

2007

The development of leadership skills through diversity of student organizational leadership

Daniel M. Jenkins
University of South Florida

Follow this and additional works at: <http://scholarcommons.usf.edu/etd>

 Part of the [American Studies Commons](#)

Scholar Commons Citation

Jenkins, Daniel M., "The development of leadership skills through diversity of student organizational leadership" (2007). *Graduate Theses and Dissertations*.

<http://scholarcommons.usf.edu/etd/2229>

This Thesis is brought to you for free and open access by the Graduate School at Scholar Commons. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact scholarcommons@usf.edu.

**The Development of Leadership Skills Through
Diversity of Student Organizational Leadership**

by

Daniel M. Jenkins

**A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
Department of Government and International Affairs
College of Arts & Sciences
University of South Florida**

**Major Professor: Susan MacManus, Ph.D.
Committee Member: Kiki Caruson, Ph.D.
Committee Member: J. Edwin Benton, Ph.D.**

**Date of Approval:
April 3, 2007**

***Keywords: (diversity, leadership, leadership development, student leaders,
student organizational involvement, student organizations, experience with
diversity)***

© Copyright 2007, Daniel Jenkins

Dedicated to my loving and supportive wife Stacey and
our beautiful daughter Ava.

ACKNOWLEDGEMENTS

I would like to thank my advisor Dr. Susan MacManus for her tireless dedication to my graduate education and thesis, sharing her wealth of experiences, advice, and information, numerous hours of assistance, and superb preparation for continued education as well as future research. She is blessed with a sincere devotion to her students' dreams and aspirations. She is truly an inspiration.

I also express my gratitude to my committee members, Kiki Caruson and J. Edwin Benton. Dr. Caruson is an exceptional professor and I credit her with my understanding of advanced statistical analysis. Dr. Benton is an excellent professor and I credit him with my understanding of analyzing policy programs. Both Dr. Caruson's and Dr. Benton's suggestions, guidance, and support were invaluable in the completion of this thesis.

Finally, thank you to my wife Stacey for her love and support during the long and often late hours of writing and research that went into the completion of this thesis.

TABLE OF CONTENTS

	<u>Page #</u>
List of Tables	iv
List of Figures	v
Abstract	vi
 Chapter One:	
INTRODUCTION TO LEADERSHIP SKILLS, DIVERSITY, AND STUDENT ORGANIZATIONS	1
The Importance of the Study	1
Changing Demographics	2
Shortcomings of Existing Leadership Development Programs	2
Expanding Our Knowledge Beyond Workshops	4
A Changing Population: Diversity in Public Universities	4
Types of Student Organizations	5
Campus Organizational Challenges	6
Membership Diversity	6
 Chapter Two:	
REVIEWING THE LITERATURE	8
Diversity and Interracial Interaction on the College Campus	9
Student Organizational Leadership and Leadership Development	14
Student Organizations and Out-of-class Activities	17
Relevant Findings from the Literature	24
Accepted Research Methods	24
Theories from the Literature	25
Inclusive Leadership	25
Membership in a Student Organization	26
Effects of Campus Diversity on Learning Outcomes and Active Thinking	26
Creating Diverse Conditions	26
Substantive Topics of Influence	27
Positive Effects of Diversity	27
Diversity and Leadership Development	28
Diversity and Career Preparation	28
Diversity and Leadership Training	28

	<u>Page #</u>
Chapter Three:	
RESEARCH METHODOLOGY	30
Research Hypotheses.....	30
Survey Respondents and Sample	31
Survey Respondents.....	31
Sample Representativeness	33
Constructing the Survey Sample.....	35
E-mail and Internet Surveys.....	35
Reliability and Validity	38
Response Rates and Sampling Concerns	41
Response Rate, Spam, and E-mail Volatility.....	43
Data and Instrumentation.....	47
Variables.....	50
Variables of Interest.....	50
Independent/Control Variables: Race/Ethnicity, Gender, and Age.....	52
Data Analysis.....	54
Chapter Four:	
RESULTS.....	56
Results for Hypothesis Predicting a Positive Relationship among Student Leaders between Membership in a Diverse Student Organization and Development of Leadership Skills	56
Descriptive Statistics.....	57
Results for Hypothesis Predicting that a Positive Relationship Exists Among Student Leaders between Membership in a Diverse Student Organization and Positive Self-rating of Leadership Skills.....	59
Descriptive Statistics.....	60
Results for Hypothesis Predicting that a Positive Relationship Exists Among Student Leaders between Membership in a Diverse Student Organization and Perceived Career Preparation	61
Descriptive Statistics.....	62
Results for Hypothesis Predicting that a Positive Relationship Exists Among Student Leaders between Leadership Sills Developed from Interaction with Student of Different Racial/Ethnic Backgrounds in their Organizations and Perceived Career Preparation	64
Descriptive Statistics.....	65
Chapter Five:	
FURTHER DISCUSSION: FINDINGS, STRENGTHS AND LIMITATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH	67
Summary of Findings.....	68
Conclusions	72
Strengths and Limitations	73
Suggestions for Future Research	74

	<u>Page #</u>
Chapter Six:	
POLICY RECOMMENDATIONS	76
Recommendations for Lawmakers	76
Recommendations for Higher Education Administrators.....	77
References.....	79
Appendices.....	85
Appendix A: Call to Participate in Survey.....	86
Appendix B: Survey Instrument	87

LIST OF TABLES

#	Title	Page #
1	Profile of Respondents.....	31-32
2	2006 Report of Undergraduate Students' Gender and Race in Florida's Public Universities	33
3	2006 Total Undergraduate Student Population: Florida's Public Universities	34
4	Survey Questions	48
5	Most Important Reason Chosen to go to the University Attended	49
6	Variables of Interest: Concepts and Measures	51
7	Independent/Control Variables: Concepts and Measures.....	53
8	Relationship between Membership in a Diverse Student Organization and Development of Leadership Skills.....	56
9	Relationship between Membership in a Diverse Student Organization and Positive Self-rating of Leadership Skills	59
10	Relationship between Membership in a Diverse Student Organization and Perceived Career Preparation	62
11	Relationship between Leadership Sills Developed from Interaction with Students of Different Racial/Ethnic Backgrounds in their Organization(s) and Perceived Career Preparation.	65

LIST OF FIGURES

#	<u>Title</u>	<u>Page #</u>
1	Welcome to Diversity U.....	3
2	Astin’s I.E.O. Framework	16
3	The Strengths and Potential Weaknesses of Online Surveys.....	36
4	Addressing the Potential Weaknesses of Online Surveys	37
5	Respondent Methodology	44
6	Student Organizational Diversity has a Positive Impact on the Development of Leadership Skills.....	58
7	Student Organizational Diversity has a Positive Impact on Student Self-Rating of Leadership Skills	60
8	Student Organizational Diversity has a Positive Impact on Perceived Career Preparation	63
9	Leadership Skills Developed from Interracial Interaction in Student Organizations have a Positive Impact on Perceived Career Preparation	66

The Development of Leadership Skills Through Diversity of Student Organizational Leadership

Daniel M. Jenkins

ABSTRACT

The steady increase of racial and ethnic diversity in public universities has provided student leaders with many challenges. However, little is known about the effects of racial and ethnic diversity on the development of these student leaders. This study aims to evaluate the effects of racial and ethnic diversity in college student organizations on the development of student leaders and the perceived value of such diversity on their development. The sample consists of 833 student leaders from Florida's ten public universities who completed online surveys. The questions asked were designed to evaluate their past and present leadership roles and skills, exposure to ethnic and racial diversity on their campus (specifically in student organizations), and the perceived influence of racial and ethnic diversity on their leadership skills and career preparation. The results of the study show there is a positive relationship between membership in a diverse student organization and the development of leadership skills. The findings also reveal that the leadership skills learned from this exposure are expected to better prepare students for their careers upon graduation.

CHAPTER ONE

INTRODUCTION TO LEADERSHIP SKILLS, DIVERSITY, AND STUDENT ORGANIZATIONS

The steady increase of racial and ethnic diversity in public universities has provided student leaders with many challenges. However, little is known about the effects of racial and ethnic diversity on the development of these student leaders. This study aims to evaluate the effects of racial and ethnic diversity in college student organizations on the development of student leaders and the perceived value of such diversity on their development.

This chapter provides an introduction to the concepts relevant to this thesis. It is organized into three sections: (1) the importance of the study, (2) the changing population and increased diversity in public universities, and (3) a look at student organizations and their increasing diversification. The third section is divided into two smaller sections. The first discusses campus organizational challenges and the second illustrates the membership diversity of these student organizations.

THE IMPORTANCE OF THE STUDY

College campuses remain one of the most diverse microcosms of American life. Their diverse student bodies, hundreds of student organizations, and numerous academic fields create an atmosphere nearly identical to the diverse and professional world for which the university strives to prepare its students (The 2007 Statistical Abstract). Just as diversity (racial and ethnic representation) has increased in the general population of the United States, it

has grown on college campuses (Dye, 2005). As a result, the knowledge and experience of incorporating, coping with, understanding, realizing, and absorbing diversity has become a monumental challenge but one with the potential to tremendously benefit student organizational leaders should they conquer it.

Changing Demographics

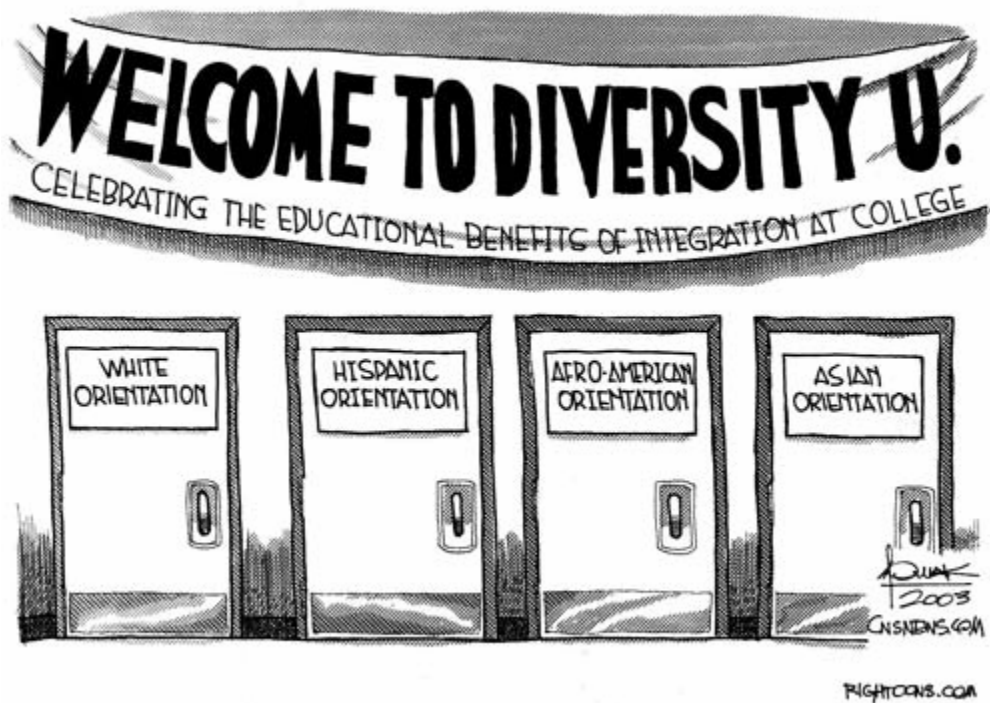
As a leader, understanding differences and learning to lead a diverse group of people is no longer simply a “good thing to do.” The changing demographics of our society have made the concept of inclusive leadership a social and economic imperative. According to projections published by the U.S. Department of Labor, while the white portion of the civilian labor will grow 22.3% from 2000-2050, the growth of the black population during the same time frame is expected to be 62.3%, 195.6% for Hispanics, and 213.5% for Asian and other races (Toossi, 2002; 16). Therefore, old definitions of “fit” should be altered and successful student organizations will shift their culture and climate to accommodate the diversity of their members (Sue, 1994). Our future brings with it the opportunity to interact with and benefit from a variety of different perspectives (Schmidt, 1996).

Shortcomings of Existing Leadership Development Programs

According to Schmidt (1996), student affairs professionals have recognized this challenge for years and have included diversity education into their leadership programs. However, the programs have compartmentalized diversity education into pseudo-special “diversity days,” or “diversity hours,” devoting a one-hour workshop during a leadership conference to topics like

“programming for a diverse audience,” or “cultural awareness 101” (Schmidt, 1996; 75). These workshops typically then move on to the “other” or “real” issues of leadership: delegation, decision-making, motivating group members, etc. The only problem with this practice is that in real life, diversity does not come in fancily-packaged one-hour blocks.

Figure 1
Welcome to Diversity U



Source: CNSnews.com 2003; Available at:
www.cnsnews.com/cartoon/howakimages/2003/diversity.jpg.

Although education professionals may get a warm feeling because the diversity issue has been included, the belief that these listless drafts of diversity are preparing our student leaders for the budding professional melting pot may be inadequate. Diversity influences delegation, decision-making, and how student leaders motivate group members (Schmidt, 1996). In reality, student leaders must confront diversity in *every* hour of leadership.

Expanding Our Knowledge Beyond Workshops

The goal of this research is to expand our understanding of the impact of diversity on the development of student leadership skills beyond simple workshops. Specifically, three questions about student leaders guided this research: (1) Does membership in a diverse student organization have a positive influence on leadership development? (2) Does membership in a diverse student organization have a positive influence on leadership skill self-rating? and (3) Do the leadership skills learned from interaction with students of different racial/ethnic backgrounds in their organizations have a positive influence on perceived career preparation?

A CHANGING POPULATION: DIVERSITY IN PUBLIC UNIVERSITIES

The United States is one of the world's premier melting pots. From the massive immigration in the early 20th century to the groundswell of new arrivals in the 21st century, America has changed in its makeup. Projections are that by 2050, the United States will have more racial and ethnic "minorities" than whites (Ryter, 2004). As a direct result, the ratio of non-whites graduating from high school and being the first in their families to attend college is as significant, if not more so, as the white middle and lower class baby-boomers before them reaching these milestones.

The growing diversity of the undergraduate student body in American postsecondary education has been well documented over an extended period of time (cf., Hodgkinson, 1985; Levine & Associates, 1989). One need only

examine the 2006-7 *Chronicle of Higher Education: Almanac Issue* to gain a good understanding of the extent of this changing population nationally or to the State University System of Florida Facts and Figures for comparable statistics in our state. For example, from 1995 to 2004, the total number of white undergraduates in American colleges and universities increased by 11% (7.9% for 4-year public universities nationwide; 27% for Florida's public universities). In comparison, there was a 48.7% increase in the number of Asian, Hispanic, African American, and Native American undergraduates during the same time frame (61.8% for 4-year public universities nationwide; 65.4% for Florida's public universities). Consequently, the proportional makeup of college student bodies has changed.

The changing composition of Florida's public universities has tracked closely with that of public universities nationally. In 1995, non-white students (e.g., Asian, Hispanic, African American, and Native American) constituted 25.8% of the total national undergraduate population (16.4% in 1995 nationwide; 31.8% in Florida). By 2004, they accounted for 31.8% of the national undergraduate population (31.8% nationwide; 37% in Florida).

TYPES OF STUDENT ORGANIZATIONS

The types of student organizations on college campuses are as diverse as the student body itself. On the 10 Florida college campuses included in the study, *racial/ethnic groups* are often well represented by student unions, e.g., Black Student Union, Jewish Student Union, Hispanic Student Union, Asian

Student Union, etc. However, these groups strive to be nondiscriminatory and often voice that all students are welcome as members. In addition, college campuses are home to hundreds of other types of student organizations. From skydiving to surfing, Tae Kwon Do to Tango, fraternities and sororities, cultural, religious, service, and sports clubs to name but a few, there are outlets for virtually every student interest.

Just as some in the general population are consumed by civic, governmental, and interest organizations, interested students may find that classroom learning is not enough. This is particularly true for student leaders as they possess an additional drive not only to involve themselves in student organizations, but to lead, organize, invigorate, motivate, plan, and administrate.

Campus Organizational Challenges

With these numerous and diverse channels for involvement come debates for funding from student fees through student governments, recruiting new members, planning and administrating events, and recruiting new members. These student organizational machines are piloted by student leaders elected, appointed, or sometimes even nominated to fill these leadership roles.

Membership Diversity

Student organizations are more diverse now than ever. No longer are student organizations, except in the rarest of cases, confined or self-restricted to a set demographic for their membership. This diversity creates challenges much different than those facing the organizations of yesteryear. This study is one of the first to examine the degree to which the diversity of these organizations

affects the leadership development of student leaders and prepares them for their careers following graduation.

CHAPTER TWO

REVIEWING THE LITERATURE

The vast increase of racial and ethnic diversity in college students has led to adjustments in how student leaders recruit, organize, and interact with their organization's membership. This change in campus population demographics continues to create unique experiences, developments, and challenges for student leaders. Because of these changes, the same old routines are insufficient for developing leadership training programs for student leaders, educating student leaders on the racial and ethnic diversity of their campuses and organizations, and preparing students for their careers in an equally diversified workforce after graduation.

As society becomes more and more diverse, preparing college students to become active participants and leaders in a pluralistic society becomes both more urgent and, potentially, more complex (Zuniga, et al., 2006). Diversity issues on college campuses can range from governmentally-enacted affirmative action policies to multicultural and diversity initiatives propelled by student activities administrators.

To date, little has been written specifically addressing the research questions at hand in this study. Consequently, the literature reviewed here focuses on the literature that covers diversity and interracial interaction on college campuses, student organizational leadership, student organizations, and students' out-of-class activities.

DIVERSITY AND INTERRACIAL INTERACTION ON THE COLLEGE CAMPUS

A handful of recent studies have examined interracial interaction in college within student development and/or college socialization frameworks. In the first of these, Astin (1993a, 1993b) found that, independent of students' entering characteristics and different types of college environments, frequent interracial interaction in college was associated with increases in cultural awareness and commitment to racial understanding. Further, he found that higher levels of academic development (critical thinking skills, analytical skills, general and specific knowledge, and writing skills) and satisfaction with college to be associated with more frequent socialization across race (Antonio, 2001; 595-96).

Hurtado, Dey, and Trevino (1994) focused specifically on the issue of self-segregation on campus. They conducted a longitudinal study of the college behaviors most strongly associated with interracial interaction in college. On a descriptive level, Hurtado and her colleagues found that students of color (who are numerical minorities on most campuses) were more likely than white students to interact across race. Furthermore, they found that not only were various activities predictive of interracial interaction, they determined that the nature of those activities varied by race (Antonio, 2001; 596).

Other research has focused on addressing interracial interaction concentrated on the degree of racial diversity of a campus population and its effect on student outcomes. Chang's (1996) study indicated that in general, greater racial diversity in the undergraduate student population positively affects the frequency of socialization across race. In addition, he found that socialization

across race was associated with discussing racial issues in college, taking ethnic studies courses, attending racial/cultural awareness workshops, and promoting racial understanding.

Similarly, Astin (1993b) speculated that emphasizing diversity on college campuses either as a matter of institutional policy or in faculty research and teaching, as well as providing students with curricular and extracurricular opportunities to confront racial and multicultural issues are all associated with widespread beneficial effects on a student's cognitive and affective development. In particular, he asserts, such policies and experiences are associated with greater self-reported gains in cognitive and affective development (especially increased cultural awareness), with increased satisfaction in most areas of the college experience, and with increased commitment to promoting racial diversity.

In a similar study, Gurin (2002) propels that students' experience with diversity can be examined at three levels. The first is structural diversity, which represents the demographic composition of the student body. The second is classroom diversity, or the degree to which human and cultural diversity is represented in the curriculum. The third is interactional diversity, or the extent to which students from diverse backgrounds actually come into contact and interact in educationally purposeful ways. Most efforts by institutions to address diversity focus on structural and classroom diversity, recruiting more students from diverse backgrounds and incorporating multicultural perspectives in the curriculum (Hu & Kuh, 320-21).

Early research shows that efforts to increase diversity are associated with a variety of desirable student learning and personal development outcomes (Chang, 1999, 2000; Gurin, 2002). For example, Gurin argued that a diverse student body created a unique learning environment that lead to increased probability for students to interact with peers from different backgrounds. Hurtado, et al. (1999) suggested that diverse peers in the learning environment could improve intergroup relations and mutual understanding. Less is known, however, about the effects of student interactions with peers from diverse backgrounds. It is clear that peers are an important factor in student adjustment to college in that peer interaction has both direct and indirect effects on how much students learn (Hu & Kuh, 2003; 321).

Villalpando's (2001) study explores the extent to which desegregated groups of students of color, in comparison to white students, report different levels of overall satisfaction with college when there is a strong diversity and multicultural emphasis at their institution. This study sought to evaluate student institutional interaction and campus environmental variables, characteristics, as well as measures of students' values, attitudes, and opinions (as independent variables). The dependent variables report outcomes based on students' reported level of satisfaction with overall college experience on a four-point ordinal scale.

The results of this study were helpful in aiding the current debate regarding the impact of multiculturalism on the college student community as a whole by examining whether and how a diverse and multicultural environment

affects students of color as well as white students. The most relevant results are the variables measuring the environmental effects of a diversity emphasis on students' overall college satisfaction. Every group of students in the study appeared to benefit from attending cultural awareness workshops. The study's major findings comparing the effects of emphasizing multiculturalism and diversity issues on differentiated racial groups of students suggests that there is generally a net positive effect on their overall satisfaction with college. The results of this study appear to support much of the previous research suggesting that emphasizing multiculturalism on college campuses leads to generally positive outcomes. Therefore, the study suggests that colleges and universities can indeed enhance the educational experiences of students by creating an environment that facilitates and fosters a greater understanding of diversity and multiculturalism (Villalpando, 2002).

Zuniga, Williams, and Berger's (2005) study seeks to examine whether college students' participation in diversity-related experiences instills motivations to take actions for a diverse democracy. The study addressed 597 students which completed both a fall 2000 and spring 2001 survey that accounted for 57.8% of the 1,033 residence hall occupants that compromised the study's target population.

The results of this study suggest that interactions with diverse peers, participation in diversity-related courses, and activities inside and outside residence halls inspire students to challenge their own prejudices and promote inclusion and social justice. Also, the findings highlight the influence of diverse

interactions and curricular and co-curricular activities on knowledge and attitudes rather than their influence on actual behaviors or actions that students are willing to take to promote a more inclusive and socially just society (pro-active with motivation to reduce one's own prejudices at 40%). Students with higher levels of motivation toward actively reducing their own prejudices and promoting inclusion and social justice are more likely to be involved in the types of activities that would likely reinforce or strengthen such inclinations. Students of color are not likely to have higher levels of motivations than their White peers toward reducing their own prejudices or promoting inclusion and social justice (Zuniga, Williams, & Berger, 2005; 676).

A (2001) study conducted by Whitt, Edison, Pascarella, Terenzini, and Nora, sought to evaluate the influence of diversity and students' opportunities to interact with people of different backgrounds, cultures, and experiences different from their own in college. The purpose of the research was to: (1) identify environmental and individual influences on students' openness to diversity and challenge, and (2) suggest ways in which colleges and universities might shape their programs, policies, and environments to encourage such openness.

Seven variables had significant positive relationships with openness to diversity and challenge across the first three years of college: (1) precollege openness to diversity and challenge, (2) sex (i.e., being female), (3) age (i.e., being an older student), (4) perceptions of a nondiscriminatory racial environment at the institution, (5) participation in a racial or cultural awareness workshop in any year of the study, (6) diverse student acquaintances, and (7) conversations

with other students in which different ways of thinking and understanding were emphasized. An eighth variable—the number of mathematics courses taken in college—had a significant negative association with openness to diversity and challenge in all three years (Whitt, et al., 2001; 188).

STUDENT ORGANIZATIONAL LEADERSHIP AND LEADERSHIP DEVELOPMENT

Leaders are the heart and soul of student organizations. Their ability to recruit new members, administer events, motivate the membership, and resolve internal and external conflicts is critical to organizational success. Schmidt (1996) coined the term “Inclusive Leadership,” emphasizing the concept of the changing demographics in our society. Inclusive leadership brings with it the need to understand ethnic and racial diversity as a social and economic imperative. The necessity of the changing role of the leader is vital to the student leader as he or she prepares themselves for their roles as leaders in their careers following graduation.

Astin (1993a) found that the strongest positive effect on self-reported growth in leadership abilities is associated with going away from home to attend college (with this factor in affect for all college students). Astin also found that the three involvement variables showing the strongest residual correlation with self-reported growth in leadership abilities are hours per week spent in student clubs organizations, being elected to a student office, and giving presentations in class. Other positive associations include attending a racial or cultural awareness workshop, being a member of a social fraternity or sorority, and

socializing with students from different racial or ethnic groups. Socializing with persons from different racial or ethnic groups also showed a significant positive correlation with self-reported improvements in job-related skills.

In a 2000 study conducted by Arminio, Carter, Jones, Kruger, Lucas, Washington, Young, and Scott, researchers at a large and mid-sized institution, experiences of student leaders of color were observed—attitudes toward being labeled a leader, the personal costs of holding leadership positions, and the like. The research design was a combination of case studies, phenomenological research, and narrative research. The researchers interviewed 106 non-white male and female students (no international students). The students had to hold a formal or informal leadership position on their campus. The actual interviews spanned the first two years of college, although some students came back for a third year interview. Standardized open-ended questions were designed to allow participants to tell their stories focusing on their leadership experiences while minimizing variations across interviewers. Questions focused on experience and behavior, opinion and values, and feeling. Questions were altered in their form each year. The researchers employed a content analysis of the interview transcripts.

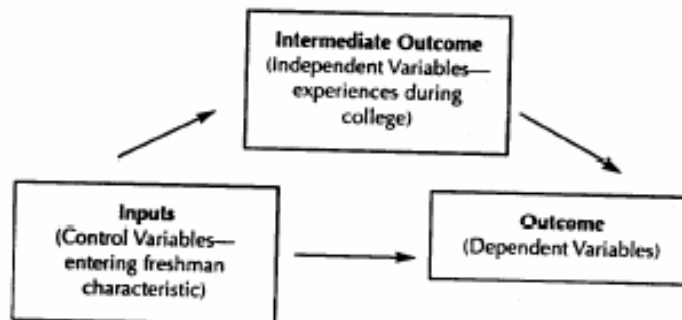
The study concluded that there are important means by which the values and experiences of student leaders of color are not being validated in leadership programs based on conventional leadership literature and that leadership language does not "ring true" for all students. The study further demonstrates

the need to transform leadership training to include a variety of cultural perspectives.

Kezar and Moriarty's (1996) study on the various methods of college student leadership explored gender and ethnic identity and their relationship to leadership. Kezar and Moriarty employed a one-group pretest-posttest design where students' college experiences from 1987 through 1991 was the "treatment."

In this study, the authors utilized Astin's popular input-environment-output (I-E-O) model of assessing college outcomes.

Figure 2
Astin's I.E.O Framework
The I-F-O Framework (Astin, 1991)



Source: A.W. Astin, *Assessment for excellence*. New York: Macmillan Publishing, 1991

In this model, outcomes refer to the dependent variable or variables that are being examined to determine whether or not change has occurred during the college years. The sample for this study included 9,371 students from 352 four-year institutions that were given the 1987 Freshmen Survey and the 1991 Follow-Up Survey of College Freshmen collected by the Cooperative Institutional Research Program (CIRP). The dependent variables, tested by the survey,

posed questions to produce feedback regarding the students' entering leadership ability self-rating and self-rating of leadership related qualities, communication skills (public speaking and writing), self-confidence (intellectual and social), and the ability to influence others. The independent variables came from the CIRP data that included numerous variables that allow for an examination of the relationship between the dependent variables and precollege factors as well as college environmental factors.

Kezar and Moriarty were able to find statistically significant relationships between their variables. Therefore, the authors were correct in their assessment that different strategies are necessary for the development of leadership among a diverse group of students.

STUDENT ORGANIZATIONS AND OUT-OF-CLASS ACTIVITIES

The focus of this study is on the leaders of student organizations. These student-lead organizations foster the needs, interests, socialization, experience, and career-preparation unlike any other outlet outside of the classroom. These microcosms of the outside world are preparing students for the civic, business, and political organizations they will become members of after graduation.

Guiffrida's (2003) study asserts that the integration of non-white students is positively influenced by formal forms of associations such as involvement in student organizations. The importance of student organizations, especially cultural student organizations, to minority student retention has been supported in the literature (DeSousa & Kuh, 1996; Mallinckrodt & Sedlacek, 1987; and

McClung, 1988). Murguia, Padilla, and Pavel (1991), in a qualitative study of Hispanic and Native American students, found that participation in ethnic organizations enabled students of color to scale down the larger campus environment by forming smaller "enclaves." They argued that once integrated into an ethnic enclave, students felt more comfortable exploring and integrating into the larger campus community. Similarly, Padilla, Trevino, Gonzalez, and Trevino (1997), using data collected in small focus groups with Hispanic, Asian American, Native American, and African American students, found that ethnic organizations enhanced their college experiences by allowing them to "retain and nurture a sense of ethnic identity on campus." They concluded that an important benefit of involvement in ethnic student organizations is to assist students of color in bridging the cultural gap between their home communities and their universities.

In addition, Guiffrida (2003) found that an equally important motivation for joining a student organization was the connections it would create in the professional world. Just as leadership in a student organization may benefit a student with interracial interaction (including white students); the visibility may build bridges into the professional world. Moreover, the ability to communicate with faculty or administration was heightened. One student interviewed in Guiffrida's study when asked if he had always had a strong relationship with faculty, this male explained how his involvement in a cultural organization was the key.

I would say being a member of an organization has helped because well, somebody explained it to me [that] it seems just a little strange

if just a random person walks into somebody's office [saying], "Hello, can I speak with them?" They might not give me the time of the day sometimes or whatever. But, if you're a member of an organization, they will probably give you the time of day sooner or later. It seems like being a part of something helps.

In a study on student development as a result of involvement, Flowers' (1996) used data from the College Student Experiences Questionnaire (CSEQ), from a ten-year span of 1990-2000. From the CSEQ, Flowers utilized data from 7,923 African American students from 192 institutions (93 public and 99 private) that took the survey.

Flowers used CSEQ scales to outsource the following independent variables: Student Involvement, Interactions with Faculty, Effort to used to Learn Course Information, Art, Music and Theater Scale; Personal Experiences; Student Union scale assessing union use; Athletic and Recreational Facilities Scale; and the Clubs and Organizations Scale. The dependent variables were educational outcomes defined as five CSEQ scales that yielded self-reported gains, an understanding of the arts and humanities, personal and social development, understanding science and technology, thinking and writing skills, and vocational preparation. The results showed that in and out-of-class experiences positively impacted student development of the students represented by the data sample.

Antonio contributed to this research by addressing our understanding of the role of interracial interaction in students' college experiences by taking in account the racial diversity of students' close friends. In this way, differences in

the effects of interracial contact between those that are of an acquaintance nature and those that are more causal could be inferred (Antonio, 2001; 597).

Research on the impact of interracial interaction in college students has indicated that during college, students tend to change in the direction of greater tolerance to individual differences (Pascarella & Terenzini, 1991). Moreover, research on college impact demonstrates that students' interpersonal environments (e.g., interactions with peers and faculty) have the greatest impact on changes in values, attitudes, beliefs, and actions (Whitt, et al., 2001). For example, non-course-related peer interactions, such as serious discussion with students of varied religious beliefs and political opinions, had a significant positive influence on cognitive development in the first three years of college (Whitt, et al., 1999). On the other hand, experiences that insulate students from diversity in ideas or people tend to inhibit cognitive development (Terenzini et al., 1996; Whitt, et al., 2001).

Nonetheless, numerous studies show that student body diversity promotes learning outcomes, better prepares students for an increasingly diverse workforce and society, and better prepares them as professionals (Hurtado, 2005; 596). However, Chang (2003) argues that the benefits of diverse environments brought about by affirmative action may not be immediately evident to individuals within institutions. Perhaps more importantly, the research indicates the benefits accrue to individual and organizations under optimal conditions and many educators must strive to create these conditions if they are non-existent in educational institutions (Gurin, et al., 2002).

Hurtado argues that the next generation of diversity and intergroup relations research should explore aspects of the optimal conditions that considerably expand those initially postulated in G.W. Allport's 1954, *The Nature of Prejudice*. Hurtado further argues that additional evidence is needed about the conditions and practical interventions within diverse education settings that result in preparing individual for an increasingly diverse workplace, regardless of whether or not affirmative action is the source of this diversity (Hurtado, 2005; 596).

Hurtado hypothesized in her (2005) study that diversity in the student body provides the kind of experience base and discontinuity to evince more active thinking among students moving them from their own embedded worldview to consider those of another (or their diverse peers). She suggests that theories in line with this style of thinking of how diversity works in education suggest that most of us are cognitively inclined to rely on familiar ways of thinking that include habits, routine, and even stereotypes that dominate our world view (Hurtado, 2005; 598).

Still, as research has delved into the pressure of the assimilation of diversity on campus, other research in this area has touched on the idea of how diverse students may have separate needs when it comes to leadership and professional preparation. Because it has become increasingly important from an educational and administrative perspective to fairly treat and prepare diverse students for the professional world, this issue has received increased attention. Nonetheless the intersection of leadership development and diversity has been

explored only superficially on college campuses (Arminio, et al., 2000). Though the literature on leadership is vast, a search of this subject will reap scores of what Rogers (1996) described as conventional leadership literature but little alternative literature and even less investigating that intersection of race and leadership.

Kuh (1993) sought to discover the impact of out-of-class experiences on outcomes of college attendance considered importance by students. The sample consisted of 149 Students classified as seniors from 12 institutions in different regions of the United States which were interviewed to determine the impact of out-of-class experiences on student learning and personal development. No more than half the students were to be highly visible leaders (e.g., editor of student newspaper, varsity athlete, president of an organization, etc.).

Interviews were conducted between January and June of 1989. Interviews occurred in private rooms in campus buildings and ranged from 35 minutes to one and a half. Students were visited twice by a team of two to four investigators; the interviews with students on which this study is based were conducted during the second study. The basis of the interview consisted of four probes: (1) why did you choose to attend this college and in what ways has it been what you expected, (2) what are the most significant experiences you have had here, (3) what are the major highlights of your time here? low points? high points? surprises? disappointments? and, (4) how are you different now than when you started college?

The results of this study show that, consistent with earlier studies, experiences beyond the classroom made substantial contributions to student learning and personal development. All students reported personally meaningful changes in one or more areas considered to be important outcomes of college (e.g. interpersonal and practical competences, critical thinking).

A (1999) study by Whitt, Edison, Pascarella, Terenzini, and Nora, examined relationships between peer interactions and cognitive outcomes during college. This quasi-experimental time series design was identical to the (2001) Whitt, Edison, Pascarella, Terenzini, and Nora study discussed above. However, instead, the researchers employed a longitudinal investigation of the factors that influence learning and cognitive development in college.

The sample included 3,840 students at 23 colleges and universities (18 four-year and five two-year) in 16 states. Institutions were chosen from the National Center on Education Statistics Integrated Postsecondary Education Data System (IPEDS) data to represent differences in colleges and universities nationwide on a variety of characteristics, including institutional type and control, private liberal arts colleges, public and private, historically black, size, location, patterns of student residence, and ethnic distribution of the undergraduate student body.

Positive significant relationships were found between peer interactions and cognitive outcomes. Further, the results of the study provide substantial support for scholars who have argued for the central importance of peer interactions in shaping the nature and magnitude of college's impact on students.

Student involvement is the single most important determinant of what one derives from a college education. The more that students were involved with their peers in both course-related and non-course related interactions, the greater their cognitive growth during college. Moreover, peer interactions on non-course related manners were the *only* interactions that had significant positive effects on objectively measured outcomes.

RELEVANT FINDINGS FROM THE LITERATURE REVIEW

The literature shows that both debate and interest still surround the effects of diversity on college campuses, amongst college students in and out of the classroom, and particularly on interracial interaction. In addition, the methodological, theoretical, and substantive topics reviewed in the literature were helpful in refining the research design for this study.

Accepted Research Methods

The bulk of the researchers discussed in the literature drew their data from mass surveys of students as well as qualitative interviews. However, further review of the literature indicates that data collected from surveys such as the CSEQ utilized by Flowers (1996) and IPEDS utilized by Whitt, Edison, Pascarella, Terenzini, and Nora (1999) resulted in much more effective and reliable analysis. In addition, the time spent on content analysis of interviews as well as the validity and reliability of subjectively coding responses is questionable.

Surveying college students also proved to be a popular, valid, and reliable method of data collection. Surveys are unique their ability to collect data on demographics, characteristics, opinions, and self-reported statistics. Astin (1993), Kezar and Moriarty (1996), Flowers (1996), Whitt, Edison, Pascarella, Terenzini, and Nora (1999), were just a few of the studies that utilized college student responses to surveys. These researchers were able to convert the survey responses to data easily measured by statistical analysis. This technique was found to be an ideal method for data collection in the study at hand.

Theories from the Literature

A review of the key theories discussed in the literature reveal four specific ideas that influenced this research: (1) Inclusive leadership brings with it the need to understand ethnic and racial diversity as a social and economic imperative, (2) Motivation for joining a student organization comes from the connections it will create in the professional world, (3) Student body diversity promotes leaning outcomes and provides the kind of experience base and discontinuity to evince more active thinking among students moving them from their own embedded worldview to consider those of another (or their diverse peers)., and (4) The next generation of diversity and intergroup relations research should explore aspects of optimal diverse conditions (which educators must strive to create).

Inclusive Leadership. Inclusive leadership emphasizes the concept of the changing demographics in our society (Schmidt, 1996). This theory is important to this study as it looks to how leaders understand ethnic and racial diversity. As

leaders prepares themselves for their roles as leaders in their careers following graduation, it is vitally important for them to have had interracial interaction.

Specifically, the idea of inclusive leadership focuses on the practices of understanding and including diversity into leadership decision and experiences.

Membership in a Student Organization. Joining a student organization has many benefits. According to Guiffrida (2003), one of the most significant benefits is the connections it would create in the professional world. This theory, then, may be equally true for diverse student organizations. It would follow then that leadership in a student organization would provide interracial interaction and preparation for future multicultural relations in the professional world.

Effects of Campus Diversity on Learning Outcomes and Active Thinking. Many theories have pointed to how a diverse student body promotes better learning outcomes. Additional benefits for students have included preparation for an increasingly diverse workforce and evincing more active thinking among students, moving them from their own embedded worldview to consider those of another (or their diverse peers) (Hurtado, 2005). These ideas are influential on the research at hand as it looks to identify the relationship of diversity on the perceived career preparation.

Creating Diverse Conditions. Hurtado (2005) theorized that that the next generation of diversity and intergroup relations research should explore aspects of the optimal conditions for diversity and its positive effects. Likewise, research is needed to explore the conditions and practical interventions within diverse education settings that result in preparing individual for an increasingly diverse

workplace (Gurin, et al., 2002). These ideas are important to this study as it looks to future research on how educational institutions can strive to create such conditions.

Substantive Topics of Influence

A review of the key substantive topics discussed in the literature reveal four specific ideas that influenced this research: (1) Emphasizing diversity has a positive effect on a student's cognitive and affective development, (2) There is a strong residual correlation with self-reported growth in leadership abilities and hours per week spent in student clubs organizations and being elected to a student office, (3) Socializing with persons from different racial or ethnic groups has a positive relationship with self-reported improvements in job-related skills, and (4) As a result of diversification, there is a need to transform leadership training to include a variety of cultural perspectives,

Positive Effects of Diversity. Astin (1993b) found that emphasizing diversity on college campuses either as a matter of institutional policy or in faculty research and teaching, as well as providing students with curricular and extracurricular opportunities to confront racial and multicultural issues are all associated with widespread beneficial effects on a student's cognitive and affective development. Other early research on this topic shows that efforts to increase diversity are associated with a variety of desirable student learning and personal development outcomes (Chang, 1999, 2000; Gurin, 2002). Likewise, Villalpando (2002) found that there is positive relationship between emphasizing

multiculturalism and diversity issues on differentiated racial groups and overall satisfaction with college. A synthesis of these topics was influential in providing evidence of a strong positive association between diversity and interracial interaction on campus and student development.

Diversity and Leadership Development. Astin (1993a) a strong correlation between self-reported growth in leadership abilities and hours per week spent in student clubs and organizations and being elected to a student office. There is also a positive relationship between attending a racial or cultural awareness workshops, being a member of a social fraternity or sorority, and socializing with students from different racial or ethnic groups on leadership development. Strong associations of diversity and leadership developed fueled this research and helped to develop this study. This study aims to look directly at this association by studying student leaders.

Diversity and Career Preparation. Astin (1993b) found that socializing with persons from different racial or ethnic groups has a significant positive correlation with self-reported improvements in job-related skills. It would follow then, that diversity may have a positive influence on career preparation. This topic was influential in future research on this association.

Diversity and Leadership Training. Innovative literature has focused on the topic of developing specific leadership programs as a result of diversification. A (2000) study by Arminio, et al., concluded that there are important means by which the values and experiences of student leaders of color are not being validated in leadership programs based on conventional leadership literature and

that leadership language does not "ring true" for all students. The study further demonstrated the need to transform leadership training to include a variety of cultural perspectives. This study hopes to show that diversity is influential on leadership development and open the door for future research on specific techniques for leadership development training.

CHAPTER THREE

RESEARCH METHODOLOGY

In this chapter, the research hypotheses, design, data, dependent and independent variables, and analytic techniques used in the study are delineated. Specifically, the chapter is organized into six sections: (1) the research hypotheses, (2) a description of the survey respondents and sample, (3) a discussion regarding non-respondents and the volatility of Internet and e-mail spam, (4) an explanation of the reliability and validity of Internet and e-mail surveys and their response rates, (5) a description of the measures and variables utilized in the study, and (6) the analytic procedures employed.

RESEARCH HYPOTHESES

It is hypothesized that, among student leaders, there is a positive relationship between:

H1: Membership in a diverse student organization and development of leadership skills,

H2: Membership in a diverse student organization and positive self-rating of leadership skills,

H3: Membership in a diverse student organization and perceived career preparation, and

H4: Leadership skills developed from interaction with students of different racial/ethnic backgrounds in their organizations and perceived career preparation.

SURVEY RESPONDENTS AND SAMPLE

This section is split into three parts. The first describes the survey respondents, the second describes the survey sample, and the third discusses weaknesses in sampling and recommendations for future studies.

Survey Respondents

Respondents were 833 student leaders from Florida’s ten public universities. (Student leaders were also the unit of analysis.) Respondents identifying themselves as graduate students were not included, resulting in 685 undergraduate student leaders. A respondent’s ethnicity and other personal characteristics were self-reported. The online research questionnaire (survey) identified student leaders as attending one of Florida’s ten public universities. 98 respondents did not answer the race/ethnicity question, resulting in a final sample of 587. The sample makeup including demographics of the respondents is listed in Table 1.

Table 1
Profile of Respondents

Characteristic	Frequency	Percentage
<u>Gender</u>		
<i>Female</i>	364	61.9
<i>Male</i>	221	37.6
<i>Omitted</i>	3	0.5
<u>Race/Ethnicity</u>		
<i>White/Caucasian</i>	343	50.1
<i>Omitted</i>	101	14.7
<i>African American/Black</i>	93	13.6
<i>Hispanic/Latino</i>	81	11.8
<i>Asian or Pacific Islander</i>	30	4.4
<i>Bi-Racial</i>	25	3.6
<i>Other</i>	11	1.6
<i>American Indian or Alaskan Native</i>	1	0.1

Table 1, Continued
Profile of Respondents

Characteristic	Frequency	Percentage
<u>Public University</u>		
<i>University of Florida</i>	172	25.1
<i>Florida State University</i>	164	23.9
<i>University of Central Florida</i>	63	9.2
<i>University of West Florida</i>	55	8
<i>Florida International University</i>	53	7.7
<i>University of South Florida</i>	52	7.6
<i>Florida A & M University</i>	39	5.7
<i>Florida Atlantic University</i>	32	4.7
<i>Florida Gulf Coast University</i>	30	4.4
<i>University of North Florida</i>	25	3.6
<u>Age</u>		
<i>20-21</i>	294	42.9
<i>22-25</i>	177	25.8
<i>19 or younger</i>	86	12.6
<i>25 or older</i>	30	4.4
<i>Omitted</i>	1	0.1
<u>Geographic Area</u>		
<i>Suburban</i>	492	71.8
<i>Urban</i>	148	21.6
<i>Rural</i>	45	6.6
<u>College Organizational Membership*</u>		
<i>Academic/Honor Society</i>	364	53.1
<i>Campus Activities/Event Planning</i>	322	47
<i>Volunteer/Service Club</i>	301	43.9
<i>Fraternity/Sorority</i>	283	41.3
<i>Student Government</i>	277	40.4
<i>Intramurals</i>	235	34.3
<i>Professional Society</i>	210	30.7
<i>Special Interest</i>	206	30.1
<i>Racial/Ethnic Organization or Student Union</i>	157	22.9
<i>Religious</i>	151	22
<i>Dorm/Residential Council</i>	97	14.2
<i>Media: Journalism, Campus Radio, or TV</i>	51	7.4
<i>Other</i>	30	19.5
<i>Varsity or Club Athletics</i>	20	2.9
<i>Pep Club</i>	11	1.6
<u># of Leadership Positions in Student Organizations</u>		
<i>1-2</i>	383	55.9
<i>3-4</i>	196	28.6
<i>5-6</i>	64	9.3
<i>7 or more</i>	22	3.2

Note: *Percentages in this category add to greater than 100% due to the multiple response question format.
Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Sample Representativeness

The study sample is a valid representation of the gender and race/ethnicity of undergraduate students in Florida's public university as measured by data reported by the Florida Department of Education. (See Table 2.) The sample also reflects the enrollment demographics of Florida's university population. (See Table 3.)

Table 2
2006 Report of Undergraduate Student's Gender and Race in Florida's Public Universities

Characteristic	Frequency	Percentage	Percentage of Sample
<u>Gender</u>			
Female	129,696	56.80	61.90
Male	98,483	43.20	37.60
<u>Race/Ethnicity*</u>			
White	133,425	58.50	50.10
Hispanic	41,663	18.30	11.80
Black	33,926	14.90	13.60
Asian	10,868	4.80	4.40
Omitted	3,714	1.60	14.70
Native Indian	907	0.04	0.10

Note: *0.5% of respondents omitted gender question

Source: Florida Department of Education; Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Table 3
2006 Total Undergraduate Student Population: Florida's Public Universities

University	2006 Population	Percentage of Total Population	Percentage of Sample
<i>University of Central Florida*</i>	39,381	17.3	9.2
<i>University of South Florida*</i>	34,631	14.9	7.6
<i>University of Florida*</i>	34,603	15.2	25.1
<i>Florida State University*</i>	30,946	13.6	23.9
<i>Florida International University</i>	30,052	13.2	7.7
<i>Florida Atlantic University</i>	19,919	8.7	4.7
<i>University of North Florida</i>	13,833	6.1	3.6
<i>Florida A & M University</i>	9996	4.4	5.7
<i>University of West Florida</i>	7903	3.5	8
<i>Florida Gulf Coast University</i>	6962	3.1	4.4
Total	228,226	100.0	100.0

Note: *Access to leaders e-mail addresses on University of Florida and Florida State University exceeded University of South Florida and University of Central Florida
Source: Florida Department of Education; Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Constructing the Survey Sample

The sample consisted of 3,092 student leader e-mail addresses that were listed on their respective universities' websites. The e-mail addresses were identified as belonging to officers of student organizations as well as elected or appointed student government officers or officials. All respondents were student leaders who clicked on the hyperlink to the survey in the invitation e-mail sent to them. The invitation e-mail indicated that the study was anonymous (no identifying information was collected), that all data was confidential, and that participation was voluntary. (See Appendix A for survey instrument instructions.)

Additionally, the invitation e-mail indicated that the purpose of the survey was to gather information about their student organizational experiences and that it would take only five to ten minutes of their time to complete. The initial invitation e-mails were sent to the sample on February 19-20, 2007. Then, identical "reminder" e-mails were sent on February 26, 2007. Lastly, third and

final reminder e-mails were sent on March 6, 2007. Responses were collected through March 20, 2007.

E-mail and Internet Surveys

The interest in Web-based surveying is not surprising as it offers a number of distinct advantages over more traditional mail and phone techniques.

Examples include reducing the time and cost of conducting a survey and avoiding the often error prone and tedious task of data entry (Medin, Roy & Ann, 1999). Furthermore, online surveys allow a research to reach thousands of people with common characteristics in a short amount of time, despite possibly being separated by the greatest geographic distances (Bachmann & Elfrink, 1996; Garton et al., 2003; Taylor, 2000; Yun & Trumbo, 2000).

Online surveys may also save time by allowing researchers to collect data while they work on other tasks (Llieva, Baron, & Healey, 2002). Once an invitation to participate in a survey is posted to the website of a community of interest, emailed to people through a listserv service, or distributed through an online survey research service, researchers may collect data while working on other projects (Andrews et al., 2003). Responses to online surveys can be transmitted to the researcher immediately via email, or posted to a Hypertext Markup Language (HTML) document or database file. This allows researchers to conduct preliminary analyses on collected data while waiting for the desired number of responses to accumulate (Llieva et al., 2002).

E-mail offers one option for distributing Internet surveys. Up until a few years ago email surveys were the predominate means of Internet surveying. As

the World Wide Web (WWW) has grown in popularity, the use of HTML forms or Web-based surveys are becoming the dominant method of gathering survey data. These forms streamline the data collection process formatting and entering responses directly into a database for analysis (Solomon, 2001). Below is a diagram from Evans' and Mathur's (2005) on the value of online surveys that depicts the major strengths and major potential weaknesses of online surveys.

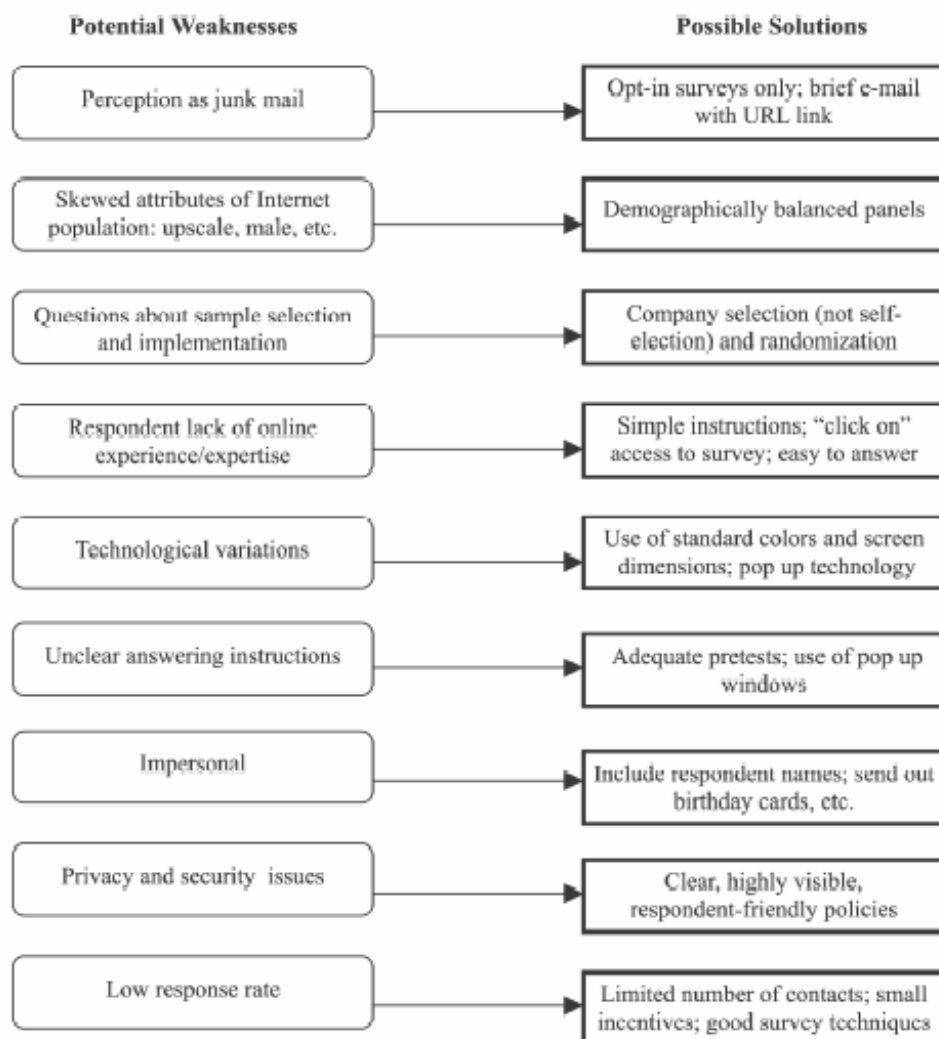
Figure 3
The Strengths and Potential Weaknesses of Online Surveys



Source: Evans and Mathur, 2005, pg. 197, Figure 1. The Strengths and potential weaknesses of online surveys

As is evident in the diagram and discussed throughout this section, the advantages of online surveys far outweigh the disadvantages, particularly for the type of study conducted here. Moreover, as Evans and Mathur (2005) suggest in the flowchart below, the weaknesses can be addressed and combated to increase response rates and diminish interference. This issue is covered in more depth in the section on response rates and sampling concerns.

Figure 4
Addressing the Potential Weaknesses of Online Surveys



Source: Evans and Mathur, 2005, pg. 210, Figure 4. Addressing the potential weaknesses of online surveys

For this study, the web site www.FreeOnlineSuveys.com was chosen to host the survey. After searching the Internet for available sites and reading Wright's (2005) study that compared 20 of the more prominent packages, costs, and services, this web site was deemed the best fit. In addition, this web site was chosen for its cost (\$9.95 monthly student rate as compared to as much as \$56 monthly or \$1,495 for the purchase of a personal survey program), ease of use in creating the survey, and the ability to use a hyperlink as an invitation to the survey that could be easily inserted into an e-mail. A further advantage of this web site was the ability to download the results into an Excel spreadsheet file that could be easily converted to SPSS for statistical analysis.

The remainder of this section is split into two smaller sections. The first section discusses the reliability and validity of e-mail and Internet surveys and the second section reviews response rates and sampling concerns.

Reliability and Validity

Pascarella and Terenzini (1998) believe that the issue of dramatically increasing student diversity will have significant and perhaps even profound implications for future research on the impact of college on students. First, that research will simply be more difficult to do. It is one thing to conduct longitudinal research on an intact cohort of full-time students, living on campus, who have no work or family responsibilities, and who progress through their college years at about the same rate. (Indeed, the fact that such students have represented something akin to a captive audience perhaps at least partially explains why they have been the focus of the vast majority of college impact studies.) It is quite

another thing, however, to conduct longitudinal research with students who are on campus only part-time, who commute to college, who have major work and/or family responsibilities, and whose rates of educational progress are as varied as the students themselves.

To combat Pascarella and Terenzini findings on the difficulties of surveying college students, this study turned to an electronic medium. According to Fox et al., (2001) and Nie et al., (2002) researchers in a variety of disciplines have found the Internet a fruitful area for conducting survey research. As the cost of computer hardware and software continues to decrease, and the popularity of the Internet increases, more segments of society are using the Internet for communication and information (Wright, 2005). Likewise, one advantage of survey research is that it takes advantage of the ability of the Internet to provide access to groups and individuals who would be difficult, if not impossible to reach through other channels (Garton, Haythornthwaite, & Wellman, 1999; Wellman, 1997). As a result, the Internet appears to be the perfect medium for conducting research.

However, critics argue that regardless of the vast resources the Internet can tap into, disadvantages still lurk. One of the greatest disadvantages often noted in Internet survey research is that the demographic surveyed will not result in an adequate and reliable sample. Currently the biggest concern in Internet survey is coverage bias or bias due to sampled people not having or choosing not to access the Internet (Crawford, Couper & Lamis, 2001). However, there are specific populations where Internet access is extremely high and coverage

bias is likely to be less of a concern. College students and university faculty within the United States of America, Canada, and Western Europe are examples of such populations (Solomon, 2001).

Therefore, the validity of the sample used in this study is strong since it is known that college students have a high frequency of access to the Internet, that many have personal e-mail addresses, and that all Florida public universities require that all of their students register for and communicate with an e-mail address for correspondence with their professors for syllabi, submission of assignments, and other course-related materials. In fact, Florida public universities also require a computer literacy course emphasizing the use of word processors, spreadsheets, Internet browsing, and of course, e-mail applications.

Other issues of bias include access to the use of computers. However, this is also not a factor to consider when addressing this study because Florida's public universities have thousands of computers available for use at no charge to their students in their libraries, residence halls, computer labs, and student unions. Moreover, many students own their own desktop or laptop computers and may even utilize wireless Internet connections on their campuses, local restaurants and shops, or even their residences.

Since it was evident that student leaders would have access to e-mail and their e-mail addresses were available on their universities' websites, the choice to conduct the survey through e-mail logically followed.

Response Rates and Sampling Concerns

Studies of online survey methods have shown that response rates in e-mail surveys are equal to or better than those for traditional mailed surveys (Mehta & Sivadas, 1995; Stanton, 1998; Thompson, Surface, Martin, Sanders, 2003). Although this method was not employed here (although it was suggested), one relatively inexpensive technique used by market researchers to increase response rates is to offer some type of financial incentive, e.g., a lottery. Individuals who participate in the survey are given a chance to win a prize or gift certificate, and the winner is selected randomly from the pool of respondents. However, this technique is not without problems. Internet users frequently encounter bogus lotteries and other "get rich quick" schemes online, so a lottery approach to increasing response rates could potentially undermine the credibility of the survey. In addition, offering a financial incentive may increase multiple responses to the survey as participants try to "stack the deck" to increase their chances of winning (Konstan, et al., 2005). Straight incentives such as a coupon redeemable for real merchandise, i.e., books, may be more effective and more credible.

Solomon (2001) explains that several factors have been found to increase response rates including personalized e-mail cover letters, follow-up reminders, pre-notification of the intent to survey, and similar formats. Combining an email "cover letter" as a means of contacting sampled people with the use of an HTML form for data collection provides an especially effective and efficient approach to Internet surveying. It is important for researchers to include contact information,

information about the study, and something about their credentials when creating an invitation to participate in a survey. In addition to being a requirement of most institutional research review boards in universities in the United States, this helps to enhance the credibility of the survey and it can create opportunities for email interaction between the researcher and participants. This is valuable; especially when participants have questions (Wright, 2005). As a result, personalized e-mails including contact information, a brief synopsis of the study, and information about my status as a student were sent to each student leader. In addition, students at the same university received e-mails with a salutation and other information geared to their specific school. A sample of an invitation e-mail to Florida State University student leaders is available in Appendix B.

Another issue affecting response rate was ease of access to the online survey. Solomon (2001) asserts that a hyperlink or web-link for easy click-and-go access to the survey is the most effective tool for quick and easy access. Solomon explains further that modern e-mail packages automatically convert universal resource locators (URLs) or web-addresses in the text of an e-mail into hyperlinks. Placing the URL of the survey form in a cover letter email allows the respondent to "click" their mouse on the URL to display the survey form and subsequently fill it out (Solomon, 2001). As noted above, each invitation e-mail also included a direct hyperlink to the online survey instrument.

Self-selection bias is another major limitation of online survey research (Stanton, 1998; Thompson et al., 2003; Wittmer et al., 1999). In any given Internet community, there are undoubtedly some individuals who are more likely

than others to complete an online survey. Many Internet communities pay for community operations with advertising. This can desensitize participants to worthwhile survey requests posted on the website. In short, there is a tendency of some individuals to respond to an invitation to participate in an online survey, while others ignore it, leading to a systematic bias.

However, many of the problems discussed above are not unique to online survey research. Mailed surveys suffer from the same basic limitations. While a researcher may have a person's mailing address, he or she does not know for certain whether the recipient of the mailed survey is the person who actually completes and returns it (Schmidt, 1997). Moreover, respondents to mailed surveys can misrepresent their age, gender, level of education, and a host of other variables as easily as a person can in an online survey. Even when the precise characteristics of a sample are known by the researcher, people can still respond in socially desirable ways or misrepresent their identity or their true feelings about the content of the survey.

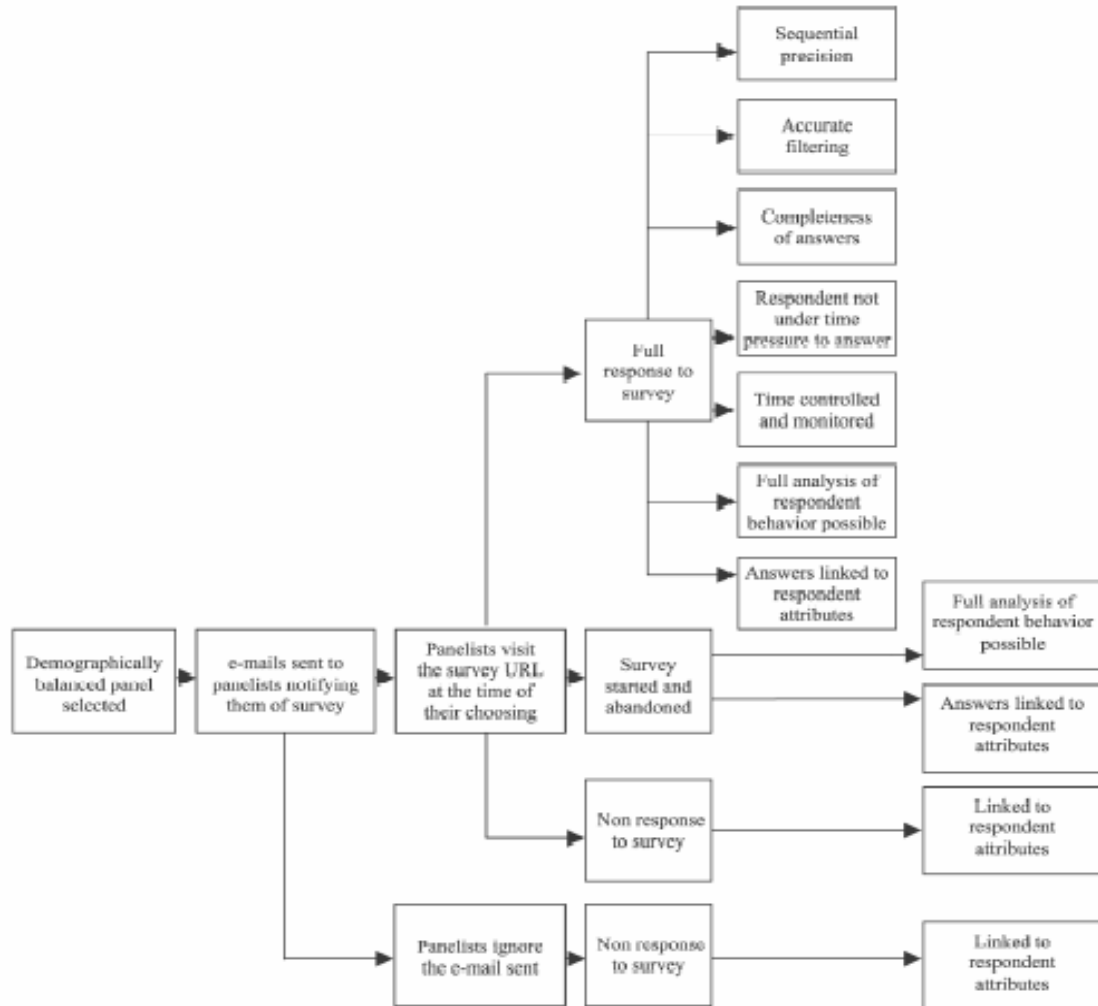
The best defense against deception that researchers may have is replication. Only by conducting multiple online surveys with the same or similar types of Internet communities can researchers gain a reliable picture of the characteristics of online survey participants.

Response Rate, Spam, and E-mail Volatility

The response rate for the survey was 27% (833 out of 3,092). Non-responses are a common flaw with online surveys. According to Evans and Mathur (2005), non-respondents and/or omission of certain questions may be

unique to online surveys when compared to traditional mail surveys as respondents may start the survey and abandon it or look at the instructions and decide not to reply. Below is flowchart from Evans and Mathur's study that depicts the typical respondent methodology.

**Figure 5
Respondent Methodology**



Source: Evans and Mathur, 2005, pg. 205, Figure 2. Online Surveys: respondent methodology

As is apparent in the flowchart above, non-respondents and/or omission of certain questions may be attributable to many factors. In addition to the factors in the flowchart, the volatility of e-mail itself is also present. E-mail addresses are

chiefly created on free websites such as *Yahoo!*, *Hotmail*, or *Google*, and may only be rarely checked for new mail, or may have been provided by the student leaders' university and only checked for school-related assignments, filtered for spam, or filtered for personal e-mails and e-mails from known senders only.

“Spam” is defined as Unsolicited Bulk E-mail (UBE). That is, spam is e-mail that is both unsolicited by the recipients and there are many substantively similar e-mails being sent. Spam is usually also unwanted, commercial in nature, and sent automatically. Senders of spam, generally called spammers, are known for their abuse of electronic messaging systems to send unsolicited bulk messages, which are universally undesired (Lueg, 2004).

In May 2004, MessageLabs, an Internet security firm (www.messagelabs.com), found that 692 million out of 909 million scanned e-mail messages (76 percent) sent to its U.S. customers were screened as spam. As a result, many respondents have a tough time distinguishing between a legitimate survey and a spam message: “Even if an e-mail comes from a trusted source, it's unlikely that some customers will click on a link to take them to a web site. And that's if the e-mail actually gets through”, said Joanie Rufo, research director of AMR Research. Increasingly, marketing messages – even those that are opt-in – are blocked at the mail server level (Bannan, 2003). Likewise, according to the March 2007 “State of Spam” report generated by Symantec Messaging and Web Security, anywhere from 77% to 80% of all e-mails sent globally during the time period of this survey were categorized as spam.

Based on the research MessageLabs and Symantec Messaging and Web Security, it follows that researchers using e-mail invitations to participate in a survey may face similar rejection. An unwanted e-mail advertisement is often considered an invasion of privacy. The invitation for the survey may be deleted, or the researcher may receive email from participants complaining about it (Wright, 2005).

Of course, the aim of the invitation e-mails was to not to be considered spam. The invitation e-mails were sent to over 3,000 e-mail addresses, personalized and separated for each university. Nonetheless, it is impossible to discount the possibility the e-mail filtering occurred.

E-mail filtering is the processing of e-mail to organize it according to specified criteria (Pelletier, et al., 2004). Most often this refers to the automatic processing of incoming messages, but the term also applies to the intervention of human intelligence in addition to artificial intelligence, and to outgoing emails as well as those being received. Another method of filtering or blocking unwanted e-mails is through the use e-mail filtering software which inputs e-mail. For its output, it might pass the message through unchanged for delivery to the user's mailbox, redirect the message for delivery elsewhere, or even throw the message away. Some e-mail filters are able to edit messages during processing. Common uses for e-mail filters include removal of spam and of computer viruses. Mail filters can be installed by the user, either as separate programs or as part of their e-mail program (called *e-mail client* by professionals). In e-mail programs, users can make personal, "manual" filters that then automatically filter mail

according to the chosen criteria. Most e-mail programs now also have an automatic spam filtering function. Internet service providers can also install mail filters in their mail transfer agents as a service to all of their customers. Corporations often use them to protect their employees and their information technology assets (Kennedy, 2002).

Spam very likely reduced the overall response rate (27%). Other factors most likely deflating the response rate include: (1) the volatility of and vulnerability of e-mail addresses, (2) unused, ignored, inactive, or unchecked e-mail addresses, (3) the very real possibility of spam-blocking, (4) e-mail filtering, and (5) manual deletion.

Data and Instrumentation

The data utilized in this study were drawn from an online survey developed by the author. The survey included the 25 multiple choice questions. (See Table 4).

Table 4
Survey Questions

<i>Question #</i>	<i>Measurement</i>
1	Which public Florida university (any campus) are you currently attending?
2	What is your current status in school?
3	Describe the geographical area you lived in (live in) prior to attending your university.
4	What was the most important reason you chose to go to the university you now attend?
5	Were you involved in a club or organization in high school ?
6	What type of organization(s) were you a member of?
7	Did you hold an office or have any leadership position in any of the organizations you were a member of in high school ?
8	What organizations have you belonged to while at your university ?
9	In how many campus organizations have you held a leadership position or elected office?
10	What has been <i>the biggest</i> challenge you have faced as a leader in your organization(s)?
11	What factor has contributed most to your development as a student leader at your university?
12	When compared to other student leaders on campus, how would you rate your leadership skills?
13	How often do you attend programs or events put on by other student groups on campus?
14	How often do you meet with a faculty advisor or administrator to discuss the activities of your student organization(s)?
15	What single aspect of your college experience, if any, has taught you the most about racial/ethnic diversity?
16	What has been the biggest benefit of racial/ethnic diversity in your organization(s), if any, at your university?
17	What has been the most difficult aspect , if any, of racial/ethnic diversity that you observed in your organization?
18	Have you had serious discussions about race/ethnicity with students whose racial/ethnic background is different from yours?
19	How much of an impact has your organization's racial/ethnic diversity had on the development of your own leadership skills?
20	How likely do you think the leadership skills you learned from your interaction with students from different racial/ethnic backgrounds in your organization(s) will benefit you in your career upon graduation?
21	Thinking about the organizations you are/were a member of, what percentage of the members are/were of a different racial/ethnic background than yourself?
22	How racially and ethnically diverse do you think your college or university is?
23	What is your age?
24	What is your gender?
25	What is your race/ethnicity?

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Ten questions allowed a response for "other" and requested a typed response. If possible, answers were re-coded to match a suggested answer. If a

response was provided with a reasonable frequency, a new value was created. For example, location, cost, and family alumni were created for the question the collected data on the respondents' most important reason chosen to go to the university they now attend. (See Table 5).

Table 5
Most Important Reason Chosen to go to the University Attended

Reason Attended	Frequency	Percentage
<i>Athletics</i>	13	1.9
<i>Racial/Ethnic diversity of student body</i>	22	3.2
<i>Size of school or student body</i>	75	10.9
<i>Academics or specific academic program</i>	182	26.6
<i>Financial aid or scholarship</i>	157	22.9
<i>School Reputation, Rank, or Campus</i>	107	15.6
<i>Location</i>	89	13
<i>Cost</i>	3	0.4
<i>Family Alumni</i>	19	2.8
<i>Other</i>	18	2.6
Total	685	100

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Self assessment questions such as leadership self-rating questions were borrowed from Astin (1993). Self-reported data are widely used in research on college effects, and their reliability and validity have been extensively studied. (See Baird, 1976; Berdie, 1971; Pace, 1985; Pike, 1995; Pohlmann & Beggs, 1974; Gurin, 2002.) These studies show that self-reported measures are likely to be valid under five conditions:

1. The information requested is known to the respondents.
2. The questions are phrased clearly and unambiguously.
3. The questions refer to recent activities.
4. The respondents think the questions merit a serious and thoughtful response.
5. Answering the question does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways (Kuh, 2001, p. 4).

The survey instrument utilized in this study meets the criteria listed above. In addition, self-rated measures of nonacademic traits such as artistic ability, leadership, and music have been found to be predictive of future accomplishment and behavior and therefore useful as measures of student characteristics (Baird, 1976). The complete survey instrument is available in Appendix B.

VARIABLES

Student leaders' responses to questions on the survey instrument provided the variables used for statistical analysis in this study. The survey asked the students about their perceptions of their student organizational experiences, interaction with diversity, and demographics. As previously stated, validity and reliability in self-report is high and provides a credible measure for analysis.

Variables of Interest

The primary measures used to test the hypotheses were four variables of interest including measurements of diversity of membership in student organizations, leadership skills learned from interaction with students of different racial/ethnic backgrounds from the respondent in their student organization(s), self-rating of leadership skills, and perceived career preparation as a result of the leadership skills learned from interaction with students of different racial/ethnic backgrounds from the respondent in their student organization(s). (See Table 6).

Table 6
Variables of Interest: Concepts and Measures

Concept	Measurement
STUDENT ORGANIZATIONAL DIVERSITY*	<p>Q21: <i>Thinking about the organization(s) you are/were a member of, what percentage of the members are/were of a different racial/ethnic background than yourself?</i></p> <p>None (0%); there is no diversity in my group(s) 1-24% 25-49% 50-74% 75% or more</p>
LEADERSHIP SKILLS DEVELOPED**	<p>Q19: <i>How much of an impact has your organization's racial/ethnic diversity had on the development of your own leadership skills?</i></p> <p>A very strong impact A moderate impact Some impact No impact at all My organization(s) is/are not racially/ethnically diverse</p>
LEADERSHIP SELF-RATING***	<p>Q12: <i>When compared to other student leaders on campus, how would you rate your leadership skills?</i></p> <p>Very strong Strong Moderate Somewhat weak Very weak</p>
PERCEIVED CAREER PREPARATION***	<p>Q20: <i>How likely do you think the leadership skills you learned from your interaction with students from different racial/ethnic backgrounds in your organization(s) will benefit you in your career upon graduation?</i></p> <p>Very likely Somewhat likely Somewhat unlikely Not at all Do not know at this point</p>

Note: *This variable utilized exclusively as a dependent variable

**This variable utilized as both a dependent and independent variable

***These variables utilized exclusively as independent variables

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

The variable of interest (V.O.I.) student organizational diversity asks the respondent (R) to report the percentage of members of their student organizations that are/were of a different racial/ethnic background from themselves

(Q21). This variable is beneficial to the study as a measurement of membership diversity within student organizations. Since R is asked to report the percentage of students of racial/ethnic backgrounds *different from themselves*, this variable can measure membership diversity regardless of R's race/ethnicity.

The V.O.I. leadership skills developed asks R to report the leadership skills they learned from interaction with students of different racial/ethnic backgrounds from their own in their student organization(s) (Q19). This variable measures the self-reported relationship of membership diversity in R's student organizations on the development of their leadership skills. This is an important question for this study since it probes R for a direct causal relationship between membership diversity and leadership skills developed.

The V.O.I. leadership self-rating asks R to self-rate their leadership skills when compared to other campus leaders (Q12). This variable is important in assessing the validity of the sample. As previously noted, students were selected based on set criteria meant to authenticate their role as a student leader. Similarly, self-report of R's leadership skills further justifies their authenticity. As a result, this variable is a credible measure of R's leadership skills and is essential for establishing relationships.

The V.O.I. perceived career preparation asks R to report how likely the leadership skills they learned from their interaction with students from different racial/ethnic backgrounds from their own in their student organization(s) would benefit them in their career upon graduation (Q20). Astin (1993b) found a positive relationship between interracial interaction and job-related skills. This

variable measures how likely R's experiences with diversity in their organizations are to aid in preparing them for their careers and is a strong indicator of diversity and job-related skills.

Independent/Control Variables: Race/Ethnicity, Gender, and Age

The independent/control variables for this study consisted of measures of the respondents' demographics including age, gender, and race/ethnicity. (See Table 7).

Table 7
Independent/Control Variables: Concepts and Measures

Concept/Variable	Measurement
AGE	Q23: <i>What is your age?</i> 19 or younger 21-21 22-25 25 or older
GENDER	Q24: <i>What is your gender?</i> Male Female
RACE/ETHNICITY	Q25: <i>What is your race/ethnicity?</i> White/Caucasian African American/Black Hispanic or Pacific Islander American Indian or Alaskan Native Other (Please Specify)

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

The independent/control variable (I.C.V.) age asks R to report their age. This variable was important in assessing the role age might play in this study. Whitt, et al., (2001) found that older students more likely to interact with people of different backgrounds, cultures, and experiences different from their own in college. As a result, this variable is critical to test previous findings as well as determining the function of age in the study at hand.

The I.C.V. gender asks R to report their gender. This variable was essential in assessing the role gender may play in this study. Whitt, et al., (2001) found that women were more likely than men to interact with people of different backgrounds, cultures, and experiences different from their own in college. As a result, this variable is critical in assessing previous findings as well as testing the influence of gender on the study at hand.

The I.C.V. race/ethnicity asks R to report their race/ethnicity. This variable is central to this study as a measurement of the role race/ethnicity may play. Hurtado, Dey, and Trevino (1994) found that students of color (who are numerical minorities on most campuses) were more likely than white students to interact across race. This might affect the relationship between non-whites and membership diversity. Villalpando's (2001) study found that desegregated groups of students of color, in comparison to white students, report different levels of overall satisfaction with college when there is a strong diversity and multicultural emphasis at their institution. As a result, it will be interesting to test for this relationship in the study at a hand.

DATA ANALYSIS

Crosstabulations were performed to test each hypothesis. The number of responses for each variable was drawn from the total number of responses received. However, only respondents that recorded responses to all survey questions were used in the statistical analysis, resulting in a constant sample of 587.

The hypothesis predicting that a positive relationship exists among student leaders between membership in a diverse student organization and development of leadership skills was tested by comparing the student organizational diversity variable and the leadership skills developed variable.

The hypothesis predicting that a positive relationship exists among student leaders between membership in a diverse student organization and positive self-rating of leadership skills was tested by comparing the student organizational diversity variable with the leadership self-rating variable.

The hypothesis predicting that a positive relationship exists among student leaders between membership in a diverse student organization and perceived career preparation was tested by comparing the student organizational diversity variable with the perceived career preparation variable.

The hypothesis predicting that a positive relationship exists among student leaders between leadership skills developed from interaction with students of different racial/ethnic backgrounds from their own in their organizations and perceived career preparation as a result of the leadership skills learned from this interaction was tested by comparing the leadership skills developed variable with the perceived career preparation variable.

CHAPTER FOUR

RESULTS

Diversity matters. It is significantly clear from the results of these analyses how important a role diversity plays in student leadership development.

This Chapter is split into four separate sections which explain the results of the test for each hypothesis. Tables showing descriptive statistics as well as significance tests for all crosstabulations are included.

Results for Hypothesis Predicting a Positive Relationship among Student Leaders between Membership in a Diverse Student Organization and Development of Leadership Skills

The findings shown in Table 8 indicate that there is a positive relationship between membership in a diverse student organization and the development of leadership skills.

Table 8
Relationship between Membership in a Diverse Student Organization and Development of Leadership Skills

		LEADERSHIP SKILLS DEVELOPED				
		Strong Impact*	Some impact	No impact at all	My organization(s) is/are not diverse**	
STUDENT ORGANIZATIONAL DIVERSITY	75% or more	64.6	21.5	12.3	1.5	100.0%
	50-74%	64.3	16.7	17.9	1.2	100.0%
	25-49%	47.2	36.5	15.7	0.6	100.0%
	1-24%	38.6	34.6	18.3	8.5	100.0%
	None, 0%	50.0	25.0	16.7	8.3	100.0%
	Total	48.0	30.9	16.8	4.3	100.0%

Note: Relationship significant at the .000 level ($p = .000$).

*Responses of "A very strong impact" and "A moderate impact" were combined (Strong impact) to better illustrate the positive relationship

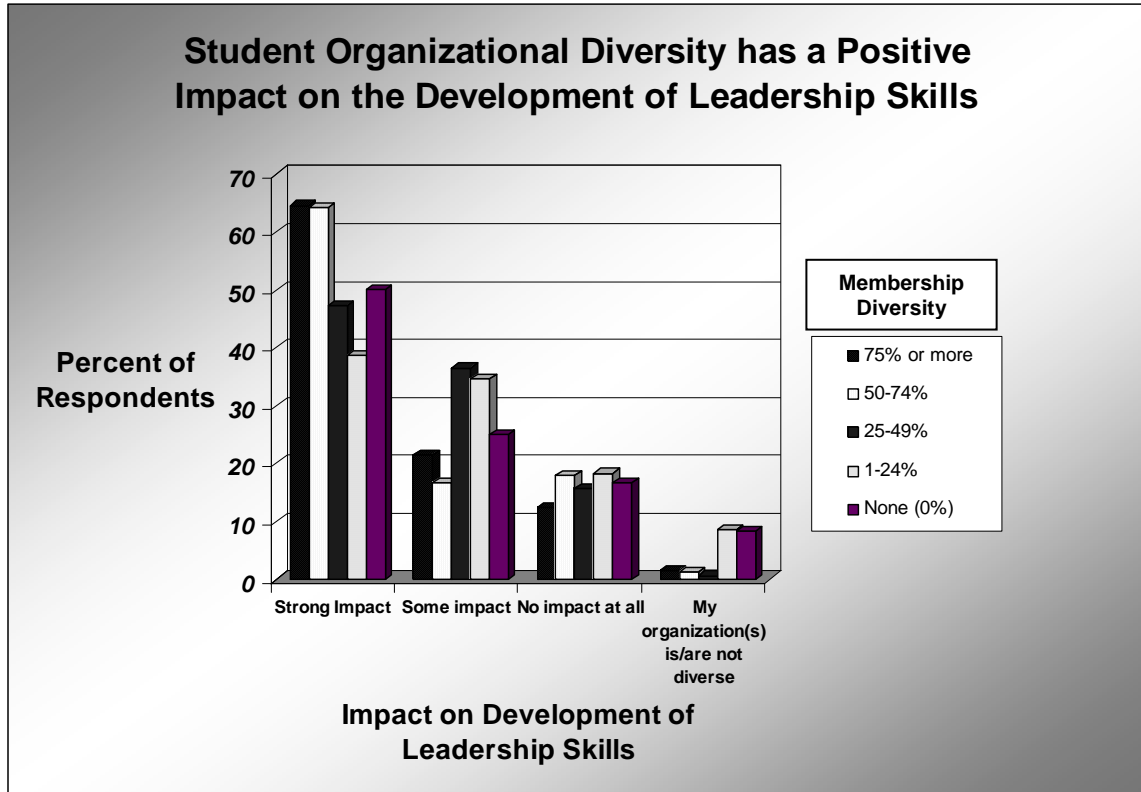
**Respondents reporting "My organization(s) is/are not diverse" and reporting diversity over 0% also reported being members of organizations exclusive to minorities.

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Descriptive Statistics

Figure 1 illustrates the affect of student organizational diversity on the leadership skills development as a result of the interaction with students of different racial/ethnic backgrounds than the respondents.

Figure 6



Note: Relationship significant at the .000 level ($p = .000$).

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Overall, among student leaders, there is a statistically significant ($p = .000$) positive relationship between student organizational diversity and the development of leadership skills. Among all respondents, 79% indicated a positive relationship between student organizational diversity and the development of leadership skills. (See Figure 1). Only 17% reported “no impact at all,” and 4% reported “no diversity in their student organization(s).”

An analyses of the independent/control variables showed a statistically significant relationship between leadership skills developed and age ($p = .047$), gender ($p = .034$), and race/ethnicity ($p = .000$). The analysis of the age variable showed that 79% of respondents, regardless of age, reported a positive impact on leadership development as a result of their organization(s)' membership diversity. However, 33% of students 25 and older reported no impact at all.

The analysis of the gender variable showed that 79% of respondents, regardless of gender, reported a positive impact on leadership development as a result of their organization(s)' membership diversity. However, female respondents were 7% more likely than males to report a positive impact.

The analysis of the race/ethnicity variable showed that 79% of respondents, regardless of age, reported a positive impact on leadership development as a result of their organization(s)' membership diversity. However, only 39% of white respondents reported "very strong" or "moderate" impact compared to 83% for Asian or Pacific Islander, 62% for African American/Black, and 56% for Hispanic/Latino, and. Asian or Pacific Islander and African American/Black respondents reported the lowest instances of "no impact at all" with 7% and 4% respectively, compared to responses of 20% for White/Caucasian and 19% for Hispanic/Latino.

Results for Hypothesis Predicting that a Positive Relationship Exists Among Student Leaders between Membership in a Diverse Student Organization and Positive Self-rating of Leadership Skills

The findings shown in Table 9 indicate that there is a positive relationship between membership in a diverse student organization and positive self-rating of leadership skills.

Table 9
Relationship between Membership in a Diverse Student Organization and Positive Self-rating of Leadership Skills

		LEADERSHIP SELF-RATING*			
		Strong	Moderate	Weak	
STUDENT ORGANIZATIONAL DIVERSITY	75% or more	76.9	15.4	7.7	100.0%
	50-74%	72.6	26.2	1.2	100.0%
	25-49%	82.0	18.0		100.0%
	1-24%	83.8	15.4	.8	100.0%
	None, 0%	66.7	16.7	16.7	100.0%
Total		80.5	17.7	1.7	100.0%

Note: Relationship significant at the .000 level ($p = .000$).

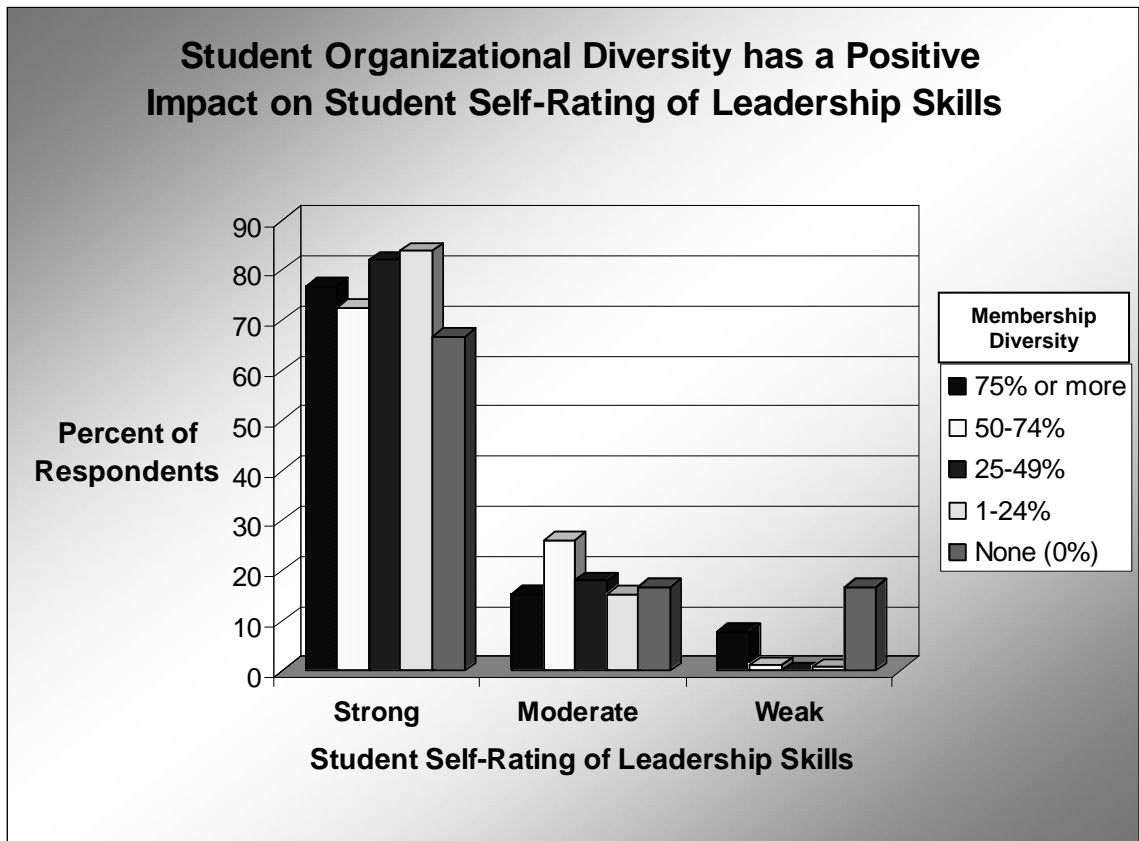
*Responses of "Very Strong" and "Strong" as well as "Somewhat Weak" and "Weak" were combined to better illustrate the positive relationship.

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Descriptive Statistics

Figure 2 illustrates the affect of student organizational diversity on the positive self-rating of leadership skills.

Figure 7



Note: Relationship significant at the .000 level ($p = .000$).

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Overall, among student leaders, there is a statistically significant ($p = .000$) positive relationship between student organizational diversity and positive self-rating of leadership skills. Among respondents who reported their student organizational diversity to be greater than 0% (98% of the sample), 99% also reported "strong" or "moderate" leadership skills. (See Figure 2). Conversely, among respondents who reported their student organizational diversity to be "None (0%)" (2% of sample), 83% also reported "strong" or "moderate" leadership skills (a difference of 16%). In addition, 81% of respondents who reported student organizational diversity greater than 0% also reported "strong"

leadership skills, compared to 67% of respondents reporting student organizational diversity of “None (0%)” (a difference of 14%). Conversely, only 1% of who respondents reported student organizational diversity greater than 0% also reported “weak” leadership skills, compared to 17% of respondents reporting student organizational diversity of “None (0%)” (a difference of 16%).

An analyses of the independent/control variables showed a statistically significant relationship between leadership self-rating skills developed and age ($p = .012$). (No significant relationships were found between leadership skills developed and gender or race/ethnicity). The analysis of the age variable showed that 81% of respondents, regardless of age, reported “very strong” or “strong” leadership self-rating. However, 93% of respondents “25 or older” reported a positive leadership self-rating compared to 98% of respondents for all other age groups.

Results for Hypothesis Predicting that a Positive Relationship Exists Among Student Leaders between Membership in a Diverse Student Organization and Perceived Career Preparation

The findings shown in Table 10 indicate that there is a positive relationship between student organizational diversity and perceived career preparation as a result of interaction with students of different racial/ethnic backgrounds from their own in their student organizations.

Table 10
Relationship between Membership in a Diverse Student Organization and Perceived Career Preparation*

		PERCEIVED CAREER PREPARATION				
		Very likely	Somewhat likely	Somewhat unlikely	Not at all	
STUDENT ORGANIZATIONAL DIVERSITY**	50% or more	69.9	24.5	2.1	3.5	100.0%
	1-49%	51.6	39.1	3.8	5.5	100.0%
	None, 0%	50.0	41.7	8.3		100.0%
	Total	56.3	35.4	3.4	4.9	100.0%

Note: Relationship significant at the .014 level ($p = .014$).

*Respondents reporting "Do not know at this point" were not included in the statistical analysis since that measure would not denote a positive or negative response (N=554).

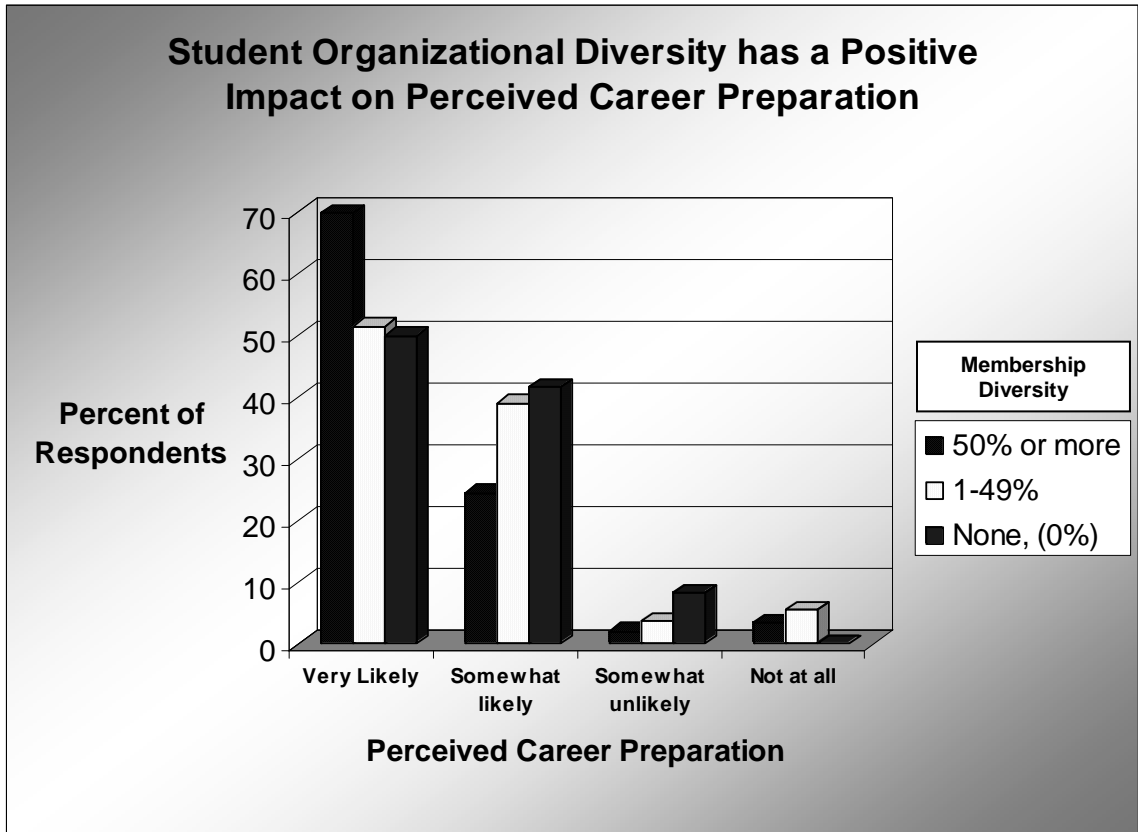
**Responses of "1-24%" and "25-49%" as well as "50-74%" and "75% or more" were combined to illustrate the positive relationship.

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Descriptive Statistics

Figure 3 illustrates the affect of student organizational diversity on perceived career preparation.

Figure 8



Note: Relationship significant at the .014 level ($p = .014$).
Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Overall, among student leaders, there is a statistically significant ($p = .014$) positive relationship between student organizational diversity and perceived career preparation. Among all respondents not reporting “Do not know at this point,” 92% reported “Very likely” or “Somewhat likely” perceived career preparation as a result of student organizational diversity 8% who reported “Somewhat likely” or “Not at all.” (See Figure 3). In addition, 94% of these respondents who reported student organizational diversity of 50% or more also reported “Very likely” or “Somewhat likely” perceived career preparation, compared to only 6% of respondents who reported “Somewhat likely” or “Not at all.” Likewise, 91% of these respondents who reported student organizational

diversity of 1-49% also reported “Very likely” or “Somewhat likely” perceived career preparation, compared to only 9% of respondents who reported “Somewhat likely” or “Not at all.”

An analyses of the independent/control variables showed a statistically significant relationship between the student organizational diversity and age ($p = .000$) as well as race/ethnicity ($p = .000$). (No significant relationships were found between student organizational diversity and gender). The analysis of the age variable showed that 98% of students, regardless of age, had more than 0% diversity in their organizations. However, respondents “25 or older” and “19 or younger” reported the highest levels of membership diversity 50% or higher with rates of 43% and 34% respectively, compared to rates of 23% for respondents “20-21” and 22% for “22-25.”

Results for Hypothesis Predicting that a Positive Relationship Exists Among Student Leaders between Leadership Skills Developed from Interaction with Students of Different Racial/Ethnic Backgrounds in their Organizations and Perceived Career Preparation

The findings shown in Table 11 indicate that there is a positive relationship between the leadership skills developed as a result of interaction with students of a different racial/ethnic background from the respondent in their student organizations and perceived career preparation.

Table 11
Relationship between Leadership Skills Developed from Interaction with Students of Different Racial/Ethnic Backgrounds in their Organization(s) and Perceived Career Preparation

		PERCEIVED CAREER PREPARATION**			
		Likely	Unlikely	Do not know at this point	
LEADERSHIP SKILLS DEVELOPED*	Strong Impact	97.9	1.4	0.7	100.0%
	Some impact	91.7	4.4	3.9	100.0%
	No impact at all	52.0	31.6	16.3	100.0%
	My organization(s) is/are not diverse	60.0	12.0	28.0	100.0%
Total		86.7%	7.9%	5.5%	100.0%

Note: Relationship significant at the .000 level ($p = .000$).

* Responses of "A very strong impact" and "A moderate impact" were combined to better illustrate the positive relationship

**Responses of "Very likely" and "Somewhat likely" as well as "Somewhat unlikely" and "Unlikely" were combined to illustrate the positive relationship.

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Descriptive Statistics

Figure 4 shows the affect of leadership skills developed on perceived career preparation.

Figure 9



Note: Relationship significant at the .000 level ($p = .000$).

Source: Internet survey of 685 student organizational leaders at Florida's 10 public universities, conducted February-March, 2007.

Overall, among student leaders, there is a statistically significant ($p = .000$) positive relationship between the impact on the development of leadership skills as a result of interaction with students of different racial/ethnic backgrounds in student organization(s) and perceived career preparation. Among all respondents, 87% reported “likely” perceived career preparation as a result of leadership skills developed as compared to 8% who reported “unlikely” perceived career preparation. (See Figure 4). In addition, 98% of respondents who reported a “strong impact” of leadership skills developed also reported “likely” perceived career preparation as compared to 1% who reported “unlikely.” Likewise, 92% of respondents who reported “some impact” of leadership skills

developed also reported “likely” perceived career preparation as compared to 4% who reported “unlikely.” Conversely, 52% of respondents who reported “no impact at all” for leadership skills developed also reported “likely” perceived career preparation as compared to 32% of respondents who reported “unlikely.”

An analyses of the independent/control variables showed a statistically significant relationship between the perceived career preparation as a result of leadership skills learned from interaction with students of different racial/ethnic background from themselves and race/ethnicity ($p = .002$). (No significant relationships were found between perceived career preparation and age or gender). The analysis of the race/ethnicity variable showed that 87% of respondents, regardless of race/ethnicity, have a positive perception of career preparation. However, Asian or Pacific Islander, African American/Black, and Hispanic/Latino, respondents were more likely than to report a response of “very likely” (73%, 72%, and 64% respectively) than white respondents (44%).

CHAPTER FIVE

FURTHER DISCUSSION: FINDINGS, STRENGTHS AND LIMITATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH

In general, among student leaders, there is a positive relationship between student organizational diversity and leadership development. A positive relationship also exists between leadership development as a result of student organizational diversity and perceived career preparation. As indicated in the research, student leaders from more diverse student organizations reported a strong impact on the development of their leadership skills, more positive self-ratings of their own leadership skills when compared to other campus leaders, and higher perceived preparation for their careers after graduation. Likewise, students who reported a positive influence of student organizational diversity on their leadership development also reported higher perceived preparation for their careers after graduation.

Summary of Findings

The research hypotheses predicted that, among student leaders, there are positive relationships between membership in a diverse student organization and development of leadership skills, membership in a diverse student organization and positive self-rating of leadership skills, membership in a diverse student organization and perceived career preparation, and leadership skills developed from interaction with students of different racial/ethnic backgrounds in their organizations and perceived career preparation.

The purpose of the study was to learn about the experiences of student leaders, specifically as a result of interracial interaction, and the affects of

membership in a diverse student organization on leadership development. As noted previously, three questions about student leaders guided this research: (1) Does membership in a diverse student organization have a positive influence on leadership development? (2) Does membership in a diverse student organization have a positive influence on leadership skill self-rating? and (3) Do the leadership skills learned from interaction with students of different racial/ethnic backgrounds in their organizations have a positive influence on perceived career preparation?

These research questions were reviewed in depth and tested by the survey instrument. The research hypotheses all proved true and statistically significant (at the level of $p = .014$ or stronger). Therefore, the positive influences sought in the research questions came to fruition.

The findings indicate that diverse student organizations foster student leaders that develop stronger leadership skills than their peers in less diverse organizations, have more positive self-ratings of their own leadership skills when compared to other campus leaders, and foresee the leadership skills learned from these experiences as better preparing them for their careers after graduation. These data, thus, provide evidence that student organizational diversity is a very significant factor attributable to developing strong student leaders.

These data provide support for the assertions and findings in the literature. Astin (1993b) found that providing students with curricular and extracurricular opportunities to confront racial and multicultural issues are all associated with widespread beneficial effects on a student's cognitive and affective development.

This study mirrors Astin's findings by showing that diversity of membership in student organizations promotes the development of leadership skills as well as higher perceived preparation for a career following graduation.

Astin (1993b) also found that the three involvement variables showing the strongest residual correlation with self-reported growth in leadership abilities are hours per week spent in student clubs and organizations, being elected to a student office, and giving presentations in class. Although these data do not analyze the latter, it is clear that time spent in student clubs and organizations as well as being elected to (and/or appointed to) a student office has a positive relationship with leadership development and preparing student leaders for their roles after graduation.

The literature also discusses positive associations from attending a racial or cultural awareness workshop, being a member of a social fraternity or sorority, and socializing with students from different racial or ethnic groups. Moreover, socializing with persons from different racial or ethnic groups also showed a significant positive correlation with self-reported improvements in job-related skills. These data support the literature showing that membership diversity in student organizations has a positive relationship on perceived career preparation.

Furthermore, not only do diverse student organizations make students better leaders, but they also better prepare them for their careers after graduation. This is most likely a result of the way student organizations function. Student leaders administrate the brunt of their organizations (although they may

meet with a faculty advisor for advice). In the business and civic world, the membership diversity of businesses and organizations are growing as well. As a result, students who have experience interacting, communicating, networking, and most importantly *leading* these groups, will be more effective in their careers and communities.

A final point to review from the literature is that the intersection of leadership development and diversity has been explored only superficially on college campuses (Arminio, et al., 2000). Though the literature on leadership is vast, a search of this subject will reap scores of what Rogers (1996) described as conventional leadership literature but little alternative literature and even less investigating that intersection of race and leadership. These data have shed a great deal of light on this deficiency and have explored the intersection of leadership development and diversity with much depth.

As stated in the introduction, student organizations are more diverse than ever. These data reported that more than 97% of student organizations have a diverse membership (greater than 0%). It would follow then, that student leaders that experience interaction with a diverse membership would learn from these experiences and would be better prepared for interaction with diversity in their careers after graduation. Likewise, student leaders from more diverse organizations would be more likely than their peers from less diverse student organizations to develop these skills.

According to these data, leaders of more diverse student organizations are stronger (or at the very least confident) and more developed leaders. It

would follow then that these important skills would be instrumental when a student leader is conversing with a student government funding board (probably equally diverse), fighting for student fees' dollars, recruiting new members, planning and administrating events, and recruiting new members. Among student leaders, the leadership skills learned from interaction with students of a different racial/ethnic background from their own are influential in developing their communication and networking skills first on a college campus, and most importantly, later, as they pursue their careers in the job market.

Conclusions

This study has investigated the effects of membership diversity in student organizations on leadership development, perceived career preparation, and positive self-rating of leadership skills. In addition the effects of leadership skills learned from interaction with a diverse student organizational membership on perceived career preparation was investigated.

The results of this study show that student leaders in more diverse organizations have more developed leadership skills than their peers, have a higher self-rating of their leadership skills, and may be better prepared for their careers after graduation. Likewise, among student leaders, the leadership skills, communication skills, networking skills, knowledge, and information learned from interaction with students of different racial and ethnic backgrounds from their own will better prepare them to transcend from student leaders to effective business, civic, and political leaders.

Strengths and Limitations

As previously mentioned, a wealth of research has supported the use of Internet and e-mail based surveys to collect data. Common limitations of this method of data collection including respondents' computer access and access to the sample were discounted as a result of the population targeted for this study. Specifically, student leaders were identified and invited to participate in the survey by their e-mail addresses.

Nonetheless, a number of important limitations need to be considered. First, the data used in this study was drawn only from student leaders at public universities in Florida. According to the State University System of Florida Facts and Figures, the data is a valid and reliable sample of students in Florida's public university system.

Second, this study was limited by a sample that included student leaders from Florida's public university students only. It is plausible that a similar study that included other states' public university students may produce different results.

Third, this study was limited by a sample that included public universities only. It is plausible that a similar study that included private colleges as well as or in lieu of public universities may produce different results.

Lastly, this study was limited by a survey instrument that was created by the author to collect data for an innovative study. Since there was an immense deficiency in literature and research on diversity in student organizations and the affects of that diversity on the development of leadership skills, the questions on

the survey instrument were a result of creativity, assistance from a faculty advisor, and knowledge of the literature and research available. Future studies may grow on this study and produce better measurements.

Suggestions for Future Research

This research has opened the door for many interesting questions in need of further investigation. Further research might include a multivariate analysis to determine if membership diversity in student organizations, among student leaders, is the *most* significant contributor to leadership development. It would also be interesting to assess the effects of student organizational diversity on non-leader members.

Further research might explore what specific types of leadership development programs promote interracial interaction. Specifically, what types of programs, seminars, speakers, workshops, etc., create the most comfortable, desirable, and effective atmosphere for developing strong leaders that also have an informed grasp of diversity and multicultural issues.

The effects of interaction between diverse students and the benefits shown in the research lead the way to additional work. Future research should build on the research that shows the positive effects of diversity in higher education on building cognitive thinking skills, leadership skills, and professional responsibility.

Although the sample was made up only of student leaders from Florida's public universities, the diversity and locations of these universities greatly vary throughout the State of Florida as does its demographics. Future studies could

include private universities as well as students from other states' universities (both public and private).

There is no doubt that a number of possible future studies could utilize the same data. Since very few large data sets on student leaders exist, research on other associations and significant relationships could yield other useful information.

CHAPTER SIX

POLICY RECOMMENDATIONS

The purpose of the study as indicated in the research questions was to determine if a positive relationship existed between membership diversity in student organizations and the development of key skills (leadership and career preparation). Based on the results of this study, it is an aim that these data are influential as well as inspirational for student activities administrators developing future programming for university students (specifically student leaders), lawmakers developing and reviewing higher education policy, and university admissions councils developing criteria to recruit effective leaders.

The remainder of this section on implications is split into two sections: (1) Recommendations for lawmakers, and (2) Recommendations for higher education administrators. The first of which discusses policy actions lawmakers should take as a result of this study and the second that describe actions student activities administrators should take when developing new diversity and leadership development programs.

Recommendations for Lawmakers

These findings suggest several courses of action for policy development. On its face, the findings from this study support previous arguments over diversity in higher education. According to Dye (2005), university administrators as well as civil rights groups across the nation argue that students benefit when they interact with others from different cultural heritages. Based on the findings

of this study, it is imperative not only to promote diversity among the student body, but to specifically promote diversity among student organizations.

When confronted with diversity and affirmative action programs, the results of this research support initiatives that foster and promote diversity. However, such initiatives may need to also shift their focus towards other characteristics. This study indicates that over 95% of the respondents were also leaders in their high schools. As a result, it is recommended that universities seeking to promote diversity in their leadership programs and campus organizations as well as their student bodies expand their admissions criteria (when implementing affirmative action programs) by emphasizing prior leadership experiences. This practice would not only recruit eventual student organizational leaders, but also increase the frequency of diverse student leaders.

Recommendations for Higher Education Administrators

The findings of this study support numerous recommendations for higher education administrators. For example, the significant relationship between diversity and leadership development would be helpful as a reference for student activities administrators when developing leadership programs—specifically leadership diversity programs—for college students and organizations. Likewise, though this study was limited to student leaders at public universities in Florida, the results overwhelmingly suggest a positive influence from diversity in student organizations. As a result, student activities administrators should strive to increase and maintain the membership diversity of the student organizations on

their campus. Programs that promote interaction between diverse groups and leadership training that focuses on comprising program preferences to educate are just the tip of the iceberg.

As previously noted, universities are microcosms of the world outside of campus life. With this important simulation experienced by students comes an interaction among student organizations. Fostering diverse groups and promoting the formation of new groups is just one way to increase the membership diversity of student organizations. For example, creating programs to aid new groups in their formation in student activities offices as well as events that promote organizations in general are all ways to increase membership, and as a result, increase membership in student organizations.

This study overwhelmingly shows the positive effects of diversity on the growth, development, and preparation of student leaders. Student activities administrators must take this ball and run with it by creating innovative leadership development programs. Most importantly, these ground-breaking programs must satisfy the conditions needed to foster and adapt to the growing diversification of undergraduate students.

REFERENCES

- 2006-7 Chronicle of Higher Education: Almanac Issue. 2007.
http://chronicle.com.proxy.usf.edu/weekly/almanac/2006/nation/0101503.htm#aster_note. (February 12, 2007)
- Andrews, D., Nonnecke, B., & Preece, J. 2003. "Electronic survey methodology: A case study in reaching hard-to-involve Internet users." *International Journal of Human-Computer Interaction* 16 (2): 185-210.
- Antonio, A.L. 2001. "The Role of Interracial Interaction in the Development of Leadership Skills and Cultural Knowledge and Understanding." *Research in Higher Education* 42: 593-617.
- Arminio, J.L., Carter, S., Jones, S.E., Kruger, K., Lucas, Nance, Washington, J., Young, N., Scott, A. 2000. "Leadership Experiences of Students of Color." *NASPA Journal* 37: 496-510.
- Astin, A.W. 1991. *Assessment for excellence*. New York: Macmillan Publishing.
- Astin, A.W. 1993a. *What Matters in College? Four Critical Years Revisited*. San Francisco: Jossey-Bass.
- Astin, A.W. 1993b. "Diversity and Multiculturalism on Campus: How Are Students Affected?" *Change* 25: 44-49.
- Bachmann, D., & Elfrink, J. 1996. "Tracking the progress of e-mail versus snail-mail." *Marketing Research* 8(2): 31-35.
- Baird, L. L. 1976. *Using self-reports to predict student performance*. New York: College Board.
- Bannan, K.J. 2003. "Companies save time, money with online surveys", *B to B*. (June): 1.
- Berdie, R. 1971. "Self-claimed and tested knowledge." *Educational and Psychological Measurement* 31: 629-636.

- Board of Governors State University System of Florida: State University System of Florida Facts and Figures. 2007. *Fall Student Enrollment in State University System Institutions*.
<http://www.fldcu.org/factbook/enrollment.asp> (March 25, 2007).
- Chang, M.J. 1996. "Racial Diversity in Higher Education: Does a Racially Mixed Student Population Affect Education Outcomes?" Unpublished doctoral dissertation. Los Angeles: University of California.
- Chang, M.J. 1999. "Does Racial Diversity Matter? The Educational Impact of a Racially Diverse Undergraduate Program." *Journal of College Student Development* 40: 377-395.
- Chang, M.J. 2000. "Improving Racial Diversity: A Balancing Act Among Competing Interests." *Review of Higher Education* 72: 153-175.
- Clandinin, D.J., & Connelly, F.M. 2000. *Narrative inquiry: Experience and story in qualitative research*. San Francisco: Jossey-Bass.
- Crawford, S.D., Couper, M.P. & Lamias, M.J. 2001. "Web Surveys: Perception of burden." *Social Science Computer Review* 19: 146-162.
- Creswell, J.W. 1998. *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- DeSousa, D. J., & Kuh, G. D. 1996. "Does institutional racial composition make a difference in what Black students gain from college?" *Journal of College Student Development* 37: 259-267.
- Dye, Thomas R. 2005. *Understanding Public Policy*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Evans, J.R., & Mathur, A. 2005. "The value of online surveys." *Internet Research* 15(2): 195-219.
- Fox, S., Raine, L., Larsen, E., Horrigan, J., Lenhart, A., Spooner, T., & Carter, C. 2001. "Wired Seniors." *The Pew Internet and American Life Project*.
http://www.pewinternet.org/pdfs/PIP_wired_seniors_report.pdf (March 22, 2007).
- Garton, L., Haythornthwaite, C., & Wellman, B. 1999. "Studying on-line social networks." In S. Jones (Ed.), *Doing Internet Research: Critical Issues and Methods for Examining the Net* (pp. 75-105). Thousand Oaks, CA: Sage.

- Guiffrida, Douglas A. 2003. "African American Student Organizations As Agents of Social Integration." *Journal of College Student Development* 44(3): 304-19.
- Gurin, P., Dey, E.L., Hurtado, S., & Gurin, G. 2002. "Diversity and Higher Education: Theory and Impact on Educational Outcomes." *Harvard Educational Review* 72: 330-366.
- Hodgkinson, H. L. 1985. *All one system: Demographics of education—kindergarten through graduate school*. Washington, DC: Institute for Educational Leadership.
- Hu, Shouping, and Kuh, George D. 2003. "Diversity Experiences and College Student Learning and Personal Development." *Journal of College Student Development* 44 (3): 320-34.
- Hurtado, S. 2005. "The Next Generation of Diversity and Intergroup Relations Research" *Journal of Social Issues* 61: 595-610.
- Johnson, J.B., and Reynolds, H.T. 2005. *Political Science Research Methods*. Washington, D.C.: CQ Press.
- Kennedy, Shirley D. 2002. "Spam I Am!—The Proliferation of Junk E-Mail." *InformationToday*. <http://infoday.com/it/feb02/kennedy.htm> (March 21, 2007).
- Konstan, J. A., Rosser, B. R. S., Ross, M. W., Stanton, J., & Edwards, W. M. 2005. "The story of subject naught: A cautionary but optimistic tale of Internet survey research." *Journal of Computer-Mediated Communication* 10(2) <http://jcmc.indiana.edu/vol10/issue2/konstan.html> (March 21, 2007).
- Kvale, S. "The qualitative research interview: A phenomenological and hermeneutical mode of understanding." *Journal of Phenomenological Psychology*. 14(1983): 171-196.
- Lenning, O.T. (Ed.). 1976. *Improving educational outcomes*. San Francisco: Jossey-Bass.
- Levine, A., & Associates. 1989. "Shaping higher education's future: Demographic realities and opportunities, 1990-2000." San Francisco: Jossey-Bass.
- Llieva, J., Baron, S., & Healey, N. M. 2002. "Online surveys in marketing research: Pros and cons." *International Journal of Market Research*, 44 (3): 361-367.

- Lueg, Christopher P. 2004. "From spam filtering to information retrieval and back: Seeking conceptual foundations for spam filtering." Proceedings of the American Society for Information Science and Technology. <http://dx.doi.org/10.1002/meet.14504201146> (March 21, 2007).
- Mallinckrodt, B., & Sedlacek, W. E. 1987. "Student retention and the use of campus facilities by race." *National Association of Student Personnel Administrators*, 24(3): 28-32.
- McClung, J. J. 1988. *A Study to identify factors that contribute to Black student withdrawal at Clemson University*. Clemson, SC: Clemson University. (Eric Document Reproduction Service No. ED 300 483).
- Mehta, R., & Suvadas, E. 1995. "Comparing response rates and response content in mail versus electronic mail surveys." *Journal of the Market Research Society* 37(4): 429-439.
- Menard, S. 1995. *Applied logistic regression analysis*. Thousand Oaks, CA: Sage, 1995.
- Micek, S.S., Sevice, A.L., & Lee, Y.S. 1975. *Outcome measures and procedures manual*. Boulder, CO: National Center for Higher Education Management Systems, Western Interstate Commission on Higher Education.
- Murguia, E., Padilla, R. V., & Pavel, M. 1991. "Ethnicity and the concept of social integration in Tinto's model of institutional departure." *Journal of College Student Development* 32: 433-439.
- Nie, N., Hillygus, S. & Erbring, L. 2002. "Internet use, interpersonal relations and sociability: Findings from a detailed time diary study." In B. Wellman (Ed.), *The Internet in Everyday Life* 215-243. London: Blackwell Publishers.
- Pace, C. R. 1985. *The credibility of student self-reports*. Los Angeles: Center for the Study of Evaluation, University of California Los Angeles.
- Padilla, R. V., Trevino, J., Gonzalez, K., & Trevino, J. 1997. "Developing local models of minority student success." *Journal of College Student Development* 38: 125-138.
- Pascarella, E.T., Palmer, B., Moye, M., & Pierson, C.T. 2001. "Do diversity experiences influence the development of critical thinking?" *Journal of College Student Development* 42: 257-271.
- Pascarella, E.T., and P.T. Terenzini. 1991. *How College Affects Students*. San Francisco: Jossey-Bass.

- Pascarella, Ernest T., and Terenzini, Patrick T. 1998. "Studying College Students in the 21st Century: Meeting New Challenges." *The Review of Higher Education* 21(2): 151-165.
- Pelletier, L., Almhana, J., and Choulakian, V. 2004. "Adaptive filtering of spam." *Communication Networks and Services Research, 2004. Proceedings, Second Annual Conference*.
http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=1344731 (March 21, 2007).
- Pike, G. R. 1995. "The relationship between self reports of college experiences and achievement test scores." *Research in Higher Education* 36: 1–21.
- Pohlmann, J., & Beggs, D. 1974. "A study of the validity of self-reported measures of academic growth." *Journal of Educational Measurement*: 11: 115–119.
- Rogers, J.L. *Leadership*. In S. R. Komcies & D.B. Woodward, *Student Services: A Handbook for the Progression*. San Francisco: Jossey-Bass, 1996.
- Ryter, Jon. 2004. "By 2050 Whites Will be the Minority Race in America." *NewsWithViews.com*, March 24.
<http://www.newswithviews.com/Ryter/jon27.htm> (March 28, 2007).
- Stake, R.E. 1995. *The art of case study research*. Thousand Oaks, CA. Sage.
- Schmidt, Sheri L., 1996. "Inclusive Leadership: Redefining Our Models of Leadership Education." *Back To School 1996. Campus Activities Programming. Development Series*. 75-81.
- Stanton, J. M. 1998. "An empirical assessment of data collection using the Internet." *Personnel Psychology* 51(3): 709-725.
- Sue, D.W. 1994. "U.S. Business and the Challenge of Cultural Diversity." *The Diversity Factor* winter: 24-28.
- Tashakkori, A., & Teddlie, C. 1998. *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oak, CA: Sage.
- Taylor, H. 2000. "Does Internet research work? Comparing electronic survey results with telephone survey." *International Journal of Market Research* 42(1): 51-63.
- Terenzini, P.T., E.T. Pascarella, and G.S. Blimling. 1996. "Students' Out-of-class Experiences and their Influence on Cognitive Development: A Literature Review." *Journal of College Student Development* 37: 14-162.

- Thompson, L. F., Surface, E. A., Martin, D. L., & Sanders, M. G. 2003. "From paper to pixels: Moving personnel surveys to the Web." *Personnel Psychology* 56(1): 197-227.
- Toossi, Mitra, "A century of change: U.S. labor force from 1950 to 2050." *Monthly Labor Review* May 2002: 15-28.
<http://www.bls.gov/opub/mlr/2002/05/art2full.pdf> (March 18, 2007).
- U.S. Census Bureau. The 2007 Statistical Abstract: The National Data Book. *College Enrollment by Sex, Age, Race, and Hispanic Origin: 1980 to 2004.*
http://www.census.gov/compendia/statab/education/higher_education_institutions_and_enrollment/ (March 28, 2007).
- Villalpando, O. 2002. "The impact of diversity and multiculturalism on all students: Findings from a national study." *NASPA* 40:124-144.
- Wellman, B. 1997. "An electronic group is virtually a social network." In S. Kiesler (Ed.), *Culture of the Internet* 179-205. Mahwah, NJ: Lawrence Erlbaum.
- Whitt, E.J., Edison, M.I., Pascarella, E.T., Nora, A., & Terenzini, P.T. 1999. "Peer Interactions and Cognitive Outcomes During Three Years of College." *Journal of College Student Development* 40: 61-78.
- Whitt, E.J., Edison, M.I., Pascarella, E.T., Nora, A., & Terenzini, P.T. 2001. "Influences on Student's Openness to Diversity and Challenge in the Second and Third Years of College." *The Journal of Higher Education* 72 Special Issue: The Social Role of Higher Education: 172-204.
- Witmer, D. F., Colman, R. W., & Katzman, S. L. 1999. "From paper-and-pencil to screen-and-keyboard: Toward a methodology for survey research on the Internet. In S. Jones (Ed.), *Doing Internet Research: Critical Issues and Methods for Examining the Net* 145-161. Thousand Oaks, CA: Sage.
- Wright, W.B. 2005. "Researching Internet based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and we survey services." *Journal of Computer-Mediated Communication*, 10(3): article 11.
<http://jcmc.indiana.edu/vol10/issue3/wright.html> (March 10, 2007).
- Yun, G. W., & Trumbo, C. W. 2000. "Comparative response to a survey executed by post, email, and web form." *Journal of Computer-Mediated Communication* 6(1). <http://jcmc.indiana.edu/vol6/issue1/yun.html> (March 4, 2007).
- Zuniga, X., Williams, E.A., and Berger, J.B. 2005. "Action-Oriented Democratic Outcomes: The Impact of Student Involvement With Campus Diversity." *Journal of College Student Development* 46: 660-678.

Appendices

Appendix A

Call to Participate in Survey

Subject: Quick Survey for FSU Student Leaders

FSU Student Leaders,

Thank you for helping out an FSU Alumnus!!! This brief anonymous survey is being sent exclusively to key Florida public university student leaders.

All data are confidential and participation is voluntary. Only general statistics combining responses will be reported. Should you have any questions, please contact me directly—I am a graduate student at the University of South Florida. (Dan Jenkins, 813-785-6766 or via e-mail: djenkin2@mail.usf.edu)

The purpose of the survey is to gather information about your student organizational experiences. The survey will take only 5-10 minutes of your time and will really help out a fellow student. Please click on the link below to begin the survey:

<http://FreeOnlineSurveys.com/rendersurvey.asp?sid=du1i3txnic5s3v1256026>

Thank you again,

Dan Jenkins
Florida State University
B.S. Communication, c/o '02

Appendix B

Survey Instrument

Thank you for your help!!! This brief anonymous survey is being sent exclusively to key Florida public university student leaders. All data are confidential and participation is voluntary. Only general statistics combining responses will be reported. Should you have any questions, please contact me directly—I am a graduate student at the University of South Florida. (Dan Jenkins, 813-785-6766 or via e-mail: djenkin2@mail.usf.edu)

The purpose of the survey is to gather information about your student organizational experiences. The survey will take only 5-10 minutes of your time and will really help out a fellow student.

<p>1) Which public Florida university (any campus) are you currently attending?</p> <table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 20px; text-align: center;"><input type="checkbox"/></td><td>Florida Atlantic University</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>Florida State University</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>Florida Gulf Coast University</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>Florida A & M University</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>Florida International University</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>University of Central Florida</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>University of Florida</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>University of North Florida</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>University of South Florida</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>University of West Florida</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>Other (Please Specify):</td></tr><tr><td colspan="2" style="text-align: center;"><input style="width: 100%;" type="text"/></td></tr></table>	<input type="checkbox"/>	Florida Atlantic University	<input type="checkbox"/>	Florida State University	<input type="checkbox"/>	Florida Gulf Coast University	<input type="checkbox"/>	Florida A & M University	<input type="checkbox"/>	Florida International University	<input type="checkbox"/>	University of Central Florida	<input type="checkbox"/>	University of Florida	<input type="checkbox"/>	University of North Florida	<input type="checkbox"/>	University of South Florida	<input type="checkbox"/>	University of West Florida	<input type="checkbox"/>	Other (Please Specify):	<input style="width: 100%;" type="text"/>		
<input type="checkbox"/>	Florida Atlantic University																								
<input type="checkbox"/>	Florida State University																								
<input type="checkbox"/>	Florida Gulf Coast University																								
<input type="checkbox"/>	Florida A & M University																								
<input type="checkbox"/>	Florida International University																								
<input type="checkbox"/>	University of Central Florida																								
<input type="checkbox"/>	University of Florida																								
<input type="checkbox"/>	University of North Florida																								
<input type="checkbox"/>	University of South Florida																								
<input type="checkbox"/>	University of West Florida																								
<input type="checkbox"/>	Other (Please Specify):																								
<input style="width: 100%;" type="text"/>																									
<p>2) What is your current status in school?</p> <table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 20px; text-align: center;"><input type="checkbox"/></td><td>Underclassman</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>Upperclassman</td></tr><tr><td style="text-align: center;"><input type="checkbox"/></td><td>Graduate School</td></tr></table>	<input type="checkbox"/>	Underclassman	<input type="checkbox"/>	Upperclassman	<input type="checkbox"/>	Graduate School																			
<input type="checkbox"/>	Underclassman																								
<input type="checkbox"/>	Upperclassman																								
<input type="checkbox"/>	Graduate School																								

3) Describe the geographical area you lived in (live in) prior to attending your university.

- Suburban
- Urban
- Rural

4) What was the most important reason you chose to go to the university you now attend?

- Athletics
- Racial/ethnic diversity of student body
- Size of school or student body
- Academics or specific academic program
- Financial aid or scholarship
- School reputation or rank
- Other (Please provide):

5) Were you involved in a club or organization in high school?

- Yes
- No

6) What type of organization(s) were you a member of?

- Academic (for example: debate team, math team, etc.)
- Arts (for example: thespian, marching band, dance team, cheerleading, etc.)
- Athletics
- Honor Society
- Journalism (for example: yearbook, student newspaper, etc.)
- Language or Cultural Club
- Planning committee
- Religious
- Student Council
- Vocational or Technology Club (for example: F.B.L.A., F.F.A., etc.)
- Volunteer or Service Club
- Was not a member of an organization in high school

Other (Please Specify):

7) Did you hold an office or have any leadership position in any of the organizations you were a member of in high school?

- Yes
- No

8) What organizations have you belonged to while at your university?

- Academic or Honor Society
 - Campus Activities/Event Planning (for example: lecture series, campus concerts, festivals, etc.)
 - Dorm or Residential Council
 - Fraternity/Sorority
 - Intramurals
 - Journalism (for example: student newspaper or other publication)
 - Pep Club
 - Professional Society
 - Racial or Ethnic Student Organization or Student Union
 - Religious
 - Special Interest/Political Organization (for example: College Democrats, Planned Parenthood, NORML, etc.)
 - Student Government
 - Varsity Athletics
 - Volunteer or Service Club
 - Worked on a Planning Committee
- Other (Please Specify):

9) In how many campus organizations have you held a leadership position or elected office?

- 1-2
- 3-4
- 5-6
- 7 or more

10) What has been the biggest challenge you have faced as a leader in your organization(s)?

- Difference of opinion with other leaders in your organization
- Communicating your ideas to the membership
- Learning how to interact and communicate effectively with students from a different racial/ethnic background than your own
- Motivating the members of your organization to participate in events, groups, or activities
- Recruiting new members
- Fundraising
- Other (Please Specify):

11) What factor has contributed most to your development as a student leader at your university?

- Being elected to a leadership role
- Being appointed to a leadership role
- Guidance from a mentor
- Leadership training workshop
- Uniqueness of the organization
- Interaction with students of a different racial/ethnic background than your own
- Having to plan or administrate an event
- Other (Please Specify):

12) When compared to other student leaders on campus, how would you rate your leadership skills?

- Very Strong
- Strong
- Moderate
- Somewhat Weak
- Very Weak

13) How often do you attend programs or events put on by other student groups on campus?

- Never
- Sometimes
- Often
- Very Often

14) How often do you meet with a faculty advisor or administrator to discuss the activities of your student organization(s)?

- Never
- Sometimes
- Often
- Very Often

15) What single aspect of your college experience, if any, has taught you the most about racial/ethnic diversity?

- Membership in an organization with students from different racial or ethnic backgrounds than your own
- Students in your classes from different racial or ethnic backgrounds than your own
- A diverse student population
- Participation in a racial, ethnic, or cultural workshop, festival, or fair
- Curriculum or course content, readings
- I was already quite knowledgeable about racial/ethnic diversity before coming to college.
- Other (Please Specify):

16)

What has been the biggest benefit of racial/ethnic diversity in your organization(s), if any, at your university?



Developing leadership skills



Attracting new members



Opportunity of experiencing and learning new things



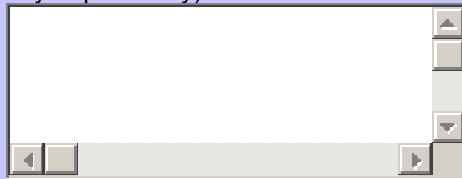
Interacting with students of a different racial or ethnic background than your own



Was not a member of an organization with a racially/ethnically diverse membership



No benefit from the racial/ethnic diversity in my organization(s). (please briefly explain why):



17) What has been the most difficult aspect, if any, of racial/ethnic diversity that you observed in your organization?



Tension between members of different races/ethnicities



Achieving proportional representation in leadership positions



Different program priorities and preferences



Communication breakdowns due to cultural differences



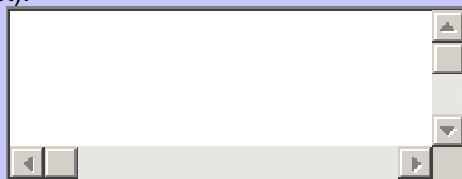
Ignorant, insensitive members



Was not a member of an organization with a racially/ethnically diverse membership



There were no significant drawbacks to diversity. (Please briefly explain why not):



<p>18) Have you had serious discussions about race/ethnicity with students whose racial/ethnic background is different from yours?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	
<p>19) How much of an impact has your organization's racial/ethnic diversity had on the development of your own leadership skills?</p> <p><input type="checkbox"/> A very strong impact</p> <p><input type="checkbox"/> A moderate impact</p> <p><input type="checkbox"/> Some impact</p> <p><input type="checkbox"/> No impact at all</p> <p><input type="checkbox"/> My organization(s) is/are not racially/ethnically diverse</p>	
<p>20) How likely do you think the leadership skills you learned from your interaction with students from different racial/ethnic backgrounds in your organization(s) will benefit you in your career upon graduation?</p> <p><input type="checkbox"/> Very likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Somewhat unlikely</p> <p><input type="checkbox"/> Not at all</p> <p><input type="checkbox"/> Do not know at this point</p>	

21) Thinking about the organizations you are/were a member of, what percentage of the members are/were of a different racial/ethnic background than yourself?

- None (0%); there is no diversity in my group(s)
- 1-24%
- 25-49%
- 50-74%
- 75% or more

22) How racially and ethnically diverse do you think your college or university is?

- Very
- Somewhat
- Not at all

23) (The following questions are simply to describe the survey's participants. Your answers will remain anonymous and will be combined with those of the other respondents and reported only as percentages.)

What is your age?

19 or younger

20-21

22-25

25 or older

24) What is your gender?

Male

Female

25) What is your race/ethnicity?

White/Caucasian

African American/Black

Hispanic/Latino

Asian or Pacific Islander

American Indian or Alaskan Native

Other (Please Specify):