ABSTRACT

Title of Document:	EXAMINING THE RELATIONSHIP BETWEEN COLLECTIVE RACIAL ESTEEM AND LEADERSHIP SELF-EFFICACY AMONG ASIAN AMERICAN COLLEGE STUDENTS
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This thesis explored whether collective racial esteem was a significant predictor of leadership self-efficacy for Asian American college students. The subjects of the study were undergraduate students from the Multi-Institutional Study of Leadership who identified as Asian and United States citizens. An aggregated Asian, Chinese, Filipino, and Indian/Pakistani samples were drawn from the MSL in order to study the diverse Asian American population. The aggregated Asian sample included all the ethnicities in addition to the three samples. The hypothesis was tested using a modified Input-Environment-Outcome model as an organizing framework and hierarchical multiple regression as the statistical method.

Collective racial esteem was observed as a significant predictor of leadership self-efficacy for the aggregated Asian sample, the Chinese sample, and the Indian/Pakistani sample. The null hypothesis was rejected for these three samples. The null hypothesis failed to reject for the Filipino sample. The study's findings offer suggestions for practitioners and researchers.

EXAMINING THE RELATIONSHIP BETWEEN COLLECTIVE RACIAL ESTEEM
AND LEADERSHIP SELF-EFFICACY AMONG ASIAN AMERICAN COLLEGE
STUDENTS

By

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DEDICATION

This thesis is dedicated to my grandmother, Sui Hing Lee, who passed away on February 2011. Her sacrifice along with my grandfather to move to the United States in 1963 in the midst of the Chinese Cultural Revolution for the promise of a better life for their loved ones is my history. Her life continues through her four children, ten grandchildren, and two great grandchildren (and counting) and makes me proud to call myself an Asian American.

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I want to thank my family and friends for their continued love and support. Those include my sister Katie, my brothers Brian and Patrick, my parents, my best friends Shalin, Kasey, and Tina. I also want to give a special thanks to Jen for doing the most to keep me sane and appreciated.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

I attended a leadership workshop designed for Asian American college students organized by an Asian American civil rights non-profit organization during my freshman year. The workshop focused on identity, leadership, and activism. It sparked personal critical exploration of my Asian American identity and prompted my immersion in the Asian American community during college. I became more involved on campus, and this involvement led to my getting involved with Asian American organizations. As my understanding of my identity became more complex, I found myself becoming more confident in my abilities as a leader. After graduation and through my first job, I began organizing leadership workshops similar to those that I had attended. Through the workshops, I had opportunities to interact with many Asian American college students. I began to notice a common theme: when Asian American students talked about their leadership development and related experiences on campus, it usually coincided with their racial identity exploration. Though their identity as Asian Americans had always been with them, the exploration and realization of this identity did not occur until college.

This experience led me to ponder the connections between racial identity and leadership for Asian American college students. The similar connections that I heard from other Asian Americans made me wonder what type of contributions racial identity had on the leadership development of Asian American college students. Would engaging students with aspects of their racial identity help students develop their leadership skills? I also wondered what type of research had been done connecting a person's sense of identity to leadership.

Numerous models and definitions of leadership exist in the field of leadership studies. Leadership is discussed in many contexts, including business, politics on a local and global scale. Leadership development has been integral to the purpose of higher education (Dugan & Komives, 2007). This emphasis on leadership has prompted several models that were constructed for the use of administrators and faculty to understand the leadership developmental needs of college students (Komives, Lucas & McMahon, 1998). Three of these models are the relational leadership model (Komives, Lucas, & McMahon, 1998), the leadership identity development theory (Komives, Owen, Longerbeam, Mainella, & Osteen, 2005) and the social change model of leadership development (HERI, 1996). These conceptual leadership models provide a starting framework for working on leadership development with college students, however, the generalizability of these frameworks may not extend to Asian American students, particularly regarding how notions of their racial identity may influence their leadership.

One way to measure capacity for leadership is by examining one's confidence in one's abilities as a leader. To understand this confidence, this study will use the construct of leadership self-efficacy (LSE). LSE comes from the construct of self-efficacy, which was introduced by Bandura (1977) as a dimension of his Social Learning Theory. Bandura (1995) explains self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). For the purposes of this study, LSE was defined as the belief in one's ability to engage in the practice of leadership by organizing and executing the needed courses of action (Denzine, 1999).

Despite the importance placed on leadership in higher education, Dugan and Komives (2007) found that Asian American college students scored significantly lower than any other racial group on measures of leadership and social change. This finding, along with differences experienced by Asian American college students on a number of psychosocial issues (Kodama, McEwen, Liang, & Lee, 2001), shows a need to assess and meet the needs of one of the fastest growing populations in the United States and higher education (CARE, 2008). In the same study by Dugan and Komives, leadership efficacy stood out as having one of the greatest magnitudes of change found of students during college. This study found that leadership self-efficacy can develop during college and that there might be a connection between leadership self-efficacy and Asian American identity development.

Little research provides insight into Asian American leadership (CARE, 2008; HERI, 2007; Liang, Lee, & Ting, 2002). This study attempts to uncover the connection between Asian American college students' collective racial identity and their beliefs in leadership self-efficacy. One fact that makes the Asian American population unique is their collectivist nature, or their sense of belonging to a group (Kodama, McEwen, Liang, & Lee 2002). This study proposed to use a scale that helps measure aspects of Asian American collectivist feelings and social identity (Luhtanen & Crocker, 1992) and to understand the relationship it has with leadership self-efficacy. This relationship is further discussed in Chapter Two.

Problem Statement

Currently, there is limited literature regarding predictors of leadership self-efficacy for Asian Americans. Several studies on specific student populations (Fincher,

2009; Wilson, 2009) shed some light on the factors that help predict leadership self-efficacy. The literature regarding Asian Americans and leadership focuses on leadership development (Kuo, 2008) and their perceptions of themselves as leaders (Balon, 2003; Balon, 2005). This limited knowledge does not give professionals a holistic understanding of this population. One alarming finding by Dugan and Komives (2007) was that Asian American college students scored significantly lower than any other racial group on leadership self-efficacy. As a result, more needs to be known about the potential effect of racial identity and the cultural factors that influence leadership for Asian American college students (Kuo, 2008; Liang, Lee, & Ting, 2002). As colleges and universities become increasingly diverse and with the growing Asian American student population, professionals working with Asian American students will need to find innovative ways to address the specific learning style differences that the population presents (Kodama et al., 2002). Current leadership models can be better informed from understanding how one's racial identity interacts with leadership development.

<div align="center">**Purpose of the Study and Research Question**</div>

The study seeked to fill a gap in the leadership literature regarding Asian American college students and to research the relationship between leadership self-efficacy and collective racial esteem. The purpose of this study was to explore the relationship between collective racial esteem and leadership self-efficacy for Asian American college students. This study was guided by the following research question:

Does collective racial esteem significantly contribute to leadership self-efficacy for Asian American college students?

Conceptual and Theoretical Frameworks

This study used three major theories as its conceptual and theoretical framework. The first is Astin's (1991) College Impact Model, which was used to conceptualize the relationship between pre-college characteristics (inputs), college experiences (environments), and leadership self-efficacy (outcome). The second was Social Cognitive Theory (Bandura, 1977), which served as the theoretical foundation for leadership self-efficacy. The last was Social Identity Theory, which is the theoretical foundation for collective racial esteem.

College Impact Model

Astin's (1991) Inputs (I), Environments (E), and Outcomes (O) (I-E-O) model was created to enhance the investigation of and assessment of postsecondary educational practices and programs. Inputs (I) refer to pre-college characteristics. Environments (E) comprise all the components of the college experience, which Astin (1993) describes as the treatments, means, or educational experience such as practices, programs, or interventions. The Outcomes (O) indicate the change that educators, practitioners, or researchers are hoping to measure as a result of students' involvement during their college experience. Since inputs are related to both the environmental and outcome variables, they can also indirectly influence how the environment influences the outcome. For example, one's gender can have an influence on the leadership opportunities that one participates in, which can result in different outcomes. Astin's assessment model takes into account how student characteristics and experiences prior to college may affect an outcome.

Social Cognitive Theory

The concept of leadership self-efficacy is grounded in Bandura's social cognitive theory (Bandura, 1997), and is concerned with what the student does in the environment or how he or she perceives his/her actions in the environment. Self-efficacy theory is grounded in social cognitive theory (Bandura, 1977) and provides a model that is focused on the control that individuals can exercise in given situations.

Social Identity Theory

Social identity theory is primarily concerned with intergroup relations. In a focused on social identity, Brown and Capozza (2000) found that being a member of a group contributes to one's social identity. Tajfel (1982) details how cognitive structures determine certain aspects of intergroup attitudes. These attitudes describes behavior on how an individual processes their identity, which has two fundamental identities —a personal one and a social one. Each contributes to the other and the individual negotiates these different identities largely based upon circumstance and environment.

Definition of Key Terms

In order to provide clarity to the reader, this section includes definitions of key terms used in this study.

Asian American

For the purpose of this study, Asian American college students will be used to describe the study population. According to the 2000 U.S. Census, 4.2% of the United States population, or 11.9 million people, self-identified as Asian (Barnes & Bennett, 2002). According to the 2000 Census, this population come from almost fifty ethnic groups composed of people who have ancestors or have emigrated from countries in Asia

and the Pacific Islands. The countries include those in East Asia (China, Japan, and Korea), Southeast Asia (Vietnam, Laos, and Cambodia), and South Asia (India, Bangladesh, and Pakistan). The commonly used term Asian Pacific American, abbreviated as APA, includes the aforementioned groups with the addition of those who come from the Pacific Islands. For this study, I will use the term Asian American primarily but also might use Asian Pacific American (APA) when referring to the work of other researchers. Of the fifty different ethnic groups, Table 1.1 displays populations of the highest Asian ethnic populations.

Table 1.1: Asian Population by Ethnicity from the 2000 U.S. Census

Ethnicity	Population
Chinese	2,734,841
Filipino	2,364,815
Asian Indian	1,899,599
Korean	1,228,427
Vietnamese	1,223,736
Japanese	1,148,932

Leadership

Although definitions of leadership vary widely, the definition used in this study is "a purposeful, collaborative, values-based process that results in positive social change" (Dugan & Komives, 2007, p. 9). An important distinction of this definition of leadership is that it defines leadership as a process.

Leadership Self-Efficacy

As used in this study, leadership self-efficacy refers to one's beliefs about one's abilities to exercise one's leadership knowledge (Denzine, 1999). The concept of leadership self-efficacy is derived from Bandura's (1995) concept of self-efficacy, which

is described as belief in one's capabilities to organize and execute the courses of action required to manage prospective situations.

Collective Racial Esteem

Collective racial esteem (CRE) is defined as one's perceptions of one's self in relation to racial social identity. CRE is a sub-dimension of collective self-esteem. This concept will be further explained in Chapter Two.

Overview of Research Methodology

An *ex-post facto* design using secondary data analysis of responses to the Multi-Institutional Study of Leadership (MSL) was used for this study. The MSL was developed using the Social Change Model of Leadership and a modified version of Astin's (1991) I-E-O model as a theoretical lenses. The MSL is the largest national dataset that examines college student leadership development, and includes responses from multiple institutions across the United States. Leadership self-efficacy is measured in the MSL as a posttest design. Collective racial esteem (CRE) is measured in the MSL through a subset of questions.

Hierarchical multiple regression analysis was the statistical method this study used to determine which factors contributed to the change in variance in the outcome measure. Chapter Three offers a more in-depth explanation of the study's instrumentation and methodology.

Significance of the Study

This study benefits both student affairs practitioners and researchers. First, student affairs practitioners need to understand how to effectively serve and meet the needs of the growing Asian American college student population. Current programs and

services are offered to students based on student development theories that were developed decades ago and based on homogenous, often White, student populations (Kodama, McEwen, Liang & Lee, 2002). Ensuring equal and culturally competent opportunities for students to develop cannot occur without greater understanding of populations that have been under-researched. Integrating insights about specific populations is necessary to develop models of leadership development that more accurately reflect these students' values and perspectives.

By researching and studying the conceptualization of racial social identity among Asian American college students, student services can better serve the needs of this population. Understanding the relationship between Asian American college students' collective racial esteem and their leadership self-efficacy can be beneficial for student affairs practitioners in encouraging the Asian American population to take on leadership positions, focus leadership trainings to better prepare students, and to increase student involvement within organizations. Research on leadership among understudied groups, such as Asian American students, can inform educators who seek to provide appropriate leadership experiences and positions. One potential limitation in the study is the use of leadership self-efficacy for an Asian American population. Leadership maybe influenced by a variety of cultural factors that can be different than this Western-centric view on leadership. This limitation will be further explained in Chapter Two as it relates to cultural factors.

This study offers another opportunity to understand the diverse Asian American population and how different students may perceive programs and services offered by professionals. The belief that Asian Americans are one monolithic group is misguided

and inaccurate since there are over 57 different ethnicities (Barnes & Bennett, 2002). Museus and Kiang (2009) state that although services are inadequate, student use can be attributable to individual identity exploration. Kodama and Abreo (2009) researched the nature of the racial identity choices of APA college students and found that how one identifies can be a factor in one's utilization of services and the types of organizations in which one may participate. This study hopes to provide more insight into how Asian American students consider themselves with regard to their racial identity and how this applies to their leadership self-efficacy.

Delimitations

This study is limited to certain students whom identify as Asian American. Because of the scope of the study, the results will be limited to citizens and naturalized citizens. In addition to this, we will only examine students who identify with one race when working with the aggregated Asian sample as well as those students who identify with one ethnicity in the study of Chinese, Filipino, and Indian/Pakistani students.

Conclusion

This chapter demonstrated the need for increased research on Asian American college students. As a result of this lack of research, programs are often based on research that does not fully take into account the diverse college student population. The chapter also introduced two concepts in collective racial esteem and leadership self-efficacy. The following chapter will provide further details of the literature that exists on Asian American college students and the intersection of collective racial esteem and leadership self-efficacy.

CHAPTER TWO: LITERATURE REVIEW

The chapter will provide an overview of the literature on Asian American college students as well as a review of literature on collective racial esteem and leadership self-efficacy. These two constructs do not generally intersect in the literature. However, the population of Asian American college students and these two constructs will be examined for evidence providing support, contradictions, or gaps between previous research.

The first section will describe Astin's I-E-O model as a framework for the study. The second section of the chapter will explore the construct of leadership self-efficacy and predictors of it. The third section will explore collective racial esteem as a possible predictor for leadership self-efficacy and the relationship between the two. The fourth section will explore the connections between these two constructs and Asian American college students.

Astin's I-E-O Model

Chapter One presented Astin's I-E-O college impact model as a way to understand student outcomes affected by the college environment. Astin postulates that the measurement of change in student outcomes could be exaggerated if an analysis does not control for pre-college experiences and student characteristics (Astin, 1993). If inputs of the model have been properly controlled for, the researcher can then explore which programs, services, interventions, people, or policies contribute to the observed variance in the intended outcome while holding the input variables constant. For this study, the construct of leadership self-efficacy serves as the dependent variable. Throughout Chapter Two, factors will be discussed that effect leadership self-efficacy which the

study will highlight the relationship between collective racial esteem and leadership self-efficacy.

<div align="center">**Leadership Self-Efficacy (LSE)**</div>

This section explores leadership self-efficacy. The first section defines leadership self-efficacy by first detailing self-efficacy. The second section explains how self-efficacy forms through different behaviors and judgments. The third section examines the connection of leadership and self-efficacy to form leadership self-efficacy. The last section focuses on predictors of and environments that foster leadership self-efficacy.

Self-Efficacy

Bandura (1995) describe the construct of self-efficacy as the "beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). McCormick, Tanguma, & López-Forment (2002) describe self-efficacy as a personal belief that is subject to change based on various factors of function. The construct leads to comparisons with several other constructs such as self-esteem and competency. However, self-efficacy is not an actual measure of actions, but rather a measure of a person's beliefs in how he or she can accomplish a goal.

Self-efficacy is grounded in Bandura's (1977) social cognitive theory. Social cognitive theory sheds light on understanding human behavior because it studies the exercise of control in given situations. Social cognitive theory also states that there are three influences and actions that work together towards an individual's behavior (Bandura, 1977). Those three influences come from personal, environmental and behavioral factors and they function independently with one another as the determinants of behavior.

Self-Efficacy Behaviors

 With its grounding in social cognition theory, self-efficacy can be affected by changing how an individual learns behaviors in the early stages of mental development and impact on the future (Bandura, 1997). This change influences a person's judgment and decision making. Bandura notes a relationship between the amount of effort and persistence an individual puts toward a task with an individual's expectations. Bandura mentions that these stem from distinct realms of functioning. The four sources of functioning come from mastery experiences, verbal persuasion, vicarious experiences, and psychological and emotional status. These four experiences can be stated in any order and are not meant to be hierarchical. The following describe these experiences in more detail.

 Mastery experiences. Bandura (1997) states that mastery experiences, or prior success, can increase expectations about future performance. An experience that reinforces positive experiences and decreases self-doubt gives an individual a sense of accomplishment and success and will determine whether the individual will try the activity again. How a person thinks about the experience is important, which includes the effort expended, sources of support, circumstances under which the task will occur, success/failure patterns, and appraisal of one's abilities. Mastery experiences are usually the most powerful factor in deciding a person's self-efficacy.

 Verbal persuasion. Encouragement from other individuals provides an example of a way to make self-efficacy appraisals. The verbal persuasion comes in the form of mentoring and encouragement from peers and influential figures (Bandura, 1997). This encouragement can become powerful when an individual has some belief that he/she can

engage in the activity. For leadership self-efficacy, the encouragement serves to reinforce behaviors.

 Vicarious experiences. Observing the accomplishments and successes of others is a means of creating and strengthening one's efficacy (Bandura, 1997). Bandura also noted that this source of efficacy is most effective when the role model and observer have relatively similar characteristics.

 Psychological and emotional status. The last experience that can have an influence on self-efficacy is through one's psychological and emotional state. Bandura (1997) states that this can show itself through stress, fear, and other emotional states that influence desire to engage in activity. In terms of leadership, stress about taking on a role like this can affect one's belief about accomplishing the role.

Leadership and Self-Efficacy

 Self-efficacy is better understood through a domain, such as leadership. This section will focus on leadership self-efficacy and how it has been established.

 College leadership has been reexamined in the past twenty years due to a need to reassess models that might not be take into account the diverse needs of today's student population (Kezar, Carducci, & Contraras-McGavin, 2006). This reexamination of leadership has come in the form of different models and has responded to criticism of models that developed in an era when leadership was based on production and efficiency. These different ways of looking at leadership coincided with several researchers (Combs, 2002; McCormick, Tanguma, & López-Forment, 2002; Pearlmutter, 1999) examining self-efficacy and leadership. Chemers (2000) describe leadership self-efficacy as a source for understanding leadership performance and noted that a person's confidence

and efficacious behavior can lead to a greater functional mastery of what it is to be a leader.

Researchers have explored the appropriateness and applicability of leadership self-efficacy through quantitative and qualitative relationships. Lee and Early (1992) surveyed scholars to determine the theories that inform leadership research, and self-efficacy was found to be one of the top five of value because of its validity, practical utility, novelty, and creativity. Chelmers, Watson, and May (2000) assessed leadership efficacy by how a group of college students rated themselves and evaluations by peers, instructors, and outside observers. The researchers found a connection between these beliefs and the students' actual performance. Leadership self-efficacy shows potential in indicating the accomplishment of leadership outcomes. Klein, Sondag, and Drolet (1994) performed a qualitative study that surveyed undergraduate peer health educators. The study provided data that linked these undergraduate students' involvement as a peer health education with their self-efficacy. These subjects demonstrated that their belief in their ability to meet the needs in their position as health educations positively influenced their decisions to become involved with this program and also to engage in other leadership programs.

Predictors of Leadership Self-Efficacy

With leadership self-efficacy being a useful indicator of leadership performance, examining the predictors of leadership self-efficacy and understanding how different inputs and environments can affect it becomes important. Dugan and Komives (2010) conducted research that showed that leadership self-efficacy was a significant positive predictor across all outcomes of capacity. These predictors include both background

characteristics and environments. The following characteristics are described to highlight the potential impact of leadership self-efficacy for college students. Particular attention is paid to factors that could be salient for Asian American college students. However, because little literature exists concerning the predictors of leadership self-efficacy of Asian Americans, the following common predictors for the general college student population are used in the study and examined in the next section.

Background characteristics.

Gender. The topic of gender and leadership begins from an examination of gender socialization. Women's patterns of relating and developing are different from those of men. Evidence of this can be seen found in theories of identity development (Chickering & Reisser, 1993) and moral development (Gilligan, 1982). Komives (1991) also noted that women are socialized in such a way to be more collaborative and relational, while men are expected to be competitive and aggressive. In addition to expectations, the developmental differences can be accounted for by societal and cultural stereotypes and beliefs about gender.

The differences between gender and leadership have been described by several scholars. Eagly (2007) described the differences of women in their performance as leaders, however male bosses were still preferred than female bosses in the workplace. Eagly, Karau and Makhijani (1995) conducted a meta-analysis describing leader effectiveness among gender, men were found to be more effective than women in roles that were traditionally defined in more masculine terms, and vice versa. Lucas and Lovaglia (1998) and Stelter (2002) further reinforced this same idea when they examined the conflict of the expectation of women to be nice and friendly and the conflict from

supervisors that can occur when this expectation is not met. When women tried to assume more traditional male leadership characteristics, they were seen as aggressive and less desirable as leaders. Romano's (1996) qualitative study found that college students, both male and female, found women in leadership positions to be intimidating. McCormick, Tanguma, Lopez-Forment (2002) also found a significant difference in their study on male and female levels of confidence regarding their abilities to lead a group. Men were found to have greater leadership self-efficacy than women.

Dugan, Garland, Jacoby, and Gasiorski (2008) studied leadership self-efficacy of commuter students, and the regression showed that gender significantly influenced leadership self-efficacy with women scoring lower than men. In another study, Dugan, Komives, and Segar's (2008) examination of demographic characteristics on college students' capacity for socially responsible leadership showed that "women scored higher on all leadership measures except change" (p. 490).

Generational status. Acculturation and adherence to certain values may help explain the effect of generational status on an individual's leadership self-efficacy. Kim and Omizo (2005) researched Asian American college students at a West Coast university and found a positive association between adherence to European American cultural values and Asian American students' self-efficacy. This adherence to European American cultural values helps explain differences in Asian American students' belief in their ability to cope with new situations. Acculturation and generation status have also been connected based on their own immigration status or family and the values that hold based upon that. Kim, Atkinson, and Umemoto (2001) posited that first-generation Asian Americans adhere stronger to their Asian cultural values, while those Asian Americans

who have been here several generations hold cultural values more like those of the dominant culture.

Generational status was shown in several studies to have significant impacts. Lundberg, Schreiner, Hovaguimian, and Miller (2007) studied generation status as a predictor of student involvement and learning. First-generation status was found to have a positive impact on student learning but a negative effect on involvement. In this study, generation status was found to have a negative effect on student involvement for Asian Americans. This study shows the potential impact on self-efficacy due to the impact on gaining mastery experiences and instances of verbal persuasion.

Socioeconomic status. Similar to generational status, socioeconomic status (SES) can have an effect on student's leadership self-efficacy. Walpole (2003) found that programming for students with low SES is limited due to the lack of attention by practitioners. However, even with this lack of attention, Walpole also found that students of low SES can exhibit some similarities in their patterns of activities as students with a high SES background. Bergerson (2009) studied lower SES students who also had limited college choice options, which could limit leadership opportunities since students would not be exposed to the multitude of leadership opportunities on campuses that have the resources to provide more to their students.

Environment. The environment consists of several important predictors of leadership self-efficacy. Denzine (1999) found that though not a lot is known about how students get involved, "efficacy theory helps explain who is likely to become involved, what activities students will choose to become involved in and the duration and intensity of their involvement" (p. 3). For the purpose of this study, environmental factors, also

referred to as college experience factors, will include co-curricular involvement, mentorship, and positional leadership.

    Co-curricular involvement. Co-curricular involvement is defined as involvement outside the academic classroom, both on- and off- campus and includes community service and employment. Numerous researchers (Astin, 1993; Lambert, Terenzini, & Luttuca, 2006; Terenzini, Pascarella & Blimling, 1996) have found that being involved in co-curricular activities helps explain the leadership development regarding skills such as taking initiative and working in a group. Kezar and Morarity (2000) noted that involvement opportunities were clearly helpful in facilitating learning in students from ethnic subgroups. Through the self-efficacy construct, co-curricular involvement contributes to one's mastery experiences. There seems to be a clear indicator that co-curricular involvement has a positive impact on the development of leadership skills for college students.

    Positional leadership. Positional leadership is an example of increasing one's mastery experiences. The research indicates that holding leadership positions increases leadership self-efficacy. Cooper, Healy, and Simpson (1994) found that students who hold formal positional leadership positions continue to outpace those who do not hold leadership positions in terms of their leadership development. Moriarty and Kezar (2000) suggested that the effects of positional leadership may be dependent on gender and race characteristics because holding a formal leadership position was only influential for white males in their study. Positional leadership is an example of increasing one's mastery experiences.

Mentorship. In terms of leadership development, mentorship has been found to be an important environmental factor in students and development of leadership ability and efficacy. Mentorship follows closely with vicarious experiences and verbal persuasion behaviors that lead to a sense of self-efficacy. Dugan, Garland, Jacoby, and Gasiorski (2008) found that employment mentors, potentially that on-campus, had a positive influence on the leadership self-efficacy for commuter students. Dugan and Komives (2010) found in their study of the influences of college students' capacity for socially responsible leadership that mentoring relationships with faculty proved to be a significant predictor of several measures of socially responsible leadership.

Though there are several studies that have assessed the impacts of mentoring, there are few empirical studies done with Asian American college students. In Edman and Brazil's (2007) study of the impact of perceptions of campus climate on the academic efficacy and success of community college students, links between mentoring for Asian American students were found to have an effect on academic efficacy. Though this link does not pertain directly to leadership self-efficacy, it does highlight the positive impact of mentoring.

Collective Racial Esteem

This section will explore the construct of collective racial esteem (CRE). The first section examines collective self-esteem (CSE) as a foundation for understanding collective racial esteem. The second section examines CRE and several studies utilizing this construct. The last section explains the potential use of CRE as a predictor for leadership self-efficacy (LSE).

Collective Self-Esteem

Since CRE is a sub-dimension of collective self-esteem (CSE), the literature around this larger construct will be examined in order to gain insight on CRE. This section explores the foundational background, measurement, and applicability of CSE in order to understand CRE.

Foundational background. Luthanen and Crocker (1992) examined the constructs set forth by social identity theory and stated reasons for social identity to be viewed in a more comprehensive manner. Originally, social identity was believed to represent how one perceives the social groups one belongs to through two lenses, one's personal and social identity (Tajfel & Turner, 1986). Luthanen and Crocker stated that how one relates interpersonally with others and with one's community can impact one's social identity. Social groups can include one's race, ethnic background, religion, or collective identity. The three elements of social identity are self, social, and collective. Incorporating the evaluative dimension of self-concept from social identity theory, individuals can feel esteemed toward their own personal identity (self-esteem), and an individual can feel esteemed toward the social group in which they are a member, known as collective self-esteem.

Measurement. Luthanen and Crocker (1992) designed the Collective Self-Esteem Scale (CSES), a measure designed to assess one's perception of one's social group and one's membership within the group. This measure proved unique because other measures of social identity primarily focused on one's self-evaluation and did not capture one's membership in a social group. The scale captured four different aspects of collective self-esteem: 1) Though these scales were made to assess CSE globally, studies

have shown that the properties of this measure can be tailored to identify with particular population group such as students with disabilities (Blake & Rust, 2002), Latino students (Constantine, Robinson, Wilton, & Caldwell, 2002), Asian American students (Boeckmann & Liew, 2002; Kim & Omizo, 2005), and African American students (Constantine, Donnelly, & Myers, 2002; Utsey & Constantine, 2006).

Applications. Collective self-esteem (CSE) has been used in numerous studies to expand research in different areas of an individual's self-concept. CSE is used to study topics such as social interactions (Downie, Mageau, Koestner, & Liodden, 2006), ingroup and outgroup evaluations (Crocker & Luhtanen, 1990; DeCremer & Oosterwegel, 1999; DeCremer, Vugt, & Sharp, 1999), and youth violence (Lim & Chang, 2009).

Scholars use CSE to research adjustment and acculturation. Bettencourt, Charlton, Eubanks, Kernahan, and Fuller (1999) studied the development of CSE among students to predict adjustment to college. The findings were consistent in highlighting the importance of group memberships in adjustment. The study concluded that there is a relationship between CSE development and academic adjustments. This study measured CSE at two different points in time for the comparison, and care was taken to remove participants who were not involved for both semesters. One of the weaknesses of this study is its applicability to diverse student populations because 77% of the participants were white.

Another use of CSE has been in regard to in-group and out-group bias as well as social interactions. Crocker and Luhtanen (1990) explored CSE and in-group bias and found that there was a connection between how one deems one's private CSE and in-group bias. Though this is not a full indicator of CSE since it used only one measurement

out of the four possible, it did correlate with the authors' hypothesis that private CSE increases the likelihood of maintaining a positive social identity by potentially derogating out-groups. DeCremer and Oosterwegel (1999) assessed the relationship between CSE, personal self-esteem, and collective efficacy in evaluations of in-group and out-group interactions. The study utilized both the public and private CSE scales and found that there was a positive relationship between these two scales and the subject's evaluations.

Collective Racial Esteem

By taking a critical race theory lens (Ospina & Fodly 2009), the scale of collective self-esteem can be used to critically at look at one's racial group in terms of leadership. Collective racial esteem is a more narrowly defined concept of collective self-esteem because it relates how one constructs one's racial self-concept. Using the same four critical components in collective self-esteem, Membership CRE reflects one's personal beliefs about how well one functions as a member of their racial group, Private CRE refers to one's internal assessment of the values of one's racial group, Public CRE acknowledges one's beliefs regarding how others view one's racial group, and Identity Salience CRE reflects the degree of centrality of one's racial group membership to one's self-concept.

Several scholars have utilized a more comprehensive method of looking at race in order to understand the complexity surrounding one's understanding of their racial identity. Racial identity theories focus on the impact of factors such as racism, historical events, and cultural experiences on an individual's self-concept and the ways in which one perceives the racialization of cultural groups (Cross & Fhagen-Smith, 2001). Helms (1995) offered models of racial identity development for both people of color and Whites

in terms of "statuses". Ferdman and Gallegos's (2001) model of Latino identity development uses six different orientations that serve as lenses through which Latinos may view themselves. The orientations are constructed based on five factors and are not meant to be cyclical nor linear. Kim's (2001) Asian American identity development model address how Asian Americans come to terms with their racial identity and resolve racial conflicts in a society dominated by white perspectives. The model has five distinct, sequential, and progressive stages at an individual's level in the context of a White racist society. Scales have been made utilizing this concept of racial identity

One critique of these models is that they focus only on the individual and do not take into account collective and group statuses. Sellers, Smith, Shelton, Rowley, and Chavous (1998) developed the Multidimensional Model of Racial Identity (MMRI) that proposed four dimensions of African American racial identity in salience, centrality, regard, and ideology. This model provides a way to understand African American racial identity by taking into account unique historical and cultural experiences. The MMRI attempts to address the questions of how important is race in the individual's perception of self and what it means to be a member of this racial group. Dugan, Kodama, and Gehbhardt (2011) utilized collective racial esteem to understand the complex influence of racial identity as an indicator of leadership development in a more complex way.

This section highlights several studies that deal with CSE and particular racial populations. Crocker, Luhtanen, Blaine and Broadnax (1994) studied the relationship of CSE and psychological well-being. They studied this relationship with 238 subjects from different racial backgrounds. The results showed that collective self-esteem was a significant predictor of several aspects of psychological well-being for the entire sample.

For example, subjects with high levels of collective self-esteem demonstrated a positively correlated relationship to improved psychological well-being. Differences between races were found in the study. It appeared that for Asian and Black participants, ascribed group membership was more salient and central to their esteem as compared to White participants who found their personal self-esteem to be more salient. In a similar study, Blaine and Crocker (1995) suggested that components of CSE were particularly related to psychological and subjective well-being among ethnic minorities.

Utsey, Chae, Brown, and Kelly (2002) examined the effect of ethnic group membership on ethnic identity, race-related stress, and quality of life. In this study, ethnic identity was found to be a significant predictor of overall quality of life, self-esteem, and psychological adjustment and functioning of African Americans, Latinos, and Asian Americans. Through the use of CSES, it was found that African Americans reported higher ethnic identity scores than Asian and Latino Americans. More specifically, African Americans reported better psychological well-being than Latino and Asian Americans.

Constantine et al. (2002), examined how collective self-esteem was related to Africultural coping styles. They found that adolescents who reported higher collective self-esteem were more likely to use Africultural coping styles, including spiritual and collectivistic practices such as attending church and utilizing community networks. The authors proposed that the behaviors of those who positively identified with their culture were more consistent with the norms and values of their cultural groups including coping strategies.

Ahlering (2003) studied CSE data from four different ethnic groups and concluded that work using the CSES should focus on the identity subscale. The data suggests that Asian and Latino groups had higher means on the identity scale measurement than the White and Black groups. This study shows the differences may have been a result through the collection method of the participant pool from specific organizations. Also, the Asian American participants of the study were aggregated due to low sample sizes. In another study that used CSE and racial identity, Mokgatlhe and Schoeman (1998) researched the role of CSE, racial identity, and gender role attitudes to predict satisfaction with life among full-time college students in South Africa. The researchers found that CSE contributed significantly towards predicting satisfaction with life for this population.

Dugan, Kodama, and Gebhardt (2011) examine the use of collective racial esteem as a better indicator of socially responsible leadership than simple demographic categories used in prior research. This provides a more effective tool for understanding how racial identity may influence students' leadership development and confirms and brings to question findings of the influence of racial identity and leadership. Within this study, it was found that CRE was a significantly contributor in students' capacities for socially responsible leadership across racial groups.

The previous studies highlight the need to examine CSE in the form of CRE because differences have been found among different racial groups. This difference shows the complexity race can have and CRE provides a way to measure these differences.

Collective Racial Esteem and Leadership Self-Efficacy

Utilizing CRE as a predictor for leadership self-efficacy (LSE) is a topic that lacks sufficient research. This section will reveal support for how utilizing a comprehensive examination of one's racial identity through CRE can contribute to one's LSE.

Though there appears to be evidence of the influence of race and ethnicity on leadership, there appears to be scant empirical examinations of the influence of race on student leadership development (Dugan, Komives, & Segar, 2008). Kezar and Moriarty (2000) proposed that student affairs practitioners need to rethink the key assumptions of their leadership development models. The researchers found that there was a difference in the self-reported scores of students' leadership skills, however not in their overall ability. Balon (2005) indicated in his research that Asian Americans were less likely to describe themselves as leaders. Studies have shown the influence race/ethnicity has on both student involvement (Lundberg, Schreiner, Hovaguimian, & Miller, 2007) and the capacity for socially responsible leadership (Dugan, Komives, & Segar, 2008).

In her study of college student self-efficacy and the influence of various inputs and environments for relational leadership, Endress (2000) did not find any differences in leadership self-efficacy with regard to race. However according to Helms (1995), it appears that there are differences in leadership development for students of color. Bandura (1997) noted that race/ethnicity has an influence on social learning and self-efficacy because values and how the group functions can change one's perceptions of one's self. Armino et al. (2000) and Balon (2005) revealed that students of color do not tend to identify as leaders despite being in clear leadership positions. A critique of the

Armino et al. study was that the findings should not be generalizable to all students of color since it was a qualitative study since care was taken in selection of the students though to possibly relate it to other lived experiences.

One possible explanation for the differences in leadership among different racial group maybe based on the collectivistic nature of these groups in the United States (Balon, 2005). Collective group identities may buffer individuals from threats to their self-worth (Brewer, 1991). Members of certain social and or cultural groups may feel pride in their group memberships despite others' negative evaluations of their groups (Crocker et al, 1994). In general the examination of CSE in U.S. college students of color has been sparse, however CSE and CRE may be valuable constructs to explore for populations that are more collective. Asian American college students exhibit this collectivist nature, and this study population will be examined more closely in the next section.

<div align="center">**Asian American College Students**</div>

For the purpose of this study, this section will explore Asian American college students. This section will first highlight factors that affect LSE for Asian American college students. The second section will describe the use of CRE with the Asian American population. The last section will examine reasons to study the Asian American population and the need for more research.

Leadership Self-Efficacy

The research on Asian Americans and leadership is relatively thin, but the existing literature points to several social perceptions and cultural influences that have led to this gap in literature. Balon's (2005) study of first-year students supports that there are

some cultural-specific influences that influence Asian Americans and why they are less likely to categorize themselves as leaders. The section will examine three possible social perceptions that can explain the gap in the literature as well as reasons for leadership self-efficacy to be affected. These are the "model minority" myth, perpetual foreigner, and cultural values.

"Model Minority" myth. Suzuki (2002) outlines the origin, history and effect of the term "model minority." The term "model minority" refers to the image of success of Asian Americans in the United States and how this group is not generally associated with any of the negative social problems that may be associated with other racial groups. This image is reinforced by family income data, academic success, disproportionate share of awards in national academic competitions, and attendance at elite institutions of higher education. The evolution of this image of the Asian American community is in direct contradiction to how APAs were once portrayed with terms such as "yellow peril" and described and stereotyped as a horde of depraved, uncivilized heathens who were less than human and threatened to undermine the American way of life.

Though this perception of Asian Americans as the model minority varies by ethnic subgroup and immigration status, Asian Americans are generally viewed as successful in higher education. Higher education has exacerbated this myth due to high college-going and graduation rates that would seem to support the assertions (Espirtu, 1992). This myth generalizes all Asian Americans as hard working, intelligent, and able to overcome racial discrimination to become a successful minority group (Suzuki, 2002). Liang, Lee, and Ting (2002) also found that the "model minority" myth portrays Asian

Americans as passive, unassertive, docile, and therefore, lacking leadership skills. This image runs counter to the traditional conception of a leader (Goto, 1999).

The perception of the "model minority" myth has led to Asian Americans being ignored in research because they have not been seen historically as a politically mobilized group with a collective voice or as having "problems" that need to be researched. (Jung & Yammarino, 2001). Museus and Kiang (2009) stated five common misconceptions about APA college students that are the result of the model minority myth. The first four misconceptions were that Asian Americans are all the same, not really racial and ethnic minorities, do not encounter major challenges because of their race, and do not seek or require resources. The last misconception involves the belief that Asian American college students only perceive success as academic success. Research indicates that because of these misconceptions, universities do not hire competent faculty or staff who can adequately serve the APA population. Instead, Museus and Kiang researched that APA students are more likely than the majority to use avoidant coping strategies in dealing with personal challenges.

Perpetual foreigner. The first major immigration of Asian Americans to the United States began during the 1800s. However, the population continues to be viewed as "foreigners" who are deceitful and disloyal (Balon, 2003; Suzuki, 2002). Negative media coverage on Asian Americans through the 1996 Presidential campaign finance scandal suggest that Asian Americans continue to be seen as foreign in the U.S. (Zia, 2000). This perception shows itself in higher education where Asian Americans are viewed as academic threats. This stereotype furthers the assumptions that Asian Americans constitute the majority in these elite institutions and other colleges and

universities. CARE (2008) summarizes that the needs of Asian American college students are often ignored and pushed to the side due to the apparent state of comfort and privilege enjoyed by a select percentage of the group. Balon states that this label also affects the development of potential and current Asian American leaders because they are viewed with skepticism, mistrust, or as having self-serving agendas.

Cultural values. Understanding the cultural values of Asian Americans adds further insight into factors that can affect one's perceptions as leaders. Cultural values shape the way group members receive and process information and interpret their social environment. Past research has noted the differences between Asian cultural values and Western cultural values. Hu and Chen (1999) noted that Asian values focus on collectivity and interdependence while Western values focus on individuality and independence. Other Asian American cultural values that have been noted are harmony, keeping of family honor, and modesty.   Certain Asian American ethnic groups would be likely to have these values since these values come from Confucius's teachings (Robertson & Hoffman, 2000). With the knowledge that Asian Americans do not all share these cultural values, the use the use of disaggregated data may uncover the impact of these cultural values for the diversity of the diaspora.

The collectivist nature of Asian Americans contributes to their sense of cultural values and frames the way they may understand leadership. Mac (2009) listed a set of values of the Asian American population published by Leadership Education for Asian Pacifics, (LEAP) that would have a effect on leadership. These values revolve around self-control, obedience to authority, humility, and collective decision making. These four values are counter to mainstream American values of spontaneity, acceptability of

questioning authority, promotion of personal accomplishments, and tough,

individualistic, and authoritative leadership. LEAP concludes that these values may lead

to a collaborative and nonhierarchical style of leadership which can be viewed as

possibly ineffective and incompatible with Western styles of leadership. An example of

this collectivist nature is shown through Jung and Yammarino's (2001) study on

leadership perceptions. In their study, Asian American and White students were divided

into different work groups and asked their perceptions of their group leader. Asian

American students' evaluations praised the leader because of the focus on the group's

collective effort and assigned tasks that were more interdependent. White students

responded more positively because the leader was able to engage and increase their self-

efficacy, self-esteem and self-confidence. The contrast in interpretation and reaction of

the same leader offers evidence in leadership perceptions.

Asian American student leaders tend to espouse values that may show how often

they negotiated their identity with certain leadership responsibilities and roles. Arminio,

et al. (2000) found that Asian American student leaders regarded their role as less

significant than the group's accomplishments. The study revealed that these students

often found themselves as unintentional leaders, either not identifying with the leader

label or not having actively sought out this role. This study showed that the makeup of

the group mattered. While some Asian American student leaders felt more comfortable

leading in a same-race group, some felt more pressure in predominantly White student

groups to be active in these groups so they will not be seen as outsiders.

Collective Racial Esteem

        This section will explore the literature of Asian Americans and collective racial esteem. It was found that CRE and CSE measurements proved to be accurate predictors of various behaviors, such as leadership, based upon the aspects of the scale.

        Boeckmann and Liew (2002) researched the effect of hate speech on Asian American college students and their psychological responses, which included measurement of collective self-esteem. Self-identified Asian American students were selected to participate in a study where varying insulting speech was directed at them and the emotional responses from the speech were measured. It was found that there was a small but significant reduction in the study participant membership measure on the CSES. The limitation of this study is the use of aggregated data of the Asian American population.   In a study that used specific population data, Yeh (2002) found that Taiwanese students with high levels of CRE reported less positive attitudes towards seeking professional psychological help. Limitations of this study include the sample of students coming mainly from Taiwan, so there is limited generalizability to the wider Asian American population.Lam (2008) studied 122 Vietnamese American young adults from a large public university in southern California and compared CSE levels to their prejudicial levels. It was found that both those with a higher public CSE, the belief that their cultural group was perceived positively by others, and higher private CSE, those with a private evaluation about their cultural groups, tended to have fewer prejudicial attitudes. The results also showed that those who were more involved in Vietnamese cultural groups and higher membership CSE tended to have more prejudicial attitudes. A limitation of the study is that it made assumptions on the types of activities that constitute

Vietnamese American cultural activities that may not be the same for all Vietnamese American students. Another limitation in this study was that immigration status of the respondents was not taken into account.

An Understudied Group

Despite the growth and changing demographics, Asian Americans are left out of much of the research on education for reasons such as the "model minority myth." One possible reason for this is the aggregated nature of the Asian American population data. For example, when educational achievement is disaggregated by ethnicities, there are large disparities among groups with recent immigrants suffering the most due to a lack of response to address these students' needs. Another example is that economic, social, and cultural capital varies greatly among groups in the Asian American population. CARE (2008) reports the employment preferences or refugee status of those who were granted access to the United States. Following the Vietnam War, immigrants from Southeast Asia, including Vietnamese, Hmong, Cambodians, and Laotians were admitted due to refugee status. For example, 88.3% of immigrants admitted to the U.S. from Laos came in as refugees. This is contrasted with those immigrants from Taiwan, China, and Korea who listed employment preference as one of their reasons for immigrating. These differences are indicative of the variations in the socioeconomic status of the Asian American population.

A limitation in studies that used CRE as a measure (Kim, Park, & Lee, 1999; Lam, 2008; Yeh, 2002) is the use of aggregated populations to study Asian Americans. Though significant relations were found (Boeckmann & Liew, 2002), these studies utilized an aggregated sample of Asian American college students. Providing

disaggregated data would ensure more focused outreach efforts for populations that could be marginalized and lost in aggregated formats.

Conclusion

In this chapter, I examined this study's constructs of leadership self-efficacy and collective racial esteem and the population of Asian American college students. Little research has been done to examine the intersections of leadership self-efficacy and collective racial esteem, especially with regard to Asian American students. Leadership self-efficacy has been found to be important to successful leadership. However, limited research exists regarding Asian Americans. This study examines a measure of racial identity through collective racial esteem and examines the connection to leadership self-efficacy for Asian Americans. Chapter Three will explain the proposed method for this study utilizing hierarchical multiple regression.

CHAPTER THREE: METHODOLOGY

The chapter will describe the research methodology and methods that I will utilize for this study. I begin with a description of the purpose of the study, research design and data source including the hypothesis. This is followed by a description of the sample being used including the strategies to collect the data. The instrument and variables used in the study will be described. The chapter will conclude with a description of the statistical procedure proposed for data analysis and limitations of the study.

Purpose

This study seeks to understand the relationship between collective racial esteem and leadership self-efficacy of Asian American college students from different ethnic groups. Using data from the 2009 Multi-Institutional Study of Leadership (MSL), this study will determine the relationship of collective racial esteem to leadership self-efficacy of Asian American college students when controlling for background characteristics and predictors normally associated with leadership self-efficacy. In order to do this, this study was guided by the following research question:

Does collective racial esteem significantly contribute to leadership self-efficacy for Asian American college students?

Hypothesis

Given that little work has been done to examine the relationship of collective racial esteem and leadership self-efficacy for college students, let alone Asian American college students, any hypothesis is weakly supported at this time. The literature review in Chapter Two suggests the perception of one's racial identity does have an effect for college students in terms of leadership; however this relationship has not been

researched. Since the previous literature was not conclusive of a directional change in leadership self-efficacy contributed by collective racial esteem for Asian American college students, the following hypothesis is stated in the null:

> Collective racial esteem will not significantly contribute to the development of leadership self-efficacy for Asian American college students.

Research Design and Data Source

An *ex post facto* correlational study was selected as the most appropriate research design for this study. The study will conduct a secondary analysis of data collected by the Multi-Institutional Study of Leadership (MSL) that measures the variables of interest functions as the data source for the study. The MSL provided a national, multi-institutional sample of self-reported data provided by undergraduate students (National Clearinghouse of Leadership Programs (NCLP), 2010). The MSL was designed to understand leadership development for college students and the effect of college environments on leadership outcomes (Dugan & Komives, 2007).

The national data from the MSL instrument were chosen for several reasons. First and foremost, the study provides reliable measures of the variables included in this study. The survey provides a reliable measure of the outcome variable of leadership self-efficacy ($\alpha=.88$) as well as a reliable measure of the collective racial esteem omnibus ($\alpha=.88$) (Komives, 2009). Pallant (2007) indicates that levels of reliability should be at least 0.70. Second, the study supports the ability to disaggregate the Asian American student population by ethnicity. This provides researchers a more comprehensive look at a population as heterogeneous as the Asian American population. Third, the MSL is the largest, current study of college student leadership development that spans dozens of

institutions across the country. This approach supports the ability to generalize the findings better than a single-institutional sample.

The study will utilize a modified version ofAstin's (1993) college impact model, also known as the I-E-O model. This is a modified version since there was not a separate pre-test for this study. For this study, the construct of leadership self-efficacy served as the dependent variable. Chapter Two discussed factors that affect leadership self-efficacy which the study will highlight the relationship between collective racial esteem and leadership self-efficacy.

Sample

The following describes the data sample explored through this data set. The first is the institutional sample of participating institutions in the 2009 MSL. Then the participating students of those institutions who were part of the 2009 data set are described below.

Institutional Participants and Strategy

The MSL is sponsored by the National Clearinghouse of Leadership Programs (NCLP) and was launched in 2006. It was administered again in 2009 and continues as an annual survey for 2010, 2011, and 2012. Each administration of the survey consists of the same core, but the entire instrument continues to be refined and updated to include new scales of interest (NCLP, 2010). Any institution can apply to participate, and many are solicited through several listservs, such as the National Association of Student Personal Administrators (NASPA), the American College Personal Association (ACPA), and Commission on Student Involvement, the Association of Leadership Education (ALE), and the International Leadership Association (ILA).

In 2008, an open call for interested institutions was put out for the 2009 administration of the MSL. Out of the 104 institutional applicants that registered and enrolled in the study, 103 institutions were able to complete survey and maintain all protocols. 101 institutions were from the United States. This study includes students from all institutions, excluding all non-U.S. institutions.

Student Samples

Of those invited, 115,632 completed the 2009 MSL survey, which accounts for a 34% response rate. This study examined four samples from those who completed the MSL survey. These four samples were selected with the following limits for the purposes of this study. This study utilized the student sample that identified as Asian American/Asian in the MSL-SS. Students who selected more than one race were not considered in this study. Since the study was focused on Asian American college students, international, non-naturalized students were not used in this study. This was done by excluding those who responded either that they were foreign born, resident alien/permanent resident or international student. The analytic sample comprised of only those that answered the CRE and LSE questions. Only half of the total sample was given the questions involving CRE.

The four samples of the study were selected to represent the Asian American diaspora in the United States. The first sample was of an aggregated Asian sample and consisted of 2,242 respondents. The aggregated Asian sample included respondents who only selected Asian as their race along with the three other samples used in this study. The next three samples consisted of ethnic specific populations with the Asian American diaspora. Since the study will be utilizing the disaggregated data that the MSL provides,

the researcher utilized the participants who identified in the three largest Asian ethnic

populations in the United States according to the U.S. Census (Barnes & Bennett, 2002).

The three ethnic populations that correspond to the ethnicity choices that are provided for

in the MLS-SS are Chinese, Filipino, and Indian/Pakistani. There was 718 respondents in

the Chinese sample, 188 respondents in the Filipino sample, and 345 respondents in the

Indian/Pakistani sample. This was done so in order to gain a more accurate look of the

Asian American population instead of only utilizing an aggregated sample. Students who

only selected one ethnic group were left in the Chinese, Filipino, and Indian/Pakistani

samples.

   Table 3.1 indicates the number of respondents from the 2009 MSL that fit each

sample, the sample size, and the final analytic size for the aggregated Asian, Chinese,

Filipino, and Indian/Pakistani data sets. The sample size for the aggregated Asian sample

is of the total number that fit the study's criteria of U.S. citizens or naturalized citizens

and those that only selected Asian as their race. The aggregated Asian sample included

those who selected or responded with multiple ethnicities. This was not the case for the

Chinese, Filipino, and Indian/Pakistani sample sizes which is only those that only

selected one ethnicity. The final analytic size comes from the sample size that received

the LSE Pre-test, LSE Post-test, and CRE scale that were necessary for the regression

model.

Table 3.1 – Final Analytic Sample Size

Data Set	# of Respondents from MSL	Sample Size	Final Analytic Size [c]
Aggregated Asian	6,362	2,242 [a]	1,131
Chinese	3,198	718 [b]	366
Filipino	1,047	188 [b]	89
Indian/Pakistani	1,133	345 [b]	191

[a] – Comprised of those who identified as only Asian American and U.S. citizen or naturalized citizen
[b] – Comprised of those who identified as only Asian American, only one ethnicity, and U.S. citizen or naturalized citizen
[c] – Out of the sample size who answers the LSE Pre-test, LSE Post-test, and CRE scale

Table 3.2 indicates the number of respondents from each ethnicity for the sample

and the final analytic sample. This includes Chinese, Indian/Pakistani, Japanese, Korean,

Filipino, Pacific Islander, Vietnamese, other Asian, and multi-ethnic. Multi-ethnic

corresponds to those respondents who chose more than one Asian ethnicity.

Table 3.2 – Aggregated Asian Ethnicity in Sample Size and Final Analytic Size

Data Set	Sample	Final Analytic
Chinese	718	366
Indian/Pakistani	345	191
Japanese	59	31
Korean	345	169
Filipino	188	89
Pacific Islander	10	6
Vietnamese	203	99
Other Asian	182	86
Multi-ethnic	192	93

Pallant (2007) list several suggestions about the sample size to ensure that it can

be generalizable. One suggestion is by a formula that indicates the sample size should be

greater than 50 + 8m (where m = number of independent variables). Other authors

suggest about 10-15 cases per independent variable. The final analytic size for the four

data sets ensured that these findings meet the requirements for generalizability.

Instrument

NCLP (2010) details that the 2009 MSL study includes data collection for various demographic variables and pre-college variables to gain an understanding of the student before going to college, as well as variables for environments and outcomes. The survey instrument consisted of original scales created by the University of Maryland research team and pre-existing scales borrowed from other national studies. The final MSL instrument consists of 41 questions. These questions capture data related to participants' demographics (e.g., race, gender, socioeconomic status, and generation status), pre-college characteristics (e.g., pre-college collective racial esteem, pre-college leadership self-efficacy), collegiate experiences (e.g., community service, mentoring relationships, and formal leadership positions) and educational outcomes (e.g., leadership self-efficacy). The MSL instrument took approximately 20-25 minutes to complete, with built in skip-patterns to accommodate varying degrees of student involvement. The instrument was divided into three parts to represent the three components in Astin's (1993) model.

The data collected from this instrument are cross-sectional and not longitudinal, so it is not a true I-E-O design as described by Astin (1991). The pre-test for leadership self-efficacy and other input measures asked students to think about themselves prior to college rather than directly measuring the inputs while they are in high school. Though this is different from Astin's I-E-O design, utilizing this method might make responses better since they will be able to reflect back on what they were experiencing.

Variables

The variables of the study were selected according to the categories of input, environmental, and outcome variables. The dependent and independent variables were selected from the review of literature that explore aspects of pre-college and college experience for college students, especially Asian American college students. The independent variables were grouped into blocks within the input and environmental variables.

Dependent Variable

The one outcome variable in this study was leadership self-efficacy. This is listed in Table 3.3. The Leadership Efficacy Scale was created by members of the MSL research team and based on Bandura's (1997) Social Learning Theory. For this scale, respondents were asked to indicate their confidence in "leading others," "organizing a group's tasks to accomplish a goal," and working with a team on a group project." (Dugan & Komives, 2007a). The Leadership Efficacy Scale appeared twice in the MSL instrument, first as a pre-test for students' pre-college leadership efficacy and second as a post-test measure of their current leadership efficacy during college.

Table 3.3 - Dependent Variable

Dependent Variable	Items	Response Range
Leadership Self-Efficacy	**Leadership Efficacy scale using the below items :** **23. How confident are you that you can be successful at the following:** (Select one response for each.) 23a - Leading others 23b - Organizing a group's tasks to accomplish a goal 23c - Taking initiative to improve something 23d - Working with a team on a group project	From Not at all confident (1) to Very Confident (4)

Independent variables

The independent variables selected in the study were divided into inputs and environments.

Input variables. The input variable general categories include the student's demographic information and student's perception of leadership self-efficacy prior to college. Demographic information includes gender, generation status, and socioeconomic status. Table 3.4 provides the specific items from the MSL instrument used to measure each of these variables. This table also includes collapsed categories and variable coding. The first independent variable is gender and comes from MSL's question #30a. The response choices were dummy coded to count male as '0' and female as '1'. Generation status was determined by using the MSL's question #32 on citizenship and/or generation status. The respondents who chose responses that were 5 – foreign born, resident alien/permanent resident or 6 – international were excluded from the study.

Socioeconomic status was determined by the ordinal measure of the formal education achieved by the respondent's parents or guardians and the best estimate of the respondent's parents or guardians combined total income. The response choices will be treated as continuous.

The second block will be comprised of the Leadership Efficacy Pre-test that are found in question #8 from the MSL. The questions that comprise this are listed in Table 3.4. The Cronbach alpha level, indicating this scale's internal consistency was found to be 0.88 for the national pre-test (Komives, 2009).

Environment variables. The environmental variables in this study comprised of community service, employment, leadership positions, and mentorship. Included with these environmental variables was the post-test measure of collective racial esteem. Table 3.4 provides the specific items from the MSL instrument to measure each of these variables. The variables in Block 3 were not further broken down into individual blocks since the research was only taking these variables as it related to experiences that influence the leadership self-efficacy for Asian American college students. They were followed by a block with CRE to determine the enhancement of CRE on predicting self-efficacy for leadership beyond typical college experiences.

The first variable in Block 3 was community service. The response choices were'1' for Yes and '0' for No. This corresponded to question #6 in the MSL.   The next two variables gauged off-campus employment and on-campus employment. The variables come from questions #4 and #5, respectively, from the MSL. The response choices were 1 for Yes and '0' for No.

The next two variables were measurements of off-campus leadership positions and on-campus leadership positions. The variables were taken from question #15 from the MSL and the questions answer the level of involvement that students have had with leadership positions. The ordinal scale of from Never (1) to Much of the Time (5) was treated as continuous data.

The last independent variable was mentorship and this measured the number of different type of mentors the respondent responded. This was the sum of the number of kinds of mentors the students have from 0-5 and will be from faculty/instructor, student affairs professional staff, employer, community member, and other students. This independent variable comes from question #17 from the MSL.

Table 3.4– Independent Variables

Block	Item	Response Choices / Coding
Block 1		
Gender	**30a**. **What is your gender?**	• Female (1) • Male (0) Dummy Coded so Male is referent group
Generation Status	**32. Indicate your citizenship and/ or generation status:** (Choose One)	• Your grandparents, parents, <u>and</u> you were born in the U.S. (0) • Both of your parents AND you were born in the U.S. (1) • You were born in the U.S., but at least one of your parents was not (2) • You are a foreign born, naturalized citizen (3)
Socioeconomic status	38. **What is the <u>HIGHEST</u> level of formal education obtained by any of your parent(s) or guardian(s)?** (Choose one)	• Less than high school diploma or less than a GED (1) • High school diploma or a GED (2) • Some College (3) • Associates Degree (4) • Bachelors degree (5) • Masters degree (6) • Doctorate or professional degree (ex. JD, MD, PhD) (7) • Graduate or advanced degree (8)
	39. **What is your <u>best estimate</u> of your parent(s) or guardian(s) combined total income from last year? If you are independent from your parent(s) or guardian(s), indicate your income**.	• Less than $12,500 (1) • $12,500 - $24,999 (2) • $25,000 – $39,999 (3) • $40,000 – $54,999 (4)

Block	Item	Response Choices / Coding
	(Choose one)	• $55,000 - $74,999 (5) • $75,000 - $99,999 (6) • $100,000 - $149,999 (7) • $150,000 - $199,999 (8) • $200,000 and over (9)
Block 2		
Leadership Efficacy Pre-test	**Leadership Efficacy Pre-test scale using the below items (8.6 to 8.9)** **8. Looking back to _before you started college_, how confident were you that you would be successful in college at the following:** (Select <u>one</u> for each response) 8.6 - Leading others 8.7 - Organizing a group's tasks to accomplish a goal 8.8 - Taking initiative to improve something 8.9 - Working with a team on a group project	From Not at all confident (1) to Very Confident (4)
Block 3		
Community Service	**6. In an average month, do you engage in any community service?**	• Yes (1) • No (0)
Off-campus Employment	**4. Are you currently working OFF CAMPUS in a position unaffiliated with your school?**	• Yes (1) • No (0)
On-campus employment	**5. Are you currently working ON CAMPUS?** (Circle one)	• Yes (1) • No (0)
Off-campus leadership position	**15.d – Held a leadership position in an <u>off-campus community</u> organization(s)** (ex. Officer in a club or organization, leader in youth group, chairperson of committee)?	From Never (1) to Much of the Time (5)

Block	Item	Response Choices / Coding
On-campus leadership position	**15.b – Held a leadership position in a college organization(s)?** (ex. Officer in a club or organization, captain of athletic team, first chair in musical group, section editor of newspaper, chairperson of committee	From Never (1) to Much of the Time (5)
Mentorship	**17a. A mentor is defined as a person who intentionally assists your growth or connects you to opportunities for career or personal development.** **Since you started at your current college / university, have you been mentored by the following types of people:** **(1 = Yes 2= No)** 17b.1 - Faculty/Instructor 17b.2 - Student Affairs Professional Staff (ex. a student organization advisor, career counselor, Dean of Students, residence hall coordinator) 17b.3 – Employer 17b.4 - Community member (not your employer) 17b.6 – Other Student	The number of "Yes" answers will be calculated for this. It will be from 0-5
Block 4 Collective Racial Esteem	**34. We are all members of different social groups or social categories. We would like you to consider your BROAD racial group membership** (ex. White, Middle Eastern, American Indian, African American/ Black, Asian American/ Pacific Islander, Latino/ Hispanic, Multiracial) in responding to the following statements. Refer to table 3.5 for the CRE Scale items	From Strongly Disagree (1) to Strongly Agree (7)

Collective racial esteem scale. The CRE scale was created based on Crocker et al's (1994) scale for CSE and adjusted for participants to examine their self-concept related to membership in a broader racial group. The four subcomponents representing CRE were private CRE, public CRE, identity salience, and membership. The CRE scale appeared twice in the MSL instrument, first as a pre-test for student's pre-college collective racial esteem and second as a post-test measure of their current collective racial esteem scale. The Cronbach alpha level was found to be 0.81 for the CRE Public subcomponent, 0.82 for the CRE Private subcomponent, 0.71 for the CRE Membership subcomponent and CRE Identity Salience subcomponent (Komives, 2009).

The collective racial esteem (CRE) scale was divided into four different scales which measured which aspect of CRE contributes to leadership self-efficacy. The four scales were membership, private, public, and importance to identity. The ordinal scale for CRE was from Strongly Disagree (1) to Strongly Agree (7). Table 3.5 shows the questions in the MSL that correspond to each scale.

Table 3.5 Collective Racial Esteem Questions from the MSL

CRE Subscale	Question Types
Membership - how one judges oneself as a member of the group	a. I am a worthy member of my racial group e. I feel I don't have much to offer to my racial group i. I am a cooperative participant in the activities of my racial group m. I often feel I am a useless member of my racial group
Private CRE – how one judges the group itself	b. I often regret that I belong to my racial group f. In general, I'm glad to be a member of my racial group j. Overall, I often feel that my racial group is not worthwhile

	n. I feel good about the racial group I belong to
Public CRE – how one judges how others evaluate the group	c. Overall, my racial group is considered good by others g. Overall, my race has very little to do with how I feel about myself k. Most people consider my racial group, on the average, to be more ineffective than other groups o. In general, others think that my racial group is unworthy
Identity Salience – how one judges the importance of one's membership in this social group to one's self-concept	d. I feel I don't have much to offer to my racial group h. The racial group I belong to is an important reflection of who I am l. My race is unimportant to my sense of what kind of a person I am p. In general, belonging to my racial group is an important part of my self-image

The researcher then tested the reliability of the Leadership Efficacy Pre-test,

Leadership Efficacy Post-test, and the four subscales of collective racial esteem by

checking the Cronbach alpha scores. Table 3.6 indicates the Cronbach alpha for each of

the different scales of interest to ensure reliability for this study since scales are not

always reliable for every population.   The scales for both leadership efficacy pre-test and

post-test as well as collective racial esteem were found to be reliable for the different

analytic samples used in the study.

Table 3.6 Reliability for Analytic Scales (Cronbach Alpha)

Analytic Sample	Leadership Efficacy Pre-Test	Leadership Efficacy Post-Test	CRE - Membership	CRE – Private	CRE – Public	CRE - Importance
Aggregated Asian	0.88	0.88	0.78	0.83	0.79	0.81
Chinese	0.86	0.88	0.75	0.81	0.75	0.79
Filipino	0.85	0.86	0.77	0.83	0.84	0.85
Indian/Pakistani	0.90	0.88	0.83	0.82	0.80	0.81

Data Collection Methods

In October 2005, the MSL research team research team was granted approval from the University of Maryland's Institutional Review Board (IRB) to conduct the national study. The IRB approval was then sent to each of the study's liaisons at the participating institutions to gain IRB approval from their respective campuses. A statistical firm, Survey Science Group (SSG), was responsible for the data collection and data management (Dugan, 2008).

Individual institutions had different three-week data collection periods in Spring 2009 in order to avoid school breaks, holidays or other institutional assessment projects in progress. Since the survey was web-based, students were sent a request to participate via email. Within the e-mail's text, participants were provided a link that directed them to the survey's secure website. Each participant was identified by a randomly-generated participant number, and once participants opened the survey link, that number was connected to their survey response. Before students could begin responding to the survey, they were provided with the study's confidentiality statement and were required to complete an informed consent form. The researchers followed strict measures to ensure that the student's identifying information could not be linked to his or her response by storing the survey responses and identifying information in two separate locations.

After the initial e-mail request, students were sent up to three reminders via e-mail during the following three weeks. Individual institutions had different three-week data collection periods in order to avoid school breaks, holidays or other institutional assessment projects in progress. Upon survey completion, students were no longer sent additional reminder e-mails. Students who completed the survey were entered to win one

of seven national prizes; additionally, some institutions offered campus-based incentives for their students who completed the survey (e.g., iPods and movie tickets). On average, students were able to complete the entire instrument within 20 minutes.

Data Analysis

Upon approval from the Institutional Research Board (IRB) at the University of Maryland – College Park, the researcher obtained the data set from the 2009 MSL of undergraduate students who self-identified as only Asian American, citizens or naturalized citizens, completed the collective racial esteem post-test, and completed the leadership self-efficacy pre- and post- tests. In addition to using the aggregated Asian American population that completed the leadership self-efficacy pre- and post- tests, the researcher separated the top three population ethnic groups according to the 2000 U.S. Census that are represented in the MLS-SS (Barnes & Bennett, 2002). The three ethnic population groups that related back to the MLS-SS groups are Chinese, Filipino, and Indian/Pakistani. After cleaning the data of the ethnic group populations similar to the one done for the Asian group, care was taken to only pick those that selected one ethnicity.

When leadership efficacy and collective racial esteem were determined to be reliable, tests for multicollinearity among the independent variables were administered. Pallant (2007) indicates that to meet the assumptions of multiple regression, r should not be greater than or equal to 0.9. Multicollinearity testing showed no violation of the assumption of regression analysis for any of the four models. See Appendix A for all correlation values for the four models.   The Variable Inflation Factor (VIF) is a measure of intercorrelation of the independent variables. This measure should fall within the

acceptable range of 0 to 10. Checking VIF for all the variables within the four models

indicated that none exceeded 10. Multicollinearity was not violated within any of the

models.

When the leadership self-efficacy scale and collective racial esteem was

determined to be reliable and the independent variables were not highly correlated, the

researcher began hierarchical multiple regression analysis by successively entering one

block into the equation at a time – first entering the inputs and then the environmental

variables. The R^2 for each block, R^2 for the entire regression analysis, Beta, B Sig, and F-

tests are reported in Chapter 4.

Regression Variable Entry

A hierarchical regression analysis was calculated to determine the proximal effect

of collective racial esteem on leadership self-efficacy. Using hierarchical regression as

the data analysis was appropriate since there was a theoretical ground for creating the

blocks – the modified I-E-O model – and since this allowed for the controlling of the

contributions of each blocked variable. In general, multiple regression is a method of

analysis that is "ideal for the investigation of more complex, real-life, rather than

laboratory based, research questions" (Pallant, 2007, p. 146) and allows for insight to the

contributions of the independent variables.

The hierarchical regression was modeled after Astin's (1991) college impact

model, and is shown in Table 3.7. The inputs and environments were these variables

possibly contributing to leadership self-efficacy. According to Astin's (1991) I-E-O

model, college environments that were most distal to the dependent variable should be

entered first, followed by environments that were more proximal to the dependent

variable. The last independent variable, CRE, is chosen because it was believed to have the most direct relationship to the dependent variable. Four different regressions were calculated utilizing the I-E-O model. The first regression was the entire Asian American population and the next three regressions were conducted on the Chinese, Indian/Pakistani and Filipino subgroups.

Table 3.7: I-E-O Model of Leadership Self-Efficacy Outcome

Input	Environment		Outcome
Block 1	**Block 3**	**Block 4**	
Gender	Community service	Collective Racial	Leadership Self-
Generation Status	Off-campus employment	Esteem	Efficacy
Parental/Guardian	On-campus employment		
Education	Off-campus leadership		
Parental/Guardian	position		
Household	On-campus leadership		
Income	position		
Block 2	Mentorship		
Leadership self-			
efficacy Pre-test			

Hypothesis Testing

       The regression determined whether to reject or fail to reject the null hypotheses. The structure of the hierarchical regression was set up in order to assess the significance of Block 4, collective racial esteem on leadership self-efficacy. For the null hypothesis to

be rejected, the change in R^2 value for the 4th block must indicate a significant contribution to the variance in dependent variable, leadership self-efficacy. The alpha value used for the study will be .01.

Conclusion

The chapter detailed the methodology of this quantitative study to investigate the relationship of collective racial esteem for Asian American college students. The research question and hypotheses, general framework, design of MSL national study, sampling strategy, variables, instrumentation, and data analysis methods were discussed.

CHAPTER FOUR: RESULTS

The purpose of this study was to determine the relationship of collective racial esteem with leadership self-efficacy for Asian American college students. The results of this study will be presented in this chapter in the following way. First, sample demographics and demographic characteristics will be discussed. Second, regression analyses will be presented for each of the four samples in the study. Finally, the hypothesis will be reviewed.

Sample Characteristics

Descriptive characteristics of the study's four analytic samples are described. The descriptive characteristics will describe gender, generation status, highest level of parental/guardian education, and parental/guardian household income of both the sample and the analytic sample. The analytic sample is different from the sample since only 50% of the MSL received the CRE questions. The descriptive statistics of the analytic samples will be compared to the population to check to how representative the analytic samples are. The means and standard deviations of the analytic sample will also be presented. This will be described for the aggregated Asian analytic sample, Chinese analytic sample, Filipino analytic sample, Indian/Pakistani analytic sample, and all four samples.

Aggregated Asian Sample

The aggregated Asian analytic sample consisted of anyone who responded as Asian, U.S. citizen, and who received the CRE and LSE questions in the MSL. Of the respondents, 59.0% (n=670) of the analytic sample responded as female and 40.9% (n=460) of the sample responded as male. For generation status, 2.4% (n=27) indicated

their grandparents, parents and themselves were born in the U.S.; 2.1% (n=24) indicated

that both their parents and themselves were born in the U.S.; 63.8% (n=721) indicated

that they were born in the U.S. but at least one of their parents was born outside of the

U.S.; 31.7% (n=358) indicated that they were foreign born but a naturalized citizen. The

average highest education level of the respondent's parents/guardians indicated was 4.52,

which is in between an Associates degree and a Bachelors degree. The average

parental/guardian household income was 5.31, which is between $55,000-$74,999, and

$75,000-$99,999.

The analytic sample was very similar to the sample that the analytic sample was

taken from to complete the regression. Refer to table 4.1 for a listing of all the

demographic characteristics for the aggregated Asian sample and the aggregated Asian

analytic sample.

Table 4.1 – Descriptive Characteristics of Aggregated Asian Sample and Aggregated

Asian Analytic Sample

Respondent Characteristics	Sample		Analytic Sample	
	N	Percentage	N	Percentage
Total	2,242		1,131	
Gender				
Male	863	38.5%	460	40.9%
Female	1,378	61.5%	670	59.0%
Generation Status				
Your grandparents, parents, and you were born in the U.S.	61	2.7%	27	2.4%
Both of your parents and you were born in the U.S.	48	2.1%	24	2.1%
You were born in the U.S. but at least one of your parent	1,418	63.2%	721	63.8%
You are a foreign born, naturalized citizen	715	31.9%	358	31.7%
Highest level of parental/guardian education				
Less than high school diploma or less than a GED	188	8.4%	96	8.5%
High school diploma or a GED	400	17.8%	201	17.9%
Some college	225	10.0%	106	9.6%
Associates degree	111	5.0%	64	5.6%
Bachelors degree	476	21.2%	233	20.5%
Masters degree	412	18.4%	210	18.5%
Doctorate or Professional degree (ex. JD, MD, PhD)	430	19.2%	220	19.4%
Parental/guardian household income				
Less than $12,500	143	6.4%	79	7.0%
$12,500 - $24,999	229	10.2%	111	9.8%
$25,000 – $39,999	262	11.7%	130	11.7%
$40,000 – $54,999	252	11.2%	151	13.5%
$55,000 - $74,999	319	14.2%	142	12.5%
$75,000 - $99,999	283	12.6%	198	17.4%
$100,000 - $149,999	373	16.6%	83	7.3%
$150,000 - $199,999	180	8.0%	108	9.5%
$200,000 and over	201	9.0%	162	11.1%

Table 4.2 shows the means and standard deviations of the aggregated Asian analytic sample. On a four point scale, respondents had a mean score of 2.71 (SD=.70) on the leadership efficacy pre-test and a mean score of 2.91 (SD=.66) on the post-test. Overall the aggregated Asian analytic sample showed confidence in their leadership efficacy. For community service, off-campus employment, on-campus employment, the means were below 0.50 which indicates that the majority of the aggregated Asian analytic sample did not participate in these activities. The mean for leadership positions in off-campus organizations was 1.56 on a five point scale, which indicates that the majority of respondents did not hold leadership positions in off-campus organizations. This was also similar to on-campus organizations since the mean was 2.30 on a five point scale. The aggregated Asian analytic sample tended to hold leadership positions in on-campus organizations more than off-campus organizations.

On the seven point scale, respondents in the aggregated Asian analytic sample responded with agree somewhat for three out of the four subscales. Respondents had a mean score of 5.57 (SD=1.13) for the CRE private scale, 5.20 (SD = 1.04) for the CRE public scale, and 5.05 (SD=1.15) for the membership scale. Respondents responded lower in the identity salience scale with a mean score of 4.54 (SD=1.30).

Table 4.2 – Means and Standard Deviation for Aggregated Asian Analytic Sample

N= 1,131	Mean	Standard Deviation
Dependent Variable		
Leadership Efficacy	2.91	0.66
Independent Variables		
Gender: Female	.59	.49
Generation Status: 2nd Generation	.02	.14
Generation Status: 1st Generation	.64	.48
Generation Status: Naturalized	.32	.47
Parental/Guardian Education	4.45	2.02
Parental/Guardian Household Income	5.16	2.36
Leadership Efficacy Pretest	2.71	.70
Community Service	.44	.50
Off-Campus Employment	.23	.42
On-Campus Employment	.30	.46
Leadership Position in Off-Campus Organizations	1.56	1.11
Leadership Position in On-Campus Organizations	2.36	1.54
Mentorship Frequency	2.30	1.54
CRE: Private	5.57	1.13
CRE: Public	5.20	1.04
CRE: Identity Salience	4.54	1.30
CRE: Membership	5.05	1.15

Chinese

Of the respondents, 61.9% (n=226) of the analytic sample responded as female and 38.1% (n=140) of the sample responded as male. For generation status, 0.5% (n=2) indicated their grandparents, parents and themselves were born in the U.S.; 2.2% (n=8) indicated that both their parents and themselves were born in the U.S.; 67.6% (n=247) indicated that they were born in the U.S. but at least one of their parents was born outside of the U.S.; 29.7% (n=109) indicated that they were foreign born but a naturalized citizen. The average highest education level of the respondent's parents/guardians indicated was 4.55, which is in between an Associates degree and a Bachelors degree. The average parental/guardian household income was 5.34, which is between $55,000-$74,999, and $75,000-$99,999.

The analytic sample was very similar to the sample that the analytic sample was taken from to complete the regression. The biggest difference between these two samples was that there tended to be more people who responded as being born in the U.S. but not at least one of their parents or foreign born, naturalized citizens in the analytic sample than the sample. Refer to table 4.3 for a listing of all the demographic characteristics for the Chinese sample and the Chinese analytic sample.

Table 4.3 - Descriptive Characteristics of Chinese Sample and Chinese Analytic

Sample

Respondent Characteristics	Sample		Analytic	
	N	Percentage	N	Percentage
Total	718		366	
Gender				
Male	287	40.0%	140	38.1%
Female	431	60.0%	226	61.9%
Generation Status				
Your grandparents, parents, and you were born in the U.S.	9	1.3%	2	0.5%
Both of your parents and you were born in the U.S.	18	2.5%	8	2.2%
You were born in the U.S. but at least one of your parent	463	64.5%	247	67.6%
You are a foreign born, naturalized citizen	228	31.8%	109	29.7%
Highest level of parental/guardian education				
Less than high school diploma or less than a GED	74	10.3%	40	10.9%
High school diploma or a GED	151	21.0%	83	22.6%
Some college	50	7.0%	24	6.5%
Associates degree	13	1.8%	10	2.7%
Bachelors degree	77	10.7%	32	8.7%
Masters degree	152	21.2%	79	21.5%
Doctorate or Professional degree (ex. JD, MD, PhD)	201	28.0%	98	27.0%
Parental/guardian household income				
Less than $12,500	46	6.4%	23	6.5%
$12,500 - $24,999	97	13.5%	51	13.9%
$25,000 – $39,999	84	11.7%	45	12.3%
$40,000 – $54,999	60	8.4%	28	7.6%
$55,000 - $74,999	84	11.7%	39	10.6%
$75,000 - $99,999	7.1	9.9%	33	9.0%
$100,000 - $149,999	125	17.4%	64	17.4%
$150,000 - $199,999	76	10.6%	42	11.4%
$200,000 and over	75	10.4%	41	11.1%

Table 4.4 shows the means and standard deviations of the Chinese analytic

sample. On a four point scale, respondents had a mean score of 2.62 (SD=.70) on the

pre-test and a mean score of 2.80 (SD=.67) on the post-test. On a 4 point scale, this

indicated that respondents from this analytic sample were more confident as measured in

their leadership efficacy. For community service, off-campus employment, on-campus

employment, the means were below 0.50 which indicates that the majority of the Chinese

analytic sample did not participate in these activities. The mean for leadership positions

in off-campus organizations was 1.40 on a five point scale, which indicates that the

majority of respondents did not hold leadership positions in off-campus organizations.

The respondents in the Chinese analytic sample were more involved in leadership

positions in on-campus organizations. The Chinese analytic sample tended to hold

leadership positions in on-campus organizations more than in off-campus organizations.

On the seven point scale, respondents in the Chinese analytic sample responded

with agree somewhat for two out of the four subscales. Respondents had a mean score of

5.51 (SD=1.06) for the CRE private scale and 5.22 (SD = .99) for the CRE public scale.

Respondents responded lower in the identity salience scale with a mean score of 4.50

(SD=1.21) and for the membership scale with a mean score of 4.94 (SD=1.07).

Table 4.4 – Means and Standard Deviation for Chinese Analytic Sample

N=396	Mean	Standard Deviation
Dependent Variable		
Leadership Efficacy	2.80	.67
Independent Variable		
Gender: Female	.62	.49
Generation Status: 2nd Generation	.02	.15
Generation Status: 1st Generation	.68	.47
Generation Status: Naturalized	.30	.46
Parental/Guardian Education	4.48	2.26
Parental/Guardian Household Income	5.24	2.53
Leadership Efficacy Pretest	2.62	.70
Community Service	.46	.50
Off-Campus Employment	.18	.39
On-Campus Employment	.36	.48
Leadership Position in Off-Campus Organizations	1.40	.96
Leadership Position in On-Campus Organizations	2.50	1.60
Mentorship Frequency	2.20	1.54
CRE: Private	5.51	1.06
CRE: Public	5.22	.99
CRE: Identity Salience	4.50	1.21
CRE: Membership	4.94	1.07

Filipino

Of the respondents, 47.2% (n=42) of the analytic sample responded as female and 52.8% (n=47) of the sample responded as male. For generation status, 1.1% (n=1) indicated their grandparents, parents and themselves were born in the U.S.; 3.4% (n=3) indicated that both their parents and themselves were born in the U.S.; 65.2% (n=58) indicated that they were born in the U.S. but at least one of their parents was born outside of the U.S.; 30.3% (n=27) indicated that they were foreign born but a naturalized citizen. The average highest education level of the respondent's parents/guardians indicated was 4.85, which is in between an Associates degree and a Bachelors degree. The average parental/guardian household income was 5.58, which is between $55,000-$74,999, and $75,000-$99,999.

The analytic sample was very similar to the sample that the analytic sample was taken from to complete the regression. The biggest difference between these two samples was that the analytic sample had a higher percentage of males than the sample. Refer to table 4.5 for a listing of all the demographic characteristics for the Filipino sample and the Filipino analytic sample.

Table 4.5 - Descriptive Characteristics of Filipino Sample and Filipino Analytic

Sample

Respondent Characteristics	Sample		Analytic	
	N	Percentage	N	Percentage
Total	188		89	
Gender				
Male	77	41.0%	47	52.8%
Female	111	59.0%	42	47.2%
Generation Status				
Your grandparents, parents, and you were born in the U.S.	2	1.1%	1	1.1%
Both of your parents and you were born in the U.S.	4	2.1%	3	3.4%
You were born in the U.S. but at least one of your parent	128	68.1%	58	65.2%
You are a foreign born, naturalized citizen	54	28.7%	27	30.3%
Highest level of parental/guardian education				
Less than high school diploma or less than a GED	2	1.1%	1	1.1%
High school diploma or a GED	9	4.8%	4	4.5%
Some college	22	11.7%	10	11.2%
Associates degree	16	8.5%	8	9.0%
Bachelors degree	100	53.2%	43	48.3%
Masters degree	20	10.6%	11	12.4%
Doctorate or Professional degree (ex. JD, MD, PhD)	19	10.1%	12	13.5%
Parental/guardian household income				
Less than $12,500	9	4.8%	4	4.5%
$12,500 - $24,999	10	5.3%	3	3.4%
$25,000 – $39,999	16	8.5%	7	7.9%
$40,000 – $54,999	29	15.4%	13	14.6%
$55,000 - $74,999	32	17.0%	16	18.0%
$75,000 - $99,999	29	15.4%	14	15.7%
$100,000 - $149,999	35	18.6%	16	18.0%
$150,000 - $199,999	14	7.4%	5	5.6%
$200,000 and over	14	7.4%	11	12.4%

Table 4.6 shows the means and standard deviations of the Filipino analytic sample. On a four point scale, respondents had a mean score of 2.77 (SD=.63) on the pre-test and a mean score of 2.97 (SD=.62) on the post-test. On a 4 point scale these means indicated confidence in their leadership efficacy. For community service, off-campus employment, on-campus employment, the means were below 0.50 which indicates that the majority of the aggregated Filipino analytic sample did not participate in these activities. The mean for leadership positions in off-campus organizations was 1.76 on a five point scale, which indicates that the majority of respondents did not hold leadership positions in off-campus organizations. The respondents in the Filipino analytic sample were more involved in leadership positions in on-campus organizations. The Filipino analytic sample tended to be hold leadership positions in on-campus organizations more than off-campus organizations.

On the seven point scale, respondents in the aggregated Filipino analytic sample responded with agree somewhat for three out of the four subscales. Respondents had a mean score of 5.77 (SD=1.24) for the CRE private scale, 5.37 (SD = 1.13) for the CRE public scale, and 5.38 (SD=1.04) for the membership scale. Respondents responded lower in the identity salience scale with a mean score of 4.87 (SD=1.50).

Table 4.6 – Means and Standard Deviation for Filipino Analytic Sample

N= 127	Mean	Standard Deviation
Dependent Variable		
Leadership Efficacy	2.97	.62
Independent Variable		
Gender: Female	.53	.50
Generation Status: 2nd Generation	.03	.18
Generation Status: 1st Generation	.65	.48
Generation Status: Naturalized	.30	.46
Parental/Guardian Education	4.90	1.34
Parental/Guardian Household Income	5.60	2.13
Leadership Efficacy Pretest	2.77	.63
Community Service	.45	.50
Off-Campus Employment	.29	.46
On-Campus Employment	.19	.40
Leadership Position in Off-Campus Organizations	1.76	1.20
Leadership Position in On-Campus Organizations	2.24	1.52
Mentorship Frequency	2.26	1.53
CRE: Private	5.77	1.24
CRE: Public	5.37	1.13
CRE: Identity Salience	4.87	1.50
CRE: Membership	5.38	1.04

Indian/Pakistani

      Of the respondents, 59.4% (n=114) of the analytic sample responded as female and 40.6% (n=77) of the sample responded as male. For generation status, 67.2% (n=128) indicated that they were born in the U.S. but at least one of their parents was born outside of the U.S.; 32.7% (n=64) indicated that they were foreign born but a naturalized citizen. The average highest education level of the respondent's parents/guardians indicated was 5.35, which is in between a Bachelors degree and a Masters degree. The average parental/guardian household income was 6.27, which is between $75,000-$99,999 and $100,000 - $149,999.

      The analytic sample was very similar to the sample that the analytic sample was taken from to complete the regression. Refer to table 4.7 for a listing of all the demographic characteristics for the Indian/Pakistani sample and the Indian/Pakistani analytic sample.

Table 4.7 - Descriptive Characteristics of Indian/Pakistani Sample and

Indian/Pakistani Analytic Sample

Respondent Characteristics	Sample		Analytic	
	N	Percentage	N	Percentage
Total	345		191	
Gender				
Male	139	40.3%	77	40.6%
Female	206	59.7%	114	59.4%
Generation Status				
Your grandparents, parents, and you were born in the U.S.	0	0%	0	0%
Both of your parents and you were born in the U.S.	1	.3%	0	0%
You were born in the U.S. but at least one of your parent	231	67.0%	128	67.2%
You are a foreign born, naturalized citizen	113	32.8%	63	32.7%
Highest level of parental/guardian education				
Less than high school diploma or less than a GED	4	1.2%	2	1.0%
High school diploma or a GED	24	7.0%	12	6.3%
Some college	30	8.7%	16	8.3%
Associates degree	17	4.9%	11	5.7%
Bachelors degree	84	24.3%	48	25.5%
Masters degree	101	29.3%	58	30.2%
Doctorate or Professional degree (ex. JD, MD, PhD)	85	24.6%	43	22.9%
Parental/guardian household income				
Less than $12,500	6	1.7%	4	2.1%
$12,500 - $24,999	12	3.5%	4	2.1%
$25,000 – $39,999	29	8.4%	16	8.3%
$40,000 – $54,999	30	8.7%	16	8.3%
$55,000 - $74,999	46	13.3%	25	13.0%
$75,000 - $99,999	47	13.6%	29	15.1%
$100,000 - $149,999	80	23.2%	46	24.0%
$150,000 - $199,999	33	9.6%	17	8.9%
$200,000 and over	62	18.0%	36	18.2%

Table 4.8 shows the means and standard deviations of the Indian/Pakistani analytic sample. On a four point scale, respondents had a mean score of 2.77 (SD=.63) on the pre-test and a mean score of 2.97 (SD=.62) on the post-test. On a 4 point scale these means indicated confidence in their leadership efficacy. For community service, off-campus employment, on-campus employment, the means were below 0.50 which indicates that the majority of the aggregated Indian/Pakistni analytic sample did not participate in these activities. The mean for leadership positions in off-campus organizations was 1.76 on a five point scale, which indicates that the majority of respondents did not hold leadership positions in off-campus organizations. The Indian/Pakistni analytic sample were more involved in leadership positions in on-campus organizations. The respondents in the Indian/Pakistani analytic sample tended to hold leadership positions in on-campus organizations more than in off-campus organizations.

On the seven point scale, respondents in the Indian/Pakistani analytic sample responded with agree somewhat for three out of the four subscales. Respondents had a mean score of 5.77 (SD=1.24) for the CRE private scale, 5.37 (SD = 1.13) for the CRE public scale, and 5.38 (SD=1.04) for the membership scale. Respondents responded lower in the identity salience scale with a mean score of 4.87 (SD=1.50).

Table 4.8 – Means and Standard Deviation for Indian/Pakistani Analytic Sample

N=201	Mean	Standard Deviation
Dependent Variable		
Leadership Efficacy	2.97	.62
Independent Variable		
Gender: Female	.53	.50
Generation Status: 2nd Generation	.03	.18
Generation Status: 1st Generation	.65	.48
Generation Status: Naturalized	.30	.46
Parental/Guardian Education	4.90	1.34
Parental/Guardian Household Income	5.60	2.13
Leadership Efficacy Pretest	2.77	.63
Community Service	.45	.50
Off-Campus Employment	.29	.46
On-Campus Employment	.19	.40
Leadership Position in Off-Campus Organizations	1.76	1.20
Leadership Position in On-Campus Organizations	2.24	1.52
Mentorship Frequency	2.26	1.53
CRE: Private	5.77	1.24
CRE: Public	5.37	1.13
CRE: Identity Salience	4.87	1.50
CRE: Membership	5.38	1.04

Regression Analysis

Regressions models were done with each of the four data sets. For this study, a significance level of $p < .01$ was established for testing the hypothesis. For each regression model, a comprehensive summary of all variables included in the regression Each description of the regression model will describe the relevant statistics and the findings of each model which will include a comprehensive summary of all the variables in the regression as it progressed through the blocks and a table that consolidates the findings of the model and presents the R, R^2, R^2 change and the adjusted R^2, and the adjusted R^2 of the model. Significant predictors of leadership self-efficacy during the regression will be described. The relationship of CRE and its four subscales to LSE will be highlighted. Significant predictors of leadership self-efficacy during the regression will be described.

Aggregated Asian Regression Model

Overall, the regression model for the aggregated Asian analytic sample explain a significant amount of the variance of leadership self-efficacy, $R^2=.431$. Each block of the regression model was significant for the Asian analytic sample. In the final model, the first block of inputs accounted for 1.4% of the variance for leadership self-efficacy at $p=.002$. The second block consisting of the pre-test for leadership efficacy accounted for an additional 27.2% of the variance for leadership self-efficacy at $p < .001$. The third block comprised of environmental factors in college account for an additional 7.7% of the variance for leadership self-efficacy at $p < .001$. The forth block of collective racial esteem account for an additional 3.7% at $p < .001$. Table 4.9 provides a comprehensive

summary of all variables included in the regression. Table 4.10 provides the model summary for the regression model.

The regression showed there were several significant predictors for leadership self-efficacy. The leadership self-efficacy pre-test proved to be a significant contributor to the variance after Block 2 (β = .539), Block 3 (β = .457), and Block 4 (β = .426) at $p < $ .001 level. Within the environment variables, leadership positions in on-campus organizations (β = .213, $p < .001$), mentorship frequency (β = .091, $p < .001$), and off-campus employment (β = .063, p=.008) were three significant environmental predictors within the regression.

The collective racial esteem block comprised of four subscales of CRE contributed to an additional R^2 = .077 of the variance. The public, identity salience, and membership CRE subscales were significant predictors of LSE. Within collective racial esteem, the public subscale (β = .095, p = .001) and membership subscale (β = .146, $p < $ .001) were positive predictors of leadership self-efficacy. The identity salience subscale (β = -.080, p = .005) was also a significant predictor in the negative direction of leadership self-efficacy. The private CRE subscale (β = .068, p = .054) was found to be a moderate predictor, but not significant in this study.

Table 4.9 – Regression Model for Aggregated Asian Analytic Sample

	Model 1				Model 2				Model 3				Model 4			
	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig
1. Input																
Gender: Female	0.012	0.04	0.009	0.765	0.014	0.034	0.011	0.676	.000	.032	.000	0.973	-.016	.031	-.012	0.602
Gender: Male (referent)																
Generation Status: 2nd Generation	.173	.184	.038	.347	-0.075	0.156	-0.016	0.629	-.084	.148	-.018	0.572	.001	.142	.000	.992
Generation Status: 1st Generation	.013	.129	.009	.922	0.016	0.109	0.012	0.881	.032	.103	.023	0.758	.059	.099	.043	.552
Generation Status: Naturalized	.065	.131	.046	.620	0.067	0.111	0.047	0.544	.066	.105	.047	0.530	.099	.101	.070	.330
Generation Status: 3rd Generation (referent)																
Parental/Guardian Education	.013	.012	.019	.292	0.013	0.01	0.04	0.207	.000	.010	-.001	0.615	.001	.009	.003	.920
Parental/Guardian Household Income	.021	.011	.088	.047	0.01	0.009	0.035	0.269	.010	.008	.036	0.617	.007	.008	.026	.367
R^2	**0.014***															
2. Leadership Efficacy Pre-test																
Leadership Efficacy Pre-test					0.508	0.024	0.539	**0.000****	0.427	0.02	0.457	**0.000****	.401	.023	.426	**0.000****
R^2 Change	0.286															
R^2	**0.299****															
3. Environment																
Community Service									0.031	0.033	0.023	.343	.010	.031	.007	.753
Off-Campus Employment									0.091	0.039	0.058	.019	.099	.037	.063	**0.008***
On-Campus Employment									0.089	0.036	0.062	.013	.080	.035	.056	.021
Leadership Position in Off-campus									0.033	0.015	0.055	.026	.035	.014	.060	.012
Leadership Position in On-campus									0.087	0.011	0.204	**0.000****	.091	.011	.213	**0.000****
Mentorship Frequency									0.048	0.011	0.111	**0.000****	.039	.010	.091	**0.000****
R^2 Change	0.083															
R^2	**0.382****															
4. Collective Racial Esteem																
CRE: Private													.040	.021	.068	.054
CRE: Public													.060	.018	.095	**0.001***
CRE: Identity Salience													-.040	.014	-.080	**0.005***
CRE: Membership													.084	.019	.146	**0.000****
R^2 Change	0.049															
R^2	**0.431****															

* p < .01   ** p < .001

Table 4.10 – Model Summary for Aggregated Asian Analytic Sample

Block/Description (N = 1459)	R	R Square	Adjusted R Square	R Square Change	F Change	Sig F Change	Effect Size (F^2)
1. Demographic Information	.120	.014	.010	.014	3.559	.002*	.014
2. Leadership Efficacy Pre-Test	.536	.287	.283	.272	554.181	.000**	.04
3. Environment	.603	.363	.348	.077	28.962	.000**	.57
4. Collective Racial Esteem	.633	.400	.393	.037	22.140	.000**	.67

*p < .01   ** p < .001

Chinese Regression Model

Overall, the regression model for the Chinese analytic sample explain a significant amount of the variance of leadership self-efficacy, R^2=.429. The regression model was significant for the Chinese analytic sample after the leadership efficacy pre-test block, environment block, and collective racial esteem block. The first block of inputs accounted for 6.2% of the variance for leadership self-efficacy but was not significant at p = .013. The second block with the pre-test of leadership efficacy accounted for an additional 24.4% of the variance for leadership self-efficacy significant at p < .001. The third block comprised of environmental factors in college account for a significantly additional 9.8% of the variance for leadership self-efficacy at p < .001. The fourth block of collective racial esteem account for an additional 2.4% at p < .001. Table 4.11 provides a comprehensive summary of all variables included in the regression. Table 4.12 provides the model summary for the regression model.

The regression showed that were significant predictors for leadership self-efficacy in the leadership efficacy pre-test block and environment block. The leadership self-

efficacy pre-test proved to be a significant contributor to the variance after Block 2 (β = .498), Block 3 (β = .426), and Block 4 (β = .389) at $p < .001$ level. Within the environment variables, leadership positions in on-campus organizations (β = .253, $p < .001$) was a significant predictor of leadership self-efficacy.

The collective racial esteem block that comprised of four subscales of CRE contributed to an additional 3.4% of the variance. None of the subscales within the collective racial esteem block were found to be significant. The membership subscale (β= .130, p = .019), identity salience subscale (β = -.088, p =.066), the public subscale (β = .057, p = .277), and private subscale (β = .031, p = .592) were non-significant predictors of leadership self-efficacy.

Table 4.11 – Regression Model for Chinese Analytic Sample

	Model 1				Model 2				Model 3				Model 4			
	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig
1. Input																
Gender: Female	.040	.070	.029	.569	.057	.060	.041	.350	.005	.057	.004	0.928	0.007	0.057	0.005	0.895
Gender: Male (referent)																
Generation Status: 2nd Generation	1.386	.514	.305	**.007***	1.210	.443	.266	**.007***	.987	.422	.217	.020	0.895	0.418	0.197	0.033
Generation Status: 1st Generation	1.132	.462	.796	.015	1.138	.398	.800	**.004***	.972	.378	.684	.011	0.826	0.376	0.581	0.028
Generation Status: Naturalized	1.303	.464	.895	**.005***	1.298	.400	.891	**.001***	1.072	.381	.736	.005	0.93	0.378	0.639	0.014
Generation Status: 3rd Generation (referent)																
Parental/Guardian Education	.003	.021	.012	.867	.006	.018	.019	.750	-0.010	0.017	-0.033	0.566	-0.004	0.017	-0.015	0.797
Parental/Guardian Household Income	.040	.019	.152	.031	.029	.016	.109	.074	0.036	0.015	0.135	0.017	0.026	0.015	0.101	0.078
R^2	**0.062**															
2. Leadership Efficacy Pre-test																
Leadership Efficacy Pre-test					.474	.042	.498	**0.000****	0.405	0.041	0.426	**0.000****	.370	.042	.389	**0.000****
R^2 Change	0.244															
R^2	**0.306***															
3. Environment																
Community Service									0.07	0.06	0.06	0.20	.065	.057	.049	.255
Off-Campus Employment									0.18	0.08	0.10	0.02	.183	.075	.106	.015
On-Campus Employment									0.11	0.06	0.08	0.10	.089	.063	.064	.158
Leadership Position in Off-campus									0.00	0.03	0.00	0.98	-.001	.030	-.001	.979
Leadership Position in On-campus									0.11	0.02	0.25	**0.000****	.110	.020	.265	**0.000****
Mentorship Frequency									0.03	0.02	0.06	0.15	.023	.019	.052	0.240
R^2 Change	0.098															
R^2	**0.404***															
4. Collective Racial Esteem																
CRE: Private													.019	.036	.031	0.592
CRE: Public													.038	.035	.057	0.277
CRE: Identity Salience													-.048	.026	-.088	0.066
CRE: Membership													.081	.034	.130	0.019
R^2 Change	0.024															
R^2	**0.429***															

* p < .01   ** p < .001

Table 4.12 – Model Summary for Chinese Analytic Sample

Block/Description (N = 396)	R	R Square	Adjusted R Square	R Square Change	F Change	Sig F Change	Effect Size (F^2)
1. Demographic Information	.202	.041	.026	.041	2.749	.013	.043
2. Leadership Efficacy Pre-Test	.543	.295	.282	.254	139.757	.000**	.39
3. Environment	.617	.381	.360	.086	8.888	.000**	.56
4. Collective Racial Esteem	.644	.415	.388	.034	5.435	.000**	.63

* p < .01   ** p < .001

Filipino Regression Model

Overall, the regression model for the Filipino analytic sample explain a significant amount of the variance of leadership self-efficacy, R^2=.471. The regression model was significant for the Filipino analytic sample after the 2nd and 3rd block. The first block of inputs accounted for 6.8% of the variance for leadership self-efficacy at p = .437. The Inputs block was not found to be a significant predictor of leadership efficacy. The second block with the pre-test of leadership efficacy accounted for an additional 13.3% of the variance for leadership self-efficacy at p < .001. The third block comprised of environmental factors in college account for an additional 18.5% of the variance for leadership self-efficacy at p = .003. The forth block of collective racial esteem account for an additional 8.5% at p = .030. Table 4.13 provides a comprehensive summary of all variables included in the regression. Table 4.14 provides the model summary for the regression model.

The regression showed that were significant predictors for leadership self-efficacy in the leadership efficacy pre-test block and environment block. The leadership self-efficacy pre-test proved to be a significant predictor to the variance after Block 2 (β = .399), Block 3 (β = .317), and Block 4 (β = .339) at $p < .01$ level. Within the environment variables, only mentorship frequency (β = .281, p = .005) was a significant predictor of leadership self-efficacy.

The collective racial esteem block comprised of four subscales of CRE contributed to an additional 6.4% of the variance after Block 3. None of the subscales were significant predictors of leadership self-efficacy. The public subscale (β = .024, p = .849), private subscale (β = .126, p =.416), identity salience subscale (β = - .180, p = .137) and membership subscales (β = .280, p = .065) were non-significant predictors of leadership self-efficacy.

Table 4.13 – Regression Model for Filipino Analytic Sample

	Model 1				Model 2				Model 3				Model 4			
	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig
1. Input																
Gender: Female	.143	.138	.115	.303	.158	.128	.127	.222	.222	.121	.178	.071	.120	.124	.097	.337
Gender: Male (referent)																
Generation Status: 2nd Generation	.837	.728	.243	.254	.455	.686	.132	.510	.218	.646	.063	.737	.444	.631	.129	.484
Generation Status: 1st Generation	.298	.636	.228	.641	.422	.593	.324	.478	.042	.567	.032	.941	.295	.554	.226	.596
Generation Status: Naturalized	.534	.642	.395	.408	.584	.598	.432	.331	.229	.561	.169	.684	.487	.548	.360	.377
Generation Status: 3rd Generation (referent)																
Parental/Guardian Education	-.018	.054	-.038	.744	-.001	.050	-.003	.981	.005	.048	.012	.911	-.011	.048	-.023	.820
Parental/Guardian Household Income	.013	.035	.044	.710	.015	.032	.053	.633	.030	.030	.102	.319	.017	.029	.058	.559
R^2	**0.068**															
2. Leadership Efficacy Pre-test																
Leadership Efficacy Pre-test					.398	.108	.399	**0.000****	.316	.103	.317	**0.003***	0.338	0.103	0.339	**0.002***
R^2 Change	0.133															
R^2	**0.201****															
3. Environment																
Community Service									-.034	.122	-.027	0.780	-.045	.119	-.036	.706
Off-Campus Employment									.165	.144	.120	0.257	.171	.138	.125	.218
On-Campus Employment									.153	.153	.097	0.320	.134	.147	.085	.363
Leadership Position in Off-campus									.062	.051	.119	0.225	.080	.050	.153	.115
Leadership Position in On-campus									.054	.044	.131	0.227	.062	.043	.151	.160
Mentorship Frequency									.129	.041	.316	**0.002***	.115	.040	.281	**0.005***
R^2 Change	0.185															
R^2	**0.385***															
4. Collective Racial Esteem																
CRE: Private													.063	.077	.126	0.416
CRE: Public													.013	.071	.024	0.849
CRE: Identity Salience													-.075	.050	-.180	0.137
CRE: Membership													.168	.090	.280	0.065
R^2 Change	0.085															
R^2	**0.471**															

* p < .01   ** p < .001

Table 4.14 – Model Summary for Filipino Analytic Sample

Block/Description (N = 127)	R	R Square	Adjusted R Square	R Square Change	F Change	Sig F Change	Effect Size (F^2)
1. Demographic Information	.260	.068	-.001	.068	.991	.437	.034
2. Leadership Efficacy Pre-Test	.448	.201	.131	.133	13.473	.000**	.22
3. Environment	.621	.385	.279	.185	3.759	.003*	.41
4. Collective Racial Esteem	.686	.471	.344	.085	2.859	.030	.56

* $p < .01$ ** $p < .001$

Indian/Pakistani Regression Model

Overall, the regression model for the Indian/Pakistani analytic sample explain a significant amount of the variance of leadership self-efficacy, R^2=.432. The regression model was significant for the Indian/Pakistani analytic sample after the 2nd, 3rd, and 4th blocks. The first block of inputs accounted for 2.2% of the variance for leadership self-efficacy at p = .382 indicating that inputs were not found to be a significant predictor of leadership efficacy. The second block with the pre-test of leadership efficacy accounted for an additional 22.1% of the variance for leadership self-efficacy at p < .001. The third block comprised of environmental factors in college account for an additional 14.0% of the variance for leadership self-efficacy at p < .001. The forth block of collective racial esteem account for an additional 5.9% at p = .002. Table 4.15 provides a comprehensive summary of all variables included in the regression. Table 4.16 provides the model summary for the regression model.

The regression showed that were significant predictors for leadership self-efficacy in the leadership efficacy pre-test block and environment block. The leadership self-

efficacy pre-test proved to be a significant contributor to the variance after Block 2 (β = .469), Block 3 (β = .423), and Block 4 (β = .363) at $p < .001$ level. Within the environment variables, leadership positions in on-campus organizations (β = .277, $p <$ .001) was a significant predictor of leadership self-efficacy.

The collective racial esteem block comprised of four subscales of CRE contributed to an additional 5.9% of the variance at p =.002. Only one of the subscales within the CRE block was found to be significant and it was the membership subscale (β= .247, p =.008). The public subscale (β = .088, p = .214), identity salience subscale (β= - .047, p = .537) and private subscale (β = -.008, p = .931) subscales were non-significant predictors of leadership self-efficacy.

Table 4.15 – Regression Model for Indian/Pakistani Analytic Sample

	Model 1				Model 2				Model 3				Model 4			
	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig
1. Input																
Gender: Female	0.07728	0.0941	0.06002	0.413	-0.020	0.085	-0.016	0.811	-0.044	0.079	-0.034	0.580	-.052	.078	-.041	.501
Gender: Male (referent)																
Generation Status: 2nd Generation																
Generation Status: 1st Generation																
Generation Status: Naturalized	-.042	.100	-.031	0.67	-.016	.089	-.011	.861	.012	.082	.009	0.886	.008	.079	.006	.918
Generation Status: 3rd Generation (referent)																
Parental/Guardian Education	.065	.035	.153	0.066	.051	.032	.119	0.109	.044	.029	.104	0.132	.041	.028	.096	.149
Parental/Guardian Household Income	-.024	.026	-.078	0.353	-.034	.023	-.111	0.141	-.051	.022	-.165	0.020	-.039	.021	-.125	.071
R^2	**0.022**															
2. Leadership Efficacy Pre-test																
Leadership Efficacy Pre-test					0.412	0.058	0.469	**0.000****	0.371	0.054	0.423	**0.000****	0.319	0.055	0.363	**0.000****
R^2 Change	0.221															
R^2	**0.261****															
3. Environment																
Community Service									-.001	.079	.000	0.994469	-.030	.076	-.024	.696
Off-Campus Employment									-.202	.096	-.133	0.03774	-.129	.096	-.085	.179
On-Campus Employment									.032	.085	.024	0.704179	.044	.082	.032	.597
Leadership Position in Off-campus									.009	.031	.018	0.777446	.015	.030	.029	.630
Leadership Position in On-campus									.126	.026	.313	**0.000****	.112	.026	.277	**0.000****
Mentorship Frequency									.058	.026	.139	0.029	.043	.026	.104	.095
R^2 Change	0.140															
R^2	**0.373****															
4. Collective Racial Esteem																
CRE: Private													-0.005	0.053	-0.008	.931
CRE: Public													0.049	0.040	0.088	.214
CRE: Identity Salience													-0.022	0.036	-0.047	.537
CRE: Membership													0.124	0.046	0.247	**0.008***
R^2 Change	0.059															
R^2	**0.432***															

* p < .01   ** p < .001

Table 4.16 – Model Summary for Indian/Pakistani Analytic Sample

Block/Description (N = 201)	R	R Square	Adjusted R Square	R Square Change	F Change	Sig F Change	Effect Size (F^2)
1. Demographic Information	.149	.022	.001	.022	1.051	.382	.036
2. Leadership Efficacy Pre-Test	.483	.233	.213	.211	50.990	.000**	.35
3. Environment	.611	.373	.334	.140	6.639	.000**	.66
4. Collective Racial Esteem	.657	.432	.383	.059	4.538	.002*	.83

* $p < .01$ **$p < .001$

Hypothesis

The null hypothesis established for this study was as follows: Collective racial esteem will not significantly contribute to the development of leadership self-efficacy for Asian American college students. Using this regression analysis, the null hypothesis was rejected for three out of the samples in the study. The hypothesis was rejected for the aggregated Asian sample, Chinese sample, and Indian/Pakistani sample. The collective racial esteem block was a positive, significant predictor of leadership self-efficacy for these three samples. The hypothesis failed to reject for the Filipino sample. The collective racial esteem block was a moderate predictor of leadership efficacy, however it was not at the study's level of significance. Table 4.17 summarizes the R^2, change in R^2, and significance for each of the samples. For each of the four samples, different subscales were significant predictors of leadership self-efficacy. Table 4.18 shows the different subscales and the significance of contributors to LSE.

Table 4.17 – Collective Racial Esteem Block in Regression Model

	R^2	R^2 Change	Sig
Aggregated Asian	0.431	0.049	0.00**
Chinese	0.429	0.024	0.00**
Filipino	0.471	0.085	0.03
Indian/Pakistani	0.432	0.059	0.002*

* $p < .01$ **$p < .001$

Table 4.18 – CRE Subscales Contribution to LSE

	Asian		Chinese		Filipino		Indian/Pakistani	
	β	Sig	β	Sig	β	Sig	β	Sig
CRE: Private	.068	.054	.031	0.592	.126	0.416	-0.008	.931
CRE: Public	.095	**0.001***	.057	0.277	.024	0.849	0.088	.214
CRE: Identity Salience	-.080	**0.005***	-.088	0.066	-.180	0.137	-0.047	.537
CRE: Membership	.146	**0.000****	.130	0.019	.280	0.065	0.247	**0.008***

* $p < .01$ ** $p < .001$

Conclusion

This chapter provided an overview of the results of this study. The demographic

characteristics and regression analysis was reviewed for the four analytic samples. The

null hypothesis was reviewed and rejected using the information generated from this

regression analysis. The following chapter will provide a discussion of these results,

possible implications, the limitations of this study, and suggestions for further research.

CHAPTER FIVE: DISCUSSION

This chapter provides a summary of the study along with discussion of the results. The chapter will examine the implications of the findings from hypotheses testing, describe the limitations inherent in the design of the research, and discuss the study's overall findings as they relate to research and practice.

Research Problem

This study examined the relationship of collective racial esteem and leadership self-efficacy for Asian American college students. The study was guided by the following research question:

Does collective racial esteem significantly contribute to leadership self-efficacy for Asian American college students?

Based on the current literature, a null hypothesis was developed and tested using hierarchical regression statistical analysis for four different data sets. The hypothesis is the following:

Collective racial esteem will not significantly contribute to the development of leadership self-efficacy for Asian American college students.

The following section will discuss the results from this analysis.

Discussion of Results

The results of the study will be discussed for all four samples as it relates to the hypothesis, the descriptive statistics, and the leadership self-efficacy pre-test and environmental predictors.

Hypothesis

The block containing collective racial esteem subscales was found to be a significant predictor of leadership self-efficacy at the p<.01 level for the aggregated Asian sample as well as the Chinese sample and the Indian/Pakistani sample. The null hypothesis was rejected for these three samples. The contribution of this block shows that CRE is an effective tool for understanding the role of racial identity and how it might influence college students' leadership development than only demographic categories. This finding is consistent with qualitative research that indicates the significant influence of racial identity on leadership (Arminio et al., 2000; Komives et al., 2005).

Three out of the four subscales of the collective racial esteem block were significant for the aggregated Asian analytic sample. The significant predictors within collective racial esteem were the publice subscale, identity salience subscale, and membership subscale. However, only one of the subscales within the CRE block for the none of the subscales within this block for the Chinese analytic sample, Filipino analytic sample, or the Indian/Pakistani analytic sample were found to be significant at p<.01. The only one subscale that was significant in these three samples was membership subscale for the Indian/Pakistani samples. The differences between the ethnic samples and the aggregated Asian sample shows the value of using disaggregated data since information about individual ethnic groups would have been lost in the aggregated Asian analytic sample (CARE, 2008; Museus & Truong, 2009).

Private CRE was a significant predictor of leadership self-efficacy for the aggregated Asian analytic sample. This is a confirmation that developing an internal definition of self-worth to counter the effects of internalized racism and cultivates a

healthy self-concept. Crocker et. al (1994) asserted that Private CRE is directly related to overall well-being. In terms of leadership development, the development of Private CRE that leads to a better understanding of one's racial identity reflects self-awareness and authenticity. These two factors are central tenets of leadership theories (Komives & Dugan, 2010).

Identity salience was a significant, negative predictor of leadership self-efficacy for the aggregated Asian analytic sample. This can be due to the differentiation between in and out group membership or an avoidance to attribute their self-concept to their Asian American social identity. Identity salience has a strong corollary in racial identity development to the immersion/emersion stage which is shown by a strong in-group/ out-group distinction (Helms, 1995). The reasons for a negative prediction may be caused by the different cultural factors that might influence Asian American leadership that promote a perception by others of how Asian Americans perceive their own leadership ability.

The membership dimension of CRE was found to be a positive predictor of leadership self-efficacy for the aggregated Asian analytic sample but not for the individual ethnic groups. The non-significance of the membership subscale in the three ethnic samples may reflect back to the questions for this category that pertain to their racial identity and not their ethnic identity. The embrace of a pan-Asian identity, which is represented by the aggregated Asian analytic sample, may not be apparent in the other three samples since ethnic affiliation may be a stronger identity for these groups (Kodama & Ebreo, 2009).

Descriptive Findings

Females were overrepresented in the four samples compared to males, which mirrored the MSL data from which this sample is drawn. Dugan and Komives (2007) mentioned that females were slightly overrepresented compared to males. Though there is literature that might explain females' beliefs in their leadership abilities, gender was not a significant predictor of leadership self-efficacy in this study.

The generation status for the samples represented the diversity of the Asian American population. The majority of respondents in all four samples indicated that they were foreign born, naturalized citizens or born in the United States. For the aggregated Asian sample, an overwhelming percentage responded with one of these choices and this was repeated with both the Chinese and Filipino samples. The distribution in the Chinese and Filipino samples is much different from that in the Indian/Pakistani sample. The respondents were first generation or naturalized citizens. These findings closely follow the literature about Asian Americans in terms of ethnic diversity and how relatively new they are to the country (CARE, 2008).

Socioeconomic status for the purpose of this study consists of the highest level of parental/guardian education and parental/guardian household income. These variables are frequently used to approximate the measure of socioeconomic status (Terenzini, Cabrera, & Bernal, 2001). Though the four samples show a majority of respondents with such a high educational background, there was still a percentage that represented the other end of the spectrum in education. The aggregated Asian sample shows a lower percentage of those that indicate less than a bachelor's degree than the Chinese, Filipino, and Indian/Pakistani samples. This can come from the fact that the aggregated Asian

sample consists of recent immigrants as well as ethnic groups, such as Southeast Asian ethnic groups, that historically have a lower parental/guardian education. This finding confirms others' findings in the literature that indicate a diversity of education background of Asian American students (CARE, 2008).

Respondents exhibited a diverse distribution of income levels, which is similar to findings from the literature that found economic capital varies greatly among AAPIs (CARE, 2008).   None of the household income numbers indicated an extreme bias towards either end of the income bracket, and most reported a moderate income level.

Leadership Self-Efficacy Pre-Test and Environmental Predictors

The regression model for the four analytic samples showed that the leadership self-efficacy pre-test and several environmental factors were significant predictors to leadership self-efficacy for Asian American college students.

There was only one predictor that was the significant in the four samples of the study and that was the leadership efficacy pre-test. The block containing the leadership self-efficacy attributed at least 33% of the variance for each of the aggregated Asian sample, Chinese sample, Filipino sample, and the Indian/Pakistani sample. This indicates that the best indicator of future leadership self-efficacy is past efficacy. This is consistent with social cognitive theory since personal experience is the most powerful influence on efficacy in new situations (Bandura, 1997).

Other personal experiences proved to be significant predictors of leadership self-efficacy. Two such predictors are off-campus employment and leadership positions in on-campus organizations. Off-campus employment was a significant predictor for the aggregated Asian sample and Chinese analytic sample. Leadership positions in on-

campus organizations were a significant predictor for the aggregated Asian sample and the Indian/Pakistani sample. These two predictors are examples of what Bandura (1986, 1997) described as personal experiences

Another significant predictor was mentorship frequency. Mentorship frequency was a significant predictor for the aggregated Asian analytic sample and Filipino analytic sample. The significance of mentorship for Asian American college students can be seen in the importance of vicarious experiences and verbal persuasion that help influence efficacy (Bandura, 1997).

Limitations

There are a few limitations to note for this study. As noted earlier, the MSL data used in this study is cross-sectional and not longitudinal. A true I-E-O design (Astin, 1991) would administer the pre-test for leadership self-efficacy before college. Another limitation of the design is that regression cannot prove cause and effect. Regressions only show whether independent variables contribute to the variance in the study's dependent variable. Therefore, the results of this study cannot indicate that collective racial esteem causes students to indicate a higher sense of leadership self-efficacy.

A limitation of the study lies in the model that was developed for this study. With the leadership self-efficacy pre-test and the dependent variable of leadership self-efficacy sharing similar questions, there exists a mono-method bias. A way to measure this in the future without using similar questions would be advisable.

Another limitation of this study stemmed from the lack of literature specific to the study topic. There was a lack of literature specific to disaggregate Asian American college student populations and leadership self-efficacy. Due to this gap in literature,

factors that help influence leadership self-efficacy for Asian American college students were chosen based on studies done with a broader population of college students which do not specifically address Asian American college student experiences or cultural leadership values.

Another limitation in this study lies in the selection of the sample. In the MSL, respondents were allowed to select more than one race and more than one ethnicity. This study did not use respondents who selected more than one race in the regression for the aggregated Asian sample. This study also did not use respondents who selected more than one ethnic group for the Chinese, Filipino, and Indian/Pakistani samples. The exclusion of multiracial and multiethnic students reduces the generalizability of the findings and does not reflect the diversity of the Asian American population. Including those respondents within this study could definitely increase the generalizability of the study to reflect the diverse Asian American population.

As mentioned in Chapter Two, several cultural factors were explained that could explain how Asian Americans view leadership. The use of the measurement of leadership self-efficacy may not accurately capture leadership for Asian Americans since there are several cultural factors that emphasize collectivity and interdependence.   This idea of collectivity and interdependence are similar to the two parts of the study's dependent variable when respondents asked about their confidence in organizing a group's tasks to accomplish a goal and working with a team on a group project. The other two measurements of the leadership self-efficacy in the study are the respondent's confidence in leading others and taking initiative to improve something that might represent more Western values of leadership. This shows that the study's dependent

variable might not be the most accurate measurement of leadership self-efficacy for Asian American college students.

Implications for Practice

The different conceptions of how Asian American college students perceive their racial social identity shows the complexity and diversity of this population. None of the subscales were similar among the different samples and the differences shown among the ethnic samples were quite different than the aggregated sample. This study illuminates the need for practitioners to carefully understand the different needs of college students based on their ethnicity within a broad population. If this study had only used the aggregated Asian sample, this would have not have illuminated this type of finding seen among different ethnicities within the Asian American population.

One important finding that was non-significant in this study was that identity salience was the only negative predictor of leadership self-efficacy within the collective racial esteem block. The identity salience subscale measures the degree of centrality of one's racial group membership to one's self-concept. Encouraging students to connect how one perceives oneself to one's racial social identity could highlight a cultural influence mentioned in Chapter Two about Asian American students coming from a collectivist identity. This can discourage one to think along this line and limits personal exploration and self-congratulation or that limits exploration in non-collectivist ways. One way to do this is through verbal persuasion by having practitioners encourage more self-reflection for Asian Americans to think about their own personal accomplishments and how their racial social identity is connected to this.

Although the significance level used in this study is p<.01, it is notable that membership CRE, or the personal beliefs about how well one functions as a member of one's racial group, proved to be significant for three out of the four samples in this study at p<.05 level. Helping students understand the role they might play in the context of their racial group seems to be a positive predictor of leadership self-efficacy. Practitioners can use this finding to craft opportunities for Asian American college students to encourage reflection on how their racial social identity influences or connects to their leadership.

The Filipino sample was the only sample in the study that did not have collective racial esteem block as a significant predictor of leadership self-efficacy. A larger Filipino sample would show that this is actually the case. Though this block was not a significant predictor, the leadership self-efficacy pre-test and mentorship frequency were two predictors that were significant in this study and could be areas for practitioners to focus on when working with Filipino students.

The most significant predictor found in this study was the leadership self-efficacy pre-test. The pre-test measures one's leadership self-efficacy before they came to college. This block accounted for the majority of the variance at p<.001 for the aggregated Asian sample, Chinese sample, Filipino sample, and Indian/Pakistani sample. This finding shows the importance of pre-college programs that encourage leadership development. Practitioners could use this finding to encourage Asian American college students to be active participants in developing and implementing leadership programs for high school students. This is an example of mastery experiences for the Asian American college students in forming the experience for high school students and is an

example of vicarious experiences and verbal persuasion that contributes to a higher leadership self-efficacy.

Another interesting finding comes from the environments block of the regression model. Holding a leadership position in an on-campus organization and mentorship were two significant predictors of leadership self-efficacy for several samples in the study. These two predictors are examples of mastery examples, verbal persuasion, and vicarious experiences and are examples of behaviors that increases one's self-efficacy. This highlights the need to expand and make accessible more opportunities for Asian Americans to become leaders on-campus in a wide range of student organizations as well as expanding mentoring opportunities for Asian American students. Mentors could also encourage Asian Americans to be more involved and can reinforce to Asian Americans that being involved on campus is important.

Implications for Future Research

There are several suggestions for future research based on this study. Although the model was developed from the literature on Asian American college students to explore the relationship of collective racial esteem and leadership self-efficacy, the predictors in the regression model were hypothesized for the purposes of this study. A comprehensive study of the influence of a variety of environmental factors that influence one's leadership self-efficacy could provide researchers and practitioners more insight on other programs or trainings that explain one's leadership self-efficacy. The study of the impact of inputs such as one's psychological state or their Myers Briggs personality inventory could be included in the study. Within the predictors that help explain a significant percentage of the variance, employment and organizational involvement

seemed to be two that could be areas of further research and more complexity with this independent variable could be included in future studies. Included with this, since it would be impractical to test the influence of every input and environmental factor, more attention on institutional characteristics and class standing could be two demographic characteristics that could help explain the variance of leadership self-efficacy. CARE (2008) mentioned that Asian American college students come from a diverse array of institutional types ranging from private, four year universities to community colleges. Class standing might be an important input that could be a reflection of a cultural value in Asian Americans about respecting elders and in a college setting, seniors could have higher leadership efficacy than freshmen. An environmental input that could be relevant for Asian Americans was whether the mentors shared the same racial background which might make this vicarious experience more effective (Bandura, 1997).

This study measured socio-economic status from both parental/guardian education and parental/guardian household income. Though these blocks were not significant after the final block in the regressions for any of the samples, these two had significance before other blocks were introduced. Further study in how Asian Americans from different SES levels participate in leadership could illuminate additional ways to serve this diverse population.

Another implication for future research would be to examine more closely other ethnic groups that comprise of the aggregated Asian sample. The study showed that different ethnic samples differed with regard to their racial social identity having an influence on their leadership efficacy. With the aggregated Asian sample, there were several significant predictors in the environments block of leadership self-efficacy. The

historical and economic diversity within the Asian American population presents complexity in serving Asian American college students as a uniform and monolithic group (Museus & Kiang, 2009).   Serving students that have been here for several generations as seen in Japanese and Chinese college students would be drastically different than serving college students whose parents are recent refugees. Additional studies on other ethnic groups could prove valuable for researchers and practitioners when dealing with the diversity of the Asian American population.

This quantitative study leads to further studies that can be researched qualitatively and explore how different Asian American students perceive their racial social identity. In particular, the identity salience subscale of CRE was found to be a negative predictor for all four samples. Qualitative research can allow further exploration of why Asian American students were potentially limited in this area of connecting their racial social identity to their self-concept. This could potentially lead to understanding if these came before college, from their families, or even during college. This could potentially allow practitioners to plan and implement other interventions.

The role of cultural factors influencing leadership for Asian Americans and the significance of collective racial esteem in predicting leadership self-efficacy indicate the need to research the role of cultural factors and leadership self-efficacy for Asian Americans. Qualitative studies can explore how cultural influences can impact Asian American leaders in greater depth and detail.

The study contributes to a complex examination of one's racial social identity and saliency that extends beyond choosing one's race and ethnicity. A possibility to include in the MSL and future surveys is a measurement of cultural values. This can add to a

better understanding of Asian Americans and how cultural values are connected to understanding one's leadership style. Another possibility would be to include a measurement of how one values the encouragement, mentorship, and/or advice from those who share similar background characteristics. Bandura (1997) indicated that vicarious experiences from those who share similar characteristics are more likely to lead to a higher leadership self-efficacy.

Conclusion

This study addressed a noticeable gap within the literature for leadership self-efficacy and Asian American college students. Using multiple regression for four different samples, this study's model explained at least and over 35% of the variance in the outcome of leadership self-efficacy and illuminated a number of positive and negative predictors of the outcome. Understanding the role of one's racial social identity and how that relates to leadership self-efficacy contributes to the scholarship of a relatively unexplored area of research. Although this does cover an unexplored gap, additional research is needed in order to strengthen the understanding of how leadership efficacy develops for specific populations of students. With this knowledge, practitioners can shape programs and services in ways that effectively reach every student on campus in a more culturally competent way.

APPENDIX A: Correlation Matrix of Variables

Asian Sample:

	Dependent Variable: Leadership Self-Efficacy	Gender: Female	Generation Status: 2nd Generation	Generation Status: 1st Generation	Generation Status: Naturalized	Parental/Guardian Education	Parental/Guardian Household Income	Leadership Efficacy Pre-test	Community Service	Off-Campus Employment	On-Campus Employment	Leadership Position in Off-campus	Leadership Position in On-campus	Mentorship Frequency	CRE: Private	CRE: Public	CRE: Identity Salience	CRE: Membership
Dependent Variable: Leadership Self-Efficacy	1																	
Gender: Female	0.011	1																
Generation Status: 2nd Generation	0.029	-0.048	1															
Generation Status: 1st Generation	-0.045	0.056	-0.277	1														
Generation Status: Naturalized	0.004	-0.049	-0.136	-0.767	1													
Parental/Guardian Education	0.073	-0.046	0.021	-0.018	-0.015	1												
Parental/Guardian Household Income	0.104	-0.062	0.088	-0.004	-0.106	0.585	1											
Leadership Efficacy Pre-test	0.532	0.008	0.06	-0.055	-0.02	0.047	0.085	1										
Community Service	0.161	0.043	0.048	-0.013	0.007	0.054	0.047	0.105	1									
Off-Campus Employment	0.078	0.037	-0.005	-0.034	0.022	-0.111	-0.078	0.063	-0.026	1								
On-Campus Employment	0.126	-0.011	-0.044	-0.015	0.021	0.067	0.022	0.046	0.074	-0.242	1							
Leadership Position in Off-campus	0.176	-0.057	0.016	-0.032	0.027	0.017	0.019	0.133	0.198	0.109	-0.008	1						
Leadership Position in On-campus	0.34	-0.016	0.036	-0.045	0.042	0.141	0.107	0.214	0.242	-0.072	0.241	0.205	1					
Mentorship Frequency	0.247	0.079	-0.047	-0.009	-0.011	0.064	0.045	0.135	0.151	0.062	0.175	0.156	0.251	1				
CRE: Private	0.196	0.12	-0.023	0.03	-0.059	-0.038	-0.024	0.085	0.055	0.032	0.01	-0.007	-0.03	0.066	1			
CRE: Public	0.19	0.054	-0.006	0.006	-0.019	0.054	0.072	0.103	0.049	-0.028	0.016	-0.058	0.003	0.062	0.531	1		
CRE: Identity Salience	0.005	0.069	-0.086	0.089	0.007	-0.043	-0.055	-0.02	0.045	-0.006	-0.026	0.028	0.008	0.045	0.462	0.146	1	
CRE: Membership	0.245	0.031	-0.05	0.032	-0.011	-0.018	-0.012	0.157	0.12	0.01	0.029	0.091	0.088	0.119	0.655	0.388	0.527	1

Chinese Sample:

	Dependent Variable: Leadership Self-Efficacy	Gender: Female	Generation Status: 2nd Generation	Generation Status: 1st Generation	Generation Status: Naturalized	Parental/Guardian Education	Parental/Guardian Household Income	Leadership Efficacy Pre-test	Community Service	Off-Campus Employment	On-Campus Employment	Leadership Position in Off-campus	Leadership Position in On-campus	Mentorship Frequency	CRE: Private	CRE: Public	CRE: Identity Salience	CRE: Membership
Dependent Variable: Leadership Self-Efficacy	1																	
Gender: Female	0.035	1																
Generation Status: 2nd Generation	0.03	-0.022	1															
Generation Status: 1st Generation	-0.121	0.03	-0.271	1														
Generation Status: Naturalized	0.11	-0.045	-0.119	-0.877	1													
Parental/Guardian Education	0.132	-0.003	0.021	-0.131	0.117	1												
Parental/Guardian Household Income	0.162	-0.04	0.078	-0.082	0.031	0.685	1											
Leadership Efficacy Pre-test	0.515	-0.029	0.025	-0.038	0.012	0.05	0.075	1										
Community Service	0.114	0.063	-0.004	0.011	0.03	0.136	0.068	-0.008	1									
Off-Campus Employment	0.074	0.063	-0.025	0.009	-0.034	-0.17	-0.149	0.036	-0.101	1								
On-Campus Employment	0.163	0.04	-0.085	-0.101	0.163	0.163	0.106	0.039	0.075	-0.245	1							
Leadership Position in Off-campus	0.156	-0.024	-0.013	0.014	0.003	0.042	0.006	0.158	0.091	0.21	-0.056	1						
Leadership Position in On-campus	0.403	0.036	0.046	-0.125	0.129	0.148	0.068	0.257	0.228	-0.089	0.309	0.217	1					
Mentorship Frequency	0.196	0.06	-0.069	-0.078	0.083	0.183	0.119	0.105	0.13	0.096	0.163	0.154	0.266	1				
CRE: Private	0.145	0.088	-0.006	0.039	-0.029	-0.024	0.017	0.054	0.004	0.046	0.059	-0.025	-0.082	-0.001	1			
CRE: Public	0.176	0.048	-0.002	0.008	-0.003	0.023	0.106	0.11	0.011	-0.019	-0.016	-0.073	-0.055	0.063	0.581	1		
CRE: Identity Salience	0.017	0.067	-0.036	0.041	0.016	-0.001	0.002	0.016	0.009	0.007	0.049	0.012	0	0.011	0.382	0.162	1	
CRE: Membership	0.278	-0.005	-0.054	0.027	0.009	-0.005	0.072	0.214	0.056	-0.017	0.112	0.074	0.098	0.093	0.557	0.42	0.455	1

Filipino Sample:

	Dependent Variable: Leadership Self-Efficacy	Gender: Female	Generation Status: 2nd Generation	Generation Status: 1st Generation	Generation Status: Naturalized	Parental/Guardian Education	Parental/Guardian Household Income	Leadership Efficacy Pre-test	Community Service	Off-Campus Employment	On-Campus Employment	Leadership Position in Off-campus	Leadership Position in On-campus	Mentorship Frequency	CRE: Private	CRE: Public	CRE: Identity Salience	CRE: Membership
Dependent Variable: Leadership Self-Efficacy	1																	
Gender: Female	0.106	1																
Generation Status: 2nd Generation	0.051	-0.146	1															
Generation Status: 1st Generation	-0.118	0.078	-0.31	1														
Generation Status: Naturalized	0.116	0.025	-0.115	-0.87	1													
Parental/Guardian Education	-0.052	-0.058	-0.007	0.027	-0.005	1												
Parental/Guardian Household Income	-0.036	-0.147	-0.037	0.141	-0.132	0.355	1											
Leadership Efficacy Pre-test	0.4	0.015	0.256	-0.22	0.13	0.001	-0.002	1										
Community Service	0.182	0.058	-0.01	-0.029	0.067	0.088	0.019	0.21	1									
Off-Campus Employment	0.227	0.101	-0.037	-0.238	0.253	-0.115	-0.15	0.241	0.06	1								
On-Campus Employment	0.055	-0.017	0.109	0.096	-0.134	0.022	0.029	-0.068	0.073	-0.214	1							
Leadership Position in Off-campus	0.14	-0.164	-0.004	-0.07	0.097	0.049	-0.028	0.168	0.213	-0.023	0.057	1						
Leadership Position in On-campus	0.271	-0.042	0.113	0.045	-0.07	0.089	0.022	0.222	0.349	0.006	0.282	0.187	1					
Mentorship Frequency	0.325	0.064	-0.125	0.101	-0.023	0.019	-0.026	0.069	0.14	0.005	0.134	0.127	0.364	1				
CRE: Private	0.194	0.241	-0.103	0.007	0.017	0.014	-0.024	-0.115	-0.025	-0.021	0.003	-0.057	-0.059	0.062	1			
CRE: Public	0.134	0.186	0.004	-0.139	0.124	0.107	0.036	0.13	0.061	0.004	-0.046	-0.09	-0.102	0.028	0.611	1		
CRE: Identity Salience	0.009	0.093	-0.227	0.101	-0.006	0.032	0.006	-0.172	0.084	-0.031	0.058	0.111	0.064	0.066	0.538	0.246	1	
CRE: Membership	0.169	0.069	-0.054	0.026	0.01	0.09	0.082	-0.04	0.113	-0.026	0.089	-0.032	0.068	0.07	0.707	0.502	0.642	1

Indian/Pakistani Sample:

	Dependent Variable: Leadership Self-Efficacy	Gender: Female	Generation Status: 2nd Generation	Generation Status: 1st Generation	Generation Status: Naturalized	Parental/Guardian Education	Parental/Guardian Household Income	Leadership Efficacy Pre-test	Community Service	Off-Campus Employment	On-Campus Employment	Leadership Position in Off-campus	Leadership Position in On-campus	Mentorship Frequency	CRE: Private	CRE: Public	CRE: Identity Salience	CRE: Membership
Dependent Variable: Leadership Self-Efficacy	1																	
Gender: Female	0.059	1																
Generation Status: 2nd Generation	0.024	0.057	1															
Generation Status: 1st Generation	0.079	0.05	-0.1	1														
Generation Status: Naturalized	-0.066	-0.068	-0.049	-0.978	1													
Parental/Guardian Education	0.108	-0.07	0.079	0.095	-0.106	1												
Parental/Guardian Household Income	0.02	-0.057	0.094	0.19	-0.199	0.496	1											
Leadership Efficacy Pre-test	0.484	0.158	0.118	0.065	-0.086	0.095	0.104	1										
Community Service	0.091	0.02	0.072	-0.049	0.028	0.046	-0.04	0.072	1									
Off-Campus Employment	-0.081	-0.017	-0.039	-0.017	0.028	-0.096	-0.164	0.018	-0.01	1								
On-Campus Employment	0.102	-0.016	0.107	0.031	-0.04	0.042	0.066	0.017	0.006	-0.257	1							
Leadership Position in Off-campus	0.074	-0.017	-0.042	-0.014	0.027	-0.093	-0.121	-0.019	0.229	0.086	-0.051	1						
Leadership Position in On-campus	0.427	-0.008	0.019	0.077	-0.069	0.093	0.141	0.226	0.178	0.043	0.07	0.161	1					
Mentorship Frequency	0.208	0.131	-0.018	0.086	-0.074	0.082	0.029	0.024	0.049	0.133	0.101	0.121	0.225	1				
CRE: Private	0.331	0.116	0.011	0.05	-0.061	-0.004	-0.066	0.27	0.111	-0.058	0.022	-0.052	0.071	0.065	1			
CRE: Public	0.284	0.056	0.004	0.06	-0.066	0.03	0.011	0.173	0.094	-0.183	0.092	-0.073	0.121	0.112	0.526	1		
CRE: Identity Salience	0.112	0.193	-0.17	0.03	0.005	-0.136	-0.19	0.077	0.072	0.075	-0.103	0.025	-0.058	0.049	0.466	0.213	1	
CRE: Membership	0.368	0.087	-0.09	-0.01	0.033	-0.038	-0.133	0.183	0.081	-0.056	-0.031	0.031	0.138	0.11	0.703	0.399	0.584	1

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117

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