

## ABSTRACT

Title of thesis:                   EXPLORING LEADERSHIP AMONG DEAF COLLEGE STUDENTS: A COMPARATIVE STUDY AT A POPULATION SERVING INSTITUTION AND PREDOMINANTLY HEARING INSTITUTIONS

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This thesis examined the influence of deaf student experiences at a deaf serving institution versus predominantly hearing institutions on leadership outcomes.

This study utilized the I-E-O Model and the Social Change Model of Leadership.

Data were collected from a random sample of 365 undergraduates at Gallaudet University and 216 undergraduates nationally through the Multi-Institutional Study of Leadership. The study was administered over the web utilizing the Socially Responsible Leadership Scale-Revised2. Data were analyzed using a two way multivariate analysis of variance examining institutional serving type and gender differences on outcomes and a hierarchical multiple regression analysis examining input and environmental variables on a specified outcome.

Participants at hearing serving institutions scored significantly higher than participants at a deaf serving institution on the outcomes of Congruence, Commitment, and Controversy with Civility. The variable accounting for the most variance in the outcome measure of Controversy with Civility was discussions of socio-cultural issues.

EXPLORING LEADERSHIP AMONG DEAF COLLEGE STUDENTS: A  
COMPARATIVE STUDY AT A POPULATION SERVING INSTITUTION AND  
PREDOMINANTLY HEARING INSTITUTIONS

By

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## Chapter I: INTRODUCTION

The practice and study of leadership is an emerging concept as individuals and groups have a growing responsibility to contribute both independently and collectively in modern societies (Komives, Lucas, & McMahon, 2007). This emergence is seen throughout colleges and universities across North America in the growing number of leadership development departments and leadership values reflected in institutional mission statements (Cress, Astin, Zimmerman-Oster, & Burkhart, 2001; Dean, 2006). Furthermore, studying leadership for students in higher education is important due to the developmental growth and learning taking place throughout the college student experience (Komives & Woodard, 2003). This importance is also made apparent through outcome measures of student development in higher education increasingly being called upon to account for student learning and leadership development (Council for the Advancement of Standards in Higher Education [CAS], 2006; Cress et al., 2001; National Association of Student Personnel Administrators [NASPA]/American College Personnel Association [ACPA], 2004).

Current research on college student leadership is growing rapidly and contributing to an already substantial literature base (Burns, 1978; Dugan, 2006a; 2006b; Kezar, Carducci, & Contreras-McGavin, 2006; Komives, Owen, Longerbeam, Mainella, & Osteen, 2005; Rost, 1991). This research and literature is also being expanded to include many special factors related to leadership of specific student populations including race, gender, and sexual orientation, among others (Dugan, 2006a; Kezar, & Moriarty, 2000; Romano, 1996; Stetler, 2002). The inclusion of research of specific student populations shows how traditional models of leadership may not fit all students (Dugan 2006a; Kezar,



& Moriarty; Romano; Stetler). The leadership development of deaf students, at the time of this study, is among the specific populations of students that are greatly under examined in leadership literature. This examination of the leadership development of deaf students, with particular regard to Deaf culture, is particularly relevant to show if models of leadership development currently in use with deaf students in higher education are the best models to utilize with this student population.

### Significance of Study

Universities across North America currently graduate only one of every four deaf students (Lang, 2002). This finding is consistent across two and four year institutions (Lang). Little research exists to explain this statistic. This study seeks to contribute to the deaf leadership research by examining the academic and social in-class and out-of-class experiences of the deaf college student experience and leadership development at both deaf serving and hearing serving institutions.

### Research Addressing the Study Variables

Campus culture has been widely studied in student development literature (Hall & Kuh 1998; Hendershott, Drinan, & Cross, 2000; Thorton & Jaeger, 2006). The unique campus culture influenced by Deaf culture specifically matters in regard to college student learning and development permeated by this culture. This study further explored this culture through examining the influence of deaf student experience at a deaf serving institution verses predominantly hearing serving institutions on leadership outcomes. Usage of these leadership outcomes necessitated using variables widely acknowledged in leadership development literature (Cress, Astin, Zimmerman-Oster, & Burkhart, 2001;

Kezar & Moriarty, 2000). Applying Astin's (1991) college impact model (inputs-environments-outcomes) these variables were categorized as input variables and environment variables including deaf or hearing institutional type, mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college. Although these variables are widely studied in leadership scholarship, there are few deaf leadership studies found specifically examining these variables. It should be noted here that "deaf" is used in the previous sentence as an adjective following practices commonly used in literature within the community of people who are deaf. The deaf studies related to these variables examined in this study include the individual, the group, and society.

Deaf studies that focused on the individual values of the social change model included deaf identity developmental studies and studies on self esteem and self awareness. These studies were analyzed using Mindess' (1999) collectivist approach toward analyzing Deaf culture. Following this approach, deaf identity is largely found to be studied as a deaf cultural identity (Corker, 1996; Cornel & Lyness, 1993; Glickman, 1993) rather than a more individualist personal model of identity familiar to the majority North American culture (Mindess). Similar to these broad cultural identity model approaches to deaf studies, findings of deaf self-esteem show a positive correlation with stronger identification in deaf groups equaling higher self-esteem (Crowe, 2003; Jamber & Elliot, 2005).

Group values based deaf studies encompass peer relationships and experience across differences. Few empirical studies of deaf peer relationships exist; thus, this

literature review focused on conceptual examinations of peer relationships (Becker, 1996). Further reasons for the lack of peer relationship studies come from the inherent collectivist approach to many individual studies. Many deaf studies on the self and identity have a non-explicit focus on peer relationships that create and sustain these identities (Corker, 1996; Cornel & Lyness, 1993; Glickman, 1993).

The absence in deaf empirical studies around peer relationships is furthered in an absence of empirical studies on a fundamental aspect of group values in diversity studies and studies on multiple identities deaf persons possess beyond their deafness (Foster & Kinuthia, 2003; Parasnis, Samar, & Fischer, 2005). This absence in deaf scholarship around diversity is apparent in deaf studies that consistently leave out race/ethnic factors of demographics to their analyses and information gathering of participants (Gurp, 2001). Though gender has been shown by many leadership studies to be an important factor in leadership studies (Kezar & Moriarty, 2000; Kolb, 1999; Romano, 1996; Stetler, 2002), little empirical research has been done at the time of this thesis in related deaf studies examining gender as a relevant variable in this fashion.

In examining deaf studies around the Social Change Model of Leadership Development [SCM] values of citizenship and its natural movement toward change, many conceptual studies have been examined with few empirical studies done on these SCM values (Boros & Stuckles, 1982; Becker, 1996). Among these conceptual studies the term “social lag” (Boros & Stuckles) has been coined in regard to the general lagging behind deaf people experience when a part of social change. This social lagging examination of deaf people by Boros and Stuckles is examined in this study in regard to overall comfort and openness to change.

Among the many conceptual deaf studies are studies on Deaf Culture. Deaf Culture itself is a fairly recent phenomenon first described in the 1980s when cultural descriptions of the DEAF-WORLD, now known as Deaf Culture, began to appear in publications (Christie & Wilkins, 1997). Parallels can be drawn to the lack of studies and thought put toward the deaf and the necessity of first examining deaf history by way of examining the relatively young women's movement and women's studies scholarship and literature in academia (Nowell, 1989). Deaf history, literature, and scholarship is similar to the women's movement and other social movements that needed overt forms of social change to occur to allow for the culture to exist and only then be studied.

The majority of studies examining the role of the institution in deaf literature are empirical examinations on mainstreaming. Mainstreaming is the placement of deaf students into hearing classroom and school environments (Brown & Foster, 1989). Politically mainstreaming itself and the fundamental purpose of mainstreaming is contested in deaf studies (Leigh, 1999; Higgins & Nash, 1982). This contestation is based largely in majority/minority and critical race perspectives on mainstreaming as examined in Chapter II. Empirical studies on mainstreaming typically focus on social and academic aspects of deaf and hearing students' experiences with mainstreaming (Brown & Foster, 1989; Foster and Brown, 1988; Higgins & Nash, 1982; Leigh, 1999). General findings from this literature show that while deaf students successfully achieve academically in mainstreamed classrooms, outside of these classrooms these same students experience social difficulties in mainstreamed environments. These social difficulties commonly result in parallel social structures for deaf and hearing students in mainstreamed settings,

that is, students who are deaf socialize with each other and hearing students socialize with each other with little cross-over socialization patterns.

### Purpose of this Study

The purpose of this study was to examine the influence of deaf student experiences at a deaf serving institution versus predominantly hearing institutions on leadership outcomes. A specific interest in the outcome of Controversy with Civility was examined after controlling for pre college inputs and environmental influences including gender, deaf or hearing institutional serving type, mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college.

The leadership outcomes are measures of eight leadership values of the Social Change Model of Leadership Development (SCM) presented in more detail in the next chapter.

Two research questions were posed for this study:

- (1) Is there a difference in socially responsible leadership skills for students who are deaf by type of institution or gender?
- (2) How much of the variance of deaf student's leadership development outcome of Controversy with Civility is explained by gender, deaf or hearing institutional type, mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college?

## Research Methods

The Social Change Model of Leadership Development (SCM) provides the theoretical base for this study and is operationalized by the Socially Responsible Leadership Scale (Tyree, 1998). Astin's (1991) input-environment-outcome (I-E-O) college impact model is the conceptual frame of the study.

The SCM was developed using a relational, non-hierarchical focus on positive social change (HERI, 1996). The social change model is based around seven leadership values that exist and relate to each other on three different levels: (a) individual, (b) group, and (c) community. The values in the level of individual include Consciousness of Self, Congruence, and Commitment. The values of the group include Common Purpose, Collaboration, and Controversy with Civility. The community level includes the value of Citizenship. Undergirding all of these values is the value of Change as the SCM is ultimately involved in creating positive social change (Astin, 1996; HERI, 1996). The SCM makes up the leadership outcomes assessed in this study through the use of Tyree's (1998) Socially Responsible Leadership Scale (SRLS). This study used Dugan's (2006c) revised SRLS-R2 version of the SRLS. More information about the SRLS is provided in the literature review and study design chapters of this thesis. The I-E-O model, used as the conceptual framework of this study, controls for inputs students bring with them to college and examines environmental variables influencing students during college when assessing identified outcomes. Further information on this model is included in Chapter III.

The variables of this study were categorized as independent variables by inputs and environments, and dependent variables as outcomes. The independent variables

making up this study included input variables of gender, pre-college involvement, and a pre-test for the leadership outcome of Controversy with Civility. Environmental variables included: deaf or hearing institutional type, mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college. The dependent outcome variables were the eight values of the SCM for the first research question and only the outcome variable of Controversy with Civility for the second research question (HERI, 1996).

This thesis used data gathered by the Multi Institutional Study of Leadership (MSL) over a three-month period from February 2006 to April 2006. This study was a national study consisting of 52 participating schools all examining the SCM outcomes among randomly sampled undergraduate students attending their institutions. Randomly selected students at these 52 participating schools included deaf students in the sample along with a specific focus on deaf students attending Gallaudet University. Note that many of the students involved in the Spring and Fall 2006 protest at Gallaudet University, a predominately deaf serving institution, were in the undergraduate class randomly selected for this study although were not sampled during the time of the protest. Administered via the World Wide Web to the selected participants, the MSL instrument consisted of background, environmental, and leadership outcome measures of the SCM measured through the use of the Socially Responsible Leadership Scale Revised2 (SRLS-R2).

There were a total of two research questions for this study. The first research question was analyzed using a two way multivariate analysis of variance (MANOVA) to

examine possible institutional serving type differences and gender differences in each outcome measures. The second research question was analyzed using a hierarchical multiple regression analyses to determine the environmental variables explaining the most variance in the outcome score of Controversy with Civility. These methods are further explained in Chapter III.

### Definition of Terms

The following definitions are used throughout this thesis.

*deaf*: an audiological term referring to the full range of deaf and hard of hearing individuals who have some degree of hearing loss (Jambor, E. & Elliot, M., 2005; Lang, 2002).

*Deaf*: The capitalized “Deaf” term is used as a cultural term referring to individuals who are culturally Deaf as opposed to audiotogically deaf.

*Deaf culture*: The term Deaf culture, with the capitalized “Deaf,” is a view of life from beliefs, artistic expression, understandings and language, in American Sign Language (ASL) that are particular to Deaf people. When Deaf culture is used in the cultural sense, audiotogically measured hearing is one of the least important criteria used to distinguish group membership (Mindess, 1999).

*Leadership*: a process that involves “effecting change on behalf of others” (Higher Education Research Institute, 1996, p. 10). This process is value laden and is one that all students can take part in.

*Leadership training and education during college*: Intentionally designed activities and training conducted toward developmental outcomes of leadership skills, knowledge, and ability.



*Formal leadership roles:* Any positions pertaining to leadership roles formally held in both campus and community organizations.

*Campus climate:* The psychological student perception of the climate on their campus.

*Leadership outcomes:* The knowledge, skills, and abilities that assist understanding, practice of, and relation to the concept of leadership.

*Discussions of socio cultural issues scale:* A measure examining the diversity of experiences had by the individual relating to others across difference.

*Social change model of leadership:* This model was designed with specific regard to college students. It is value laden and includes individual, group, and community values all leading to positive social change.

*Socially responsible leadership outcomes:* The eight outcomes derived from the seven values of the Social Change Model (SCM) including Consciousness of Self, Congruence, Commitment, Collaboration, Common Purpose, Controversy with Civility, Citizenship as well as the “hub” value undergirding the other seven values being Change.

## Summary

This chapter introduced the context of this thesis examining deaf student leadership in higher education. It further included research on the dependent and independent variables, the significance of the study, the purpose of the study, research study methods, and definition of terms. The next chapter will provide additional insight into the literature, theory, and research examined in this study as well as further rationale for the significance of this research.

## Chapter II: REVIEW OF LITERATURE

This chapter provides a review of the literature relevant to this study. In particular, literature, research, theories, and concepts about deaf students, culture, and leadership are summarized and reviewed.

### Deaf Students and Deaf Culture

The literature on deaf students, culture, and leadership is wide ranging. As this study itself takes its theoretical basis from the Social Change Model (SCM), this review of the literature is organized by the three primary components of the SCM. These components include the individual, group, and society with an emphasis on change. The SCM examines leadership from these three different perspectives in order to continue its fundamental focus on collaboration and promotion of positive social change (HERI, 1996).

#### *The Individual*

The SCM defines individual values as both the personal qualities that educators attempt to foster through leadership development and the personal qualities that support group functioning and promote positive social change (HERI, 1996). The deaf studies clustered in this area include those focused primarily on deaf identity and the self.

#### *Deaf Individual Identity Studies*

Although Deaf culture will be examined in this study as collectivist (Mindness, 1999), there are research studies of note that focus specifically on the individual. What will be shown in these studies however, is the definition of the individual and findings of the studies demonstrate that it is only in relation to the family or group that the findings

take on meaning. These “individually” focused deaf identity studies will be shown to never be far away from the collectivist concept of Deaf culture (Mindness).

Jamber and Elliot’s (2005) study on deaf self-esteem showed that identification with Deaf group and society proved to be positively related to self-esteem. The researchers examined how this relational finding is in line with other studies showing that members of the deaf population that identify strongly with their group have higher self-esteem. Even when deaf individuals are taken out of a collectivist context and studied with specific individualistic regard to their self-esteem, the collectivist context comes back in when identifying the reasons for their high and low self-esteem.

Crowe (2003) also examined self-esteem using the Rosenberg Self-Esteem Scale for 152 deaf college students attending an institution that was predominated by a Deaf environment and surrounded by sign language and Deaf culture. The participants were examined by comparison across groups based on gender, parents’ hearing status, and parents’ signing ability. Results indicated that the participants’ gender, age, and interaction of the parent by the participants’ gender were non significant (Crowe). Further results indicated that overall participant scores for self-esteem were high. In addition, respondents who had at least one deaf parent who could sign scored significantly higher than respondents who had hearing parents and could not sign as well as participants with those who had hearing parents who could sign (Crowe).

The findings from Crowe (2003) and Jamber and Elliot (2005) further point to the possibility that Deaf culture and deaf self-concept are inextricably linked. This link is further examined in regard to deaf parental figures that are better able to role model Deaf culture for children as they themselves have often experienced Deaf culture to a greater

extent than hearing parents who may have not experienced Deaf culture to the same degree despite their signing ability (Crowe). In another study, Hurwitz (1992) examined self-determination by deaf people as a comparatively recent occurrence. This examination again shows the tie of deaf self-determination and Deaf culture as the recent occurrence of deaf self-determination, as analyzed by Hurwitz, was based on political activity in response to oppression by hearing people such as reactions and social movements like the Deaf President Now movement discussed later in this chapter.

A necessary part of this discussion on the deaf self is how research examining this construct often “produce inconsistent findings” (Jambor & Elliot, 2005, p.63). There are two possible reasons for this lack of consistency. The first reason comes from the wide diversity of deaf individuals’ experiences and the wide spectrum of how deafness is defined. As deaf people can be members of multiple social identities as well as being deaf, it stands to reason that determinants on this diverse group of people are inconsistent.

The second reason for this inconsistency is captured in a meta-analysis of early studies of self-esteem and self-conception in deaf people performed by Bat-Chava (1993). Bat-Chava found several confounding factors in these studies with the most influential factor being the way the study is administered to the participants. The administration of tests varies widely as some are administered via written means, others orally, and still others are administered through sign language. Bat-Chava went on to analyze later studies and found that when the administration of tests were modified appropriately, deaf individuals and hearing individuals scored equally on measures of self esteem. This finding gives some credence to the administration technique and the result of the study.

### *Focus on Group Values*

The group values of the SCM are defined as values of a collaborative leadership development process that is designed to facilitate both individual SCM values and positive social change (HERI, 1996). Studies reviewed on the group values of the SCM focus on deaf peer relationships, group processes, and interpersonal skills such as relating across and dealing with difference. Studies on relating across and dealing with difference are specifically examined in relation to the second research question of this study examining the effects multiple variables have on the variance of the leadership outcome of Controversy with Civility. This outcome is based on essentially viewing differences and dealings across difference positively and is analyzed later in this chapter.

### *Deaf Peer Relationships*

The majority of studies on deaf peer relationships are not empirical in nature but are based on conceptual writings. This is not to say that peers do not have a sizable impact on deaf students. Peers are instead studied largely indirectly toward deaf students as they are inherently a part of most higher educational research such as identity development (Becker, 1996). This section will examine deaf peer relations conceptually and majority hearing peer relations both conceptually and empirically.

Becker's 1996 chapter of "Lifelong Socialization and Adaptive Behavior of Deaf People" in the book *Understanding Deafness Socially* explicates influences of peer relationships. Specifically Becker begins by analyzing deaf peer relationships as "the elements involved in cooperating with others, in resolving conflict, and developing flexibility in relation to others" (p. 65). In this way Becker analyzes peer socialization as largely shaping Deaf identity. Becker goes on to examine that even though research on

deaf socialization and other forms of deaf community is prevalent in literature, especially in regard to institutional socialization as examined later in this chapter, specific research on deaf peer relationships is found lacking. This might be due to the inherent relational orientation of Deaf culture itself, as examined by Mindess (1999), as many times assumptions of cultures go unchecked and unstudied. It is this relational group processes inherent in peer relationships and socialization that in turn relates to the group values of the SCM.

Becker (1996) further admonishes the group values of the social change model when defining peer socialization as “a significant part of the learning process individuals undergo in becoming cultural beings and in the adaptations they make in response to cultural change over time” (p. 59). Becker’s examination of peer socialization and influence also follows the SCM’s socialization process nicely as the group values are constantly in movement toward positive social change. This peer group socialization relationship to change will be examined further below in the next section on deaf leadership studies clustered toward the societal SCM values and change.

Recent non-deaf studies by Astin (1993) in his book *What Matters in College* further asserted that peer socialization has a powerful influence on undergraduate college student development. Astin stated more specifically that “the student's peer group is the single most potent source of influence on growth and development during the undergraduate years” (p. 398).

#### *Deaf Experience with Diversity*

The fundamental absence of empirical studies on deaf diversity related topics has been well documented in deaf literature (Foster & Kinuthia, 2003; Parasnis, Samar, &

Fischer, 2005; Deaf People in Society, 1991). Foster and Kinuthia specifically address the lack of scholarship exploring the multiple identities of deaf persons above and beyond their degree of deafness. Gender is among the multiple identities often not included with deaf leadership studies (Crowe, 2003).

Understanding people who are deaf as complete individuals comprised of multiple identities is fundamentally important for any research or conceptual study in this area (McCaskill-Emerson, 2005). While some studies attempt to research deaf persons utilizing more aspects of their identities than only their degree of deafness, few have been found at the time of this thesis (Gurp, 2001; Parasnis, Samar, & Fischer, 2005). These studies, though still incomplete and not inclusive of all multiple identities comprising deaf persons, are presented below.

Gurp's (2001) empirical study on deaf secondary students' self-concept in different educational settings included gender among the other demographics collected that incorporated the variables of age, degree of hearing loss, parental hearing status, parental mode of communication, and integrated school subjects. Results of the study indicated that females reported higher reading self-concepts than males while males reported higher mathematics and physical ability self-concepts than females. Race and ethnicity were not included in these demographics.

In an attempt to collect empirical data on racial/ethnic minority deaf students Parasnis, Samar, and Fischer (2005) conducted a quantitative study and qualitative follow up study on a total of 157 deaf college students, 73 male and 84 female, at the National Technical Institute for the Deaf (NTID) at Rochester Institute of Technology. Parsnis et al. developed and administered a Campus Diversity Survey for the study. The participants

were asked to rate 32 statements on a 5-point scale with three additional items asking for descriptive answers. The response rate was 38% and the analysis of the 32 items showed a Cronbach's alpha coefficient of .89 indicating good reliability (Parasnis, et al., 2005).

Significant effects were found for race/ethnicity on some items related to campus climate and role models (Parasnis, Samar, & Fischer, 2005) indicating a need to further examine race/ethnicity in regard to campus climate. Further results indicated that racial/ethnic groups of students similarly perceived the institution's commitment and effort toward diversity, though they differed significantly on some items related to campus climate and role models (Parasnis, et al.).

With the qualitative follow up portion of the study, Parasnis, Samar, and Fischer (2005) found that many students interpreted the written free response questions about comfort levels to be about interactions with hearing persons or different kinds of deaf persons including hard of hearing and culturally deaf students on campus, rather than with others of a different race from themselves. Parasnis et al. examined this finding in the qualitative data as suggesting that within deaf and hard of hearing students were other barriers to interaction based on the level of deafness and level of comfort with Deaf culture. These barriers are analyzed further in a later section of this chapter examining the role of the institution.

There has been much conceptual literature addressing multiple identities of deaf persons (McCaskill-Emerson, 2005; Stuart & Gilchrist, 2005) in light of the lack of empirical research. These conceptual studies are examined in relation to the small amount of empirical research examined above. McCaskill-Emerson (2005) used the analogy of deafness as a common thread bringing all deaf people together into a beautiful quilt in her



chapter “Multicultural/ Minority Issues in Deaf Studies” in the conference proceedings of *Deaf Studies III: Bridging Cultures in the 21<sup>st</sup> Century*. This analogy is a poignant one when McCaskill-Emerson examines how in reality the common thread is woven much looser than previously thought and it takes much more reinforcement to make a stitch strong in this quilt. The poignancy of this analogy also comes from the application of it in regard to the well known “melting pot” or “tossed salad” analogy of North American culture.

The change that McCaskill-Emerson (2005) argues for in this quilt, and thus also for the melting pot analogy, is to move toward a fundamental recognition of difference as positive rather than negative. This is easily examined in the “tossed salad” analogy as each part sticks together due to the salad dressing but each unit/element is ultimately and positively distinct. This analogy is also seen in the group value of Controversy with Civility from the SCM. This value recognizes difference as a strength of groups that in turn push individuals, groups, and society toward positive social change (HERI, 1996). The lack of empirical research on deaf persons around this leadership value gives further reason for its inclusion of the second research question in this thesis.

Recent historical acknowledgment to this problem of dealing with difference positively during the 2005 school year at Gallaudet University and attempts at working toward educating deaf students about this problem were further examined by McCaskill-Emerson (2005). During this time President I. King Jordan noted a vital need to address diversity at Gallaudet and the strength diversity provides for Gallaudet. I. King Jordan went onto cancel classes and close down school offices to have a “Diversity Day” filled with workshops, training, and activities addressing racial and ethnic issues on campus

(McCaskill-Emerson). This recent historical example of President I. King Jordan acknowledging these issues at a flagship institution such as Gallaudet brings into the forefront the need to examine student experience with diversity and difference more thoroughly such as this study is attempting to accomplish with the specific analysis of the leadership outcome of Controversy with Civility.

Stuart and Gilchrist (2005) further examined diversity in their chapter “A Sense of Self” in the book titled *Black Perspectives on the Deaf Community*. They specifically examined the false belief of thinking that because everyone in the deaf community is deaf, then prejudice ceases to exist. This is further analyzed in literature regarding when Black deaf people might experience discrimination from both Black hearing people and White deaf persons (Cohen, Fischgrund, & Redding, 1990). Stuart and Gilchrist argued that Deafness does not erase racism just as a quilt and melting pot analogies do not erase racism in Deaf culture or North America.

These analogous and historical examinations of McCaskill-Emerson (2005) and Gilchrist (2005) relate nicely to the empirical findings of Parasnis, Samar, and Fischer (2005). Among many factors analyzed within this study, the examination of deaf student experience with discussions of socio-cultural issues specifically was chosen to help shed light on this lack of deaf literature around issues relating to difference. Furthermore, the SCM value of Controversy with Civility was selected to examine deaf student issues of relating to difference. This is in line with the work put forth by Hurtado, Milem, Clayton-Pederson, and Allen (1999) of racially diverse environments being beneficial to all students when they are properly nurtured. Included in this nurturance must be civility

across differences measured in this study using the leadership outcome of Controversy with Civility (HERI, 1996).

### *Focus on Community Values*

The community value of the SCM is defined as “the services and activities that are most effective in energizing the group and in developing desired personal qualities in the individual” (HERI, 1996, p. 19). The deaf studies clustered into the SCM value of the community include those on Deaf culture, deaf cultural identity, the concept of “social lag” (Boros & Stuckless, 1982), and citizenship and change. Critical incidents in deaf history are examined as they relate to the community values of the SCM.

### *Theoretical Frames and Research of Deaf Culture*

In a review of current literature, no empirical studies on Deaf culture were discovered. This is not unexpected due to the rather recent acceptance and confirmation of this culture in North America (Christie & Wilkins, 1997). In addition, the broad scope and definition of Deaf culture itself does not lend itself to reductionistic empirical methodologies. There is, however, strong conceptual work describing Deaf cultures worldwide (Ladd, 2003; Mindess, 1999; Padden & Humphries, 1988, 2005). The approach used by Mindess toward Deaf culture is used in this study as it best adds to the exploration of the independent variables with the broad leadership outcomes of the SCM. Mindess is a seasoned ASL interpreter with over 25 years of experience (Mindess). In her book, *Reading Between the Signs*, Mindess in collaboration with three distinguished deaf consultants, examined Deaf culture as a continuum in relation to hearing cultures. Together these authors examined Deaf culture using Mindess’ practical interpreting

experience along with anthropology, linguistics, and other related fields of study.

Mindess' approach to Deaf culture has also been used in other studies focusing on the deaf experience (Hecker-Cain, 2005; Ladd, 2003).

Mindess (1999) examined culture as learned, integrated, omnipresent, and "out of our conscious awareness" (p. 19). Furthermore, culture is the primary means of establishing group cohesion and consensus (Hecker-Cain, 2005). This is very important for Deaf persons since 90% of deaf children are born to hearing parents not familiar with sign language (Padden & Humphries, 1988) and are then not born into Deaf culture as hearing children are born into a hearing culture (Mindess). Research has also shown that for 200 years from the 1770s till the 1970s the majority of deaf and hard of hearing children were educated at residential deaf schools for five to seven days a week and were thus immersed into Deaf culture at these schools (Mindess; Padden & Humphries, 1988, 2005).

Generally, deaf children do not receive their Deaf cultural education from their parents. They rather obtain it from other peers. In this way, it is common for deaf adults to grow up possessing different cultural norms than their parents as they place more emphasis on their peer group (Ladd, 2003; Mindess, 1999). The important aspects of Deaf culture for this study are the emphasis on the peer group and the institution that plays a major role in supporting the peer group's cohesion.

Mindess (1999) also emphasizes four key elements of Deaf culture in relation to hearing culture including: (a) collectivist to individualist, (b) high-context to low-context, (c) orientation toward time, and (d) the cultural rhetoric of language. The first characteristic of Deaf culture is its collectivist orientation as compared to a more

individualistic orientation in majority culture (Mindess, 1999). Collective cultures are characterized by individual's willingness to put the group's needs before one's own, a high value placed on group cohesion, and a lack of confrontation (Mindness). This is in contrast to individualist cultures which generally promote independence and self-reliance, acceptance of responsibility of one's own actions, and an importance of personal choice and opinions.

The second characteristic of American Deaf culture is its high-context as opposed to the low-context culture of American majority culture (Mindess, 1999). The high and low context is made apparent in how much information is deemed appropriate to make explicit or should be known implicitly in a given culture and with this knowledge how tasks are approached by the culture (Mindess). In the high-context Deaf culture, communication is highly contextual by the heavy use of slang terminology and relationships take precedence over everything else (Mindess). Members of a Deaf cultural group approach tasks focusing on the process more heavily than the end result. In contrast, low-context majority cultures typically communicate clearly and redundantly as it is assumed that context is not necessarily shared with the other party (Mindess). The members approach tasks analytically emphasizing "data collection, planning, and causality" (Mindess, p. 50).

This difference in high and low context cultures may effect the ways deaf individuals focus on the process and outcome of any group activity. The SCM identifies leadership as necessarily focusing on both the process and outcome of positive social change. This change of focus from individualist cultures on the outcome more than the process to collectivist cultures on the process more than the outcome brings up possible

insights into the way high and low context cultures operate within the SCM values of leadership.

The third characteristic of Deaf culture is its polychromatic and past orientation toward time in relation to the hearing American majority culture as monochromatic and oriented toward the future (Mindess, 1999). Mindess uses the term polychromatic to mean a more contextual orientation toward time that takes in multiple reference points from the past, present, and future. This orientation to multiple reference points is very different from the more monochromatic future-oriented reference point that Mindess claims guides traditional majority American culture (Mindess). Furthermore, this polychromic and contextual orientation toward the past in regard to time is pushed by Deaf culture as on the whole deaf people are resistant to changes that affect their rich history and traditions (Deaf People in Society, 1991). American Sign Language (ASL) is a good example of this past orientation as it is necessary to focus on the past to keep ASL alive and help future generations learn about Deaf culture. This is in contrast with many spoken languages that promulgate their language and culture naturally as caregivers teach both the language and culture to the child in comparison with the deaf peer group that teaches the language and Deaf culture to the child instead of their caregivers (Becker, 1987).

This different orientation toward time in a polychromatic contextual sense as opposed to a monochromatic linear orientation may affect strongly individual and group values toward leadership. Specifically the view of creating social change as measured in the SRLS as openness to change and transition might be viewed as a forward linear time

goal in the SCM. This forward orientation toward time might account for possible differences measuring change in these cultures.

The final characteristic of Deaf culture is the culture rhetoric, or general language composition, of ASL in relation to English (Mindess, 1999). The consequence of this rhetoric is an extremely difficult translation from language to language. This translation difficultly also points out cultural differences between Deaf culture in North America and typical hearing majority culture. Specifically, when attempting to persuade someone to a point of view, English speakers most likely appeal to “expert opinion, hard evidence, and facts” (Mindess, p.64). ASL users instead persuade with the emphasis on contextual and personal truths rather than the hard evidence of expert opinion (Mindess).

This fourth element of Deaf culture may provide insight into how deaf people deal with controversy with civility and other group values of the SCM. There is also considerable insight into the interaction of different cultures and how this might lead to different leadership styles and process of leadership in a mixed collectivist and individualist cultural group.

#### *Deaf Cultural Identity Studies*

Much of the literature on deaf identity focuses on social or cultural identity and identification rather than personal identity (Corker, 1996). This echoes Mindess’ (1999) collectivist account of Deaf culture which purports a more group-oriented cultural norm. The Glickman (1993) model of cultural Deaf identity development is widely used conceptually in studies around deaf cultural identity (Cornell & Lyness, 2004; Foster & Kinuthia, 2003). This model follows a stage theory approach in that there are four stages and the individual does not necessarily have to continue through all of the stages to be

considered healthy. It is also normal for the individual to recycle through the process of the stages many times (Glickman). The four stages of this model are: (a) culturally hearing, (b) culturally marginal, (c) immersion in the Deaf world, and (d) bicultural. The first two stages are characterized by hearing reference groups while the last two stages of the model are characterized by Deaf reference groups.

Cornell and Lyness (2004) used the Deaf Identify Development Scale (DIDS) based on the Deaf identity development model presented by Glickman (1993) to examine the cultural identification of deaf student participants toward a Deaf or Hearing cultures. The participants in the study were 46 deaf and hard of hearing students enrolled in a transitional program for deaf and hard of hearing persons. The researchers split their participants into the four categorical descriptors, similar to Glickman's model, including (a) culturally hearing, (b) marginal, (c) immersed, and (d) bicultural. Results of the study indicated that bicultural participants, those who identified with both the hearing and Deaf culture, had the highest self-concept (Cornell & Lyness). The results of this study showed significant positive correlations with self concept for participants identifying as bicultural while participants identifying as marginal showed significant negative correlations with the self (Cornell & Lyness). One limitation of Cornell and Lyness' study was the lack of differentiation of scores by gender or race.

Foster and Kinuthia (2003) conducted a qualitative study with 33 deaf college students at a hearing institution who were members of minority racial groups in an effort to examine how Foster and Kinuthia think about and describe their identities. Specifically the model of identity they developed from their research in this study was a contextual and interactive model similar to Glickman's (1993) Deaf Identity Development Model.



Through their research Foster and Kinuthia suggested four factors as being central to their intra-individual model: individual characteristics, situational conditions, social conditions, and societal conditions. Individual characteristics included physical, mental, and spiritual aspects of the participant while the three other factors were defined through relations of individuals to their environment (Foster & Kinuthia). From the study the researchers made a proposition that “each person is a constellation of many characteristics, some of which are stronger than others but any of which can be drawn out in response to a particular set of conditions” (p. 286). This resulted in a “fluid” and “responsive” model of identity (p. 286). This model further set the individual’s identity contextually and situationally into circumstances affecting the multiple possible factors of any situation (Foster & Kinuthia). A biological component was added to the model to reflect the changes to an individual over time (Foster & Kinuthia).

These four factors presented by Foster and Kinuthia (2003) follow closely the SCM individual, group, and societal values with an emphasis on change with the biological added factor to the model. The researchers also follow the contextual necessity of Mindness (1999) definition of Deaf culture as each factor is wedded to another, rather than one factor standing out individually.

#### *Deaf Social Lag, Citizenship, and Change*

The deaf studies clustered into the SCM citizenship and change values include those focused primarily on conceptual examinations of the implied social and civic responsibility of the value of citizenship that leads to positive social change. Deaf culture and deaf history both have specific relationships with the value of citizenship as examined by Boros and Stuckles (1982) and Becker (1996) in the concept of “social lag.”

This concept from deaf conceptual studies will be analyzed in this section in regard to the SCM value of citizenship and change. Studies on deaf peer relationships and diversity relations and appreciation will also be analyzed.

Historically, deaf people have rarely been in step with current societal forces leading to change in North America (Boros & Stuckless, 1982). This is apparent in how deaf people have only recently been active with other organizations of persons with disabilities to promote and pass the 1973 Rehabilitation Act as well as the Americans with Disabilities Act of 1990 (Deaf People Society, 1991) that was spurred on by the Deaf President Now (DPN) civil rights movement occurring in 1988. These monumental events for Deaf culture and deaf civil rights are lagging comparably 15-25 years behind racial and gender civil rights movements in America. Boros and Stuckles have labeled this aspect of deaf society typically lagging behind the hearing majority society in their response and adjustment to social change as “social lag.”

There are four implications of this “social lag” concept that are particularly relevant to this study. The first is examining why deaf people are “socially lagging” behind the hearing majority in relation to the previous examination of Deaf culture in this study being collectivist rather than individualist. Social lagging might for a collectivist culture be necessary for an emphasis on community consensus rather than more individualist style of making choices that might not take as long to take action. In this respect, the lagging behind of the Deaf culture collectively might be something that the majority individualist society should attempt to combine into its own cultural trends. These paradigms should be analyzed more closely.

The second implication of “social lag” being attributed to deaf people is in how deaf students deal with change as defined by the SCM. Boros and Stuckles (1982) attempted to stipulate in their conceptual study that this social lagging typically means that deaf students do not deal well with change or that change is instead something always dealt with by deaf people in a more collective “lagging” fashion. This stems into the third implication being that if change is so integral to the modern usage of leadership in this study, as examined in the SCM, and it is identified in an individualist sense, then there is greater importance given to finding out the deaf students scores on the broad leadership outcomes of this study that are from the SCM.

Possible questions inherently arise about the suitability of using the SCM with a collectivist Deaf culture rather than the individualist majority hearing culture when the possibility that the SCM was created using individualist majority hearing cultural values comes to light. The forth and final implication is seen when examining that if deaf students truly do lag behind in their responses to change, then this model should accurately show this as change is the fundamental part of this model.

Becker (1996) addressed “social lag” in the chapter entitled “Lifelong Socialization and Adaptive Behavior of Deaf People” in the book, *Understanding Deafness Socially*. Becker examined how deaf people deal with and overcome “social lag” through peer relationships. This is also in line with Higgins and Nash (1996) as they also note that the peer learning process has a diminishing effect to the sensory and social learning deficit deaf people experience. In this way, current events and recent news are passed through peer relationships rather than heard over the radio or through overhearing other casual conversations when in public places that hearing people utilize as a learning

process. Higgins and Nash further examined how peer learning might have significant consequences to how deaf people deal with change. This lends credibility to the influence peers have on deaf students in the college setting as well as how the college setting influences peer relationships.

Furthermore, as most deaf people are not socialized by their parents, the unique mixture of socialization and education occur together for most deaf people who are now adults. This is a defining mixture of peer socialization while mostly in a deaf majority educational setting (Becker, 1996). This also shows the importance the institutional climate has for deaf students and the importance of examining this variable in this study.

The concept of “social lag” (Boros & Stuckles, 1982) in Deaf society has particular relevance to the “hub” variable of change in the SCM. The primary emphasis of the Social Change Model, creating positive social change (HERI, 1996), draws new importance for those who are deaf when deaf and hard of hearing students have been analyzed as struggling and socially lagging in the area of social change (Boros & Stuckless, 1982). Moreover, this research study examines openness to change and comfort with transition in the first research question by incorporating the outcome measure of Change into the analysis.

### *Critical Incidents*

Four crucial incidents in deaf history are briefly examined in regard to their influence on Deaf culture, research, and scholarship. The first of these incidents is the Milan conference in the 1800s. This was an excruciating step backward for Deaf culture as oralist educators almost eradicated the possibility of Deaf culture being passed down through schools by seeking to best educate deaf and hard of hearing students using

pedagogy that would stop forms of sign language from occurring in classroom education. This event almost dissolved what little Deaf culture already existed. It also, however, was crucial for deaf people in promoting the idea of preserving the past to pass down Deaf culture and American Sign Language from one generation to the next. As already examined, this focus and orientation toward the past is still very prevalent in deaf persons today (Mindess, 1999).

The second critical incident further emphasizes historical oppression and dependence of deaf persons by oralists and other well intentioned hearing public. This dependence and oppression is examined in a 1960s linguistic analysis of American Sign Language (ASL). This analysis was undertaken by the hearing public and for the first time made ASL, in a sense, *real* (Christie & Wilkins, 1997). For such an analysis to have been made by the hearing public shows the amount of dependence deaf persons had on the hearing world based on the necessity for the hearing public to affirm ASL as a language. This dependence was also influence through oppression deaf persons faced everyday from oralist and other well meaning educators . The reasoning behind many oralist educational claims was made known in their belief that deaf student education should not involve the use of sign language and should instead work toward being as oral as possible. Sign language in this sense was originally thought to be a hindrance to education of the deaf.

The third and fourth historical incidents were the 1973 Vocational Rehabilitation Act and the 1988 Deaf President Now (DPN) movement. Both of these civil rights related historical events happened relatively late in history when compared to other civil rights movements in North America (Boros & Stuckless, 1982). Despite their recent occurrence,

the influence of these events is widespread. The 1973 Vocational Rehabilitation Act, specifically section 504 of the act that was passed in 1978, required all businesses, colleges, and organizations with federal contracts or that received federal funds to be open and accessible to persons with physical impairments. The DPN movement also marked the first deaf president of Gallaudet University and further prompted the 1990 American with Disabilities Act (Deaf People in Society, 1991). Both of these movements when viewed in the context of Deaf culture are vital to the hearing world opinion and experience of deaf persons and thus vital to Deaf culture. Specifically, the DPN movement served as an “indirect catalyst in that the whole nation as the world watched a group of so called ‘disabled’ people rise as one and demand what they believed was rightfully theirs: the right to determine our own destiny under the leadership of our own able deaf leaders” (Deaf People in Society, p. 93).

#### Impact of Institutions in Development of Deaf Identity and Culture

The role of the institution is examined in this study as a key variable. Specifically, the concept of mainstreaming deaf students in hearing environments and studies of mainstreaming experiences will be discussed.

#### *Importance of the Institution*

The importance of the institution for deaf persons is first seen in its role as a place for socialization. Becker (1987) noted how most deaf persons who are adults were socialized in an institution. This is in contrast to most hearing persons being socialized in the home and educated at an institution. Much of the significance of the institution with deaf persons stems from the common communication barriers deaf persons face with

their parents (Becker). These communication barriers create a void of parents socializing a child and the institutional groups fill this void. This difference in socialization is seen as many deaf persons perceive the groups they form in the institution as their “surrogate family” (Becker, p. 63).

Multiple studies also note how the institutional environment contributes to the formation of and construction of identity (Astin, 1993; Brown & Foster, 1989; Foster & Brown, 1988; Grotevant, 1992; Higgens & Nash, 1982). The institutional setting has also been shown to have significance toward the self-concept of deaf secondary students (Gurp, 2001) as examined previously in this chapter. Further studies (Bat-Chava, 1994) show that the ecological context that deaf adults live in affects their identification with their group and this in turn has a positive effect on their self esteem. According to Jambor and Elliot (2005), a number of studies indicate that college students derive their self-esteem from those life domains they rate as most important. Institutional life domains for deaf students in particular are vital to study for these reasons.

### *Mainstreaming Practices*

The primary research about deaf students in institutions focuses on mainstreaming practices of deaf students in hearing institutions. Leigh (1999) defined the mainstream experience of the deaf student as the extent of participation within an interpersonal context that consists of a variety of factors including communication skills, personality, and level of assertiveness. This mainstream experience is not uncommon as most deaf and hard of hearing students are educated with their hearing peers in public schools (Anita & Stinson, 1999). Anita and Stinson draw attention to the academic and social integration outcomes for these students as being far from stellar.

Leigh (1999) further examined the philosophy of inclusion of mainstreaming as, “presupposing that increasing the extent to which deaf students are mainstreamed increases the likelihood that they will identify with hearing peers” (p. 237). The political nature of this inclusive philosophy will be briefly examined as multiple studies of deaf students on mainstreaming are politically guided (Leigh).

### *Political Aspects of Mainstreaming*

The political aspects of mainstreaming are similar to previously discussed political aspects of Deaf culture and other common issues. Leigh (1999) noted different labels deaf students use that bring about different understandings of similar phenomena. These labels include “hearing impaired,” “hard of hearing,” “deaf,” and “Deaf” and all convey meanings about perceptions of hearing and deaf persons. Leigh further analyzed how persons who label themselves ‘hard of hearing’ might have lower hearing when actually tested than other peers who label themselves as ‘Deaf’, but they also create the perception that they lean more toward interacting through spoken communication with hearing peers. On the other end of the spectrum deaf students who label themselves as “Deaf” might create the perception that they are more inclined to use sign language and other forms of communication with hearing peers. These two labels used by students show the different attitudes deaf students might have in the inclusive philosophy of mainstreaming deaf students with hearing students.

These different attitudes of students toward mainstreaming are also seen subtly in research done on mainstreaming. Higgins and Nash (1982) noted in their book *The Deaf Community and the Deaf Population* how deaf students are cut off from full participation inside and outside of the classroom. Multiple other studies (Brown & Foster, 1989; Foster



& Brown, 1988) suggest a parallel social structure of deaf students to hearing students allowing for deaf students to be examined as fully participating in the deaf social structure instead of being cut off from being examined as fully participating, as Higgins and Nash concluded, when not being equally participative in the hearing social structure.

Higgins and Nash (1982) also noted how individual students' variability in hearing loss affects their access to social resources in hearing society differently. It is these different social resources that might be attributed politically to the differences in labeling suggested by Leigh (1999) as well as different views deaf students have toward mainstreaming with hearing students.

Leigh's (1999) qualitative open-ended questionnaire study on mainstream educational and personal development of 34 deaf and hard of hearing adults showed further possible political ramifications of the "philosophy of inclusion." (p. 237). Leigh's participants ranged in age from high school to senior citizens and were selected from The Oral Hearing Impaired Section (OHIS) of the Alexander Graham Bell Association for the Deaf (AGB) mailing list. Leigh noted that these participants typically depend on speech as their preferred mode of communication. Furthermore, Leigh noted how the national organization that the participants are a part of supports an auditory approach. This is an approach to deaf education that supports the principle that with early intervention and consistent training most deaf children can be taught not only to speak but to listen and generally develop their hearing potential. The primary goal of this approach is for deaf students to be able to participate fully in the hearing mainstream society. Following the labeling discussion previously, these deaf students would most likely label themselves as hard of hearing rather than Deaf as auditory approaches do not typically support a Deaf

cultural view of education emphasizing sign language. Typical with this view, Leigh noted that the participants did not choose any Deaf cultural labels as this “would be expected of AGB members” (p. 242).

Results of the study indicated that supportive school environments and coping skills of the students contributed to positive perceptions of the mainstreaming educational experience and personal development (Leigh, 1999). Further results of Leigh’s study included the finding that 24 of 34 participants “felt caught between the deaf and hearing worlds” (p. 236). Leigh examined this as an indication that these 24 participants needed niches in both worlds.

Kersting (1997) qualitatively studied the experience of 33 deaf students with little or no experience with Deaf culture and sign language mainstreaming in a hearing university. The findings were similar to Leigh’s (1999) study. Deaf students who did not have a firm foundation in sign language and Deaf culture needed particular programs and services to help them transition into a mainstreaming environment. It was difficult for them to relate to deaf students at the university who were familiar with Deaf culture and sign language as well as other hearing students at the university. Deaf culture and political views of Deaf culture held by the participants in these studies are examined as primary factors of the institution and its role in the development of students.

### *Academic and Social Aspects of Mainstreaming*

Multiple studies examine mainstreaming of deaf students into hearing environments through the lens of academic and social mainstreaming (Brown & Foster, 1989; Foster & Brown, 1988; Gulp, 2001; Stinson, Liu, Saur, & Long, 1996). This examination of the institutional environment including both inside and outside classroom

learning experiences follows a current trend in scholarship on general learning as well as specific leadership development in higher education. This section focuses on different forms of learning inside the classroom as well as the nature of outside the classroom and social forms of learning in studies on mainstreaming.

Stinson, Liu, Saur, and Long (1996) conducted qualitative and quantitative studies on the deaf college student perception of communication in mainstream classes. Included in the study were 50 male and female participants ranging in age, degree of hearing, and reading level. Each participant completed a Classroom Communication Ease Scale for the quantitative portion of the study with results classified into speech-only and mixed communication groups for the demographic measures (Stinson et al.). It is important to note possible limitations of the analysis of this study concerning the absence of racial/ethnic demographics as an additional demographic variable of the study. For the qualitative portion of the study 11 of the 50 participants were interviewed and their comments were analyzed.

The results of both quantitative and qualitative portions of the study (Stinson et al., 1996) indicated communication needs of cross-registered students in one postsecondary institution to vary greatly. Stinson et al. noted that this presents a considerable challenge for support services to serve these various needs particularly for students within the same classroom. The results of Stinson et al.'s study further showed the "apparent unease in the mainstream classroom of deaf students who had preferences for a variety of communication methods" (p. 49). This demonstrates both the difficulty deaf students have in obtaining the different educational support for communication needed in class and the difficulties present in the multiple types of on going

communication of in-class learning environments. These areas of the in-class learning environment are further analyzed conceptually by Stinson et al. and examined qualitatively by Foster and Brown (1988).

In an examination of deaf mainstream literature, Stinson et al. (1996) noted that deaf students in mainstream classes experience a gap between ongoing classroom discussion and their personal comprehension of it. This gap occurs when an interpretation must first be made of the classroom dialogue by the interpreter for the deaf student and then this interpretation must be given to the student. This process gets increasingly difficult for the interpreter and deaf student to follow as the learning environment switches from formal to less formal.

Foster and Brown (1988) studied the social and academic aspects of mainstreaming from the perspective of deaf college students with in depth, open-ended interviews of 20 deaf students attending Rochester Institute of Technology. The participants were 11 males and 9 females representing 16 different majors. Previous experience in mainstreaming for the participants included seven participants having mainstreamed in regular classes in high school, six participants having attended high schools for the deaf, and seven participants having limited mainstreaming experience in high school with most classes being for the deaf.

Similar to Stinson et al.'s (1996) examination of the deaf student mainstream classroom experience, findings from Foster and Brown's (1988) study included positive experiences in studying with hearing peers in class while also experiencing a sense of separateness through not being able to fully participate in the classroom. This separateness was further examined by Foster and Brown in findings of interpreters

helping students access formally presented information, though informal classroom interactions were less formally presented. Formal instruction was defined in the study as mainly coming from the instructor while informal instruction came from classroom discussions (Foster & Brown). Foster and Brown highlighted the institution's role in perpetuating this separation learning. Support for formal education through interpreters and other support services are often provided for students at the institution, while access to informal education is often not.

Foster and Brown's (1988) study also demonstrates that both deaf and hearing students experience parallel social networks while mainstreaming. Specifically, the participants in this study compared friendships with deaf peers to hearing peers as more in depth, higher quality, and having more endurance. Friendships with hearing peers were reported by participants in the study as few and far between in comparison to other deaf peers (Foster & Brown).

From these parallel social network findings Foster and Brown (1988) identified that the physical presence and proximity of deaf and hearing students did not insure interaction between the groups. These findings highlight the fallacy of the philosophy of inclusion, which suggests that mainstreaming increases the likelihood that deaf students will identify with hearing peers (Leigh, 1999). Hurtado et al. (1999) have found similar findings in literature on diversity through examining multiple studies and literature. These findings indicate that further institutional supports are necessary to achieve mainstreaming for any diverse group (Hurtado et al.).

Gurp's (2001) quantitative study of educational settings on the self-concept of deaf secondary students further shows the relevance of academic and social factors of the

institution to mainstreaming. Gurp utilized the Self-Description Questionnaire-I that was linguistically modified with sign language video tapes and produced for the 90 participants of the study. Participants were deaf secondary students from three school settings including segregated schools with classes for hearing only and deaf only students, congregated schools with classes more slightly integrated than the segregated schools, and resource programs in mainstream schools that provided segregated deaf only and hearing only settings as well as opportunities for integration among the students (Gurp).

The demographics collected for the study included age, gender, degree of hearing loss, parental hearing status, parental mode of communication, and integrated school subjects. The absence of racial/ethnic demographics is a significant limitation of this study. Findings from the study confirm other research findings that suggest there were academic advantages in attending the more mainstreamed resource programs and social advantages in attending the more segregated school environments.

As many of the mainstream studies already analyzed focused on the deaf student experience and perspective, Brown and Foster (1989) examined hearing student perspective of mainstreaming in their qualitative study. In depth, open-ended interviews were conducted with 30 students at the Rochester Institute of Technology that has optional enrollment of the National Technical Institute for the Deaf and mainstreams many deaf students into hearing courses. The participants were 15 female and 15 male students representing 21 different majors at RIT and representing many different types of living environments. Of these 30 participants 29 had taken one or more classes with deaf students and 14 had lived in mainstreamed residence halls.

Similar to findings of the deaf student experience (Foster & Brown, 1988), Brown and Foster (1989) found that the hearing participants generally felt positive toward having deaf students in class, though felt that their interactions with these students got increasingly harder in less formal and less structured situations. Brown and Foster further found that general academic acceptance by hearing participants of deaf peers was not furthered in social settings outside the classroom. Similar to the deaf perspective of the social context of mainstreaming, hearing students experienced both hearing and deaf students forming parallel social networks and joining separate clubs. Overall findings indicated that hearing students' perceptions varied across academic and social domains with a general experience of deaf students having similar competencies and successes as hearing students academically and less competence as hearing students socially. This again mirrors earlier research of academic and social aspects of mainstreaming.

### Leadership

Leadership has been deemed by one scholar as, “one of the most observed and least understood phenomena on earth” (Burns, 1978, p.2). This lack of understanding and assessment is apparent in the countless forms of leadership development used in practice in higher education today that are not tied to existing models of leadership development supported by research (Dugan, 2006b). Due to the plethora of models in practice, there is a current assessment void of these models on a national scale. Despite this void, research indicates that students are increasing their leadership skills during their college years (Pascarella & Terenzini, 2005). These increases are seen in their academic performance, civic engagement, self-efficacy, and character development (Fertman & Van Linden, 1999; Komives, Owen, Longersbeam, Mainella, & Osteen, 2005; Sipe, Ma, & Gambone,

1998; Van Linden & Fertman, 1998). These increases are further evidence that assessment on a national scale should be done on these models to either verify practitioners' current efforts for increasing student leadership or help guide these efforts in a better direction.

### *Historical Perspectives*

The broad phenomena of leadership is currently centered in one paradigm known as the post-industrial paradigm of leadership used currently by many leadership scholars and practitioners. (Kezar, Carducci, & Contreras-McGavin, 2006; HERI, 1996; Rost, 1991). Rost presents the evolution of leadership from the industrial paradigm to the current post-industrial leadership paradigm used in the theoretical model of this study. This evolution starts from as late as the 1800s in which an industrialized model of leadership was serving North America and many other nations (Rost). This perspective suggests that a leader is one person in a group who wields the power for the group. In this paradigm, leadership is actually good management. Following many revolutions in Eastern Europe, countless leadership scholars and practitioners saw the need for a paradigm shift in leadership toward a post-industrial paradigm of leadership (Rost).

### *New Leadership Paradigm*

This post-industrial paradigm of leadership was essentially relational in comparison to the "one leader per group" mentality of industrial leadership that was currently in use throughout the world (Rost, 1991). Rost outlined four essential elements of leadership from this paradigm including (a) The relationship is based on influence, (b) leaders and followers are the people in this relationship, (c) leaders and followers intend



real change, and (d) leaders and followers develop mutual purposes. These elements will be further examined and explored in the Social Change Model of Leadership Development (SCM) that exemplifies this paradigm shift in leadership later in this chapter.

Although the post-industrial model was not labeled until 1991 (Rost), the shift began with such ideas as the reciprocal model of leadership in the 1970s. The main focus of this model was on the relationship and interaction of the leader and follower seen as collaborators in the leadership process (Komives, Lucas & McMahon, 2007). This interaction is specifically reciprocal and relational in that the follower's contributions are just as significant as the leader's. This model of reciprocal leadership includes several theories which will be briefly examined in order to better place the SCM in its current context including Burns' transactional and transformational leadership models and authentic leadership (Burns, 1978).

Burns' (1978) transactional and transforming leadership models further utilize the leader-follower reciprocal model by demonstrating two different dimensions that the leader-follower interaction can take. These interactions will be examined first in terms of how power is dealt with in the leader-follower relationship and second through examining what motivates the relationships (Komives et al., 2007).

In examining how power is dealt with in the relationship, Burns (1978) defines transactional leadership as occurring when "leaders approach followers with an eye to exchanging one thing for another: jobs for votes, or subsidies for campaign contributions" (p. 4). In contrast, Burns defines the transforming leader as one that "looks for potential motives in followers, seeks to satisfy higher needs, and engages the full

person of the follower” (p. 4). These definitions show the dissimilarity of the interaction of power held by the leader and follower from the two different dimensions of the leader-follower interaction. In transactional leadership, power is viewed more from the standpoint of “counterweights” as the follower and leader both wield power in order to exchange it for their own imperatives (p. 20). Power is dealt with differently in transformational leadership as it is viewed as “mutual support for a common purpose” (p. 20).

When further examining these models through the lens of what specifically motivates the relationship, the “counterweights” of transactional leadership are expressed when a political leader makes a promise to followers in order to receive votes for office (Komives et al, 2007, p.20). These votes are then given to the leader because of the followers’ own self-interests in the leader’s promises as opposed to common moral ideals that guide a transformational leadership relationship. Gandhi’s relationship with his supporters and followers exemplifies the transformational leadership relationship (Komives et al., 2007). This relationship is further seen in the end goal of transformational leadership being that “both leaders and followers raise each other to higher ethical aspirations and conduct” (p. 43).

Authentic leadership subsequently follows Burns’ (1978) transactional and transforming leadership as it further incorporates ethics with transforming leadership in addition to Burns’ general push toward ethical leadership (Avolio, Gardner, Walumbwa, Luthans & May, 2004). Avolio et al. noted that when examining what makes an authentic leader authentic, the behavioral leadership style does not reveal authenticity as much as if the leader acts on his or her personal deep seated values and convictions. In this way,

followers recognize the leader as authentic and proceed to similarly act on their own deep seated values and convictions in the leader-follower relationship (Avolio et al.).

### Social Change Model

The Social Change Model (SCM) was developed by a 15 person “working ensemble” starting in the Fall of 1993 (HERI, 1996). This ensemble was made up of five University of California Los Angeles (UCLA) staff and ten leadership specialists from across the country. This work was stimulated by UCLA’s Higher Education Research Institute receiving a grant from the Eisenhower Leadership Development program of the US Department of Education. This grant was to fund a project to create a developmental model of undergraduate college student leadership with a specific interest in promoting change (HERI).

Much of the conceptual basis for the SCM was based on current leadership studies as well as studies on college undergraduates (HERI, 1996). Specifically, Astin and Leland’s (1991) national study of 77 successful woman leaders, *Women of Influence, Women of Vision: A Cross-generational Study of Leaders and Social Change*, was used as a basis from which many insights for the SCM were drawn (HERI). The insights drawn from this study and others are easily seen when examining the six basic premises of the SCM:

1. This model is inclusive of all participants. It is designed to enhance leadership of both participants currently holding a formal leadership position as well as those that are not. The process itself is also inclusive and seeks to engage everyone that wishes to contribute.
2. The concept of leadership is viewed as a process rather than a position held.

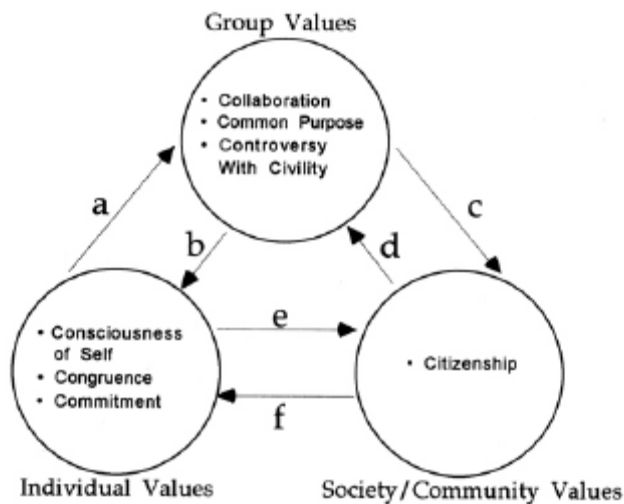
3. The model is value-based and explicitly promotes equity, social justice, self-knowledge, personal empowerment, collaboration, citizenship, and service.
4. The model views learning as happening when making meaning of life experiences. To this end service is used as a primary life experience from which to learn.
5. The model is designed to assist both professionals in the field of student affairs as well as faculty, academic administrators, and students who also work toward leadership development.
6. The model is looked on as a living model as different institutions are urged to make modifications in accordance with their institutional missions and the model itself is open to regular revision based on the experience of those using it (HERI, p. 18).

These basic premises form the explicit seven core values of the model which interact at individual, group, and societal levels and together contribute to the eighth value of change (Astin, 1996; Dugan, 2006a; HERI, 1996). It should be noted that the “working ensemble” that created the SCM felt strongly that “any educational program is inevitably based on values, and that there is a need to embrace common human values such as self-knowledge, service, and collaboration to guide our common civic agendas” (HERI, p. 16). These values are further designed to make the maximum use of students’ community peer groups in relation to their own individual leadership competence as well as to maximize the principles of equality, inclusion, and service (HERI).

The model has two primary goals. The first goal is to enhance student learning and development through self-knowledge and leadership competence. The second goal is to

undertake actions that will help the institution or community using the model to function more humanely and effectively and create positive social change. As already stated, the model is based on creating positive social change through collaborating three perspectives of leadership development including the individual, the group, and society. The leadership development of these three perspectives is based on promoting eight values that are as examined below with their direction and meaning in Figure 2. These values are split into the three different perspectives with the individual values including Consciousness of Self, Congruence, and Commitment, the group values including Collaboration, Common Purpose, and Controversy with Civility, and the Community/Societal values including Citizenship with the entire leadership developmental model undergirded by the value of Change.

Figure 1: *Social Change Model of Leadership*



Note. From A social change model of leadership development guidebook, by A. W. Astin, H. S. Astin, K. C. Boatsman, M. Bonous-Hammarth, T. Chambers, L. S. Goldberg, et al., 1996, Los Angeles: Higher Education Research Institute.

### *Individual Values*

The individual values of the SCM are the personal qualities leadership educators are attempting to foster through leadership development activities. These qualities support group functioning and promote positive social change (HERI, 1996).

#### *Consciousness of Self*

Consciousness of Self is used in the SCM as a call to increase self awareness. This self knowledge is better examined when split into two related factors, the stable personality of the individual and the ability of the same individual to be self-aware and observe his or her current actions and state of mind. These two related factors are essential to leadership as one must be able to examine his or her own thought processes and paradigms to best work collaboratively in a group. Consciousness of Self is also necessary for one to be able to develop a consciousness of the other (HERI, 1996).

#### *Congruence*

The value of Congruence is a logical continuation of the Consciousness of Self. Through self knowledge individuals become aware of their “most deeply felt values and beliefs” and can then decide if they want to consistently act on these values and beliefs and thus be congruent despite their surroundings (HERI, 1996, p. 22). If the individual decides not to act or change deeply set values and beliefs because surroundings, then the individual is not being congruent and the possibility of ultimately creating positive social change is limited. Fully understood congruence brings about a feeling of wholeness and authenticity in the individual as understood through the SCM (HERI, 1996).

### *Commitment*

Commitment is the intensity of time and duration the individual puts towards carrying out values that the individual is both self aware of and congruent with through different situations. Depending on the social change the individual is attempting to effect, commitment might become more intensive or less intensive for the duration of the commitment. The SCM further defines commitment as not a value that can be delegated, but must come from within the group members themselves (HERI, 1996).

### *Group Values*

The SCM defines group values as stemming from a collaborative leadership development process. These values are designed to facilitate the SCM individual values and promote positive social change (HERI, 1996).

### *Collaboration*

Leaving the individual values of the SCM and moving onto the group values, collaboration is examined in the SCM as a “central value that views leadership as a group process” (HERI, 1996, p. 48). Collaboration is central as it takes advantage of the individual values of consciousness of self, congruence, and commitment that the group members have and use within the group setting. The group process is effected by collaboration in the way “people value and relate to each other across differences in values, ideas, affiliations, visions, and identities” (Astin & Astin, 2000, p. 37).

### *Common Purpose*

The values of collaboration and common purpose are closely related as the purpose that the group commonly agrees to is given shape and direction by way of the group’s collaborative efforts (HERI, 1996). Common purpose is achieved when working

with others within a shared set of aims and values (HERI). Furthermore, the value of common purpose is “best achieved when all members of the group share in the vision and participate actively in articulating the purpose and goals of the group’s work” (HERI, p. 55). Among all of the other values of the SCM, common purpose is looked on as the “bridge” value as it can bridge individuals within a group and groups within a society and community (HERI). The value of common purpose also helps the group sustain itself during the inevitable times of controversy within the group process.

#### *Controversy with Civility*

This value examines controversy as inherent in any group process as well as the viewpoint that this controversy can be aired beneficially within the group (HERI, 1996). Different paradigms are expected and encouraged in any group setting and the SCM values dealing with these different paradigms civilly so as to promote common solutions. Through treating controversy civilly, group members are then able to act with congruence with their self knowledge and collaborate with others toward the common purpose of the group. Controversy with civility is not a competitive encounter with individual group members, but is instead an encounter of difference that “produces positive outcomes from controversy” (HERI, p. 60). As examined above, this value is further analyzed in this study through the second research question examining how much variance of this leadership value, and outcome of this study, is explained through selected variables.

#### *Society/ Community Values*

The community value of the SCM combines both the individual and group values of the SCM in that it is the most effective actions that energize groups and develop



desired individual qualities (HERI, 1996). This value also promotes positive social change.

### *Citizenship*

The value of citizenship is inherently viewed in the SCM as an anchor of the model “in all forms of community and society of which the leadership development group is a part” (HERI, 1996, p. 65). This anchor is seen in the value as it has an implied social and civic responsibility by the way it utilizes the individual and group values in the model. This responsibility is necessary to truly create positive social change from the model as well as to create socially responsible citizens of any institution of higher education and society. Taking this developmental lens of the SCM further, “the SCM can, in many respects, be viewed as a means for providing students with direct experience in ‘participatory democracy’ and with an opportunity to experience ‘citizenship in action’” (HERI, p. 67).

### *Change*

The “hub” of these values examined above is change (HERI, 1996). In this way, the value of change gives meaning and direction to the individual, group, and society/community values of the SCM (HERI). Positive social change is necessary for effective leadership to occur. Negative social change implies an absence of leadership as defined by the SCM.

This section has focused on the Social Change Model that forms the theoretical model of this study. It becomes readily apparent how intertwined the values of the SCM are as one value is necessarily joined to the next. The next section will focus on assessing these values of the social change model.

### *Assessing the SCM*

The SCM is assessed using Dugan's (2006c) Socially Responsible Leadership Scale Revised-2 (SRLS-R2). This instrument is based on Tyree's (1998) development of the Socially Responsible Leadership Scale (SRLS). The SRLS will be examined in this section along with studies utilizing the SRLS and SRLS-R2 used for this study.

#### *Development of the SRLS*

Tyree (1998) developed the Socially Responsible Leadership Scale (SRLS) to operationalize the Social Change Model. Tyree had three goals in mind when creating the SRLS: one, to provide a measurement of leadership that was not leader-centric, two, to measure the link between leadership and social change, three, to make an easily available and affordable leadership measure (Tyree). The third goal in particular brings out the positive social change Tyree was attempting to contribute with the creation of the SRLS instrument. More information on this instrument as well as the SRLS-R2 is provided in the Instrumentation section of Chapter III. The SRLS has been used in multiple research studies (Dugan, 2006a; 2006b; Haber, 2006; Meixner, 2000; Smist, 2006) and has been shown to accurately operationalize the SCM, which gives ample reason for its use in this study. Included in these studies are unpublished thesis studies by Meixner, Haber, and Smist.

Dugan (2006b) utilized the SRLS with a brief involvement questionnaire to examine research on leadership and involvement. The study was conducted with undergraduate students in a large western doctoral granting institution. In total, 100 undergraduate classes were randomly selected with 60 classes giving permission to administer the survey amounting in 859 completed instruments out of a possible 912

administered surveys. Institutional demographics of undergraduate students were accurately reflected in the respondents (Dugan).

A MANOVA was used for the principal analysis examining the mean differences across the eight SCM constructs based on the status of involvement (Dugan, 2006b). Significant differences in mean scores were revealed using the MANOVA between involved and uninvolved students. Further univariate results indicated different types of involvement were associated with different SCM scores. Among the types of involvement examined in the study, community service was the most influential (Dugan).

Haber's (2006) study on cocurricular involvement, formal leadership roles, and leadership education was conducted using data from the Multi Institutional Study of Leadership (MSL). These data were collected from a random sample of 3,410 undergraduates at the University of Maryland (Haber). Results of the study included gender differences as female students scored higher than male students on five of eight SCM leadership outcome measures. Using the I-E-O model of college impact, the variable of involvement in student organizations was the most common environmental variable that was shown to be significant for the leadership outcomes in the study (Haber). A limitation of Haber's study includes the problem of not using a true I-E-O design. This occurred because the data were gathered at one point in time rather than as a longitudinal study surveying students for each part of the I-E-O design at different points in time.

Further studies reflecting the usage of the SRLS as an operationalization of the SCM include Meixner (2000) and Smist (2006). Meixner examined sex differences with the SRLS in undergraduate students' self-perceptions of socially responsible leadership

outcomes. Consistent with both of Dugan's (2006a, 2006b) studies, Meixner's found the highest outcome measure to be commitment and the lowest outcome measure to be change. Smist examined the relationship between students' self-perceived citizenship and community service involvement with curricular and cocurricular community service (Smist). Similar to Haber's (2006) study, Smist used MSL data collected at the University of Maryland from 1,205 undergraduate student responders. The key finding of Smist's study indicated that increased undergraduate experiences with community service significantly raised participant scores on the outcome measure of Citizenship (Smist).

### Summary

This chapter has provided the theoretical basis for this study through an analysis and review of pertinent literature and research. Specific topics including deaf identity, peer relationships, experience with diversity, and deaf culture were summarized vis a vis the Social Change Model's theoretical components of individual, group, and society. An introduction to leadership theory, the Social Change Model, and the Socially Responsible Leadership Scale was also offered.

## Chapter III: METHODOLOGY

This chapter provides the methodology used in this research study. The parts of the methodology examined in this chapter include the purpose, design, conceptual framework, participants, instrumentation, variables, procedure, and data analysis.

### Purpose

The fundamental purpose of this study was to examine the influence of institutional type on leadership outcomes for deaf students. A specific interest in the outcome of Controversy with Civility was examined after controlling for pre college inputs and environmental influences including gender, deaf or hearing institutional serving type, mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college.

Stated in the null, the study's hypotheses are:

Hypothesis 1: There are no differences in deaf undergraduate college students' socially responsible leadership outcomes scores based on institutional type (i.e., deaf or hearing serving institutional types) or gender.

Hypothesis 2: Gender, deaf or hearing institutional type, mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college do not independently or collectively contribute to male and female deaf undergraduate students' socially responsible leadership outcome of Controversy with Civility in deaf serving institutions and hearing serving institutions.

Both hypotheses were stated in the null as the researcher was unable to identify sufficient research to develop directional hypotheses. In addition, much research surrounding these variables for this study has been shown to be highly variable and inconsistent in findings.

### Design

This study is quantitative in nature and uses data obtained through the Multi-Institutional Study of Leadership (MSL). The MSL was a national leadership study sponsored by the National Clearinghouse for Leadership Programs and the University of Maryland College Park. Fifty-two institutions comprised the national sample and were chosen to best represent a variety of institutions including geographic location, focus (such as Historically Black serving institutions, Deaf serving institutions, women's colleges), Carnegie type, and differences in both curricular and cocurricular student leadership programs offered.

This thesis examined the national data gathered by the MSL on deaf college students with specific regard to Gallaudet University as it is the nation's only liberal arts university for the deaf as well as the only specifically deaf serving institution in the national study. Three specific reasons were taken into consideration for this selection of nationally deaf students and deaf students at Gallaudet for this study. The first reason stems from the quantitative nature of this thesis and the national data on deaf students available from the MSL. Similar to many other minority groups across North America, few quantitative studies have been undertaken or have even been possible in regard to studying deaf students because of low sample sizes. This thesis took advantage of the working sample size of deaf students available from this national study. The second

reason this thesis took deaf students and Gallaudet specifically into consideration stemmed from the personal relationship this researcher had with staff and students at Gallaudet, thus enabling the researcher to have greater access to the MSL data gathered at this institution. The third reason for use of this data set is the central place Gallaudet serves in the Deaf community and world and the primary importance leadership has played recently at Gallaudet. Though this research was not conducted at the time of the protests regarding the appointment of a new president (Kinzie, 2006), some of the students involved in the protests were likely participants in the study the semester prior to the start of the protests.

### Conceptual Framework

Astin's (1991) college impact model [input-environment-outcomes (I-E-O) model] was used for the conceptual framework for the second hypothesis of this thesis. This model was specifically chosen as its I-E-O framework allowed the researcher to control for input characteristics that helped assess the extent that the environmental variables examined in this study contributed to the socially responsible leadership outcome.

This model was created by Astin (1991) to assist institutional assessment of student and educator development rather than assessment geared to only bolster reputations and resources of the institution. The difference in these two types of assessment was realized by Astin from his counseling psychology background and work in counseling centers (Astin). Astin realized that the therapist cannot judge how great a job he/she did only by the condition of the patient at the end of the treatment, or outcome. Astin noted that most assessment in higher education was geared toward these treatment

outcomes in that they were seeking to bolster the reputation and resources of the university.

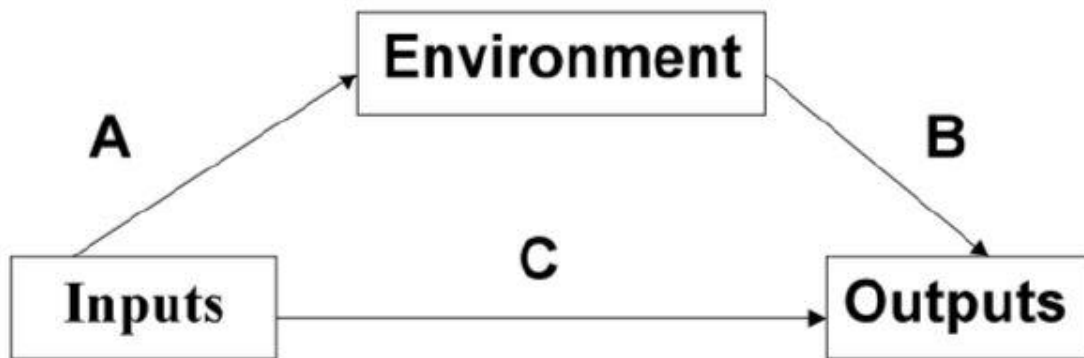
Astin (1991) argued that a good therapist is not only interested in one's reputation and outcomes of the therapy, but emphasis must instead be placed on judging how well he/she did with the treatment (environment) by taking into account where the client started from (inputs) (Astin). In this way, outcomes can be looked on as the talents that educators are trying to develop in students in the educational program, inputs as qualities students bring with them at the outset into the educational program, and environment as students' experiences while they are in the educational program (Astin). The I-E-O model was looked on by Astin to help educators better measure their impact on student development. He further stated, "The fundamental purpose of assessment and evaluation, it should be emphasized, is to learn as much as possible about how to structure educational environments so as to maximize talent development" (p. 18).

On further examination of input variables of students in later studies undertaken by Astin (1993; Astin & Sax, 1998), gender and race were found to be influential as inputs. It should be also noted that inputs, environments, and outcomes are not automatically assigned as this depends on the context of the study. Take for example the gender of the student in a study. This might be understood as an input variable such as the student's gender upon entering the university. It also might be treated as an environmental variable such as examining the gender break down of the student's residence hall. Lastly it might be used as an outcome measure by examining a measure of the student's awareness of one's own gender, for example, if the study were focusing on transgender students' self perception of their gender.



Implicitly using a linear time framework, Figure 1 below shows the relationship of the inputs, environments, and outcomes of the model. This relationship is one of the inputs and outcomes being measured at different points in time so that the environment can be measured and its relation to the student's development accounted for. The relationship fundamentally examined in this study is the relationship of **B**, which is the effect of the environmental variables, controlling for multiple input, or independent, variables, on the outputs, or leadership outcomes, or dependent variables of the study.

Figure 2: A. W. Astin's (1991) *Input-Environment-Outcome Models*



In the case of this study, the outcomes of the I-E-O conceptual model are also referred to as the dependent variables and are the specified leadership outcomes. The inputs of this study are the independent variables that include gender, pre-college leadership experiences, and pre-test for the outcomes measure. The environmental variables include controlling for the type of institution, frequency of membership in student organizations, holding formal leadership roles, participation in leadership education and training programs, perception of campus climate, mentoring relationships, and discussions of socio-cultural issues.

One area of interest examined by Astin (1991) is how to control for students that, based on input factors, innately focus on certain environments which in turn effect their outputs. An example of this is a student who loves to write and thus takes many English courses. This student would have a high score on English composition, although taking the English classes did not necessarily account for this high score as much as the inputs of the student liking to write and having previous experience account for it. This problem is why the IEO design is used as the design can be adjusted to take into account these types of problems (Astin, 1991). In the case presented here, a specific pre-test might be included to help control for the student's enjoyment of writing.

Astin's college impact model has been used widely in many educational research studies examining the effect of the environment on outcomes while controlling for inputs (A. W. Astin, 1993; Campbell & Blakey, 1996). Many of these studies were identified to have outcomes similar to the leadership outcomes of this study.

As the data for the MSL were collected at one time, this study used a quasi-I-E-O model rather than a true I-E-O framework as the inputs, pre-college variables, were retrospectively assessed by the participants at the time of taking the instrument rather than being assessed when the participants where actually going through these pre-college experiences. Though this quasi, cross sectional method varies from the longitudinal characteristics proposed by Astin for the I-E-O model, research (Rohs, 2002) has shown that more accurate and significant change can be found in the "then-post" design used by the MSL as opposed to a true pre-posttest design. This more accurate and significant change can be found as the "then-post" design protects from a response shift bias that might occur in the pretest measures of the instrument.

Further changes in Astin's (1991) I-E-O framework based on the single data collection instead of collecting data at two points in time of the MSL study are examined in the use of pre-tests. As opposed to a true longitudinal data gathering method of pre-tests being asked at two different points in time using a linear time model, this study conducted the pre-tests at the same time as the regular tests. Further changes to the I-E-O conceptual framework were taken in the number of pre-test questions administered to the students as only one question per socially responsible leadership outcome was included instead of 6 to 11 questions as suggested by Astin's I-E-O framework (Astin).

### Participants

The samples of this study were comprised of participating campuses as well as student participants on those campuses.

#### *Participating Campuses*

Following an invitation to participate in the study posted on several leadership listservs, a convenience sample of 150 campuses completed preliminary information forms indicating their interest in the study. Using purposeful sampling, 55 campuses were selected for this study from this sample. These campuses were selected purposefully rather than randomly to create a sample that accurately reflected the many institutions of higher education across the United States. This selection process included factors such as Carnegie type and geographic location. As this study was based on the Social Change Model of Leadership Development (HERI, 1996), schools were selected purposefully that currently use this model as well as schools that do not use this model. Three of these campuses did not complete the study (two withdrew before the study began and the data

from one campus were not used for failure to follow the study protocols). This resulted in 52 campuses being in the final study.

### *Student Participants*

The use of a simple random sampling technique was employed for campuses with undergraduate populations of more than 4000 undergraduate students while the entire campus was sampled at campuses with less than 4000 undergraduate students (Upcraft & Schuh, 1996). This sampling technique was utilized to select the participants and generate a representative national sample of deaf undergraduate students as well as a representative institutional sample of deaf undergraduate students at Gallaudet University. The total random sample size for this study was 581 deaf undergraduate students. Specifically 365 deaf students responded from Gallaudet and 216 deaf students responded who were attending traditional hearing institutions. The Gallaudet response rate was 37.8%. The MSL national response rate was 38% and 100% of the deaf and hard of hearing students identified from this sample were used for this study. Both response rates were consistent with the common web survey rate of 30-40% as suggested by Crawford, Couper, and Lamia (2001).

From the 365 self identified deaf students from Gallaudet, 84 of these students self identified as having a disability and then selected deaf or hard of hearing from the MSL survey question while the remaining 281 students identified as deaf or hard of hearing from the Gallaudet institutional specific custom question at the end of the survey. In this way, 77.0% of the deaf and hard of hearing students at Gallaudet did not self identify as deaf or hard of hearing based on the MSL question. The national sample deaf and hard of hearing respondents were selected based only on the MSL question

examining disability status. Gallaudet University institutional custom questions are included in Appendix E.

### Instrumentation

The MSL instrument (Appendix A) was used for this study and is based on Astin's (1991) I-E-O model assessing both input and environmental factors on the outcomes for this study. The parts of the MSL instrument used for this study include the Socially Responsible Leadership Scale-Revised 2 (SRLS-R2) (Dugan 2006c) that was revised from the Socially Responsible Leadership Scale (SRLS) (Tyree 1998), demographic and pre-college variables, and environmental variables including discussions of socio-cultural issues.

The additional predictor variable discussions of socio-cultural issues was developed and used with permission from the National Study of Living Learning Programs (Inkelas, Vogt, Longerbeam, Owen, & Johnson, 2006). The SRLS-R2 is examined below with further information on the additional variables used in this study provided in the next section.

#### *Socially Responsible Leadership Scale-Revised 2 (SRLS-R2)*

The SRLS-R2 will be analyzed in this section through first examining the original SRLS instrument that it was revised from as well as the pilot tests used for this revision process.

#### *Original SRLS Instrument*

Tyree (1998) developed the SRLS as her dissertation to measure the eight outcomes of the SCM (HERI, 1996). These outcomes consist of Consciousness of Self,

Congruence, Commitment, Collaboration, Common Purpose, Controversy with Civility, Citizenship, and Change (HERI). The eight constructs created in the SRLS to measure these outcomes were comprised of 12-14 items each (Tyree). Each of these items were self-reporting in a 5 point Likert scale continuum from strongly disagree (1) to strongly agree (5). These constructs of the SRLS measuring the SCM were designed to help fill the void of available measures of college student leadership development (Tyree). Further purpose of the creation of the SRLS was in linking leadership to social change, providing a measure of leadership that is not leader-centric and that is easily available and affordable (Tyree).

Tyree (1998) administered two pilot tests of the SRLS instrument. The first pilot test consisted of 202 items administered to 101 undergraduate students in six different settings. The second pilot test was administered four weeks later and consisted of 80 students in the same six group settings with 10 additional items (Tyree). The tests conducted with these pilot tests included test-retest reliability, tests of internal-consistency reliability, construct validity analysis, and social desirability analysis (Tyree). Refer to Table 3.1 for reliability results for each of the eight constructs examined.

#### *SRLS-R2 Instrument*

The MSL used a revised version of the SRLS for the pilot study at the University of Maryland. This version was the SRLS-R developed by Appel-Silbaugh (2005). Using factor analysis data reduction techniques, the SRLS-R condensed the SRLS into 83 items in an attempt to shorten the instrument and further scoring ease while maintaining scale reliability (Appel-Silbaugh). While revising the original SRLS, the original Tyree (1998) data were unfortunately irretrievable from the existing disks, thus the data were taken

directly from the Tyree dissertation and an additional sample ( $N=859$ ) of students at a western region, research university (Dugan, 2006a). This study was conducted by Dugan over two years and the data provided twice as many cases as the original Tyree data set. These data proved to be a good comparison for examining specific items (Appel-Silbaugh) and served as the reanalysis base for the SRLS (Dugan, 2006c).

Dugan (2006c) then further revised the SRLS into a smaller 68-item version based on pilot tests and drop off rate results at the University of Maryland. This further revised version was referred to as the SRLS-R2 and is the current version of the SRLS used in this thesis. Using the SRLS data from two UNLV studies (Dugan, 2006a, 2006b) Dugan recalculated the Cronbach alpha reliabilities for the SRLS-R2. Specific differences in the different versions of the SRLS instruments include the SRLS-R2 as dropping 37 items from the SRLS while adding two items that were dropped by the SRLS-R. Overall the eight constructs of the SRLS-R2 are 68 items. The sum of each set of items within each construct is the score of the construct.

Appendix B provides the items associated with each of the eight constructs of the SRLS-R2 as well as the reliability measures for the SRLS. Table 3.1 contains the reliabilities for SRLS, the UNLV study (Dugan, 2006a, 2006b), the SRLS-R2, the SRLS-R2 from the MSL national random sample, the SRLS-R2 from the Gallaudet University random sample, the SRLS-R2 from the hearing institutional participant sample, and the SRLS-R2 total sample of deaf participants from both hearing and deaf serving institutions used in this study. In comparing the SRLS-R2 nationally with the total sample of deaf participants from both hearing and deaf serving institutions, specific changes are noted for the constructs of Controversy with Civility having an alpha .05 below the same

construct for the national random sample. All other reliabilities for the total participant sample of deaf participants from both hearing and deaf serving institutions were slightly lower than the national random sample with Common Purpose having a slightly higher reliability and Change having the same reliability for the total participant sample and national samples.

Table 3.1

*Reliabilities for SRLS, the UNLV Study, and SRLS-R2*

Construct	SRLS	SRLS UNLV	SRLS-R2	SRLS-R2 National Random Sample	SRLS-R2 Gallaudet University	SRLS-R2 Hearing Institutional Participants	SRLS-R2 Total Participant Sample
Consciousness of Self	.82	.79	.78	.79	.74	.82	.77
Congruence	.82	.79	.79	.80	.78	.80	.79
Commitment	.83	.84	.81	.83	.79	.81	.80
Collaboration	.77	.82	.81	.82	.79	.82	.80
Common Purpose	.83	.80	.83	.82	.83	.83	.83
Controversy with Civility	.69	.71	.72	.77	.69	.77	.72
Citizenship	.92	.90	.87	.77	.75	.78	.76
Change	.78	.82	.82	.81	.76	.84	.81

*Pilot Tests*

There were two pilot studies with the MSL instrument. A paper version of the MSL instrument was pilot tested with 14 University of Maryland undergraduate students in Fall 2005. This test was administered mainly to obtain feedback on the clarity and length of the MSL instrument. The students selected for this pilot test consisted of a diverse sample of students with both large and small leadership experience on campus. The majority of the feedback of this pilot test was that the instrument seemed repetitive



and took a long time for the pilot participants to complete. Slight changes were made to the instrument in response to the pilot test without affecting the SRLS-R.

In December 2005 the MSL instrument was pilot tested a second time using the world wide web to a random sample of 3411 University of Maryland students. The main rationale for conducting this second pilot test was to find common drop off points of the instrument in the web form with the student participants. Of this sample, 782 participants (23%) completed the study with 88% completion rate and a 12% partial completion rate (Komives & Dugan, 2005). This low response rate for the pilot test was accounted for due to the instrument being administered for a 5-day span during finals week instead of the proposed 3-week span for the regular survey the following semester. In attempt to raise the study completion rate, Dugan (2006c) created the SRLS-R2 from the SRLS used in the pilot study.

### Variables

The variables for this study are grouped as independent and dependent variables and are presented as input, environment, and outcome variables in this section. All the outcome variables are used in hypothesis one and only the Controversy with Civility outcome variable is used with the input and environment variables in hypothesis two. These variables were chosen for this study based on prior leadership research (Cress et al., 2001; Dugan, 2006a; 2006b; Kolb, 1999; Kezar & Moriarty, 2000; Kezar, Carducci & Contreras-McGavin, 2006; Schuh & Lavery 1983; Stetler, 2002) as well as indicators from deaf studies (Becker, 1996; Corker, 1996; Cornel & Lyness, 1993; Crowe, 2003; Glickman, 1993; Jamber & Elliot, 2005; Mindess, 1999) in response to the current

absence of empirical deaf leadership studies reviewed in the previous chapter. Table 3.2 contains an overview of the input, environment, and outcome variables used in this study.

Table 3.2

*I-E-O Conceptual Model of Study Variables*

<b>Inputs</b>	<b>Environments</b>	<b>Outcomes</b>
<ul style="list-style-type: none"> <li>- Gender</li> <li>- Pre-college Involvement</li> <li>- SRLS-R2 Pretest Measure (Controversy with Civility)</li> </ul>	<ul style="list-style-type: none"> <li>- Institutional Type</li> <li>- Mentoring Relationships</li> <li>- Perception of Campus Climate</li> <li>- Discussions of Socio-Cultural Issues Scale</li> <li>- Level of College Involvement</li> <li>- Breadth of College Involvement</li> <li>- Leadership Training and Education</li> <li>- Formal Leadership Roles</li> </ul>	<ul style="list-style-type: none"> <li>- Consciousness of Self</li> <li>- Congruence</li> <li>- Commitment</li> <li>- Collaboration</li> <li>- Common Purpose</li> <li>- Controversy with Civility</li> <li>- Citizenship</li> <li>- Change</li> </ul>

*Independent Variables*

For hypothesis one the independent variables are gender and institutional type (i.e., deaf or hearing serving institutional types) and the dependent variables are the eight leadership outcomes of the SCM.

For hypothesis two the independent or predictor variables examined in this study included input variables and environmental variables. The dependent variable was Controversy with Civility.

*Input Variables*

In line with Astin’s (1991) I-E-O conceptual framework this thesis examines input variables that were used to control for environmental variables and the outcome measure of Controversy with Civility. The input variables included in this study were: (a) gender, (b) pre-college involvement in student clubs and groups, (c) pre-college involvement in varsity sports, and (d) a pre-SRLS-R2 test measure for Controversy with

Civility. The race and ethnicity input variable was unable to be used based on low sample sizes for this study. Overall, the characteristics of race and ethnicity for participants at the deaf serving institution were 64.1% ( $n=234$ ) White/Caucasian, 7.3% ( $n=27$ ) African American/Black, 0.8% ( $n=3$ ) American Indian/Alaska Native, 4.9% ( $n=18$ ) Asian American/Asian, 0.5% ( $n=2$ ) Native Hawaiian/Pacific Islander, 7.1% ( $n=26$ ) Latino, 13.4% ( $n=49$ ) Multiracial or Multiethnic, and 1.6% ( $n=6$ ) Race/ethnicity not included. Characteristics of race and ethnicity for participants at hearing serving institutions were 70.3% ( $n=152$ ) White/Caucasian, 4.1% ( $n=9$ ) African American/Black, 0.4% ( $n=1$ ) American Indian/Alaska Native, 2.3% ( $n=5$ ) Asian American/Asian, 0.4% ( $n=1$ ) Native Hawaiian/Pacific Islander, 4.6% ( $n=10$ ) Latino, 13.8% ( $n=30$ ) Multiracial or Multiethnic, and 3.7% ( $n=8$ ) Race/ethnicity not included. Tables 4.1 and 4.2 in Chapter IV further examine these low sample sizes for race and ethnicity for this study.

### *Environmental Variables*

The environmental variables are now examined following Astin's (1991) I-E-O conceptual framework. The main environmental variable for the study is type of institution. This was entered in its own block following the input measures. The additional 11 environmental variables of this study include (a) mentoring relationships held with student affairs staff, (b) mentoring relationships held with faculty, (c) mentoring relationships help with other students, (d) perception of campus climate, (e) experience with discussions of socio-cultural issues, (f) level of involvement in college organizations, (g) breadth of involvement in student groups, (h) short term leadership training and education, (i) moderate term leadership training and education, (j) long term leadership training and education, and (k) formal leadership roles held during college.

The fifth variable of experience with discussions of socio-cultural issues during college had a calculated Cronbach alpha of .90 using the national random sample MSL data, a Cronbach alpha of .90 using the Gallaudet deaf and hard of hearing participants, and a Cronbach alpha of .92 using the national deaf and hard of hearing participants. Table 3.3 contains further information on each of these environmental variables as well as the blocking scheme used for the placement of these variables. The blocking scheme will be described in greater detail in the data analysis section.

Table 3.3: Independent Variables and Associated Items

<b>Blocks</b>	<b>Measures</b>	<b>Items</b>	<b>Response Choices</b>	<b>Variable Type</b>
<b>Block 1</b> Gender	Category	What is your gender?	Female, Male, Transgender	Input
<b>Block 2</b> Pre-college Involvement	Score	Participation in student clubs/ groups (9b)	Never (1) to very often (4)	Input
	Score	Participation in student varsity sports (9c)	Never (1) to very often (4)	
<b>Block 3</b> Pre-SRLS-R2 Test Measure of Controversy with Civility	Score	Hearing differences in opinions enriched my thinking (10a)	Strongly disagree (1) to strongly agree (5)	Input
<b>Block 4</b> Institutional Type	Category	Institutional Type Data Obtained Automatically by Survey Sciences Group Inc.		Environment
<b>Block 5</b> Mentoring Relationships	Category	At any time during your college experience, how often have you been in mentoring relationships where <i>Student Affairs Staff</i> intentionally assisted your growth or connected you to opportunities for career and personnel development? (15a)	Never (1) to many (4)	Environment

	Category	At any time during your college experience, how often have you been in mentoring relationships where <i>Faculty</i> intentionally assisted your growth or connected you to opportunities for career and personnel development? (15b)	Never (1) to many (4)	
	Category	At any time during your college experience, how often have you been in mentoring relationships where <i>Other Students</i> intentionally assisted your growth or connected you to opportunities for career and personnel development? (15e)	Never (1) to many (4)	
Perception of Campus Climate	Score	Select the number that best represents your experience with your overall college climate. (24)	Closed (1) to friendly (8)	Environment
Discussions of Socio-Cultural Issues Scale (Sample Item)	Category	During interactions with other students outside of class, how often have you <i>talked about different lifestyles/customs</i> in an average school year? (16a)	Strongly disagree (1) to strongly agree (5)	Environment
Level of College Involvement	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
Breadth of College Involvement	Score	Which of the following kinds of student groups have you been involved with during college? (14)	Check all that apply (21 possible)	Environment
Leadership Training and Education during College	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)	

Formal Leadership Roles held 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
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### *Dependent Variables*

The outcome variables represent the dependent variables in this study and are presented below.

#### *Outcome Variables*

The eight constructs of the SCM (HERI, 1996) make up the outcome variables for hypothesis one of this study. These outcome variables were measured using the SRLS-R2 (Dugan, 2006a). The SRLS-R2 is briefly presented in this chapter in the instrumentation section with sample items for each construct. Furthermore, each construct of the SRLS-R2 is defined in Table 3.4. The complete version of the SRLS-R2 is located in Appendix B and Table 3.5 displays information on how the SRLS-R2 was measured with sample items for each outcome variable.



Table 3.4

*Dependent Variables of the Study*

Consciousness of Self	Being aware of beliefs, values, attitudes, and emotions that motivate one to take action
Congruence	Thinking, feeling, and behaving with consistency, genuineness, authenticity, and honesty toward others
Commitment	Having the psychic energy that motivates the individual to serve and that drives the collective effort
Collaboration	Working with others in a common effort
Common Purpose	Working with shared aims and values
Controversy with Civility	Believing in two fundamental realities of any creative group effort: (1) differences in viewpoint are inevitable, and (2) such differences must be aired openly but with civility
Citizenship	Believing in the process whereby the individual and the collaborative group become responsibly connected to the community and the society through the leadership development activity
Change	Believing in the significance of making a better world and a better society for self and others

From *A Social Change Model of Leadership Development* (HERI, 1996).

Table 3.5

*SRLS-R2 Measurement and Sample Items of Dependent Variables*

Dependent Variable	Sample Items	Cronbach Alpha - National Random Sample	Number of Items
Consciousness of Self	I am able to articulate my priorities	.79	9
Congruence	My behaviors are congruent with my beliefs	.80	7
Commitment	I am willing to devote the time and energy to things that are important to me	.83	6
Collaboration	I am seen as someone who works well with others	.82	8
Common Purpose	I am committed to a collective purpose in those groups to which I belong	.82	9
Controversy with Civility	I am open to others' ideas	.77	11
Citizenship	I believe I have responsibilities to my community	.77	8
Change	I am comfortable initiating new ways of looking at things	.81	10

All items for each dependent variable are included in Appendix B. Only Controversy with Civility was used as an outcome variable for hypothesis two.

### Procedure

The MSL study was conducted by a 19 member research team consisting of a professor from the Counseling and Personnel Services Department at the University of Maryland who was also this researcher's advisor and co-principal investigator for the study, representatives from the National Clearinghouse for Leadership Programs, masters students including this researcher, doctoral students, and student affairs professionals.

The MSL was administered over the Internet by the Survey Sciences Group, Inc. (SSG). This group is a data management services group that was hired by the MSL team

for the process of data collection. Each campus received IRB approval and the MSL team campus liaison uploaded their campus samples using a secure server administered by the SSG.

The selected participants first received an email asking them to participate. Depending on the institutional specific calendar, different institutions administered the instrument at differing start and end dates. Gallaudet administered the instrument from February 13<sup>th</sup> to March 3<sup>rd</sup>. Incentives for the project included national incentives of iPod nanos, free registration to LeaderShape and movie tickets as well as institutional incentives including two tickets and one parking pass to a Redskins game in 2006, a choice of X-Box or Playstation 2 video game station, \$100 credit on the campus dining plan, four Best Buy \$25 certificates, and two Chipotle Restaurant \$10 certificates.

The email that the students received then directed the students to a website and provided a unique randomly assigned identification number. Students were then prompted for this number as they entered the website. This ID number was used in place of possible participant identifying information to separate out participant results and protect for confidentiality. After the student entered this ID number into the website, the student began the survey (Komives & Dugan, 2005). The first question in the survey asked for student consent to participate in the survey. After this question was answered the student then continued with the instrument. If the student did not complete the instrument the first time he or she would receive up to three reminder emails to complete the survey. The survey took an average of 20 minutes to complete.

Institutional Review Board (IRB) approval was granted by the University of Maryland in March, 16, 2007 and Gallaudet University gave permission for the researcher to analyze

their data on February 5, 2007. A copy of the IRB approval letter from Gallaudet University is provided in Appendix C and a copy of the IRB approval letter from the University of Maryland is provided in Appendix D.

### Data Analysis

Data analysis for this thesis used the Statistical Package for the Social Sciences (SPSS) Version 14. The statistical techniques employed in the data analysis were multivariate analysis of variance and multiple regression. The national random sample and institutional random sample of Gallaudet were described with descriptive statistics. Means and standard deviations were also reported for the environmental and outcome measures of these samples. A significance level of  $p < .05$  was used for each hypothesis.

The first hypothesis was tested using a two way MANOVA examining possible institutional serving type differences and gender differences in each outcome measure. MANOVA was chosen given the intercorrelated nature of the outcome scales. See Table 3.6 for an intercorrelation matrix of these outcome scales. The independent variables were deaf or hearing institutional serving type and gender differences and the dependent variables were the eight leadership outcomes of the SRLS-R2. *F* tests were used to follow up and identify significant differences in outcome scores by deaf or hearing institutional serving type and gender differences.

Table 3.6

*Correlation Coefficients for the 8 Outcome Measures of All Study Participants*

	Consciousness of Self	Congruence	Commitment	Collaboration	Common Purpose	Controversy with Civility	Citizenship	Change
Consciousness of Self		.686**	.620**	.625**	.635**	.606**	.626**	.634**
Congruence			.769**	.644**	.804**	.696**	.695**	.636**
Commitment				.671**	.769**	.653**	.677**	.562**
Collaboration					.763**	.683**	.783**	.631**
Common Purpose						.681**	.784**	.656**
Controversy with Civility							.697**	.702**
Citizenship								.642**
Change								

\*\* $p < .01$

The second hypothesis was examined through the use of a hierarchical multiple regression analysis. Multiple regression as a statistical analysis tool has been considered to be able to be used as a general approach to analyzing data from multiple different designs and questions (Licht, 1998). Furthermore, because of the ability of using more than one predictor in multiple regressions, there is greater potential predictive power when using multiple regression as compared to bivariate regression that only examines one predictor (Grim & Yarnold, 1995). This study examines 12 environmental variables in addition to 4 input variables. The use of multiple regression allows for the examination of these multiple variables in the I-E-O conceptual framework by controlling for input variables and then assessing the environmental variables' influence on the outcome variable.

A multiple regression analysis was conducted for the outcome measure of Controversy with Civility. All inputs and other variables examined in this chapter were used in this analysis. The input variables made up three blocks and were entered into the analysis first to continue with the I-E-O framework and control for these variables. The order of the blocks, as shown in Table 3.3, was purposefully selected based on prior

research using Astin's (1991) I-E-O model to examine leadership development (Cress et al., 2001; Kezar & Moriarty, 2000).

### Summary

This chapter has identified the methods used in this quantitative study to examine the difference in deaf undergraduate college students' socially responsible leadership outcomes independently and collectively contributed by gender, deaf and hearing institutional serving type, mentoring relationships, perception of campus climate, discussion of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college. These methods were further identified to examine deaf and hearing institutional serving types and gender differences within these outcomes. The next chapter will present and explain the results attained from utilizing these methods.

## Chapter IV: RESULTS

The purpose of this thesis was to examine the influence of deaf student experiences at a deaf serving institution versus predominantly hearing institutions on leadership outcomes. This chapter presents the results of the study. These results are first presented as an overview of the background characteristics of the sample and respondents followed by descriptive statistics of both outcome and environmental measures. The statistical analysis and results from the study hypotheses conclude the chapter.

### Sample and Respondent Characteristics

The sample consisted of 365 randomly selected undergraduate students self identifying as deaf and hard of hearing at a deaf serving institution and 216 randomly selected undergraduate students self identifying as deaf and hard of hearing across 50 predominantly hearing institutions. As noted in Table 4.1, of the 365 participants from the deaf serving institution, 60.5% ( $n=221$ ) were female participants and 39.5% ( $n=144$ ) were male participants. There were no participants in this study that selected transgender. The characteristics of race and ethnicity for participants at the deaf serving institution were 64.1% ( $n=234$ ) White/Caucasian, 7.3% ( $n=27$ ) African American/Black, 0.8% ( $n=3$ ) American Indian/Alaska Native, 4.9% ( $n=18$ ) Asian American/Asian, 0.5% ( $n=2$ ) Native Hawaiian/Pacific Islander, 7.1% ( $n=26$ ) Latino, 13.4% ( $n=49$ ) Multiracial or Multiethnic, and 1.6% ( $n=6$ ) Race/ethnicity not included. International students were not included in this study. The class standing characteristics of participants at the deaf serving institution, Gallaudet University, were 20.0% Freshman ( $n=73$ ), 21.0% Sophomore ( $n=77$ ), 30.1% Junior ( $n=110$ ), and 27.9% Senior ( $n=102$ ). The average age

of respondents from the deaf serving institution was 23.86 ( $SD=6.64$ ). As noted in Table 4.2, the characteristics of gender for participants at predominantly hearing institutions in the study included 53.9% ( $n=116$ ) female and 46.0% ( $n=99$ ) male with 0.04% ( $n=1$ ) not responding. The characteristics of race and ethnicity for the participants at predominantly hearing institutions were 70.3% ( $n=152$ ) White/Caucasian, 4.1% ( $n=9$ ) African American/Black, 0.4% ( $n=1$ ) American Indian/Alaska Native, 2.3% ( $n=5$ ) Asian American/Asian, 0.4% ( $n=1$ ) Native Hawaiian/Pacific Islander, 4.6% ( $n=10$ ) Latino, 13.8% ( $n=30$ ) Multiracial or Multiethnic, and 3.7% ( $n=8$ ) Race/ethnicity not included. The class standing characteristics of participants at hearing serving institutions were 16.6% Freshman ( $n=36$ ), 18.5% Sophomore ( $n=40$ ), 57% Junior ( $n=26.3$ ), and 37.5% Senior ( $n=81$ ). The average age of participants from hearing serving institutions was 26.12 ( $SD=10.54$ ).

In comparing the respondents from the deaf serving institution and hearing serving institutions to their comparison groups, notable findings emerge. There appear to be an under representation of males and freshmen and an over representation of females and juniors in the deaf serving institution random sample in comparison to Gallaudet University undergraduates. In the national random sample of deaf and hard of hearing identifying participants there was an under representation of Asian American/Asian participants and an over representation of seniors. All of these demographic characteristics are presented to examine the makeup of the participants in this category and better understand how the current study may or may not reflect demographics from Gallaudet University and the national MSL sample.



Table 4.1

*Demographic Characteristics of Deaf Serving Institution Participants*

	<b>Deaf Serving Institution Respondent Demographics N=365</b>	<b>Gallaudet University Undergraduate Demographics Spring 2006 N=1083</b>
Female	221 (60.5%)	584 (53.9%)
Male	114 (39.5%)	499 (46.0%)
White/Caucasian	234 (64.1%)	646 (59.6%)
African American/Black	27 (7.3%)	113 (10.4%)
American Indian/Alaska Native	3 (0.8%)	42 (3.8%)
Asian American/Asian	18 (4.9%)	52 (4.8%)
Native Hawaiian/Pacific Islander	2 (0.5%)	Not reported
Latino	26 (7.1%)	106 (9.7%)
Multiracial or Multiethnic	49 (13.4%)	Not reported
Race/ethnicity not included	6 (1.6%)	16 (1.4%)
International	Not included	106 (9.7%)
Freshman	73 (20.0%)	344 (31.7%)
Sophomore	77 (21.0%)	215 (19.8%)
Junior	110 (30.1%)	245 (22.6%)
Senior	102 (27.9%)	227 (20.9%)
Post Bachelor	Not Included	9 (0.8%)
Average Age	23.86 ( <i>SD</i> =6.643)	Not Reported

Table 4.2

*Demographic Characteristics of Hearing Serving Institution Participants*

	<b>Hearing Serving Institutions Deaf Respondent Demographics N=216</b>	<b>Multi-Institutional Study of Leadership Respondent Demographics N=49145</b>
Female	116 (53.9%)	30299 (61.7%)
Male	99 (46.0%)	18613 (36.9%)
White/Caucasian	152 (70.3%)	35590 (72.4%)
African American/Black	9 (4.1%)	2653 (5.4%)
American Indian/Alaska Native	1 (0.4%)	128 (0.3%)
Asian American/Asian	5 (2.3%)	3263 (6.6%)
Native Hawaiian/Pacific Islander	1 (0.4%)	128 (0.3%)
Latino	10 (4.6%)	2130 (4.3%)
Multiracial or Multiethnic	30 (13.9%)	3999 (8.1%)
Race/ethnicity not included	8 (3.7%)	989 (2.0%)
International	Not included	Not Included
Freshman	36 (16.6%)	11214 (22.8%)
Sophomore	40 (18.5%)	10611 (21.6%)
Junior	57 (26.3%)	12761 (26.0%)
Senior	81 (37.5%)	13944 (28.4%)
Post Bachelor	Not included	Not included
Average Age	26.12 ( <i>SD</i> =10.54)	21.41 ( <i>SD</i> =4.72)

## Descriptive Findings

This section examines descriptive findings of key environmental and outcome measures of this study by total deaf and hearing serving institutional respondents and by gender. These findings are split into tables corresponding to the deaf serving institutional sample and hearing serving institutional sample.

### *Environmental Measures*

Significant descriptive characteristics of the participants in the deaf serving institutional sample in relation to the environmental measures of this study are presented in Table 4.3. Overall, the respondents in the deaf serving institutional sample indicated a mean of 2.17 ( $SD=1.06$ ) in mentoring relationships with student affairs staff on a scale from 1-4 representing never being mentored to being mentored many times. The mean for mentoring by faculty was 2.41 ( $SD=1.05$ ) and mentoring by other students was 2.78 ( $SD=1.08$ ). The mean for scores on campus climate was 5.39 ( $SD=1.20$ ) on a scale of 1-8 representing a closed climate to a friendly climate; the discussing socio-cultural issues scale was on a 1-5 point scale representing strongly disagree to strongly agree. The respondents' mean for discussing socio-cultural issues was 2.86 ( $SD=.74$ ). The respondents' mean score for the variable of level of college involvement was 2.88 ( $SD=1.21$ ) on a scale of 1-5 representing never involved to being involved much of the time. The breadth of college involvement variable was represented on a 0-21 point scale representing 21 different kinds of student groups the respondents could mark signifying their breadth of involvement. The respondents' total mean for their breadth of

involvement was 4.66 ( $SD=3.78$ ). The environmental variables of short-term, moderate-term, and long-term leadership were measured on a 1-4 scale representing never being involved to being involved many times. The respondents mean score for short-term involvement was 2.55 ( $SD=0.99$ ). The mean score for moderate-term involvement was 2.07 ( $SD=1.03$ ) and long-term involvement was 1.59 ( $SD=0.97$ ). The last environmental variable in the study was formal leadership roles held during college represented by a scale of 1-5 with never holding leadership positions in college organizations to much of the time holding leadership positions in college organizations. The mean for formal leadership roles held was 2.40 ( $SD=1.38$ ).

Table 4.3

*Deaf and Hearing Serving Institutional Means and Standard Deviations of Environmental Measures by Gender*

Environmental Measure	Gallaudet University			Hearing-Serving Institutions		
	Female (n=221)	Male (n=114)	Total (n=365)	Female (n=116)	Male (n=99)	Total (n=216)
Mentoring Relationships Student Affairs Staff (1-4)	2.12 (1.08)	2.24 (1.01)	2.17 (1.06)	2.23 (1.05)	1.81 (1.02)	2.03 (1.05)
Mentoring Relationships Faculty (1-4)	2.36 (1.04)	2.48 (1.06)	2.41 (1.05)	2.55 (1.01)	2.47 (1.09)	2.51 (1.05)
Mentoring Relationships Other Students (1-4)	2.73 (1.06)	2.84 (1.11)	2.78 (1.08)	2.40 (1.09)	2.28 (1.12)	2.34 (1.10)
Campus Climate (1-8)	5.46 (1.14)	5.29 (1.30)	5.39 (1.20)	5.04 (1.37)	4.80 (1.39)	4.93 (1.38)
Discussing Socio-Cultural Issues (1-5)	2.86 (0.75)	2.86 (0.73)	2.86 (0.74)	2.80 (0.81)	2.79 (0.90)	2.79 (0.86)
Level of College Involvement (1-5)	2.78 (1.21)	3.03 (1.20)	2.88 (1.21)	2.89 (1.39)	2.58 (1.33)	2.75 (1.37)
Breadth of Involvement (1-21)	4.02 (3.40)	5.66 (4.12)	4.66 (3.78)	3.43 (3.12)	3.36 (3.89)	3.40 (3.48)
Short-Term Leadership Training/ Education (1-4)	2.53 (1.03)	2.58 (0.93)	2.55 (0.99)	2.10 (0.98)	1.95 (0.98)	2.03 (0.98)
Moderate-Term Leadership Training/ Education (1-4)	1.95 (1.05)	2.19 (1.00)	2.07 (1.03)	1.70 (0.96)	1.70 (0.98)	1.70 (0.97)
Long-Term Leadership Training/ Education (1-4)	1.52 (0.96)	1.68 (1.00)	1.59 (0.97)	1.36 (0.85)	1.50 (0.93)	1.44 (0.89)
Formal Leadership Roles Held (1-5)	2.23 (1.34)	2.66 (1.41)	2.40 (1.38)	1.90 (1.27)	2.09 (1.40)	2.01 (1.34)

Descriptive characteristics of the participants in the hearing serving institutional sample in relation to the environmental measures of this study are presented in Table 4.3. Overall, the respondents from this sample indicated a mean of 2.03 ( $SD=1.05$ ) for mentoring relationships with student affairs staff, a mean of 2.51 ( $SD=1.05$ ) for mentoring by faculty, and a mean of 2.34 ( $SD=1.10$ ) for and mentoring by other students. The mean score on campus climate was 4.93 ( $SD=1.38$ ) and the overall means score for discussing socio-cultural issues was 2.79 ( $SD=0.86$ ). The respondents' mean score for the variable of level of college involvement was 2.75 ( $SD=1.37$ ) while the means score for the variable of breadth of involvement was 3.40 ( $SD=3.48$ ). The respondents mean score for short-term involvement was 2.03 ( $SD=0.98$ ). The mean score for moderate-term involvement was 1.70 ( $SD=0.97$ ) and long-term involvement was 1.44 ( $SD=0.89$ ). The mean score for the final environmental variable of formal leadership roles held during college was 2.01 ( $SD=1.34$ ).

#### *Outcome Measures*

Descriptive characteristics of the participants in relation to the outcome measures of this study are presented in Table 4.4. This table includes mean and standard deviations of each outcome by total deaf or hearing serving institutional respondents and gender. Tables 4.5 and 4.6 further present comparisons on these outcomes by gender and institutional type in accordance with the first hypothesis of this study.

The outcome measures of this study had responses ranging from 1-5 representing strongly disagree to strongly agree. The highest and lowest mean total scores for deaf serving institutional respondents was Commitment at 4.06 ( $SD=.46$ ) and Controversy with Civility at 3.74 ( $SD=.41$ ). The highest mean score for women among the outcome

measures was 4.08 ( $SD=.43$ ) for Commitment and the lowest mean score for women was 3.74 ( $SD=.39$ ) for Controversy with Civility. The highest and lowest mean scores for men among the outcome measures were also Commitment at 4.04 ( $SD=.52$ ) and Controversy with Civility at 3.74 ( $SD=.44$ ).

Table 4.4

*Deaf and Hearing Serving Institutional Means and Standard Deviations of Outcome Measures by Gender*

Outcome Measure	Gallaudet University			Hearing-Serving Institutions		
	Female ( $n=221$ )	Male ( $n=114$ )	Total ( $n=365$ )	Female ( $n=116$ )	Male ( $n=99$ )	Total ( $n=216$ )
Consciousness of Self	3.85 (0.45)	3.85 (0.53)	3.85 (0.49)	3.84 (0.61)	3.80 (0.59)	3.82 (0.60)
Congruence	4.01 (0.45)	3.98 (0.52)	4.00 (0.49)	4.15 (0.50)	4.13 (0.54)	4.13 (0.52)
Commitment	4.08 (0.43)	4.04 (0.52)	4.06 (0.46)	4.21 (0.50)	4.15 (0.54)	4.18 (0.52)
Collaboration	3.96 (0.40)	3.92 (0.49)	3.95 (0.44)	3.94 (0.53)	3.84 (0.57)	3.89 (0.55)
Common Purpose	3.99 (0.42)	3.95 (0.47)	3.98 (0.49)	4.00 (0.48)	3.95 (0.47)	3.97 (0.48)
Controversy with Civility	3.74 (0.39)	3.74 (0.44)	3.74 (0.41)	3.86 (0.44)	3.81 (0.49)	3.84 (0.47)
Citizenship	3.83 (0.41)	3.82 (0.49)	3.83 (0.44)	3.81 (0.50)	3.76 (0.54)	3.78 (0.52)
Change	3.80 (0.45)	3.80 (0.45)	3.82 (0.45)	3.79 (0.50)	3.74 (0.59)	3.76 (0.54)

The highest and lowest mean total scores for hearing serving institutional respondents was Commitment at 4.18 ( $SD=.52$ ) and Change 3.76 ( $SD=.54$ ). The highest and lowest mean scores for women among the outcome measures was 4.21 ( $SD=.50$ ) for commitment and 3.79 ( $SD=.50$ ) for the outcome measure of change. The highest mean score for men among the outcome measures also for commitment with 4.15 ( $SD=.54$ ) and the lowest was change with 3.74 ( $SD=.59$ ).

## Hypothesis One

Stated in the null, the first hypothesis was there are no differences in deaf undergraduate college students' socially responsible leadership outcomes scores based on institutional type (i.e., deaf or hearing serving institutional types) or gender. This section analyzes these mean scores by gender, institutional type, and the interaction of gender by institutional type using a two-way multivariate analysis of variance (MANOVA).

Table 3.7 in Chapter III presented a correlation matrix for the eight leadership outcome measures of all participants in this study. All outcome measures of this study are shown to be highly intercorrelated ( $p < .01$ ). This intercorrelation indicated that the use of a MANOVA was the appropriate statistic for this analysis. Further examination within the MANOVA using Box's M test shows an unequal dispersion of this study's variables at a .001 level based on the unequal group sizes of participants at hearing serving institutions and participants at a deaf serving institution. Levene's test was also examined and generated statistically significant evidence suggesting that the equality of error variance was not met for the outcome measures of consciousness of self, commitment, collaboration, citizenship, and change. Findings from the two-way MANOVA were then examined using Pillai's Trace in light of the violations of normality assumptions shown by the Box's M and Levene's tests.

Relevant findings from the two-way MANOVA are presented in Tables 4.5 and 4.6. The overall  $F$  statistic for deaf or hearing serving institutions was  $F(3, 564)=10.22$ ,  $p < .001$  with Pillai's Trace being .128. The overall  $F$  statistic for gender was  $F(3, 564)=0.665$ ,  $p = .722$  with Pillai's Trace being 0.009 and the overall  $F$  statistic for the interaction of gender by institutional type was  $F(3, 564)=0.337$ ,  $p = .952$  with Pillai's



Trace being 0.005. Both the  $F$  statistics for gender ( $p=.722$ ) and institutional type by gender ( $p=.952$ ) were not statistically significant. Therefore only the main effect of institutional type was significant. As shown from the Two-Way MANOVA follow up analysis in Table 4.6, three outcome measures examined by deaf or hearing serving institutional type were statistically significant. In all three outcome measures hearing serving institutional participants scored significantly higher than participants at the deaf serving institution. These measures included Congruence  $F(1, 564)=11.983, p<.01$ , Commitment  $F(1, 564)=9.401, p<.01$ , and Controversy with Civility  $F(1, 564)=7.837, p<.01$ .

Table 4.5

*2-Way MANOVA: Significance of Eight Outcome Measures by Institution, Gender, and Institution vs. Gender*

2-Way MANOVA Statistics	F Statistic	p	Pillai's Trace	df1, df2
<b>Institution (Deaf Serving Institution vs. Hearing Serving Institutions)</b>	10.222	.000***	.128	3, 564
<b>Gender (Female vs. Male Participants)</b>	.665	.722	.009	3, 564
<b>Institution by Gender</b>	.337	.952	.005	3, 564

\*\*\* $p<.001$

Table 4.6

*2-Way MANOVA Follow Up Analysis for Deaf and Hearing Serving Institutions*

	Deaf Serving Institution Mean (SD)	Hearing Serving Institutions Mean (SD)	p	df1, df2	F Statistic
<b>Consciousness of Self</b>	3.85 (0.49)	3.82 (0.60)	.625	1, 564	0.239
<b>Congruence</b>	4.00 (0.49)	4.13 (0.52)	.001	1, 564	11.983**
<b>Commitment</b>	4.06 (0.46)	4.18 (0.52)	.002	1, 564	9.401**
<b>Collaboration</b>	3.95 (0.44)	3.89 (0.55)	.265	1, 564	1.245
<b>Common Purpose</b>	3.98 (0.49)	3.97 (0.48)	.704	1, 564	0.145
<b>Controversy with Civility</b>	3.74 (0.41)	3.84 (0.47)	.005	1, 564	7.837**
<b>Citizenship</b>	3.83 (0.44)	3.78 (0.52)	.457	1, 564	0.555
<b>Change</b>	3.82 (0.45)	3.76 (0.54)	.233	1, 564	1.426

\*\* $p<.01$

## Hypothesis Two

The second hypothesis stated that gender, deaf or hearing institutional type, mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college do not independently or collectively contribute to deaf undergraduate students' socially responsible leadership outcome of Controversy with Civility. This hypothesis was tested through the use of a hierarchical multiple regression. Using the I-E-O framework presented in Chapter III, the first three blocks were input variables and entered hierarchically to control for gender, pre-college involvement, and a pre-test for the outcome measure of Controversy with Civility. Environmental variables were entered into the fourth and fifth blocks of the regression. The variable examining participant attendance at a deaf serving institution versus hearing serving institutions was the only variable entered into the fourth block of the regression as it was a key variable of the study. The fifth block included variables of mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college.

Table 4.7 shows the correlation matrix for the predictor variables of the regression. The predictor variables significantly correlated to each other appear correlated to a small degree with only a few variables with high correlation such as the correlation between the variables of level of college involvement and formal leadership roles held with a coefficient of .699 ( $p < .01$ ). Collinearity statistics show these correlations among the predictor variables to not be problematic as the variance inflation factors for the

variables are low ranging from gender (VIF=1.07) to moderate-term leadership experiences (VIF=2.39) and do not lead to problems of multicollinearity.

Relevant findings from the hierarchical multiple regression are presented in Table 4.8. For the outcome measure of Controversy with Civility, the predictor variables explained 34.2% of the total variance in participant scores. Among the first three blocks

Table 4.7

*Correlation Coefficients for Predictor Variables of the Hierarchical Multiple Regression Analysis*

	A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.	N.	O.	P.
A. Gender	1	.107**	-.009	-.024	.065	.044	-.025	.002	.086*	.006	-.012	-.118**	.029	-.057	-.018	-.060
B. Participation In Clubs Groups		1	.385**	.057	.032	.140**	.085*	.213**	.111**	.247**	.327**	.261**	.125**	.109**	.193**	.269**
C. Participation Varsity Sports			1	-.030	.176**	.029	.035	.164**	.119**	.114**	.142**	.229**	.075	.100*	.157**	.132**
D. Pre-SRLS-R2 Controversy with Civility Test Measure				1	-.140**	-.016	.043	-.034	.011	.173**	.059	-.040	-.009	-.050	-.117**	-.037
E. Deaf or Hearing Institutional Type					1	.063	-.048	.191**	.174**	.045	.049	.164**	.247**	.163**	.076	.136**
F. Mentoring Relationships Student Affairs Staff						1	.448**	.409**	.111**	.159**	.257**	.261**	.259**	.296**	.197**	.250**
G. Mentoring Relationships Faculty							1	.367**	.114**	.179**	.220**	.214**	.170**	.230**	.190**	.189**
H. Mentoring Relationships Other Students								1	.196**	.249**	.252**	.264**	.338**	.324**	.224**	.240**
I. Campus Climate									1	.205**	.201**	.161**	.139**	.153**	.123**	.173**
J. Discussion Scale										1	.282**	.219**	.241**	.204**	.167**	.232**
K. Level of College Involvement											1	.516**	.343**	.359**	.281**	.699**
L. Breadth of Involvement												1	.390**	.450**	.471**	.580**
M. Short-term Leadership Training													1	.663**	.404**	.349**
N. Moderate-term Leadership Training														1	.580**	.390**
O. Long-term Leadership Training															1	.360**
P. Formal Leadership Roles Held																1

\* $p < .05$  \*\* $p < .01$

Table 4.8

Results of Hierarchical Multiple Regression Analysis of Predictors for Controversy with Civility

(N = 581)

Hierarchical Multiple Regression Blocks	R <sup>2</sup>	R <sup>2</sup> Change	F Change	B	B
1. Gender	.000	.000	.053	.010	.093
2. Pre-College Involvement	.012	.012	3.351		
<i>Gender</i>				-.003	-.031
<b>Participation in Clubs and Groups</b>				.117	.539 *
<b>Participation in varsity Sports</b>				-.031	-.120
3. Pre-SRLS-R2 Test Measure	.117	.105	67.398 ***		
<i>Gender</i>				.008	.075
<i>Participation in Clubs and Groups</i>				.089	.411 *
<i>Participation in varsity Sports</i>				-.010	-.040
<b>Pre-SRLS-R2 Controversy With Civility</b>				.326	1.682 ***
4. Institutional Type	.122	.005	2.983		
<i>Gender</i>				.013	.121
<i>Participation in Clubs and Groups</i>				.086	.398 *
<i>Participation in varsity Sports</i>				.003	.011
<i>Pre-SRLS-R2 Controversy with Civility</i>				.316	1.634 ***
<b>Attending a Deaf Serving Institution vs. a Hearing serving Institution</b>				-.070	-.691
5. Environmental Variables	.342	.220	16.835 ***		
<i>Gender</i>				-.005	-.045
<i>Participation in Clubs and Groups</i>				-.021	-.097
<i>Participation in varsity Sports</i>				.010	.040
<i>Pre-SRLS-R2 Controversy with Civility</i>				.234	1.212 ***
<i>Attending a Deaf Serving Institution vs. a Hearing serving Institutions</i>				-.133	-1.315 ***
<b>Mentoring Relationships Student Affairs Staff</b>				.073	.329
<b>Mentoring Relationships Faculty</b>				.101	.461 *
<b>Mentoring Relationships Other Students</b>				-.093	-.401 *
<b>Campus Climate</b>				.191	.705 ***
<b>Discussion of Socio-Cultural Issues</b>				.321	.324 ***

<b>Level of College Involvement</b>	.053	.200
<b>Breadth of Involvement</b>	-.079	-.102
<b>Short-Term Leadership</b>	.154	.721 **
<b>Training/Education</b>		
<b>Moderate-Term Leadership</b>	-.030	-.138
<b>Training/Education</b>		
<b>Long-Term Leadership</b>	-.096	-.481 *
<b>Training/Education</b>		
<b>Formal Leadership Roles Held</b>	.071	.247

\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

$F = 17.967, p = .000$

of input variables that were statistically significant ( $p < 0.05$ ) were pre-college involvement and the pre-test measure for Controversy with Civility. When all the variables were entered into the regression pre-college involvement with clubs and groups was no longer significant. Within the block of pre-college involvement the variable of participation in clubs and groups was shown to have a statistically significant positive relation to the outcome of Controversy with Civility. The pre-test variable of Controversy with Civility making up the third input block was also shown to have a statistically significant positive relation to the outcome of Controversy with Civility. The first three blocks accounted for 11.7% of the variance for the outcome measure of controversy with civility. The variable adding the most variance in the first three blocks was the pre-test measure of Controversy with Civility adding 10.5% when entered into the third block.

The fourth and fifth blocks of the regression accounted for the remaining 22.5% of the variance explained for the outcome measure of Controversy with Civility. Among these two blocks of environmental variables, the block examining attendance at a deaf serving institution versus hearing serving institutions was found to be significant when examined in relation to the input variables and the fifth block of environmental variables. The significant relation found was a negative relation

showing that attendance at a deaf serving institution contributed negatively to the outcome of Controversy with Civility. This is apparent from dummy coding the deaf institution and hearing institution for this environmental variable. Utilizing SPSS, the deaf institution was coded as the number “0” and the hearing serving institutions were coded as the number “1” showing that if the variable affects the outcome negatively then the deaf institution contributed negatively and the hearing institution contributes positively to the outcome variable. Within the fifth block of environmental variables, the variables shown to have statistically significantly positive relations to the outcome measure of controversy with civility included mentoring relationships with faculty, perception of campus climate, experience with discussions of socio-cultural issues, and short term leadership training and education. The variables within the fifth block that were shown to have statistically significantly negative relationship to the outcome measure were mentoring relationships with other students and long term leadership training and education.

### Summary

This chapter presented findings of this study. Significant differences among some descriptive data were found. Hypothesis 1 was tested with a 2-Way MANOVA. Within the MANOVA the outcome measures of Congruence, Commitment, and Controversy with Civility were statistically significantly different with participants from hearing serving institutions scoring significantly higher than participants from a deaf serving institution. Hypothesis 2 was tested with a hierarchical multiple regression analysis. Among the findings from this analysis, gender was not shown to statistically significantly predict the overall variance of the outcome measure of

Controversy with Civility while the variable examining participant attendance at a deaf serving institution or hearing serving institutions was shown to have a statistically significantly negative relation to the outcome measure of Controversy with Civility. Overall, the predictor variables shown to have significant effects on the overall variance of the outcome measure of Controversy with Civility included: the pre-SRLS-R2 measure of Controversy with Civility, attendance at a deaf serving institution vs. hearing serving institutions, mentoring relationships with faculty, mentoring relationships with other students, campus climate, the discussion of socio-cultural issues scale, short-term leadership experiences, and long-term leadership experiences. The next chapter provides a discussion of these findings.



## Chapter V: DISCUSSION

This chapter will discuss the implications of the results presented in Chapter IV. First, a summary of key descriptive findings will be presented. Next, the two hypotheses will be discussed and connected to theory and research related to this topic. Finally, limitations of the study will be reviewed along with implications for practice and suggestions for future research.

### Summary of Findings

Overall findings revealed differences within groups presented in the descriptive statistics as well as significant findings in both hypotheses. This section will highlight key findings in each of these areas.

#### *Descriptive Findings*

Two key descriptive findings are presented as it is important to understand how the two samples used in this thesis compare to the Gallaudet University and national sample data from which they were taken. The first finding involves the survey question identifying if the participants were deaf and hard of hearing. This finding is particularly relevant in light of participant selection for this study. The second descriptive finding examines age differences of study participants.

The first descriptive finding is examined in response to the 77% of participants ( $n = 281$ ) from the Gallaudet sample that did not self identify as deaf or hard of hearing from the MSL survey question. This question involved a skip pattern made possible through Internet survey procedures incorporating two parts. The first part asked participants to respond with a “yes” or “no” answer to the question of, “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? (Komives & Dugan, 2005). The second part was only made available to participants if they selected “yes” for the first part. An answer of “no” moved participants onto the next survey question. If respondents selected “yes,” they were shown the second part of the MSL question to select “deaf and hard of hearing” among multiple other conditions.

In light of the low deaf and hard of hearing response rate from the Gallaudet sample, this researcher utilized an institutional custom question specific to Gallaudet University to identify deaf and hard of hearing participants from this sample. The question was not available to participants not attending Gallaudet University. The survey question did not utilize a skip pattern and was worded, “Are you deaf, hard-of-hearing, or hearing? (Choose one)” (Komives & Dugan, 2006). The use of this custom question more than tripled the deaf and hard of hearing participant response rate from the Gallaudet University sample in comparison to the response rate obtained from only utilizing the MSL skip pattern question with these participants.

It was not possible to compare the increase for the Gallaudet participant response rate using the custom question to the national participant response rate at hearing serving institutions due to the lack of the Gallaudet institutional specific custom question in the rest of the national sample. The lack of this comparison does not diminish the uniqueness of this finding and possible implications that emerge.

The first implication is that many deaf students at the deaf serving institution did not view their deafness as a condition that now or in the past affects their functioning in daily activities. This possibility shows the correct amount of challenge and support (Sanford, 1962) given to students at a deaf serving institution that implies

they do not self identify with their deafness as a condition that affects their daily activities in any special way. Perhaps because in an environment where American Sign Language is the shared language, student deafness apparently does not result in a self-perception of a disabling condition since students are able to communicate effectively with others.

The second implication deals with the participants' Deaf Identity Development (Glickman, 1993). It is possible that those participants who did not self report as deaf or hard of hearing using the MSL survey question were involved in the stage of the model in which they are immersed in the Deaf world (Glickman). This stage would necessitate the participants as being so immersed in the Deaf world and Deaf culture that they would not categorize their deafness as affecting their daily activity in any special way. The participants who did select the MSL disability survey question might then be in the culturally hearing or culturally marginal stages of the model (Glickman). These participants would likewise view their deafness as fundamentally affecting their daily lives and activities.

The difference in interpretation by deaf participants of the survey questions in the present study is not uncommon in research on deaf students. Parasnis, Samar, and Fischer (2005) also found varying interpretations from participants on their answers to free response questions asking participants to examine comfort levels with those different than themselves. Parasnis, Samar, and Fischer were surprised to find most deaf students interpreting the question meaning their relationship with hearing students instead of their relationship with students from other cultures and ethnicities.

The limitation of the administration of this study and difference of interpretation of the study items are further examined below.

The second key descriptive finding from the study involves age differences of the participants. The respondents from hearing serving institutions notably had a higher average age 26.12 ( $SD = 10.54$ ) than both the deaf serving institutional respondents 23.86 ( $SD = 6.64$ ) and the MSL national sample respondents 21.41 ( $SD = 4.72$ ). This higher average age might shed light on why the hearing serving respondents reported higher scores on the outcome of Controversy with Civility in comparison to both deaf serving respondents and respondents from the national MSL sample. The multiple life experiences available to older students might contribute to their cognitive and moral development. Talbot (2003) examined how students must first reach a cognitive developmental stage of being self-aware enough to experience difference. As the outcome measure of Controversy with Civility is based on viewing experience with difference positively, a certain amount of self-awareness through cognitive development must be reached by students to increase their leadership capacity on this measure. The older respondents from hearing serving institutions might have attained a higher cognitive developmental level than younger students through their multiple life experiences and thus had higher scores on the outcome of Controversy with Civility.

### *Hypothesis One*

The first hypothesis proposed that there were no differences in deaf undergraduate college students' socially responsible leadership outcomes scores based on institutional type (i.e., deaf or hearing serving institutional types) or gender.

Descriptive statistics of the eight outcome measures of socially responsible leadership were examined for both deaf and hearing institutional serving participants. The highest and lowest mean total scores for deaf serving institutional respondents were Commitment and Controversy with Civility, respectively. The highest and lowest mean total scores for hearing serving institutional respondents were Commitment and Change. The findings are in line with the national MSL study findings showing that Commitment was the highest of the outcome measures and Change was the lowest. Controversy with Civility was the second lowest of the outcome measures of the national MSL study (Dugan & Komives, 2007). Furthermore, in the present study both institutional types scored lower on the values of Commitment, but respondents from hearing serving institutions scored slightly higher on Controversy with Civility and Change than the national sample. Participants from a deaf serving institution also scored higher on Change than the national MSL sample (Dugan & Komives).

Findings from the study revealed significant differences between students at deaf or hearing serving institutional types in that respondents from hearing institutional serving types scoring significantly higher than respondents from a deaf institutional serving type on the outcomes of Congruence, Commitment, and Controversy with Civility. No significant differences were found for the outcomes of Consciousness of Self, Collaboration, Common Purpose, Citizenship, and Change. Additionally there were no significant differences found from this analysis by gender or the interaction of gender by institutional type for the outcome scores.

The outcome of Congruence is defined in the Social Change Model as thinking, feeling, and behaving with consistency, genuineness, authenticity, and

honesty toward others (HERI, 1996). Findings from the two-way MANOVA showed participants from hearing serving institutions scored significantly higher on this outcome than participants from a deaf serving institution. In this way, participants in attendance at hearing serving institutions reported behaving with consistency and honesty toward others significantly more than participants in attendance at a deaf serving institution. This significance has multiple implications that are examined through literature on college choice (Martin & Dixon, 1991) and literature on deaf culture (Mindess, 1999).

Martin and Dixon (1991) examined four influences on college choice for students including academic program, social climate, cost and location, and influences of others. For deaf students attending hearing institutions, they might not have a need for a social climate that is focused on using ASL and instead put the majority of their importance on the academic program and the cost and location of the school of their choice. This absence of a need for a social climate that fundamentally uses ASL might possibly be a result of the higher average age of these participants, as examined previously, as well as prior possible experience with mainstreamed classes. These multiple experiences examined from literature on college choice further give reason for hearing serving participants' significantly higher scores on the leadership value of Congruence as they might have additional life experiences that provide more situations for them to act with consistency and authenticity toward others. Participants attending a deaf serving institution might instead be younger and have little prior experience with mainstreaming classroom situations and might have little prior

experience in being congruent with their deeply held values or even knowing what those values are.

Further examination of this significant result for this outcome of Congruence is examined from literature on Deaf culture (Mindess, 1999). Mindess examined Deaf culture as collectivist in relation to individualist hearing culture using a few key characteristics. Deaf cultural persons were examined to put group needs before their individual needs, placing a high value on group cohesion with an equally high value on lack of confrontation (Mindess). Hearing individualist persons instead promoted independence and self-reliance and placed a high value on accepting responsibility for their own actions, and the importance of personal choice and opinions (Mindess). The deaf collectivist culture, as suggested by Mindess, has possible implications for participant scores on the leadership outcome of Congruence. These implications are shown when linked to the culture potentially influencing students at a deaf serving institution in comparison to a hearing individualist culture potentially influencing students at hearing serving institutions. These possible implications are examined when observing the probable individualist framework that the outcome of Congruence is based on. If this framework is individualist, then it would make sense for students at an individualist influenced culture to score higher on this value than students at a collectivist influence culture.

The leadership value of Congruence fundamentally measures behaving *consistently* and *honestly* from situation to situation. When examining the words “consistently” and “honestly” from an individualist framework, they both mean to measure if students maintains their core values despite the context around them. For a

student influenced by an individualist culture, maintaining core values despite the context would seem natural as Mindess (1999) defined this culture as accepting responsibility for their own actions and personal choices. In this way, the student's own actions would be accepted despite the context around these actions. The student possibly influenced by a hearing individualist culture would then be seen as "consistent" and "honest" and would score high on the value of Congruence.

In contrast with the possible individualist influenced student, the student influenced by a deaf collectivist culture might instead examine a measure of his or her consistency and honesty from situation to situation as going against the collectivist value of putting group needs before her or her own (Mindess, 1999). In this way, a collectivist culture would not examine actions as consistent and honest if they did not change with the groups values. These changing values might not seem consistent when examined from an individualist framework, but would seem consistent when examined from a collectivist framework. Students possibly influenced by a deaf collectivist culture would then possibly score themselves lower on this value as examined in this study with students at a deaf serving institution scoring significantly lower than students at hearing serving institutions.

The outcome of Commitment is defined in the Social Change Model as the psychic energy that motivates the individual to serve and that drives the collective effort and "is expressed in statements that begin with 'it's critical for me to' or 'I really want to'" (HERI, 1996, p. 40). Findings from the two-way MANOVA showed participants from hearing serving institutions scored significantly higher on this outcome than participants from a deaf serving institution. In this way, participants in



attendance at hearing serving institutions value the individual psychic energy motivating one to serve others significantly higher than participants in attendance at a deaf serving institution. Similar to the outcome measure of Congruence, this significance has multiple implications as examined from a deaf collectivist cultural perspective (Mindess, 1999) and through literature on college choice (Stage & Rushin, 1993).

When first examining the “I” and “me” statements that are part of the definition of Commitment, the possibility that this value stems from an individualist cultural framework becomes more apparent. On further examination of an SRLS-R2 item measuring this value, this individualist framework is further made apparent as the item is worded, “I am willing to devote time and energy to things that are important to me” (Tyree, 1998). This is in contrast to a more collectively based question that might be phrased, “I am willing to devote time and energy to things that are important to the group.” As with the value of Congruence examined above, the individualist cultural leanings of the leadership outcome of Commitment might possibly relate to higher scores by students who attend institutions that might be predominated by individualist cultural beliefs. Using Mindess’s (1999) framework to examine findings from this study, students attending hearing serving institutions are possibly involved in hearing individualist cultures and would then possibly feel more comfortable with these cultural norms, thus scoring higher on measures based on these individualist values.

Further examination of this significant result for this outcome of Commitment is examined from literature on college choice. This result might also be analyzed

through the lens of the leadership value of Commitment fundamentally examining family and peer support as the *psychic energy* that motivates the individual to serve (HERI, 1996). Stage and Rushin (1993) examine supports from family and peers that are already in place for the student as playing a large part in college choice and overall persistence. In this way, the value of Commitment might also be analyzed as examining this support system with participants from hearing serving institutions possibly having a larger support system in place than participants from a deaf serving institution, thus explaining the significantly higher scores by participants at hearing serving institutions.

The outcome of Controversy with Civility is defined in the Social Change Model as the belief that differences in viewpoint in any group effort are inevitable and these differences should be discussed openly with civility (HERI, 1996). Findings from the two-way MANOVA showed participants from hearing serving institutions scored significantly higher on this outcome than participants from a deaf serving institution. Participants in attendance at hearing serving institutions may see that differences in viewpoint are inevitable and should be discussed with civility in any group effort significantly higher than participants in attendance at a deaf serving institution. Similar to the outcome measure of Congruence and Commitment, this significance has multiple implications as examined from a deaf collectivist cultural perspective (Mindess, 1999) and through literature on college choice (Lackland & De Lisi, 2001).

When examining the leadership outcome of Controversy with Civility through Mindess's (1999) framework of a deaf collectivist value, the first implication is the

emphasis placed on lack of confrontation. This lack of confrontation is better examined as a lack of confrontation with difference. The leadership outcome of Controversy with Civility deals explicitly with group differences and the inevitable controversy that happens with these differences. As examined above, the leadership outcome measure then examines how much an individual values and is committed to handling controversy in a civil manner.

A collectivist culture that values as little confrontation as possible would possibly not score high on this measure in comparison to an independent culture that places value on personal choices and opinions and is more tolerant of difference. In addition, the measure could be viewed as fundamentally measuring the outcome from an individualist cultural framework instead of a collectivist cultural framework. A sample item from the SRLS-R2 for the outcome measure stated, “I struggle when group members have ideas that are different from mine” (Tyree, 1998). From an individualist cultural perspective, the question examines the participants’ willingness to approach the conflict of the group members positively and thus work to not “struggle” in the group situation. The more individualist the group member is, the less he or she may possibly struggle and therefore report a higher score on this item. Examining the same item from a collectivist cultural perspective shows how the item might instead be viewed to examine the participants’ willingness for the group to be cohesive. Participants would then report a lower score on this item as they would seek to have the group members’ ideas cohesive and would struggle with having other members’ ideas different from their own. One possible explanation of the significantly lower scores of the participants from a deaf serving institution might be

the influence of a deaf collectivist culture at this institution and the possible individualist value of Controversy with Civility.

Further examination of this significant result for this outcome of Controversy with Civility is examined from literature on college choice. Lackland and De Lisi (2001) examined students' scores on femininity and masculinity questionnaires on their decisions to pursue their college major. Their findings show that students' value systems were significant factors in their decisions for majors rather than their expectancies of success in these majors. In a similar way, hearing serving participants might inherently choose to attend a college or university based on their own value systems of appreciating difference and wanting to experience other differences over their expectancies of success at these non deaf serving institutions. These possible different value systems driving participants at hearing serving institutions might also explain their significantly higher scores on the outcome measure of Controversy with Civility. Further practical reasons influencing students' decisions on their college choice might include how far away from home or their support group their college or university is. In this regard, students might be more likely to attend an institution if it is closer to home. This demographic data in terms of where participants come from was not included in this study and is not possible to be examined further.

The non-significant findings from the two-way MANOVA included no significant differences for the outcome measures of Consciousness of Self, Collaboration, Common Purpose, Citizenship, and Change. Students from a deaf serving institution and hearing serving institutions self reported these outcomes at a similar level. There were also no significant differences found from the analysis by

gender or the interaction of gender by institutional type for the outcome scores.

Although these non-significant findings will not be discussed in detail, the outcome measure of change is examined briefly as well as the non-significance of gender.

As examined briefly above with the descriptive statistics, respondents from both deaf and hearing serving institutions scored higher on the outcome of Change than respondents from the MSL national sample. Although these differences were not analyzed for significance, the findings from the descriptive statistics bring about interesting implications. Change is measured by items examining the respondents' openness to transition and comfort with doing things in new ways. Unlike what the Social Change Model intended, it does not measure their belief in making a better world or working for social change. In this way, the deaf participants analyzed in this study, though not examined for statistical significance, were more open to transition and more comfortable with doing things in new ways than the rest of the MSL national sample participants. One way this openness to transition and comfort with new ways of doing things might be seen as coming to fruition for these deaf participants can be viewed from the strong advocacy by students at Gallaudet University in recent presidential protests (Kinzie, 2006). The general openness of Gallaudet students to these protests and possible changes brought about by them might acknowledge this non significant finding of respondents from both deaf and hearing serving institutions scoring higher on the outcome of Change in relation to the national sample participants.

The non-significance of gender suggests that women and men are more alike than different in regard to their scores on the Social Change Model leadership

outcomes examined in this study. Further descriptive statistics showed that respondents from a deaf serving institution (Gallaudet University) were slightly skewed by gender as women were more represented in comparison to the entire deaf serving institutional sample at Gallaudet University. Even with this slight overrepresentation of women in the deaf serving institution, no significant results were found.

The results lead to many implications as gender was included as a key variable in this thesis based on multiple leadership conceptual and empirical studies charting the significance gender plays in leadership studies (Kezar, & Moriarty, 2000; Kolb, 1999; Komives & Dugan, 2005; Meixner, 2000; Romano, 1996; Stetler, 2002). The uniqueness of the non-significance of gender for this study is important in comparison to the multiple leadership studies that have found gender to play a key role in the findings. Reasons behind the similarity of male and female scores on these leadership outcomes might stem from participants' deaf identity as having a more significant effect on leadership outcomes than participants' gender in this study. The use of Jones and McEwen's (2000) conceptual model of multiple dimensions of identity further brings to light a possible explanation for this lack of difference found with gender. The model examines multiple identities as fluid, dynamic, and constantly undergoing construction based on the context and experiences of the individual (Jones & McEwen). In this way, participants might have a more prominent deaf identity among their other multiple identities in response to their institutional context and life experiences in relation to the leadership outcomes examined in this study than their gender identity. It should be noted that although gender was not

found to be significant for these leadership outcomes, it might still be very significant for participants in multiple other aspects of their college experiences.

This non-significance of gender might further shed light on reasons why so many deaf studies have been shown not to incorporate other relevant demographics, such as gender, beside participant degree of deafness (Foster & Kinuthia, 2003; Parasnis, Samar, & Fischer, 2005; Deaf People in Society, 1991). Though this reasoning has not been empirically validated by researchers in deaf studies, conceptual judgments to leave out gender and other demographics might instead have been analogously based on practice. This lack of research for the multiple other possible demographics of deaf students apart from their degree of deafness represents an area of research ripe for exploration. The importance of further examining demographics held by deaf students in addition to their degree of deafness can be examined in a recent conflict in the student body at Gallaudet University centered on demographic identities held by students in addition to their degree of deafness (McCaskill-Emerson, 2005).

Another reason for the non-significance of gender in this study might be due to the inherent limitation of the comparison made of the deaf students at one deaf serving institution to deaf participants from more than 50 other hearing serving institutions. This wide ranging comparison may have affected many variables under study in this thesis with gender being one. This limitation is further analyzed below.

### *Hypothesis Two*

The second hypothesis was tested using a hierarchical multiple regression analysis. This hypothesis stated that gender, deaf or hearing institutional type,

mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college do not independently or collectively contribute to deaf undergraduate students' socially responsible leadership outcome of Controversy with Civility. The variables that significantly predicted the variance of the outcome of Controversy with Civility included the pre-test variable for Controversy with Civility, deaf or hearing institutional type, mentoring relationships with faculty, mentoring relationships with other students, perceptions of campus climate, experience with discussions of socio-cultural issues, short-term leadership training, and long-term leadership training. The variables that did not significantly affect the variance of the outcome measure included gender, participation in clubs and groups, participation in varsity sports, mentoring relationships with student affairs staff, level and breadth of college involvement, moderate-term leadership training, and formal leadership roles held. The non-significance of gender and the significance of institutional type reflect findings from the first hypothesis in this study.

The overall regression explained 34.2% of the variance for the outcome of Controversy with Civility with input variables explaining 11.7% of the variance and environmental variables explaining 22.5% of the variance. The means and standard deviations of the environmental variables in descriptive statistics of each group showed a few key findings, though are not further examined as differences in these findings were not analyzed in this study. Based on the analysis of the input variables in this hypothesis gender by itself did not significantly predict any variance in the



outcome of Controversy with Civility. The input variables examining pre-college participation in clubs and groups and participation in varsity sports similarly did not predict any variance in the outcome measure. In contrast, the pre-test input variable measuring the outcome of Controversy with Civility did significantly predict variance in the outcome measure of Controversy with Civility.

Though these input variables were selected purposefully based on prior leadership research and literature, many more input variables could have been added and the lack of these further input variables will be examined briefly. One assumption is that participants have similar inputs when in reality participants might have multiple possible inputs. Some examples of these possible inputs stem from deaf literature examining participant experiences growing up in hearing and deaf environments and how these inputs effect participant experiences later in life (Crowe, 2003; Jamber & Elliot, 2005). Based on the sample size and diversity of participants of this study, it was not possible to include or know all potential inputs to utilize. This is further examined later in this chapter in the section on study limitations.

The input variable found to significantly affect the variance of the outcome measure of Controversy with Civility was the pre-test for this measure. While a high score on this pre-test measure did correspond with a significantly higher score on the outcome measure, meaning the level of their Controversy with Civility coming into college explained a great deal of their current level. It should be noted that there was only one pre-test question utilized for this pre-test measure instead of the 6 to 11 questions suggested by Astin's (1991) I-E-O framework used in this study as a conceptual model. Further analysis of the significance of this pre-test measure in

relation to input variables examined in deaf literature (Crowe, 2003; Jamber & Elliot, 2005) shows the possible significance of pre-college experiences for deaf students in regard to predicting their growth and development during college. This analysis examines students' growth and development during college in regard to their scores on the outcome measure of Controversy with Civility.

The input variables that did not significantly affect the variance on the outcome measure of Controversy with Civility included gender, pre-college participation in clubs and groups, and participation in varsity sports. The finding on gender for this outcome measure showing that it did not significantly predict any variance for the outcome measure is similar to the non significant finding of gender for the outcome measure by type of institution in the first hypothesis and again gives a possible explanation of gender not playing a major role for participants for the outcome measure of Controversy with Civility. This non significant finding for both analyses in this study is unique as multiple other leadership studies show gender playing a significant role in the college student experience (Kezar, & Moriarty, 2000; Kolb, 1999; Komives & Dugan, 2005; Meixner, 2000; Romano, 1996; Stetler, 2002). As analyzed previously, multiple considerations of the way data were gathered for this study, including the comparison of 50 hearing serving institutions to one deaf serving institution, might give credence to a possible explanation of the distinctive nature of the non significance of gender for this regression. Furthermore, while gender might play a larger role for participants in this study in other aspects of their college experience, the non significance of gender to predict variance in the outcome

measure of Controversy with Civility is a unique finding and is proposed later in this chapter for an area of future research.

Based on the analysis of the environmental variables in Hypothesis 2, participants scored significantly higher on the outcome of Controversy with Civility if they attended a hearing serving institution and significantly lower on the outcome of Controversy with Civility if they attended a deaf serving institution. Participants scored significantly higher on the outcome measure if they were often in mentoring relationships with faculty, and scored significantly lower on the outcome measure if they were often in mentoring relationships with other students. Participants who perceived their campus climate as being more open and inclusive also scored significantly higher on the outcome measure as did participants who reported more experiences with discussions of socio-cultural issues. Participants who were more involved in short-term leadership training scored significantly higher on the outcome measure while those more involved in long-term leadership training scored significantly lower on the outcome measure.

Findings from the regression analysis on the variable of institutional serving type showed participants attending hearing serving institutions scored significantly higher on the outcome measure of Controversy with Civility than participants at a deaf serving institution. Possible interpretations of this finding link the effect of the institutional culture on the participant and on the characteristics of students who might select to engage with those two different types of institutions (referred to previously as college choice). As examined previously, the institutional culture of a deaf serving institution might promote a collectivist culture (Mindess, 1999) and the

institutional culture of a hearing serving institution might promote an individualist culture (Mindess). These regression findings might then be possibly interpreted as the influence of an individualist hearing serving institutional culture significantly increases participant scores on this outcome measure while deaf collectivist serving institutional culture significantly decreases participant scores on this outcome measure. This follows the discussion in Hypothesis 1 of the innate individualist value of the outcome measure of Controversy with Civility and the effect an individualist serving institution would have toward participant scores on this value. Further interpretations of these findings might be that students select certain kinds of institutions rather than institutions influencing students. The interpretation linking participant attendance at these institutions with the influence of collectivist and individualist cultures has relevant limitations examined further below in the limitation section of this chapter.

As stated previously, participants who had many experiences with discussions of socio-cultural issues scored significantly higher on the outcome measure of Controversy with Civility. This is expected based on the importance of participant experience with difference in relation to this outcome measure. This is further made apparent when examining a sample question of this scale that asks, “During interactions with other students outside of class, how often have you talked about different lifestyles/customs in an average school year?” (Komives & Dugan, 2005). This measure of participant experience with difference in the form of different lifestyles and customs measures the amount of participant encounters with difference. One possible interpretation of this measure is the higher the amount of these

encounters, the more likely a positive outcome is attained from the controversy inherent with the encounters.

The environmental variable examining the campus climate showed that participants who reported perceptions of their campus climates as more open and inclusive scored significantly higher on the outcome measure. This variable asked participants to rate their experience with their overall college climate on an eight point scale from closed and hostile to open and inclusive. It should be noted that this was a general campus climate measure and participants might have interpreted their experience multiple ways. Furthermore, deaf participants have been shown to have widely differing interpretations of measures on instruments examining the college environment in comparison to hearing participants (Parasnis, Samar, & Fischer, 2005).

Despite possible wide ranging interpretations of this measure, these findings of participant self reports of more open and inclusive climates predicting more variance for the outcome measure of Controversy with Civility were expected. Current research examining campus climates that are more hostile and closed, or “chilly”, have found negative effects on student learning from these climates (Pascarella, Whitt, Edison, Nora, Hagedorn, Yeager, & Terenzini, 1997). These negative effects from closed climates would also affect the variance explained in the outcome measure of Controversy with Civility. These effects are further explained based on the amount of cognitive development needed for students to reach a level of self awareness to experience difference civilly (Talbot, 2003). Additional studies on the campus psychological climate by Hurtado et al. (1999) examined the necessity of

an open and inclusive psychological climate necessary for diverse learning environments to benefit students. The multiple and wide ranging campus climates examined in this study with the more than 50 institutions examined brings about possible limitations with this measure, and is further examined later in the paper.

The environmental variables examining short-term and long-term leadership training brought about interesting results as participation in short term training positively predicted a significant amount of the participants' scores on the outcome measure of Controversy with Civility while participation in long term training negatively predicted a significant amount of the participants' scores on the outcome measure. As the outcome measure fundamentally examined experience and comfort with difference, one interpretation of this finding is the type of short and long-term leadership training provided to students. Specifically examining short-term type diversity training for students at Gallaudet University (McCaskill-Emerson, 2005) in relation to broad ranging leadership theory long-term leadership training that doesn't focus on diversity in other institutions shows how these different types of leadership training might effect the participants' scores on this outcome measure.

The environmental variables examining mentoring relationships with faculty and mentoring relationships with other students also had interesting results from the regression analysis. Both variables were shown to predict a significant amount of variance of the outcome measure, but the variable examining mentoring relationships with faculty positively predicted a significant amount of the variance while the variable examining mentoring relationships with peers negatively predicted a significant amount of the variance of the outcome measure. The findings with peer

mentoring in particular are unexpected in relation to deaf literature showing peer mentoring relationships being very crucial to deaf identity development (Becker, 1996; Higgins & Nash, 1996). Further using Mindess's (1999) examination of Deaf culture as collectivist helps to understand this finding. The possible influence of deaf peer relationships might be viewed as a significant influence of collectivist cultural values using Mindess's framework. This peer collectivist cultural influence might further enhance participant deaf identity development to a stage of immersion into the Deaf world (Glickman, 1993). This stage of deaf identity development might negatively influence participant comfort around difference with an emphasis instead placed on group cohesion, therefore accounting for the significantly lower participant scores on the outcome measure of Controversy with Civility who were mentored to a large extent by peers.

The environmental variables that did not significantly predict the variance on the outcome measure of Controversy with Civility included mentoring relationships with student affairs staff, level and breadth of college involvement, moderate-term leadership training, and formal leadership roles held. While these findings of non significance for the experiences had by these participants, as analyzed with their level and breadth of college involvement, moderate-term leadership training, and formal leadership roles held, are shown to not significantly predict the variance of the outcome measure, this does not mean that these experiences might still be important for their growth and development during college as examined in current literature (Dugan, 2006b). These non significant findings might instead show the lack of civil experiences with differences that make up these variables for these participants.

Furthermore, the non significance of mentoring relationships with student affairs professionals might emphasize the need of more developmentally challenging mentoring relationships of student affairs professionals with students focusing on dealing with difference civilly.

The total amount of explained variance of the outcome measure of Controversy with Civility by the input and environmental variables used in the regression analysis was 34.2%. Though this is a small percentage in comparison to the 65.8% of the unexplained variance of the outcome measure, this small percentage is still significant when the multiple possible input variables not examined for the regression analysis (due to the low number and diversity of participants) are taken into account. Furthermore, though the environmental variables only explained 22.5% of the variance of the outcome measure, this is still also a high percentage when taking into account the multiple other possible environmental variables not included in this study. Possible input variables not taken into account for this study include the degree of participant deafness and participant mainstreaming educational background. Further possible environmental variables not taken into account for this study include the financial support available for interpreters and other study aids for deaf students at the institutions of this study as well as measures examining the degree of deafness of faculty and staff and this possible influence on study participants.

#### Limitations of the Study

This section will address six key limitations, specifically (a) the assumption of the influence of the institutional serving type on participants, (b) the use of the MSL data for this study, (c) the wording of the MSL question identifying deaf and hard of



hearing participants, (d) the low response rate, (e) the reliabilities of the outcome values, and (f) the normality violations of the analysis of Hypothesis I.

The first limitation of the study corresponds to the assumption of institutional serving type and its influence on students as well as the comparison of this influence. Due to the low number of deaf students in this study, 50 hearing serving institutions were used in comparison to one deaf serving institution. This decision was based on nature of the sample as there were less than 14 participants at each of the hearing serving institutions in comparison to the 365 participants in the one deaf serving institution. This small number of participants at each of the hearing serving institutions necessitated using the large number of hearing serving institutions to make a statistical analysis possible. The problems inherent in this large sample size are examined when attempting to compare the participant experience at these 50 institutions to one institution. This comparison breaks down as participants have fundamentally many different experiences based on multiple other factors than just if the institutions are hearing serving. For example, they may be large or small, community colleges, liberal arts colleges or research universities and the like. Continuing with the many other factors present in the multiple institutions shows the problems inherent when attempting to combine 50 different institutions into one hearing serving sample in comparison to one institution comprising the deaf serving sample.

The next limitation involves the use of the MSL data and the lack of input variables to choose from. In this way, utilizing data from the MSL precluded the use of a deaf identity development measure for this study; therefore, a more thorough

analysis of Deaf culture and its relation to the participants in this study was limited to institutional type (i.e., deaf or hearing serving institutional types). Further inputs of participant experience at pre-college schools for the deaf or mainstreaming were also not possible due to using the MSL data. A further limitation of using the MSL data involved how the MSL survey might have been administered to the deaf participants without alternative testing procedures available including the usage of sign language. As the survey was administered to a national sample of deaf students, it is not known if the survey was administered with alternative testing procedures included for the participants. This possible limitation is in line with Bat-Chava's 1992 meta-analysis of deaf studies showing the importance of how research is administered to garner reliable results. Another limitation inherent in using the MSL data was from the quasi-I-E-O framework used for the study. This MSL used a quasi-IEO framework as it asked for students to respond to items in the instrument from their current point of view of their pre-college experiences and values. This does not follow the linear time assumption of different points of time being accounted for with the input and outcome measures of the Astin's (1991) I-E-O conceptual framework.

A further limitation was examined as a key descriptive finding in the wording of the MSL disability question. As examined previously, 77% of the participants from the Gallaudet sample did not report themselves as having a disabling condition or subsequently as deaf and hard of hearing using this filter question and instead reported themselves as deaf and hard of hearing using the more simple Gallaudet custom question. For this large percentage of deaf students at Gallaudet to not report themselves as deaf and hard of hearing using the MSL question raises concerns for

other deaf students nationally that also did not report themselves as deaf and hard of hearing using the MSL question, but were not able to be used in this study based on the lack of the Gallaudet custom question for their school. Implications of the wording of this disability identifying question might directly change the sample size of this study and fundamentally change the results.

Another limitation of the study involves the relatively low response rates of the sample in general with the Gallaudet response rate of 37.8% and the MSL national sample response rate of 38%. While these response rates are considered reasonable when utilizing Internet survey procedures (Crawford, Couper, & Lamia, 2001), there is still a large percentage of the population that did not respond to the study. As deaf and hard of hearing participants in particular are a diverse population, this small response rate might have largely affected the findings from this study.

A further limitation of the study is analyzed in the moderate reliabilities of the outcome values, with the reliability of the outcome of Controversy with Civility in particular. As the outcome of Controversy with Civility was selected for analysis in the second hypothesis based on both leadership and deaf literature and research, it should also be noted that it has the lowest reliability of .72 of the outcome measures in this study. While this is considered moderately reliable, in comparison to the good reliability of the outcome measure of Common Purpose with .83, the findings of Hypothesis 2 should be judged with this moderate reliability of the outcome measure in mind.

A further limitation is the multiple normality violations of the assumptions of the two-way MANOVA used in Hypothesis 1. These violations included an unequal

dispersion of the study's variables as the sample sizes were different for hearing serving institutions and a deaf serving institution and the equality of error variance was not met for three of the outcome measures. Though Pillai's Trace was used to statistically account for these normality violations, the results of Hypothesis 1 should be examined cautiously.

### Implications for Practice

The first implication for practice is the emphasis on the survey question seeking to identify students with disabilities. As already noted, findings from this study might be fundamentally changed if the MSL question were worded to better identify students who were deaf and hard of hearing. Though the MSL question was worded in an attempt to both decrease the survey completion time and not examine deafness or other conditions as fundamentally disabling conditions, a more straightforward approach might be needed in the future such as the wording in the Gallaudet University custom question. The straightforward manner of this question might have increased the survey completion time in comparison with the internet skip procedures employed with the MSL question, but this question also successfully identified 77% of the deaf participants at a deaf serving institution.

Further implications for practice call for a humble approach taken by practitioners with the results of this study based on moderate scale reliability of Controversy with Civility in particular, limitations in input variables, normality assumption violations, and percentage of variance not explained from the analysis. While the findings are helpful for practitioners, they may still want to be open to possible changes in the context of their own students' lives and multiple identities.

This can relevantly be examined in the findings of the non significance of gender from this study. Though practitioners should keep this finding in mind when working with deaf students on these specific leadership outcomes, gender might still play a primary role in other areas of the students' lives.

Another implication involves the inherent aspect of the Social Change Model to be changed based on the context of the university or system it is being used in (HERI, 1996). Though the assumption of collectivist culture with a deaf serving institution has been examined as a possible limitation, practitioners might still examine their institutional culture and how the Social Change Model is utilized in this culture. One such implication would be for leadership practitioners at deaf serving institutions to question constantly if their leadership values and concepts are in line with their institutional values and culture.

The last implication is for student affairs professionals to work toward creating diverse experiences and creating safe places for discussions of socio-cultural issues for deaf students at deaf serving institutions. President I. King Jordan of Gallaudet attempted this in 2005 (McCaskill-Emerson, 2005) as a re-active programmatic intervention around the topic of diversity. The main implications from this study are for pro-active education with diversity and experiences around difference for deaf students at a deaf serving institution in particular.

### Suggestions for Future Research

Future empirical research on deaf leadership is crucially needed. The current general lack of empirical research available on deaf student leadership created problems in identifying variables to examine in the study. Further deaf leadership

studies that include race, gender, and ethnicity are greatly needed, as very few studies have currently been conducted. Results from the present study suggest that examining difference needs to be explored to a much larger extent. Researchers should seek out new ways of identifying deaf and hard of hearing participants in light of the survey questionnaire limitations examined.

### Conclusion

The current study addressed the influence of deaf student attendance at a deaf serving institution versus hearing serving institutions. This was examined through an analysis of the deaf student experience at a deaf serving institution versus predominantly hearing institutions on leadership outcomes. This study further incorporated a college impact model to examine the impact of gender, deaf and hearing institutional serving type, mentoring relationships, perception of campus climate, experience with discussions of socio-cultural issues, level and breadth of college involvement, leadership training and education, and formal leadership roles held during college on deaf undergraduate students' socially responsible leadership outcome of Controversy with Civility. General findings from the study showed gender was not a significant factor in examining deaf student leadership outcome scores with participant attendance at a deaf serving institution versus hearing serving institutions as significant. This study helped provide insight into the topic of deaf undergraduate student leadership and further research will continue to develop our understanding as student affairs professionals and in turn positively affect the growth and development of college students and 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)

- Started here
- Started elsewhere

2. Thinking about this academic term, how would you characterize your enrollment? (Choose One)

- Full-Time
- Less than Full-Time

3. What is your current class level? (Choose One)

- First year/freshman
- Sophomore
- Junior
- Senior
- Graduate student
- 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?

**4b. In your primary off campus position, how frequently do you:** (Circle one for each item)

<b>1 = Never</b>	<b>3 = Often</b>
<b>2 = Sometimes</b>	<b>4 = Very Often</b>

- |  |   |   |   |   |
|--|---|---|---|---|
| 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)

<b>1 = Never</b>	<b>3 = Often</b>
<b>2 = Sometimes</b>	<b>4 = Very Often</b>

- |  |   |   |   |   |
|--|---|---|---|---|
| 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).

- |   |   |     |      |       |       |       |       |
|---|---|-----|------|-------|-------|-------|-------|
| <u>As part of a class</u>                 | 0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 |
| <u>With a student organization</u>        | 0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 |
| <u>As part of a work study experience</u> | 0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 |
| <u>On your own</u>                        | 0 | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 |

7. Check all the following activities you engaged in during your college experience.

- Studied abroad
- Experienced a practicum, internship, field experience, co-op experience, or clinical experience
- Participated in a learning community or some other formal program where groups of students take two or more classes together.
- Enrolled in a culminating senior experience (capstone course, thesis etc.)

- o None of the above

**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
- Took 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 one 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 held 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 valued the opportunities that allowed 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 did others give you positive feedback or encourage 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 have reacted 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 did you see 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





- Sports- Leisure or Intramural (ex: Intramural flag football, Rock Climbing)
- Special Interest (ex: Comedy Group)
- 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

Effective constituency-based efforts for change 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)..... 1 2 3 4 5

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 during your college experience, how often have you been in mentoring relationships 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 academic 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)

- Emerging or New Leaders Program
- Peer Leadership Program
- Leadership Certificate Program
- Multi-Semester Leadership Program
- Senior Leadership Capstone Experience
- Residential Living-learning leadership program
- Leadership Minor
- Leadership Major
- 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 one 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 low self esteem ..... 1 2 3 4 5
- I struggle when group members have ideas that are different from mine..... 1 2 3 4 5

- Transition makes me uncomfortable.....1 2 3 4 5
- I am usually self confident.....1 2 3 4 5
- I am seen as someone who works well with others .....1 2 3 4 5
- Greater harmony can come out of disagreement.....1 2 3 4 5
- I am comfortable initiating new ways of looking at things .....1 2 3 4 5
- My behaviors are congruent with my beliefs.....1 2 3 4 5
- I am committed to a collective purpose in those groups to which I belong .....1 2 3 4 5
- It is important to develop a common direction in a group in order to get anything done.....1 2 3 4 5
- I respect opinions other than my own .....1 2 3 4 5
- Change brings new life to an organization.....1 2 3 4 5
- The things about which I feel passionate have priority in my life.....1 2 3 4 5
- I contribute to the goals of the group .....1 2 3 4 5
- There is energy in doing something a new way .....1 2 3 4 5
- I am uncomfortable when someone disagrees with me .....1 2 3 4 5
- I know myself pretty well .....1 2 3 4 5
- I am willing to devote the time and energy to things that are important to me.....1 2 3 4 5
- I stick with others through difficult times.....1 2 3 4 5
- When there is a conflict between two people, one will win and the other will lose .....1 2 3 4 5
- Change makes me uncomfortable.....1 2 3 4 5
- It is important to me to act on my beliefs...1 2 3 4 5
- I am focused on my responsibilities.....1 2 3 4 5
- I can make a difference when I work with others on a task.....1 2 3 4 5
- I actively listen to what others have to say .....1 2 3 4 5
- I think it is important to know other people's priorities.....1 2 3 4 5

- My actions are consistent with my values..... 1 2 3 4 5
- I believe I have responsibilities to my community..... 1 2 3 4 5
- I could describe my personality..... 1 2 3 4 5
- I have helped to shape the mission of the group ..... 1 2 3 4 5
- New ways of doing things frustrate me ..... 1 2 3 4 5
- Common values drive an organization ..... 1 2 3 4 5
- I give time to making a difference for someone else..... 1 2 3 4 5
- I work well in changing environments ..... 1 2 3 4 5
- I work with others to make my communities better places..... 1 2 3 4 5
- 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)
- Far left
  - Liberal
  - Middle-of-the-road
  - Conservative
  - 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 one 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 one 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 one response for each.)  
 1 = Not at all confident      3 = Confident  
 2 = Somewhat confident      4 = Very confident

- Leading others..... 1 2 3 4
- Organizing a group's tasks to accomplish a goal. 1 2 3 4
- Taking initiative to improve something ..... 1 2 3 4
- Working with a team on a group project..... 1 2 3 4

**23. To what degree do you agree with these items?**  
 (Circle one 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

A person can lead from anywhere in the organization, not just as the head of the organization ..... 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

**YOUR COLLEGE CLIMATE**

24. Select the number that best represents your experience with your overall college climate

- |   |               |   |
|---|---------------|---|
| Closed, hostile,<br>intolerant,<br>unfriendly | 1 2 3 4 5 6 7 | Open, inclusive,<br>supportive,<br>friendly |
|---|---------------|---|

**BACKGROUND INFORMATION**

**25. What were your average grades in High School?**  
 (Choose One)

- A or A+
- A- or B+
- B
- B- or C+
- C
- C- or D+
- 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?**

- Female
- Male
- Transgender

**29. What is your sexual orientation?**

- Heterosexual
- Bisexual
- Gay/Lesbian
- Rather not say

**30. Indicate your citizenship and/ or generation status:**  
 (Choose One)

- Your grandparents, parents, and you were born in the U.S.
- Both of your parents AND you were born in the U.S.
- You were born in the U.S., but at least one of your parents was not
- You are a foreign born, naturalized citizen

- You are a foreign born, resident alien/ permanent resident
- You are on a student visa

**31. Please indicate your racial or ethnic background.** (Mark all that apply)

- White/Caucasian
- African American/Black
- American Indian/Alaska Native
- Asian American/Asian
- Native Hawaiian/Pacific Islander
- Mexican American/Chicano
- Puerto Rican
- Cuban American
- Other Latino American
- Multiracial or multiethnic
- 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?**

Yes      No

if Yes Please indicate all that apply:

- Deaf/Hard of Hearing
- Blind/Visually Impairment
- Speech/language condition
- Learning Disability
- Physical or musculoskeletal (e.g. multiple sclerosis)
- Attention Deficit Disorder/ Attention Deficit Hyperactivity Disorder
- Psychiatric/Psychological condition (e.g. anxiety disorder, major depression)
- Neurological condition (e.g. brain injury, stroke)
- Medical (e.g. diabetes, severe asthma)
- Other

**33. What is your current religious affiliation?** (Choose One)

- None
- Agnostic
- Atheist
- Buddhist
- Catholic
- Hindu
- Islamic
- Jewish
- Mormon
- Quaker
- Protestant (e.g. Baptist, Methodist, Presbyterian)
- Other
- Other Christian
- Rather not say

**34. What is your best estimate of your grades so far in college?** [Assume 4.00 = A] (Choose One)

- 3.50 – 4.00
- 3.00 – 3.49

- 2.50 – 2.99
- 2.00 – 2.49
- 1.99 or less
- No college GPA

**35. What is the HIGHEST level of formal education obtained by any of your parent(s) or guardian(s)?** (Choose one)

- Less than high school diploma or GED
- High school diploma or GED
- Some college
- Associates degree
- Bachelors degree
- Masters degree
- Doctorate or professional degree (e.g., JD, MD, PhD)
- Don't know

**36. What is your best estimate 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)

- Less than \$12,500
- \$12,500 - \$24,999
- \$25,000 – \$39,999
- \$40,000 – \$54,999
- \$55,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 - \$149,999
- \$150,000 - \$199,999
- \$200,000 and over
- Don't know
- Rather not say

**37. Which of the following best describes where are you currently living while attending college?** (Choose one)

- Parent/guardian or other relative home
- Other private home, apartment, or room
- College/university residence hall
- Other campus student housing
- Fraternity or sorority house
- Other

#### INDIVIDUAL CAMPUS ITEMS

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

## Appendix B: SRLS-R2 Items

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.



Appendix C: Gallaudet University Institutional Review Board Approval Letter



INSTITUTIONAL REVIEW BOARD  
FOR THE PROTECTION OF HUMAN SUBJECTS  
(202) 651-5400  
(202) 651-5295 (FAX)

KENDALL GREEN  
800 FLORIDA AVE. NE  
WASHINGTON, DC 20002-3695

DATE: February 5, 2007

TO: Susan R. Komives  
University of Maryland  
Counseling & Personnel Services  
2211 Benjamin Building  
College Park, MD 20742

FROM: David R. Penna, Ph.D. Chairperson  
Institutional Review Board (IRB)

RE: "Multi-Institutional Study of Leadership"

Thank you for your inquiry about sharing your data with your student. After a Full Board Review on January 26, 2007, Gallaudet University's Institutional Review Board deemed that this would be acceptable.

If you have any questions regarding this project, contact Dr. David R. Penna, IRB Chairperson, at 202-651-5929 (v/tty) or Sally Dunn, IRB Coordinator at 202-651-5400 (v/tty/VP) or E-mail [IRB@gallaudet.edu](mailto:IRB@gallaudet.edu)

Appendix D: University of Maryland College Park Institutional Review Board

Approval Letter



UNIVERSITY OF  
MARYLAND

INSTITUTIONAL REVIEW BOARD


2100 Blair Lee Building  
College Park, Maryland 20742-5121  
301.405.4212 TEL 301.314.1475 FAX  
irb@dcans.umd.edu  
www.umresearch.umd.edu/IRB

December 14, 2006

**MEMORANDUM**

*Addendum Approval Notification*

**To:** Dr. Susan R. Komives  
John Dugan  
Office of Campus Programs

**From:** Roslyn Edson, M.S., CIP,   
IRB Manager  
University of Maryland, College Park

**Re:** **IRB Application Number:** 05-0454  
**Project Title:** "The Multi-Institutional Study of Leadership"

**Approval Date Of  
Addendum:** December 14, 2006

**Expiration Date of  
IRB Project Approval:** September 14, 2007

**Application Type:** *Addendum/Modification; Approval of request, submitted to the IRB Office on 14 December 2006, to add the following persons to the research team as student investigators: Jim Neumeister, Julie Owen, Daniel Ostick, Jeremy Page, Tom Segar, Craig Slack, Nathan Slife, Wendy Wagner, Terry Zacker, Lee Hawthorne Calizo, Kristan Cilente, Kirsten Freeman Fox, John Garland, Sean Gehrke, Renardo Hall, Katherine Hershey, Ramsey Jabaji, Karol Martinez, Marlina Martinez.*

**Type of Review of  
Addendum:** Expedited

**Type of Research:** Non-exempt

The University of Maryland, College Park Institutional Review Board (IRB) Office approved your IRB application. The research was approved in accordance with the University's IRB policies and procedures and 45 CFR 46, the Federal Policy for the Protection of Human Subjects. 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.

**Continuing Review:** If you want to continue to collect data from human subjects or to analyze private, identifiable data collected from human subjects, after the expiration date for this approval (indicated above), you must submit a renewal application to the IRB Office at least 30 days before the approval expiration date.

*(Continued)*

**Modifications:** Any changes to the approved protocol must be approved by the IRB before the change is implemented, except when a change is necessary to eliminate an apparent immediate hazard to the subjects. If you would like to modify an approved protocol, please submit an addendum request to the IRB Office. The instructions for submitting an addendum are posted at:  
[http://www.umresearch.umd.edu/IRB/irb\\_Addendum%20Protocol.htm](http://www.umresearch.umd.edu/IRB/irb_Addendum%20Protocol.htm)

**Unanticipated Problems Involving Risks:** You must promptly report any unanticipated problems involving risks to subjects or others to the IRB Manager at 301-405-0678 or [redson@umresearch.umd.edu](mailto:redson@umresearch.umd.edu).

**Student Researchers:** Unless otherwise requested, this IRB approval document was sent to the Principal Investigator (PI). The PI should pass on the approval document or a copy to the student researchers. This IRB approval document may be a requirement for student researchers applying for graduation. The IRB may not be able to provide copies of the approval documents if several years have passed since the date of the original approval.

**Additional Information:** Please contact the IRB Office at 301-405-4212 if you have any IRB-related questions or concerns.

Appendix E: Gallaudet University Multi-Institutional Study of Leadership Custom

Questions

Q1. Are you deaf, hard-of-hearing, or hearing? (Choose one)

- 1 Deaf
- 2 Hard of Hearing
- 3 Hearing

Q2. If you are deaf or hard of hearing, which of the following high school environments did you attend? (Check all that apply)

- 1 Residential/Deaf School
- 2 Mainstream school with support services (interpreters, captioning, note taker)
- 3 Mainstream school with a Deaf Program
- 4 School without a Deaf Program and/or support services

Q3. Have you participated in any of the following Deaf Youth Leadership Camps? (Choose one)

- 1 Youth Leadership Camp (YLC)
- 2 Camp Mark Seven
- 3 Other Deaf Youth Leadership Camp

Q4. Do you have any deaf or hard of hearing members in your immediate family, i.e. parent(s), sibling(s)? (Choose one)

- 1 Yes
- 2 No

Q5. Describe your sign language skills when you first entered Gallaudet as a student (Choose one)

- 1 Fluent in sign language/American Sign Language (ASL)
- 2 Very Good Sign language/ ASL skills
- 3 Average sign language/ASL skills
- 4 New signer/knowledge of some basic signs

Q6. Have you taken the COM 495: Organizational Leadership course at Gallaudet? (Choose one)

- 1 Yes
- 2 No

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