexity, (3) symbolic complexity, and (4) behavioral complexity.

Additionally, the model consists of three development stages of maturation, which are

chronological stages reflecting the time or age that developmental achievements are

possible. These three stages are: (1) acquisition, (2) specialization, and (3) integration.

Figure 3: *Kolb's Cycle of Learning and Learning Styles*

Kolb's cycle of learning is found around the perimeter while learning styles are placed in the quadrant indicating an individual's preferences for perceiving and processing information.
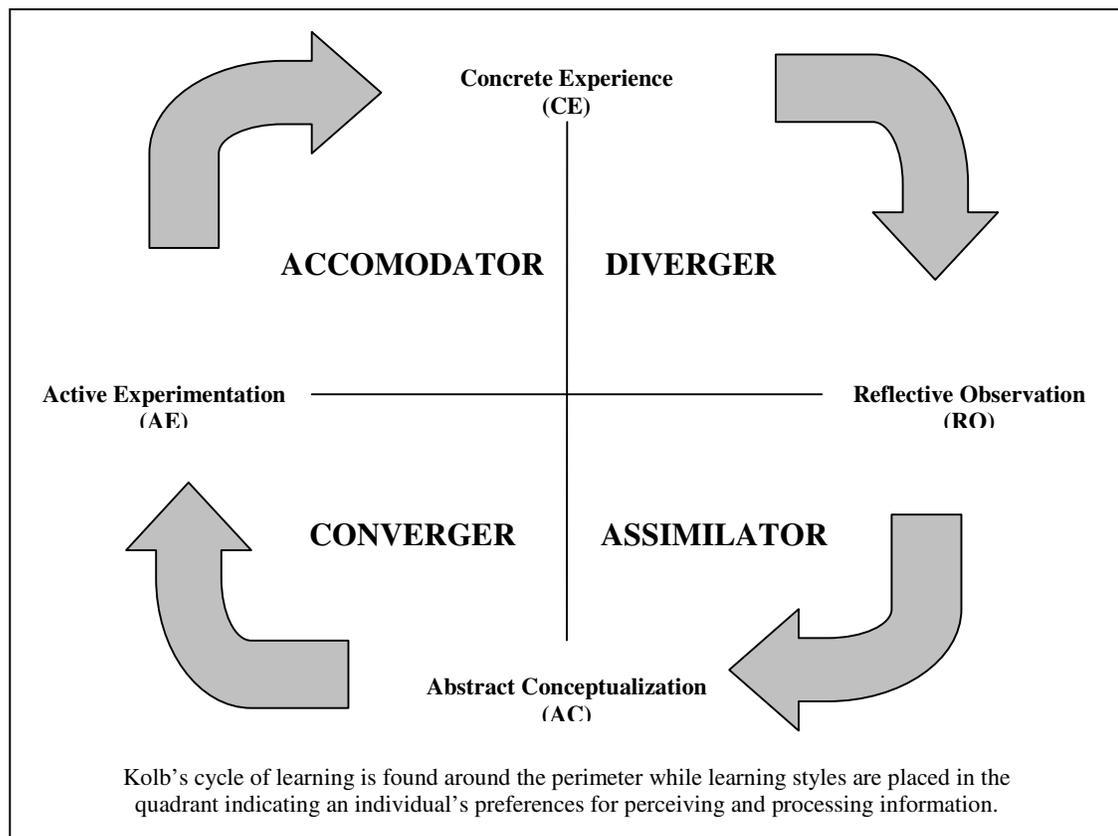
Note. From "Student learning in leadership programs," by S. J. Gehrke, in press,

in *Handbook for student leadership programs* by S. R. Komives, J. P. Dugan, J.

Owen Casper and C. Slack (Eds.),. College Park, MD: National Clearinghouse for
Leadership Programs.

Kolb (1976) developed an inventory that was designed to measure an individual's learning style as presented by the experiential learning theory. Since then, an updated version of the inventory has been created. The instrument measures an individual's emphasis on the four learning abilities (concrete experience, reflective observation, abstract conceptualization, and active experimentation). Through measuring the emphasis on each of these four learning abilities, an individual is assigned one of four learning styles, which are mentioned above (converger, diverger, assimilator, and accommodator). A brief description of each learning style is presented below:

- Converger: dominant learning abilities are active experimentation and abstract conceptualization. The strength of this style is in "practical application of ideas" (p. 5).

- Diverger: dominant learning abilities are reflective observation and concrete experience. The strength of this style is in looking at concrete situations in many ways and the ability to organize relationships in meaningful ways.

- Assimilator: dominant learning abilities are reflective observation and abstract conceptualization. The strength of this style is in creating theoretical models.

- Accommodator: dominant learning abilities are active experimentation and concrete experience. The strength of this style is in "doing things" or "involving [oneself] in new experiences" (p. 6).

As is demonstrated in this section, experiential learning has emerged by scholars as an important form of learning and growth through experiences. The next section will

focus more specifically on involvement, a form of experiential learning, and outcomes associated with involvement in college.

INVOLVEMENT

Involvement is included in the broad concept of experiential learning, as it provides experiences from which individuals can learn and grow. This section will examine student involvement theory and literature addressing the three independent variables of this thesis: cocurricular involvement, holding formal leadership roles, and participation in leadership training and education programs. It will also focus on leadership development outcomes, many of which are consistent with those leadership development outcomes used as the dependent variables of this thesis.

A. W. Astin (1984; 1985; 1996) introduced student involvement theory, which focuses on the environmental factors of student development. The premise of the theory is that "students learn by becoming involved…. [and] the amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in [a] program" (A. W. Astin, 1984, p. 36). The theory stemmed from research on college dropouts in the 1970s and focuses on environmental factors in college that impacted college persistence. Additional research on more than 200,000 students expanded the scope of the theory to examine the impact of different forms of involvement on a variety of outcome measures, not just persistence in college. A general conclusion that emerged from this research indicated that "nearly all forms of student involvement are associated with greater-than-average changes in entering freshman characteristics" (A. W. Astin, 1985, p. 37).

The term *involvement* is a broad term that in essence is the amount of time and energy, both physical and psychological, that an individual devotes to his/ her college experiences. Involvement includes studying, spending time on campus, interacting with faculty members, working, interacting with peers, participating in honors programs, place of residence, athletic involvement, participating in research projects, involvement in ROTC, and participating in student organizations (A. W. Astin, 1984, 1985). Involvement occurs along a continuum, and students can demonstrate differing degrees along the continuum, depending on the extent of and specific form of their involvement (A. W. Astin, 1984).

Hernandez, Hogan, Hathaway, and Lovell (1999) presented an analysis of literature on the impact of different forms of involvement on students' learning and development. The literature analysis revealed mixed results on the impact of athletics on student development and learning; one study indicted that intercollegiate athletics had a positive impact on critical thinking and analytical skills, while other studies indicated negative impacts on cognitive outcomes, reading comprehension development, and critical thinking. Participation in social Greek organizations had a mostly negative influence on student intellectual and cognitive development, although the relationships between Greek organization membership and learning and development outcomes were not very strong. Involvement in student clubs and organizations had overall positive effects on psychosocial development, development of civic values, interpersonal competence, practical competence, cognitive complexity, and humanitarianism.

Interaction with faculty members outside of the classroom was consistently associated with positive outcomes in many areas, such as application skills, cognitive

complexity, and comprehension skills (Hernandez et al., 1999). Living on campus and

peer interaction consistently had a strong, positive impact on student learning and

development in many areas such as cognitive growth, critical thinking, interpersonal

competence, and openness to diversity. Employment has also been identified as

positively impacting student development and learning (Hernandez et al.), although

distinctions have been made between off-campus and on-campus employment, with on-

campus employment having a stronger positive impact (A. W. Astin, 1993; Hernandez et

al., 1999). It is important to note that this article reviewed a few key research studies, but

is not comprehensive in its conclusions. It instead presents an overview of studies and

shows differences in study results.

A. W. Astin's (1993) *What Matters in College*, focuses on the results of a study

on approximately 25,000 college students. These students were surveyed upon entering

college in 1985, and then surveyed again as college seniors in 1989. The purpose of the

large-scale study is to "enhance our understanding of how undergraduate students are

affected by their college experiences" (p. xix). The study examined 135 college

environmental measures and 57 student involvement measures and the effect of these

measures on (1) personality and self-concept, (2) attitudes, values and beliefs, (3)

behavior, (4) academic and cognitive development, (5) career development, and (6)

satisfaction with college (A. W. Astin).   Of the many variables included in this study,

leadership is one of the personality and self-concept outcomes, and *leadership abilities* is

one of the areas of self-reported growth in the study. The environmental variables

associated with the outcome of leadership and the leadership skills area of growth are

examined, and included in these variables are involvement measures that positively and negatively effect the outcomes. These involvement measures are presented below.

For the outcome of leadership as a personality and self-concept outcome, the involvement measures that positively affected leadership are: student-student interaction, student-faculty interaction, fraternity/ sorority membership, intramural sports, volunteer work, tutoring other students, group class projects, and class presentations (A. W. Astin, 1993). Of these forms of involvement, student-student interaction has the strongest effect on leadership. Involvement measures that indicated a negative impact on leadership were watching television and time spent commuting (A. W. Astin).

Growth in leadership abilities were found to be positively impacted by the involvement measures of student clubs and organization, being elected to student office, class presentations, group class projects, tutoring others, exercise, career counseling, fraternity or sorority membership, writing courses, and diversity activities (A. W. Astin, 1993). The involvement factors that indicated the strongest correlation with growth in leadership ability are: time spent in student organizations or clubs, being elected to student office, and class presentations. Involvement measures that negatively impacted growth in leadership abilities were study-abroad experiences and watching television (A. W. Astin).

Student involvement theory and the studies discussed above indicate that there are a number of forms of involvement that contribute to students' development and learning. Cocurricular involvement emerged from both studies as being a strong indicator of student development and leadership development (A. W. Astin, 1993; Hernandez et al.,

1999). Additionally, the time spent engaging in cocurricular involvement, such as hours

spent in student clubs or organizations, was emphasized in A. W. Astin's study.

The next section of this chapter will focus specifically on literature and research

on the impact of cocurricular involvement on leadership outcomes of college students.

Additionally, two other more-specific forms of cocurricular involvement will be

examined: holding a formal leadership role and involvement in leadership education and

training programs. For both forms of cocurricular involvement, literature and research

will be presented with a focus on leadership outcomes.

Cocurricular Involvement

Cocurricular involvement, often also referred to as extra-curricular involvement, is

a broad term that encompasses many forms of involvement. For example, cocurricular

involvement in research has included such activities as: attending student organization

meetings (Cooper et al., 1994; Kuh, Hu, & Vesper, 2000), relaxing or studying in a

student union lounge (Kuh et al., 2000), participating in student governance (Kuh &

Lund, 1994; M. Williams & Winston, 1985), serving in a paraprofessional role, such as a

Residence Hall Assistant (Posner & Brodsky, 1993) or Orientation Advisor(Posner &

Rosenberger, 1997), participating in Greek organizations (Sermenrsheim, 1996),

participating in intramural or club sports (M. Williams & Winston, 1985), peer

relationships, living arrangements, internships, employment, international experiences,

personal changes, and decision-making (Baxter-Magolda, 1992).

As was stated in the *definitions* section of Chapter One, for the purpose of this

thesis, cocurricular involvement is defined as: a form of involvement that occurs outside

of the classroom, which includes organized involvement in on-campus or community

(off-campus) groups or organizations. The research presented in this section of the literature review will focus primarily on cocurricular involvement as involvement in on-campus student groups or organizations. It is important to note that a focus on cocurricular involvement includes holding a formal leadership role within a student organization, which is another independent variable in this thesis. Some of the research and outcomes presented in this section may overlap with the independent variable of holding a formal leadership role. Studies focusing specifically on students in formal leadership roles will also be presented following the section on cocurricular involvement research.

<center>*Cocurricular Involvement Student Outcomes*</center>

Through examining literature on outcomes as a result of involvement in student organizations, a number of outcomes were identified. It is important to recognize that due to the varying nature of the literature and studies within the literature, some of these outcomes may be more significant or common than others. The outcomes are clustered into three categories: personal, leadership, and academic/ professional. Some outcomes are included in more than one category, as the skills can be classified in more than one outcome category.

Personal Outcomes

Outcomes that can be classified from the identified studies as personal development and skill development include: interpersonal skills, increased self-esteem (Guido-DiBrito & Batchelor, 1988), increased confidence, organizational and people skills (Sutton & Terrell, 1997), decision making skills (Kuh et al., 2000), cognitive development (Erwin & Marcus-Mendoza, 1988), satisfaction with friendships, hedonism,

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status needs, political liberalism (A. W. Astin, 1984), budgeting skills, social skills, exploration of values and interests (M. Williams & Winston, 1985), developing purpose, autonomy, humanitarianism(Hernandez et al., 1999) , increased intellectual development, cultural participation, life management skills (Cooper et al., 1994), publicspeaking (Kezar & Moriarty, 2000), time management (Byer, 1998), and self-awareness (Romano, 1996).

Leadership Outcomes

A review of a number of studies identifies many leadership outcomes as a result of cocurricular involvement. Some of these outcomes include: general leadership skills (Sutton & Terrell, 1997), exploration of new roles and behaviors within a group (Guido-DiBrito & Batchelor, 1988), task completion, planning and programming skills, focus on community service (Sutton & Terrell, 1997), decision making, increased responsibility in a group (Kuh et al., 2000), challenging the process, inspiring a shared vision, enabling others to act, modeling the way, encouraging the heart (Posner & Brodsky, 1995), group dynamics, focus on community welfare, exploration of values and interests, interdependence (M. Williams & Winston, 1985), communication skills, teamwork, assertiveness, supervisory skills (Schuh & Laverty, 1983), developing purpose, humanitarian and civic involvement value development (Hernandez et al., 1999), social concern, altruistic values(Cooper et al., 1994) , dealing with diversity, values clarification (Sermenrsheim, 1996), public speaking (Kezar & Moriarty, 2000), community involvement, citizenship (Eklund-Leen & Young, 1997), conflict management, self

awareness, development of a collaborative leadership style, and commitment to organizational goals (Romano, 1996).

Academic/ Professional Outcomes

Academic and professional outcomes apparent in the literature as a result of cocurricular involvement include: college retention and persistence (A. W. Astin, 1984), after-college achievement, appropriate educational plans, mature career and lifestyle plans (M. Williams & Winston, 1985), changes in occupational plans (Schuh & Laverty, 1983), more positive educational experiences overall, success in academic and career goals, increased educational involvement, academic autonomy (Cooper et al., 1994), and preparedness for chosen career (Sermenrsheim, 1996).

<div align="center">

Research on Cocurricular Involvement

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The above outcomes were derived through examination of many studies focusing on the impact of cocurricular involvement on student participant outcomes. This section will highlight some of these studies with particular focus on leadership outcomes. Studies on cocurricular involvement outcomes tend to either be comparative or exploratory in nature; some key comparative and exploratory studies are highlighted below.

Comparative Cocurricular Studies

Comparative studies in this section examine students who are involved cocurricularly and those who are not involved cocurricularly, comparing the outcomes of the two groups.

M. Williams and Winston (1985) present a quantitative study focusing on how participation in student organizations and working while in college contribute to students'

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personal development. Students in the study completed the second edition of the Student

Developmental Task Inventory (SDTI-2), which "was used to measure developmental

task achievement" (M. Williams & Winston, p. 54) within nine developmental subtasks.

Of these subtasks, five can be classified as leadership subtasks: emotional autonomy,

instrumental autonomy, interdependence, developing mature lifestyle plans, mature

relationships with peers, and tolerance. Of the 168 students from one large, southeastern

university who participated in the study, approximately 63% were active members in at

least one recognized student activity or organization such as service organizations, social

organizations, intramural sports, and residence hall councils.

Results of the study indicated that students who were involved in organized

student activities or organizations scored significantly higher on the subtasks of

interdependence (F=20.68, p<.001) and developing mature lifestyle plans (F=9.91, p<.01)

in comparison to students who were not involved in organized student activities or

organizations (M. Williams & Winston, 1985). There were no significant differences in

the remaining three subtasks reflecting leadership.

The authors present rationale as to how participation in organized student

activities and student organizations may contribute to development task achievement.

For the subtask of interdependence, the authors state that the nature of student

organizations, which often "exist to further students' personal development or to serve

the community" (M. Williams & Winston, 1985, p. 57), enable students to see the

relationship between themselves and the community as well as the need to share

community responsibilities. A focus toward community can lead to developing an

understanding of and an orientation toward interdependence. Developing mature lifestyle

plans was associated with exploring interests and values, seeing meaning in their experiences, and placing more relevance on their futures.

While this piece is useful in recognizing how participation in organized student activities and organizations can contribute to leadership outcomes, there are some limitations. First, this piece was published in 1985, which is relatively outdated. The nature of organized student activities and student organizations has likely changed in the past 20 years. Additionally, the category of "organized student activities and organizations" is very broad, and this category is not broken down further in this piece. This broad category can encompass a day-long outdoor education retreat, as an organized activity, or participation in a student group such as student government or a service organization, which can be very different experiences. Looking at how task achievement of the subtasks may differ by type of organized student activity, such as a workshop or retreat, or type of student organization would be useful in better understanding the impact of student activities and organizations on students' task development. A final limitation of this study is that it does not indicate whether or not pre-test measures of the subtasks were controlled for in measuring the effect of environmental factors in the study.

Another research article, titled "Student Development Through Involvement: Specific Changes Over Time," presents a three-year mixed methods study exploring changes due to holding leadership positions in student organizations and being members of student organizations (Cooper et al., 1994). Outcomes from the study related to holding a formal leadership role are presented in the next section of the chapter, and the outcomes related to student organization involvement are presented below.

The Student Developmental Task and Lifestyle Inventory (SDTLI) was administered to students upon entering the university as freshmen and administered again to the same students during their third year of college. In addition to completing the SDTLI during their third year, respondents participated in an interview and completed a supplementary questionnaire that focused on use of campus programs and services including involvement in student organizations and holding leadership roles (Cooper et al., 1994).

For those students who were involved in student organizations on campus, in comparison to students not involved in student organizations, some significant differences were found for subtasks that can be classified as leadership outcomes. For the subtasks of developing purpose (F=36.3, p<.001), lifestyle planning (F=21.04, p<.001), life management (F-17.26, p<.001), and cultural participation (F=28.91, p<.001), members showed significantly more growth than nonmembers when controlling for entering scores (Cooper et al., 1994). Involvement in a student organization was the variables associated with the most significant change over the three years of all the variables in the study. The authors make the conclusion that "involvement in student organizations appears to have positive effects on the student's total academic experience" (Cooper et al., p. 101).

The study provides useful longitudinal findings on the impact of student organization involvement and holding a leadership role in an organization. A limitation of this study comes from the nature of using a longitudinal study. Of the 1193 students who originally administered the instrument, only 256 of these students completed the instrument, interview, and supplementary questionnaire three years later (Cooper et al.,

1994). This difference is related to both persistence rates and return rates. The fact that the final sample size is much lower than the original sample size should be noted. A non-respondent analysis was not conducted, so it can not be assumed that the sample used in the follow-up study is representative of the population of study.

A study by Kimbrough and Hutchenson (1998) focuses on the impact of participation in Black Greek-letter Organizations (BGOs) on students' leadership development and involvement on campus. The study compares students who were and were not affiliated with BGOs at historically Black and predominantly White colleges and universities. There were 387 Black students from 12 institutions surveyed in this quantitative study that included three instruments: (1) the Student Involvement and Leadership Scale (SILS), which was developed by the researchers, (2) the Competing Values Managerial Skills Instrument (CVMSI), and (3) the Leadership Assessment Scale (LAS), which was developed by the researchers. Results of the study indicated that regardless of institutional type, and when controlling for high school involvement, students involved in BGOs were more involved on campus through campus activities and organization than Black students who were not members of BGOs. Additionally, BGO members indicated higher levels of confidence than BGO nonmembers in their ability to perform leadership tasks and skills. The authors make the assumption that BGO involvement provides students the opportunity to practice and develop leadership skills. This article did not present information about the specific leadership tasks and skills examined in the instruments. Having this information would be useful in making more comprehensive conclusions about the benefits and outcomes of BGO participation.

Eklund-Leen and Young (1997) focused on student involvement in community college organizations and attitudes toward and participation in community involvement and activities. This quantitative study compared students who had formal leadership roles in student organizations (leader), student organization members (member), and those students who were not members of student organizations (nonmember). The participants completed the Campus and Community Involvement Questionnaire (CCIQ). Results of the study indicated that "leaders were significantly more involved in campus life than both members and nonmembers, and members were significantly more involved than nonmembers" (Eklund-Leen & Young, p. 74). Additional analysis was used based on level of campus involvement, with results indicating that involvement in campus was positively related to students' attitudes toward community involvement (r=.231, p<.05) and anticipated participation in community activities (r=.408, p<.05), signifying that those students who were highly engaged in campus life tended to have more positive views of community involvement and had higher intentions of involvement in community activities than those students who were not as actively engaged in campus life.

Further analysis in the study indicated no significant difference between men and women for the campus and community involvement measures (Eklund-Leen & Young, 1997). Further analysis on ethnicity and involvement indicated that White students scored higher on the community attitudes measure (F=8.99, p<.005) and the community activities measure (F=6.08, p<.05). It should be noted that the authors indicated significance in their write-up, but the p-values presented in the article indicated "greater-than" rather than "less-than" (ie. p>.05 instead of p<.05). The researcher of this thesis

classified this inconsistency as a typo, and the p-values in this section are presented as "less than" values as opposed to the "greater than" values presented in the article.

This piece is useful in seeing the relationship between level of campus involvement and subsequent community attitudes and anticipated involvement. Additionally, this piece covers community college students, a student population on which little research has been conducted. A limitation in the study is the use of campus involvement scores in the data analysis; it makes it difficult to see the actual differences between the outcomes of students in formal leadership roles, those involved in student organizations, and those not involved. The focus on *community* in this piece relates to the community value of Citizenship in the SCM (Higher Education Research Institute, 1996).

Exploratory Cocurricular Studies

Exploratory studies tend to examine students who are involved cocurricularly, focusing on the experiences of these students as well as the short-term and long-term impact of the experiences on the students.

Pascarella, Ethrington, and Smart's (1988) study focuses on pre-college variables, institutional characteristics, and college experience variables and the relationship between these variables and students' humanitarian and civic involvement values. The purpose of the study was to examine the long-term effect of college on humanitarian and civic involvement variables for Black and White students. This quantitative study used data drawn from the 1971-1980 Cooperative Institutional Research Program (CIRP) surveys and had a sample size of 10,326 students at 487 colleges and universities. Participants in

the study took the CIRP survey upon entering college in 1971 and took a follow-up survey nine years later, in 1980.

The study included the college experience variable of social leadership experiences, which focused on the "student's social leadership involvement with peers" (Pascarella et al., 1988, p. 418). Social leadership involvement included being president of one or more student organizations, membership in a departmental or university committee, editing a school publication, and playing a major role in a play. Results of the study indicated that social leadership experiences had the largest significant direct effect on students' humanitarian/ civic involvement variables of the four college experience variables; the other three college experience variables were: having a social science major, college GPA, and familiarity with faculty and staff. Multiple regression analysis indicated that social leadership experiences while in college were statistically significant for White men ($R^2=0.092$**), White women ($R^2=0.069$**), and Black men ($R^2=0.128$*). Although the effect was positive ($R^2=0.036$), it was not significant for Black women.

Although this study is dated, it provides valuable longitudinal data relating to long term humanitarian/ civic involvement values of Black and White students as a result of social leadership experiences in addition to looking specifically at men and women. It should be noted that the category of social leadership experiences was limited in that it did not include general student organization involvement. The values of humanitarian/ civic involvement relate to the community value of Citizenship in the SCM (Higher Education Research Institute, 1996).

Another research article, titled "Identifying and Developing Leadership Opportunities for African American Men," focuses on African American males' perceptions of leadership (Sutton & Terrell, 1997). The authors presented a literature review of minority student group leadership and Greek leadership and conducted a study on African American men's perceptions of leadership.

The literature review in the article presented a number of outcomes as a result of being involved in minority student groups. These outcomes included: organizational and planning skills, self-reliance, independence, autonomy, comfort with racial identity, and increased likeliness in displaying interest and openness in cultural and noncultural programs and activities. The authors noted that minority group student organizations on predominately white campuses do not "discourage black student participation within campuswide organizations… [instead,] they provide a less intimidating environment where leadership skills can be learned" (Sutton & Terrell, 1997, p. 57).

In addition to involvement in minority student organizations, the piece also focused on literature pertaining to Greek organization membership. The authors presented literature that contends that Black Greek organizations provide opportunities for African American men to take on leadership roles that may not be as attainable in campuswide organizations (Sutton & Terrell, 1997). An overview of literature shows that membership in Black Greek organizations helps develop and enhance leadership skills such as task completion, campus planning, assertiveness, and leadership skills in general. Additionally, members often engage in community service.

The study focused specifically on "African American men's perceptions of leadership and the availability of these opportunities at predominately white campuses"

(Sutton & Terrell, 1997, p. 58). The results of the study were multifaceted. First, findings indicate that African American men who hold leadership roles within their fraternities tend to be involved in other student organizations on campus. Involvement in a Black Greek organization was related to increased confidence to join organizations outside of the fraternity, the development of leadership skills, and strengthened organizational and people skills. Some respondents reported that "their fraternal involvement encouraged them to assume leadership positions within the African American community" (Sutton & Terrell, p. 60), while others indicated that fraternal involvement did not help or provided little help in encouraging them to take on new leadership roles.

While this article and the study provided useful information in better understanding African American men's leadership roles on campus, perceptions of leadership and outcomes from participation in Greek organizations, a greater focus on the impact of this involvement on the members would be useful. Additionally, it may be interesting to see how perceptions of leadership and student outcomes compare to those of students involved in other campuswide student organizations. This may help audiences better understand how leadership experiences of African American men may differ from other groups of students as well as how involvement in and the impact of Black Greek organizations or other cultural organizations may differ from involvement in campuswide organizations.

Byer (1998) presents a qualitative research study examining the influence of fraternity and student governance membership on college experiences. The study consisted of in-depth interviews with four fraternity members, one Black and three

White, who were also involved in the student senate. A common theme among the participants was their impression of the impact of fraternity involvement and student governance involvement on their leadership skills. These skills included: public speaking, effective goal setting, goal accomplishment, goal reassessment, a greater sense of responsibility, collaboration with others on projects, time management skills, interpersonal skills, and general leadership skills.

Although this report did not examine in depth the outcomes of fraternity and student governance involvement, specifically related to *general leadership skills*, it speaks to students' view of the importance of these leadership experiences as positively contributing to their personal and leadership skill development. It should also be noted that the sample size used in the study (four men) is very small. The outcomes presented in the study reflect the group value of Collaboration from the SCM of leadership (Higher Education Research Institute, 1996).

This section of chapter two focused on the impact of cocurricular involvement on students' personal and leadership development outcomes. The next section will examine the impact of holding formal leadership roles in student organizations on students' personal and leadership development outcomes.

<center>Formal Leadership Roles</center>

Closely related and often included in cocurricular involvement is holding a formal leadership role within a student organization. Holding formal leadership roles also exists outside of the college environment and outside of student organizations. For example, Baumeister, Chesner, Senders, and Tice's (1988) experimental study looked at the differences between group leaders and subordinate group members' likelihood of

intervening in an emergency situation. In the experiment, a group leader was chosen out of the participants, and in the course of the exercise, a simulated emergency (a group member choking) took place. Results of the study indicated that the group leaders in the experiment were significantly more likely (X^2 (1,N=32)=6.47, p<.02) than subordinate group members to assist the choking victim. Eighty percent of the 15 identified leaders assisted in the emergency situation, while only 35 percent of the 17 subordinate members assisted in the emergency situation. This study could indicate a heightened sense of responsibility or empowerment to respond to the situation.

Another study, also from the field of Psychology, looked at the impact of holding the designated captain position of National Hockey League athletes (Day, Sin, & Chen, 2004). Measures of performance were taken at different points of time. The results of this longitudinal study indicated that, controlling for previous season performance, players demonstrated better performance during those seasons in which they were captain compared to the seasons in which they were not captains. Holding a formal leadership role resulted in higher individual performance than when not holding a formal leadership role (Day et al.). These results could relate to higher commitment on the part of the captains and taking added responsibility to model good practice and performance.

The remainder of this section will focus on research conducted on students holding formal leadership roles in student organizations.

Research on Holding Formal Student Leadership Roles

This section highlights research on student outcomes of holding a formal leadership role. Similar to the studies presented in the *Cocurricular Involvement* section above, some studies compare students who hold formal leadership roles in an

organization to those students who are not involved in a student organization (DeJulio et al., 1981) or to those students who are members in an organization but do not hold a formal leadership role (Cooper et al., 1994), while other studies examine students holding formal leadership roles without making comparisons (Kuh & Lund, 1994; Romano, 1996). These studies, as the cocurricular studies, can be classified as comparative and exploratory studies. As was stated in the *Cocurricular Involvement* section above, holding a formal leadership role is closely related to cocurricular involvement, as those students who hold a formal leadership role are in fact involved cocurricularly.

Comparative Leadership Role Studies

Studies in this section focus on comparing students who held formal leadership roles to those students who did not hold formal leadership roles, with a focus on leadership outcomes.

Cooper et al.'s (1994) study, presented above in the *Cocurricular Involvement* research section, is a longitudinal study exploring changes due to holding leadership positions in student organizations and being members of student organizations. The study compares student leaders and nonleaders, presenting significant differences for the variable of holding a leadership position in a student organization. Controlling for entering scores, significant difference were found in leaders' scores in their junior year in comparison to nonleaders' scores in their junior year for five subtasks. Three of these subtasks reflect leadership outcomes: developing purpose ($F=25.7$, $p<.001$), lifestyle planning ($F=10.33$, $p<.05$), and life management ($F=10.70$, $p<.01$). The authors make the conclusion that "leadership roles appear to provide the opportunity to sustain and further develop developmental skills" (Cooper et al., 1994, p. 101).

The study provides useful longitudinal findings on the impact of holding a leadership role in an organization. A major limitation of the study is that in the comparison of students who hold a leadership role with nonleaders, there is no explanation of what constitutes a nonleader (Cooper et al., 1994). It would be useful to know whether or not nonleaders were also involved in student organizations. This distinction could help better explain the impact of holding a leadership role in a student organization. Additionally, as noted earlier, another limitation of the study is the low response rate of the second data collection period; 256 of the original 1193 students were included in the latter data collection period. A strong aspect of this study is that it controls for entering scores, enabling the researchers to assess the impact of environmental in comparison to input factors (Cooper et al.).

DeJulio, Larson, Dever, and Paulman (1981) conducted a study comparing student leaders who occupied a variety of leadership positions on campus and who were participants in campus leadership seminars to students who did not hold a formal leadership role and were not involved in honorary organizations. The participants in the study completed the Leadership Opinion Questionnaire. Analysis of the findings indicated that there were significant differences between nonleaders and leaders' scores on the consideration (F=5.26, p<.025) and structure (F=5.42, p<.025) dimensions of the Leadership Opinion Questionnaire. The consideration dimension "reflects the extent to which an individual is likely to have job relationships with subordinates characterized by mutual respect, respect for their ideas, consideration of their feelings, and a certain warmth between the individual and them" (p. 208), and the structure dimension "reflects the extent to which an individual is likely to define and structure his or her own role and

those of subordinates toward goal attainment" (p. 209). There were no significant differences by sex.

It should be noted that this article is over twenty-years old, and that the student leaders, who were also participants in the leadership seminars, were nominated to attend the seminars by their student organization; they may have been selected because they were already considered competent leaders, even more so perhaps than other students in formal leadership roles. The findings for this study may not be generalizablee to other student leaders. Final limitations of the study are the lack of clarity as to how the authors conceptualize an *honorary organization* and the lack of clarity as to the level of cocurricular involvement of the nonleader participants in the study. It would be useful to know and even compare those students who are involved in student organizations that do not hold a formal leadership role to those students who do hold a formal leadership role.

Exploratory Leadership Role Studies

Studies in this section focused on the experiences of students with formal leadership roles and the short-term and long-term outcomes of these experiences.

Romano's (1996) qualitative research study explores the characteristics of women student leaders in addition to how they learned to be leaders, their leadership style, their peer relationships, and the learning outcomes from their leadership experiences. Fifteen women were studied, each of which were presidents of coed, campuswide student organizations on three large campuses.

The women in the study emphasized the importance of relationships with a strong focus on organizational members when describing their leadership style. Additionally, when describing their leadership style, the women used such terms as "nonhierarchical,

interactive, accessible, one-to-one, equality and team-member" (Romano, 1996, p. 679).

The women attributed a great deal of their learning to their interactions with others

through their leadership experiences. They were influenced by peers to get involved and

looked to their peers for assistance and support. There is a noticeable trend of a focus on

relationships by the women in the study. This relates to the group values of

Collaboration and Common Purpose in the SCM (Higher Education Research Institute,

1996).

The women in the study noted a number of outcomes as a result of their

leadership experiences. Some of these outcomes include developing public-speaking and

interpersonal communication skills, conflict management skills, increased self-

awareness, and increased self-confidence (Romano, 1996).

The study included women of color and one woman with a disability, and the

experiences of these women were presented with a focus on differing from those of the

dominant culture. The students presented the same "problems, rewards, and

complications of other women student leaders, but with additional issues related to their

differences" (Romano, 1996, p. 681). They indicated that the way others perceived them

affected them as student leaders. The women reported having been "given additional

assignments because of their ethnic minority status; [being] stereotyped by

administrators, faculty, and students; and [being] misunderstood by students within their

cultural group in relation to important campus issues" (Romano, p. 680). The

experiences of women of color and the woman with a disability, while somewhat similar

to the other women in the study, involved additional challenges and concerns.

This study is useful in understanding the leadership experiences of women student leaders of student organizations. The article lacked a strong focus on the outcomes of holding a formal leadership role and involvement in student organizations (Romano, 1996). While the reader can understand better the leadership styles of the women student leaders in the study and the struggles that they faced, the reader lacks an understanding of the impact of the formal leadership role and the cocurricular involvement on the women.

Kuh and Lund (1994) focus their article on the outcomes of participation in student governance. The participants in the study were 149 college seniors, with 26 of these participants holding a formal student government leadership position. All participants were interviewed and asked what changes they might have experience during their time in college and the experiences to which they believe these changes are attributed. The outcomes were categorized using Kuh's outcomes taxonomy (Kuh, 1993 as cited in Kuh and Lund), which are 14 outcomes that are associated with college and university attendance, ranging from self-awareness to social competence to aesthetic appreciation. Results indicated that participation in student governance was significantly correlated with gains in practical competence (r=.22). This was the only outcome from Kuh's fourteen identified outcomes that had a significant positive correlation to participation in student governance. This outcome includes: decision making, understanding organizational structures and operations, communication skills, working with others in group processes, teamwork, leadership, cooperation, and followership. These outcomes, although listed separately from leadership, are components of leadership as conceptualized by this thesis. Participation in student governance was significantly negatively correlated with the outcome of altruism (r= -13).

The authors also present the frequency of the fourteen outcomes associated with "other experiences," which include peer interaction, faculty contact, work, volunteerism, residence hall life, involvement with the student newspaper or yearbook, travel, among other experiences. Although it appears as if these "other experiences" resulted in high frequency of these outcomes (by examining the frequency numbers and percentage values), no information is provided on the statistical significance of "other experiences" on the fourteen outcomes (Kuh & Lund, 1994). This information would be useful information in assessing the impact of other experiences (and what these experiences are) on the identified outcomes. A limitation of this study is that it is unclear if the only students who spoke about student governance involvement held positional leadership roles in student governance. It is possible, for example, that students who did not hold a formal leadership role in student governance, but perhaps served on a committee, attributed their student governance experiences to certain outcomes.

Schuh and Laverty (1983) conducted a study looking at the perceived long-term effects of students holding formal leadership roles while in college. Sixty-six individuals from three different institutions who held significant leadership roles while in college were surveyed. The participants were asked questions to measure the extent to which their formal leadership role influenced 19 major activities in their lives, such as skill development, marriage, involvement in civic organizations, and relationships with others. Overall findings of the study resulted in holding a formal leadership role as significantly impacting skill development as compared to other major activities in their lives, such as marriage and raising children.

One of the areas of skill development was leadership skills. Forty-six percent of respondents indicated that their formal leadership experience while in college had a tremendous influence on their leadership skills later in life. Thirty-two percent indicated considerable influence, 17 percent indicated some influence, and 2 percent indicated little or no influence on their leadership skills. Mean scores indicated that leadership skills was the item affected most significantly by holding a formal leadership role while in college. Additional comparisons were made based on institution, revealing no significant effects in the area of leadership skills (Schuh & Laverty, 1983).

The study is useful in that is shows perceived long-term effects of holding a formal leadership role. It should be noted that although the mean scores were given on the leadership skills item, there was no test of significance presented. Additionally, it is important to keep in mind that the participants in this study were identified as holding very significant formal leadership roles on campus, such as student body presidents (Schuh & Laverty, 1983). Additional research would be useful in looking at how the impact of holding a formal leadership role may differ from other forms of involvement in college, such as cocurricular involvement. This would help better identify the impact of holding formal leadership roles on leadership skills and other outcomes.

This section of Chapter Two focused on the impact of formal leadership roles on students' personal and leadership development outcomes. The next section will examine the impact of participation in leadership education and training programs on students' personal and leadership development outcomes.

Leadership Education and Training Programs

Student leadership is a growing phenomenon on today's college campuses and is expanding in presence and focus (Howe & Freeman, 1997; Klenke, 1993; McIntire, 1989). The environmental factor of leadership education and training programs used in this study is captured in the broader concept of leadership programs. As was presented in the *Definitions* section of Chapter One, student leadership programs are defined as: any program or activity intentionally designed with the purpose of developing or enhancing the leadership skills, knowledge or abilities of college students.

These programs include components of leadership training, education, and/ or development. While leadership programs and efforts often include a combination of training, education, and development, these concepts are discrete with different stated outcomes. The training, education, and development (TED) model is presented below.

Training, Education, and Development Models

The student leadership program model (Miller, 2003; Roberts & Ullom, 1989, 1990) presents a model of training, education, and development. The terms training, education, and development are often used interchangeably, but are distinct and contribute to different student outcomes. Definitions of the three terms and examples of each are presented below:

- Training: activities designed to enhance skills and improve individuals' performance in roles that students may currently hold. Examples of leadership training are club president training or resident assistant training.

- Education: activities designed to educate and develop the overall leadership capacity of students outside of any roles that they may currently hold. An

example of leadership education is a leadership course that includes lessons on leadership theory.

- Development: activities designed to encourage and enhance the development of students, providing learning and interaction with others and their surroundings. Developing more complexly prepares student leaders to "more effectively and productively interact in a complex, diversified world" (Anthony-Gonzales & Roberts, 1981, p. 23). An example of leadership development is a retreat or conference that encourages students to focus on themselves as a leader outside of a current role that they may hold; the students can take what they learn and apply it to many different contexts.

While the TED model presents training, education, and development with a focus on individuals, Engbers (2003) presents these concepts at the group level:

- Group training: activities designed to enhance skills that enable groups to work together as a group.

- Group education: activities designed to enhance a group's theoretical understanding of their functioning.

- Group development: activities designed to help groups work interdependently and exist as a cohesive, effective whole rather than as individuals.

These models are useful in that they help differentiate three distinct ways in which leadership is learned. It is important to note that students can learn and develop leadership through experiences other than through training, education, and development. Mentoring, for example, can provide a powerful relationship for students from which they can grow as leaders. Although this thesis only focuses on leadership programs that

encompass training, education, and development, it is important to note that these are not the only experiences contributing to students' leadership outcomes.

Conger (1992) focuses on organizational leadership training programs and emphasizes four categories of leadership training in order to make the training effective. These four categories are: (1) personal growth, which includes understanding oneself, (2) conceptual understanding, or cognitive understanding of leadership phenomenon, (3) feedback as a way to recognize one's strengths and weaknesses, and (4) skill building of certain leadership behaviors, which serves as the most common methodology of training programs. Conger highlights five specific leadership training programs at the corporate level with a focus on the four categories of leadership training.

A brief review of business and psychology leadership and management training programs emphasized the structure of training programs (Collins & Holton III, 2004; Dionne, 1996; Maurik, 1992; Weinstein, 2006). Included in the concept of structure is program duration or time committed to the program. A meta-analysis of 83 formal psychology and business leadership training studies emphasized the importance of offering the right training program at the right time; depending on the situation and the training objectives, a six-week training program may be more applicable than weekly meetings (Collins & Holton III). Additionally, the design and intentionality of strategies, such as program duration, used in training programs were highly emphasized (Dionne). For example, IKEA provides a 3-day bi-annual "Leadership and Management in Training" (Weinstein, p. 31) program for all managers in the organization. Additional programs of different design, such as longer-term self-managed training program, are

also offered based on training objectives and employee perception of training need. Applicable training methods and duration may vary by training objectives and goals.

Another model of leadership programs, the 3 S's model, also emphasizes the importance of time or program duration in the structure of student leadership programs (Haber, in press). The variable of time is defined as the amount of participant commitment in the program, which includes the duration of the program, the number of program components, and the involvement requirements of the program. This thesis includes the variable of participation in a leadership education and training programs and examines these experiences by length of time: short-term, moderate-term, and long-term.

Student Leadership Programs

As was stated above, training, education, and/or development are components of student leadership programs. The emergence of student leadership programs was identified in 1976 by the Leadership Task Force, which was sponsored by American College Personnel Association (ACPA) Commission IV (Roberts, 1981). Since this beginning, leadership programs have been established on colleges and universities across the country. In 2002, an estimated 800 leadership programs existed on college campuses in the United States (Cress et al., 2001; DiPaolo, 2002). The Council of the Advancement of Standards' (CAS) standards and guidelines for leadership programs for students indicate that "most leadership programs seek to empower students to enhance their self efficacy as leaders and understand how they can make a difference, whether as positional leaders or active participants in a group" (Miller, 2003, p. 196).

Leadership programs take a number of different forms. The W.K. Kellogg Foundation presents a number of program practices, or "activities as avenues to

leadership development" (Zimmerman-Oster & Burkhardt, 1999, p. 6). Some of the most

frequent practices include: seminars and workshops, mentoring, guest speakers, service

and volunteer placement, leadership courses, outdoor education, conferences, leadership

awards and recognition, leadership minors and majors, and participant advisory groups.

A table presenting the program practices identified in the W.K. Kellogg Foundation's

leadership development programs is presented below in Figure 4.

Figure 4: *W. K. Kellogg Foundation Leadership Program Practices*
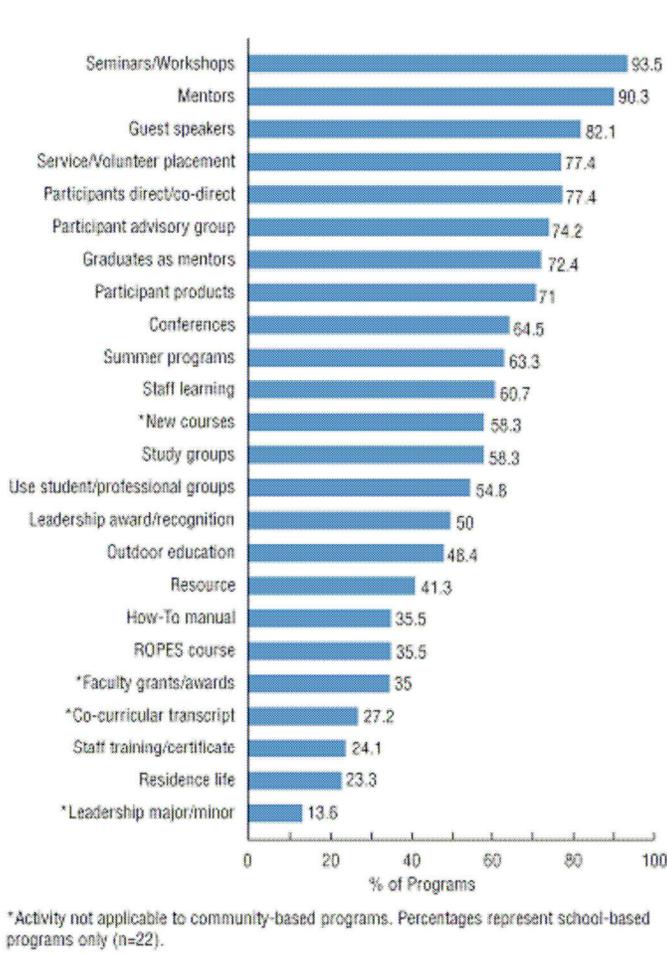
Note: From *Leadership in the making: Impact and insights from leadership development programs in US colleges and universities* by K. Zimmerman-Oster and J. C. Burkhardt, 2001, Battle Creek, MI: W. K. Kellogg Foundation.

While some of these program practices can exist individually or in isolated circumstances, many leadership initiatives include a combination of methods. Some leadership programs incorporate a sequence of activities and require certain activities for leadership certification with an ongoing, specified group of students, while other programs offer individual, independent activities that are open to the student body as a whole. While the outcomes of program practices vary by program type, some common leadership program outcomes include: an increase in leadership understanding and commitment, leadership skills, personal and societal values, civic responsibility, and multicultural awareness and community orientation (Cress et al., 2001).

Student Leadership Program Outcomes

There are a number of ways in which leadership development programs impact participants and develop participants as leaders, citizens, and individuals. Looking at a variety of leadership program assessments (Binard & Brungardt, 1997; Cress et al., 2001; Daugherty & Williams, 1997; DiPaolo, 2002; Moss, 1992; Rohs & Langone, 1997; Zimmerman-Oster & Burkhardt, 1999), there is a plethora of skills, knowledge, and abilities that are highlighted as outcomes of the programs. These outcomes include: development or enhancement of civic awareness, commitment to service, communication skills, civic efficacy, self-esteem, visioning, desire for change, ethics, academic performance (Zimmerman-Oster & Burkhardt), general leadership skills, multicultural awareness, understanding of leadership theories, personal and societal values (Cress et al.), teamwork, integrity, new leadership styles (DiPaolo), team building, goal setting, readiness for change, willingness to accept responsibility, adaptability (Moss), challenging the process, inspiring a shared vision, enabling others to act, encouraging the

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heart (Binard & Brungardt), problem solving skills, ability to motivate others, confidence to promote causes (Rohs & Langone), networking skills, public speaking, encouraging others to accept responsibility, and ability to express opinions (Daugherty & Williams). The next section examines leadership programs from a number of research studies, highlighting personal and leadership development outcomes.

Research on Student Leadership Programs

This section includes research that has focused on the outcomes of involvement in student leadership programs. Each study in this section with the exception of one (Cress et al., 2001) is exploratory in nature, focusing on the impact of participation in leadership programs on the student participants of the programs.

From 1990-1998, the W.K. Kellogg Foundation funded 31 leadership projects across the country to help create and sustain leadership development programs. The projects were campus and community projects that ranged from serving elementary-aged students to adults. A large focus of the projects was on colleges and universities. The overall objectives of these projects were to "broaden, strengthen, and develop youth leaders [and to] change the approach taken by academic institutions in developing future leaders" (Zimmerman-Oster & Burkhardt, 1999, p. ii). Each of the 31 projects had different specific program objectives and utilized a variety of different programs and activities. Overall assessment of all 31 programs resulted in a number of perceived improvements in participants' skills, knowledge, and abilities. It is important to note that assessment of each project was put in the hands of the project leaders, and the data from each project was then compiled. This method of collecting data serves as a limitation of

the study that reflects inconsistency and should be taken into consideration when examining the results.

The report presents 21 categories of improvement observed in program participants. Among these 21 categories, the areas of civic/ social/ political awareness (92.6%), commitment to service/ volunteerism (85.7%), communication skills (85.2%), personal/ social responsibility (78.6%), and civic/ social/ political efficacy (78.6%) resulted in the most perceived change. Other areas included: self esteem, problem solving, conflict resolution, ethics, and shared power (Zimmerman-Oster & Burkhardt, 1999). The next study highlighted in this section examines more closely 10 of the 31 funded programs in the W.K. Kellogg Foundation Study.

Cress, Astin, Zimmerman-Oster, and Burkhardt (2001) used data from 10 of the projects funded by the W. K. Kellogg Foundation to look at the effectiveness of these programs in enhancing participants' leadership skills and knowledge and to determine if there is a relationship between "leadership development and other educational outcomes such as multicultural awareness and civic responsibility" (p. 16). Longitudinal data, which was collected from a total of 875 students at their entry to college and during their senior year, was compared with that of a non-participant control group. Comparison of participants and non-participants indicated that participants indicated higher levels of change on 14 outcome measures in comparison to non-participants, with 10 of these 14 outcomes indicating statistical significance (Cress et al.).

The analysis involved a chi-square comparison of the percentage of nonparticipants and participants who identified with an increase in the outcome measures while in college (Cress et al., 2001). Eight of the ten outcome measures showed

significant difference between leadership program participants and nonparticipants. The outcomes were: conflict resolution skills (participants: 91.7%, p<.001), ability to set goals (participants: 88%, p<.05), ability to plan and implement programs and activities (participants: 84.6%, p<.001), sense of personal ethics (participants: 84.4%, p<.05), willingness to take risks (participants: 80.6%, p<.01), understanding of leadership theories (participants: 76%, p<.001), interest in developing leadership in others (participants: 72.3%, p<.001), and commitment to civic responsibility (participants: 64.9%, p<.001).

Two additional statistically significant variables were holding an elected or appointed leadership position (participants: 54.1%, p<.001), with 54.1 indicating the percentage of students who did hold a leadership position, and level of cocurricular involvement (participants: 33.7%), with the percentage indicating "very involved" level of involvement (Cress et al., 2001). The other measures that indicated participants having a higher, but not statistically significant score, than nonparticipants are: understanding of self (participants: 96.2%), clarity of personal values (participants: 88.7%), ability to deal with complexity, uncertainty, and ambiguity (participants: 87.5%), and decision-making abilities (participants: 86.3%) (Cress et al.). When examining these outcomes, it is important to note that students often self-select participation in leadership programs; input characteristics associated with those who self-selected participation in leadership programs may contribute to these differences, not just leadership program impact. Additionally, there may be other environmental factors that can contribute to these outcome measures.

DiPaolo (2002) presents rich qualitative data through the use of extensive interviews, observations, and narratives to closely examine the experiences of six male college students who attended the Institute of Men of Principle, a five-day leadership education program in the Midwest. The research uses a case study method to examine each individual and highlight what he learned from the institute and how he now views leadership or his role as a leader.

Five of the six participants indicated that a focus on leadership as a team and group process was a particularly salient lesson that they learned through their participation in the program. Additionally, some participants reflected on their role as a leader within a group. They started to realize that to be a leader, they didn't need to be a positional leader who has control of the group. The participants also reflected on their leadership styles. One participant began adopting a new leadership style in which he wasn't leading alone, and another reported opening up his eyes to new ways of leading and viewing leadership that emphasized relationships, communication and mutual respect (DiPaolo, 2002).

One of the core themes that arose from a cross case-analysis of the participants was that "leadership is done best when the actions of a leader are rooted in a core belief system" (DiPaolo, 2002, p. 32). The participants indicated that the institute "gave them an opportunity to clarify what their deeply-held values are and that a leader must lead with integrity to those values" (DiPaolo, p. 33). This relates to the value of Consciousness of Self in the SCM (Higher Education Research Institute, 1996). Additional outcomes that the students experienced through this leadership program included: a focus on effective communication, mutual trust, and humility (DiPaolo).

It is important to note that were only six participants in this study and that they were relatively homogeneous group, as they were all White fraternity members who held leadership roles and identified as leaders prior to the institute (DiPaolo, 2002). Another limitation of this study is that the data collection of this study took place during the institute and immediately following the institute. The study, therefore, does not touch upon long-term effects of the program or the ability to put their new knowledge and concepts of leadership into action. This study does, though, speak on the impact of the program on the students' concepts and philosophy of leadership as it relates to their lives.

Binard and Brungardt's (1997) study at the Community College of Denver focused on the impact of four of the institution's leadership programs on student outcomes. The researchers surveyed 27 students who were involved in at least one of these leadership programs and used pre and post-tests of the Leadership Practices Inventory (LPI) (Kouzes & Posner, 1988). This inventory focuses on five outcomes: challenging the process, inspiring a shared vision, enabling others to act, modeling the way, and encouraging the heart.

The authors present many findings from their study. First, the majority of the participants indicated growth in their overall LPI score after participating in a leadership program during the year. Second, participation in several leadership programs indicated greater growth as reflected in the scores than participation in just one program. Third, previous leadership training indicated higher scores. Fourth, males indicated greater growth than females. Fifth, older students experienced more growth than traditionally-aged students. Last, Hispanic students, in comparison to other ethnic groups, experienced greatest growth (Binard & Brungardt, 1997).

There are some limitations associated with this study. First, the sample size is fairly small for a quantitative study with many subgroups. Second, the authors did not indicate the significance, or lack of significance, of the findings. Third, the researchers did not compare the sample to a control group, making it difficult to determine how much of the change was a result of the leadership program as compared to other environmental factors. Last, it is important to note that data was collected at a community college and focused specifically on four leadership programs in place at the institution (Binard & Brungardt, 1997). This makes it difficult to generalize to other institutions.

Hobbs and Spencer (2002) examined the impact of a two-week Wilderness Stewardship course, in which each of the 12 students took on the role of the leader of the group for one day. This role involved leading the group, planning the group activities, teaching lessons, and facilitate debriefing sessions. The 12 participants completed the Leadership Practices Inventory (LPI) before the trip and after the trip. Of the nine leadership categories in the instrument, statistical significance ($p<.05$) was found for the categories of (1) fundamentals of leadership, (2) speech communication skills, (3) character-building skills, and (4) group dynamic skills. Limitations of this study include the small sample size, the fact that students took on a leadership role for only one day of the program, and that long-term effects were not assessed.

J. R. Williams and Townsend (2003) present research on curricular leadership courses. This report presents a study examining leadership competency knowledge as a result of a structured student leadership course. Data was collected through a three-part instrument that focused on leadership theories and models, self-perceptions of leadership skills using the Leadership Skills Inventory (LPI), and demographic information. Data

collection took place at three different points of time following enrollment in the leadership course. There were many different findings of the study, some of which are highlighted below.

Findings of the study indicated that overall, the participants were able to recall the same amount of knowledge at the three different points in time. Additionally, there were no statistically significant differences between participants' perceived competency use at the three points of time; competencies were applied with the same frequency one, two, and three years after taking the course. A third finding indicated that there were no significant differences of participants' self-perceived leadership skills at the three points of time. Last, the relationship between leadership experience and the use of leadership competencies indicated no significance. Negative correlations were found between leadership experience and the use of the leadership competencies of the trait theory and consensus; the more leadership experience a respondent had, the less they used trait theory and consensus. A significant positive relationship was found between leadership experience and the use of delegation and visioning (J. R. Williams & Townsend, 2003).

A limitation of the study for the purpose of this thesis is that the leadership competencies identified and used in the study are leadership theories and concepts that are not in line with the outcomes of this thesis; the study focused on the ability of a participant to remember specified leadership theories and concepts (J. R. Williams & Townsend, 2003), many of which reflect industrial and transactional approaches to leadership. This study is useful in seeing how leadership experience influences the use of different leadership approaches, such as building consensus, visioning, and delegating.

This section examined student outcomes associated with leadership education, training, and development programs. For the growing number of leadership programs in this country, the amount of current literature addressing leadership program outcomes is scarce and doesn't adequately address the outcomes as a result of participation in leadership programs.

Studies Comparing Independent Variables

As demonstrated in the above sections, studies on cocurricular leadership involvement, holding formal leadership roles, and participation in leadership education and training programs have demonstrated a number of outcomes including personal, leadership, and academic/ professional outcomes. This thesis examines each of these independent variables as a way to determine how much these experiences contribute to leadership outcomes. There are very few studies that make comparisons of the independent variables. Of the research reviewed above, two studies compared participation in student organizations to holding a formal leadership role in an organization, with both studies indicating higher outcome scores for those students holding a formal leadership role (Cooper et al., 1994; Eklund-Leen & Young, 1997).

There were two other studies identified by the researcher of this thesis that examined all three independent variables (Dugan, 2006b; Kezar & Moriarty, 2000). Kezar and Moriarty conducted a longitudinal study using CIRP data from 1987 and 1991 from 9,731 students at 352 four-year institutions. The study used A. W. Astin's (1991) I-E-O model as a conceptual framework for the study. Three of the independent variables examined in the study were leadership classes, being elected to office, and active

participation in student organizations. Analyses were made for African American and Caucasian men and women.

Results of the study indicate that "being elected to office was the strongest extracurricular predictor of leadership ability for Caucasian men" (β=.08) (Kezar & Moriarty, 2000, p. 59). Participation in intramural sports (β= .07), participation in ROTC (β= .06), serving as a Resident Advisor (β=.05), which could include a leadership training component, and being active in student organizations (β=. 04) also impacted leadership ability for this group. The highest predictor of leadership ability for Caucasian men was enrollment in leadership courses (β= .13). The strongest extracurricular predictors of leadership ability for African American men was volunteer work (β= .12). Participation in racial or cultural awareness workshops (β= .16), participation in ROTC (β=.13), and participation in leadership courses (β=.12) were also significant predictors of leadership ability for African American men (Kezar & Moriarty).

For Caucasian women, taking leadership courses (β=.13), being active in student organizations (β=.08), being elected to office (β=.06), membership in a sorority (β=.04), serving as a Resident Advisor (β=.04), and participation intramural sports (β=.04) were significant predictors of leadership ability (Kezar & Moriarty, 2000). Participation in leadership courses (β=16), being elected to student office (β=.17), and participation in intramural sports (β=.10) were significant predictors of leadership ability for African American women. Overall, taking leadership courses was the experience that served as a positive predictor of leadership ability for all four groups.

In addition to these findings related to the independent variables of this thesis, other differences were found in the leadership abilities of the four groups. Caucasian and

African American men scored higher in self-perceived leadership ability than Caucasian and African American women. Additionally, Caucasian and African American men demonstrated higher self-reported scores in public speaking, intellectual self-confidence, and social self-confidence (Kezar & Moriarty). This study added to the literature on experiences that develop leadership outcomes, providing a longitudinal analysis, controlling for input variables. The data from the study is approximately 15 years old; the number and type of student involvement opportunities and leadership development opportunities may be quite different today than in the late 1980s and early 1990s.

Dugan's (2006b) study used the Socially Responsible Leadership scale to examine leadership development of college students with particular attention to involvement in community service, student organizations, and formalized leadership programs with a foundation of socially responsible leadership. Additionally, the study examined the environmental variables of holding a positional leadership role. The results of the study indicated that involvement type impacted the ways in which students developed their leadership capacity. Community service was identified as the most influential form of involvement with the highest outcomes scores across the most outcome scales. As was demonstrated in other studies (Cooper et al., 1994; Eklund-Leen & Young, 1997), students holding formal leadership roles demonstrated higher scores than those who did not. Student organization involvement and participation in formal leadership programs did not have as strong of an influence on leadership in comparison to the other forms of involvement, although there was a positive influence of these forms of involvement on Common Purpose and Citizenship (Dugan). The study is similar to this thesis. This study did not, though, control for pre-college experiences or scores (Dugan,

2006b). The outcome measures may not be a result of the experiences examined in the study, but could alternately be related to pre-college characteristics.

Conclusions from Studies

The review of studies indicates that leadership outcomes are of a significant interest in the study of college students. Studies have examined the impact of cocurricular involvement and holding formal leadership roles on leadership outcomes. These studies included both comparative and exploratory studies. Additionally, studies were included in this chapter that examined the impact of involvement in leadership training and education programs on student leadership outcomes. A conclusion that can be made from these studies is that cocurricular involvement, holding formal leadership roles, and participation in student leadership training and education programs positively contribute to students' leadership development outcomes.   Additional differences by gender and race were presented, but there were too few studies to make conclusions on differences by group.

The strong focus on leadership outcomes and positive effects as a result of the environmental factors presented in the literature are in line with the focus and purpose of this thesis. This thesis will focus on the environmental factors presented in this literature review with a focus on the theoretical framework of the SCM (Higher Education Research Institute, 1996). The thesis will be framed conceptually by A. W. Astin's (1991) I-E-O model of student impact as a way to control for input variables when examining the impact of the environmental factors. The thesis also examines community involvement and holding formal leadership roles in community organizations. Community involvement consists of involvement activities off-campus, such as church

groups, special-interest groups, community athletic teams, and parent teacher associations. A limitation of the literature review is that it lacks a focus on community organization involvement and leadership. The researcher was unable to identify research studies assessing the impact of community involvement on leadership outcomes for college students.

This thesis will contribute to the literature base by providing additional research in areas with identified gaps: the SCM and the impact of cocurricular involvement, community involvement, holding formal leadership roles, and participation in leadership education and training programs on leadership outcomes. Additionally, this thesis will provide research that controls for input values, which much of the research fails to do. The next chapter will present the methods of this research study.

Chapter III:

Methodology

This chapter provides an overview of the methodology used in this research study. Included in the chapter are: the purpose, design, conceptual framework, participants, instrumentation, variables of the study, procedure, and data analysis of the study.

PURPOSE

The main purpose of this thesis was to examine the extent to which cocurricular involvement, holding formal leadership roles, and participating in leadership education and training programs independently and collectively contribute to undergraduate college students' socially responsible leadership outcomes. This thesis also examined gender differences within these outcomes.

Stated in null, this study's hypotheses are:

Hypothesis 1: There are no gender differences in undergraduate college students' socially responsible leadership outcome scores.

Hypothesis 2: Cocurricular involvement, holding a formal leadership role, and participating in leadership education and training programs do not independently or collectively contribute to undergraduate men and women college students' socially responsible leadership outcomes.

Both hypotheses were stated in null because the researcher was unable to identify sufficient research to develop directional hypotheses. Additionally, there was not a strong enough focus on gender differences of these particular leadership outcomes presented in the supporting literature.

DESIGN

This research study was quantitative in nature. Data were obtained through the Multi-Institutional Study of Leadership (MSL), a national leadership study sponsored by the National Clearinghouse for Leadership Programs and the University of Maryland. MSL was a national study with 54 participating schools. The participating institutions were chosen in a way to represent a diverse array of institutions, taking into consideration Carnegie type, size, geographic location, focus (such as Historically Black, Hispanic Serving, Women's) as well as a diverse array of curricular and cocurricular student leadership programs.

This thesis examined the data collected for the MSL at the University of Maryland College Park (UM). The reason for using data from one institution is three-fold. The first reason was due to the affiliation the researcher had with UM and served on the MSL research team, enabling the researcher to have greater accessibility to this data. Second, UM provides opportunities for students that are congruent with the independent environmental variables of the study; there are approximately 50 leadership courses offered at the university as well as additional leadership education and training opportunities. It is important to note, though, that although these courses utilize many different leadership models similar in conceptualization to the social change model (SCM) (Higher Education Research Institute, 1996), the courses are not based on the SCM. In addition to a number of leadership courses, there are various leadership training and education opportunities available to students and over 500 recognized student organizations on the UM campus (*Student activities reporting system*, 2005), providing opportunities for cocurricular involvement. Last, focusing on one institution allows for

depth into the experiences of the students at that institution. Because environmental

factors, such as institutional type and characteristics remain constant, it may be easier to

compare the extent to which the environmental factors contribute to the outcomes.

CONCEPTUAL FRAMEWORK

This study was designed using A. W. Astin's (1991) input-environment-outcome

(I-E-O) college impact model. This conceptual framework was chosen because the

researcher is most interested in the environmental variables in the study. The I-E- O

framework, by controlling for input characteristics, helps assess the extent to which the

environmental variables, as opposed to input characteristics, contribute to the leadership

outcomes.

Data for this study was collected at one point in time, so that input, pre-college

variables were assessed by the study participants at the time of this study rather than at a

point in time prior to college. This cross-sectional method varies from the longitudinal

model that is characteristic of A. W. Astin's (1991) I-E-O model. Some research has

shown that this "then-post" design of assessment can provide more accurate and

significant change over time than a true pre-posttest design, where there may be a

response shift bias in the assessment (Rohs, 2002). Rohs suggests that the response shift

may have occurred because of the students' more accurate view now of their leadership

and participation in leadership programs than at a prior time, enabling them to better

assess after the fact where they were before the program. Although Rohs asserts that a

then-post design can be beneficial, A. W. Astin presents a longitudinal design as

preferable.

Another aspect of the research study design that varies from the true I-E-O framework is the nature of the pre-test. A true pre-test in an I-E-O design includes the same questions at the two points in time. Due to length restrictions with the instrument, a quasi- pretest was used; only one question per outcome was included in the pre-test as opposed to the six to eleven questions identified per construct. Despite this limitation, the pretest measures used in the design of this study will help control for input characteristics when assessing the outcomes of the study. The design of this thesis also differs from the I-E-O model in that it expands the environmental variables to include off-campus experiences, such as involvement in community organizations, rather than just campus-based experiences. This thesis has the potential to expand on the experiences traditionally used in I-E-O designs to include off campus experiences, which could possibly significantly contribute to students' leadership outcomes.

More information about the I-E-O model can be found in Chapter Two of this thesis. An overview of the input, environment, and outcome variables of this study, which will be presented in more detail throughout the chapter, is presented in Table 2.

PARTICIPANTS

Participants in the study were undergraduate students at the University of Maryland College Park (UM), a four-year, public, Research I institution in the Mid-Atlantic region of the United States. Participants were randomly selected to participate in the study. The use of simple random sampling helped generate a representative sample of UM undergraduate students, as each student had an equal chance of being selected to participate in the study (Upcraft & Schuh, 1996). The random sample may also have helped draw a sample of students with diverse leadership experiences and backgrounds.

Table 2: *I-E-O Conceptual Model of Study Variables*

Inputs	Environments	Outcomes
Race/ Ethnicity	*Involvement during college*	*Consciousness of*
Class Standing*	- college organization	*Self*
Pre-college Involvement	- community organization	
-student clubs/ groups	- breadth of involvement	*Congruence*
-varsity sports		
-community organizations	*Formal Leadership Role*	*Commitment*
	during college	
Pre-college Formal Leadership Role	-college organization	*Collaboration*
-student clubs/ groups/ sports	-community organization	
-community organizations		*Common Purpose*
	Leadership Training &	
Pre-college Leadership Training	*Education during college***	*Controversy with*
-participation in training	-short term experience	*Civility*
	-moderate-term experience	
SRLS-R2 Pretest Measures	-long-term experience	*Citizenship*
-questions that corresponds to		
outcome measures		*Change*

Note.   * Class Standing is an environmental variable but was entered as an input.

**Short-term, moderate-term, and long-term experiences are further explained in

the *environment variables* section.

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The random sample size for the study was 3,410 undergraduate students. This sample size was determined using enrollment data of all undergraduate students, both part-time and full-time, at UM, and this sample was obtained through UM's Office of the Registrar. The sample was standardized at 95% confidence interval with a $\pm$ 3 margin of error (Komives & Dugan, 2005). The total number of partial and complete responses in the study was 1407, which reflects a 41.26% return rate. A 30- 40% return rate is common for web survey design be accomplished (Crawford, Couper, & Lamia, 2001). Of the 1407 responses, 201 were removed; some were removed because they were outliers in the data set. These outliers were determined through using Cook's distance analysis through the multiple regression analyses, whereby those respondents with Cook's distance values above 2 or less than -2 were examined by the researcher for abnormal patterns, such as all of the responses for the SRLS-R2 items being 1s or 5s. Additionally, those who indicated they were graduate students and those who indicated "other" for class standing were removed. There were a remaining 1206 participants deemed usable by the researcher.

INSTRUMENTATION

The instrument used in this study was the MSL instrument (Appendix A), based on A. W. Astin's (1991) I-E-O model, which assesses the impact of input and environmental factors on outcomes. The MSL instrument included the Socially Responsible Leadership Scale-Revised 2 (SRLS-R2), a revised version of the Socially Responsible Leadership Scale (SRLS), demographic and pre-college variables (inputs), environmental variables, and the additional outcome variables of leadership self-efficacy, cognitive development, and diversity appreciation. The scales of cognitive development

and diversity appreciation were developed by the researchers of the National Study for Living Learning Programs (Inkelas, Vogt, Longerbeam, Owen, & Johnson, 2006) and were used with permission for MSL. Information about SRLS-R2 is provided below, and information about the variables used in the study is provided in the next section. Variables from the instrument not used in this study are not addressed in this description.

<center>Socially Responsible Leadership Scale-Revised 2 (SRLS-R2)</center>

This section will examine the original SRLS instrument, the SRLS-Rev used in the pilot study, and the second revised instrument (SRLS-R2), which was used as part of the MSL instrument as the measure of the dependent or leadership outcome variables.

<center>*Original SRLS Instrument*</center>

The SRLS was developed as a doctoral dissertation by Tyree (1998). This 103-item self-reporting instrument was developed to measure the process of leadership presented by the eight constructs of the SCM (Higher Education Research Institute, 1996), which are: (1) Consciousness of Self, (2) Congruence, (3) Commitment, (4) Collaboration, (5) Common Purpose, (6) Controversy with Civility, (7) Citizenship, and (8) Change. Due to the focus of the SCM, Tyree chose the phrase of *socially responsible leadership* to describe the leadership process presented by the model. The instrument was designed for use primarily by college students, but can also be used "with individuals, informal groups, or more formal organizations, in both research and practice application, and for a multitude of purposes" (Tyree, 2001, p. 240). Each of the eight constructs of the instrument (the eight constructs in the SCM) was comprised of 12-14 items from the instrument. Each item was self-reporting, with responses on a 5-point Likert scale continuum from strongly disagree (1) to strongly agree (5).

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Pilot-tests of the SRLS instrument were administered to 101 UM undergraduates. Tyree (1998) used tests of internal-consistency reliability, test-retest reliability, social-desirability analysis, and validity analysis. Internal consistency results for the eight constructs of this instrument ranged from a Cronbach's Alpha score of 0.69 for Controversy with Civility to 0.92 for Citizenship (Tyree, 1998). Refer to Table 3 for the reliability results for each of the eight constructs. Content validity was examined through a group of expert raters, who focused on the extent to which the instrument's items measured the SCM construct. Additionally, factor analysis was used to ensure validity of the instrument.

SRLS-R2 Instrument

A condensed 83-item version of the SRLS, referred to as SRLS-R, was used in the MSL instrument pilot. The SRLS-R was developed to shorten the original SRLS while still maintaining strong reliability for each scale. In revising the instrument, Tyree's (1998) data was irretrievable (Appel-Silbaugh, 2005). Statistics reported in Tyree's dissertation along with SRLS data which was collected at a large, public, doctoral-granting institution, and included approximately twice as many cases (n=859) as that provided in Tyree's dissertation were the base of a reanalysis of SRLS (Dugan, 2006a, 2006b).

Due to drop off rate results and feedback from pilot tests (see next section), the SRLS was further shortened to a 68-item survey, referred to as SRLS-R2. Chronbach alpha reliabilities from the data from UNLV (Dugan, 2006a, 2006b) were recalculated to identify the new scale reliabilities. SRLS-R2 dropped 37 items from the original SRLS instrument and two items were added that were previously dropped from the SRLS-R.

The eight constructs of SLRS-R are comprised of 6-11 items. The mean of the items in each construct provides the construct score.

The items associated with each construct of SRLS-R2 are included in Appendix B, and the reliability measures for each of the eight constructs for the SRLS, UNLV's study (Dugan, 2006a, 2006b), the SRLS-R2, and the SRLS-R2 used in the current study are presented in Table 3. Reliability for the constructs of Consciousness of Self, Congruence, Commitment, and Common Purpose have decreased slightly from the original SRLS to the SRLS-R2 in the current study. Reliability for the construct of Citizenship has decreased substantially (0.92 to 0.77). Reliability for the constructs of Collaboration, Controversy with Civility, and Change have increased. Controversy with civility has remained the construct with the lowest reliability.

Pilot Tests

A small pilot test of a paper version of the MSL instrument was administered to 14 students at UM in Fall 2005 to provide feedback on the clarity of the items and length of time required to complete the instrument. The students who completed the pilot test had diverse leadership and campus involvement experiences. Feedback from the pilot test reflected the instrument being too long and repetitive. Slight changes were made to the instrument, but no changes were made to the SRLS-R at that time. Additionally, the length of the instrument was shortened due to feedback and time taken to complete the instrument by the students in the pilot study.

A second, larger pilot test took place at UM in December 2005. This pilot was designed to test the web version of the MSL and identify any drop-off points for the participants in the study. It was administered to a random sample of 3411 UM students.

Table 3: *Reliabilities for SRLS, UNLV Study, and SRLS-R2*

Construct	SRLS	SRLS UNLV	SRLS-R2	SRLS-R2 Current
Consciousness of Self	0.82	0.79	0.78	*0.78*
Congruence	0.82	0.79	0.79	*0.80*
Commitment	0.83	0.84	0.81	*0.81*
Collaboration	0.77	0.82	0.81	*0.81*
Common Purpose	0.83	0.80	0.83	*0.81*
Controversy with Civility	0.69	0.71	0.72	*0.75*
Citizenship	0.92	0.90	0.87	*0.77*
Change	0.78	0.82	0.82	*0.81*

The Maryland study drew a random sample of 6821 undergraduate students and from that group drew a sample of 3411 for the pilot and the remaining 3410 for the study so there would be no overlap with the two groups. Of the sample, 782 participants (23%) completed the study with 88% completing the instrument in full and 12% partial completions. The low response rate was not a concern for the pilot test; the pilot test was administered in a short period of five days during finals week as opposed to the three-week time period in the middle of the semester, which will be used for the data collection. Due to the 12% partial completions, the instrument was made shorter into the SRLS-R2 by further reducing the SRLS scales. This was done through examining the original SRLS and the change in the alpha reliability scores when items were removed from the scale (DeCoster, 2000).

STUDY VARIABLES

The input, environment, and outcome variables in this study are presented below and are grouped as independent and dependent variables.

Independent Variables

The independent variables of the study included input variables and environmental variables.

Input Variables

This thesis included the input variables that were used to control for the environmental and outcome variables of the study. Input variables included: (1) race, (2) class standing, (3) pre-college involvement in student clubs and groups, varsity sports, and community organizations, (4) pre-college experiences in holding a formal leadership role in student clubs, groups and sports and in community organizations, (5) pre-college

participation in leadership training, and (6) quasi-pretest measures corresponding to the

eight outcome measures of the study. Race was chosen as an input variable because a

number of studies in the review of literature asserted that experiences and results differed

by race. The categories included in this input variable (Asian, Hispanic, White, Black/

African American, and Other/ Unknown) were chosen because they are the categories

reflected in University of Maryland institutional data. The category of Other/ Unknown

includes the small number of American Indian respondents . Additionally, participants

were able to select more than one option if applicable, and although the University of

Maryland institutional data does not include multiracial as a variable, this thesis includes

Multiracial as a category. The researcher recoded the racial categories to combine racial

combinations and ethnic combinations into six main categories: White/ Caucasian, Black/

African American, Asian American/ Pacific Islander, Latino/ Hispanic, Multiracial, and

Other/ Not Reported. The small number (n=3) of American Indian/ Native Alaskan

participants were included in the Other/ Not Reported category.

Class standing was entered into the regression with the input variables, but in fact

is an environmental variable. The data in this study was not recalculated with class

standing entered as an environmental variable as it should have been. Class standing was

chosen as a variable for the regression analyses due to the varied amount of time

participants may have to gain experiences that contribute to their leadership outcome

scores. For example, some of the environmental questions ask about an *average

semester;* a student in his or her first year may have a different picture of an *average

semester* than he or she may have as a junior or senior. The first four pretest measures

were chosen to control for environment and outcomes measures. Refer to Table 4 for

information about how each variable was measured and the items associated with the input variables.

Environment Variables

Three environmental variables are used in this thesis, and each environmental variable is believed to contribute to the outcomes of the study along with class standing, which is mentioned above. The three environmental measures are: (1) involvement in campus and community organizations while enrolled in college and breadth of involvement, (2) holding formal leadership roles in campus and community organizations while enrolled in college, and (3) involvement in short-term, moderate-term, and long-term training and education experiences that develop one's leadership skills. Short-term training and education experiences are defined as individual or one-time retreats, workshops, conferences, training, or lectures. Moderate-term experiences include a single leadership course and multiple or ongoing retreats, institutes, conferences, workshops, and/or trainings. Long-term experiences include multi-semester leadership programs, leadership certificate programs, leadership minors or majors, and living-learning programs. Length of time was chosen as a way to differentiate leadership education and training experiences and is consistent with the 3 S's model of student leadership programs, which emphasizes the importance of program length in the variable of participant commitment to a program (Haber, in press). Looking at participation in leadership programs solely by duration does not take into account the intensity of the experience; for example, a short-term, very intense experience, could be a more developmental experience than a moderate-term experience that lacks intensity. Refer to

Table 4 for information about how each variable was measured and the items associated with the environment variables.

Dependent Variables

The dependent variables of the study are each classified as outcome variables, which are presented below.

Outcome Variables

Outcome variables of this study are the eight constructs of the SCM (Higher Education Research Institute, 1996). These outcome variables were measured through the Socially Responsible Leadership Scale-Revised2 (SRLS-R2), which is presented below in the Instrumentation section of this chapter. A short description of each outcome is presented in Table 5.

Refer to Table 6 for information about how each variable was measured and sample items associated with each outcome variable. Additionally, refer to Appendix B for a list of all items associated with each outcome variable.

PROCEDURE

The MSL research team, comprised of a professor from the Counseling and Personnel Services Department at UM and advisor to this thesis, representatives from the National Clearinghouse for Leadership Programs, master's students including this researcher, doctoral students, and student affairs professionals at UM worked with Survey Sciences Group, Inc. (SSG) to conduct the study at UM.

Data, which were participants' self-reported scores, were collected between February 17-March 20, 2006 via a web survey. UM's Office of the Registrar generated

Table 4: *Measurement and Items of Independent Variables of the Study*

Blocks	Measures	Items	Response Choices	Variable Type
Block 1 Race	*category*	Please indicate your racial or ethnic background (mark all that apply) (31)	Asian, Hispanic, White, Black/ African- American, Unknown *if more than one is selected the participants will be classified as Multiracial	Input

Block 2	*category*	What is your current class level?	first year/ freshman, sophomore, junior, senior	Environment
Class Standing				
Block 3	*score*	-participation in student clubs/ groups (9b)	never (1) to very often (4)	Input
Pre-college				
Involvement	*score*	-participation in student varsity sports (9c)	never (1) to very often (4)	
	score	-participation in community organizations (9e)	never (1) to very often (4)	
Block 4	*score*	-leadership position in student clubs, groups, sports (9d)	never (1) to very often (4)	Input
Pre-college				
Formal	*score*	-leadership position in community organizations (9f)	never (1) to very often (4)	
Leadership				
Role				

Block 5 Pre-college Leadership Training	score	-participation in training or education that developed leadership skills (9j)	never (1) to very often (4)	Input
Block 6 SRLS-R2 Pretest Measure (Pretest questions with corresponding outcome)	score	-hearing differences in opinions enriched my thinking (controversy with civility, 10a)	strongly disagree (1) to strongly agree (5)	Input
	score (reversed)	I had low self-esteem (consciousness of self, 10b)	strongly disagree (1) to strongly agree (5)	
	score	I worked well in changing environments (change, 10c)	strongly disagree (1) to strongly agree (5)	
	score	I enjoyed working with others toward common goals (collaboration, 10d)	strongly disagree (1) to strongly agree (5)	
	score	I hold myself accountable for responsibilities I agree to (commitment, 10e)	strongly disagree (1) to strongly agree (5)	

	score	I worked well when I knew the collective values of a group (common purpose, 10f)	strongly disagree (1) to strongly agree (5)	
	score	My behaviors reflected my beliefs (congruence, 10g)	strongly disagree (1) to strongly agree (5)	
	score	I value the opportunities that allow me to contribute to my community (citizenship, 10h)	strongly disagree (1) to strongly agree (5)	
Remaining Blocks *entered using stepwise order* Involvement, Formal Leadership	score	How often have you been an involved member or active participant in college organizations? (13a)	never (1) to much of the time (5)	Environment
	score	How often have you been an involved member or active participant in an off-campus community organizations? (13c)	never (1) to much of the time (5)	
	breadth of activities	Which of the following kinds of student groups have you been involved with during college? (14)	check all that apply (0-21 possible)	

Roles and Leadership Training & Education During College	*score*	How often have you held a leadership position in a college organization? (13b)	never (1) to much of the time (5)	Environment
	score	How often have you held a leadership position in a community organization? (13d)	never (1) to much of the time (5)	
	score	Short term experiences that developed leadership skills. (17a)	never (1) to many (4)	Environment
	score	Moderate term experiences that developed leadership skills. (17b)	never (1) to many (4)	
	score	Long term experiences that developed leadership skills. (17c)	never (1) to many (4)	

Note. (#) denotes question number in instrument

Table 5: *Dependent Variables of the Study*

Consciousness of Self	being aware of the beliefs, values, attitudes and emotions that motivate a person to take action
Congruence	thinking, feeling, and behaving with consistency, genuineness, authenticity, and honesty toward others
Commitment	having the energy that motivates an individual to serve and that drives the collective effort
Collaboration	working with others in a common effort
Common Purpose	having shared goals and values when working with others
Controversy with Civility	believing in two fundamental realities of any creative effort: (1) that differences in viewpoint are inevitable, and (2) that such differences must be aired openly but with civility
Citizenship	believing in a process whereby an individual and/or a group become responsibly connected to the community and to society through some activity
Change	believing in the importance of making a better world and a better society for oneself and others

Note. From *Designing an instrument to measure socially responsible leadership using the social change model of leadership development,* by T. M. Tyree, 1998, unpublished doctoral dissertation, University of Maryland, College Park, MD.

Table 6: *SRLS-R2 Measurement and Sample Items of Dependent Variables*

Dependent Variable	Sample Item	Cronbach Alpha	Number of Items
Consciousness of Self	I can describe how I am similar to other people.	0.78	9
Congruence	My behaviors are congruent with my beliefs.	0.80	7
Commitment	I hold myself accountable for responsibilities I agree to.	0.81	6
Collaboration	I actively listen to what others have to say.	0.81	8
Common Purpose	It is important to develop a common direction in a group in order to get anything done.	0.81	9
Controversy with Civility	Greater harmony can come out of disagreement.	0.75	11
Citizenship	I believe I have a civic responsibility to the greater public.	0.77	8
Change	Change brings new life to an organization.	0.81	10

Note.   Response choices range from strongly disagree (1) to strongly agree (5)

All items are included in Appendix B

the randomly selected document of students' email addresses, race, gender, and class standing, so as to have enough information to run a non-respondent analysis to recognize any limitations of the demographics of the students who did not complete the survey. An encrypted document of participant demographic information and email addresses was sent directly to SSG, who distributed the emails to the study participants.

The participants were contacted via email inviting them to join the study. The first invitation was sent on a Friday, which was determined by SSG to lead to higher response rates (S. Crawford, personal communication, November 22, 2005). After the first invitation, the participants were sent up to three reminder emails inviting them to join the study. Once they completed the survey they were not sent any more reminder emails. A copy of the invitation email is included in Appendix C. When invited to join the study, participants were assigned a unique participant number by SSG, and were instructed to follow a link in the email leading them to a webpage containing the survey instrument. Upon entering their participant number, participants were given information about confidentiality of the study, and completed an informed consent form (Appendix D). The survey instrument followed the informed consent form. SSG ensures confidentiality of responses, with data from the instrument and any personal or identifying information about participants being sent and stored in two different places with no way to identify which responses were associated with which participants.

Incentives for participating in the study included a chance to win a number of campus-specific and national incentives such as iPod Nanos, free registration to the LeaderShape Institute, and movie tickets. Names were drawn from the email file of those participants who completed the instrument to identify those who won a prize for their

participation in the study. Prizes were distributed through the Maryland liaison for the MSL.

Institutional Review Board (IRB) approval for this study was granted by UM in October 2005, with the researcher of this study listed as a student investigator. A copy of the IRB approval letter is provided in Appendix E.

DATA ANALYSIS

Data analysis for this thesis was conducted using a variety of statistical techniques such as t-test, ANOVA, MANOVA, and hierarchical multiple regression. The researcher of this study was trained on how to use the database of UM responses. Data were analyzed through SPSS Version 11.0, a computerized statistical analysis program.

Descriptive statistics describing the sample were reported in addition to means and standard deviations for each of the outcome measures and environmental variables for the study. Post-hoc analyses were conducted to examine differences by gender, race, and class standing for the environmental variables. The respondent characteristics of gender, race, and class standing were compared to those of the larger sample to help determine if the respondents were representative of the sample as well as identify any limitations. For both hypotheses, a significance level of $p \leq 0.05$ was used.

Correlations among all the independent variables were calculated and the variance inflation factor (VIF) was examined to check for multicollinearity. VIF measures the degree to which the collinearity of the variables may threaten the estimates of the coefficients (Rathor, 2004). VIF values greater than 10 can be of concern and may require further examination (Ender, 1998; National Institute of Standards and Technology, 2003). For this thesis, the VIF cutoff point was 10. All variables in the

multiple regression analyses met the VIF cutoff point with the exception of the first dummy variable for race that represented White/ Caucasian, which were slightly above 10 but below 11 in each regression analysis, which can be noted as a limitation.

The first hypothesis was tested using multivariate analysis of variance (MANOVA), examining possible gender differences in each outcome measure. The dependent variables of the MANOVA analyses were the eight leadership outcome variables of the SRLS-R2, and the independent variable was gender. Follow up F tests identified any significant differences in outcome scores by gender.

For the second hypothesis, the researcher conducted a modified hierarchical multiple regression analysis. Licht (1998) states that multiple regression "determines the statistical significance of differences among groups of subjects…by determining whether there is significant prediction of subjects' scores on the dependent variable from knowledge of their group membership" (p. 21). Due to the development of high-speed computers and statistical analysis software, multiple regression has become more widely used, serving as "a flexible and general approach to analyzing data for a variety of research designs and questions" (p. 21). Due to the ability of using more than one predictor in multiple regression, there is a greater potential predictive power when using multiple regression as compared to bivariate regression, which only examines one predictor variable. This research study examines three environmental constructs and eight environmental variables in addition to input variables; multiple regression allows for multiple variables when looking at the relationship between those variables and the outcome variables.

Multiple regression analyses were conducted for each of the 8 outcome measures (i.e., the 8 SRLS-R2 scales) for both men and women, resulting in a total of 16 hierarchical multiple regression analyses. All input variables were used in the analysis as well as the environmental variables of cocurricular involvement, holding a formal leadership role, and participation in leadership training programs. The input variables, in addition to the environmental variable of class standing, made up six blocks and were entered into the analysis first in order to control for these variables (Table 4). Race was chosen as the first input variable because it emerged in the literature as a variable worth examining. The input variables of pre-college involvement, holding a formal leadership role, and participation in leadership education and training programs were entered into the regression separately because they are different forms of involvement and it could be useful to look at these input variables separately in order to see how each might contribute to the variance of the outcome measures. Additionally, this information may be useful for high school educators in helping them develop the leadership capacity of their students.

After the input variables were entered into the regression analysis, the remaining eight environmental variables were entered into the regression through stepwise regression, which allows for identifying the variables that contributed to the most variance outcome scores. This method was chosen so that the researcher could determine for each outcome variable, which of the eight environmental variables were significant. This can allow for a clearer understanding of the effect of the environmental variables as well as practical implications. These eight variables included the questions assessing cocurricular involvement, holding formal leadership roles, and participating in leadership

training and education programs (see Table 4). Using multiple regression analyses for the second hypothesis of this study presented how much of the variance of the outcome scores are explained by the input and environmental variables for each gender.

OVERVIEW OF CHAPTER

This chapter has explained the methods used in this quantitative study of the extent to which cocurricular involvement, holding formal leadership roles, and participation in leadership education and training programs have an effect on socially responsible leadership outcomes. The purpose, design, conceptual framework, participants, instrument, procedure, and data analysis of the study were presented in this chapter. The next chapter presents the results obtained with those methods.

Chapter IV:

Results

The purpose of this thesis was to examine any gender differences within the eight

socially responsible leadership outcomes and the extent to which the environmental

variables of cocurricular involvement, holding formal leadership roles, and participating

in leadership education and training programs contribute to undergraduate students'

socially responsible leadership outcomes. This chapter will present the results of the

study. The chapter begins with an overview of the background characteristics of the

sample and the respondents. Next, descriptive statistics of the outcome measures and key

environmental measures will be reported. Last, the statistical analysis and results of the

two hypotheses of this study will be presented.

SAMPLE AND RESPONDENT CHARACTERISTICS

The sample consisted of 3,410 randomly selected undergraduate students at the

University of Maryland. The group of partial and complete respondents consisted of

1,407 participants (44.81%). Only those participants who completed the survey in full

were used in this study. Once partial respondents and outliers were removed (n=201)

from the respondent group, the total number of participants deemed usable for this study

was 1206.

Of those 1206 students who participated in this research study, 56.9% (n=686)

were female and 43.1% (520) were male. There were no participants that selected the

category of transgender. As reported in Table 7, the race and ethnicity characteristics of

the participant group were 61.7% (n=774) White/ Caucasian, 9.0% (n=108) Black/

African American, 13.9% (n=168) Asian American/ Pacific Islander, 3.7% (n=45)

Latino/ Hispanic, 8.9% (n=107) Multiracial, and 2.8% (n=34) Other/ Not Reported.

There were three American Indian students who participated in the study, but due to the

low number in this category, they were included in the Other/ Not Reported category.

Class standing of the participants reflected 17% (n=205) freshmen, 23.6% (n=285)

sophomores, 29.4% (n=355) juniors, and 29.9% (n=361) seniors. The average age of the

participants in the study was 20.56 years (SD=2.74).

Table 7 presents the demographic characteristics of the participants as compared

to that of the larger sample that was drawn for the study. Women in the current study

appear to be overrepresented. Additionally, seniors and juniors appear to be

overrepresented while freshmen seem to be slightly underrepresented. It is difficult to

determine the comparison of the sample and respondents for the racial breakdown, as the

current study utilized the variable of Multiracial and the institutional data for the sample

did not. There may be students in the multiracial group that may have been classified by

the institution in one racial group. It does appear that White students are slightly

overrepresented in the respondent group, but it is too difficult to make other conclusions

because of the different categorization techniques. Table 8 presents the racial categories

broken down in order to examine the makeup of the multiracial participants in the study.

This breakdown may be useful to examine the makeup of the participants in this category

as to better understand how the current study may or may not reflect the sample.

DESCRIPTIVE FINDINGS

This section will examine some descriptive findings of the environmental and

outcome measures of this study by gender, racial/ ethnic background, and class standing.

Although the research questions in this study do not address race or class standing, the

Table 7: *Demographic Characteristics of the Participants*

	Respondent Demographics N=1206	**SampleDemographics N=3410**
Female	686 (56.9%)	1690 (49.6%)
Male	520 (43.1%)	1720 (50.4%)
White/ Caucasian	774 (61.7%)	1972 (57.8%)
Black/ African American	108 (9.0%)	439 (12.9%)
Asian American/ Pacific Islander	168 (13.9%)	477 (14.0%)
Latino/ Hispanic	45 (3.7%)	212 (6.2%)
Multiracial/ Multiethnic	107 (8.9%)	n/a
Other/ Not Reported	34 (2.8%)	300 (8.8%)
American Indian	included in other/ not rep	10 (0.3%)
Freshman	205 (17%)	732 (21.5%)
Sophomore	285 (23.6%)	851 (25.0%)
Junior	355 (29.4%)	863 (25.3%)
Senior	361 (29.9%)	920 (27.0%)
Post Bachelor	not included	44 (1.3%)
Average Age	20.56 (SD=2.74)	

Table 8: *Breakdown of Racial Categories Selected by Participants*

Racial Categories Selected	Frequency	Percent
White	744	61.69
Asian American	161	13.35
Black	108	8.96
Other Latino	33	2.74
Other	31	2.57
Multiracial	24	1.99
White and American Indian	11	0.91
White and Multiracial	10	0.83
White and Asian American	6	0.50
Black and American Indian	5	0.41
Puerto Rican	5	0.41
White and Puerto Rican	5	0.41
Black and Asian American and Multiracial	4	0.33
Mexican American	4	0.33
Native Hawaiian/ Pacific Islander	4	0.33
White and Asian American and Multiracial	4	0.33
White and Black	4	0.33
White and Other Latino	4	0.33
American Indian	3	0.25
Asian American and Multiracial	3	0.25
Asian American and Native Hawaiian/ Pacific Islander	3	0.25
White and Black and Multiracial	3	0.25
White and Mexican American	3	0.25
Black and American Indian and Multiracial	2	0.17
Other Latino and Multiracial	2	0.17
Puerto Rican and Other Latino	2	0.17
White and Black and American Indian	2	0.17
White and Black and American Indian and Multiracial	2	0.17
White and Mexican American and Multiracial	2	0.17
White and Native Hawaiian/ Pacific Islander	2	0.17
Asian American and Puerto Rican	1	0.08
Black and Multiracial	1	0.08
Black and Other Latino	1	0.08
Puerto Rican and Cuban American	1	0.08
White and American Indian and Multiracial	1	0.08
White and American Indian and Native Hawaiian/ Pacific Islander	1	0.08
White and Black and American Indian and Asian American and Native Hawaiian/ Pacific Islander and Mexican American	1	0.08
White and Black and Asian American and Multiracial	1	0.08
White and Other Latino and Multiracial	1	0.08
White and Puerto Rican and Multiracial	1	0.08

Note: Those participants who selected ethnic groups within the same racial category (i.e.:

Mexican-American and Puerto Rican) were classified as that racial group (i.e.. Latino).

descriptive statistics will provide and overview of the data through examining race and class standing. This examination can help better understand the participant groups and perhaps allude to future research.

Environmental Measures

Key descriptive characteristics of the participants as related to the environmental measures of this study are presented in Table 9. Overall, the respondents indicated a mean of 3.11 in breadth of student involvement on a scale from 0-21 (SD=1.20), which was measured by the number of types of organizations in which the participants were involved, ranging from zero types of organizations to 21 types of organizations. The depth or extent to which the participants were actively involved in student organizations reflected a mean of 3.00 (SD=1.35), which was labeled moderate, on a 5-point scale, with one indicating never and five indicating much of the time. Means for involvement in student organizations (M= 3.00, SD=1.35) as compared to community organizations (M= 1.82, SD=1.20) showed a similar mean pattern for holding a formal leadership role in a student organization (1.99, SD=1.37) and holding a formal leadership role in a community organization (1.51, SD=1.03), all on the same 5-point scale as involvement in student organizations. Although a significance test was not conducted, it appears as if the means related to student organizations were higher than those for community organization. The mean scores for the three outcome measures of leadership education and training were measured on a 4-point scale, ranging from never to many. These scores were 1.91 (SD=0.94) for short-term experiences, 1.60 (SD=0.86) for moderate-term experiences, and 1.43 (SD=0.86) for long-term experiences, all on a 4-point scale, indicating responses between never participating in a leadership education and training

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program to only participating in such a program once. The low standard deviations for these outcome measures could reflect little variance in the scores of the participants.

Examining the mean scores of the environmental variables by gender it appears as if there could be some possible differences in scores by gender. In order to determine any significant findings for the environmental variables by gender, a post-hoc t-test was conducted (Table 10). The only difference identified as significant is involvement in student organizations, with women scoring significantly higher than men ($p \leq 0.01$).

Examining the environmental mean scores by race presents some possible patterns. A post-hoc one-way analysis of variance (ANOVA) was conducted to determine any possible outcome score differences by race (Table 11). The significant difference that emerged at 0.05 level were in the outcome measures of involvement in community organizations (F=5.91, df=5) and holding a formal leadership role in community organizations (F=3.45, df=5). Tukey's HSD post-hoc test indicated that White participants (M=1.71, SD=1.13) had significantly lower mean scores for involvement in community organizations than Asian American participants (M=2.11, SD=1.41). Participants that identified racially as Other/ Not Reported (M=2.56, SD=1.33) had significantly higher mean scores in involvement in community organizations than White (M=1.71, SD=1.13) and Multiracial participants (M=1.83, SD=1.19). For the environmental variable of holding a formal leadership role in a student organization, Asian American participants (M=1.73, SD=1.24) scored significantly higher than White participants (M=1.44, SD=0.96).

Table 9: *Mean and Standard Deviations of Environmental Measures by Gender, Race/ Ethnicity, and Class Standing*

	Involvement-Student Organizations (1-5)	Involvement-Community Organizations (1-5)	Breadth of Involvement (0-21)	Leadership Role- Student Organizations (1-5)	Leadership Role-Community Organizations (1-5)	Short-term Leadership Education/ Training (1-4)	Moderate-term Leadership Education/ Training (1-4)	Long-term Leadership Education/ Training (1-4)
Total	3.00 (1.35)	1.82 (1.20)	3.11 (2.60)	1.99 (1.37)	1.51 (1.03)	1.91 (0.94)	1.60 (0.86)	1.43 (0.86)
Female	3.09 (1.35)	1.80 (1.19)	3.07 (2.42)	2.00 (1.39)	1.48 (1.00)	1.93 (0.95)	1.61 (0.87)	1.43 (0.87)
Male	2.88 (1.34)	1.85 (1.23)	3.15 (2.83)	1.98 (1.34)	1.56 (1.08)	1.88 (0.93)	1.58 (0.86)	1.42 (0.85)
White/ Caucasian	3.01 (1.36)	1.71 (1.13)	3.05 (2.42)	1.95 (1.34)	1.44 (0.96)	1.85 (0.93)	1.56 (0.84)	1.40 (0.84)
Black/ African American	2.94 (1.39)	1.90 (1.24)	2.91 (3.12)	1.90 (1.33)	1.56 (1.05)	2.07 (0.95)	1.67 (0.95)	1.51 (0.92)
Asian American/ Pacific Islander	2.99 (1.32)	2.11 (1.41)	2.92 (2.47)	2.18 (1.51)	1.73 (1.24)	2.03 (0.98)	1.67 (0.89)	1.44 (0.83)
Latino/ Hispanic	2.58 (1.34)	1.82 (1.15)	3.71 (3.85)	2.13 (1.31)	1.62 (1.09)	1.93 (0.86)	1.56 (0.84)	1.51 (0.87)
Multiracial/ Multiethnic	3.16 (1.28)	1.83 (1.19)	3.43 (2.44)	1.97 (1.37)	1.44 (0.99)	1.93 (0.95)	1.70 (0.90)	1.43 (0.91)
Other/ Not Reported	3.09 (1.38)	2.56 (1.33)	3.97 (3.55)	2.21 (1.39)	1.91 (1.24)	2.09 (0.93)	1.76 (0.92)	1.53 (0.93)
Freshman	2.81 (1.29)	1.59 (1.07)	2.83 (2.80)	1.45 (0.94)	1.32 (0.83)	1.62 (0.81)	1.33 (0.65)	1.31 (0.75)
Sophomore	2.96 (1.36)	1.68 (1.14)	3.01 (2.47)	1.86 (1.33)	1.44 (0.94)	1.82 (0.90)	1.52 (0.80)	1.41 (0.85)
Junior	2.99 (1.34)	1.94 (1.21)	2.99 (2.49)	2.06 (1.37)	1.53 (1.03)	2.02 (0.95)	1.66 (0.90)	1.39 (0.80)
Senior	3.16 (1.38)	1.96 (1.29)	3.45 (2.67)	2.34 (1.49)	1.66 (1.19)	2.03 (0.98)	1.76 (0.94)	1.53 (0.95)

Table 10: *T-test for Environmental Variables and Gender*

	Female Mean (SD)	Male Mean (SD)	df	t value
Involvement in Student Organizations	3.09 (1.35)	2.88 (1.34)	1204	2.693**
Involvement in Community Organizations	1.80 (1.19)	1.85 (1.23)	1204	-0.743
Breadth of Involvement	3.07 (2.42)	3.15 (2.83)	1204	-0.541
Leadership Role- Student Organizations	2.00 (1.39)	1.98 (1.34)	1204	0.236
Leadership Role- Community Organizations	1.48 (1.00)	1.56 (1.08)	1204	-1.263
Short- Term Training/ Education	1.93 (0.95)	1.88 (0.93)	1204	0.983
Moderate-Term Training/ Education	1.61 (0.87)	1.58 (0.86)	1204	0.580
Long-Term Training/ Education	1.43 (0.87)	1.42 (0.85)	1203	0.229

** $p \leq 0.01$

Table 11: *ANOVA Results of Environmental Variables by Race*

	n		Student Org		Community Org		Breadth of Involvement		Student Org Leadership	
			M (SD)	F (df)	M (SD)	F (df)	M (SD)	F (df)	M (SD)	F (df)
White / Caucasian	744		3.01 (1.36)	1.25 (5)	1.71 (1.13)	5.91 (5) ***	3.05 (2.42)	1.94 (5)	1.95 (1.34)	1.18 (5)
Black/ African American	108		2.94 (1.39)		1.90 (1.24)	Asian > White	2.91 (3.12)		1.90 (1.33)	
Asian American/ Pacific Islander	168		2.99 (1.32)		2.11 (1.41)	White	2.92 (2.47)		2.18 (1.51)	
Latino/ Hispanic	45		2.58 (1.34)		1.82 (1.15)	Other > White,	3.71 (3.85)		2.13 (1.31)	
Multiracial/ Multiethnic	107		3.16 (1.28)		1.83 (1.19)	Multiracial	3.43 (2.44)		1.97 (1.37)	
Other/ Not Reported	34		3.09 (1.38)		2.56 (1.33)		3.97 (3.55)		2.21 (1.39)	

	n		Community Leadership		Short-Term		Moderate-Term		Long-Term	
			M (SD)	F (df)	M (SD)	F (df)	M (SD)	F (df)	M (SD)	F (df)
White / Caucasian	744		1.44 (0.96)	3.45 (5) **	1.85 (0.93)	2.09 (5)	1.56 (0.84)	1.25 (5)	1.40 (0.84)	0.55 (5)
Black/ African American	108		1.56 (1.05)	Asian > White	2.07 (0.95)		1.67 (0.95)		1.51 (0.92)	
Asian American/ Pacific Islander	168		1.73 (1.24)		2.03 (0.98)		1.67 (0.89)		1.44 (0.83)	
Latino/ Hispanic	45		1.62 (1.09)		1.93 (0.86)		1.56 (0.84)		1.51 (0.87)	
Multiracial/ Multiethnic	107[1]		1.44 (0.99)		1.93 (0.95)		1.70 (0.90)		1.43 (0.91)	
Other/ Not Reported	34		1.91 (1.24)		2.09 (0.93)		1.76 (0.92)		1.53 (0.93)	

Note: $**p \leq 0.01$, $***p \leq 0.001$; [1] For the environmental variable of Long-Term experiences, n=106 instead of 107 for Multiracial students.

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Additional findings exist in the environmental variables by class standing (Table 12). By examining the mean scores, it appears as if the scores increase by year for all measures except for breadth of student involvement, in which juniors appear to have a lower mean score than sophomores. A post-host ANOVA was conducted to determine any significant differences ($p \leq 0.05$) in environmental measures by class standing. ANOVA revealed that there were significant differences within each of the eight environmental variables by race. A post-hoc Tukey's HSD test was conducted to determine where those significant differences may exist. Due to the fact that there are many significant differences, refer to Table 9 to examine the mean scores and standard deviations. Seniors demonstrated significantly higher scores in all environmental measures as compared to freshmen and significantly higher scores than sophomores in involvement in community organizations, holding a formal leadership in a community organization, short-term leadership training and education programs, and moderate-term leadership education and training programs. Additionally, seniors demonstrated a significantly higher means than juniors in holding a formal leadership role a student organization.

Juniors had significantly higher scores as compared to freshmen for the environmental measures of involvement in community organizations, holding a formal leadership role in a student organization, holding a leadership role in a community organization, short-term leadership training and education programs, and moderate term leadership training and education programs. Additionally, juniors scored significantly higher than sophomores in the environmental variables of involvement in community organizations and short-term leadership education and training programs. Sophomores

had significantly higher scores than freshmen on the environmental variables of leadership role in a student organization, short-term leadership training and education programs, and moderate-term leadership training and education programs.

Outcome Measures

Some key descriptive characteristics of the sample as related to the eight outcomes are presented in Table 13. The table includes the mean scores and standard deviations of the eight outcome measures categorized by gender, racial/ ethnic background, and class standing. Comparisons for men and women on these outcome scales were tested and are reported in Table 15 and discussed later in this chapter. This section will present the means (SD) as a precursor to the formal analysis. Each of the outcome measures had responses ranging from one (strongly disagree) to five (strongly agree). For seven of the eight outcome measures, women appeared to have higher scores than men. For the eighth outcome measure, Change, it appears as if men and women had approximately the same mean score (M=3.73; SD=0.47 for women and 0.48 for men). The standard deviations for the mean scores by gender were low, ranging from 0.38 for female's scores on Common Purpose to 0.54 for men's scores Consciousness of Self. The highest mean score for women was 4.24 (SD=0.43) for the outcome of Commitment, and the lowest mean score for women was 3.73 (SD=0.47) for the outcome of Change. The highest mean score for men was 4.16 (SD=0.50) for the outcome of Commitment and the lowest was 3.73 (SD=0.48) for the outcome of Change. Both women and men scored highest on Commitment and lowest on Change. Overall, the mean scores for men and women ranged from 3.73 to 4.24, which are considerably high on a five-point Likert

Table 12: *ANOVA Results for Environmental Variables by Class Standing*

		Student Org		Community Org		Breadth of Involvement		Student Org Leadership	
	n	**M (SD)**	**F (df)**	**M (SD)**	**F (df)**	**M (SD)**	**F (df)**	**M (SD)**	**F (df)**
Freshman	205	2.81 (1.29)	3.045 (3) *	1.59 (1.07)	6.558 (3) ***	2.83 (2.80)	3.22 (3) *	1.45 (0.94)	20.30 (3) ***
Sophomore	285	2.96 (1.36)	Sr > Fr	1.68 (1.14)	Jr> Fr, So Sr>Fr, So	3.01 (2.47)	Sr > Fr	1.86 (1.33)	So, Jr, Sr. >Fr
Junior	355	2.99 (1.34)		1.94 (1.21)		2.99 (2.49)		2.06 (1.37)	Sr >So, Jr
Senior	361	3.16 (1.38)		1.96 (1.29)		3.45 (2.67)		2.34 (1.49)	

		Community Leadership		Short-Term		Moderate-Term		Long-Term	
	n	**M (SD)**	**F (df)**	**M (SD)**	**F (df)**	**M (SD)**	**F (df)**	**M (SD)**	**F (df)**
Freshman	205	1.32 (0.83)	5.47 (3) **	1.62 (0.81)	11.17 (3) ***	1.33 (0.65)	12.57 (3) ***	1.31 (0.75)	3.46 (3) *
Sophomore	285	1.44 (0.94)	Sr > Fr, So	1.82 (0.90)	Jr, Sr>Fr, So	1.52 (0.80)	Jr > Fr Sr > Fr,So	1.41 (0.85)	Sr > Fr
Junior	355	1.53 (1.03)		2.02 (0.95)		1.66 (0.90)		1.39 (0.80)	
Senior	361	1.66 (1.19)		2.03 (0.98)		1.76 (0.94)		1.53 (0.95)	

Note: *p≤ 0.05, **p≤ 0.01, ***p≤ 0.00

scale, with a score of three indicating neutral, four indicating agree, and five indicating strongly agree. Analysis of hypothesis one examined any significant differences by gender.

The mean scores of outcome variables by race are also included in Table 13. There are some patterns that emerge from these scores, but post hoc tests were not conducted to see if any significant differences or patterns existed. First, the lowest mean score for all six groups appears to be for the outcome of Change, with the means ranging from 3.62 (SD=0.48) for Asian American/ Pacific Islander to 3.83 (SD=0.49) for Latino/ Hispanic. The highest mean score for all of the racial groups with the exception of Other/ Not Reported appears to be Commitment with the scores ranging from 4.09 (SD=0.52) for Asian American/ Pacific Islander to 4.23 (SD=0.36) for Multiracial. The group of Other/ Not Reported had the highest mean score (M= 4.21, SD=0.46) in the outcome of Congruence.

A pattern, although not tested for significance, emerged with Asian American/ Pacific Islander participants having the lowest scores in all eight of the outcomes. A post-hoc analysis was conducted to examine the citizenship demographics of the Asian-American/ Pacific Islander category. Fifty-six percent of the Asian American/ Pacific Islander participants were born in the United States but at least one of their parents were born outside of the United States, 25% are foreign born, naturalized citizens, 13.7% were foreign born, resident alien/ permanent resident, and 5.4% are here on a student visa. No participants indicated being born in the United States and having grandparents and parents that were born in the United States. Additionally, no participants indicated that they were born in the United States and both of their parents were also born in the United

States. This population of Asian American/ Pacific Islander participants reflects a fairly international and foreign born demographic when examining the participants and their family members. This breakdown was compared to the demographic information of the Asian American/ Pacific Islander students through the University of Maryland New Student Census in 2004. From the New Student Census, 1.1% of these students had parents and grandparents born in the United States, 2% had both parents born in the United States, 61.4% were born in the United States but at least one parent was foreign born, 21.4% were foreign born, naturalized citizens, and 14.1% were foreign born resident alien/ permanent resident (H. B. Sheu, personal communication, April 28, 2006). The category of student visa isn't included. This breakdown has a similar pattern as the respondents in the current study; small numbers that reflect second and third generation citizenship, a large percentage of students with one foreign born parent, and moderate percentage of foreign born students.

Similar to the breakdown of mean scores and standard deviations by gender, the means were fairly high, ranging from 3.62 to 4.23 and the standard deviations were fairly low, ranging from 0.35 to 0.60.

Findings on the outcome means and standard deviations by class standing had similar patterns (see Table 13). All four groups appeared to have the highest mean scores in the outcome of Commitment, ranging from 4.11 (SD=0.49) for freshmen to 4.24 (SD=0.46) for seniors, and the lowest mean scores in the outcome of Change, ranging from 3.67 (SD=0.48) for Freshmen to 3.78 (SD=0.43) for Seniors. Seniors appeared to have the highest mean scores for six of the eight outcomes, with juniors appearing to have the highest mean scores for the outcomes of Congruence (M=4.18, SD=0.48) and

Collaboration (3.96, M=SD=0.45). Without testing for significance, it looks as if freshmen had the lowest mean scores for all of the outcome measures with the exception of Citizenship, for which the Sophomores appeared to have the lowest mean scores (M3.76, SD=0.48). As with the breakdown by gender and race, the means for class standing were high ranging from 3.67 to 4.24 and the standard deviations were low, ranging from 0.39 to 0.64.

Overall findings for the means and standard deviations for the eight outcome measures reflect a few key patterns. First, the lowest mean scores for all gender, racial/ ethnic, and class standing groups appeared to be for the outcome of Change. Second, the highest mean scores for all gender, racial/ethnic, and class standing groups with the exception of the Other/Not Reported racial category appeared to be in the outcome of Commitment. Third, all mean scores were fairly high, reflecting strong average outcome scores, and the standard deviations were fairly low, reflecting little variance in the outcome scores. The next section will examine hypothesis one, which focuses on outcome score differences by gender using MANOVA and F tests.

HYPOTHESIS ONE

Stated in the null form, the first hypothesis stated that there are no gender differences in undergraduate college students' socially responsible leadership outcome scores. The previous section indicated that mean scores for the eight outcome measures appeared to reflect higher mean scores for women in seven of the eight outcome measures. This section will further explore these mean scores and identify any significant differences by gender.

Table 13: *Mean and Standard Deviations of Outcome Measures by Gender, Race/ Ethnicity, and Class Standing*

	Consciousness of Self	Congruence	Commitment	Collaboration	Common Purpose	Controversy with Civility	Citizenship	Change
Total	3.91 (0.51)	4.14 (0.46)	4.21 (0.46)	3.94 (0.45)	4.01 (0.41)	3.81 (0.42)	3.81 (0.47)	3.73 (0.47)
Female	3.93 (0.49)	4.17 (0.43)	4.24 (0.43)	3.98 (0.43)	4.04 (0.38)	3.84 (0.39)	3.83 (0.44)	3.73 (0.47)
Male	3.89 (0.54)	4.10 (0.50)	4.16 (0.50)	3.90 (0.47)	3.96 (0.44)	3.76 (0.45)	3.78 (0.50)	3.73 (0.48)
White/ Caucasian	3.92 (0.51)	4.13 (0.45)	4.23 (0.46)	3.94 (0.42)	4.01 (0.40)	3.81 (0.41)	3.80 (0.46)	3.71 (0.47)
Black/ African American	3.99 (0.47)	4.15 (0.46)	4.20 (0.45)	3.94 (0.47)	4.02 (0.41)	3.82 (0.39)	3.82 (0.52)	3.82 (0.45)
Asian American/ Pacific Islander	3.79 (0.53)	4.06 (0.49)	4.09 (0.52)	3.92 (0.51)	3.97 (0.43)	3.73 (0.45)	3.75 (0.48)	3.62 (0.48)
Latino/ Hispanic	3.96 (0.60)	4.18 (0.56)	4.21 (0.57)	3.96 (0.57)	4.00 (0.50)	3.83 (0.48)	3.86 (0.51)	3.83 (0.49)
Multiracial/ Multiethnic	3.92 (0.48)	4.15 (0.38)	4.23 (0.36)	3.95 (0.45)	4.03 (0.37)	3.92 (0.38)	3.85 (0.45)	3.82 (0.45)
Other/ Not Reported	3.87 (0.57)	4.21 (0.46)	4.15 (0.49)	4.01 (0.51)	4.02 (0.47)	3.83 (0.35)	3.92 (0.50)	3.82 (0.42)
Freshman	3.80 (0.50)	4.05 (0.45)	4.11 (0.49)	3.90 (0.44)	3.94 (0.42)	3.77 (0.43)	3.79 (0.45)	3.67 (0.48)
Sophomore	3.88 (0.53)	4.11 (0.47)	4.20 (0.44)	3.94 (0.64)	3.97 (0.41)	3.78 (0.43)	3.76 (0.48)	3.69 (0.50)
Junior	3.93 (0.52)	4.18 (0.48)	4.23 (0.47)	3.96 (0.45)	4.03 (0.41)	3.82 (0.42)	3.82 (0.47)	3.75 (0.47)
Senior	3.98 (0.48)	4.17 (0.42)	4.24 (0.46)	3.95 (0.45)	4.05 (0.39)	3.84 (0.39)	3.84 (0.46)	3.78 (0.43)

A correlation matrix calculated from the data in this study is presented in Table 14. The eight constructs of the Socially Responsible Leadership Scale- Revised2 are highly intercorrelated, with each relationship being significant at the 0.001 level indicating multivariate analysis of variance (MANOVA) to be the appropriate statistic for this analysis.

MANOVA was used at the 0.05 significance level to test for significant outcome measure differences for women and men (Table 15). The overall F statistic was 3.89 (Wilks' Lambda = 0.975, df=8), which yielded significance. Although the MANOVA indicated that the means were significant (F=3.89), the partial Eta squared value was 0.025, which reflects a small to moderate effect size, meaning that gender by itself only accounts for 2.5% of the overall variance.

Significant differences were identified for five of the eight outcomes, with women scoring higher on each of these outcomes than men. These eight outcomes were Congruence (F=7.76), Commitment (F=7.73), Collaboration (F=9.45), Common Purpose (F=10.42), and Controversy with Civility (F=11.15) and were each significant at the 0.01 level. The effect sizes for these differences were very low, ranging from Eta squared values of 0.000 to 0.009. Women had significantly higher scores than men on two of the three individual values of the Social Change Model and each of the three group values.

HYPOTHESIS TWO

The second hypothesis stated that cocurricular involvement, holding a formal leadership role, and participating in leadership education and training programs do not independently or collectively contribute to undergraduate men and women college students' socially responsible leadership outcomes. This hypothesis was tested using 16

Table 14: *Correlation Coefficients for the 8 Outcome Measures*

	Consciousness of Self	Congruence	Commitment	Collaboration	Common Purpose	Controversy with Civility	Citizenship	Change
Consciousness of Self		0.67 ***	0.59***	0.58***	0.63***	0.61***	0.56***	0.56***
Congruence			0.77***	0.68***	0.78***	0.64***	0.62***	0.54***
Commitment				0.67***	0.76***	0.61***	0.61***	0.46***
Collaboration					0.75***	0.69***	0.75***	0.62***
Common Purpose						0.66***	0.69***	0.58***
Controversy with Civility							0.70***	0.70***
Citizenship								0.62***
Change								

***p<0.001

Table 15: *MANOVA: Eight Outcome Measures by Gender*

	F Statistic	Sig	Wilk's Lambda
MANOVA Statistics	3.89	0.000***	0.975

***p<0.001

	Female Mean (SD)	Male Mean (SD)	F Statistic
Consciousness of Self	3.93 (0.49)	3.89 (0.54)	1.78
Congruence	4.17 (0.43)	4.10 (0.50)	7.76**
Commitment	4.24 (0.43)	4.16 (0.50)	7.73**
Collaboration	3.98 (0.43)	3.90 (0.47)	9.45**
Common Purpose	4.04 (0.38)	3.96 (0.44)	10.42**
Controversy with Civility	3.84 (0.39)	3.76 (0.45)	11.15**
Citizenship	3.83 (0.44)	3.78 (0.50)	3.51
Change	3.73 (0.47)	3.73 (0.48)	0.005

**p<0.01

modified hierarchical multiple regression analyses. Since the design of the study was

based on the I-E-O college impact model (A. W. Astin, 1991), the first six blocks were

input variables and were entered hierarchically to control for demographics and pre-

college experiences and characteristics, specifically race, class standing, pre-college

involvement, pre-college formal leadership experiences, pre-college leadership training,

and a pre-test for the outcome measure. After the first six blocks, the eight

environmental variables of this study were entered into the regression using stepwise

entry in order to identify which variables within that block explained most of the variance

for the given outcome for each sex. Only those environmental variables that were

significant to the outcome were included in the regression analysis. This section will

provide the results of each multiple regression analysis and is divided into the eight

outcomes and within each the analyses for both women and men will be examined.

<center>Consciousness of Self</center>

For the outcome of Consciousness of Self, multiple regression analysis explained

33.7% of the variance of women's scores and 24.5% of the variance in men's scores

(Table 16). The first six blocks of input variables, which were entered into the regression

analysis using hierarchical multiple regression, that emerged as significant ($p \leq 0.05$) for

women were: race, class standing, pre-college involvement, pre-college formal leadership

role, pre-college leadership training, and the Consciousness of Self pretest measure. The

block of pre-college involvement was negatively related to the outcome, as each of the

variables (student organizations, varsity sports, and community organizations) had

negative beta scores. The first six blocks of the regression accounted for 29.7% of the

variance for this outcome measure, with the pretest for Consciousness of Self adding the

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most variance (19.4%) when it was entered into the regression as the fifth block. The variables entered into the regression after block six through stepwise multiple regression that emerged as significant ($p \leq 0.05$) were, in order of amount of additional variance explained (R^2 Change), involvement in student organizations, involvement in community organizations, and holding a leadership role in student organizations. These environmental measures combined explained 4% more of the total variance for the outcome. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, pre-college leadership training, and the pretest for Consciousness of Self emerged as significant predictors ($p \leq 0.05$). The block of pre-college involvement was negatively related to the outcome, as each of the variables (student organizations, varsity sports, and community organizations) had negative beta scores. Within the block of pre-college formal leadership role, leadership role in a student organization emerged as a significant variable. The total variance explained after the first six blocks of the regression was 23.2%. The pretest for Consciousness of Self added the most variance (9.8%) when it was entered into the regression as the fifth block. The only environmental variable that emerged as significant through stepwise multiple regression was involvement in student organizations, which added 1.3% to the total R-square value. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

Table 16: *Predictors of Consciousness of Self for Women and Men*

	Women				Men		
	B	β	Sig		B	β	Sig
1. Race				*1. Race*			
White/ Caucasian	0.084	0.080		White/ Caucasian	0.151	0.135	
Black/ African American	0.050	0.037		Black/ African American	0.115	0.057	
Asian American/ Pacific Islander	-0.109	-0.078		Asian American/ Pacific Islander	0.087	0.055	
Latino/ Hispanic	0.127	0.053		Latino/ Hispanic	0.118	0.037	
Multiracial/ Multiethnic	0.001	0.000		Multiracial/ Multiethnic	0.202	0.109	
(Referent Category: Other/ Not Reported)				(Referent Category: Other/ Not Reported)			
R^2 Change		0.023		R^2 Change		0.012	
New R^2		0.023		New R^2		0.012	
F Change		3.229	**	F Change		1.217	
2. Class Standing				*2. Class Standing*			
Class Standing	0.030	0.066	*	Class Standing	0.080	0.157	***
R^2 Change		0.090		R^2 Change		0.022	
New R^2		0.032		New R^2		0.034	
F Change		6.003	*	F Change		11.564	***
3. Pre-College Involvement				*3. Pre-College Involvement*			
Student Organization	-0.009	-0.018		Student Organization	-0.005	-0.010	
Varsity Sports	-0.002	-0.006		Varsity Sports	-0.019	-0.044	
Community Organizations	-0.005	-0.011		Community Organizations	-0.011	-0.021	
R^2 Change		0.034		R^2 Change		0.056	
New R^2		0.066		New R^2		0.090	
F Change		8.158	***	F Change		10.476	***
4. Pre-College Formal Leadership Role				*4. Pre-College Formal Leadership Role*			
Student Organization	0.016	0.766		Student Organization	0.090	0.176	**
Community Organization	-0.009	-0.389		Community Organization	-0.002	-0.003	
R^2 Change		0.014		R^2 Change		0.032	
New R^2		0.080		New R^2		0.122	
F Change		5.245	**	F Change		9.238	***

5. Pre-College Leadership Training					*5. Pre-College Leadership Training*			
Pre-College Leadership Training	0.066	0.131	***		Pre-College Leadership Training	0.041	0.070	
R^2 Change		0.087			*R^2 Change*		0.012	
New R^2		0.103			*New R^2*		0.134	
F Change		16. 886	***		*F Change*		6.940	**
6. SRLS Pretest Measure					*6. SRLS Pretest Measure*			
Pretest for Consciousness of Self	0.194	0.465	***		Pretest for Consciousness of Self	0.166	0.340	***
R^2 Change		0.194			*R^2 Change*		0.098	
New R^2		0.297			*New R^2*		0.232	
F Change		185.410	***		*F Change*		64.586	***
7. Student Organization Involvement					*7. Student Organization Involvement*			
Involvement in Student Organizations	0.042	0.114	**		Involvement in Student Organizations	0.051	0.128	**
R^2 Change		0.028			*R^2 Change*		0.013	
New R^2		0.325			*New R^2*		0.245	
F Change		27.654	***		*F Change*		8.800	**
8. Community Organization Involvement								
Involvement in Community Organizations	0.042	0.102	**					
R^2 Change		0.008						
New R^2		0.333						
F Change		7.897	**					
9. Student Organization Leadership Role								
Leadership Role- Student Organization	0.031	0.088	*					
R^2 Change		0.004						
New R^2		0.337						
F Change		3.949	*					
Total R^2		**0.337**			**Total R^2**		**0.245**	
Total F		**21.179**	***		**Total F**		**11.688**	***

$* p \leq .05.\ ** p \leq .01.\ *** p \leq .001.$

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

The following variables were entered into the regression but were rejected due to lack of contribution to variance:

Women:	*Men:*
Total Breadth of activities	Involvement Community Organizations
Leadership Role- Community Organization	Total Breadth of activities
Short Term Training & Education	Leadership Role- Student Organization
Moderate Term Training & Education	Leadership Role- Community Organization
Long Term Training & Education	Short Term Training & Education
	Moderate Term Training & Education
	Long Term Training & Education

Congruence

For the outcome of Congruence, multiple regression analysis explained 24.8% of the variance of women's scores and 19.3% of the variance in men's scores (Table 17). The first six blocks of input variables, which were entered into the regression analysis using hierarchical multiple regression, that emerged as significant ($p \leq 0.05$) for women were: race, class standing, pre-college involvement, pre-college formal leadership role, pre-college leadership training, and the Congruence pretest measure. The blocks of pre-college involvement and pre-college formal leadership role included variables that, although not significant, appeared to be both positively (involvement in community organizations, and leadership roles in student organizations) and negatively related (student organization involvement, varsity sports, and leadership role in a community organization) to the outcome. The first six blocks of the regression accounted for 22.5% of the variance for this outcome measure, with the pretest for Congruence adding the most variance (11.3%) when it was entered into the regression as the fifth block. The only variables entered into the regression after block six through stepwise multiple regression that emerged as significant ($p \leq 0.05$) was involvement in student organizations, which added 2.3% to the total variance explained by the analysis. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, and the pretest for Congruence emerged as significant predictors ($p \leq 0.05$). The block of pre college involvement contained variables that demonstrated both positive (varsity sports) and negative (student organization and community

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organization involvement) relationships with the outcome measure. The pretest for

Congruence added the most variance (11.0%) when it was entered into the regression as

the fifth block. None of the environmental variables were found to be significant and

were therefore rejected from the regression analysis. The total R-square value for the

regression was 19.3%.

Commitment

For the outcome of Commitment, multiple regression analysis explained 25.4% of

the variance of women's scores and 29.9% of the variance in men's scores (Table 18).

The first six blocks of input variables, which were entered into the regression analysis

using hierarchical multiple regression, that emerged as significant ($p \leq 0.05$) for women

were: pre-college involvement, pre-college formal leadership role, pre-college leadership

training, and the Commitment pretest measure. Although its block was not significant,

the variable of class standing emerged as significant. The first six blocks of the

regression accounted for 22.4% of the variance for this outcome measure, with the pretest

for Commitment adding the most variance (12.9%) when it was entered into the

regression as the fifth block. The variables entered into the regression after block six

through stepwise multiple regression that emerged as significant ($p \leq 0.05$) were, in order

of amount of additional variance explained (R^2 Change), involvement in student

organizations and holding a leadership role in community organizations. These

environmental measures combined explained 2.45% more of the total variance for the

outcome. The other variables that were entered into the stepwise regression were not

found to be significant and were therefore rejected from the regression.

Table 17: *Predictors of Congruence for Women and Men*

	Women				Men		
	B	β	Sig		B	β	Sig
1. Race				*1. Race*			
White/ Caucasian	-0.089	-0.102		White/ Caucasian	-0.017	-0.016	
Black/ African American	-0.061	-0.043		Black/ African American	-0.082	-0.044	
Asian American/ Pacific Islander	-0.188	-0.156		Asian American/ Pacific Islander	0.029	0.020	
Latino/ Hispanic	0.024	0.012		Latino/ Hispanic	-0.157	-0.053	
Multiracial/ Multiethnic	-0.066	-0.043		Multiracial/ Multiethnic	0.006	0.003	
(Referent Category: Other/ Not Reported)				(Referent Category: Other/ Not Reported)			
R² Change		0.020		*R² Change*		0.001	
New R²		0.020		*New R²*		0.001	
F Change		2.786	*	*F Change*		0.143	
2. Class Standing				*2. Class Standing*			
Class Standing	0.038	0.097	**	Class Standing	0.072	0.155	***
R² Change		0.005		*R² Change*		0.019	
New R²		0.025		*New R²*		0.020	
F Change		3.424		*F Change*		9.754	**
3. Pre-College Involvement				*3. Pre-College Involvement*			
Student Organization	-0.017	-0.037		Student Organization	-0.007	-0.013	
Varsity Sports	-0.003	-0.008		Varsity Sports	0.007	0.017	
Community Organizations	0.039	0.098	*	Community Organizations	-0.009	-0.019	
R² Change		0.048		*R² Change*		0.030	
New R²		0.073		*New R²*		0.050	
F Change		11.660	***	*F Change*		5.357	***
4. Pre-College Formal Leadership Role				*4. Pre-College Formal Leadership Role*			
Student Organization	0.024	0.061		Student Organization	0.065	0.138	*
Community Organization	-0.012	-0.027		Community Organization	0.001	0.002	
R² Change		0.010		*R² Change*		0.027	
New R²		0.083		*New R²*		0.077	
F Change		3.829	*	*F Change*		7.360	***

5. Pre-College Leadership Training					*5. Pre-College Leadership Training*			
Pre-College Leadership Training	0.044	0.100	*		Pre-College Leadership Training	0.024	0.045	
R^2 Change		0.009			R^2 Change		0.005	
New R^2		0.092			New R^2		0.082	
F Change		6.467	*		F Change		2.884	
6. SRLS Pretest Measure					*6. SRLS Pretest Measure*			
Pretest for Congruence	0.199	0.366	***		Pretest for Congruence	0.207	0.349	***
R^2 Change		0.113			R^2 Change		0.110	
New R^2		0.225			New R^2		0.193	
F Change		114.957	***		F Change		68.856	***
7. Student Organization Involvement								
Involvement in Student Organizations	0.052	0.163	***					
R^2 Change		0.023						
New R^2		0.248						
F Change		20.765	***					
Total R^2		**0.248**			**Total R^2**		**0.193**	
Total F		**15.808**	***		**Total F**		**9.245**	***

*$p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

The following variables were entered into the regression but were rejected due to lack of contribution to variance:

Women:

Involvement Community Organizations
Total Breadth of activities
Leadership Role- Student Organization
Leadership Role- Community Organization
Short Term Training & Education
Moderate Term Training & Education
Long Term Training & Education

Men:

Involvement Student Organization
Involvement Community Organizations
Total Breadth of activities
Leadership Role- Student Organization
Leadership Role- Community Organization
Short Term Training & Education
Moderate Term Training & Education
Long Term Training & Education

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, pre-college leadership training, and the pretest for Commitment emerged as significant predictors ($p \leq 0.05$). Within the block of pre-college formal leadership role, leadership role in a student organization emerged as a significant variable. The total variance explained after the first six blocks of the regression was 28.3%. The pretest for Commitment added the most variance (18.3%) when it was entered into the regression as the fifth block. The environmental variables that emerged as significant through stepwise multiple regression, accounting for 1.6% additional variance, were involvement in student organizations and breadth of student involvement, with breadth having a negative relationship with the outcome of Commitment. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

Collaboration

For the outcome of Collaboration, multiple regression analysis explained 34.9% of the variance of women's scores and 30.4% of the variance in men's scores (Table 19). The first six blocks of input variables, which were entered into the regression analysis using hierarchical multiple regression, that emerged as significant ($p \leq 0.05$) for women were: pre-college involvement, pre-college formal leadership role, pre-college leadership training, and the Collaboration pretest measure. The first six blocks of the regression accounted for 30.1% of the variance for this outcome measure, with the pretest for Collaboration adding the most variance (17.1%) when it was entered into the regression as the fifth block. The variables entered into the regression after block six through stepwise multiple regression that emerged as significant ($p \leq 0.05$) were, in order of

Table 18: *Predictors of Commitment for Women and Men*

	Women				Men		
	B	β	Sig		B	β	Sig
1. Race				*1. Race*			
White/ Caucasian	0.030	0.034		White/ Caucasian	0.184	0.177	
Black/ African American	-0.020	-0.014		Black/ African American	0.225	0.119	
Asian American/ Pacific Islander	-0.077	-0.062		Asian American/ Pacific Islander	0.092	0.063	
Latino/ Hispanic	0.124	0.059		Latino/ Hispanic	0.146	0.049	
Multiracial/ Multiethnic	0.032	0.020		Multiracial/ Multiethnic	0.216	0.125	
(Referent Category: Other/ Not Reported)				(Referent Category: Other/ Not Reported)			
R^2 Change		0.016		*R^2 Change*		0.016	
New R^2		0.016		*New R^2*		0.018	
F Change		2.217		*F Change*		1.861	
2. Class Standing				*2. Class Standing*			
Class Standing	0.030	0.075	*	Class Standing	0.053	0.111	**
R^2 Change		0.003		*R^2 Change*		0.013	
New R^2		0.019		*New R^2*		0.031	
F Change		2.360		*F Change*		6.892	**
3. Pre-College Involvement				*3. Pre-College Involvement*			
Student Organization	-0.007	-0.015		Student Organization	-0.008	-0.016	
Varsity Sports	0.006	0.017		Varsity Sports	0.004	0.009	
Community Organizations	0.023	0.059		Community Organizations	-0.031	-0.063	
R^2 Change		0.055		*R^2 Change*		0.039	
New R^2		0.074		*New R^2*		0.070	
F Change		13.343	***	*F Change*		7.135	***
4. Pre-College Formal Leadership Role				*4. Pre-College Formal Leadership Role*			
Student Organization	0.018	0.046		Student Organization	0.068	0.142	**
Community Organization	-0.006	-0.013		Community Organization	0.012	0.021	
R^2 Change		0.011		*R^2 Change*		0.023	
New R^2		0.086		*New R^2*		0.093	
F Change		4.180	*	*F Change*		6.274	**

Women

5. Pre-College Leadership Training			
Pre-College Leadership Training	0.034	0.077	
R^2 Change		0.010	
New R^2		0.095	
F Change		7.226	**
6. SRLS Pretest Measure			
Pretest for Commitment	0.225	0.376	***
R^2 Change		0.129	
New R^2		0.224	
F Change		111.554	***
7. Student Organization Involvement			
Involvement Student Organizations	0.050	0.155	***
R^2 Change		0.024	
New R^2		0.248	
F Change		21.302	***
8. Community Leadership Role			
Leadership Role- Community Organization	0.035	0.081	*
R^2 Change		0.005	
New R^2		0.254	
F Change		4.929	*
Total R^2		**0.254**	
Total F		**15.169**	***

Men

5. Pre-College Leadership Training			
Pre-College Leadership Training	0.040	0.074	
R^2 Change		0.008	
New R^2		0.101	
F Change		4.465	*
6. SRLS Pretest Measure			
Pretest for Commitment	0.295	0.427	***
R^2 Change		0.183	
New R^2		0.283	
F Change		128.377	***
7. Student Organization Involvement			
Involvement Student Organizations	0.055	0.148	***
R^2 Change		0.009	
New R^2		0.292	
F Change		6.469	*
8. Breadth of Student Organizations			
Total Breadth of activities	-0.017	-0.096	*
R^2 Change		0.007	
New R^2		0.299	
F Change		4.922	*
Total R^2		**0.299**	
Total F		**14.283**	***

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

The following variables were entered into the regression but were rejected due to lack of contribution to variance:

Women:
Involvement Community Organizations
Total Breadth of activities
Leadership Role- Student Organization
Short Term Training & Education
Moderate Term Training & Education
Long Term Training & Education

Men:
Involvement Community Organizations
Leadership Role- Student Organization
Leadership Role- Community Organization
Short Term Training & Education
Moderate Term Training & Education
Long Term Training & Education

amount of additional variance explained (R^2 Change), involvement in student organizations and involvement in community organizations. These environmental measures combined explained 4.6% more of the total variance for the outcome. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, pre-college leadership training, and the pretest for Collaboration emerged as significant predictors ($p \leq 0.05$). Within the block of pre-college involvement, although not significant, the different variables appeared to have both positive (community organization involvement) and negative (student organization involvement and varsity sports) relationships with the outcome measure. Within the block of pre-college formal leadership role, leadership role in a student organization emerged as a significant variable. The total variance explained after the first six blocks of the regression was 28.2%. The pretest for Collaboration added the most variance (15.8%) when it was entered into the regression as the fifth block. The environmental variables that emerged as significant through stepwise multiple regression were involvement in student organizations and moderate-term leadership training and education programs, together adding 2.2% to the total R-square. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

Table 19: *Predictors of Collaboration for Women and Men*

	Women				Men		
	B	β	Sig		B	β	Sig
1. Race				*1. Race*			
White/ Caucasian	-0.040	-0.046		White/ Caucasian	0.035	0.035	
Black/ African American	-0.066	-0.046		Black/ African American	0.031	0.017	
Asian American/ Pacific Islander	-0.100	-0.082		Asian American/ Pacific Islander	0.063	0.045	
Latino/ Hispanic	-0.008	-0.004		Latino/ Hispanic	-0.020	-0.007	
Multiracial/ Multiethnic	-0.013	-0.028		Multiracial/ Multiethnic	0.020	0.012	
(Referent Category: Other/ Not Reported)				(Referent Category: Other/ Not Reported)			
R^2 Change		0.009		*R^2 Change*		0.001	
New R^2		0.009		*New R^2*		0.001	
F Change		1.294		*F Change*		0.115	
2. Class Standing				*2. Class Standing*			
Class Standing	-0.012	-0.031		Class Standing	0.052	0.117	**
R^2 Change		0.003		*R^2 Change*		0.017	
New R^2		0.012		*New R^2*		0.018	
F Change		1.726		*F Change*		8.998	**
3. Pre-College Involvement				*3. Pre-College Involvement*			
Student Organization	-0.013	-0.028		Student Organization	-0.011	-0.023	
Varsity Sports	0.007	0.021		Varsity Sports	-0.015	-0.039	
Community Organizations	0.002	0.004		Community Organizations	0.015	0.033	
R^2 Change		0.092		*R^2 Change*		0.060	
New R^2		0.104		*New R^2*		0.079	
F Change		23.133	***	*F Change*		11.092	***
4. Pre-College Formal Leadership Role				*4. Pre-College Formal Leadership Role*			
Student Organization	0.019	0.048		Student Organization	0.068	0.150	**
Community Organization	0.029	0.066		Community Organization	0.002	0.004	
R^2 Change		0.018		*R^2 Change*		0.035	
New R^2		0.122		*New R^2*		0.113	
F Change		6.834	***	*F Change*		9.883	***

(Women)				(Men)			
5. Pre-College Leadership Training				*5. Pre-College Leadership Training*			
Pre-College Leadership Training	0.021	0.047		Pre-College Leadership Training	0.027	0.053	
R^2 Change		0.009		R^2 Change		0.011	
New R^2		0.131		New R^2		0.124	
F Change		6.810	**	F Change		6.184	*
6. SRLS Pretest Measure				*6. SRLS Pretest Measure*			
Pretest for Collaboration	0.256	0.441	***	Pretest for Collaboration	0.239	0.408	***
R^2 Change		0.171		R^2 Change		0.158	
New R^2		0.301		New R^2		0.282	
F Change		164.048	***	F Change		110.727	***
7. Student Organization Involvement				*7. Student Organization Involvement*			
Involvement Student Organizations	0.065	0.203	***	Involvement Student Organizations	0.039	0.110	**
R^2 Change		0.039		R^2 Change		0.014	
New R^2		0.341		New R^2		0.296	
8. Community Organization Involvement				*8. Leadership Training & Education- Moderate*			
Involvement Community Organizations	0.037	0.102	**	Moderate Term Training & Education	0.053	0.096	*
R^2 Change		0.008		R^2 Change		0.008	
New R^2		0.349		New R^2		0.304	
F Change		8.342	**	F Change		5.703	*
Total R^2		**0.349**		**Total R^2**		**0.304**	
Total F		**23.912**	***	**Total F**		**14.601**	***

$* p \leq .05.\ ** p \leq .01.\ *** p \leq .001.$

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

The following variables were entered into the regression but were rejected due to lack of contribution to variance:

Women:

Total Breadth of activities
Leadership Role- Student Organization
Leadership Role- Community Organization
Short Term Training & Education
Moderate Term Training & Education
Long Term Training & Education

Men:

Involvement Community Organizations
Total Breadth of activities
Leadership Role- Student Organization
Leadership Role- Community Organization
Short Term Training & Education
Long Term Training & Education

Common Purpose

For the outcome of Common Purpose, multiple regression analysis explained

28.1% of the variance of women's scores and 21.4% of the variance in men's scores

(Table 20). The first six blocks of input variables, which were entered into the regression

analysis using hierarchical multiple regression, that emerged as significant ($p \leq 0.05$) for

women were: pre-college involvement, pre-college formal leadership role, pre-college

leadership training, and the Common Purpose pretest measure. The first six blocks of the

regression accounted for 21.0% of the variance for this outcome measure, with the pretest

for Common Purpose adding the most variance (10.2%) when it was entered into the

regression as the fifth block. The variables entered into the regression after block six

through stepwise multiple regression that emerged as significant ($p \leq 0.05$) were, in order

of amount of additional variance explained (R^2 Change), involvement in student

organizations, involvement in community organizations, and long term training and

education. These environmental measures combined explained 7.1% more of the total

variance for the outcome. The other variables that were entered into the stepwise

regression were not found to be significant and were therefore rejected from the

regression.

For men, the blocks of class standing, pre-college involvement, pre-college

leadership role, pre-college leadership training, and the pretest for Common Purpose

emerged as significant predictors ($p \leq 0.05$). Each of the variables associated with the

significant block of pre-college involvement (student organizations, varsity sports, and

community organizations) were negatively related to the outcome measure. Within the

block of pre-college formal leadership role, leadership role in a student organization

emerged as a significant variable. The total variance explained after the first six blocks of the regression was 18.7%. The pretest for Common Purpose added the most variance (7.6%) when it was entered into the regression as the fifth block. The environmental variables that emerged as significant through stepwise multiple regression were involvement in student organizations and short-term training and education programs, accounting for 2.7% additional variance. The variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

<div align="center">Controversy with Civility</div>

For the outcome of Controversy with Civility, multiple regression analysis explained 22.0% of the variance of women's scores and 30.8% of the variance in men's scores (Table 21). The first six blocks of input variables, which were entered into the regression analysis using hierarchical multiple regression, that emerged as significant ($p \leq 0.05$) for women were: pre-college involvement, pre-college formal leadership role, pre-college leadership training, and the Controversy with Civility pretest measure. The first six blocks of the regression accounted for 19.3% of the variance for this outcome measure, with the pretest for Controversy with Civility adding the most variance (9.9%) when it was entered into the regression as the fifth block. The variables entered into the regression after block six through stepwise multiple regression that emerged as significant ($p \leq 0.05$) were, in order of amount of additional variance explained (R^2 Change), involvement in student organizations and holding a formal leadership role in community organizations. These environmental measures combined explained 2.6%

Table 20: *Predictors of Common Purpose for Women and Men*

	Women				Men		
	B	b	Sig		B	b	Sig
1. Race				*1. Race*			
White/ Caucasian	-0.009	-0.012		White/ Caucasian	0.073	0.080	
Black/ African American	-0.014	-0.011		Black/ African American	0.053	0.032	
Asian American/ Pacific Islander	-0.083	-0.077		Asian American/ Pacific Islander	0.128	0.099	
Latino/ Hispanic	0.062	0.033		Latino/ Hispanic	-0.090	-0.034	
Multiracial/ Multiethnic	0.007	0.005		Multiracial/ Multiethnic	0.078	0.051	
(Referent Category: Other/ Not Reported)				(Referent Category: Other/ Not Reported)			
R^2 Change		0.012		*R^2 Change*		0.008	
New R^2		0.012		*New R^2*		0.008	
F Change		1.611		*F Change*		0.776	
2. Class Standing				*2. Class Standing*			
Class Standing	0.012	0.035		Class Standing	0.066	0.158	***
R^2 Change		0.002		*R^2 Change*		0.029	
New R^2		0.014		*New R^2*		0.037	
F Change		1.490		*F Change*		15.544	***
3. Pre-College Involvement				*3. Pre-College Involvement*			
Student Organization	-0.019	-0.047		Student Organization	-0.030	-0.065	
Varsity Sports	-0.007	-0.025		Varsity Sports	-0.005	-0.014	
Community Organizations	0.028	0.079		Community Organizations	-0.017	-0.038	
R^2 Change		0.073		*R^2 Change*		0.027	
New R^2		0.087		*New R^2*		0.064	
F Change		17.932	***	*F Change*		4.874	**
4. Pre-College Formal Leadership Role				*4. Pre-College Formal Leadership Role*			
Student Organization	0.023	0.065		Student Organization	0.072	0.172	**
Community Organization	-0.003	-0.007		Community Organization	-0.004	-0.008	
R^2 Change		0.013		*R^2 Change*		0.036	
New R^2		0.100		*New R^2*		0.100	
F Change		4.802	**	*F Change*		10.180	***

Left column:

5. Pre-College Leadership Training			
Pre-College Leadership Training	0.024	0.061	
R^2 *Change*		0.009	
New R^2		0.108	
F Change		6.558	*
6. SRLS Pretest Measure			
Pretest for Common Purpose	0.194	0.342	***
R^2 *Change*		0.102	
New R^2		0.210	
F Change		86.749	***
7. Student Organization Involvement			
Involvement Student Organizations	0.063	0.224	***
R^2 *Change*		0.057	
New R^2		0.267	
F Change		52.057	***
8. Community Organization Involvement			
Involvement Community Organizations	0.030	0.093	*
R^2 *Change*		0.008	
New R^2		0.275	
F Change		7.273	**
9. Leadeship Training & Education- Long			
Long Term Training/ Education	0.037	0.085	*
R^2 *Change*		0.006	
New R^2		0.281	
F Change		5.695	*
Total R^2		**0.281**	
Total F		**16.338**	***

Right column:

5. Pre-College Leadership Training			
Pre-College Leadership Training	0.026	0.054	
R^2 *Change*		0.011	
New R^2		0.111	
F Change		6.192	*
6. SRLS Pretest Measure			
Pretest for Common Purpose	0.182	0.284	***
R^2 *Change*		0.076	
New R^2		0.187	
F Change		47.015	***
7. Student Organization Involvement			
Involvement Student Organizations	0.048	0.145	***
R^2 *Change*		0.021	
New R^2		0.208	
F Change		13.469	***
8. Leadership Training & Education- Short			
Short Term Training/ Education	0.040	0.084	*
R^2 *Change*		0.006	
New R^2		0.214	
F Change		3.870	*
Total R^2		**0.214**	
Total F		**9.113**	***

$* \ p \le .05. \ ** \ p \le .01. \ *** \ p \le .001.$

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.
The following variables were entered into the regression but were rejected due to lack of contribution to variance:

Women:
Total Breadth of activities
Leadership Role- Student Organization
Leadership Role- Community Organization
Short Term Training & Education
Moderate Term Training & Education

Men:
Involvement Community Organizations
Total Breadth of activities
Leadership Role- Student Organization
Leadership Role- Community Organization
Moderate Term Training & Education
Long Term Training & Education

more of the total variance for the outcome. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, and the pretest for Controversy with Civility emerged as significant predictors ($p \leq 0.05$). Each of the variables associated with the significant block of pre-college involvement (student organizations, varsity sports, and community organizations) were negatively related to the outcome measure. Within the block of pre-college formal leadership role, holding a leadership role in a student organization emerged as a significant variable. The total variance explained after the first six blocks of the regression was 29.0%. The pretest for Controversy with Civility added the most variance (19.8%) when it was entered into the regression as the fifth block. The environmental variables that emerged as significant through stepwise multiple regression were involvement in student organizations and long-term training and education programs, accounting for 1.8% additional variance. The variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

<div align="center">Citizenship</div>

For the outcome of Citizenship, multiple regression analysis explained 28.5% of the variance of women's scores and 25.6% of the variance in men's scores (Table 22). The first six blocks of input variables, which were entered into the regression analysis using hierarchical multiple regression, that emerged as significant ($p \leq 0.05$) for women

Table 21: *Predictors of Controversy with Civility for Women and Men*

	Women				Men		
	B	β	Sig		B	β	Sig
1. Race				*1. Race*			
White/ Caucasian	0.041	0.052		White/ Caucasian	0.017	0.018	
Black/ African American	0.018	0.014		Black/ African American	-0.012	-0.007	
Asian American/ Pacific Islander	-0.021	-0.019		Asian American/ Pacific Islander	-0.084	-0.064	
Latino/ Hispanic	0.069	0.036		Latino/ Hispanic	-0.090	-0.034	
Multiracial/ Multiethnic	0.092	0.041		Multiracial/ Multiethnic	0.153	0.099	
(Referent Category: Other/ Not Reported)				(Referent Category: Other/ Not Reported)			
R^2 *Change*		0.011		R^2 *Change*		0.014	
New R^2		0.011		*New* R^2		0.014	
F Change		1.453		*F Change*		1.415	
2. Class Standing				*2. Class Standing*			
Class Standing	0.015	0.041		Class Standing	0.048	0.114	**
R^2 *Change*		0.000		R^2 *Change*		0.018	
New R^2		0.011		*New* R^2		0.031	
F Change		0.221		*F Change*		9.278	**
3. Pre-College Involvement				*3. Pre-College Involvement*			
Student Organization	0.009	0.022		Student Organization	-0.018	-0.039	
Varsity Sports	-0.004	-0.015		Varsity Sports	-0.029	-0.082	
Community Organizations	0.002	0.003		Community Organizations	-0.030	-0.068	
R^2 *Change*		0.041		R^2 *Change*		0.027	
New R^2		0.052		*New* R^2		0.058	
F Change		9.810	***	*F Change*		4.832	**
4. Pre-College Formal Leadership Role				*4. Pre-College Formal Leadership Role*			
Student Organization	0.010	0.029		Student Organization	0.071	0.166	**
Community Organization	0.006	0.016		Community Organization	0.051	0.104	
R^2 *Change*		0.016		R^2 *Change*		0.028	
New R^2		0.068		*New* R^2		0.086	
F Change		5.791	**	*F Change*		7.726	***

5. *Pre-College Leadership Training*					5. *Pre-College Leadership Training*			
Pre-College Leadership Training	0.064	0.161	***		Pre-College Leadership Training	0.027	0.055	
R^2 Change		0.026			*R^2 Change*		0.006	
New R^2		0.095			*New R^2*		0.092	
F Change		19.580	***		*F Change*		3.570	
6. *SRLS Pretest Measure*					6. *SRLS Pretest Measure*			
Pretest for Controversy with Civility	0.163	0.314	***		Pretest for Controversy with Civility	0.255	0.449	***
R^2 Change		0.099			*R^2 Change*		0.198	
New R^2		0.193			*New R^2*		0.290	
F Change		82.222	***		*F Change*		140.582	***
7. *Student Organization Involvement*					7. *Student Organization Involvement*			
Involvement Student Organizations	0.037	0.130	***		Involvement Student Organizations	0.034	0.102	*
R^2 Change		0.018			*R^2 Change*		0.012	
New R^2		0.211			*New R^2*		0.302	
F Change		15.091	***		*F Change*		8.535	**
8. *Community Leadership Role*					8. *Leadership Education & Training- Long*			
Leadership Role- Community Organization	0.039	0.100	**		Long Term Training/ Education	0.042	0.079	*
R^2 Change		0.008			*R^2 Change*		0.006	
New R^2		0.220			*New R^2*		0.308	
F Change		7.178	**		*F Change*		4.049	*
Total R^2		**0.220**			**Total R^2**		**0.308**	
Total F		**12.551**	***		**Total F**		**14.881**	***

*$p \leq$ .05. ** $p \leq$ .01. *** $p \leq$ .001.

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

The following variables were entered into the regression but were rejected due to lack of contribution to variance:

Women:	*Men:*
Involvement Community Organizations	Involvement Community Organizations
Total Breadth of activities	Total Breadth of activities
Leadership Role- Student Organization	Leadership Role- Student Organization
Short Term Training & Education	Leadership Role- Community Organization
Moderate Term Training & Education	Short Term Training & Education
Long Term Training & Education	Moderate Term Training & Education

were: pre-college involvement, pre-college formal leadership role, pre-college leadership training, and the Citizenship pretest measure. Within the block of pre-college involvement, although not significant, there were variables that appeared to be both positive (varsity sports) and negative (student organizations and community organizations). The racial dummy variable of Asian American/ Pacific Islander was also significant, demonstrating a negative relationship, although the block of race was not significant. The first six blocks of the regression accounted for 21.2% of the variance for this outcome measure, with the pretest for Citizenship adding the most variance (7.1%) when it was entered into the regression as the fifth block. The variables entered into the regression after block six through stepwise multiple regression that emerged as significant ($p \leq 0.05$) were, in order of amount of additional variance explained (R^2 Change), involvement in student organizations, holding a leadership role in a community organization, moderate-term leadership training and education, and involvement in community organizations. These environmental measures combined explained 9.7% more of the total variance for the outcome. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, and the pretest for Citizenship emerged as significant predictors ($p \leq 0.05$). Each of the variables associated with the significant block of pre-college involvement (student organizations, varsity sports, and community organizations) were negatively related to the outcome measure. Within the block of pre-college formal leadership role, leadership role in a student organization emerged as a significant variable. The total

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variance explained after the first six blocks of the regression was 22.6%. The pretest for

Citizenship added the most variance (10.0%) when it was entered into the regression as

the fifth block. The environmental variables that emerged as significant through stepwise

multiple regression were involvement in student organizations and short term training

and education programs, accounting for 3.0% additional variance. The variables that

were entered into the stepwise regression were not found to be significant and were

therefore rejected from the regression.

<center>Change</center>

For the outcome of Change, multiple regression analysis explained 28.9% of the

variance of women's scores and 21.7% of the variance in men's scores (Table 23). The

first six blocks of input variables, which were entered into the regression analysis using

hierarchical multiple regression, that emerged as significant ($p \leq 0.05$) for women were:

race, pre-college involvement, pre-college formal leadership role, pre-college leadership

training, and the Change pretest measure. Two of the three variables (pre-college

involvement in student organizations and community organizations), although not

significant, demonstrated a negative relationship with the outcome measure. The first six

blocks of the regression accounted for 25.5% of the variance for this outcome measure,

with the pretest for Change adding the most variance (14.1%) when it was entered into

the regression as the fifth block. The variables entered into the regression after block six

through stepwise multiple regression that emerged as significant ($p \leq 0.05$) were, in order

of amount of additional variance explained (R^2 Change), involvement in student

organizations, moderate-term leadership education and training programs, holding a

formal leadership role in community organizations, and holding a formal leadership role

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Table 22: *Predictors of Citizenship for Women and Men*

	Women				Men		
	B	b	Sig		B	b	Sig
1. Race				**1. Race**			
White/ Caucasian	-0.125	-0.139		White/ Caucasian	-0.037	-0.036	
Black/ African American	-0.130	-0.089		Black/ African American	-0.085	-0.045	
Asian American/ Pacific Islander	-0.233	-0.186	*	Asian American/ Pacific Islander	-0.025	-0.017	
Latino/ Hispanic	-0.059	-0.028		Latino/ Hispanic	-0.092	-0.031	
Multiracial/ Multiethnic	-0.072	-0.045		Multiracial/ Multiethnic	0.032	0.019	
(Referent Category: Other/ Not Reported)				(Referent Category: Other/ Not Reported)			
R^2 Change		0.016		R^2 Change		0.001	
New R^2		0.016		New R^2		0.001	
F Change		2.174		F Change		0.095	
2. Class Standing				**2. Class Standing**			
Class Standing	-0.016	-0.038		Class Standing	0.068	0.144	***
R^2 Change		0.000		R^2 Change		0.018	
New R^2		0.016		New R^2		0.019	
F Change		0.325		F Change		9.584	**
3. Pre-College Involvement				**3. Pre-College Involvement**			
Student Organization	-0.024	-0.050		Student Organization	-0.068	-0.131	**
Varsity Sports	0.018	0.053		Varsity Sports	-0.013	-0.032	
Community Organizations	-0.002	-0.004		Community Organizations	-0.028	-0.056	
R^2 Change		0.074		R^2 Change		0.043	
New R^2		0.090		New R^2		0.062	
F Change		18.211	***	F Change		7.715	***
4. Pre-College Formal Leadership Role				**4. Pre-College Formal Leadership Role**			
Student Organization	0.030	0.076		Student Organization	0.098	0.205	***
Community Organization	-0.002	-0.006		Community Organization	0.042	0.078	
R^2 Change		0.034		R^2 Change		0.058	
New R^2		0.124		New R^2		0.121	
F Change		12.935	***	F Change		16.822	***

5. Pre-College Leadership Training			
Pre-College Leadership Training	0.046	0.102	*
R^2 Change		0.017	
New R^2		0.141	
F Change		13.548	***
6. SRLS Pretest Measure			
Pretest for Citizenship	0.146	0.272	***
R^2 Change		0.071	
New R^2		0.212	
F Change		60.235	***
7. Student Organization Involvement			
Involvement Student Organizations	0.046	0.142	***
R^2 Change		0.034	
New R^2		0.245	
F Change		29.821	***
8. Community Leadership Role			
Leadership Role-Community Organization	0.046	0.104	**
R^2 Change		0.021	
New R^2		0.266	
F Change		18.786	***
9. Leadership Training & Education- Moderate			
Moderate Term Training/ Education	0.062	0.122	***
R^2 Change		0.014	
New R^2		0.280	
F Change		12.707	***
10. Community Organization Involvement			
Involvement Community Organizations	0.035	0.094	*
R^2 Change		0.005	
New R^2		0.285	
F Change		4.976	*
Total R^2		**0.285**	
Total F		**15.663**	***

5. Pre-College Leadership Training			
Pre-College Leadership Training	.-2341	0.043	
R^2 Change		0.006	
New R^2		0.126	
F Change		3.190	
6. SRLS Pretest Measure			
Pretest for Citizenship	0.184	0.322	***
R^2 Change		0.100	
New R^2		0.226	
F Change		65.199	***
7. Student Organization Involvement			
Involvement Student Organizations	0.057	0.152	***
R^2 Change		0.023	
New R^2		0.249	
F Change		15.333	***
8. Leadership Education & Training- Short			
Short Term Training/ Education	0.049	0.090	*
R^2 Change		0.007	
New R^2		0.256	
F Change		4.707	*
Total R^2		**0.256**	
		11.517	***

* $p \leq .05.$ ** $p \leq .01.$ *** $p \leq .001.$

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

The following variables were entered into the regression but were rejected due to lack of contribution to variance:

Women:	*Men:*
Total Breadth of activities	Involvement Community Organizations
Leadership Role- Student Organization	Total Breadth of activities
Short Term Training & Education	Leadership Role- Student Organization
Long Term Training & Education	Leadership Role- Community Organization
	Moderate Term Training & Education
	Long Term Training & Education

in student organizations. Holding a leadership role in a student organization was negatively related to the outcome of Change. These environmental measures combined explained 3.4% more of the total variance for the outcome. The other variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

For men, the blocks of class standing, pre-college involvement, pre-college leadership role, pre-college leadership training, and the pretest for Change emerged as significant predictors ($p \leq 0.05$). Two of the variables associated with the significant block of pre-college involvement (varsity sports and community organizations), although not significant, were negatively related to the outcome measure. Within the block of pre-college formal leadership role, leadership role in a student organization emerged as a significant variable. The total variance explained after the first six blocks of the regression was 20.9%. The pretest for Change added the most variance (9.9%) when it was entered into the regression as the fifth block. The only environmental variable that emerged as significant through stepwise multiple regression was moderate-term leadership training and education, accounting for 0.8% additional variance. The variables that were entered into the stepwise regression were not found to be significant and were therefore rejected from the regression.

<center>Summary</center>

A summary of significant findings for the second hypothesis by block and variables within the blocks is presented in Table 24.

Table 23: *Predictors of Change for Women and Men*

	Women				Men		
	B	b	Sig		B	b	Sig
1. Race				*1. Race*			
White/ Caucasian	-0.040	-0.042		White/ Caucasian	0.033	0.033	
Black/ African American	0.038	0.025		Black/ African American	0.076	0.042	
Asian American/ Pacific Islander	-0.090	-0.068		Asian American/ Pacific Islander	-0.062	-0.044	
Latino/ Hispanic	0.111	0.049		Latino/ Hispanic	-0.048	-0.017	
Multiracial/ Multiethnic	0.051	0.030		Multiracial/ Multiethnic	0.129	0.079	
(Referent Category: Other/ Not Reported)				(Referent Category: Other/ Not Reported)			
R^2 Change		0.027		R^2 Change		0.019	
New R^2		0.027		New R^2		0.019	
F Change		3.793	**	F Change		1.969	
2. Class Standing				*2. Class Standing*			
Class Standing	0.019	0.043		Class Standing	0.066	0.147	***
R^2 Change		0.003		R^2 Change		0.023	
New R^2		0.030		New R^2		0.042	
F Change		1.895		F Change		12.115	***
3. Pre-College Involvement				*3. Pre-College Involvement*			
Student Organization	-0.030	-0.059		Student Organization	0.025	0.051	
Varsity Sports	0.009	0.026		Varsity Sports	-0.033	-0.087	
Community Organizations	-0.004	-0.008		Community Organizations	-0.025	-0.053	
R^2 Change		0.027		R^2 Change		0.025	
New R^2		0.057		New R^2		0.066	
F Change		6.552	***	F Change		4.461	**
4. Pre-College Formal Leadership Role				*4. Pre-College Formal Leadership Role*			
Student Organization	-0.015	-0.035		Student Organization	0.051	0.113	*
Community Organization	0.012	0.026		Community Organization	-0.003	-0.006	
R^2 Change		0.022		R^2 Change		0.029	

Left column

New R²		0.079	
F Change		8.025	***
5. Pre-College Leadership Training			
Pre-College Leadership Training	0.084	0.176	***
R² Change		0.035	
New R²		0.114	
F Change		26.205	***
6. SRLS Pretest Measure			
Pretest for Change	0.198	0.389	***
R² Change		0.141	
New R²		0.255	
F Change		127.490	***
7. Student Organization Involvement			
Involvement Student Organizations	0.060	0.174	***
R² Change		0.020	
New R²		0.275	
F Change		18.174	***
8. Leadership Education & Training- Moderate			
Moderate Term Training/ Education	0.046	0.086	*
R² Change		0.006	
New R²		0.281	
F Change		5.278	*
9. Community Leadership Role			
Leadership Role- Community Organization	0.037	0.080	*
R² Change		0.004	
New R²		0.285	
F Change		3.958	*
10. On Campus Leadership Role			
Leadership Role- Student Organization	-0.031	-0.091	*
R² Change		0.004	
New R²		0.289	
F Change		3.869	*

Right column

New R²		0.095	
F Change		8.073	***
5. Pre-College Leadership Training			
Pre-College Leadership Training	0.043	0.082	
R² Change		0.016	
New R²		0.111	
F Change		8.840	**
6. SRLS Pretest Measure			
Pretest for Change	0.187	0.341	***
R² Change		0.099	
New R²		0.209	
F Change		63.008	***
7. Leadership Education & Training- Moderate			
Moderate Term Training/ Education	0.052	0.094	*
R² Change		0.008	
New R²		0.217	
F Change		5.048	*

Total R^2		0.289		Total R^2		0.217	
		15.951	***	Total F		9.976	***

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Note: After Block 6 variables were entered using stepwise regression. Those included after Block 6 significantly contributed to the variance.

The following variables were entered into the regression but were rejected due to lack of contribution to variance:

Women:	*Men:*
Involvement Community Organizations	Involvement Student Organization
Total Breadth of activities	Involvement Community Organizations
Short Term Training & Education	Total Breadth of activities
Long Term Training & Education	Leadership Role- Student Organization
	Leadership Role- Community Organization
	Short Term Training & Education
	Long Term Training & Education

OVERVIEW

This chapter included the findings of this study. Significant differences were found for some of the descriptive data. Hypothesis 1 was tested with MANOVA to examine gender differences in the eight outcome measures. This test was significant and F tests resulted in women scoring significantly higher than men on five of the eight outcome measures. Hypothesis two was tested using 16 multiple regression analyses, and through these analyses, different environmental variables emerged by outcome and by gender. The next chapter will provide a discussion of these findings.

Table 24: *Overall Findings of Significant Environmental Variables*

		Cons Of Self		Congr.		Commit		Collab		Comm Purpose		Cont w Civility		Citizenship		Change	
		F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Block 1	Race (Block)	X		X												X	
Block 2	Class Standing (Block)	X	X	X	X		X		X				X		X		X
Block 3	Pre-Col Inv (Block)	(X)	(X)	X	X	X	X	X	X	X	(X)	X	(X)	X	(X)	X	X
	Pre-Col Student Org														(X)		
	Pre-Col Varsity Sport																
	Pre-Col Comm Org			X													
Block 4	Pre-Col Leader Role (Block)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Pre-Col Student Leadership Role		X		X		X		X		X		X		X		X
	Pre-Col Comm Leadership Role																
Block 5	Pre-Col Training (Block)	X		X		X	X	X	X	X	X	X		X		X	X
Block 6	SRLS Pretest (Block)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Stepwise Blocks	Involvement Student Orgs	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
	Involvement Comm Orgs	X						X		X				X			
	Breadth of Involvement					(X)											
	College Leadership Role	X														(X)	

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Community Leadership Role					X						X		X		X	
Short-Term Training										X				X		
Moderate-Term Training								X					X		X	X
Long-Term Training									X			X				
Total R²	.337	.245	.248	.193	.254	.299	.349	.304	.281	.214	.220	.308	.285	.256	.289	.217

Note: X = Significant with a positive relationship; (X) = Significant with a negative relationship; for a block, all variables within the block must be negative to have this notation.   Some blocks that are not noted as negative may contain some negative variables, but not all.

Chapter V:

Discussion

This thesis examined any differences by gender in undergraduate college students' scores on the eight outcome measures of socially responsible leadership and incorporated a college impact model to examine the impact of cocurricular involvement, holding a formal leadership role, and participation in leadership training and education programs on undergraduates' socially responsible leadership outcomes. This chapter will provide a summary of the findings related to demographic and descriptive data as well as the two hypotheses of the thesis, and where applicable, connect findings to literature and research. Furthermore, this chapter will present limitations of the study, implications of the findings on practice, and suggestions for future research related to this topic. A key limitation to keep in mind when examining the findings of this study is the high levels of correlations for the scales used in this study. Each of the scales were intercorrelated at the $p \leq 0.001$ level (see Table 14). These outcome measures have strong relationships with one another and are not mutually exclusive outcomes. Another key finding from the study to keep in mind is that women were overrepresented among the responders and that the mean scores for the outcome measures tended to be higher for women. Therefore, the general findings of the study could be skewed more toward women respondents than men.

SUMMARY OF FINDINGS

Overall findings of the study revealed some differences within demographic groups for many of the descriptive statistics of the study as well as significance for both hypotheses. This section will highlight some of the key findings in each of these areas.

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Demographic and Descriptive Statistics

The participants in the study were slightly skewed by gender with women being more represented in the respondent group than in the sample. Additionally, demographics by race were slightly skewed with White respondents being overrepresented. This study utilized multiracial as a category for those participants who either checked the box of "multiracial or multiethnic" or selected more than one racial category. Since the University of Maryland classification system does not include multiracial as a category, it is difficult to determine if the participants accurately reflect the racial breakdown of the sample. Additionally, it is difficult to determine this also because many mixed-race college students identify in a number of different patterns. Renn's (2004) study on mixed-race college students identified five patterns of racial identity, which are monoracial identity (ex: I am Black), multiple monoracial identity (ex: I am White and Japanese), multiracial identity (ex: I am mixed-race), extraracial identity (ex: I don't believe in belonging to a certain race; I won't check any boxes), and situational identity (ex: when I'm with my White friends I'm White, and when I'm with my Chinese Student Association friends I'm Chinese). These different identity patterns can explain why some participants checked many boxes while others only checked the multiracial category. It could also contribute to the Other/ Not Reported respondents (n=34).

The class standing variable of the respondents was skewed slightly with upper class students represented in higher proportion than under class students. Through a post-host test, seniors were identified as having significantly higher means in the scores of the environmental variables of the study as compared to freshmen. Having more upper class

students in the participant group may help better examine the environmental variables of the study.

Examining the means and standard deviations of the environmental variables of the study identified a few key findings. First, all participants as well as all participants in the groups of gender, race, and class standing, although not tested for significance, appeared to be more involved in student organizations than community organizations and also held more leadership roles in student campus organizations than in community organizations. Men and women students were more alike than they were different in their involvement patterns. For gender, the only significant difference was that women were more involved in student organizations than men. This finding can relate to Romano's (1996) study on college women leaders, which emphasized a relational leadership style that emphasizes the role of other group members. Women may be more drawn to groups than men, and thus are more involved in organized student groups.

Findings by race indicated that White participants were less involved in community organizations than Asian American/ Pacific Islander participants. This could be a result of the breakdown of the Asian American/ Pacific Islander participants by nationality/ citizenship. None of the participants had parents that were both born in the United States; there were no second or third generation Asian American/ Pacific Islander participants in the study. This may have resulted in the international students in that category seeking more connections in the larger community, such as in cultural organizations or church groups. Liang, Lee, and Ting (2002) discuss Asian American leadership and emphasize that involvement and engagement in one's community should be considered leadership and that this would expand the concept of leadership for Asian

American students. This focus on the larger community can relate to the finding in this study that Asian American students may have more involvement in community organizations than White students, as there may be more of a drive for Asian American students to get involved in such groups, and cultural groups may be more prevalent for underrepresented groups such as Asian Americans that for Whites. Although it does not focus specifically on community organizations, an emphasis on culturally based student groups for Asian Americans is presented in Inkelas' (2004) study on Asian American students' involvement in ethnic organizations. This focus on Asian American ethnic organizations emphasizes culturally-based organizations and culturally-based religious organizations as key student organizations and involvements. This could perhaps be reflective of community-based organizations and help explain the stronger focus on community organizations for Asian American students as compared to White students in the current study.

Patterns of the environmental variables by class standing revealed an overwhelming finding that seniors were more involved, held more leadership positions, and participated more in leadership training and education than freshmen. There were not as many significant differences between other class standing groups. This finding makes sense since the freshmen participants had only been on campus one semester and did not have as much time to experience as many of the environmental variables as seniors. Additionally, the large institutional size may not be conducive to first year students getting involved, as a large institution may be difficult to navigate and may not promote involvement as students enter the university. There weren't as many significant differences between groups after the freshmen year, which may signify that once

participants became engaged on campus, their extent of involvement does not dramatically increase through the remainder of college. The environmental variable of long-term leadership education and training programs only revealed significance for the freshmen and senior mean scores. Long-term leadership education and training may be more accessible for seniors than freshmen, as sometimes leadership education and training programs may be affiliated with forms of involvement (DiPaolo, 2002; Hobbs & Spencer, 2002), such as RA training or leadership programs for students that are already involved in a certain experience. Seniors may have had more time to get involved with other experiences than freshmen, and this notion is supported in the current study, which found that seniors have significantly higher involvement scores than freshmen. Further research could examine the relationship between long-term leadership training and education programs and living learning programs, which are prominent in the residential community at the University of Maryland (*University of Maryland living and learning programs*, 2002). Living learning students at the University of Maryland often enter the programs in their first year and remain with the program for a longer period of time; a high number of participants across the years may minimize any mean score differences between groups. The total number of participants in this study who indicated participation in a living learning program was 312 (25.9%), with 26.4% (n=181) of women participating and 25.2% (n=131) men participating in living-learning programs.

The mean scores of the eight outcome measures of socially responsible leadership were examined by gender, race/ ethnicity, and class standing. An overview of the findings by gender will be presented in the discussion of hypothesis one, which examined outcome score differences by gender using MANOVA.

Overall findings based on the means of the eight outcome measures reveal Commitment as the outcome measure that appeared to have the highest mean overall and for all gender, racial/ ethnic, and class standing groups with the exception of the Other/ Not Reported racial/ ethnic group. Although no statistical analyses were calculated to determine if any of these outcomes were significant higher or lower than others, the patterns of these rankings is of interest. Commitment as the highest outcome measure is consistent with Dugan's (2006a; 2006b) studies at UNLV and Meixner's (2000) thesis study at the University of Maryland. Commitment as an outcome emerged in studies examining the environmental variables of cocurricular involvement, holding a formal leadership role, and involvement in leadership training and education programs (H. S. Astin & Leland, 1991; Cress et al., 2001; Day et al., 2004; Romano, 1996; Zimmerman-Oster & Burkhardt, 1999). Both the emergence of Commitment in this study and other studies can lead to the possible conclusion that Commitment is a frequently developed outcome measure for college students.

The outcome score in the current study for Change consistently revealed, although not tested for significance, the lowest mean for all groups. *Leadership Reconsidered* (A. W. Astin & Astin, 2000) includes a focus on student leadership. In regard to students and change, the authors emphasize the destructive belief of disempowerment, whereby students may not have the self-efficacy to affect change or may operate in an environment that they perceive as devaluing student input in decision making. In a large environment, such at the University of Maryland, students may have disempowering beliefs (A. W. Astin & Astin) because the environment could be complex and hierarchical as well as lack opportunities to engage in meaningful relationships, such as

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mentoring, with people who can help encourage change and include students in the change process. Mentoring relationships can provide protégés an opportunity to have challenging and developmental experiences, professional growth experiences, and enhanced self esteem (Cooper & Miller, 1998), all of which can relate to being more open and willing to change and develop more self-efficacy in creating change.

Even if the opportunities to have significant relationships such as mentoring exist, many students on a large campus may not be aware of such opportunities and may feel like they do not have a voice, which could influence their perceptions of change. Similarly, Komives (1996) emphasizes the importance of modeling relational leadership in practice, including students in decision making, and encouraging motivation for change in order to empower students to create social change. If students are living and functioning in an environment that practices more hierarchical or transaction leadership as opposed to relational or transformational leadership, such as higher education settings, or if students perceive the environment to be this way, it may negatively contribute to students' beliefs and attitudes about change.

Change as the lowest outcome measure is not consistent with Meixner (2000) or Dugan's (2006a; 2006b) studies, although both of these studies did not include significance tests for the lowest outcome. Meixner's study identified Controversy with Civility as the lowest mean score for women and Citizenship for men, and these two values were the also the lowest means identified in Dugan's studies. Although Meixner's study took place at the same institution as the current study, the participants used in her study were all enrolled in leadership courses and did not reflect a random sample. Dugan's studies involved participants from randomly selected academic courses

(not leadership-based). Overall findings from Meixner's, Dugan's, and the current study present a pattern that the individual outcomes of socially responsible leadership are never the lowest scores. The low scores that emerged are in one of the group values (Controversy with Civility), the community value (Citizenship), and the overall value of the model (Change). College students may demonstrate higher degrees of the individual variables of socially responsible leadership, Collaboration, and Common Purpose as compared to the others values. This may be because individual values can be developed without being part of a group, and many of the other variables may be further developed through group or team experiences. This can relate to the concept of experiential education and learning, powerful tools that often encompass group experiences from which participants can learn.

Differences in outcome scores, such as the outcome of Citizenship having the lowest score in previous studies (Dugan, 2006a, 2006b; Meixner, 2000) but not in this one, could be attributed to the emergence of the millennial (Generation Y) in college. The millennial generation is characterized as civic-minded, goal and achievement-oriented, and inclusive (Raines, 2002). Each characteristic relates socially responsible leadership outcomes with civic-minded reflecting Citizenship, goal and achievement-oriented reflecting Commitment, and inclusive reflecting Collaboration. These characteristics of millennials can help explain some differences in outcome scores as compared to other studies. Meixner's study was conducted six year before this study, when millennial students were just emerging on college campuses, and Dugan's studies took place on a campus with many non-traditionally aged college students. The shift in

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generations of the college students entering college campuses could have an impact on leadership values and may also contribute to the experiences in which they may engage.

An additional finding related to outcome scores was that, although significance was not tested, Asian American/ Pacific Islander participants had the lowest mean score for all eight of the outcome measures as compared to the other racial groups. The post-hoc test identified that only 56% of the participants were born in the United States and all of these participants who were born in the United States had at least one parent who was born outside of the United States. Since the respondent sample included a fairly high percentage of foreign-born Asian American/ Pacific Islander participants, cultural differences or language barriers that could have resulted in different response patterns for those students than other students, making it difficult to understand the questions in the instrument. This finding that the outcome scores for Asian Americans appear to be lower than other racial groups could also reflect the perceptions and stereotypes that Asian Americans are passive or unassertive, and therefore lack leadership abilities (Liang et al., 2002). Even though socially responsible leadership is congruent with Asian cultural values (Balon, 2003), stereotypes, cultural values, and/ or negative perceptions of mainstream leadership could have influenced the Asian American participants in the study who may in turn view themselves as not demonstrating mainstream leadership; they may have reported lower scores knowing that this study was assessing leadership and feeling like they do not demonstrate nor want to demonstrate leadership.

Another possible explanation of the lower scores on the outcome variables is the self-focus in the instrument. The questions are often "I" questions, which may reflect and individual focus. Traditional Asian American values emphasize group and community

over individual (Liang et al.), and many Asian countries have a low individualism index as compared to other countries (Hofstede, 1997).   This may have negatively influenced scores that were perceived to assess individual values or beliefs.

Additionally, it is important to note that some multiracial participants that may have originally indicated Asian American/ Pacific Islander may have instead selected the multiracial category or more than one category. There were 16 (1.3%) participants classified as multiracial that have Asian American/ Pacific Islander background. Both the patterns of citizenship/ nationality of the Asian American participants and the lower scores merit further examination and research. It may be useful to examine if the SRLS-R2 instrument is culturally biased or if Asian American participants reflect different response patterns, perhaps more conservative, than other groups. The next section is a discussion on the findings for hypothesis one, which examined any differences by gender in the outcome scores.

Although not tested for significance, it is interesting to examine the pattern between African American/ Black and White outcome scores. It appears as if the African American scores are slightly higher than the scores for White participants for six of the eight outcome measures. This differs from Kezar and Moriarty's (2000) study, which indicated that White men reported higher scores in leadership ability than African American men, and White women reported higher scores than African American women. Follow up analysis would be useful in determining if any of these differences are significant and how the current study may compare to this pervious study and possible reasons why there may be differences by study. A possible explanation for differing findings by study is the way in which leadership is conceptualized in each study. The

current study uses a relational leadership focus, which can reflect leadership values of traditionally underrepresented groups such as women and students of color (Flowers, 2004; Komives, 1994; Liang et al., 2002; Ostick, in press-b), and Kezar and Moriarty's study does not specify the context of leadership in their study. The two studies may not be measuring the same outcome.

<center>Hypothesis 1</center>

The first hypothesis proposed that there were no gender differences in undergraduate college students' socially responsible leadership outcome scores. Findings from this analysis identified significant differences in outcome scores for five of the eight outcomes with women scoring significantly higher than men on all five of the outcomes. Women scored higher than men on two of the individual values of the social change model: Congruence and Commitment. Women and men were more alike than they were different on the third individual value of Consciousness of Self (i.e., no significant difference). Women also scored significantly higher on each of the three group values of the social change model: Collaboration, Common Purpose, and Controversy with Civility. There were no differences on Citizenship or Change. The small effect size of gender on the outcomes indicates that although gender differences do exist, the variable of gender is not very meaningful in the total variance of outcome scores.

Although the mean scores for the outcomes in Miexner's (2000) study appeared as if women had higher scores than men on seven of the eight outcome constructs (all but Controversy with Civility), none of the mean differences were significant. Dugan's (2006a) study identified significant differences for three of the five outcomes identified significant in the current study (Congruence, Commitment, and Common Purpose) and

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identified additional significant differences for the outcomes of Consciousness of Self, Citizenship, and Change. All of the significant differences found in Dugan's study resulted in women having significantly higher scores than men, which is also reflected in the current study.

The finding in the current study that women had significantly higher scores than men in the outcome measures that reflect the group values of the social change model relate to the findings from Romano's (1996) qualitative study on women student leaders. The women in the study emphasized the importance of relationships, being a part of a team, and group members for women student leaders when defining their leadership style. These characteristics of leadership style closely relate to the group values of the social change model. This finding also reflects a finding in Eagly, Karau, and Makhijani's (1995) meta-analysis on the effectiveness of leaders by gender, that women are more successful than men in leadership roles that are interpersonal in focus and involve getting along with and cooperating with other people. This reflects women's significantly higher scores on the outcomes that are consistent with group values of the social change model.

A more recent meta-analysis on gender differences in leadership style found that women tend to practice leadership that is more transformational in nature than men (Eagly, Johannesen-Schmidt, & van Engen, 2003). Transformational leadership reflects the current, postindustrial paradigm of leadership studies, through which the social change model emerged. The significant findings for this hypothesis could indicate that women's leadership styles are more in line with the values of the social change model of leadership as compared to men. This conclusion make sense, seeing as the social change

model was developed in part from findings of a study of women leaders and their leadership styles (H. S. Astin & Leland, 1991); it may not be as applicable for men.

These higher scores for women as compared to men also relates to women's cognitive development. Clinchy (1996) describes two different ways of meaning-making: connected knowing and separate knowing. Separate knowing emphasizes critical thinking, doubting, and relying on reason, and connected knowing emphasizes believing, empathy, and learning through personal experiences. Connected knowing involves more interaction with other people. Women generally operate from a connected knowing perspective, while men generally operate from a separate knowing perspective (Clinchy). These different patterns in meaning making by gender can also help explain why women's scores may have been higher in a leadership model that is relational in nature and why men's outcome scores may not have been as strong as women's scores

Kezar and Moriarity's (2000) study had differing findings, with Caucasian and African American men having higher self-reported scores on leadership ability than Caucasian and African American women. The concept of leadership ability in this study is not explained, so it unclear if the conceptualization of leadership in that study reflects the socially responsible leadership in the current study. It is not clear, though, the way in which leadership abilities is conceptualized in this study. The data used in that study was gathered from 1987-1991, which is over 15 years old. Perceptions and views of leadership have developed to be more relational with time (Komives et al., 1998; Rost, 1997), and additionally the millennial college students that are currently in college reflect more collaboration and civic engagement (Raines, 2002) than past generations. The differences with the current study and Kezar and Moriarity's study could reflect both

differences in leadership conceptualization as well as generational differences in college students.

The outcome of Citizenship did not reflect any significant differences in the study by gender. This is consistent with a study that examined community involvement attitudes and anticipated community involvement (Eklund-Leen & Young, 1997), which can reflect the outcome measure of Citizenship in the current study. No significant differences by gender were identified. The current study had a similar finding for the outcome of Citizenship, which reflect that women and men are more alike than different in their value of Citizenship. By examining the findings for predictors of Citizenship from hypothesis two, there are different experiences that contribute to Citizenship by gender, with women having a focus on community involvement and leadership roles in community organizations as significant. Although there are not any differences in the mean scores of Citizenship by gender, it is interesting to note that the predicting experiences are different.

This section has provided a discussion of the findings of hypothesis one and how it relates to current literature and research. The next section will focus on hypothesis two of the study.

<div align="center">Hypothesis 2</div>

The second hypothesis of this study stated that cocurricular involvement, holding a formal leadership role, and participating in leadership education and training programs do not independently or collectively contribute to undergraduate men and women college students' socially responsible leadership outcomes. Each of the 16 multiple regression analyses, with the exception of one, were significant, resulting in at least one of the

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environmental factors explaining a portion of the variance for that outcome at a significant level. The researcher had conducted separate multiple regression analyses for men and women because past research had indicated differences by gender in leadership style (Eagly et al., 2003; Eagly et al., 1995; Romano, 1996) and different findings on experiences contributing to leadership development (Kezar & Moriarty, 2000). The current study not only demonstrated significant differences in outcome scores for men and women through hypothesis one, it also demonstrated that the predictors of socially responsible leadership outcomes differed by gender.

For six of the eight outcomes, the regression explained more of the variance for women than for men, meaning that the predictors used in the regression were more relevant for women than men. This could be because women may be more intentional about their leadership development and may seek out involvement and experiences to develop their leadership skills. For example, a book that focuses on the secrets of success from top professional women presents that the most important reason why men move up higher in organizations than women is because many men have mentors and not very many women do (Wellington, 2001). The author emphasizes that women need to seek mentors out for professional development more readily than men. Similarly, Guido-DiBrito & Batchelor (as cited in Romano, 1996) discuss that some leadership opportunities may not be as accessible to women as to men and emphasize the importance of women seeking out leadership positions and the need to encourage female student to reach their full potential in leadership-enhancing environments. H. S. Astin and Leland's (1991) study on women leaders highlighted experiences such as volunteer work, seeking education, mentoring, and employment as key variables in their leadership

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development, and the researchers found that the women in the study actively sought out these opportunities.

Although the number of women in the workforce and earning degrees is dramatically increasing, there is a still a discrepancy in numbers of women in significant leadership positions (Stetler, 2002); women may seek out more opportunities to help them succeed as compared to men. Although men and women did not differ in their amount of involvement in the different environmental variables, with the exception of involvement in student organizations, the extent to which these experiences contributed to the outcomes did differ, and this may be because women were seeking from these opportunities to develop as leaders while men may have been expecting that development to happen.

Pre-college input measures, which were control measures, emerged as significant in the analyses, with many of the input variables explaining most of the overall variance explained by the overall regression models. The pre-test items for the outcome measures explained the most variance for each outcome, which can be expected as they relate directly to the outcome measures. The block of pre-college leadership roles were significant and reflected positive relationships with the outcome measures. Much of the research on holding formal leadership roles in college organizations indicated positive relationships with leadership outcomes (Cooper et al., 1994; DeJulio et al., 1981; Kuh & Lund, 1994; Romano, 1996). The experience of holding a formal leadership role prior to college appears to also reflect a positive relationship with leadership outcomes, and additionally, seems to contribute to the development of these outcomes after these experiences and while enrolled in college. Development is a complex, often time-

intensive process (Anthony-Gonzales & Roberts, 1981). Additionally, learning and

development can come with time and reflection and is grounded in experience (Kolb,

1984). This can help explain how previous leadership role experiences can be significant

in leadership outcome development. Most of the input variables reflected positive

relationships. Pre-college involvement reflected negative relationship for some outcomes

for men and for the outcome of Consciousness of Self for women. This will be discussed

further below.

One of the most salient findings for hypothesis two was that involvement in

student organizations was the environmental variable explaining the most variance in

outcome measures for all outcomes with the exception of Congruence for men, which did

not identify any of the environmental variables as significant, and Change for men, which

only identified moderate-term leadership education and training as significant. This

finding relates to A. W. Astin's (1993) finding that for the outcome measure of

leadership, student-student interaction, fraternity/ sorority membership, intramural sports,

and volunteer work, which each can reflect involvement in student organizations, were

found as significant experiences. Similarly, the study found that involvement in student

clubs and organizations and fraternity or sorority membership positively impacted growth

in leadership abilities. Additional key experiences contributing to leadership and growth

in leadership abilities from A. W. Astin's study included class presentation, group class

projects, tutoring peers, and student- faculty interaction, which were not environmental

variables in this thesis.

The finding from this thesis that involvement in student organizations was a key

experience is also consistent with Cooper et al.'s (1994) finding that those students who

were involved in student organizations in comparison that those who are not demonstrated higher scores in leadership outcomes including developing purpose, which can relate to the outcome measures of Commitment and Common Purpose. Another study found that the level of campus involvement was positively related to students' anticipated participation in community activities and attitudes toward community involvement, (Eklund-Leen & Young, 1997) which relate to the outcome measure of Citizenship in the current study. Dugan's (2006b) study identified significant differences in mean scores for Common Purpose and Citizenship with those students who were involved with student organizations scoring significantly higher than those students who were not. The finding that involvement in student organizations is significant to the leadership outcomes of the study is consistent with research and literature on this topic. Additionally, this finding is consistent with Kezar and Moriarity's (2000), which identified participation in student organizations, ROTC, and/ or intramural sports (included in the student organization classification of this study) as significant for White men, Black men, White women, and Black women.

Involvement in student groups is a significant experience in students' leadership development and this appears to be consistent across many studies. Involvement in student organizations facilitates experiential learning, which can be very powerful in students' development (Kolb, 1984). The leadership identity development model (Komives et al., 2005) emphasizes a key transition in which college students move from being independent to interdependent, which reflects socially responsible leadership. An integral experience in this transition is being part of a group and learning to lead from different parts of an organization. This strong emphasis on groups can explain why one

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of the key findings from this hypothesis is that involvement in student organizations is significant in college students' socially responsible leadership development. Similarly, the strong relationship between peer interaction and leadership development from A. W. Astin's (1993) study can help explain why student organization involvement was a significant experience in the current study. The measure of involvement in student organizations reflected the highest mean of all of the environmental variables. Since this was the only variable that appeared to be normally distributed, the regression analysis could have privileged this variable and may have deemphasized some of the others.

When examining the extent to which leadership training and education experiences contribute to the outcome scores, a pattern emerged that each of the environmental variables had low means and low standard deviations, indicating that the participants in the study had very little experience with these programs. This pattern reflects scores that are not normally distributed; these low participant numbers could help explain the lack of or low significance of the relationships. Although there were some significant findings, which are presented below, measurement and statistical issues could have prevented the existence other significant findings. In addition to this limitation, it is important to note that many of the leadership training and education experiences, such as leadership courses or student leadership role training, may not emphasize socially responsible leadership. It could be that if those experiences were more intentionally focused on encompassing socially responsible leadership, the environmental variables of leadership education and training would be more significant.

Short, moderate, and long-term leadership training and education experiences emerged as significant for the group and community outcomes as well as Change. For

women, long-term experiences were significant for Common Purpose, and moderate-term experiences were significant for Citizenship and Change. For men, short-term experiences were significant for Common Purpose and Citizenship, moderate-term experiences were significant for Collaboration and Change, and long-term experiences were significant for Controversy with Civility. These findings demonstrate that length of time of a program does not determine a programs' capacity to contribute to leadership outcomes. For example, short term experiences were significant for two outcomes when the other leadership training and education experiences were not. A conclusion that can be made is that leadership training and education experiences contribute to the development of the group and community values of the social change model as well as the overall goal of the model as Change. The programs do not significantly contribute to the individual values of the model for men or women. A number of studies reveal a number of outcomes associated with leadership training programs (Binard & Brungardt, 1997; Cress et al., 2001; DiPaolo, 2002; Hobbs & Spencer, 2002; Kezar & Moriarty, 2000; Pascarella et al., 1988; J. R. Williams & Townsend, 2003; Zimmerman-Oster & Burkhardt, 1999). For example, taking leadership courses significantly contributed to students' leadership ability for White women, White men, Black men, and Black women (Kezar & Moriarty). Although it is unclear how the leadership abilities are defined, one can see that leadership education and training contribute to leadership outcomes outside of this study.

An interesting finding is that involvement in student organizations was significant for the individual values but that participation in leadership training and education programs was not significant for the individual values. It could be that engaging in the

experience of being part of a group, which reflects experiential learning, helps develop the individual outcomes, while training and education programs do not develop the individual outcomes but instead seem to be more effective for developing the other socially responsible leadership outcomes. Some studies demonstrated that involvement in student organizations contributed to outcomes similar the individual outcomes in this study, such as exploration of values and interests (M. Williams & Winston, 1985), self-awareness (Romano, 1996), and developing purpose (Hernandez et al., 1999). Engaging in group experiences may help a person learn more about him or herself, which also relates to discussions above on group experiences and peer interaction positively contributing to these outcomes (A. W. Astin, 1993; Komives et al., 2005).

The one analysis in which breadth of involvement emerged as significant, the relationship between that environmental variable and the outcome measure of Commitment for men was negative. This pattern makes sense in that the larger the number of types of involvements, the less commitment a participant can devote to a particular organization. One of the original items for the Socially Responsible Leadership Scale (Tyree, 1998) was *I find myself involved in many different things,* which is an item that was reverse scored for the outcome of Commitment. This item reflects that involvement in many different areas, such as many different types of organizations, is negatively related to Commitment. Additional research on why this variable was only significant for men and not for women would be interesting to further explore. It may, for example, relate to the types of organizations that men may be more likely to be involved with than women.

Community involvement and holding a formal leadership role in a community organization emerged as significant for women. Involvement in community organizations significantly contributed to women's Consciousness of Self, Collaboration, Common Purpose, and Citizenship. Holding a formal leadership role within a community organization was significant for the outcomes of Commitment, Controversy with Civility, Citizenship, and Change. This reflects the role of community involvement and leadership on women's socially responsible leadership outcomes. None of these involvement or leadership role variables were significant for men.

Community service can be included in the variable of community involvement, and has been noted in other studies as a variable that is significant in students' leadership development (Dugan, 2006b; Vari, 2005). One study found that community service contributed to students' self-efficacy and empowerment in areas including benefiting the larger community, which can relate to Citizenship, and identity clarification, which can be related to Consciousness of Self. Additionally, research has shown that women are more involved in community service than men (Smith, 2005). The finding in this study that community involvement and community leadership roles were significant experiences in some of the socially responsible leadership outcomes could be related to community service, with women having more exposure to such experiences than men. Additional research could examine more closely what experiences are included in community involvement and any gender differences within. Another explanation of this finding can relate to the more relational and transformational leadership practices of women as compared to men (Eagly et al., 2003; Eagly et al., 1995; Romano, 1996; Vari, 2005). The nature of community involvement as depicted in this study emphasized group

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experiences, such as religious groups, community service organizations, PTA, etc. The nature of group involvement may be a more significant experience for women than men as it relates to transformational or relational leadership.

Holding a formal leadership role in a college organization was significant for women's Consciousness of Self and negatively related to Change for men. This finding for women can reflect the above discussion that experiential opportunities, such as engaging in a leadership role, can help students learn more about themselves as individuals. The negative relationship for men of holding a formal leadership role in college for the outcome of Change could be further explored in future research to examine any possible characteristics, such as less receptive to change, of the types of organizations in which men are normally involved. This finding can also relate to perceptions of change and openness to change in the larger environment, which is presented in more depth later in this section.

Some research studies on holding a formal leadership role revealed findings that were different from this study. One study, which also used multiple regression, identified social leadership experiences, which included holding a formal leadership role, as significantly contributing to students' humanitarian/ civic involvement outcomes for White men, Black men, White women, but not for Black women (Pascarella et al., 1988). Similarly, another study identified holding a leadership role were significant for White men, White women, and Black women's leadership ability (Kezar & Moriarty, 2000). These patterns may be different in the current study because of possible differences in the conceptualizations of leadership in each study or generational differences, which were

both discussed previously in this chapter when comparing the findings of the current

study to Kezar and Moriarty's study.

For four of the eight outcome measures (Consciousness of Self, Common

Purpose, Controversy with Civility, and Citizenship), the block of men's pre-college

involvement was negatively related to the outcome measures, although none of the three

variables within this block emerged as significant. Higher levels of pre-college

involvement contributed to lower outcome scores for these variables. On the other hand,

holding a formal leadership role in a student organization prior to college was significant

for men for all eight of the outcomes, yet in college holding a formal leadership role did

not emerge as significant for men in any outcome. The positive predictor of pre-college

leadership roles and the negative predictor of pre-college involvement could related to the

way in which these men developed a leadership identity (Komives et al., 2005). The

experience of holding a formal leadership role could have provided these students more

awareness of the concept of leadership as well as experience in engaging in leadership,

which could contribute to the progression to interdependence, reflecting relational views

of leadership. It appears as if the key experience of being a leader of a student group

helped students further develop the leadership outcomes. Pre-college membership roles

(i.e., pre-college involvement) did not relate to socially responsible leadership for male

students whereas holding pre-college formal positional leadership roles did. Pre-college

leadership roles could be key reflective experiences for men's leadership development.

Kezar and Moriarty (2000) found that being elected to office while in college (a formal

leadership role) was a high predictor of leadership ability for White men, but not for

Black men. Since the current study does not break down the findings by race it is

difficult to determine how the findings of this study may or may not reflect the findings from Kezar and Moriarty. The current study does, though, have a disproportionate number of White students than students of color. The difference, though, between the current study and Kezar and Moriarty's study is that the current study emphasizes pre-college leadership roles as significant, and the other emphasized leadership roles while in college. It is important to note, though, that Kezar and Moriarty's study did not examine pre-college experiences for significance. Both of these studies emphasize the importance of experiential leadership opportunities for men's leadership development.

There are a number of interesting findings that emerge from hypothesis two, and this section has highlighted a few of the key findings. The next section will overview the limitations of this study, which is followed by implications of these findings to practice.

LIMITATIONS OF THE STUDY

This section will present limitations of the current study. In addition to the multicollinearity issue with the race dummy variables, high correlation of the outcome measures of this study, and overrepresentation of women, there are some other key limitations. The first limitation relates the how this study utilizes the I-E-O model (A. W. Astin, 1991). This study does not follow a true I-E-O design in that it does not include a longitudinal design. As a cross sectional study, the data was collected at one point in time. Additionally, the pretests for the outcome measures were single-item questions instead of the whole scale, meaning that it was not a true pre-test for the outcome measures. For example, there is one question that assesses pre-college Consciousness of Self. This was done in order to keep the instrument at a manageable length. Although

each SRLS pretest item is the item with the highest factor loading on each outcome measure, one pretest item may be considered insufficient.

A third aspect of the I-E-O design utilized in this study that poses a limitation that was not presented in Chapter 3 relates to the nature of the I-E-O design. Although the I-E-O design accounts for key factors such as input measures and environmental measures when assessing outcomes, it does not take into account some personal characteristics such as personality, which could also play a key role in these outcomes. Similarly, the design only includes select environmental variables as opposed to all variables thought to contribute to the variance; this is not consistent with the I-E-O design. The environmental variables in this study may be overemphasized since other environmental variables which could have explained some of the variance, were not entered into the regression. As was noted previously, the variable of class standing was entered into the regression with the input variables. While this will not affect the regression analysis when examining the environmental variables, the method may deemphasize the amount of variance explained by the pre-college variables. While this study deviated from the I-E-O model in ways that could be viewed as limitations, it also expands the standard I-E-O framework in that it includes off campus, community involvement and leadership experiences.

Another limitation of this study is due to the nature of the instrument. The SRLS-R2 produces self-reported data, which may not accurately reflect the beliefs and behaviors assessed in the instrument. Similarly, the environmental items in the instrument are self-reported; perceptions of a high level of involvement for one participant in the study may look very different from another participant's idea of a high

level of involvement. For example, one respondent might conceptualize a high degree of involvement in a student organization differently than another. Similarly, students may classify the same leadership training experience differently in terms of duration. This inconsistency could result in findings that do not accurately reflect the reality of the situation.

The way in which breadth of involvement during college is measured may also be a limitation to this study. It is measured by the total number of types of student organizations in which a student is involved during college. This is not the same as the total number of student organizations in which the student is involved. A student may, for example, be involved in four intramural teams or three service organizations, but this breadth of involvement will only include the number of types of organizations. This does not present a clear and exact picture of breadth of involvement

Similarly, another limitation of the study relates to the way in which the leadership education and training programs were defined in the instrument. Although these programs are differentiated by program length (short, moderate, and long-term) and the regression analysis can allude to the intensity of such programs, it is unclear what types of programs they may be. For example, it is unclear if the programs are culturally based, workshops or conferences, or RA training. The way in which this environmental factor is addressed in the current study only accounts for the duration of these programs when in fact other characteristics could be important as well. Additionally, as was mentioned before, the low mean scores of these variables are a limitation in the regression design, as the scores are not normally distributed, which could affect the regression analyses outputs.

A related limitation of the study is in the identified experiences contributing to students' leadership outcomes. The environmental variables chosen for this study were involvement, holding a formal leadership role, and leadership education and training. While these reflect much of the findings in literature, there may be some other key experiences contributing to these leadership outcomes. The environmental variables in this study combined with input variables only accounted for at most 34.9% of the outcome measure. There may be some other key experiences, such as mentoring relationships, role modeling, service, or work experiences, that contribute to students' leadership outcomes. In addition, the methods of leadership training, education, and development are not inclusive of all possible means of leadership development.

The final limitation of the design is the response rate for this study, which was approximately 41 percent. It is fairly typical for response rates for web-based surveys to be low, which can pose as a limitation. Comparisons of the respondents and larger samples were conducted in Chapter 4 to identify potential limitations with the makeup of the study participants. The respondents were slightly skewed in overrepresentation of Women, White students, juniors and seniors.

This section has provided an overview of some of the limitations of this study. The next section will present implications of the findings for practice.

IMPLICATIONS FOR PRACTICE

The findings from this study have implications for college student educators in practices related to student leadership development. This section will provide these suggested implications for practice applicable to student affairs administrators and faculty members.

The overall high scores of the outcome measures indicate that students' values, attitudes, and behaviors reflect relational, post-industrial leadership perspectives. This patterns supports student affairs administrators' and faculty members' promotion of socially responsible leadership practices to help students further develop these values. This focus of leadership can be incorporated into many aspects of higher education that can impact students, such as curriculum, programs and services, and role modeling. Change emerged as the outcome with the lowest mean score (although not tested for significance).

The low mean scores across groups for the outcome of Change may be particularly important in designing learning environments that promote students as significant in change processes and decision making as well as create and promote programs and services that relate to understanding, anticipating, learning from, and engaging in change practices, especially those that benefit the common good. Students' openness and feelings of empowerment for creating change may be affected by the environment in which they operate. Higher education institutions should operate in a way that reflects relational leadership practices that socially responsible leadership. Additionally, student affairs practitioners and faculty should engage in and model relational and socially responsible leadership as well as try to utilize students in decision making and encourage their motivation to create change. Building this supportive environment could perhaps further encourage and develop students' beliefs and attitudes toward social change. This study revealed that moderate-term leadership experiences were significant for both men and women for the outcome of Change. Moderate-term experiences as defined in this study were experiences such as a leadership course and

multiple retreats, workshops, conferences, or trainings. Providing experiences such as these that focus specifically on Change can help further develop this outcome in both college women and men.

Hypothesis one identified that women scored significantly higher than men on five of the eight outcome measures including all of the group values of the model. Although the effect size was small, these differences imply that students differ in their leadership development by gender. The gender of college students should be taken into account; programs and services may need to differ based on the audience. It may be beneficial, for example, to have leadership programs for men, such as a men's leadership institute, that emphasizes collaboration, developing common goals and purpose, and conflict management. This could also imply different training and programs for same-gender groups, such as sororities and fraternities.

Findings from hypothesis two overwhelmingly identified involvement in student organizations as a significant environmental variable impacting students' socially responsible leadership outcomes. This finding supports developing and encouraging student involvement opportunities, such as student organizations and groups, living learning programs, and other experiences that include a group or team experience. Since the measure of involvement in student organizations focused on the depth of involvement, students should be encouraged to become actively involved in student groups and activities, as the depth of involvement was significant in the development of the outcomes. Initiatives like the President's Promise Initiative at the University of Maryland, which help students identify an enriching experience to complement their

academic experiences, can be beneficial in helping students become more engaged in student organizations, programs, and activities early on in their college careers.

For college men, pre-college leadership roles in student organizations was significant for each of the eight outcomes. College outreach and preparatory programs can encourage and create opportunities for high school men to gain leadership experience in peer groups, as this will positively contribute to their socially responsible leadership development.

Community organization involvement and holding a formal leadership role in community organizations were significant for women in many of the outcome variables. This finding supports student affairs practitioners and faculty members promoting experiences in the larger community off campus. Programs and services such as service learning programs and internship can help promote community involvement, but additional connections to the larger community can help provide more of these experiences, especially for women, for which these experiences are significant to their leadership development.

This study also found that short-term, moderate-term, and long-term leadership training and education programs significantly contributed to the outcomes of Common Purpose, Citizenship, and Change for women and Collaboration, Common Purpose, Controversy with Civility, Citizenship, and Change for men. These findings support the existence of many types of leadership programs on campus that range from short to long in duration, as different program durations were found to contribute to the outcomes when other program durations did not. These leadership experiences can come from many outlets on campus and should be readily available to all students, as they are

significant for both men and women. These leadership programs emerged as contributing mostly to group and community values in addition to the value of Change, but didn't contribute to the individual values of the model. Additional practices and opportunities should be identified to complement leadership education and training programs in order to address all aspects of socially responsible leadership development.

A final implication for practice that emerged from findings of hypothesis two is that colleges should provide a plethora of opportunities for students to gain experiences in involvement, leadership roles, and leadership education and training. Different experiences significantly contribute to different outcomes, and in order for students to develop in all areas of socially responsible leadership, different opportunities need to be available. Student affairs practitioners must not only help provide these opportunities, but also be proactive in proving services, such as attending student organization meetings and presenting on topics such as collaboration, change, and conflict management. The involvement scores indicated low means in areas such as leadership training and community involvement. If these experiences have been identified as significantly contributing to leadership development, it is important that student affairs practitioners find ways to outreach to students and bring the programs and services to the students.

The overall findings of this study strongly support a significant focus on providing a variety of opportunities, sometimes differing by population such as gender, for students to develop socially responsible leadership.

SUGGESTIONS FOR FUTURE RESEARCH

This thesis has contributed to research in the overall understanding of college students and socially responsible leadership as well as the exploration of different

involvement, leadership, and training and education opportunities on students' leadership development. Building from the findings of this study, this section will suggest further areas of research related to the topic of this thesis.

The current study had a strong focus on socially responsible leadership and environmental variables based on gender. As it was identified that race and class standing were identified as significant in many of the multiple regression analyses, more research similar to this thesis based on other identity groups, such as race and class standing can help better understand these different groups and the environmental variables significant to their leadership development.

As was mentioned as a limitation of this study, the environmental variables used in this study may not be the only variables that could contribute to students' leadership outcomes. While many the environmental variables of this study were significant for many outcomes, the current study only accounted for at most approximately 30-40% of the variance in the scores of the outcomes. A similar study examining other environmental variables such as mentoring, role modeling, study abroad, service, internships, or work experience could contribute to the understanding of what experiences are significant in developing students' socially responsible leadership outcomes.

Another area for further research relates to the strong focus of student organization involvement in the findings. Since it is apparent that involvement in student organizations significantly contributes to the outcomes of this model, a further examination on the types of involvements that emerge as significant will help researchers and practitioners better understand the concept of student organization involvement.

This study expanded the I-E-O model to include off-campus, community involvement and leadership roles. Research on college students' involvement in community organizations is sparse, and additional research in this area can help understand the role of community involvement and leadership roles in outcome measures. This may become more and more important with non-traditional student populations, commuter students, and community college students that may live and/or work in the larger, off-campus community. Additional research on college students' community involvements and leadership roles can fill a major void in the field of college student personnel.

This study utilized a multiple regression model that was hierarchical in nature but included a block that was entered in the analysis through stepwise regression. This method of analysis allowed the researcher to identify which of the variables in that block were significant. This method of multiple regression analysis can be used in future I-E-O designs to assess the impact of the environmental variables on the outcome measures.

Another suggested area for research is further examination of different leadership training and education programs. While this study was able to assess the contribution of these variables on the outcome measures, there is little information known about the context, focus, or structure of these programs. Addressing leadership training and education programs in capacities other than program duration, such as focus and program components, can help better understand these programs and their effectiveness. Additionally the mean scores and standard deviations for these variables were low and therefore could not explain much of the variance or present a clear picture of the extent to which leadership training and education programs contribute to socially responsible

leadership outcomes. Qualitative research on leadership programs may contribute to more of an understanding of the impact of such programs on leadership outcomes.

An overall area for further research that can contribute to the understanding of the long-term effects of the environmental variables used in this study is longitudinal research on college environments and leadership outcome measures.

CONCLUSION

As colleges and universities continue to emphasize the importance of leadership development of college students and as the need for assessment and accountability (Miller, 2003; Roberts & Ullom, 1990), there is a greater need to understand student's leadership development and experiences that contribute to the outcomes of leadership development. The current study addressed gender differences in undergraduate college students' socially responsible leadership outcomes and examined the ways in which cocurricular involvement, holding a formal leadership role, and participation in leadership education training and education programs contribute to college men and women's leadership outcomes. Key findings of gender differences in outcomes and key experiences significantly contributing to students' leadership outcomes provided a discussion of the findings, ways in which the findings can impact practice, and future areas of research to better understand the phenomenon of undergraduate students' socially responsible leadership development.

Leadership Reconsidered (A. W. Astin & Astin, 2000), a report focusing on higher education and social change, states that "a major problem with contemporary civic life in America is that too few of our citizens are actively engaged in efforts to effect positive social change" (p. 2). It is the role of college student educators to help provide

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opportunities for, develop, and empower students to engage in and be effective in leadership contributing to positive social change. This study helped provide insight into this topic, and future research will continue to contribute to the development of college students and the greater society.

APPENDIX A: Multi-Institutional Study of Leadership Instrument

> **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 split samples and will not be asked of all participants.**

COLLEGE INFORMATION

1. Did you begin college at your current institution or elsewhere? (Choose One)

- o   Started here
- o   Started elsewhere

2. Thinking about this academic term, how would you characterize your enrollment?   (Choose One)

- o   Full-Time
- o   Less then Full-Time

3. What is your current class level?   (Choose One)

- o   First year/freshman
- o   Sophomore
- o   Junior
- o   Senior
- o   Graduate student
- o   Other

4.   Are you currently working OFF CAMPUS?
(Circle one)   YES   NO
If NO skip to #5

4a. Approximately how many hours do you work off campus in a
typical 7 day week?

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4b. In your primary off campus position, how frequently do you: (Circle one for each item)

1 = Never   **3 = Often**
2 = Sometimes   **4 = Very Often**

Perform repetitive tasks 1   2   3   4

Consider options before making decisions 1   2   3   4

Perform structured tasks 1   2   3   4

Have the authority to change the way some
  things are done 1   2   3   4
Coordinate the work of others 1   2   3   4

Work with others on a team 1   2   3   4

5. Are you currently working ON CAMPUS?
    (Circle one)   YES   NO
if NO skip to #6

5a. Approximately how many hours do you work on campus in a typical 7 day week?

5b. In your primary position, how frequently do you:
(Circle one for each item)

1 = Never	3 = Often
2 = Sometimes	4 = Very Often

Perform repetitive tasks 1   2   3   4

Consider options before making decisions 1   2   3   4

Perform structured tasks 1   2   3   4

Have the authority to change the way some
    things are done 1   2   3   4
Coordinate the work of others 1   2   3   4

Work with others on a team..............................1   2   3   4

**6. In an average academic term, do you engage in
any community service?**
                              YES   NO
if NO skip to #7

In an average academic term, approximately how many hours do you engage in community service? (circle one for each category).

As part of a class
None 1-5   6-10   11-15   16-20   21-25   26-30   more than 30

With a student organization
None 1-5   6-10   11-15   16-20   21-25   26-30   more than 30

As part of a work study experience
None 1-5   6-10   11-15   16-20   21-25   26-30   more than 30

On your own
None 1-5   6-10   11-15   16-20   21-25   26-30   more than 30

7. Check all the following activities you engaged in <u>during your college experience.</u>

- o Studied abroad

- o Experienced a practicum, internship, field experience, co-op experience, or clinical experience

- o Participated in a learning community or some other formal program where groups of students take two or more classes together.

- o Enrolled in a culminating senior experience (capstone course, thesis etc.)

YOUR PERCEPTIONS BEFORE ENROLLING IN COLLEGE

8. Looking back to *before you started college*, how confident were you that you would be successful at the following: (Circle one response for each.)

> **1 = Not at all confident   3 = Confident**
> **2 = Somewhat confident   4 = Very confident**

Handling the challenge of college-level work ..	1	2	3	4
Feeling as though you belong on campus	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 *before you started college*, how often did you engage in the following activities: (Circle one response for each.)

> **1 = Never   3 = Often**
> **2 = Sometimes   4 = Very Often**

Performing volunteer work	1	2	3	4
Participating in student clubs/ groups	1	2	3	4
Participating in varsity sports	1	2	3	4
Taking leadership positions in student clubs, groups or sports.................................	1	2	3	4
Participating in community organizations (e.g. church youth group, scouts)	1	2	3	4
Taking leadership positions in community organizations	1	2	3	4
Participating in activism in any form (e.g. petitions, rally, protest)	1	2	3	4
Getting to know people from backgrounds different than your own...............................	1	2	3	4
Learning about cultures different from your own	1	2	3	4
Participating in training or education that developed your leadership skills	1	2	3	4

10. **Looking back to _before you started college_, please indicate your agreement with the following items by choosing the number that most closely represented your opinion about that statement AT THAT TIME:**
(Circle <u>one</u> response for each.)

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

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 hold myself accountable for responsibilities
   I agree 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 value the opportunities that allow me to
contribute to my community,   1 2 3 4 5

I thought of myself as a leader ONLY if I was
   the head of a group (e.g. chair, president) ..1 2 3 4 5

11a. Before you started college, **how would you describe the amount of leadership experience you have had (e.g., student clubs, performing groups, service organizations, jobs)?** Please circle the appropriate number
     No experience 1   2   3   4   5   Extensive experience

11b. Before you started college, **how often have others given you positive feedback or encouraged your leadership ability (e.g., teachers, advisors, mentors)?**
   Please circle the appropriate number
   Never 1   2   3   4   5   frequently

11c. Before you started college, **How would you react to being chosen or appointed the leader of a group?** Please circle the appropriate number
     Very   1   2   3   4   5   very
    uncomfortable   comfortable

11d. Before you started college, **how often have you seen others be effective leaders?**
   Please circle the appropriate number
   Never 1   2   3   4   5   frequently

11e. Before you started college, **how often did you think of yourself as a leader**
   Please circle the appropriate number
   Never 1   2   3   4   5   frequently

YOUR EXPERIENCE IN COLLEGE

12. How often have you engaged in the following activities during your college experience: (Circle one for each item)

1 = Never	3 = Often
2 = Sometimes	4 = Very Often

Paid attention to national issues........................ 1   2   3   4

Paid attention to global issues…………………1   2   3   4

Was aware of the current issues facing the
  community surrounding your institution 1   2   3   4

Signed a petition or sent an email about a
  social or political issue 1   2   3   4

Bought or did not buy a product or service
  because of your views about the social or
  political values of the company that produces
  or provides it.. 1   2   3   4

Contacted a public official, newspaper,
  magazine, radio, or television talk show to
  express your opinion on a political issue..... 1   2   3   4

Took part in a protest, rally, march, or
  demonstration 1   2   3   4

13. Since starting college, how often have you:

been an involved member or active participant in college organizations?
        Never 1   2   3   4   5   Much of the time

held a leadership position in a college organization? (for example, serving as an officer or a club or organization, captain of an athletic team, first chair in a musical group, section editor of the newspaper, chairperson of a committee)
        Never 1   2   3   4   5   Much of the time

been an involved member or active participant in an off-campus community organizations (e.g. PTA, church group)?
        Never 1   2   3   4   5   Much of the time

held a leadership position in a community organization? (for example, serving as an officer or a club or organization, leader in a youth group, chairperson of a committee)
        Never 1   2   3   4   5   Much of the time

YOUR STUDENT GROUP INVOLVEMENTS

14. **Which of the following kinds of student groups have you been involved with during college?**
    (Check <u>all</u> the categories that apply)

    o Academic/ Departmental/ Professional (ex: Pre-Law Society, an academic fraternity, Engineering Club)

    o Arts/Theater/Music (ex: Theater group, Marching Band)

    o Campus-wide programming groups (ex: program board, film series board, a multicultural programming committee)

    o Cultural/ International (ex: Black Student Union, German Club)

    o Honor Society (ex: Omicron Delta Kappa [ODK], Mortar Board, Phi Beta Kappa)

    o Living-learning programs (e.g. language house, leadership floors, ecology halls)

    o Leadership (ex: Peer Leadership Program, Emerging Leaders Program)

    o Media (ex: Campus Radio, Student Newspaper)

    o Military (ex: ROTC)

    o New Student Transitions (ex: admissions ambassador, orientation advisor)

    o Para professional group (ex: Resident assistants, peer health educators)

    o Political/ Advocacy (ex: College Democrats, Students Against Sweatshops)

    o Religious (ex: Campus Crusades for Christ, Hillel)

    o Service (ex: Circle K, Alpha Phi Omega [APO])

    o Culturally based fraternities and sororities (ex: National Pan-Hellenic Council (NPHC) groups, Latino Greek Council groups such as Alpha Phi Alpha Fraternity Inc., Lambda Theta Alpha)

    o Social fraternities or sororities (e.g. Panhellenic or Interfraternity Council groups such as Sigma Phi Epsilon or Kappa Kappa Gamma)

    o Sports- Intercollegiate or Varsity (ex: NCAA Hockey, Varsity Soccer)

    o Sports- Club (ex: Club Volleyball)

    o Sports- Leisure or Intramural (ex: Intramural flag football, Rock Climbing)

    o Special Interest (ex: Comedy Group)

    o Student governance group (ex: Student Government Association, Residence Hall Association, Interfraternity Council) IF CHECKED go to item 14A

14A. Were you involved in your campus-wide student government association?   (Circle one)
    YES   NO

If No, skip to item 15.

Thinking about your student government experience, indicate your level of agreement with the following items:

(Circle one response for each.)

1 = Strongly disagree   **4 = Agree**
2 = Disagree   **5 = Strongly agree**
3 = Neutral

I found it hard to represent my constituents'
concerns 1 2 3 4 5

I successfully initiated change on behalf of
my constituents (e.g., policy, institutional,
or social).. 1 2 3 4 5

My motivation for involvement was about
gaining influence 1 2 3 4 5

My motivation for involvement was to receive
recognition... 1 2 3 4 5

My motivation for involvement was to
help others 1 2 3 4 5

I have witnessed effective constituency-based
efforts for change 1 2 3 4 5
    If you selected 4 or 5 above, respond:
    Those effective models have
    influenced my own actions................. 1 2 3 4 5

I held a constituency-based position prior to
this college SGA experience (e.g. high school
or other governance group).   Yes   No
    IF NO skip to next item
    Experience with previous constituency
    based positions did NOT make me more
    effective in my college SGA work. 1 2 3 4 5

15. At any time <u>during your college experience</u>, have you been in a mentoring relationship where another person intentionally assisted your growth or connected you to opportunities for career and personal development?
Indicate how many times

Student affairs staff
(e.g., a student organization advisor, career counselor, the Dean of Students, or residence hall coordinator): ....
...never once several many

Faculty..never once several many

Employers ....never once several many

Community members ....never once several many
Other students ....never once several many

16. During interactions with other students outside of class, how often have you done each of the following in an average school year?   (Circle one for each.)
        1 = Never   **3 = Often**

2 = Sometimes   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

DEVELOPING YOUR LEADERSHIP ABILITIES

17. **Since starting college, how many times have you participated in the following types of training or education that developed your leadership skills (ex: courses, Resident Assistant training, organization retreats, job training)** (Circle one for each.)

17a- Short-Term Experiences (ex: individual or one-time workshops, retreats, conferences, lectures, or training)

Never   once   several   many

17b-Moderate-Term Experiences (ex: a single course, multiple or ongoing retreats, conferences, institutes, workshops, and/or training.

Never   once   several   many

If NEVER skip to 17c;

Did your experience involve any courses? YES NO

If no, skip to 17c

a.   How many leadership courses have you completed?

b.   How many other courses have you taken that contributed to your leadership abilities (e.g. ethics course, personal development courses, management courses)? *Keep in mind you might have taken such a course but it did not contribute to your leadership.*

17c- Long-Term Experiences (ex: multi-semester leadership program, leadership certificate program, leadership minor or major, emerging leaders program, living-learning program),

Never   once   several   many

if NEVER skip to 18

Which of the following Long-Term Activities did you experience? (check all that apply)
- o   Emerging or New Leaders Program
- o   Peer Leadership Program
- o   Leadership Certificate Program
- o   Multi-Semester Leadership Program
- o   Senior Leadership Capstone Experience
- o   Residential Living-learning leadership program
- o   Leadership Minor
- o   Leadership Major
- o   Other

ASSESSING LEADERSHIP DEVELOPMENT

18. Please indicate your agreement or disagreement with the following items by choosing the number that most closely represents your opinion about that statement.
(Circle <u>one</u> response for each.)

> *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   **4 = Agree**
2 = Disagree   **5= Strongly Agree**
3 = Neutral

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 a 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 time and energy
    to things that are important to me 1 2   3   4   5

I stick with others through the 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
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 greater 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

THINKING MORE ABOUT YOURSELF

19.   How would you characterize your political views?
(Mark One)
- o   Far left
- o   Liberal
- o   Middle-of-the-road
- o   Conservative
- o   Far right

20. In thinking about how you have changed during college, to what extent do you feel you have grown in the   following areas? (Circle <u>one</u> response for each.)

1 = Not grown at all   3 = Grown
2 = Grown somewhat   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

21. Please indicate the extent to which you agree or disagree with the following statements.
        (Circle <u>one</u> response for each.)

1 = Strongly disagree   3 = Agree
2 = Disagree   4 = Strongly agree

Since coming to college, I have learned a
    great deal about other racial/ethnic
    groups 1   2   3   4

I have gained a greater commitment to my
    racial/ethnic identity since coming to college...1   2   3   4

My campus's commitment to diversity fosters
    more division among racial/ethnic groups

than inter-group understanding 1   2   3   4

Since coming to college, I have become aware
   of the complexities of inter-group
   understanding 1   2   3   4

THINKING ABOUT LEADERSHIP

22. How confident are you that you can be successful at the following: (Circle <u>one</u> response for each.)
      1 = Not at all confident   3 = Confident
      2 = Somewhat confident4 = 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

23.   To what degree do you agree with these items?
      (Circle <u>one</u> response for each.)

      1 = Strongly disagree
      2 = Disagree
      3 = neither agree or disagree
      4 = Agree
      5 = Strongly agree

It is the responsibility of the head of a group
   to make sure the job gets done 1   2   3   4   5

I spend time mentoring other group
   members 1   2   3   4   5

I think of myself as a leader ONLY if I am
   the head of a group (e.g. chair, president) 1   2   3   4   5

Group members share the responsibility
   for leadership... 1   2   3   4   5

I am a person who can work effectively
   with others to accomplish our shared
   goals 1   2   3   4   5

I do NOT think of myself as a leader
   when I am just a member of a group 1   2   3   4   5

Leadership is a process all people in the
   group do together................................... 1   2   3   4   5

I feel inter-dependent with others in a
   group. 1   2   3   4   5

I know I can be an effective member of
   any group I choose to join...................... 1   2   3   4   5

Teamwork skills are important in all
   organizations 1   2   3   4   5

The head of the group is the leader and
   members of the group are followers....... 1   2   3   4   5

24. Select the number that best represents your experience with your overall college climate

| Closed, hostile, | | | | | | | | Open, inclusive, |
intolerant,   1 2 3 4 5 6 7   supportive,
unfriendly   friendly

BACKGROUND INFORMATION

25. What were your average grades in High School?
(Choose One)

- o A or A+
- o A- or B+
- o B
- o B- or C+
- o C
- o C- or D+
- o D or lower

26. Did your high school require community service for graduation? (Circle One)
.... Yes No

27. What is your age?

[   ]

28. What is your gender? (Mark all that apply)

- o Female
- o Male
- o Transgender

29. What is your sexual orientation? (Mark all that apply)

- o Heterosexual
- o Bisexual
- o Gay/Lesbian
- o Rather not say

30. Indicate your citizenship and/ or generation status:
(Choose One)

- o Your grandparents, parents, and you were born in the U.S.
- o Both of your parents and you were born in the U.S.
- o You were born in the U.S., but at least one of your parents was not
- o You are a foreign born, naturalized citizen
- o You are a foreign born, resident alien/ permanent resident
- o You are on a student visa

31. Please indicate your racial or ethnic background. (Mark all that apply)
- o White/Caucasian

- o African American/Black
- o American Indian/Alaska Native
- o Asian American/Asian
- o Native Hawaiian/Pacific Islander
- o Mexican American/Chicano
- o Puerto Rican
- o Cuban American
- o Other Latino American
- o Multiracial or multiethnic
- o Race/ethnicity not included above

32. **Do you have a mental, emotional, or physical condition that now or in the past affects your functioning in daily activities at work, school, or home?**

<div align="center">Yes   No</div>

if Yes Please indicate all that apply:

- o Deaf/Hard of Hearing
- o Blind/Visually Impairment
- o Speech/language condition
- o Learning Disability
- o Physical or musculoskeletal (e.g. multiple sclerosis)
- o Attention Deficit Disorder/ Attention Deficit Hyperactivity Disorder
- o Psychiatric/Psychological condition (e.g. anxiety disorder, major depression)
- o Neurological condition (e.g. brain injury, stroke)
- o Medical (e.g. diabetes, severe asthma)
- o Other

33. **What is your current religious affiliation?**
    (Choose One)

- o None
- o Agnostic
- o Atheist
- o Buddhist
- o Catholic
- o Hindu
- o Islamic
- o Jewish
- o Mormon
- o Quaker
- o Protestant (e.g. Baptist, Methodist, Presbyterian)
- o Other Christian
- o Other
- o Rather not say

34. **What is your best estimate of your grades so far in college? [Assume 4.00 = A]**   (Choose One)

- o 3.50 – 4.00
- o 3.00 – 3.49
- o 2.50 – 2.99
- o 2.00 – 2.49
- o 1.99 or less
- o No college GPA

35. **What is the <u>HIGHEST</u> level of formal education obtained by any of your parent(s) or guardian(s)?** (Mark all that apply)

o Don't know
o Less than high school diploma or GED
o High school diploma or GED
o Some college
o Associates degree
o Bachelors degree
o Masters degree
o Doctorate or professional degree (e.g., JD, MD, PhD)

36. What is your <u>best estimate</u> of your parent(s) or guardian(s) combined total income from last year? If you are independent from your parents, indicate your income.
   (Choose one)

o Less than $12,500
o $12,500 - $24,999
o $25,000 – $39,999
o $40,000 – $54,999
o $55,000 - $74,999
o $75,000 - $99,999
o $100,000 - $149,999
o $150,000 - $199,999
o $200,000 and over

37. Which of the following best describes where are you currently living while attending college?
(Choose one)

o Parent/guardian or other relative home
o Other private home, apartment, or room
o College/university residence hall
o Other campus student housing
o Fraternity or sorority house
o Other

INDIVIDUAL CAMPUS ITEMS
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

SCALE	ITEM #	ITEM
Change	8 (neg)	Transition makes me uncomfortable.
Change	12	I am comfortable initiating new ways of looking at things.
Change	17	Change brings new life to an organization.
Change	20	There is energy in doing something a new way.
Change	26 (neg)	Change makes me uncomfortable.
Change	36 (neg)	New ways of doing things frustrate me.
Change	39	I work well in changing environments.
Change	43	I am open to new ideas.
Change	45	I look for new ways to do something.
Change	50	I can identify the differences between positive and negative change.
Citizenship	33	I believe I have responsibilities to my community.
Citizenship	38	I give time to making a difference for someone else.
Citizenship	40	I work with others to make my communities better places.
Citizenship	44	I have the power to make a difference in my community.
Citizenship	46	I am willing to act for the rights of others.
Citizenship	47	I participate in activities that contribute to the common good.
Citizenship	55	I believe I have a civic responsibility to the greater public.
Citizenship	66	I value opportunities that allow me to contribute to my community.
Collaboration	10	I am seen as someone who works well with others.
Collaboration	29	I can make a difference when I work with others on a task.
Collaboration	30	I actively listen to what others have to say.
Collaboration	42	I enjoy working with others toward common goals.
Collaboration	48	Others would describe me as a cooperative group member.
Collaboration	57	Collaboration produces better results.
Collaboration	60	My contributions are recognized by others in the groups I belong to.
Collaboration	65	I am able to trust the people with whom I work.
Commitment	23	I am willing to devote time and energy to things that are important to me.
Commitment	24	I stick with others through the difficult times.
Commitment	28	I am focused on my responsibilities.
Commitment	51	I can be counted on to do my part.
Commitment	53	I follow through on my promises.
Commitment	54	I hold myself accountable for responsibilities I agree to.
Common Purpose	14	I am committed to a collective purpose in those groups to which I belong.
Common Purpose	15	It is important to develop a common direction in a group in order to get anything done.
Common Purpose	19	I contribute to the goals of the group.
Common Purpose	31	I think it is important to know other people's priorities.
Common Purpose	35	I have helped to shape the mission of the group.
Common Purpose	37	Common values drive an organization.
Common Purpose	58	I know the purpose of the groups to which I belong.
Common Purpose	61	I work well when I know the collective values of a group.
Common Purpose	67	I support what the group is trying to accomplish
Congruence	13	My behaviors are congruent with my beliefs.
Congruence	27	It is important to me to act on my beliefs.
Congruence	32	My actions are consistent with my values.
Congruence	52	Being seen as a person of integrity is important to me.

Congruence	63	My behaviors reflect my beliefs.
Congruence	64	I am genuine.
Congruence	68	It is easy for me to be truthful.
Consciousness of Self	4	I am able to articulate my priorities.
Consciousness of Self	6 (neg)	I have a low self esteem.
Consciousness of Self	9	I am usually self confident.
Consciousness of Self	18	The things about which I feel passionate have priority in my life.
Consciousness of Self	22	I know myself pretty well.
Consciousness of Self	34	I could describe my personality.
Consciousness of Self	41	I can describe how I am similar to other people.
Consciousness of Self	56 (neg)	Self-reflection is difficult for me.
Consciousness of Self	59	I am comfortable expressing myself.
Controversy with Civility	1	I am open to others' ideas.
Controversy with Civility	2	Creativity can come from conflict.
Controversy with Civility	3	I value differences in others.
Controversy with Civility	5	Hearing differences in opinions enriches my thinking.
Controversy with Civility	7 (neg)	I struggle when group members have ideas that are different from mine.
Controversy with Civility	11	Greater harmony can come out of disagreement.
Controversy with Civility	16	I respect opinions other than my own.
Controversy with Civility	21 (neg)	I am uncomfortable when someone disagrees with me.
Controversy with Civility	25 (neg)	When there is a conflict between two people, one will win and the other will lose.
Controversy with Civility	49	I am comfortable with conflict.
Controversy with Civility	62	I share my ideas with others.

Notes: The negative responses were accounted for though reverse scoring.
Response choices range from strongly disagree (1) to strongly agree (5)
Permission to use this scale must be requested from the National Clearinghouse
for Leadership Programs

APPENDIX C: Participant Invitation Email

Dear [INSTITUTION] student,

[INSTITUTION] has been selected to participate in a national study which will focus on student leadership experiences in college. As an institution, we are very interested in developing leadership among our graduates and hope to learn more about our students' experiences through participation in this study.

You have been randomly selected to participate in this national study! Your participation is VERY important and will contribute a great deal to understanding the college student experience at both [INSTITUTION] and within the context of higher education. This is an amazing opportunity for [INSTITUTION] and we hope you are excited to participate.

Participation is easy and just by completing the survey, you will automatically be eligible for numerous prizes including... [institution will insert incentives here]

What does it mean to participate?
- Participation in the study will involve completing an online survey/questionnaire about your college involvements and your thoughts about leadership.
- The survey should take approximately 20 minutes to complete.
- Your response is completely confidential. Only the researcher will be able to attach your name to your response so please be candid and honest.
- Participation is of course, totally voluntary.

We encourage you now to click on the link below to indicate your consent to participate in the survey. If you have any questions, please contact [INSTITUTION CONTACT PERSON NAME EMAIL and PHONE].

Thank you for your participation!

[INSTITUTION CONTACT PERSON]

CLICK HERE TO BEGIN
http://www...........link for survey

APPENDIX D: Participant Consent Form

Multi-Institutional Study of Leadership
[NOTE: Will be administered in an on line format]

You have been randomly selected to participate in an important research project being conducted by [INSERT INSTITUTION NAME] and the National Clearinghouse for Leadership Programs. 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.

If you choose to participate in this important research study, you will be asked to complete an online survey that should take about 20 minutes. On this survey you will be asked questions pertaining to your pre-college and college experiences and attitudes.

- All information collected in this study will be kept confidential. Reports and presentations on the study will be based on grouped data and will not reveal your identity. Data will be collected by an independent contractor specializing in survey collection.

- There are no known risks associated with your participation in this study.

- Your participation is entirely voluntary, and you are free to withdraw from participation at any time. Failure to participate will not result in the loss of any benefit from your institution.

- The research is not designed to help you personally, but the benefits of participation include contributing to research on an important topic.

If you have any questions about participating in this study, please contact [INSERT INSTITUTION CONTACT NAME], your campus' principal investigator, at [INSERT PHONE NUMBER] or via email at [INSERT EMAIL ADDRESS].

If you have questions about your rights as a research subject or wish to report a research-related injury, please contact the campus Institutional Review Board Office at [INSERT LOCAL IRB CONTACT INFORMATION].

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; and
- you freely and voluntarily choose to participate in this research project.

___ Yes, I wish to participate in this study and begin the instrument.

___ No, I do not wish to participate in this research study.

IRB APPROVED
VALID UNTIL

OCT 2 1 2006

UNIVERSITY OF MARYLAND
COLLEGE PARK
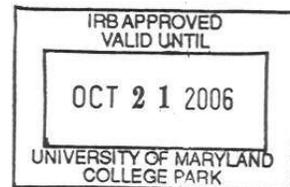
APPENDIX E: Institutional Review Board Approval Letter

UNIVERSITY OF
MARYLAND

INSTITUTIONAL REVIEW BOARD

2100 Lee Building
College Park, Maryland 20742-5121
301.405.4212 TEL 301.314.1475 FAX
irb@deans.umd.edu
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October 21, 2005

MEMORANDUM

Application Approval Notification

To: Dr. Susan R. Komives, Mr. John Dugan
  Ms. Paige Haber, Ms. Jennifer Smist
  Office of Campus Programs, National Clearinghouse for
  Leadership Programs

From: Roslyn Edson, M.S., CIP *Ra E*
  IRB Manager
  University of Maryland, College Park

Re: Application Number: 05-0454
  Project Title: "The Multi-Institutional Study of Leadership"

Approval Date: October 21, 2005

Expiration Date: October 21, 2006

Type of Application: New Project

Type of Research: Nonexempt
  (Please note: This research does not qualify for an exemption because a contractor, Survey Sciences Group, will collect identifiable private information [the students' electronic mail addresses] for the investigator.)

**Type of Review
For Application:** Expedited

The University of Maryland, College Park Institutional Review Board (IRB) approved your IRB application. The research was approved in accordance with 45 CFR 46, the Federal Policy for the Protection of Human Subjects, and the University's IRB policies and procedures. Please reference the above-cited IRB application number in any future communications with our office regarding this research.

Recruitment/Consent: For research requiring written informed consent, the IRB-approved and stamped informed consent document is enclosed. The IRB approval expiration date has been stamped on the informed consent document. Please keep copies of the consent forms used for this research for three years after the completion of the research.

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