

ABSTRACT

Title of dissertation: EXPLORING & IDENTIFYING PREDICTORS
 THAT AFFECT ASIAN AMERICAN
 COLLEGE STUDENTS' SENSE OF
 BELONGING: "HOW DO I FIT IN?"

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 Education

The purpose of this study was to explore the relationship among various college environment factors, specifically living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-cultural discussions, and perception of nondiscriminatory climate and how these relationships potentially affect Asian American college students' sense of belonging. Data came from the 2009 Multi-Institutional Study of Leadership, which had a robust Asian American sample that included 6,786 Asian American college student participants. Descriptive analysis was conducted to provide an overview of the sample under study in terms of gender, parents' education, high school involvement, major, institutional characteristics, live on-campus, work on-campus, have a mentor, involvement in college organizations and the type of college organization involvement. Through mean comparisons, distribution of sense of belonging was analyzed between all Asian Americans and the three subpopulations being investigated which were Chinese Americans, Filipino Americans, and Asian Indian Americans. A one-way ANOVA was used to determine if there were differences in perception of sense of belonging

between the ethnic subpopulations as well as from the overall Asian Americans college students and a random sample of non-Asian college students. Astin's (1993) college impact I-E-O model was used to design blocked hierarchical multiple regression models to test and identify significant predictors of sense of belonging for all Asian Americans and the three subpopulations. T-tests were conducted and significant differences between standardized and unstandardized beta coefficients were evaluated.

Several key findings emerged from this study to include the most significant predictors of Asian Americans' sense of belonging were the perception of a nondiscriminatory climate on campus and participation in socio-cultural discussions with peers. Other significant predictors include having a mentor and being involved in a college organization particularly student governance and campus wide programming types of student groups. Scholars and practitioners within the field of higher education can continue the work from this study in disaggregating the data on the many Asian American ethnic groups to better understand their respective needs, and in turn, improve services and programs that strengthen this growing constituency's sense of belonging and collegiate success.

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"HOW DO I FIT IN?"

by

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Dedication

This dissertation is dedicated to my family
especially, in loving memory of
my father, Herbert Hoover Lim
and my sister, Eileen Yee Lim.

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without you trudging through, side by side, year after year after year after year... you get the picture. No one I would have rather done that with than you, my friend.

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CHAPTER ONE: INTRODUCTION

By 2050, the face of America will have changed dramatically when non-Hispanic Whites become a minority (Morello & Keating, 2011). As the racial composition of American society continues to transform and diversify, the Asian American population continues to grow and expand exponentially. According to the 2010 Census, the Asian American population in the United States grew 46% between 2000 and 2010, faster than any other racial group nationwide (U.S. Census Bureau, 2000, 2010). The category Asian American is large and does not capture the uniqueness of each subcategory. Each story is distinct. It is vital to obtain a detailed portrait of the many ethnic groups that comprise this racial checkbox known as Asian American. With multiple ethnic groups and rapid growth in this country, Asian Americans comprise 6% or 18,205,898 of the total U.S. population, but Asian Americans are by no means a homogeneous group (Asian American Justice Center (AAJC) and Asian Pacific American Legal Center (APALC), 2011; Pew Research Center, 2012). Hence, it is necessary to pay closer attention to these distinct growing ethnic groups, as they become the norm within our communities.

On college campuses as well as in society overall, the number of Asian Americans is consistently on the rise. Despite this growth, a review of literature revealed that only approximately 1% of articles published in five of the most widely read peer-reviewed journals in the field of higher education – *The Journal of College Student Development*, *NASPA Journal*, *Journal of Higher Education*, *Research in Higher Education*, and *The Review of Higher Education*—included a focus on Asian Americans (Museus, 2009). Though empirical research is slowly building on this

growing population, there is still a gap in the literature on collegiate experiences and factors that contribute to the social and psychological outcomes of this constituency. In particular, data on their sense of belonging, perceptions of institutional support, and commitment to their collegiate success are scant.

Sense of belonging has been described as a basic need and motivation. In *College Student's Sense of Belonging: A Key to Educational Success for All Students* (2012), Terrell L. Strayhorn stated:

a sense of belonging among students has real consequences on a variety of outcomes ranging from personal happiness and comfort to college completion and academic success. Moreover, sense of belonging is a key factor for students who have been historically underrepresented in higher education (p. x).

In educational research, sense of belonging has been shown to be influential in academic achievement, retention, and persistence (Hausmann, Schufield, & Woods, 2007; Rhee, 2008), academic and social involvement (Strayhorn, 2008a), and critical in retaining all students particularly students of color (Maestas, Vaquera, & Zehr, 2007).

The 2009 Multi-Institutional Study of Leadership (MSL) found that Asian American respondents had a lower sense of belonging than White and African American/Black respondents at the University of Maryland (UMD MSL Executive Summary, 2010), further illustrating the need for attention to this particular aspect of this population in higher education. What could be the root cause(s) of their lower perceptions of sense of belonging compared to White and African American

students? In Fiscal Year 2014, Institutional Research Planning and Assessment (IRPA) profiles for the University of Maryland (UMD) showed that Asian Americans comprised 13% of the total undergraduate population and 15% of bachelor degree recipients (IRPA profile, n.d.). White and Black UMD students represented 50% and 11% respectively during this same time and made up 57% and 10% respectively of bachelor degree recipients. A scan of the empirical literature confirms that Asian American college students as an aggregate group have higher graduation rates and higher degrees of retention (McEwen, Kodama, Alvarez, Lee, & Liang, 2002; Museus, 2009). Yet, if representation and achievement levels are in sync, why would Asian Americans have a lower sense of belonging?

This study seeks to explore the collegiate experiences that can affect Asian Americans' sense of belonging while on college campus for the general Asian American population as well as for ethnic subpopulations. Research on Asian Americans shows how they are both understood and misunderstood in higher education. Although there is much evidence of high academic achievement in this group (Hu, 1989; Nakanishi, 1995; Suzuki, 1977, 1989; Yeh, 2002) this is not the case across the board for all of the various Asian ethnic subgroups (Maramba, 2008a, 2008b; Maramba & Museus, 2011, 2012; Museus, 2009; Museus & Kiang, 2009; Suzuki, 2002; Yeh, 2002). Recent research has supported the urgent need to disaggregate the many ethnic groups within the Asian American category (iCount report, 2013). This separation is the only solution to fully understanding each distinct collegiate constituent. Due to this fact, this study will include an in-depth review of three Asian American ethnic subpopulations. The three groups are the three largest

Asian American subpopulations in the United States according to the U.S. Census, which are Chinese American (22%), Filipino American (19%) and Asian Indian American (18%). As the three largest ethnicities as reported by the U.S. Census, they will inevitably have an impact on our institutions of higher education in the near future. Although I am focusing my study on these three groups, all Asian ethnic groups are in need of more empirical research for further information and analysis. There is so much more information needed to know about the Asian diaspora. Examination of other Asian ethnicities would most likely yield differing findings such as the known challenges concerning retention with Southeast Asian Americans. Thus this need for disaggregate data and allowing Asian ethnic groups to stand alone in analyses is vital for understanding the varied nuances and differences among the many groups, and future research should address this gap of research.

More research studies and empirical literature are needed to demystify this ever growing, ever complex portion of the campus community. Additional data and findings will further inform best practices of student affairs scholar practitioners to better serve Asian American college students and close the gap in this particular literature that is so badly needed.

Sense of Belonging

The concept of sense of belonging has long been a topic of discussion on college campuses and recognized as an important need for students and a priority for student affairs professionals (Hoffman, Richmond, Morrow, & Salomone, 2002; Hurtado & Carter, 1997; Hurtado, Han, Saenz, Espinosa, Cabrera, & Cerna, 2007; Hurtado & Ponjuan, 2005; Johnson et al., 2007; Nunez, 2009; Schussler & Fierros,

2008; Strayhorn, 2008a; Strayhorn, 2008b; Strayhorn, 2012). In *The Student Personnel Point of View*, sense of belonging was defined as a student's social adjustment to college and involved, "finding a role in relation to others which will make him [or her] feel valued, will contribute to his [or her] feeling of self-worth, and will contribute to a feeling of kinship with an increasing number of persons" (American Council on Education, 1949/1987, pp. 22-23). MSL researchers define sense of belonging as how strongly individuals feel they belong within their campus community; perception of campus climate as a whole includes the degree to which members of the campus community feel connected and appreciated (Dugan & Komives, 2007). This feeling of connectedness and affiliation is vital to their perception of community and influential in their academic outcomes.

Sense of belonging can be achieved through involvement in campus activities and social programs, participation in small groups, and interactions with faculty outside the classroom (American Council on Education, 1949/1987). This continues to be the case on college campuses to date. Hurtado and Carter's (1997) study on Latino college students found those who were members of religious clubs and sororities/fraternities had a significantly stronger sense of belonging than non-members. Involvement in community outreach organizations, student government, and athletics or sports teams also revealed greater sense of belonging. Further evidence supporting the concept that one's involvement in co-curricular activities may directly impact one's connectedness to his or her community.

Although the notion of and importance of facilitating belonging has been part of the student affairs profession for many years, it is important to be mindful that

when the field of student affairs was first developing college campuses were predominantly comprised of White men. As we see the evolution of the growing student population and the changing demographics of our current college campuses, we must take into account diversity and multiculturalism to revise our vision of how students' sense of belonging may be developed for marginalized and historically under-represented groups.

Statement of the Problem

Recent research has explored the arena of how students from racial and ethnic minority groups achieve a sense of belonging within predominantly White institutions. Hurtado and Carter (1997) studied sense of belonging of Latino students to explore how social and academic experiences contribute to their affiliation and identity to their institution. Johnson et al. (2007) examined sense of belonging in first-year undergraduate students of color. Recent studies like those by Museus and Maramba (2010), and Maramba and Museus (2011, 2012) investigate sense of belonging of Filipino American students and their perceptions of campus climate. Although I applaud the most recent efforts for research on specific ethnic groups, much more needs to be done. A limitation of some of these studies is that they were conducted on small samples and within a single institution. Though these studies add to the knowledge base of Asian American college students, more studies, including this one are necessary to further the research on other ethnic subpopulations by examining more robust multi-institutional samples for further breadth and depth within the constituency.

Other studies examine sense of belonging among college students (Hoffman et al., 2002; Hurtado & Carter, 1997; Hurtado et al., 2007; Hurtado & Ponjuan, 2005; Johnson et al., 2007; Nunez, 2009; Museus & Maramba, 2010; Maramba & Museus, 2011, 2012; Schussler & Fierros, 2008; Strayhorn, 2008a; Strayhorn, 2008b). Yet, there is still minimal literature on sense of belonging and different racial and ethnic minority groups, specifically on Asian Americans and their subpopulations.

Psychologist and author Karen Huang (2012) stated, “For many (Asian Americans), the developmental journey is shaped by an Asian cultural background at odds with mainstream American culture.” (p. 232). This balancing act can be a struggle for many Asian American students to be successful in their collegiate aspirations which signals a need for further investigation of sense of belonging.

Sense of belonging is an important outcome variable to explore due to its direct contributions to student persistence, retention, and graduation which are key collegiate outcomes (Alford, 1998; Astin, 1985; Stebleton, Huesman, & Kuzhabekova, 2010; Tinto, 1993; Tovar, Simon, & Lee, 2009). With this knowledge, it is essential to the success of this constituency to discover the factors that affect this outcome. Because there is limited research on the factors that predict sense of belonging for Asian Americans college students, this study will help fill the gap in the literature. With the growth of the Asian American population in the coming years and sense of belonging being a vital collegiate outcome, it is clear that more focus and attention is necessary to learn more about the relationship between the Asian Americans and sense of belonging. As this constituency continues to grow on college campuses, it is critical to have a comprehensive understanding of the population, as

well as its sub-populations in order to better serve students' needs and ensure success in their collegiate career.

Purpose of the Study and Research Questions

As a scholar practitioner for the past 23 years in the area of student activities and involvement, I have a deep passion and commitment to the co-curricular agenda on college campuses and the importance these experiences and engagement play in the development of the students in their personal growth and development. The particular dataset that is used for this study includes students from my very own institution. This fact makes the findings that much more special knowing that information is from close to home and can directly inform our practice to make improvements and changes that are effective and necessary for the success of Asian American college students particularly those currently on my campus.

The purpose of this study is to explore the relationship among various collegiate experiences and sense of belonging for Asian American students using data from the 2009 Multi-Institutional Study of Leadership (MSL). Findings will assist institutions of higher education, student affairs administrators, and educators in better understanding this growing community. In turn, this information will inform and improve provided programs and services of the Asian American student experiences in relation to their college environment, and fill a gap in the sense of belonging literature regarding Asian American collegiate experiences.

Specifically, there are three research questions guiding this study:

1. Among Asian American college students, are there differences in perception of sense of belonging between the ethnic subpopulations, specifically Chinese

American, Filipino American, and Asian Indian American college students and do these subpopulations differ from all other Asian American college students and a random sample of non-Asian American college students in their sense of belonging? Are there differences in the distribution of sense of belonging by Asian ethnic background, other demographics/characteristics, and other important collegiate experiences like socio-cultural discussions and nondiscriminatory climate?

2. After controlling for student characteristics, do college environment factors, specifically living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-cultural discussions, and perception of nondiscriminatory climate contribute to sense of belonging for Asian American college students?
3. When controlling for pre-college variables and demographics, do college environment factors, specifically living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-cultural discussions, and perception of nondiscriminatory climate contribute to sense of belonging for subsamples of Chinese American, Filipino American, and Asian Indian American college students? Are there significant differences in the variables that contribute to sense of belonging between groups?

Definition of Terms

This section provides definitions of key terms used in this study.

Asian American

This is the term that will be used to describe the study population. According to the 2010 Census, 14.7 million people or 4.8% of the United States population are self-identified as Asian alone. This population comes from almost 50 ethnic groups comprised of people who have ancestors or have emigrated from countries in Asia and the Pacific Islands. These countries include those in East Asia (e.g., China, Japan, and Korea), Southeast Asia (e.g., Vietnam, Laos, and Cambodia), and South Asia (e.g., India, Bangladesh, and Pakistan). The commonly used term *Asian Pacific American* (APA) includes the aforementioned groups with the addition of those who come from the Pacific Islands. For this study, the term Asian American will be used as the broader umbrella term for all participants in the sample unless otherwise specified. Asian Pacific Islanders will not be included in this study. Of the near 50 different ethnic groups, Table 1.1 displays the largest Asian ethnic populations. Similarly, the National Asian American Survey (NAAS) draws its sample by national origin due to the relevance of national and ethnic origin among Asian Americans (Wong, Ramakrishnan, Lee, & Junn, 2011). The NAAS is the most comprehensive survey to date of the civic and political life of Asians in the United States. Zhou and Xiong (2005) claimed that the examination of national-origin differences is critical to a thorough understanding of the community (as cited in Wong et al., 2011). Wong, Ramakrishnan, Lee, and Junn (2011) further stated that national origin "...reflect[s] a complex social, historical, and political process that distinguishes people based on the meanings attributed to their geographical origins, phenotypic characteristics, language background, and a host of other features or experiences" (p. 16). This study focused

on the three largest Asian national-origin groups (Chinese, Asian Indian, and Filipino) for a comprehensive understanding of these populations.

Table 1.1

Asian Populations by Ethnicity from the 2010 U.S. Census

Ethnicity	Population
Chinese, except Taiwanese	3,779,732
Filipino	3,416,840
Asian Indian	3,183,063
Vietnamese	1,737,433
Korean	1,706,822
Japanese	1,304,286

Nondiscriminatory Climate

In this study, nondiscriminatory racial climate is the student's perceptions in terms of experiences and feelings of nondiscrimination and prejudice against themselves and people like them within the campus environment (Dugan, Komives, & Associates, 2006).

Sense of Belonging

The definition of sense of belonging that will be used in this study is the extent to which students feel they belong as part of the campus community (Dugan & Komives, 2007; Hurtado & Carter, 1997; Hurtado, Carter, & Spuler, 1996; Locks, Hurtado, Bowman, & Oseguera, 2008; Maramba & Museus, 2011, 2012).

Socio-cultural Discussions

Socio-cultural discussions center around conversations about and across differences around social and cultural issues related to multiculturalism and diversity (Dugan, Komives, & Associates, 2006).

Conceptual Framework

This study employed Astin's (1993) College Impact Model to conceptualize the relationship between pre-college characteristics (inputs), college experiences (environments), and sense of belonging (outcome).

Astin's (1993) Inputs (I), Environments (E), and Outcomes (O) (I-E-O) model was created on the premise that assessing student outcomes is insufficient when investigating educational practices and programs. According to Astin (1993), educators are not in a position to interpret an observed correlation between an outcome and an environmental variable until they have first controlled for the effects of pre-existing conditions. This can include how a student's pre-existing knowledge or demographics (e.g., high school GPA, parental income) may have contributed to the measured outcome. Astin's assessment model takes into account how student characteristics and experiences prior to an education program (inputs) as well as the experiential context of an educational program (environments), may affect an observed outcome (outputs). "Studying student development with the I-E-O model provides educators, students, and policy makers with a better basis for knowing how to achieve desired educational outcomes" (Astin, 2001, p. 7). Using the I-E-O model, researchers can examine student development by comparing output(s) with inputs. Researchers can use the I-E-O model to explore predictive capacity of environmental

variables on a desired outcome. See Table 1.2 for a visual depiction of the conceptual framework of this study.

Table 1.2

I-E-O Model

Inputs	Environment		Outcome
Block 1 Gender Ethnic Group Parents' Education Block 2 Pre-college characteristics	Bridge Variables Block 3 Age Major	Block 4 Selectivity Size Control Block 5 Living-on campus On-campus employment Mentorship Involvement in college Types of student groups Socio-cultural discussions Nondiscriminatory climate	Sense of Belonging

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 (1993) I-E-O model. The MSL is the largest national dataset that examines

college student leadership development, and includes responses from 103 institutions. Statistical methods utilized in this study include hierarchical multiple regression. Chapter Three offers an in-depth examination of the study's instrumentation and methodology.

Significance of the Study

The current study adds to the body of research on Asian American college students and is significant for several reasons. This study will help inform the practice of student affairs professionals, scholar practitioners, and researchers in their work with this growing and complex constituency. It is important to pay attention to the factors that affect Asian American college students' sense of belonging in order to make the corrective changes and programs to better serve their academic, social, and psychological needs. Adding to the literature on Asian American college students will raise visibility for this constituency that remains relatively under-examined in higher education research (National Commission on Asian American and Pacific Islander Research in Education, 2011).

Further, I discovered how relationships with peers and faculty relate to the extent to which Asian Americans affiliate and identify with the campus community and their institution. Research has shown that there is significant positive correlation between these experiences such as student-faculty relationships as well as other interactions and collegiate success (Kim, Chang, & Park, 2009). Kim, Chang, and Park (2009) found that meaningful student-faculty interactions all positively impact college learning outcomes including: college GPA; intellectual, social, and civic ability; academic satisfaction; and political engagement for Asian American students.

Yet Asian American college students are consistently reporting lower levels of involvement and less likely to participate or take part in such activities. However, what we do not know is whether this lack of involvement can be potentially detrimental to the student's overall learning, sense of belonging, and college experience, and this study helped examine that link.

Delimitations

This study is limited to students who self-identified as Asian American. Due to the scope of the study, the results will be limited to citizens and naturalized citizens of the United States. Further, I examined only students who identified with one race when working with the aggregated Asian sample as well as those students who identified with one ethnicity in the study of Chinese, Filipino, or Indian/Pakistani. Pacific Islanders were not included in this study.

Other limitations exist due to using a pre-existing dataset such as the 2009 MSL data. This data set is a cross sectional study and not a longitudinal study. Thus, only a snapshot of the participants' perceptions can be seen at that particular point in time when the assessment was taken. Data is constrained to only the pool of variables that exist in the secondary data. Causality cannot be addressed in the study.

Additional limitations will be discussed in further detail in Chapter Three.

Personal Perspective/Researcher's Context, Background, and Beliefs

This section is a first person narrative about the author that provides the backdrop of how this study on Asian Americans and sense of belonging was created and designed. I am a first and second generation Asian American. My mother was born in Hong Kong and came to America to marry my father, a first generation

Chinese American born in Carnegie, PA. I am the youngest of three siblings who are first-generation college students and I will be the first on either side of my family to receive a doctoral degree.

I always knew I wanted to do research on Asian American students particularly because I am Asian American. In hindsight, I did not take full advantage of my undergraduate collegiate experience. Although I have no regrets, now that I am a Student Affairs professional, I have the opportunity to be a true advocate to make the collegiate experience of marginalized constituents more manageable and meaningful for those coming from a similar background to mine.

The concept of sense of belonging has always resonated with me consciously or subconsciously. It really hit home for me when I was on a family trip to China/Hong Kong in 1995 while in my late twenties. I remember being in Mainland China and feeling like I did not “fit in” and not really look like “my people.” Walking through the streets, my brother and I were viewed as different from the locals. The oxymoron of being a Chinese American is that I am neither Chinese nor American. Not Chinese in China and not American at home. So where does someone like me “fit in?” I was always the only Asian girl in the class; grew up in a predominantly Jewish community (which I did not realize was “different” until I was in high school). Certain memories from growing up continue to stand out in my mind. One example is not wanting other children to see the attendance roll sheet to then know my middle name (Yee) because it was weird and funny and not like everyone else’s. Why could not I have the middle name of Hope, Beth, or something normal like everyone else? My mother has a very heavy thick Chinese accent. She was born

in Hong Kong. Why could my dad who was born in the United States and spoke “perfect English” not come with me when I had to do my parent school-things? It would have been less embarrassing to a six year old, but he had to work. I remember one grade school assignment was tracking what I ate for a week. How was I going to explain some of our family’s meals like “jook” (rice porridge), bird’s nest, or shark fin soup!

Through my formative years, I knew that I was different and just accepted that fact and found my support through my circle of family and friends. In college, my race and ethnic background was not a prevalent part of my identity at that stage of my development and self-identity. Now as a student affairs scholar practitioner, I see firsthand the questions, struggles, and experiences around racial and identity development of our current students. Perhaps some of this absence from my own collegiate experience came from my status as a first-generation commuter student and still relying heavily on the same support network that I had growing up and through my high school years.

During my career, there were several moments where my Asian identity played an overt role in my life. In my first student affairs position, I remember my supervisor, Tom, telling me how the office got “credit” for my being Asian American and he did not realize it. He treated the fact like it was a bonus. When I finished my master’s degree and starting looking for jobs, I interviewed at the University of Pennsylvania in their Pan Asian Center. When I got the call that I did not get the job and I inquired for further constructive feedback, I was told that they felt that I had not had enough Asian American experience for what was needed for this particular

position. A very different perspective than when I transitioned to my next job at the University of Maryland. On my very first day on the job I was introduced to Will Liu, an Asian American graduate student activist. I came to Maryland in the midst of the initiative for the creation of the Asian American Studies program. I soon realized that I was being queried regarding how I could be involved as one of the newest Asian American colleagues on campus. All of these experiences made me more cognizant of how much race and racial perceptions can impact one's daily existence.

Some of these memories are still quite vivid after and serve to ground me and help remind me of who I am. The various discoveries have helped me fully realize my identity. As a researcher, these experiences have afforded me first-hand knowledge of what it feels like to be marginalized and to feel not a part of the majority like many of these individuals in the study. I believe my study can further help future Asian American students succeed by being more connected during their collegiate experience.

Summary

This chapter illustrates the need for continued research on Asian American college students. With a gap in the literature, many programs and services lack the empirical evidence necessary to address the diverse student populations that comprise our college campuses. The current study provides an opportunity to add to the research literature by applying the concept of sense of belonging specifically to Asian American students and to the sub-populations therein. It is important to examine the experiences of Asian Americans through the lens of sense of belonging considering their status as a traditionally underserved and understudied group. This study is

necessary in order to better understand the complexity of this group and the heterogeneous nature of their experiences in this environment.

The next chapter will provide further details of the literature that exists on the aggregate as well as the three ethnic sub-populations of Asian American college students under study. The construct of sense of belonging will follow along with the influences and predictors included in this study.

CHAPTER TWO: REVIEW OF THE LITERATURE

This chapter will provide an overview of the literature on Asian American college students as well as a review of the literature on sense of belonging. First, research on Asian Americans will provide a general portrayal of this growing racial group. Research describing the experience of Asian American college students will follow. Next, I will describe sense of belonging as a construct and its relevance for Asian American college students within the context of this study. Then particular factors identified from the research literature as predictors of sense of belonging will also be explored. Overall, the review of the literature illustrates that perception of sense of belonging is an important construct for Asian American students' success, yet there is a small body of literature available to support and further elaborate on the Asian Americans collegiate experience.

Asian Americans

This section will explore the literature related specifically to Asian American college students. The first section will highlight the factors that affect this population overall. The second section will describe the dimensions of this student population that relate to their perception of sense of belonging on campus. Lastly, the focus will be on the three subpopulations of Asian Americans that will be highlighted in this study – Chinese Americans, Filipino Americans, and Asian Indian Americans. These three subgroups were chosen due to the fact that they encompass the largest Asian American groups by country of origin in the United States (U.S Census, 2012).

As mentioned in Chapter One, the Asian American population is steadily increasing. According to the U.S. Census (2010), Asian Americans are a rapidly

growing racial group in the nation, comprising 6% of the nation's 309 million residents. They are set to comprise approximately one out of every ten citizens by 2050. Yet a review of higher education journals highlighted a very low number of articles being published on the subject of Asian American college students (Museus, 2009). This indicates an urgent call for further research to better understand this constituency. There is a need to learn more about these growing demographic groups within our local communities that will also in turn be increasingly visible on our college campuses. Therefore, the demand exists for higher education administrators and educators to be better prepared to understand and serve Asian American college students' social and psychological needs and development.

If this is a growing population, why is there a lack of attention in research and discourse on Asian Americans in higher education? Current research would point to marginalization and invisibility of Asian Americans (Museus & Maramba, 2011, 2012; Suzuki, 2002). These misconceptions assume there is neither a need nor necessity for research on this constituency. This further reinforces the belief by some researchers that Asian Americans are one of the most misunderstood populations in higher education (Chang, 2008; Museus, 2009). This continued lack of information and understanding of Asian Americans is problematic for multiple reasons. Two contributing factors are the model minority myth and the aggregate data on Asian American college students (Maramba, 2008a, 2008b, 2011; Maramba & Museus, 2011, 2012; Museus, 2009; Teranishi, Lok, & Nguyen, 2012). These areas along with others will be discussed in further detail, as they will provide further context for my inquiry and the impact on the daily lives of these complex individuals.

The Model Minority Myth: Population Growth & Invisibility

There is a widely shared belief that Asian Americans not only have overcome the bondage of racial discrimination, but also have become a successful model minority worthy of emulation by other minorities. Asian Americans are said to be better educated, to be earning as much as any group, to be well assimilated, and to manifest low rates of social deviance. This contention seems firmly entrenched because it is allegedly supported by scientific, empirical research. (Chun, 1980, p. 95)

This scholar has succinctly summarized the permeating stereotypes and labels that have followed this racial group for more than the past half-century. However, deeper investigation into the empirical evidence will support the contention of reported Asian American success in higher education.

Asian Americans are simultaneously both highly visible and invisible on college campuses. This is due to record high numbers of Asian American undergraduates enrolled at colleges and universities. The Fall 2014 enrollment figures at the University of Maryland, College Park, supported this claim as Asian Americans comprised 16% (or close to 4,300) of the total undergraduate enrollment of 27,056 (UMD Undergraduate Student Profile, 2014, n.d.). Yet, Asian Americans were invisible in campus policies, programs, and services based on several factors such as being viewed as a “model minority,” a pervasive stereotype of Asian Americans as a phenomenally successful “problem-free” minority group. Thus, Asian Americans have fewer services and resources to support their academic inquiries (Alvarez, 2002; Hune, 2002; Kodama, McEwen, Liang, & Lee, 2001;

McEwen et al., 2002; Suzuki, 2002). Further, private and public funding agencies often do not identify Asian Americans as underrepresented racial/ethnic minorities which suggests that this group does not face the same challenges as Black, Latina/o, and Native American groups or is in need of assistance and/or resources (Buena Vista, Jayakumar, & Misa-Escalante, 2009; Museus & Kiang, 2009). This is another example of invisibility and negligence of this constituency.

Studies have shown that there are various prevalent stereotypes and biases about Asian Americans that have permeated Western society (Chun, 1980; Nakanishi & Nishida, 1995). These are prejudices and biases that get perpetuated through the media and society as a whole that affect perceptions and interactions with this racial group. Research has shown that some of the hardships and problematic issues facing Asian Americans are due to the proliferation of the model minority myth – the commonly held notion that Asian Americans are a monolithic group that achieves high academic and occupational success in society; this is a grave overstatement and masks the needs of the population (Museus, 2009; Museus & Kiang, 2009; Museus & Maramba, 2011; Suzuki, 1989, 2002).

This stereotype emerged in the mid-twentieth century and continues to be perpetuated. Suzuki (2002), in *Revisiting the Model Minority Stereotype: Implications for Student Affairs Practice and Higher Education*, discussed the pervasiveness of this portrayal 25 years later from his original study. From the late 1800s into the 1940s, Asian Americans were viewed as an invading “yellow peril,” a horde of depraved, uncivilized heathens who threatened to undermine the American way of life (Miller, 1969; Ogawa, 1971). The mid-1960s marked the beginning of the

perception of Asian Americans as an assimilated, self-sufficient, high achieving, and problem-free population. This stereotype came alongside the rise of civil rights activities and demands for social justice of other minority groups (Uyemasu, 1971; Wake, 1970). These assumptions were supported by research that found Asian American families had a higher median annual income than U.S. families in general and the median years of schooling completed by Asian Americans were higher than for the U.S. population as a whole, further reinforcing the model minority concept (Peterson, 1971; Urban Associates, 1974). Suzuki (2002) did further analysis and research to discover that though the median family income of Asian Americans was higher than that of White families, this was due to the Asian American families having more earners contributing to family income and living in high-cost-of-living and high-income areas.

Twenty-five years later there are still findings that continue to spread the notion of the model minority. A large portion of Asian Americans graduate from college, the 1990 Census found 38% of Asian Americans were college graduates, compared to 20% of the U.S. population as a whole (U.S. Census Bureau, 1993). The socio-economic status of Asian Americans has continued to rise since the 1970s. The 1990 Census showed the median family income of Asian Americans was higher than that of White families (U.S. Census Bureau, 1993). Yet upon closer examination, Whites consistently gain a substantially higher return on education than any of the Asian American groups. In other words, for the same level of education, Whites were more likely to earn more on average than Asian Americans (Sakamoto, Goyette, & Kim, 2009).

In more recent Census data, Asian Americans continue to have a higher educational attainment rate of 49% compared to the total population of 28% attainment. The median household income for U.S. Asians is \$66,000 and \$49,800 for the general population. A reverse change has been seen in the poverty rate becoming lower for Asians at 12.8% while the overall rate is 13% for the total U.S. population (Pew Report, 2013).

This snapshot leads to another erroneous misconception that all Asian Americans are the same and monolithic. This misnomer will be discussed further in the aggregate versus disaggregate portrait found later in this chapter.

Academic High Achievers

A common misconception along with the model minority myth is the depiction of Asian Americans having universal academic achievement. According to stereotypes, this is a group that possesses the knowledge and skills to succeed at all levels of education (Alva, 1993; Chun 1980; Dao, 1991; Hu, 1989; Nakanishi, 1995; Siu, 1996; Suzuki, 1977, 1989; Yeh, 2002). Most recent studies will more accurately portray that this is not accurate across all Asian ethnic groups (Maramba, 2008a, 2008b; Maramba & Museus, 2011, 2012; Museus, 2009; Museus & Kiang, 2009; Museus & Maramba, 2010, Museus & Truong, 2009; Suzuki, 2002; Yeh, 2002).

iCount is a data quality campaign created by the National Commission on Asian American and Pacific Islander Research in Education (CARE) and the White House Initiative on Asian Americans and Pacific Islanders (WHIAAPI) to support the disaggregation of data to better serve the distinct needs of the heterogeneity of Asian American students (iCount report, 2013). In the most recent iCount report (2013), the

educational attainment for Asian American subgroups between 2008-2010 of a bachelor's degree or higher is Asian Indian at 71.1% attainment followed by Chinese at 51.5% and Filipino at 48.1% attainment. At the opposing end, much lower levels of education attainment were seen with Laotians at 12.4% attainment, Cambodians at 14.1% and Hmongs at 14.7% attainment. Higher education institutions must respond to this divide and be prepared to serve the unique needs of this complex constituency (Museus, 2009; Museus & Maramba, 2011; Teranishi, Ceja, Antonio, Allen, & McDonough, 2004).

Though there still exists a societal mindset that Asian Americans are overall academic high achievers, statistical data depicts a different landscape concerning different individual group's educational achievements. Many factors (e.g., immigration policies, class bifurcation) contribute to the broad spectrum of educational attainment within the Asian American population that will be addressed in later sections.

Asian American College Students: Aggregate Versus Disaggregate Portrait

As the Asian American college student population continues to rise, it is vital to study and better understand this growing and complex constituency. In the limited empirical studies and literature that exist on Asian American college students, most studies are conducted with the sample population being in an aggregate form comprised of any individual of Asian descent. This was done in order to substantiate an adequate sample size to analyze the population (Berkner, He, & Caraldi, 2002; Museus, 2009). Most recent studies will illustrate that this practice does not accurately portray this very heterogeneous group. As the racial composition of our

students continues to evolve, multicultural competence is needed to respond appropriately to the growing presence of traditionally underrepresented groups on campus such as Asian Americans (Pope & Mueller, 2011).

This study seeks to explore some of the Asian American subgroups specifically, Chinese American, Filipino American, Asian Indian American in order to understand the uniqueness of the experiences for each respective Asian American ethnic group. As a student affairs scholar practitioner, I content that it is imperative to educate others that not all Asians are the same and there are distinct and different characteristics to these individuals and groups that must be kept in the forefront to better serve their needs on college campuses.

In exploring these three Asian American sub-populations, relevant research and scholarship on these groups related to demography, history, challenges encountered, and experiences in higher education will be highlighted as well as the connection to the outcome on sense of belonging. These three sub-populations to be explored are the three largest ethnic groups identified by the 2010 Census. Chinese Americans (except Taiwanese) continue to be the largest Asian American ethnic group, numbering nearly 3.8 million nationwide. They are followed by Filipinos (3.4 million) and Asian Indians (3.2 million) in population size. I will now focus on each of the respective ethnic groups and their unique history and story in this country.

Chinese Americans

Chinese Americans are the largest as well as the oldest of the Asian American ethnic groups to call the United States home. Immigration began as early as the mid-1800s and continues through present day from mainland China as well as ethnic

Chinese arriving from South-east Asian countries (AAJC & APALC, 2011; Ong & Leung, 2003; Zia, 2000). The earliest Chinese immigrants were coming to America at the same time as the earliest European immigrants. However, due to their racially discriminatory history, they have had a sluggish beginning in the opportunity to build a native community here in America as compared to other non-Asian groups (Hune, 2002; Teranishi, 1995).

Demography. According to the Asian American Center for Advancing Justice's *A Community of Contrasts Report on Asian Americans in the United States: 2011*, approximately 61% of Chinese Americans are foreign-born and they continue to arrive at a steady pace with 29% entering between 2000 and 2010. This surge can easily account for the fact that 42% of Chinese Americans have limited-English proficiency and experience some difficulty communicating in English. Twenty-nine percent of Chinese Americans are linguistically isolated meaning that households in which all members 14 years old and older speak English less than "very well" (AAJC & APALC, 2011). Yet, there is a downward shift in this foreign born share of this population that indicates the Chinese American population in the 21st century in the United States will steadily increase from births within the states rather than by immigration (Zhou, 2003). In other words, this ethnic population will plant stronger roots and establish themselves solidly along future generational lines as a native ethnic community within greater American society.

History. The Chinese have faced a long and enduring history of migration to the United States that began as far back as the late 1840s, which includes over 60 years of legal exclusion from 1882 to 1943 (Ong & Leung, 2003). This period of

exclusion has kept this group as an immigrant-dominant community even though Chinese immigrants were part of the earliest arrivers to this new land (Zhou, 2003). Zhou (2003) noted that as the majority of Italian, Jewish, and Japanese Americans were maturing into third and fourth generations in the United States, Chinese Americans were primarily comprised of only first and second generations. This group's story is intricately woven into the content and context of United States history. Helen Zia (2000) in her book, *Asian American Dreams: The Emergence of an American People* summarized the early history of the Chinese Americans. She stated, "...with the westward expansion to the Pacific and beyond, the growing nation's unquenchable need for cheap labor, the patriotic fervor of a young country in the throes of defining itself, and the ways in which race and racism were used to advance those ends" (p. 25). In the mid-19th century, most Chinese started to migrate to the United States as contract laborers on plantations in Hawaii as well as in the gold mining industry on the West Coast, eventually leading to the building of the transcontinental railroads west of the Rocky Mountains. Ninety percent of the workforces for the construction of the Central Pacific Railroad were Chinese (Pew Report, 2013). The majority of the workers were men, starting the pattern of Asian bachelor societies for the next hundred years (Zia, 2000). As these men were intent on building their dream of a better life in a new land or making enough earnings to return home, the climate changed into a hostile environment filled with discrimination, exclusion as well as personal persecution and violence. The perception that these foreigners were taking jobs away from the Whites resulted in acts such as taxes being levied only on the Chinese miners, and eventual complete

prohibition of Chinese from mining. Another example of discriminatory treatment of the Chinese as described by Zia (2000) was: "...the California state legislature declaration of 'Negroes, Mongolians, and Indians shall not be admitted into public schools.' When the vote became available to African American men after the Civil War, citizenship was specifically denied to Chinese, because, it reasoned, Chinese were neither black nor white" (p. 26).

Zia stated though they helped build the West and contributed to the national economy, the Chinese were driven out of the mining areas and with the railroads complete, forced to live in the few overcrowded Chinatowns or move east to work as domestics, or in laundries and restaurants. Further evidence of the exclusion and discriminatory climate towards the Chinese that was demonstrated during this period of the time. As mentioned earlier, the Chinese suffered from long stretches of exclusion in America. In 1882, Congress passed the Chinese Exclusion Act that barred Chinese from immigrating as well as denied legal residents from becoming citizens. This trend did not end until Congress repealed the Act in 1943, some 60 years later. Immigration during this time went from 123,000 in the 1870s to 14,800 in the 1890s to a historic low of 5,000 in the 1930s. The numerous race restrictions prevented most Chinese from starting families and putting down roots in America (Zia, 2000; Zhou, 2003). During this period of anti-Chinese sentiment, "Yellow Peril" and the negative stereotypes of the Chinese and Asians overall flourished. Miller and Ogawa (as cited in Suzuki, 2002) explained Asian Americans were viewed as an invading "yellow peril," a horde of depraved, uncivilized heathens who threatened to undermine the American way of life. In the timespan of 1960-2000, the

Chinese American population grew tenfold and began the shift from being an isolated bachelors' society to a family-centered community (Zia, 2000). Many Chinese arriving in this era came as students and educated professionals versus the earlier immigrant workers (Pew Report, 2013). The transformation from a predominantly immigrant community to a native ethnic community will continue into the 21st century (Pew Report, 2013; Zhou, 2003).

Challenges. One major challenge for Chinese Americans is the vast within-group diversity that exists in terms of places of origin, socio-economic backgrounds, patterns of geographic settlement, and modes of social mobility (Zhou, 2003). This bimodal community consists of Chinese immigrants from mainland China as well as other Asian countries such as Hong Kong, Taiwan, Vietnam, Cambodia, and Malaysia. Meaning that co-ethnics tend to segregate themselves by ethnic concentration and dispersion, for example, Mandarin-speaking co-ethnics from China, those from Taiwan, and those of higher socio-economic status tend to separate away from Cantonese-dominant Chinatowns in terms of settlement patterns and with whom they socialize (Zhou & Cai, 2002). Linguistically, all ethnic Chinese share the same written language yet there are multiple regional dialects (i.e., Cantonese, Mandarin, The Min dialect, Hakka, Fujianese, Chaozhouese, and Shanghainese) that are not easily understood outside the respective group. Zhou (2003) further expanded on the socio-economic backgrounds that vary for this diverse group from having little to no money, little education, and low job skills to the opposite extreme of high family savings, higher education, and high-level skills as well as those in between. For example, in 1990, almost 40% of immigrants from mainland China did not have

high school diplomas, compared to 8% of those from Taiwan, 18% of those from Hong Kong, and 22% of all Americans (Zhou, 2003). The vast within-group differences of the Chinese American ethnic group warrants further research on this complex group.

Experiences in higher education. Asian Americans are predominantly perceived as having high academic achievement and high levels of formal education (AAJC & APALC, 2011). Nationwide, levels of educational attainment among Chinese Americans were significantly higher than the general U.S. population in both 1980 and 1990. The 1990 Census showed 41% of Chinese Americans at productive ages (aged 25 to 64) have attained four or more years of college education, compared to 21% of non-Hispanic Whites (Zhou, 2003). More recent data further confirms this number to be increasing over the years with 2009 Census data reporting overall population education attainment as 85% holding a high school degree or higher and 28% having a bachelor's degree or higher, compared to Asian Americans educational attainment as 86% holding a high school degree or higher and 49% having a bachelor's degree or higher.

For Chinese Americans (except Taiwanese) those figures are 82% and 50%, respectively (AAJC & APALC, 2011). Scholar Vivian S. Louie (2004) authored a book entitled, "*Compel To Excel: Immigration, Education, and Opportunity Among Chinese Americans*" which details the lived experiences of Chinese-American college students and their families. There was unanimous sentiment among the Chinese American students interviewed that they share a belief in the ethnic-culture argument, which states, "...Asians in America, while possibly different on other dimensions,

share a culture that emphasizes education, family, and work.” (p. xxxi). Yet, Louie was quick to point out “...to more fully explore the range of Chinese American experience in higher education, I looked at students attending a non-elite college and how their perspectives and paths compared to those of students at an elite college. There are, in fact, many different Asian American student populations today.” (p. xvi). The complexity and diversity of experiences and achievements within one Asian subpopulation must be kept in mind. The author confirmed “...there is a tendency to see...the Chinese through the prism of high academic achievement and to overlook any lines of variation therein.” (p. xvi).

The history of this group helps put context around some of the issues they may face while on a college campus. Implications of first generation college status and its associated issues such as academic aspiration, achievement, and success have been investigated (Hune, 2002; McCarron & Inkelas, 2006; Nunez & Cuccaro-Alamin, 1998). McCarron and Inkelas (2006) found that first generation Asian American college students hold their own in bachelor degree attainment at 41.8%. However, it is common that English is not likely to be the native language at home and assistance may be in order for these students’ academic vitality (Yeh, 2002). A glimpse into the complexity that surrounds this constituency in terms of academic success, yet there is a need of assistance for smooth transition and support is still a necessary resource. Research has shown that Asian Americans specifically and especially Chinese Americans are significantly more likely to take SAT prep classes than White students (Park, 2012a; Teranishi et al., 2004; Zhou & Kim, 2006). However, there are still notable challenges, especially for low-income Chinese

Americans. Park (2012a) found income and citizenship for Chinese Americans affects access to educational resources. A gap between low-income and high-income groups was noted in participation of SAT prep courses where coming from a low-income family decreased the likelihood of SAT prep. Though there is evidence of educational attainment for Chinese American students, support and resources are still necessary for academic success. There is limited research and literature specifically on Chinese Americans experiences in higher education. Existing studies are mostly based on sample populations comprised of an aggregate form of all Asian American college students in generalizable terms. Therefore, the need for more studies like this current one will contribute to the literature on the sub-group experiences. Now that there is a better understanding of the nuances within the largest ethnic Asian American subpopulation group, the next section will feature the second largest ethnic subpopulation.

Filipino Americans

According to the Asian American Center for Advancing Justice's *A Community of Contrasts report on Asian Americans in the United States: 2011*, Filipino Americans are the second largest Asian American ethnic group numbering 3.4 million nationwide. Espiritu and Wolf's study (as cited in Maramba, 2008) found Filipino Americans to be the second largest immigrant population to the United States, next to Mexico, since the mid-1960s, comprising the largest Asian immigrant group both in California and the United States. Despite the Philippines' long standing relationship as a former U.S. colony, this group remains a "remarkably understudied

and overlooked group in U.S. culture and academic research” (Espiritu & Wolf, p. 157).

Demography. The AAJC & APALC 2011 report stated approximately 53% of this population are foreign-born with 27% entering the U.S. between 2000 and 2010. The vast majority of Filipino American legal permanent residents (81%) immigrated as the immediate relative of U.S. citizens or under family-sponsored preferences. The remaining 11% entered the United States under employment-based preferences. Nearly one in five are limited-English proficient. Like the Chinese American ethnic group, having a later influx of immigrants in more recent years suggest the community will transform into a more native ethnic community in the current 21st century.

History. According to Dela Cruz and Agbayani-Siewert (2003), the Filipino American community first started to surge after the Philippines became a territory of the United States in 1898. This group was comprised of mainly laborers in agriculture, domestic service, and students. As mentioned, like the Chinese, Filipinos have immense diversity within this ethnic group in regards to origins of immigration, socio-economic backgrounds, dialect, geographical origin, and levels of acculturation (Dela Cruz & Agbayani-Siewert, 2003). Initially, Filipinos arrived in the late 1800s to work on Hawaiian plantations before coming to the mainland and becoming the dominant agricultural and service workers after the passage of the immigration laws that excluded all other Asians (Dela Cruz & Agbayani-Siewert, 2003; Hune, 2002; Pew Report, 2013). Similarly, racial discrimination and exclusionary efforts were seen against the Filipinos during the 1920s and 1930s. Dela Cruz and Agbayani-

Siewert explained that the Filipino Americans were viewed as a social menace and an economic threat to Whites. Anti-miscegenation laws were amended to include Filipinos. The Tydings-McDuffey Act of 1935 granted the Philippines its independence, reclassified Filipinos as aliens, and limited their immigration to 50 individuals per year. Despite a longstanding relationship with the United States as compared to other Asian American ethnic groups, this did not change nor deter similar racial discrimination and exclusion of Filipino Americans in the eyes of policy makers and White Americans.

The second surge of immigration occurred after World War II and the passage of the 1965 Immigration Act, which removed “national origins” quotas and saw a shift towards more professional and middle-class immigrants joining the working-class for better opportunities in America. Dela Cruz and Agbayani-Siewert (2003) noted a ‘brain drain’ of highly educated Filipinos, which comprised over two-thirds of its immigrant population including many in the medical field such as nurses as well as teachers. In the 1980s, the Philippines replaced China and Japan as the Asian country sending the largest number of immigrants to the United States. By the 1990s, it sent more immigrants than any country except Mexico (Dela Cruz & Agbayani-Siewert, 2003).

Challenges. Filipino Americans hold a unique position compared to the other two ethnic groups. Though the Philippines was once recognized as a commonwealth of the United States, the people were not granted citizenship and racial discrimination still existed through their history in emigrating to America. Ironically, during wartime, this group was asked to serve for the United States in return for full U.S.

citizenship and veteran benefits. As CNN's Josh Levs (2009) reported, during World War II, over 250,000 Filipinos volunteered to fight side by side with American soldiers with the promise of full veterans benefits. In 1946, President Truman signed the Rescission Act taking away that promise due to the potential financial burden. This was seen as another act of discrimination against people of color being the rule of the law during this period of time. In 2009, President Obama signed the Filipino Veterans Equity Compensation Act that gave a lump sum of \$15,000 for U.S. Citizens, \$9,000 for Noncitizens along with veteran recognition. There were only 15,000 of these Veterans alive at the time this act became law.

Each Asian ethnic group has experienced varying hardship and discrimination in their journey to live the American dream of a better life for themselves and future generations. Filipino Americans are no exception. Yet, their history tells of great atrocities of prejudice and discrimination as illustrated by the story of the Filipino veterans. Like their Chinese counterparts, there is much within-group diversity in terms of places of origin, socio-economic backgrounds, dialect, and levels of acculturation (Dela Cruz & Agbayani-Siewert, 2003; Hune 2002). Among the Asian ethnic groups, Filipino Americans have the greatest level of multiculturalism due to their history as a Spanish and U.S. colony and as such often are not thought of as Asian American (Liu, Murakami, Eap, & Hall, 2009). Nadal (2004) further stated this group may be classified more as "brown" than "yellow" where individuals may experience racialization differently from other Asian ethnic groups.

In terms of income levels and household economic figures, Filipino Americans consistently hold the next highest levels after Asian Indian Americans

(Lee, Wong, & Alvarez, 2009; Liu et al., 2009). Though this accomplishment is well aligned with the American dream, it is mismatched with this group's higher education experience as outlined in the next section.

Experiences in Higher Education. For Filipinos, 92% have a high school degree while 46% hold a bachelor's degree or higher (AAJC & APALC, 2011). These figures suggest that Filipino Americans are doing quite well in education attainment yet other data indicate they suffer from disparities in educational progress (Museus & Maramba, 2010). Okamura's studies in 1998 and 2008 (as cited in Nadal, 2004; Museus & Maramba, 2010) showed that Filipino Americans were represented at four-year institutions at lower rates than other racial groups and other Asian American ethnic subgroups in states with the largest numbers of Filipino Americans, such as California and Hawaii. Nadal (2004) further assessed in being falsely identified as part of the "model minority" they are not truly being seen as an underrepresented high-risk minority group that they truly are. This misinterpretation may lead others such as other Asian groups to view Filipino Americans as inferior.

Many of the parents of Filipino American college students are college-educated and received a college education in the Philippines that is comparable to the education level received in technical schools in the United States. Though technically second-generation college students, in Buenavista's 2007 study, she considered students within this particular category as more realistically characterized as having 1.5 generation status due to their experiences being similar to underrepresented first generation college students of color. Such disparities call for further investigation to gather more information to better understand the experiences of this very unique

population. Now attention will now turn to the final subpopulation, Asian Indian Americans.

Asian Indian American

According to the Asian American Center for Advancing Justice's *A Community of Contrasts Report on Asian Americans in the United States: 2011*, this group is the third largest and fourth fastest growing Asian American ethnic group, having grown by 68% between 2000 and 2010. Further, approximately 70% of Asian Indian Americans are foreign-born with 40% entering the United States between 2000 and 2010. The majority (64%) work in management or professional occupations and their household, median, and per capita income exceeds those of the total population (AAJC & APALC, 2011).

Demography. Asian Indian Americans are the third largest Asian American ethnic group numbering 3.2 million nationwide (AAJC & APALC, 2011). Approximately 70% of the population is foreign-born with 40% entering the U.S. between 2000 and 2010. Nearly one in five are limited-English proficient. This group is not only a fast growing population but also one that is young in age with nearly four in ten being between the ages of 20 and 40 (Rao, 2003). This population hit the one million mark in 2000. Rao also explained that statistical data has only had some measure of accuracy since 1980; prior to that time, the U.S. Census did not have a separate category for Asian Indian and combined Asian Indian origin and Native Americans. To date, there is still some question of count accuracy.

History. Although Asian Indians have been immigrating to the United States since the early 1800s, it was not until after 1965, when immigration quotas were

lifted, that a significant wave of Asian Indians arrived (Rao, 2003). Another surge was due to the temporary worker program and the high-tech job boom of the 1990s where people from India filled a shortage of software engineers and computer scientists. It must be reiterated that Census figures are deemed to be inaccurate due to the earlier misclassification error between Asian Indian and Native American distinction as well as overall confusion in completing Census forms (Rao, 2003). In other words, between inaccurate information and altogether missing information, statistical information is not very reliable for this particular ethnic group prior to 1980.

Due to the young age demography of this group, the percentage of Asian Indian Americans to be born in the U.S. has in fact increased. The 2000 Census showed 20% of Indian immigrants were foreign-born before 1980 and 50% arrived by 1990 implying that half of the Asian Indians arrived just during the 1990s (Rao, 2003). As such, this younger working group has the potential to advance socio-economically in terms of educational attainment and occupational rank. They already hold the highest median household income of any ethnic group in the country (Liu et al., 2009).

Challenges. Similar to the other two groups, Asian Indians also have much diversity from within-group differences ranging from places of origin, number of languages spoken, and socio-economic background (Rao, 2003). Though they hold the highest median household income of any ethnic group, it is important to keep the facts in context. The 2000 Census showed that many Asian Indian households contain extended family members, which mean a larger average household size

resulting in a larger household income (Hune, 2002; Hune & Chan, 1997; Rao, 2003). Data also indicate that members of this group predominantly settle in metropolitan areas with higher costs of living, which can offset gains in household incomes. In other words, this group may not be as well off as figures indicate. It also begs the question if this group is earning similar wages to the majority population with similar characteristics (Rao, 2003).

During the 1980s, a trend was seen in Asian Indians' success as entrepreneurs and owners of small businesses in newsstands, taxicabs, and motel and hotel chains across the country (Kitano & Daniels, 1995 as cited in Liu et al., 2009). With success came resentment and hostility from taking jobs from "real Americans." One example is seen in the existence of a Jersey City gang called the "Dotbusters" (referencing to the dot or bindi that Indian women often wear) who has targeted and attacked Asian Indian Americans (Liu et al., 2009). Novas, Cao, and Silva (2004) have documented how Asian Indian Americans have been labeled as illegal immigrants or terrorists and the target of hate crimes and racial profiling after the September 11 terrorist attacks on the World Trade Center in New York City. Once again, a call for more research and scholarship on the subpopulations is in order to gain a more accurate depiction of the experiences of these students to better serve their needs.

Experiences in higher education. 2009 Census data reported total population education attainment as 85% holding a high school degree or higher and 28% having a bachelor's degree or higher compared to Asian Americans educational attainment as 86% holding a high school degree or higher and 49% having a bachelor's degree or higher. For Indian Americans, those figures jump to become

91% and 68%, respectively (AAJC & APALC, 2011). It is important to note that most Asian Indian Americans have immigrated to the United States after having completed their bachelor's or master's degree (Rao, 2003). There is limited research and literature on Asian Indian American college students, once again pointing to the need for research and scholarship for more accurate portrayals of Asian Indian Americans as well as and all other Asian American ethnic subgroups.

Summary

Distinctions are clear about the varied history and lived experiences of the three subpopulations under study. Understanding their respective backgrounds as well as acknowledging the existence of within and between group disparities is important to bear in mind. Societal perceptions can be misleading, such as in the area of higher educational achievements for Asian American groups. Though the three groups in this study have reported educational achievement, there is variation within each group as well as with other Asian groups that face deep challenges in this arena.

Asian American college students are a very heterogeneous constituency and this fact must be kept at the forefront in our understanding and working with them on campuses. Now that there is a better understanding of the sample population, the following sections will focus on the outcome variable of this study, sense of belonging.

Sense of Belonging

Sense of belonging is the extent to which students feel they belong as part of the campus community (Hurtado & Carter, 1997; Hurtado et al., 1996; Locks et al., 2008; Maramba & Museus, 2011, 2012; Museus & Maramba, 2010). If students feel

they belong and are part of their institution, they are more likely to succeed (Astin, 1975; 1984; Bean, 1980; Braxton, 2002; Braxton, Sullivan, & Johnson, 1997; Maramba & Museus, 2011, 2012; Museus & Maramba, 2010; Museus & Quaye, 2009; Tinto, 1987, 1993). Extant literature highlights the fact that students of color including Asian Americans often experience an unwelcoming campus climate that negatively impacts their sense of belonging (Hurtado, 1992; Harper & Hurtado, 2007; Maramba & Museus, 2011, 2012; Museus & Maramba, 2010; Museus & Truong, 2009). However, Asian American college students in particular are less researched in this area, as are the Asian sub-population groups.

There are several studies that explore sense of belonging among college students (Cheng, 2004; Hoffman et al., 2002). Multi-Institutional Study of Leadership (MSL) researchers define sense of belonging as how strongly individuals feel they belong within their campus community; campus climate as a whole includes the degree to which members of the campus community feel connected and appreciated (Dugan & Komives, 2007). The concept of sense of belonging has long been a topic of discussion on college campuses and recognized as an important need for students and a priority for student affairs professionals. In *The Student Personnel Point of View*, sense of belonging was defined as a student's social adjustment to college and involved, "finding a role in relation to others which will make him [or her] feel valued, will contribute to his [or her] feeling of self-worth, and will contribute to a feeling of kinship with an increasing number of persons" (American Council on Education, 1949/1987, pp. 22-23). Sense of belonging can be achieved

through involvement in campus activities and social programs, participation in small groups, and interactions with faculty outside the classroom (ACE, 1949/1987).

It is important to be mindful that the demographics of college campuses during this time were predominantly comprised of White men. Studies from the time explored how these students would form community amongst one another. On today's campus, multiculturalism and diversity play a key role in the daily lives of our multifaceted diverse student population and their perceived sense of belonging within this community.

In this next section, I will explore how sense of belonging may impact the success and achievements of college students. Next, other related constructs will be reviewed from other interdisciplinary literature to determine the relationship between them and sense of belonging. To follow, a review of influences and predictors that affect sense of belonging for Asian American college students will be discussed. Lastly, a view of the existing literature on sense of belonging and Asian American college students as well as the three subpopulations under study leading to the need and contributions this study offers to the field of higher education.

Social Identity

Before proceeding onto the main subject matter of sense of belonging, it is necessary to acknowledge the essence of an individual's sense of *being* before shifting into the construct of sense of belonging. It is essential to acknowledge that one must have an understanding of who he or she is and own sense of identity before he or she will be able to form and/or establish a sense of belonging within any given community. Hence an introduction is needed to the theory of social identity.

Social identity theory was originally theorized by Henri Tajfel and John Turner (1979) as a three-step process of social categorization, identification, and comparison. Ultimately, the process places people into either a “them” or “us” group membership that can transform across interpersonal and intergroup behaviors (Drezner & Huehls, 2014). This has saliency on identity and is ultimately affecting one’s sense of belonging. Both Hurtado and Carter’s (1997) and Johnson et al.’s (2007) findings suggest that race plays a critical role in social identity and in turn contributes to sense of belonging. This study will not delve deeper into this paradigm yet recognizes its critical role in student identity development.

Constructing And Theorizing Sense of Belonging

Now turning the attention to the focus of this study, sense of belonging, there is a need to ground the outcome through a theoretical framework that will guide the study. This frequently used outcome measure can be traced to Bollen and Hoyle’s (1990) study of group cohesion. The authors offered a theoretical definition of perceived cohesion that states, “...perceived cohesion encompasses an individual’s sense of belonging to a particular group and his or her feelings of morale associated with membership in the group” (p.482). Further, sense of belonging is one’s own appraisal of his or her relationship to the group, which occurs on both a cognitive and affective level (Bollen & Hoyle, 1990). At the cognitive level, judgments of belonging were thought to “include accumulated information about experiences with the group as a whole and with other group members, while at the affective level, such judgments include “feelings that reflect the individuals’ appraisal of their experiences with the group and group members” (p. 483).

In higher education research, sense of belonging is often utilized in terms of a person's perceptions of a welcoming and supportive setting within the multiple campus environments. Sense of belonging is known for its theorized relationship to academic and social integration, a vital construct that has been associated with persistence and completion in college (Tinto, 1993). Hurtado and Carter (1997) argued that integration may be difficult for students of color who may feel isolated from the dominant campus community that offers little support and understanding for their cultural identities and practices. They suggest that this marginality will affect students' abilities to be successful in college. Hurtado and Carter (1997) offered sense of belonging as a theoretical construct that conceptualizes the extent to which the academic and social experiences of students of color influence their affiliation and identification with a peer group and their institution.

Research has been conducted on sense of belonging among different racial/ethnic groups. Studies have characterized sense of belonging as a student's integration into these communities and college as a whole (Hoffman et al., 2002; Strayhorn, 2008a). Johnson et al. (2007) found African American, Hispanic/Latino, and Asian Pacific American students reported lower responses of perceived feelings of sense of belonging than White/Caucasian students in their study of first-year students of color. Hurtado et al. (2007) used national surveys of first-year students to examine the correlates of sense of belonging across racially diverse sub-samples majoring in the sciences. They identified academic adjustment variables that were closely related to sense of belonging such as SAT scores, interacting with graduate students or teaching assistants. Other recent studies include Hausmann et al. (2007)

and Maramba and Museus (2011, 2012). Hoffman et al. (2002) further suggested that sense of belonging is strongly associated with retention, in that the more students experience a sense of belonging, the more likely they will be to commit to the institution and persist until graduation.

Importantly, all of these studies have generated findings that highlight academic and social factors that predict sense of belonging among historically underserved and understudied groups. Moreover, the relationships between and among such factors appear to be complex and underdeveloped. As a prevalent outcome to college impact research, much more research needs to be done to identify specific environmental factors associated with sense of belonging for students of color, specifically Asian American college students and its subpopulations. This study will help lead the way in filling the gap and adding to existing research.

Related Measures to Sense of Belonging

This section will elaborate on related constructs found in other social science fields that have similar attributes and qualities as sense of belonging. Other researchers have explored constructs that are related and have similar elements to sense of belonging. Viewing these constructs under the auspices of other fields, including sociology and psychology, can offer a varying perspective of the individual student and the higher education environment.

Integration. Tinto's (1993) model of students' persistence is "a model of educational communities that highlights the critical importance of student engagement and involvement in the learning communities of the college" (p. 132). Various social and academic experiences will directly impact this outcome and

determine success or failure. Tinto further concluded that the institution bears responsibility to help the student in this transition into college life.

Integration focuses on how students fit (or do not) with their campus environment through retention (Tinto, 1987, 1993). There is resounding support and studies to support the concept of integration as an integral aspect of persistence (Braxton, 2002). Yet, the concept of integration has been criticized as it relates to racial/ethnic campus populations (Tierney, 1992, 1993). As a result, Tinto's (1993) concept of social and academic integration has been modified to be more inclusive and less assimilative (Rendon, Jalomo, & Nora, 2000). Further, scholars have scrutinized the appropriateness of applying this concept to racial/ethnic minority students (Pascarella & Terenzini, 2005). There are findings that suggest a much more complex process to sense of belonging than traditional integration theory implies (Nunez, 2009).

Marginality and mattering. In 1989, Schlossberg explored marginality and mattering as opposite poles in a construct to specify how involvement can be achieved. From this sociologically informed perspective, "...mattering is a motive: the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego extension exercises a powerful influence on our actions" (Rosenberg & McCullough, 1981, p. 165). These feelings of mattering are important throughout all aspects of life. Marginality is on the opposite end of the spectrum where there is a feeling of not fitting in and of isolation. Many times when individuals are in transition they feel marginal and that they do not matter or belong

(Schlossberg,1989). Students who feel they matter will more likely have greater involvement on campus.

Sense of community. From a community psychological perspective, students with a strong sense of community in campus communities, within residence halls for example, are more likely to be fully connected/integrated into the broader campus social system (Berger, 1997). This comes as a result of their perceptions of membership, influence, integration and fulfillment of needs, and shared emotional connection among community members to build the bond between individual and community. Berger (1997) found a positive relationship between residential sense of community and social integration, which leads to student persistence.

Fitting in. Nora (2004) studied the concept of *fitting in* and the role of habitus, which measured the connectedness between a student's values and belief system and the respective academic environment. "...[T]his fit between a student's psychosocial needs and the perception that they can be met on a specific campus is believed to play a major role in the degree of satisfaction a student feels and a sense of belonging and feeling accepted on a campus" (p. 182). Personal acceptance, precollege leadership experiences, and personal and social fit are experiences that led to student persistence. A student's perception of fitting in was positively correlated to collegiate success.

Summary. It is evident that other constructs exist that can be compared to sense of belonging and a case can be made of their respective importance to students' collegiate successes such as persistence, retention, and graduation. Hurtado and Carter's (1997) concept of sense of belonging as a theoretical perspective emphasizes

a joint responsibility between the student and the institution in regard to sense of belonging and feeling a part of the campus community. It is the most fitting construct aligned to the work and practice of student affairs scholar practitioners to warrant its utilization in this study. Overall, the research indicates that sense of belonging is a critical element in college students' success and must remain on the radar of higher education research and discourse. The next section will elaborate on variables related to students' sense of belonging in prior research.

Influences and Predictors on Students' Sense of Belonging

Variables that capture the environmental aspects of sense of belonging must be addressed to better understand how they effect the construct. These factors include many environmental elements that are contained on a college campus. Predictors include students' background, institutional features, and collegiate environments/student experiences such as housing, employment, mentorship, and co-curricular involvements. Each will be discussed in greater detail in the sections to follow, and I will note which variables will be included in my study.

Background Characteristics

Race/ethnicity seems to be the most important background characteristic related to sense of belonging. Studies consistently show differences in perceptions of sense of belonging among students from different racial/ethnic backgrounds (Gilliard, 1996; Johnson et al., 2007; Mandell, Mulvey, & Bond, 1992; Nora & Cabrera, 1996). Gender has been identified as influencing students' experience on campus climate but it is often ignored in research on climate and sense of belonging (Maramba, 2008; Museus & Maramba, 2010). Age, gender, and race had no significant differences in

Hagerty, Williams, Coyne, and Early's (1996) study of community college students' sense of belonging. Parents' level of education has not proven to be a significant factor of sense of belonging (Gilliard, 1996; Johnson et al., 2007).

Gender, parent's education, age, and major will be included in this study.

Institutional Characteristics

Institutional characteristics include attributes such as selectivity (competitiveness), size (full time equivalent), and control (public/private institution). In relation to sense of belonging, institutional characteristics reflect minimal impact on this particular outcome. Several types of institutional characteristics have been investigated as predictors of sense of belonging. Institutional selectivity, represented by the average SAT score of the institution's undergraduate students had no significant effect on the dependent variable as shown in general and among students of color (Johnson et al., 2007) and specifically within Latino students (Hurtado & Carter, 1997). Though these past studies have found no significant effect, I believe having access to a dataset with a substantial sample population size warrants taking another look at these distal environmental measures. These variables will still be included in this study.

Collegiate Environments/Student Experiences

Housing. Where a student lives during college, specifically living on-campus has mixed findings related to sense of belonging and related constructs. In Berger's (1997) study looking at "sense of community" in residence halls, a positive relationship existed between residential sense of community and social integration into the college campus as a whole for a very homogenous Caucasian sample.

Hurtado and Ponjuan (2005) found that Latino students who lived on campus had a greater sense of belonging than students who lived off campus, and Johnson et al. (2007) found for first-year students across all racial groups reported the residence hall environment to be socially supportive and inclusive had greater sense of belonging. Further, Maestas et al.'s (2007) study on sense of belonging at a Hispanic serving institution found that living in campus housing increased a student's sense of belonging and is an important predictor of sense of belonging. Yet, Strayhorn's (2008) two investigations of sense of belonging, one for Black men at predominantly White institutions (2008a) and another study of Latinos (2008b), did not find living on campus to be a significant predictor of sense of belonging in either study or scenario. This study will include living on-campus as a variable.

Employment. Alexander W. Astin's (1984) theory of student involvement claimed that holding a part-time job on campus actually facilitates retention and the reverse is true for employment held off-campus. Time spent on campus increases the likelihood of one's coming in contact with other students, professors, and college staff and relying on the college as a source of income, all increase a greater sense of attachment to the institution (Astin, 1984). Other research, however, shows considerable inconsistency and even contradiction in the empirical literature regarding employment on college experiences (Riggert, Boyle, Petrosko, Ash, & Rude-Parkins, 2006). Very few studies can be found that include on-campus employment as a potential predictor of sense of belonging. Strayhorn's 2008b study of Latino students' sense of belonging showed having an on-campus job did not

significantly predict one's sense of belonging. As this study is exploratory in nature, I am interested in including on-campus employment as a variable.

Mentorship and faculty interactions. Recent studies are surfacing that identifies this variable as a possible predictor of sense of belonging. In Campbell, Smith, Dugan, and Komives' (2012) study on mentors and college student leadership outcomes, evidence was found that mentorship can influence the leadership development of college students. Leadership development has been shown to be highly correlated with sense of belonging (Astin, 1993; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Komives, Owen, Longerbeam, Mainella, & Osteen, 2005; Thompson, 2006). The academic and social integration of the student through a relationship with a campus colleague (faculty, staff) is a strong indicator of student success.

In general, interactions with faculty have been found to be significant predictors of sense of belonging among students of color (Nora & Cabrera, 1996; Reid & Radhakrishnan, 2003). Hoffman et al. (2002) found a positive correlation between supportive faculty interactions in both academic and social environments and students' sense of belonging.

Mentorship and its relationship with sense of belonging in higher education research is relatively uncharted territory. As a strong predictor of other variables related to sense of belonging (e.g., leadership development), it is important to begin incorporating mentorship into future studies. Thus, it will be included in this study.

Co-curricular involvement. Co-curricular involvement consists of educationally purposeful activities that students participate in outside the formal

classroom setting. Astin's (1993) extensive work on involvement on campus illustrates positive correlation between involvement with students' affective and cognitive development. Involvement with peers and peer groups was the single strongest source of influence on student learning and development (Astin, 1993). This pattern suggests a high potential correlation between student involvement and sense of belonging.

Research has shown that sense of belonging is impacted by the unique influences of various types of peer interactions. For example, Velasquez (1999) found that Chicano students' sense of belonging was higher when socializing with White students. Hurtado and Ponjuan (2005) found positive interactions with diverse peers contributed to sense of belonging among Latino students. Nora, Kramer, and Itzen (1996) found that the encouragement of fellow peers supported students' social integration into campus life. Given these findings, co-curricular involvement may be especially important to sense of belonging for students of color.

Through the sense of belonging construct, co-curricular involvement positively contributes to one's feeling of being a part of a group or organization. This correlation is seen in all students including students of color. Specifically, Johnson et al. (2007) found significant differential effects in participation in co-curricular activities for Asian Americans and White/Caucasian students' sense of belonging than other racial/ethnic groups. Moreover, Asian Americans are most likely to participate in ethnic or cross-cultural clubs, which may be indicative with closely, associated ethnic identities and value. Further, Kezar and Morarity (2000) asserted

involvement opportunities help in facilitating learning in students from ethnic subgroups.

Socio-cultural discussions. This type of activity and interaction between peers has been found to positively contribute to learning and other tangible outcomes (Astin, 1993) as well as civic engagement outcomes (Dugan & Komives, 2010; Hershey, 2007; Johnson, 2012). It would stand to reason that these conversations could also have a potential effect on sense of belonging. Therefore, as an exploratory study it warrants its inclusion as an independent variable to be examined.

Nondiscriminatory climate. The perceived environment and how one feels about their community sets the stage for all experiences and scenarios. Many studies support that perceptions of the campus racial climate have significant effects on students' sense of belonging (Cabrera, Nora, Terenzini, Pascarella, & Hagedorn, 1999; Chavous, 2005; Gilliard, 1996; Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005). Hence, it is an integral element in understanding the role of sense of belonging in this study.

Sense of Belonging and Asian Americans

Sense of belonging is an important outcome in the higher education setting and student success. The research in the area of sense of belonging among Asian Americans is rather scant. In this researcher's review of the literature, there is only one study, Lee and Davis (2000) that specifically looked at sense of belonging and an overall sample of Asian American college students. In this study, the researchers found that Asian Americans students at a predominantly White university who have strong cultural orientation are more apt to find campus belongingness during college.

Further, those Asian Americans who feel marginalized from both their own ethnic culture and the majority culture are least able to adjust to college (Lee & Davis, 2000). The most recent studies include the work of Samuel Museus and Dina Maramba (2010, 2011, 2013) with a focus on Filipino American college students' sense of belonging. The 2013 Maramba and Museus study indicated that campus racial climate, ethnic group cohesion, and cross-cultural interaction all directly influence sense of belonging among Filipino American students.

Moreover, there is research that indicates that sense of belonging is low for Asian Americans. An area of prevailing concern for college students overall, but most particularly for Asian American college students, lies in the arena of mental health. As student affairs practitioners, we see first-hand how involved students experience anxiety, academic challenges, and burn out among other issues. This is concerning that among the college student population, Asian Americans experience comparatively higher levels of depression, social anxiety, and psychological distress, but are less likely to seek out support compared to other racial groups (Abe-Kim, Takeuchi, Hong, Zane, Sue, Spencer & Alegria, 2007; Gregersen, Nebeker, Seely, & Lambert, 2004; Kearney, Draper, & Baron, 2005; Leong & Lau, 2001; Matsuoka, Breux, & Ryujin, 1997). A study by Kearney, Draper, and Baron (2005) found Asian Americans tend to have low utilization rates of counseling services yet had reported higher distress at intake than other ethnic comparison groups. Abe-Kim et al. (2007) found Asian American college students to be less clinically distressed than the general population yet when this constituency does report distress they present more severe symptoms (Huang, 2012).

Although all college students are transitioning and facing developmental changes and growth while at college, as mentioned, it is especially difficult for Asian American college students. Psychologist Karen Huang (2012) explained that to understand the mental health needs of these students, one must understand the experience of being Asian in mainstream America. Cultural values play out and can be in contradiction to mainstream American culture and will eventually collide. A prime example is the difference in the Asian collectivistic orientation versus the American value of individualism and independence. For example, the idiom of "saving face" and not airing your dirty laundry for all to see in the public realm is practiced. All personal information remains in the privacy of one's own home among family members. One member's actions are duly reflected onto all the relatives.

Further research reflects how and why sense of belonging is low for this population. Cress and Ikeda (2003) found a campus climate can directly affect Asian American college students' mental health and individual levels of depression. Park, Lin, Poon, and Chang (2008) found that Asian Americans are less likely to see themselves as leaders. Park (2009) revealed Asian Americans are less likely to be happy with campus diversity. The very first sole book on the subject of sense of belonging was published in the summer of 2012, Asian Americans are notably missing from the dialogue. The volume entitled, "*College Student' Sense of Belonging: A Key to Educational Success for All Students*" by Terrell L. Strayhorn (2012) a known research scholar on the topic of sense of belonging, is another missed opportunity of this invisible constituency. The table of contents shows chapters for sense of belonging and Latino students, gay students, first-year students, STEM

students of color, Black students, and even graduate students. The one missing racial group is Asian American. This example is another critical observation and misstep revealing the fact that further research is needed for this invisible entity in the racial diaspora.

Diversifying Sense of Belonging

As we fast forward into present day and witness the changing demographics of our campuses, we must take into account that multiculturalism and diversity have evolved and revise our vision of how students' sense of belonging for marginalized and historically under-represented groups find this kind of community among students from majority groups.

As mentioned earlier, multicultural competency is essential to better understand and work with our diverse student population. In this particular situation, student affairs educators must take into account the needs of Asian Americans and their sub-groups in order to provide more effective and inclusive services that will better serve and understand their respective unique qualities.

The current study provides an opportunity to add to the research literature by applying the concept of sense of belonging specifically to Asian American students and to the sub-populations therein. It is important to examine the experiences of Asian American groups through the lens of sense of belonging because of their historic under-representation and marginalized status in society. Additionally, further investigation gives better understanding of the holistic nature of their experiences in this environment. This information will better assist the individual staff member, the campus community, the field of student affairs, and the broader arena of higher

education. Our work with these constituencies will be further enhanced through this new knowledge while embracing multiculturalism and grounded in sound student development theory.

In my review of the extant literature, there is no research that specifically examined Chinese American or Asian Indian college students and sense of belonging. Remarkably, there have been four recent studies on Filipinos' sense of belonging conducted by scholars Samuel D. Museus and Dina C. Maramba (2011, 2013). This small body of research indicates that Filipino American college students encounter challenges navigating the environment of their campus (Maramba, 2008; Maramba & Museus, 2011, 2012; Museus & Maramba, 2010). Museus and Maramba (2011) found that this group faces cultural challenges that can pose major impediments to their adjustment to college and sense of belonging at their institution. Further, Maramba and Museus (2013) suggested culture and race play a substantial role in the experience of Filipino American college students; specifically ethnic group cohesion can influence sense of belonging. Hence, the research that has been completed on Filipino Americans reveals the need for similar work to be conducted for the other groups to illuminate differences and similarities among them.

Summary

This chapter included the literature review of research directly related to Asian Americans sense of belonging. Understanding Asian American students' sense of belonging may be key to understanding how certain activities affect these students (Hurtado & Carter, 1997). This chapter also illuminates the overall lack of literature on Asian American college students as related to their perceptions of sense of

belonging and included the literature on students of color where appropriate to capture possible predictors and their influences on Asian Americans' sense of belonging. The next chapter will review the research methods for this study.

CHAPTER THREE: METHODOLOGY

There is limited research on particular college environmental factors that affect sense of belonging for Asian American college students. Therefore, the purpose of this study is to investigate the relationship between sense of belonging and common college experiences, such as living on campus, on-campus employment, mentorship, and student group experiences. Specifically, the guiding research questions are: (1) Among Asian American college students, are there differences in perception of sense of belonging between the ethnic subpopulations, specifically, Chinese American, Filipino American, and Asian Indian American college students and do these subpopulations differ from aa other Asian American college students and a random non-Asian American college students in their sense of belonging? Are there differences in the distribution of sense of belonging by Asian ethnic background, other demographics/characteristics, and other important collegiate experiences like socio-cultural discussions and nondiscriminatory climate?; (2) after controlling for student characteristics, do college environment factors, specifically, living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-cultural discussions, and perception of nondiscriminatory climate contribute to sense of belonging for Asian American college students?; and (3) when controlling for pre-college variables and demographics, do college environment factors, specifically, living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-cultural discussions, and perception of nondiscriminatory climate contribute to sense of belonging for subsamples of Chinese American, Filipino

American, and Asian Indian American college students? Are there significant differences in the variables that contribute to sense of belonging between groups?

Hypotheses

The guiding null hypotheses for this study are:

H1₀: There will be no significant differences between Chinese American, Filipino American, Asian Indian American, and all other Asian American students as well as between a random sample of non-Asian American college students in their perception of sense of belonging. There will be no significant differences in the distribution of sense of belonging by Asian ethnic background and other demographics/characteristics such as gender, parents' education, high school involvement, age, major and/or institutional characteristics;

H2₀: Living on campus, having a job on campus, having a mentor, involvement in a student organization, and the type of student group, participation in socio-cultural discussions, and perception of nondiscriminatory climate will not significantly contribute to sense of belonging for Asian American college students; and

H3₀: Living on campus, having a job on campus, having a mentor, involvement in a student organization, and the type of student group, participation in socio-cultural discussions, and perception of nondiscriminatory climate will not significantly contribute to sense of belonging for each of the subsamples of Chinese American, Filipino American, and Asian Indian American college students.

Furthermore, there are no differences in which these variables contribute to sense of belonging across the subsamples.

However, based on the empirical literature and research studies highlighted in Chapter Two, the researcher anticipates that all of the independent variables will predict some level of contribution to the sample populations' sense of belonging. This further affirms the need to conduct this study to explore the possibilities and extend the research in this area.

Overview of Instrument and Data Collection

The Multi-Institutional Study of Leadership (MSL) is a national research instrument examining the influences of higher education on college student leadership development. It is the largest quantitative, cross-sectional design on leadership using standard survey research techniques (Dugan et al., 2009). The MSL data was selected for use with this particular study for two primary reasons: (1) the 2009 MSL has a relatively large Asian American college student sample of 6,786 participants and adequate sub-population numbers (2,601 Chinese Americans; 1,031 Asian Indians; and 761 Filipino Americans); and (2) data for relevant involvement variables necessary for a college impact study were collected.

Instrument

The MSL survey instrument was developed by a team of researchers at the University of Maryland seeking to expand prior research related to measuring socially responsible college student leadership (SRLS). Based on the social change model of leadership development and SRLS, the MSL was designed using Astin's (1993) I-E-O model as a basis for data collection to measure leadership outcomes. Content within the instrument includes research team contributions and authorized use of existing national studies scales and constructs (Dugan et al., 2009). Following human

subjects' approval at the University of Maryland, validity and reliability were established through pilot tests for all versions of the MSL including the 2009 iteration. After determining survey item clarity and respondent time for completion from the initial pilot test, another pilot with an updated instrument was administered to a random sample of 3,000 undergraduates. From this test, scale reliability and validity were calculated for both original and revised scales used in the MSL instruments. Two additional pilot tests were conducted for the 2009 version of the MSL, and scale reliabilities remained constant or increased through the 2009 MSL administration.

Survey Procedures

The MSL study was initially approved by the University of Maryland's Institutional Review Board (IRB) in 2005 and had been renewed on an annual basis through 2010. Additionally, human subjects' approval was collected for each participating institution through their own review boards or by other institutional approval processes. All protocols were followed using national standards regarding human subjects. This study did not need additional IRB approval since it is secondary data analysis.

The MSL web-based survey instrument was administered directly to a sample of students from each participating institution during the spring semester between the third week of the academic year (2009) and before mid-term examinations. Unique identification codes were assigned to each student connecting them to their consent form. Following consent, a new identification code was assigned to ensure anonymity on the survey instrument site. Participants were encouraged by email to

participate through follow-up email and campus-specific and national incentives, such as drawing entries for electronics, food coupons, and parking pass for those completing the survey (Dugan et al., 2009).

Design of Study and Conceptual Framework

This section explains the conceptual framework for this study and provides an overview of the Multi-Institutional Study of Leadership (MSL). Secondary data analysis was conducted utilizing MSL in an ex post facto correlational study. For research question one, t-tests, cross tabs, and analysis of variance (ANOVA) were utilized to test hypothesis one. T-tests were used to compare means between two groups at a time and then ANOVA to compare means for sense of belonging for the three subsamples (Chinese, Filipino, and Asian Indian), the all other Asian American students, and a random sample of non-Asian American college students. Blocked hierarchical multiple regression analysis was employed to test hypothesis two and hypothesis three for research questions two and three.

Astin's (1993) college impact model has been adapted and applied as a guiding conceptual framework for this study. The college impact model is exceptionally useful in exploring the impact of the college environment on student development by pairing its inputs-environments-outcomes design with statistical methods of analysis such as hierarchical multiple regression (Astin, 1993). In such a design, Astin (1993) stated there are two points at which to collect data over time, pre- and post- environment. This allows the model to measure the effects of the college environment on selected outcomes while controlling for background variables. The data used for this study provide a modified data collection procedure

whereby data were collected only at one point in time. Students' accounts of past experiences occurred through retrospective questions and will be used as proxies for pre-test variables.

In the college impact model, Astin (1977, 1991, 1993) established a framework where the inputs included pre-college student characteristics, or experiences they bring with them to college, and the environment refers to the students' exposure to campus programs, experiences, peers, faculty, and policies. Overall, outputs are the measurable outcome, if any, resulting while controlling for student inputs and environments. The conceptual models for the study follow in Tables 3.1 and 3.2; further information on variables is in the section, *Variables and Measures*.

Table 3.1

I-E-O Design for Analysis of Overall Asian American Sample

Inputs	Environment		Outcome
Block 1 Gender Ethnic Group Parents' Education Block 2 Pre-college characteristics	Bridge Variables Block 3 Age Major	Block 4 Selectivity Size Control Block 5 Living-on campus On-campus employment Mentorship Involvement in college Types of student groups Socio-cultural discussions Nondiscriminatory climate	Sense of Belonging

Table 3.2
I-E-O Design for Ethnic Sub-Samples

Inputs	Environment		Outcome
Block 1 Gender Parents' Education Block 2 Pre-college characteristics	Bridge Variables Block 3 Age Major	Block 4 Selectivity Size Control Block 5 Living-on campus On-campus employment Mentorship Involvement in college Types of student Groups Socio-cultural issue discussions Nondiscriminatory climate	Sense of Belonging

Sample

Institutional Sample

When considering the variables for this study, the 2009 MSL data set has a robust Asian American student sample. The 2009 MSL included 104 participating institutions from across the United States, Canada, and Mexico. In spring and summer 2008, the MSL call for institutional participation was advertised widely across student affairs and leadership development outlets including Student Affairs Administrators in Higher Education Association's (NASPA) Knowledge Community

for Student Leadership Programs, American College Personnel Association's (ACPA) Commission on Student Involvement, the National Clearinghouse for Leadership Programs, the International Leadership Association, and others. One institution was unable to fully participate resulting in 103 institutions completing the study. The MSL United States national data set, which will be utilized for this current study, is comprised of 101 institutions.

Institutions represented in the 2009 MSL varied across institutional type, size, and population served. Of the 101 participating institutions, 50% were public, 43% research (extensive and intensive), 36% masters, 19% baccalaureate, and 2% associates. Institutional size was distributed as: 24% small (3,000 or less); 37% medium (3001-10,000); and 39% large (10,001 or larger). Two of the participating institutions were HBCUs, three were women's colleges, and two were Hispanic-serving institutions (Dugan & Komives, 2009).

Student Sample

At the institutional level, participant data were collected through full population samples for institutions with student enrollment less than 4,000 and simple random samples for campuses with more than 4,000 enrolled students. Following all standardized protocols for data collection a total of 337,482 participants were invited, of which 115,632 returned for a response rate of 34%. Of these, 94,367 survey respondents completed 90% of the survey or more (Dugan & Komives, 2009). Of the completed cases 6,786, or 6%, MSL respondents identified as Asian American. This number excludes "Pacific Islanders" and "other Asian." Specifically, the study's

subpopulation broke down to 2,601, or 38% as Chinese; 761, or 11% as Filipino; 1,031, or 15% as Asian Indian/Pakistani.

Table 3.3 exhibits preliminary descriptive statistics on all the Asian American subpopulations in the 2009 MSL dataset for a better understanding of the sample.

Table 3.3

Demographic and Sample Characteristics of MSL Sample and Study Sample

	Overall Sample n = 115,632	All Asian-American n = 6,786	Chinese n = 2,601	Asian Indian n = 1,031	Filipino n = 761	Korean n = 1,262	Japanese n = 637	Vietnamese n = 494
Gender								
Male	33425	2247	1054	431	287	537	243	188
Female	59860	3326	1544	599	474	723	393	304
Parent's Education								
	4.91	4.77	4.68	5.32	4.79	4.91	4.81	3.67 mean
	1.78	1.92	2.15	1.56	1.47	1.78	1.60	2.07 SD
Income								
	6.63	6.51	6.46	6.74	6.52	6.63	7.09	5.29 mean
	2.92	3.12	3.30	2.97	2.93	2.92	2.82	3.33 SD
High School Involvement								
	55611	3522	1368	525	376	633	355	265
Age								
	31.19	20.8	20.54	20.42	20.96	21.19	21.23	21.15 mean
	3.49	3.24	2.89	3.04	3.32	3.49	3.30	4.12 SD
Major								
Agriculture/Parks, Recreation, Leisure Studies, Sports Management	1106	29	10	5	2	7	2	3
Architecture/Urban Planning	744	49	20	3	7	10	6	3
Arts & Humanities	18538	901	291	70	104	229	149	58
Behavioral & Social Sciences	14559	945	334	130	119	214	90	58
Business	14454	1662	758	233	160	250	141	120
Computer/Information Sciences, Math, & Natural Sciences	14522	1773	693	380	147	283	114	156
Education	6943	182	48	16	21	49	37	11
Engineering	4232	594	268	126	34	96	33	37
General Education	3505	239	85	25	32	61	20	16
Health	6492	409	92	42	135	63	45	32
Type								
Less competitive & lower	10504	182	31	19	29	42	36	25
Competitive	26020	944	260	136	181	147	108	112
Very competitive & higher	77433	5559	2292	856	539	1047	488	337
Size								
Small	21382	812	269	79	89	179	143	53
Medium	50950	3120	1263	451	379	517	319	191

	Overall Sample n = 115,632	All Asian- American n = 6,786	Chinese n = 2,601	Asian Indian n = 1,031	Filipino n = 761	Korean n = 1,262	Japanese n = 637	Vietnamese n = 494
Large	43300	2854	1069	501	293	566	175	250
Control								
Public	54505	2905	1103	432	305	583	236	246
Private	61127	3881	1498	599	456	679	401	248
Live On-campus	45742	3396	1422	473	311	687	332	171
Work On-campus	34238	2277	949	346	234	362	249	137
Involvement in college organizations	80628	5471	2159	896	588	973	489	366
Types of orgs								
Arts/Theater/Music/Media	26381	1809	762	258	178	356	168	87
Greeks	28556	1810	689	349	190	309	151	122
Honor Societies; Academic/International/Soci- al/Special Interest	101458	6777	2596	1030	759	1261	637	494
Identity-Based	15024	2618	996	492	254	515	191	170
Military	2369	219	72	25	35	59	16	12
Political	12062	507	179	138	42	74	37	37
Religious	19310	1310	450	252	111	359	81	57
Resident Assistants; New Student Transitions; Peer Helper	27971	2126	926	385	191	340	149	135
Service; Advocacy	28552	1933	760	383	193	310	150	137
Sports/Recreation	51977	2759	1066	394	308	540	301	150
Student Governance; Campus-wide programming	21915	1661	645	354	152	279	125	106
Mentorship	91855	5910	2228	922	553	1099	686	422
Socio-cultural discussion	2.71	2.64	2.53	2.94	2.66	2.63	2.68	2.56 mean
	0.77	0.75	0.70	0.73	.078	0.74	0.74	0.79 SD
Nondiscriminatory climate	3.81	3.57	3.52	3.67	3.77	3.46	3.61	3.59 mean
	0.86	0.85	0.83	0.89	0.85	0.82	0.85	0.85 SD
Belonging climate	3.71	3.58	3.58	3.69	3.64	3.50	3.53	3.53 mean
	0.81	0.79	0.76	0.83	0.81	0.78	0.84	0.79 SD

To further justify my rationale to study Chinese American, Asian Indian American, and Filipino American as my subpopulations of choice, it can be seen that their respective sample sizes are robust and duly reflect their proportion size within the U.S. Census standings. An interesting observation about this data set is how the Korean population has a substantial showing in the MSL as the second largest Asian group, yet it is the fifth largest group in the U.S. Asian American population. Moreover, the Filipino sample is the fourth largest group within the dataset while being the second largest within the states.

Variables and Measures

The variables utilized in this study are grouped by input, environmental, and outcome variables. The dependent variable, sense of belonging, is the outcome variable of the study. It should be noted that prior to conducting the regressions, I checked for multicollinearity. Where appropriate, some variables were combined into composite scales.

Independent Variables

Inputs. For this study, the input variables, as seen in Figure 3.1, for background characteristics include gender and parents' education. Pre-college variables (as seen in the 2009 MSL) include frequency of pre-college organization involvement, which asked respondents to reflect on involvement in: student council or student government; pep club, school spirit club, or cheerleading; performing arts; organized sports. Response options were (1) never, (2) once, (3) sometimes, or (4) often. Respondents were also asked about any pre-college leadership positions held

in sports clubs, groups, and sports using the same Likert scale. These ordinal data are treated as continuous for this study.

Bridge variables. Age will be included as a bridge variable, which is seen as neither an input nor environment variable but a variable that measures the current state (Astin, 1991, 1993). Age is a continuous variable. Major as another bridge variable will be included in the model. Participants were asked to describe their primary major from 22 categories.

Environments. The between college characteristics included in this study are selectivity, size, and control of the overall sample of institutions. Institutional selectivity is based on ACT/SAT scores. The MSL measures selectivity by seven classifications: (1) special, (2) non-competitive, (3) less-competitive, (4) competitive, (5) very competitive, (6) highly competitive, or (7) most competitive. Institutional size is categorized as small (enrollment of 3, 000 or less), medium (3,001-10,000), or large (10,001 or more). Lastly, institutional control is categorized as (1) public institution, or (2) private institution.

The other environmental variables that are included in this study are: living on-campus, on-campus employment, mentorship, involvement in college organizations, type of student group, socio-cultural discussions, and nondiscriminatory climate. Three of the involvement questions (living on-campus, on-campus employment, and mentorship) have dichotomous responses (i.e., yes/no, on campus/off campus, yes/no, respectively). The last involvement question asked about the types of student groups respondents participated in and offered a comprehensive list of groups to include: academic/departmental/professional;

arts/theater/music; campus-wide programming; identity-based; international interest; honor societies; media; military; new student transitions; resident assistants; peer helper; advocacy; political; religious; service; multi-cultural fraternities and sororities; social fraternities or sororities; sports-intercollegiate or varsity; sports-club; sports-intramural; recreational; social/special interest; student governance. Response options were either “yes” or “no.” As mentioned earlier, due to the large number of student group types, composite scales were developed for this variable.

Socio-cultural discussions variable was measured using a scale used with permission of the National Study of Living and Learning Programs (Inkelas & Associates, 2004). The scale assessed the self-reported frequency in which a respondent engaged in outside the classroom conversations with peers about different values, lifestyles, and issues related to politics, multiculturalism, and diversity. The six statements were: talked about different lifestyles/customs; held discussions with students whose personal values were very different from your own; discussed major social issues such as peace, human rights, and justice; held discussions with students whose religious beliefs were very different from your own; discuss your views about multiculturalism and diversity; held discussions with students whose political opinions were very different from your own. Respondents were given the ordinal response choices of (1) Never, (2) Sometimes, (3) Often, (4) Very Often. The scale value is 4 to 16. The Cronbach alpha in the 2009 data set used in the study was 0.90. Nondiscriminatory climate variable for this study is a scale that consists of five statements, which are: I have observed discriminatory words, behaviors or gestures directed at people like me; I have encountered discrimination while attending this

institution; I feel there is a general atmosphere of prejudice among students; Faculty have discriminated against people like me; Staff have discriminated against people like me”. Respondents were given the ordinal response choices of (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Strongly Agree. The scale value is 5 to 25. The Cronbach alpha score in the 2009 data set for nondiscriminatory racial climate was 0.85.

In order to address multicollinearity prior to the analysis, the researcher investigated highly intercorrelated predictors using a correlation matrix of all the predictors in the regression model, excluding predictors with intercorrelations greater than $r = 0.6$. In conducting the preliminary correlation matrix, multicollinearity is not present in any of the independent variables.

Dependent Variable

The outcome for this study is sense of belonging. Figure 3.1 outlines the conceptual model for this study and its variables. This study is designed to examine student input and campus environmental variables that may predict the outcome of sense of belonging for Asian American college students. The data needed to be prepared and cleaned following procedures related to outliers, and duplicate or falsified data (Pedhazur, 1997).

The variable of interest asked respondents to assess the degree to which they felt a sense of belonging while on campus. For this study, the scale consists of three statements, which are: “I feel valued as a person at this school;” “I feel accepted as a part of the campus community;” and, “I feel I belong on this campus.” Respondents were given the ordinal response choices of (1) Strongly Disagree, (2) Disagree, (3)

Neutral, (4) Agree, (5) Strongly Agree. The scale value is 3 to 15. The Cronbach alpha scores for sense of belonging was .87, and scale reliabilities were calculated for this study's sample given that scale reliability is a function of the population and not the instrument itself (Mertens, 2005). The Cronbach alpha for sense of belonging for the 2009 MSL study's sample was .88. Specifically for the Asian American population, it was .872 and for the subsample groups: Chinese American was .866; Filipino American was .868; and Asian Indian American was .887.

Appendix 1 *Variables and Coding Schema* provides the specific items from the MSL instrument used to measure each variable and the recoding for this study.

Data Analysis

To explore the first research question, whether overall Asian American college students' perceived sense of belonging is different than the ethnic subpopulations of Chinese American, Filipino American, and Asian Indian American students, respectively and also comparisons with the all other Asian American sample and random sample of non-Asian American students, I used an ANOVA to compare mean scores on sense of belonging within each group as well as between the all other Asian Americans in the sample and the broader White, Black, and Latino comparison group, respectively. For the second half of this research question, I transformed the sense of belonging scale from a continuous variable into a categorical variable in order to run cross tabs to compare mean differences in the distribution of sense of belonging by Asian ethnic background and other demographics/characteristics.

In investigating research question two, I used Astin's (1993) college impact I-E-O model to design a blocked, hierarchical regression. The input and environment

variables will be grouped and blocked accordingly. Although the nature of this study is exploratory, relevant literature will guide the selection of variables in order to create a parsimonious model.

For the final research question, another blocked hierarchical regression was used. To examine differences between subpopulations, I used t-tests to compare unstandardized beta coefficients between groups to identify any such possibilities.

Note that four variables were collapsed into a more manageable number of categories. First, the six original “Pre-college Org Involvement/Leadership Position” continuous variables were combined to create a new “High School Involvement” dichotomous variable of “no/yes” from its original Likert scale with (1) never and (4) very often. The variable “Major” was consolidated from the original 22 categories to 10 categories based on the University of Maryland academic departmental breakdown. The “type of student groups” for involvement was combined into 11 categories from the original 23 options with varying respective scales. Also, all “no/yes” questions were recoded to 0=no and 1=yes.

Limitations

As an ex post facto correlational study, secondary data analysis is proposed utilizing the existing 2009 MSL data set. A major disadvantage is that this data was collected for a purpose different from the research questions set for this particular study. Thus, the variables that can be utilized are constricted only to what is available within the data set. Another limitation is the chosen methodology of multiple regression, which cannot prove cause and effect between independent variables and dependent variable under study. Since hierarchical linear modeling will not be

conducted in this study there is a possibility of under/overestimating effects due to clustering within certain variables (e.g.: institutional characteristics). Mentioned earlier in Chapter One is the fact that the 2009 MSL data set is a cross sectional study and therefore allows only for that one moment in time finding. This study is exploratory in nature due to the limited literature found on the sample population and the construct of sense of belonging in association with the selected variables. Future research and studies are needed to further verify and validate findings.

Missing Data

Before moving onto the analyses, there is a need to address any missing data found that was not included in the final analytic samples in this study. Table 3.4 provides the percentage of missing data reported for each variable. There is very little missing data in this study, the amount reported between 0% to the highest percentage at 0.7%. Since the missing data is minimal, there is no need to further address this matter.

Table 3.4 Percentage of Missing Data across All Variables

Variable	% Missing, <i>n</i>		
	Chinese American	Filipino American	Asian Indian
Gender	0.1, 2598	0.0, 761	0.1, 1030
Parents' education	0.2, 2597	0.3, 759	0.1, 1030
High School Involvement	0.0, 2601	0.0, 761	0.0, 1031
Age	0.0, 2600	0.1, 760	0.0, 1031
MAJOR			
Agriculture/Parks, Recreation, Leisure Studies, Sports Management	0.1, 2599	0.0, 761	0.1, 1030

Variable	% Missing, <i>n</i>		
Architecture/Urban Planning	0.1, 2599	0.0, 761	0.1, 1030
Arts & Humanities	0.1, 2599	0.0, 761	0.1, 1030
Behavioral & Social Sciences	0.1, 2599	0.0, 761	0.1, 1030
Business	0.1, 2599	0.0, 761	0.1, 1030
Computer/Information Sciences, Math, & Natural Sciences	0.1, 2599	0.0, 761	0.1, 1030
Education	0.1, 2599	0.0, 761	0.1, 1030
Engineering	0.1, 2599	0.0, 761	0.1, 1030
General Education	0.1, 2599	0.0, 761	0.1, 1030
Health	0.1, 2599	0.0, 761	0.1, 1030
Selectivity	0.0, 2601	0.0, 761	0.0, 1031
Size	0.0, 2601	0.0, 761	0.1, 1031
Control	0.0, 2601	0.0, 761	0.1, 1031
Live On-campus	0.2, 2597	0.3, 759	0.3, 1028
Work On-campus	0.0, 2601	0.0, 761	0.0, 1031
Have a mentor	0.3, 2593	0.0, 761	0.5, 1026
Involved in College Organizations	0.1, 2599	0.0, 761	0.1, 1030
TYPES of ORGANIZATIONS			
Arts/Theater/Music/Media	0.0, 2600	0.3, 759	0.1, 1030
Greeks	0.0, 2601	0.0, 761	0.0, 1031
Honor Societies; Academic/International/Social/Special Interests	0.0, 2601	0.0, 761	0.0, 1031

Variable	% Missing, <i>n</i>		
Identity-Based	0.0, 2600	0.4, 758	0.1, 1030
Military	0.0, 2600	0.3, 759	0.1, 1030
Political	0.1, 2598	0.3, 759	0.2, 1029
Religious	0.1, 2599	0.3, 759	0.1, 1030
Resident Assistants; New Student Transitions; Peer Helper	0.2, 2597	0.5, 757	0.1, 1030
Service; Advocacy	0.2, 2597	0.3, 759	0.1, 1030
Sports/Recreation	0.1, 2599	0.7, 756	0.2, 1029
Student Governance; Campus-wide programming	0.1, 2598	0.3, 759	0.1, 1030
Socio-cultural Discussions	0.1, 2598	0.0, 761	0.3, 1028
Nondiscriminatory Climate	0.2, 2596	0.1, 760	0.5, 1026
Sense of Belonging	0.2, 2595	0.1, 760	0.5, 1026

Summary

This chapter has outlined the methodology of this quantitative study to investigate what factors contribute to sense of belonging for Asian American college students, including its research design, instrument, data collection, and plan for analysis. The design of this study also serves as a model for taking existing data from a national study where Asian American data was collected and repurposing it to address gaps in the research. The next chapter will outline the specific results of this study.

CHAPTER FOUR: RESULTS

Chapter Overview

The purpose of this study was to explore the relationship among various collegiate experiences, such as living on campus, on-campus employment, mentorship, and involvement in college organizations and student groups, socio-cultural discussions, and perception of nondiscriminatory climate, and perception of sense of belonging for Asian American college students. Specifically, the three research questions guiding this study were: (1) Among Asian American college students, are there differences in perception of sense of belonging between the ethnic subpopulations, specifically Chinese American, Filipino American, and Asian Indian American college students and do these subpopulations differ from all other Asian American college students and a random sample of non-Asian American college students in their sense of belonging? Are there differences in the distribution of sense of belonging by Asian ethnic background, other demographics/characteristics, and other important collegiate experiences like socio-cultural discussions and nondiscriminatory climate?; (2) after controlling for student characteristics, do college environment factors, specifically living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-cultural discussions, and perception of nondiscriminatory climate contribute to sense of belonging for Asian American college students?; and (3) when controlling for pre-college variables and demographics, do college environment factors, specifically living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-cultural discussions, and perception of

nondiscriminatory climate contribute to sense of belonging for subsamples of Chinese American, Filipino American, and Asian Indian American college students? Are there significant differences in the variables that contribute to sense of belonging between groups?

Hypotheses

The guiding null hypotheses for this study are:

H1₀: There will be no significant differences between Chinese American, Filipino American, Asian Indian American, and all other Asian American students as well as between a random sample of non-Asian American college students in their perception of sense of belonging. There will be no significant differences in the distribution of sense of belonging by Asian ethnic background, other demographics/characteristics such as gender, parents' education, high school involvement, age, major, institutional characteristics or other important collegiate experiences like socio-cultural discussions and nondiscriminatory climate;

H2₀: Living on campus, having a job on campus, having a mentor, involvement in a student organization, and the type of student group, participation in socio-cultural discussions, and perception of nondiscriminatory climate will not significantly contribute to sense of belonging for Asian American college students; and

H3₀: Living on campus, having a job on campus, having a mentor, involvement in a student organization, and the type of student group, participation in socio-cultural discussions, and perception of nondiscriminatory climate will not significantly contribute to sense of belonging for each of the subsamples of Chinese

American, Filipino American, and Asian Indian American college students.

Furthermore, there are no differences in which these variables contribute to sense of belonging across the subsamples.

The sample used in this study included participants from the 2009 MSL data collection who self-identified as “Asian American/Asian” in terms of broad racial group membership. A skip pattern was utilized that if a respondent answered “Asian American/Asian” to the broad racial group membership, they were then prompted to indicate ethnic group membership which for Asian groups included: “Chinese,” “Indian/Pakistani,” “Japanese,” “Korean,” “Filipino,” “Pacific Islander,” “Vietnamese,” and “Other Asian.” The students that responded to these indicators were included in this analysis. A new non-Asian random sample variable was created to have an equivalent sample size for the various comparison analyses.

Descriptive Analysis

Table 4.1 exhibits the frequencies for the variables included in the model as outlined in the research questions. The variables used in this analysis included: gender, parents’ education, high school involvement, major, institutional selectivity, institutional size, institutional control, live on-campus, work on-campus, have a mentor, involvement in college organizations and the type of college organization involvement.

The overall sample of Asian Americans reported in the 2009 MSL dataset is 6,786 of the 115,632 total respondents (5.8%). The three subpopulations under study include 2,601 Chinese Americans (38%) of the Asian American students; 761 Filipino Americans (11%); and 1,031 Asian Indians Americans (15%) of all Asian

Americans in this study. A robust sample size is noted for all constituency groups under study. More than half of the participants were female with 59.4%, 62.3%, and 58.1% being self-identified in the subpopulation breakdown of Chinese Americans, Filipino Americans, and Asian Indian Americans, respectively. In terms of parents' education, the subpopulation reporting the highest level of education attainment was Chinese American's parents holding doctorate or professional degrees (20.5%) with 44.5% of Filipino American's parents obtaining bachelors degrees while 28.1% of Asian Indian parents held masters degrees. Slightly more than half of each subpopulation group reported having been active in some type of high school involvement. Majors reveal some similarities through the top three majors in each of the subgroups. The most frequently reported major for Chinese Americans students was Business (29.1%), followed by Computer/Information Sciences, Mathematics, and Natural Sciences (CMNS) (26.6%), and then Behavioral and Social Sciences (BSOS) majors to include ethnic, cultural, and area studies and public administration (12.8%). Filipino Americans students were most frequently majors in CMNS (19.3%), followed by Health majors (17.7%), and then BSOS majors at 15.6%. The number of Asian Indian American students majored the most in CMNS (36.9%), Business (22.6%), and BSOS (12.6%) respectively.

Turning to institutional characteristics, a high portion of the groups under study attended very competitive and higher in terms of type of institutions – Chinese Americans students (88.2%); Filipino Americans students (70.9%), and Asian Indian American students (83.1%). Close to half of the Chinese Americans (48.6%) and Filipino Americans (49.8%) attended medium-sized institutions while Asian Indian

Americans (48.6%) attended large-sized schools. More than half in each subpopulation chose a private institution over a public institution – Chinese Americans (57.6%), Filipino Americans (59.9%), and Asian Indians (58.1%). When choosing where to live, more than half of the Chinese Americans (54.7%) lived on-campus with a slightly lower percentage for Filipino Americans (40.9%) and Asian Indians (45.9%). Three out of every ten students held an on-campus job. Chinese Americans students held the most jobs (36.5%), followed by Filipino Americans (30.7%), and then Asian Indians (33.6%). Most students had a mentor within each group, Chinese Americans had the lowest number of mentors (85.7%), while most Filipino Americans had a mentor (90.1%), followed closely by Asian Indian American students having a mentor (89.4%).

Focusing on involvement in college organizations, among all three groups over three-quarters of students reported being involved at one time or more. Of Chinese Americans, 83% reported having student organization involvement, with Filipino Americans slightly lower at 77.3%, and Asian Indians slightly higher at 86.9%. Delving deeper into what types of organizations students are involved in indicated similar trends among Chinese American, Filipino American, and Asian Indian American students with high involvement in honors/academics (57%, 44%, 60% respectively; sports and recreation (41%, 40.5%, 38.2%, respectively) followed by identity based (38.3%, 33.4%, 47.7%, respectively) organizations.

Table 4.1 Frequencies and Percentages

Variable	All Asian (n = 6,786)	Chinese American (n = 2,601)	Filipino American (n = 761)	Asian Indian (n = 1,031)	All Other Asians (n = 2,393)	Non-Asian Random Sample (n = 5,305)
	%	%	%	%	%	%
GENDER						
Female	59.5	59.4	62.3	58.1	59.3	51.5
Male	40.4	40.5	37.7	41.8	40.5	26.7
Parents' education						
< high school diploma/GED	5.1	8.7	0.9	1.7	3.9	1.4
High school diploma/GED	14.0	17.6	7.6	6.5	15.3	9.3
Some college	10.4	7.8	14.1	8.0	13.0	10.5
Associates degree	4.2	2.6	6.7	4.0	5.1	5.9
Bachelors degree	26.1	18.6	44.5	27.0	28.0	22.6
Masters degree	19.4	19.8	13.9	28.1	17.0	18.2
Doctorate or professional degree	17.4	20.5	9.9	23.7	13.8	9.4
High School Involvement						
Yes	51.9	52.6	49.4	50.9	52.4	51.5
No	48.1	47.4	50.6	49.1	47.6	48.5
MAJOR						
Agriculture/Parks, Recreation, Leisure Studies, Sports Management	0.4	0.4	0.3	0.5	0.5	1.0
Architecture/Urban Planning	0.7	0.8	0.9	0.3	0.8	0.7
Arts & Humanities	13.3	11.2	13.7	6.8	18.2	17.2
Behavioral & Social Sciences	13.9	12.8	15.6	12.6	15.1	13.1
Business	24.5	29.1	21.0	22.6	21.4	13.6
Computer/Information Sciences, Math, & Natural Sciences	26.1	26.6	19.3	36.9	23.1	12.8
Education	2.7	1.8	2.8	1.6	4.1	6.4
Engineering	8.8	10.3	4.5	12.2	6.9	4.2
General Education	3.5	3.3	4.2	2.4	4.1	3.4
Health	6.0	3.5	17.7	4.1	5.9	5.8
Selectivity						
Special	0.2	0.1	0.5	0.2	.2	0.3
Non-competitive	1.0	0.7	1.3	0.4	1.5	4.2
Less competitive	1.5	0.4	2.0	1.3	2.7	4.9
Competitive	13.9	10.0	23.8	13.2	15.3	23.3
Very competitive	36.3	35.2	47.2	32.4	35.6	32.4
Highly competitive	23.1	23.0	16.7	26.6	23.9	21.7
Most competitive	22.5	30.0	7.0	24.1	18.7	11.5
Size						
Small	12.0	10.3	11.7	7.7	15.7	18.4
Medium	46.0	48.6	49.8	43.7	42.9	44.2
Large	42.1	41.1	38.5	48.6	41.4	37.4
Control						
Public	32.8	42.4	40.1	41.9	44.5	48.0
Private	57.2	57.6	59.9	58.1	55.5	52.0
Live On-campus						
Yes	50.0	54.7	40.9	45.9	50.1	39.2
No	49.7	45.2	58.9	53.8	49.7	39.0
Work On-campus						
Yes	33.6	36.5	30.7	33.6	31.3	29.1
No	66.4	63.5	69.3	66.4	68.7	67.4
Have a Mentor						
Yes	87.1	85.7	90.1	89.4	86.7	78.9
No	12.7	14.0	9.9	10.1	13.2	8.1
Involved in College Organizations						
Yes	80.6	83.0	77.3	86.9	76.4	68.9
No	19.3	16.9	22.7	13.0	23.6	19.3
TYPES of ORGANIZATIONS						
Arts/Theater/Music/Media	26.7	29.3	23.4	25.0	25.5	22.7
Greeks	15.8	17.0	15.0	17.6	14.4	28.5
Honor Societies; Academic/International/Social/Special Interests	52.8	57.0	43.5	59.6	48.7	48.0

Variable	AA	Chinese	Filipino	AI	OA	Random
Identity-Based	38.6	38.3	33.4	47.7	36.6	11.4
Military	3.2	2.8	4.6	2.4	3.6	2.0
Political	7.5	6.9	5.5	13.4	6.2	10.1
Religious	19.3	17.3	14.6	24.4	20.8	16.4
Resident Assistant; New Student Transitions; Peer Helper	31.3	29.3	25.1	37.3	26.1	23.2
Service; Advocacy	28.5	29.2	25.4	37.1	24.9	24.1
Sports/Recreation	40.7	41.0	40.5	38.2	41.4	44.9
Student Governance; Campus-wide programming	24.5	24.8	20.0	34.3	21.3	18.4

Table 4.2 illustrates the means and standard deviations of the variables used in the statistical analysis for each sample: the overall Asian American sample, the non-Asian random sample, as well as the three subpopulation groups comprised of Chinese Americans, Filipino Americans, and Asian Indian Americans. Also included is the “all other Asians” group that was part of the original 2009 MSL data: Korean Americans, Japanese Americans, and Vietnamese Americans.

Table 4.2 Means and Standard Deviations

Variable	All Asian (n = 6,786)		Chinese American (n = 2,601)		Filipino American (n = 761)		Asian Indian (n = 1,031)		All Other Asians (n = 2,393)		Non-Asian Random Sample (n= 5,305)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Gender	1.40	.49	1.41	.49	1.38	.48	1.41	.49	1.41	.49	1.34	.47
Parents' education	4.77	1.92	4.68	2.15	4.79	1.47	5.32	1.56	4.62	1.87	4.73	1.64
High School Involvement	.52	.50	.53	.50	.49	.50	.51	.50	.52	.50	.51	.50
Age	20.8	3.24	20.5	2.9	20.9	3.31	20.4	3.04	21.2	3.58	21.5	5.16
MAJOR												
Agriculture/Parks, Recreation, Leisure Studies, Sports Management	.00	.07	.00	.06	.00	.05	.00	.07	.01	.07	.01	.11
Architecture/Urban Planning	.01	.08	.01	.09	.01	.10	.00	.05	.01	.09	.01	.10
Arts & Humanities	.13	.34	.11	.32	.14	.34	.07	.25	.18	.39	.22	.41
Behavioral & Social Sciences	.14	.34	.13	.33	.16	.36	.13	.33	.15	.36	.17	.37
Business	.25	.43	.29	.45	.21	.41	.23	.42	.21	.41	.17	.38
Computer/Information Sciences, Math, & Natural Sciences	.26	.44	.27	.44	.19	.40	.37	.48	.23	.42	.16	.37
Education	.03	.16	.02	.13	.03	.16	.02	.12	.04	.20	.08	.27
Engineering	.09	.28	.10	.03	.04	.21	.12	.33	.07	.25	.05	.22
General Education	.04	.18	.03	.18	.04	.20	.02	.15	.04	.20	.04	.20
Health	.06	.24	.04	.18	.18	.38	.04	.20	.06	.23	.07	.26
Selectivity	5.53	1.18	5.72	1.1	5.03	1.10	5.65	1.17	5.44	1.25	5.04	1.34
Size	2.30	.67	2.31	.65	2.27	.66	2.41	.63	2.26	.71	2.19	.72
Control	1.57	.50	1.58	.49	1.60	.49	1.58	.49	1.55	.50	1.52	.50
Live On-campus	1.50	.50	1.55	.5	1.41	.49	1.46	.50	1.50	.50	1.50	.50
Work On-campus	1.66	.47	1.64	.48	1.69	.46	1.66	.47	1.69	.46	1.70	.46
Have a mentor	.87	.33	.86	.35	.90	.30	.90	.30	.87	.34	.91	.29
Involved in College Organizations	.81	.39	.83	.38	.77	.42	.87	.30	.76	.42	.78	.41
TYPES of ORGANIZATIONS												
Arts/Theater/Music/Media	.27	.44	.29	.46	.23	.42	.25	.43	.26	.44	.26	.44
Greeks	.16	.36	.17	.37	.15	.36	.18	.38	.14	.35	.28	.45
Honor Societies;	.53	.50	.57	.50	.44	.50	.60	.49	.49	.50	.48	.50
Academic/International/Social/Special Interests												
Identity-Based	.39	.49	.38	.49	.34	.47	.48	.50	.37	.48	.13	.34
Military	.03	.18	.03	.16	.05	.21	.02	.15	.04	.19	.02	.15
Political	.07	.26	.07	.25	.06	.23	.13	.34	.06	.24	.12	.32
Religious	.19	.40	.17	.38	.15	.35	.24	.43	.21	.40	.19	.39
Resident Assistants; New Student Transitions; Peer Helper	.31	.46	.36	.48	.25	.43	.37	.48	.26	.44	.27	.44
Service; Advocacy	.29	.45	.29	.46	.25	.44	.37	.48	.25	.43	.28	.45
Sports/Recreation	.41	.49	.41	.49	.41	.49	.38	.49	.41	.49	.51	.50
Student Governance; Campus-wide programming	.25	.43	.25	.43	.20	.40	.34	.48	.21	.41	.21	.41
Socio-cultural Discussions	2.64	.75	2.53	.70	2.66	.78	2.94	.73	2.63	.75	2.71	.77
Nondiscriminatory Climate	3.57	.85	3.52	.83	3.77	.85	3.67	.89	3.52	.83	3.82	.86
Sense of Belonging	3.58	.79	3.58	.76	3.64	.81	3.69	.83	3.51	.80	3.71	.82

Perception of Sense of Belonging for All Asian American College Students

(Research Question 1)

To have a better understanding of the dependent variable, sense of belonging, it is helpful to see how it is distributed by some of the independent variables across groups. In order to properly analyze sense of belonging in this way, the variable must be transformed into a categorical variable from its current continuous variable form by creating categories within the scale. The original data shows the sense of belonging variable as a total average score across the three item scale with the ordinal response choices of (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly Agree. A 3-category variable consisting of low, medium, and high total average scores was created for sense of belonging. Low consists of average total score of 1 – 2.99; medium with a total average score of 3.00 – 3.99; and high including total average scores between 4 – 5. Missing data was not recoded or included in the analyses. Table 4.3 displays the distribution percentages breakdown of sense of belonging and other related variables by ethnic groups.

Table 4.3 Distribution of Sense of Belonging By Group

Variable	All Asian (n = 6,786)			Chinese American (n = 2,601)			Filipino American (n = 761)			Asian Indian (n = 1,031)			All Other Asians (n = 2,393)			Non-Asian Random Sample (n = 5,305)		
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
	%			%			%			%			%			%		
Gender																		
Female	13.0	42.6	44.4	11.4	43.0	45.6	11.6	42.9	45.5	11.9	37.1	51.0	15.7	44.3	40.1	11.7	33.4	54.9
Male	12.5	43.5	44.0	11.5	47.2	41.3	12.2	34.5	53.3	11.9	37.3	50.8	13.8	44.9	41.2	13.5	34.5	52.0
Parents' education																		
< high school diploma/GED	18.1	46.5	35.4	18.8	46.4	34.8	00.0	57.1	42.9	16.7	33.3	50.0	18.3	48.4	33.3	11.5	38.5	50.0
High school diploma/GED	11.9	48.9	39.1	10.1	51.1	38.8	17.2	43.1	39.7	11.9	41.8	46.3	13.4	48.5	38.1	13.3	35.7	51.0
Some college	14.5	44.2	41.3	12.8	45.8	41.4	12.1	43.9	43.9	14.6	40.2	45.1	16.4	44.4	39.2	13.9	40.6	45.5
Associates degree	16.7	41.1	42.2	10.3	45.6	44.1	13.7	41.2	45.1	19.5	34.1	46.3	20.5	41.0	38.5	15.4	31.6	53.0
Bachelors degree	11.6	42.0	46.3	10.0	44.2	45.9	10.6	38.9	50.4	09.4	39.9	50.7	14.2	43.0	42.8	11.9	31.9	56.2
Masters degree	11.3	39.1	49.6	08.7	41.7	49.5	13.2	30.2	56.6	12.5	34.4	53.1	13.2	41.4	45.3	10.9	31.7	57.3
Doctorate or professional degree	13.2	39.4	47.4	13.6	36.8	49.6	06.8	45.9	47.3	11.9	35.2	52.9	15.2	45.2	39.7	11.5	32.5	55.9
High School Involvement																		
Yes	13.8	42.3	43.9	12.0	43.1	44.9	13.6	40.2	46.3	13.0	37.6	49.4	16.3	44.0	39.7	13.3	33.9	52.8
No	11.7	43.7	44.6	11.0	46.5	42.6	10.2	39.3	50.5	10.8	36.9	52.4	13.5	45.1	41.4	11.3	33.6	55.1
Live On-campus																		
Yes	12.0	40.2	47.8	10.4	40.7	48.9	12.2	36.3	51.4	10.6	38.3	51.1	14.4	41.2	44.4	11.0	28.9	60.1
No	13.7	45.8	40.5	12.9	49.5	37.6	11.6	42.3	46.1	13.0	36.3	50.6	15.6	47.7	36.6	13.9	38.6	47.6
Work On-campus																		
Yes	11.3	39.6	49.1	10.0	42.9	47.1	08.5	37.6	53.8	11.6	35.5	52.9	13.5	38.0	48.5	10.6	03.3	59.1
No	13.6	44.6	41.8	12.3	45.8	41.9	13.3	40.7	46.0	12.0	38.1	49.9	15.7	47.5	36.8	13.2	35.4	51.4
Have a Mentor																		
Yes	11.7	41.5	46.7	10.4	42.9	46.7	11.7	38.2	50.1	11.1	35.4	53.5	13.5	43.9	42.6	11.5	32.6	55.9

	All Asian			Chinese American			Filipino American			Asian Indian			All Other Asians			Non-Asian Random Sample		
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
	%			%			%			%			%			%		
No	20.3	52.6	27.1	17.8	55.6	26.6	13.3	53.3	33.3	19.4	52.4	28.2	25.0	49.1	25.9	20.9	45.9	33.2
Involved in College Organizations																		
Yes	11.6	40.6	47.8	10.1	43.0	47.0	11.2	35.4	53.3	11.4	36.5	52.0	13.6	41.4	45.0	10.3	31.2	58.5
No	17.9	52.8	29.3	18.4	53.2	28.4	13.9	54.3	31.8	14.9	41.8	43.3	19.5	54.6	25.9	20.0	43.1	37.0
Socio-cultural Discussions																		
Low	14.3	47.5	38.2	12.6	47.9	39.4	12.4	43.4	44.2	13.7	47.2	39.1	17.1	48.4	34.6	13.8	37.3	48.9
Medium	10.1	36.7	53.2	9.2	38.6	52.2	10.6	33.3	56.0	09.7	31.1	59.1	11.2	39.8	49.1	10.0	29.8	60.2
High	10.8	30.3	58.9	7.7	31.7	60.6	11.8	35.5	52.6	12.4	24.1	63.5	11.4	31.4	57.1	11.2	25.9	62.9
Nondiscriminatory Climate																		
Low	22.4	29.1	48.5	19.0	27.6	53.4	25.0	16.7	58.3	27.6	27.6	44.8	22.7	33.3	43.9	30.8	24.0	45.2
Medium	17.8	42.7	39.5	14.6	43.6	41.9	13.9	40.6	45.5	23.8	33.8	42.5	19.8	45.4	34.8	21.4	35.9	42.7
High	11.4	43.5	45.1	10.5	45.5	44.0	11.3	40.0	48.7	09.1	38.2	52.7	13.5	44.8	41.8	10.7	33.7	55.6

In further analysis of the distribution of sense of belonging across the sample groups, the percentage breakdown of students' perception of sense of belonging illustrates the impact from the various related variables. By gender, about half of the participants are in the high range for all three subpopulation groups with Asian Indian females reporting the most at 51% while Filipino American males have 53% in the high score range. Looking at parents' education, overall students that reported a higher level of sense of belonging also reported higher levels of parents' education. In Chinese American students, when parents held less than a high school diploma or GED, there were 35% of students in the high range of sense of belonging whereas it rose to 50% in the high sense of belonging when parents held doctorate or professional degrees. Similar scenarios were seen for Filipino Americans and Asian Indian families. There appears to be no difference whether students were involved in high school or not. Students living and/or working on-campus tend to show a higher sense of belonging than students not living or working on-campus. The more involved in college organizations the student was, the higher the sense of belonging. The higher the participation in socio-cultural discussions with peers, the higher the sense of belonging with 61%, 53%, and 64% for Chinese Americans, Filipino Americans, and Asian Indian Americans, respectively. Findings for perception of nondiscriminatory climate did not show a similar pattern as in the other variables. Higher levels of perception of nondiscriminatory climate did not necessarily show a higher sense of belonging. Similar levels of sense of belonging were found with low perception of nondiscriminatory climate as with high perception of nondiscriminatory climate.

Further for research question 1, a one-way ANOVA was conducted to determine if there are differences in perception of sense of belonging between the ethnic subpopulations, specifically Chinese American, Filipino American, and Asian Indian American college students and do these subpopulations differ from the overall Asian American college students and a random sample of non-Asian college students in their sense of belonging.

A one-way ANOVA was used to test for perception of sense of belonging differences among the Asian subpopulations and non-Asian random sample. Perceptions for sense of belonging differed significantly across the groups ($F(4, 12071) = 27.80, p < .001$). Table 4.4 displays the sense of belonging multiple comparisons across the three ethnic subpopulations under study. The all other Asians group has the lowest mean at 3.52 and the non-Asian random group had the highest mean at 3.71 when comparing all groups. Within the three subpopulations under study, the Chinese American students have the lowest mean of 3.58 and the Asian Indian American students have the highest mean at 3.69. As presented in Table 4.4, Tukey HSD post hoc tests were utilized to examine significant differences among the groups under study. Chinese Americans students ($M = 3.58, SD = .76$) reported lower sense of belonging compared to Asian Indian students ($M = 3.69, SD = .83$) and the non-Asian random sample ($M = 3.71, SD = .82$) yet a statistically significant higher sense of belonging compared to the all other Asian students ($M = 3.52, SD = .80$). Asian Indian students ($M = 3.69, SD = .83$) reported higher sense of belonging compared to Chinese American students ($M = 3.58, SD = .76$) and the all other Asian students ($M = 3.52, SD = .80$). Filipino American students ($M = 3.64, SD = .81$)

reported higher sense of belonging than the all other Asian students ($M = 3.52, SD = .80$). The all other Asian students ($M = 3.51, SD = .80$) reported lower sense of belonging scores compared to Chinese American students ($M = 3.58, SD = .76$), Asian Indian students ($M = 3.69, SD = .83$), Filipino American students ($M = 3.64, SD = .81$), and the non-Asian random sample students ($M = 3.71, SD = .82$). Non-Asian random sample students ($M = 3.71, SD = .82$) reported higher sense of belonging compared to Chinese American students ($M = 3.58, SD = .76$) and the all other Asian students ($M = 3.51, SD = .80$).

Table 4.4 Sense of Belonging Multiple Comparisons

	Subpopulation Groups to Compare	Subpopulation Groups to Compare	Mean Difference
<i>Tukey HSD</i>	Chinese American (<i>M</i> = 3.58)	Asian Indian (<i>M</i> = 3.69)	-.11***
		Filipino American (<i>M</i> = 3.64)	-.06
		All Other Asians (<i>M</i> = 3.52)	.06*
		Non-Asian Random (<i>M</i> = 3.71)	-.13**
	Asian Indian (<i>M</i> = 3.69)	Chinese American (<i>M</i> = 3.58)	.11***
		Filipino American (<i>M</i> = 3.64)	.05
		All Other Asians (<i>M</i> = 3.52)	.18**
		Non-Asian Random (<i>M</i> = 3.71)	-.01
	Filipino American (<i>M</i> = 3.64)	Chinese American (<i>M</i> = 3.58)	.06
		Asian Indian (<i>M</i> = 3.69)	-.05
		All Other Asians (<i>M</i> = 3.52)	.12**
		Non-Asian Random (<i>M</i> = 3.71)	-.07
	All Other Asians (<i>M</i> = 3.52)	Chinese American (<i>M</i> = 3.58)	-.06*
		Asian Indian (<i>M</i> = 3.69)	-.18**
		Filipino American (<i>M</i> = 3.64)	-.12**
		Non-Asian Random (<i>M</i> = 3.71)	-.19**
	Non-Asian Random (<i>M</i> = 3.71)	Chinese American (<i>M</i> = 3.58)	.13**
		Asian Indian (<i>M</i> = 3.69)	.01
		Filipino American (<i>M</i> = 3.64)	.07
		All Other Asian (<i>M</i> = 3.52)	.19**

p*<.05, *p*<.01, ****p*<.001

Predictors of Sense of Belonging for All Asian American College Students

(Research Question 2)

Given the exploratory nature of this study, research question two aimed to determine which collegiate experiences predict sense of belonging for all Asian American college students after controlling for background and input characteristics. A hierarchical multiple regression model was designed for further analysis as presented in Table 3.1 according to Astin's (1993) I-E-O model.

Prior to running the analysis, appropriate steps were taken to check for model assumptions of independent, normally distributed and constant varied errors to maintain appropriate model inference (Lomax, 2007). Measures were taken to ensure that multicollinearity was not present among the variables. All variables had a variance inflation factor (VIF) in the 1.03 – 2.48 range much lower than Pallant's (2007) maximum acceptable limit of 10. Graphs of residuals were checked to ensure the assumptions of the regression model were met.

Model Summary

Overall, the entire model accounted for 14.1% of the variance in all Asian students' perceptions of sense of belonging. R^2 is the amount of variance in the dependent variable (sense of belonging) that can be explained by the independent variables. Adjusted R^2 will be reported as it takes into account the large number of predictors and sample size. In this study, $R^2 = .145$ and adjusted $R^2 = .141$. Small differences between R^2 and adjusted R^2 indicate little to no presence of extraneous independent variables in the regression model. Table 4.5 provides a summary of the regression model findings.

The first block of the regression model included students' demographics (gender and parents' education) and explained an initial 0.3% of the variance ($\Delta F = 10.77, p < .001$) in scores on sense of belonging for all Asian American college students. Pre-college involvement was entered next and did not account for a significant amount of additional variance in sense of belonging scores ($\Delta F = 2.28, p > .05$). Next, bridge variables of age and major were then entered into the model explaining an additional 0.4% variance ($\Delta F = 2.78, p < .01$). Institutional characteristics (selectivity, size, and control) were entered into the model accounting for 0.4% of variance in sense of belonging scores ($\Delta F = 9.55, p < .001$). Lastly, the final block included various collegiate experiences and involvements that significantly added 13.3% to the overall variance explained in the dependent variable ($\Delta F = 61.13, p < .001$).

Table 4.5 Predictive Model Summary for All Asian American Students' Sense of Belonging

All Asians (N = 6,703)				
Block/Descriptions	R²	Adj. R²	Change Statistics	
			ΔF	ΔR²
1. Demographics	.003	.003	10.77	.003***
2. High School Involvements	.004	.003	2.28	.000
3. Bridge Variables	.008	.006	2.78	.004**
4. Institutional Characteristics	.012	.010	9.55	.004***
5. Environments	.145	.141	61.13	.133***

* $p < .05$, ** $p < .01$, *** $p < .001$

Coefficients

Table 4.6 exhibits all of the predictors in the regression model for all Asian American college students. Predictors indicate significance as a level of $p < .05$, $.01$, and $.001$. Of the over 34 independent variables in the regression model, there were nine variables that were significant at the $p < .001$ level as predictors of Asian American college students' sense of belonging. These variables include: age ($\beta = .05, p < .001$), having a mentor ($\beta = .08, p < .001$), involvement in a college organization in general ($\beta = .06, p < .001$), involvement in Student Governance; Campus-Wide Programming ($\beta = .08, p < .001$), or Sports/Recreation ($\beta = .05, p < .001$) organizations, participation in socio-cultural discussions ($\beta = .18, p < .001$), and perception of nondiscriminatory climate ($\beta = .21, p < .001$). Two variables were significant in predicting lower sense of belonging that involved working on campus ($\beta = -.04, p < .001$) and involvement in a military type of student organization ($\beta = -.04, p < .001$).

Table 4.6 Predictors of All Asian College Students' Sense of Belonging

Block/Descriptions	Standardized β
1. Demographics	
Gender (Male)	.03*
Parent's Education	.01
2. High School Involvement	
	-.001
3. Bridge Variables	
Age	.05***
Major (General Education)	
Agriculture/Parks, Recreation, Leisure Studies, Sports Management	.00
Architecture/Urban Planning	.01
Arts & Humanities	.01

Block/Descriptions	Standardized β
Behavioral & Social Sciences	.01
Business	.07*
Computer/Information Sciences, Math, & Natural Sciences	.06*
Education	.03
Engineering	-.01
Health	.05**
<hr/>	
4. Institutional Characteristics	
Selectivity	-.02
Size	-.02
Control (Private)	-.04*
<hr/>	
5. Environments	
Live on-campus	.04**
Work on-campus	-.04***
Have a Mentor	.08***
Involved in College Organizations	.06***
Types of Organizations	
Arts/Theater/Music/Media	.03*
Greeks	.03**
Honor Societies; Academic/International/Social/Special Interests	.03**
Identity-Based	.02*
Military	-.04***
Political	-.01
Religious	.02*
Resident Assistants; New Student Transitions; Peer Helper	.04**
Service; Advocacy	.01
Sports/Recreation	.05***
Student Governance; Campus-wide programming	.08***
Socio-cultural Discussions	.18***
Nondiscriminatory Climate	.21***

* $p < .05$, ** $p < .01$, *** $p < .001$

Note that for the 10 major variables the referent major was a new variable called General Education that was comprised of *liberal/general studies* and *undecided* majors in the original MSL dataset. General education was chosen as the referent group as it was a generic catch-all option for the major category that was not a specific discipline compared to the more distinct major options.

Predictors of Sense of Belonging for Subpopulations Under Study

(Research Question 3)

Research Question 3 explores the effects of the same collegiate experiences as in the first regression model but specifically focused on the three subpopulations under study that include Chinese Americans, Filipino Americans, and Asian Indian Americans. Similar procedures were followed to check statistical assumptions for the regression model. Table 4.7 presents the regression model and its predictors. This section will describe each regression model for each subpopulation separately and then discuss comparisons in the following chapter.

Table 4.7 Predictive Model Summary for Three Subpopulations Under Study on Sense of Belonging

Block/ Descriptions	Chinese American (N = 2,570)				Filipino American (N = 750)				Asian Indian American (N = 1,016)			
	R^2	Adj. R^2	ΔF	Change Statistic ΔR^2	R^2	Adj. R^2	ΔF	Change Statistic ΔR^2	R^2	Adj. R^2	ΔF	Change Statistic ΔR^2
1. Demographics	.01	.01	8.68	.01***	.00	-.00	.32	.00	.00	.00	1.63	.00
2. High School Involvements	.01	.01	.15	.00	.01	.00	3.40	.01	.00	.00	.94	.00
3. Bridge Variables	.02	.01	2.25	.01**	.02	.01	1.41	.02	.01	-.00	.63	.01
4. Institutional Characteristics	.03	.02	11.89	.01***	.04	.02	4.18	.02**	.02	.00	1.76	.01
5. Environments	.14	.12	18.42	.11***	.18	.14	7.06	.14***	.18	.15	11.53	.16***

* $p < .05$, ** $p < .01$, *** $p < .001$

Model Summary for Chinese American Students

The entire model accounted for 12% of the variance in scores on the sense of belonging scale for Chinese American students ($R^2 = .12$, $F(33, 2536) = 12.07$, $p < .001$). Adjusted R^2 and R^2 held very small differences ($R^2 = .14$ and $\Delta R^2 = .12$)

indicating a parsimonious model. In the first block of demographics entered into the model, initially 1% of the variance of sense of belonging scores was explained ($\Delta F = 8.68, p < .001$). Next, students' high school involvement was entered into the model accounting for no variance in the sense of belonging scores. ($\Delta F = .15, p > .05$).

Bridge variables of age and major were then entered into the model explaining an additional 1% variance ($\Delta F = 2.25, p < .01$). Institutional characteristics (selectivity, size, and control) were entered into the model accounting for another 1% of variance in sense of belonging scores ($\Delta F = 11.89, p < .001$). Lastly, the final block included various collegiate experiences and involvements that significantly added 11% to the overall variance explained in the dependent variable ($\Delta F = 18.42, p < .001$).

Model Summary for Filipino American Students

The entire model accounted for 14% of the variance in scores on the sense of belonging scale for Filipino American students ($R^2 = .18, F(33, 716) = 4.70, p < .001$). Adjusted R^2 and R^2 held very small differences ($R^2 = .18$ and $\Delta R^2 = .14$) indicating a parsimonious model. In the first block of demographics entered into the model, initially no variance of sense of belonging was explained ($\Delta F = .32, p > .05$). Next, students' high school involvement was entered into the model accounting for 1% variance in the sense of belonging scores. ($\Delta F = 3.40, p > .05$).

Bridge variables of age and major were then entered into the model explaining an additional 2% variance ($\Delta F = 1.41, p > .05$). Institutional characteristics (selectivity, size, and control) were entered into the model accounting for another 2% of variance in sense of belonging scores ($\Delta F = 4.18, p < .01$). Lastly, the final block included

various collegiate experiences and involvements that added 14% to the overall variance explained in the dependent variable ($\Delta F = 7.06, p < .001$).

Model Summary for Asian Indian American Students

The entire model accounted for 15% of the variance in scores on the sense of belonging scale for Asian Indian American students ($R^2 = .18, F(33, 982) = 6.50, p < .001$). Adjusted R^2 and R^2 held very small differences ($R^2 = .18$ and $\Delta R^2 = .15$) indicating a parsimonious model. In the first block of demographics entered into the model, initially no variance was explained ($\Delta F = 1.63, p > .05$). Next, students' high school involvement was entered into the model accounting for no variance in the sense of belonging scores. ($\Delta F = .94, p > .05$).

Bridge variables of age and major were then entered into the model explaining a 1% variance ($\Delta F = .63, p > .05$). Institutional characteristics (selectivity, size, and control) were entered into the model accounting yielded another 1% of variance in sense of belonging scores ($\Delta F = 1.76, p > .05$). Lastly, the final block included various collegiate experiences and involvements that significantly added 16% to the overall variance explained in the dependent variable ($\Delta F = 11.53, p < .001$).

Individual Subpopulation Predictor Results

Table 4.8 exhibits all of the independent variables entered into the regression models for all groups. To follow, each subpopulation will be analyzed separately reporting findings distinct and relevant to its respective group. Again, as an exploratory study the alpha level will be set at $p < .001$ to demonstrate significance due to the robust sample size and extensive variables included in the model. Beta coefficients significant to the level of $p < .001$ will be identified as significant in this

regression model although beta coefficients significant at a more generous threshold ($p < .05$, $p < .01$) are still noted in the table.

Table 4.8 Predictors of Subpopulations' Sense of Belonging

Block/Descriptions	Chinese American (<i>n</i> = 2,570)	Filipino American (<i>n</i> = 750)	Asian Indian American (<i>n</i> = 1,016)
	β	β	β
1. Demographics			
Gender (Male)	-.00	.04	.05
Parent's Education	.03	-.01	.01
2. High School Involvement			
	.01	-.02	-.01
3. Bridge Variables			
Age	.07***	.11**	.04
Major (General Education)			
Agriculture/Parks, Recreation, Leisure Studies, Sports Management	-.04*	.00	.01
Architecture/Urban Planning	-.02	.03	.02
Arts & Humanities	-.05	-.01	.04
Behavioral & Social Sciences	-.04	.04	.02
Business	-.01	.06	.10
Computer/Information Sciences, Math, & Natural Sciences	-.02	.05	.12
Education	-.00	.03	.04
Engineering	-.04	-.01	.07
Health	-.04	.15*	.00
4. Institutional Characteristics			
Selectivity	-.01	-.06	-.01
Size	-.05	-.05	-.03
Control (Private)	-.04	-.00	-.13***
5. Environments			
Live on-campus	.05*	.05	-.02
Work on-campus	-.01	-.07	-.03
Have a Mentor	.09***	.04	.11***
Involved in College Organizations	.08***	.10**	-.01
Types of Organizations			
Arts/Theater/Music/Media	.03	.01	.00
Greeks	.02	.06	.04
Honor Societies; Academic/International/Social/Special Interests	.03	-.01	.02
Identity-Based			
Military	-.05*	-.03	-.02
Political	-.03	-.01	.05
Religious	.04	.06	.03
Resident Assistants; New Student Transitions; Peer Helper Service; Advocacy	.03	.01	.07*
Service; Advocacy	.03	-.00	-.01
Sports/Recreation	.02	.12**	.06
Student Governance; Campus-wide programming	.08***	.08*	.08*
Socio-cultural Discussions	.17***	.17***	.15***
Nondiscriminatory Climate	.16***	.23***	.28***

* $p < .05$, ** $p < .01$, *** $p < .001$

Chinese American Students. The following predictors of Chinese Americans' sense of belonging scores with significance at the $p < .001$ level are: age

($\beta = .07, p < .001$), having a mentor ($\beta = .07, p < .001$), involved in a college organization in general ($\beta = .08, p < .001$), involvement in Student governance; campus-wide programming ($\beta = .08, p < .001$), participation in socio-cultural discussions ($\beta = .17, p < .001$), and perceptions of nondiscriminatory climate ($\beta = .16, p < .001$).

Filipino American Students. The following predictors of Filipino Americans' sense of belonging scores with significance at the $p < .001$ level are: participation in socio-cultural discussions ($\beta = .17, p < .001$), and perceptions of nondiscriminatory climate ($\beta = .23, p < .001$).

Asian Indian American Students. The following predictors of Asian Indian Americans' sense of belonging scores with significance at the $p < .001$ level are: involvement in a college organization in general ($\beta = .11, p < .001$), participation in socio-cultural discussions ($\beta = .15, p < .001$), and perceptions of nondiscriminatory climate ($\beta = .28, p < .001$). One variable was significant in predicting lower sense of belonging scores – the institutional characteristic of control ($\beta = -.13, p < .001$).

Significant Differences in Predictors That Contribute to Sense of Belonging Between Groups – Standardized (beta, *B*) and Unstandardized (*b*)

Table 4.9 exhibits the predictive power of the variables after all five blocks were entered into the regression equation. Both standardized beta (*B*) and unstandardized (*b*) regression weights for all three population groups are shown. Note in the table that unstandardized betas are in italics. Also, t-tests between samples were conducted, and significant differences between beta coefficients at the p -level of .05 or lower are shown in the table.

Table 4.9 Final Standardized Regression Coefficients For Significant Predictors of Sense of Belonging

	Regression Weights – Standardized Beta-weights, <i>Unstandardized Beta-weights</i> , (<i>t tests</i> ^a , unstandardized by weights)		
	<u>A</u> Chinese Americans n = 2,570	<u>B</u> Filipino Americans n = 750	<u>C</u> Asian Indians n = 1,016
Variables			
1. Demographics			
Gender (Male)	-.00	.04	.05
	-.00	.07	.08
Parent's Education	.03	-.01	.01
	.01	-.00	.00
2. High School Involvement	.01	-.02	-.01
	.01	-.04	-.01
3. Bridge Variables			
Age	.07***	.11**	.04
	.02	.03	.01
Major (General Education)			
Agriculture/Parks, Recreation, Leisure Studies, Sports Management	-.04*	.00	.01
	-.52	.04	.15
Architecture/Urban Planning	-.02	.03	.02
	-.13	.26	.31
Arts & Humanities	-.05	-.01	.04
	-.13	-.02	-.07
Behavioral & Social Sciences	-.04	.04	.02
	-.09	.01	-.15
Business	-.01	.06	.10
	-.02	.12	.20
Computer/Information Sciences, Math, & Natural Sciences	-.02	.05	.12
	-.04	.11	.21
Education	-.00	.03	.04
	-.02	.13	.27
Engineering	-.04	-.01	.07
	-.11	-.04	.17
Health	-.04	.15*	.00

	Chinese Americans	Filipino Americans	Asian Indians
	<i>-.16(B)</i>	<i>.32(A)</i>	<i>.02</i>
4. Institutional Characteristics			
Selectivity	-.01	-.06	-.01
	<i>-.01</i>	<i>-.04</i>	<i>-.01</i>
Size	-.05	-.05	-.03
	<i>-.06</i>	<i>-.06</i>	<i>-.04</i>
Control (Private)	-.04	-.00	-.13***
	<i>-.06(C)</i>	<i>-.01(C)</i>	<i>-.23(A,B)</i>
5. Environments			
Live on-campus	.05*	.05	-.02
	<i>.07</i>	<i>.07</i>	<i>-.03</i>
Work on-campus	-.01	-.07	-.03
	<i>-.02</i>	<i>-.12</i>	<i>-.05</i>
Have a mentor	.09***	.04	.11***
	<i>.19</i>	<i>.11</i>	<i>.30</i>
Involved in College Organizations	.08***	.10**	-.01
	<i>.16(C)</i>	<i>.20(C)</i>	<i>-.03(A,B)</i>
Types of Organizations			
Arts/Theater/Music/Media	.03	.01	.00
	<i>.05</i>	<i>.02</i>	<i>.01</i>
Greeks	.02	.06	.04
	<i>.03</i>	<i>.13</i>	<i>.10</i>
Honor Societies; Academic/International/Social/Special Interests	.03	-.01	.02
	<i>.05</i>	<i>-.02</i>	<i>.04</i>
Identity-Based	.03	.01	.08*
	<i>.04</i>	<i>.02</i>	<i>.13</i>
Military	-.05*	-.03	-.02
	<i>-.24</i>	<i>-.13</i>	<i>-.10</i>
Political	-.03	-.01	.05
	<i>-.09(C)</i>	<i>-.04</i>	<i>.12(A)</i>
Religious	.04	.06	.03
	<i>.07</i>	<i>.14</i>	<i>.06</i>
Resident Assistants; New Student Transitions; Peer Helper	.03	.01	.07*
	<i>.04</i>	<i>.02</i>	<i>.12</i>
Service; Advocacy	.03	-.00	-.00
	<i>.05</i>	<i>-.01</i>	<i>-.01</i>
Sports/Recreation	.02	.12**	.06
	<i>.03(B)</i>	<i>.19(A)</i>	<i>.10</i>

	Chinese Americans	Filipino Americans	Asian Indians
Student Governance; Campus-wide programming	.08***	.08*	.08*
	.14	.16	.14
Socio-cultural Discussions	.17***	.17***	.15***
	.18	.17	.17
Nondiscriminatory Climate	.16***	.23***	.28***
	.15(C)	.22	.26(A)
^a Results of t tests shown by letters in parenthesis, e.g., (A) indicates an effect that differs significantly from the unstandardized beta-weight for group A (Chinese Americans) * $p < .05$, ** $p < .01$, *** $p < .001$			

Through this analysis, a comparison between the subpopulations' unstandardized betas was conducted. There are six variables seen as significant predictors of sense of belonging from these between-group comparisons. The variables are: (a) attending a private institution; (b) the Health major; (c) being involved in college organizations in general; (d) involvement specifically in political types of organizations; (e) involvement in sports/recreation type of organizations, and (f) perceptions of nondiscriminatory climate.

The strongest statistically significant predictor for all three groups was the nondiscriminatory climate. Perception of nondiscriminatory climate is a stronger predictor for Asian Indian American students than Chinese American students. This is a significant predictor and is consistent with the regression model where all three subpopulations indicated perceptions of a nondiscriminatory climate being significant at a p -level $< .001$. A second significant variable was attending a private institution which may have a higher negative impact on sense of belonging for Asian Indian American students than for Chinese American students as well as with Filipino American students at a $p < .001$ level.

Three types of involvement variables were identified as significant predictors. First, general involvement in a college organization is a stronger predictor for Chinese Americans than Asian Indian Americans. Second, specific involvement in political types of college organization predicted a lower sense of belonging in Chinese Americans compared to Asian Indian American students. The third and final involvement predictor was participation in sports/recreation types of college organizations being a stronger predictor for Filipino Americans than Chinese Americans. Finally, the major of Health has a negative effect on sense of belonging for Chinese Americans compared to Filipino Americans. Specifics can be seen for these predictors in Table 4.9.

Summary

This chapter provided a detailed summary of the multiple groups that are included within this study. Many findings resulted from the broad array of independent sample t-tests, chi-square calculations, and multiple regression analyses. Chapter Five will discuss the major findings presented in this chapter and provide implications and recommendations for future research.

CHAPTER FIVE: DISCUSSION

The purpose of this exploratory study was to determine what specific collegiate experiences and environments predict sense of belonging for Asian American college students and specifically for Chinese Americans, Filipino Americans, and Asian Indian Americans. The following research questions guided the study:

1. Among Asian American college students, are there differences in perception of sense of belonging between the ethnic subpopulations, specifically Chinese American, Filipino American, and Asian Indian American college students and do these subpopulations differ from all other Asian American college students and a random sample of non-Asian American college students in their sense of belonging? Are there differences in the distribution of sense of belonging by Asian ethnic background, other demographics/characteristics, and other important collegiate experiences like socio-cultural discussions and nondiscriminatory climate?
2. After controlling for student characteristics, do college environment factors, specifically living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-cultural discussions, and perception of nondiscriminatory climate contribute to sense of belonging for Asian American college students?
3. When controlling for pre-college variables and demographics, do college environment factors, specifically living on campus, on-campus employment, mentorship, involvement in college organizations and student groups, socio-

cultural discussions, and perception of nondiscriminatory climate contribute to sense of belonging for subsamples of Chinese American, Filipino American, and Asian Indian American college students? Are there significant differences in the variables that contribute to sense of belonging between groups?

Summary of Findings

The regression models accounted for a similar amount of variance in the scores across sense of belonging for all Asian American students in this study as well as for the three subpopulations of Chinese Americans, Filipino Americans, and Asian Indian Americans (13%, 11%, 14%, and 16% respectively).

Research Question One

To better understand the sample under study, descriptive statistics and frequencies were run on the Asian American college student participants. Asian Americans represented 6,786 or 6% of the overall sample in the 2009 MSL dataset. The three subpopulations being examined included 2,601 or 38% Chinese Americans; 761 or 11% were Filipino Americans; and 1,031 or 15% were Asian Indian Americans. More than half of the participants were female with 59.4%, 62.3%, and 58.1% being self-identified in the subpopulation breakdown of Chinese Americans, Filipino Americans, and Asian Indian Americans respectively. In terms of mentorship, most students had a mentor within each group. Chinese Americans were the least likely to have a mentor (85.7%), while most Filipino Americans had a mentor (90.1%), followed closely by Asian Indian American students (89.4%). Focusing on involvement in college organizations, of Chinese Americans, 83% reported having student organization involvement, with Filipino Americans slightly

lower at 77.3%, and Asian Indians slightly higher at 86.9%. Delving deeper into what types of organizations students are involved in indicated similar trends in all groups with high involvement in sports and recreation (41%, 40.5%, 38.2%, respectively) followed by identity based (38.3%, 33.4%, 47.7%, respectively) organizations.

In terms of the distribution of sense of belonging across the sample groups, by gender about half of the participants fall into the high category for all three groups with Asian Indian females being most likely to fall into the high category at 51% while Filipino American males have 53% in the high range. The more involved in college organizations the student was, the higher his or her sense of belonging. With higher participation in socio-cultural discussions with peers, the higher sense of belonging was seen at 61%, 53%, and 64% respectively of those with high participation falling into the high sense of belonging category for Chinese Americans, Filipino Americans, and Asian Indian Americans. In other words, a greater number of respondents in the high category of socio-cultural discussion also were in the high category for sense of belonging. In looking at perceptions of nondiscriminatory climate and sense of belonging, the reverse needs to be observed due to the inverse nature of the variable. Meaning, low nondiscriminatory climate indicates lower incidents of discrimination are seen whether they are observed, perceived or real. A more positive climate is seen when nondiscriminatory climate is low. Hence the lower the nondiscriminatory climate is perceived the higher their sense of belonging. Within the study, low nondiscriminatory climate reveals a greater sense of belonging

in the subpopulations at 53%, 58%, and 45% respectively for Chinese Americans, Filipino Americans, and Asian Indian Americans.

Performing a one-way ANOVA found perceptions for sense of belonging were significantly different among the groups under study at the $p < .001$ level. Post hoc tests indicated that Chinese American students reported lower sense of belonging compared to Asian Indian students at the $p < .001$ level. Chinese American students have a lower sense of belonging than the non-Asian random group and Asian Indian students have a strong sense of belonging compared to the all other Asian group at $p < .01$. Table 4.4 in Chapter Four exhibits all of the comparisons for further detail.

Research Question Two

A hierarchical multiple regression analysis was conducted to identify what collegiate experiences predict sense of belonging for Asian American college students. Variables were chosen based on existing literature and studies pertaining to sense of belonging and students of color as there is very limited literature on these specific ethnic groups in this arena (Johnson et al., 2007; Hurtado & Carter, 1997). After controlling for demographic characteristics, the following predictors were significant, positive influences on sense of belonging: (a) age, (b) having a mentor, (c) being involved in a college organization in general, (d) involvement in Sports/Recreation type of student organizations, (e) involvement in Student Governance/Campus-wide programming type of student organizations, (f) participation in peer socio-cultural discussions and (g) a nondiscriminatory climate. Two predictors that were significant, negative predictors of sense of belonging were (a) working on-campus and (b) involvement in military type of student organizations.

Age. This variable has not been identified as having significant difference in terms of sense of belonging (Hagerty et al., 1996). Within this study, age was shown to be a significant positive predictor of sense of belonging at the p -level $< .001$. Therefore, further studies including the age variable are needed to better understand its predictive power on sense of belonging.

Mentorship. The finding of mentorship being a positive predictor of sense of belonging confirms previous studies reporting this relationship between faculty and students of color (Nora & Cabrera, 1996; Reid & Radhakrishnan, 2003). As mentorship has been identified as a predictor of leadership development (Campbell, Smith, Dugan, & Komives, 2012) and leadership development has been shown to be highly correlated with sense of belonging (Astin, 1993; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Komives, Owen, Longerbeam, Mainella, & Osteen, 2005; Thompson, 2006) this relationship between mentorship and sense of belonging is expected. Yet further investigation is needed on more specifics of this particular predictor. For example, are there particular types of mentors that have more impact on the ethnic subpopulations' sense of belonging? Perhaps student affairs administrators matter more than peer mentors. As a significant positive predictor in this study, mentorship should be incorporated into future studies and researched more thoroughly in relation to sense of belonging.

Employment. As a variable, working on-campus has led to inconsistent findings of whether this experience is a potential predictor of sense of belonging. Within this study, it is shown to be a significant negative influence on sense of belonging for Asian Americans compared to those studies that indicate on-campus

jobs do not predict one's sense of belonging (Riggert, Boyle, Petrosko, Ash, & Rude-Parkins, 2006; Strayhorn, 2008b).

Co-curricular involvement. Extensive research has confirmed co-curricular involvement yields a positive correlation between involvement and student learning and development (Astin, 1993). This pattern suggests a high potential correlation between student involvement and sense of belonging. Johnson et al. (2007) found significant differential effects in participation in co-curricular activities for Asian Americans and White/Caucasian students' sense of belonging than other racial/ethnic groups. This study's findings suggest a significant positive relationship between sense of belonging and involvement in college organizations as well as participation in socio-cultural discussions with peers. An intriguing finding is the trend of specific involvement in Sports/Recreation as well as Student Governance and campus-wide programming has a powerful impact on one's sense of belonging. This directly aligns with Hurtado and Carter's (1997) study on Latino college students where involvement in community outreach organizations, student government, and athletics or sports teams revealed greater sense of belonging. Further investigation into specific types of involvements is necessary to get a deeper understanding of particular activities that can predict sense of belonging. For example, Sports/Recreation was identified as a significant predictor for sense of belonging. Yet what specific sports are most meaningful? Team versus individual? Student governance was also found to be significant experience. Which particular organizations and/or positions prove relevant?

Further, participation in military type of organizations resulted in significant negative effect on sense of belonging in all Asian American college students. Since there is no existing literature or studies in regards to this type of activity, more extensive research must investigate deeper into this relationship and possible causes. Again, more in depth studies on particular student organization involvement will shed more light and details on what has predictive power on sense of belonging.

Research Question Three

A similar hierarchical multiple regression model was conducted for each of the subpopulation groups under study to identify those involvements that were statistically significant, positive predictors of sense of belonging. For Chinese American students, significant, positive predictors were age; having a mentor; involvement in a college organization; involvement specifically in Student Governance; Campus-wide programming; participation in peer socio-cultural discussions; and a nondiscriminatory climate on campus. For Filipino American students, significant, positive predictors were participation in socio-cultural discussions; and a nondiscriminatory climate. For Asian Indian students, significant, positive predictors were having a mentor; participation in peer socio-cultural discussions; and a nondiscriminatory climate. Although there was no negative predictor for Chinese Americans and Filipino Americans, a significant, negative predictor for Asian Indian students was whether the student attended a private institution of higher education.

Findings suggest that perceptions of a nondiscriminatory climate is a significant predictor for all three groups at the p -level $< .001$ while further analysis

indicates it is a stronger predictor of sense of belonging for Asian Indian students over Chinese American students. This finding further supports the need to disaggregate data in that not all Asians Americans are alike.

Limitations

For this study, I will highlight three limitations: data research, research design, and data analysis. The data set is from a cross sectional study which allows for a one-time data collection process. Yet, when only accounting for a moment in time, there is not an opportunity to observe any change or development that can occur as a result of experiences before or after initial data collection. Data is restricted to only the pool of variables that exist in the secondary data. The 2009 MSL study was designed to better understand how various collegiate experiences influence students' capacity for socially responsible leadership. As an exploratory study, the variables were abundant for the needs and intentions of this study.

Second, in terms of research design, the study is bound by the limitation of correlational design and indicates only associations between variables and not causal or directional relationships. Findings cannot explain the cause of the relationship, only the predictive value of each independent variable on the dependent variable.

Third, the chosen methodology of multiple regression precludes readers from understanding indirect relationships between independent and dependent variables. The results show multiple significant predictors of Asian American students' sense of belonging, yet readers are unable to infer relationships between those predictors and the dependent variable.

Implications for Practice

This study identified several collegiate experiences that support the development of a stronger sense of belonging for Asian American college students specifically, Chinese Americans, Filipino Americans and Asian Indian Americans. Campus administrators and scholar practitioners can create opportunities, types of involvements, and an environment that can further enhance and develop Asian American students' sense of belonging.

First and foremost, there is a need to educate faculty and staff in having a better understanding of this demographic of students and the importance of disaggregating the data for each ethnic group. Not all Asian Americans are the same and there were many examples within this study that illustrate the fact that the same characteristic does not have the same influence on one Asian American subpopulation as it does on another Asian American group. For example, the major grouping of agriculture/parks, recreation, leisure studies, and sports management had a statistically significant negative impact on Chinese Americans students' sense of belonging, yet it was not statistically significant for either Filipino Americans or Asian Indian Americans. Being involved in a college organization is a strong predictor for both Chinese Americans and Filipino Americans students' sense of belonging, but the same variable was non-significant for Asian Indian Americans. Hence, this study supports the need to disaggregate the data as recommended in recent Asian American higher education research and studies (iCount report, 2013; Museus, 2009; Museus & Truong, 2009; Pew Research Center, 2012;).

Students should receive institutional support that respects the uniqueness of their needs, which can lead to a greater sense of belonging and academic success. In

a recent article, “Naming Our Ignorance in Service to Our Diversity Commitment” in the *Journal of College & Character*, Larry Roper (2014) argued “how the increased diversity of our campuses demands that we [faculty, staff, and all University workers] assertively pursue increasing our knowledge of the lived experiences, needs, and cultural influences of students (p. 209).” Those involved in any educational relationships with students, particularly Asian American students, must understand their respective needs and respond to those needs accordingly.

The most significant predictor for all three subpopulations was the perception of a nondiscriminatory climate on campus. This is the perceived environment that one is surrounded by and how comfortable and accepted one feels within this community. Extant literature highlights the fact that students of color, including Asian Americans, often experience an unwelcoming campus climate that negatively impacts their sense of belonging (Hurtado, 1992; Harper & Hurtado, 2007; Maramba & Museus, 2011, 2012; Museus & Maramba, 2010; Museus & Truong, 2009). Park (2009) found Asian Americans are less likely to be happy with campus diversity. There are various ways that a campus can cultivate a more welcoming and engaging environment for a community comprised of many multicultural groups. This accepting campus climate can include activities like sponsorship of cultural fairs and festivals can create a casual educational venue to experience the diversity of its community members through cultural and social exchanges. Lectures and dialogues can provide an opportunity to learn and have a better understanding of different backgrounds that can start conversations and ways to come together. Thus it is

imperative to create and maintain a campus climate where members feel connected and accepted, increasing one's sense of belonging.

Campus educators can support initiatives and strategies to provide this type of safe space for all Asian American college students that in turn can positively impact their sense of belonging. A common finding on most college campuses today is the existence of a multicultural office where there is opportunity to provide diverse educational offerings, programs, cross-cultural competency, and a physical safe space for Asian American students and other students of color. This type of diverse and inclusive environment should be central to the mission of the institution and reiterated throughout all units and service areas found throughout the campus community. Though multicultural student services and other specialized areas specifically focus on educational programs and services geared to sustain these efforts, they should not have to carry the full burden alone, and all areas should be trained and prepared for such work.

Once this environment is established, the work continues through the vast co-curricular offerings that positively impact students' sense of belonging. As this study identified, socio-cultural discussions with peers would be most beneficial for greater sense of belonging by having in-depth conversations with others on social and cultural issues related to diversity and multiculturalism. All three subpopulations consistently indicate a significant positive relationship between high participation in socio-cultural discussions and high perception of sense of belonging. Campus educators should integrate this type of cultural engagement across campus and make it readily accessible for all students, particularly students of color. A common format

is intergroup dialogues, which facilitate conversation across differences on a range of varied complex and controversial topic areas. A mandatory one-credit course may have positive implications for an incoming freshman or transfer student who is feeling alone and isolated in a new diverse environment. These are ways to better understand ourselves as we recognize differences among each other.

Within this study, there was only one specific involvement area that was identified as being a strong predictor of sense of belonging across all three subpopulations as well as for all Asian American college students, which was student governance and campus-wide programming. Student governance can include Student Government Association, Residence Hall Association, Interfraternity Council, etc. Campus-wide Programming would include a program board, a film series board, a multicultural programming committee, etc. Previous studies have confirmed that participation in these particular activities increase students' academic success and feeling like a part of a community or close network. Officers and members of these types of groups work very closely together on a regular basis due to the nature of their work and mission to the institution. Campus educators should introduce these types of involvement to Asian American students through orientation, activities fairs, and other avenues, as they are cultivators of sense of belonging and in perpetuating academic success.

Another predictor for greater sense of belonging for Asian Americans overall is to have a mentor while in college. A mentor is defined as a person who intentionally assists your growth or connects you to opportunities for career or personal development (Dugan & Komives, 2009). This individual could be a faculty

member, instructor, student affairs professional staff (e.g., student organization advisor, career counselor, Dean of Students, residence hall coordinator), employer, community member, parent/guardian or even another student. This person becomes an anchor for the student and a way to feel connected to someone on campus. The mentor can be a vessel for campus resources or a confidant for the student when needed. As a new young professional, I participated as a mentor in a student of color mentoring program where I was matched with two freshman women of Asian descent. I was a contact for them while on campus meeting them on a regular basis. In these meetings, I encouraged them to get involved in student organizations and exposed them to different resources and ways to be successful while on campus. Years later, I am still in touch with each of them. One is a dentist in Los Angeles married with two young children while the other is finishing up her fellowship in medical school. Prior studies have found interactions with faculty to be significant predictors of sense of belonging among students of colors (Nora & Cabrera, 1996; Reid & Radhakrishnan, 2003). Campuses should continue to implement mentorship programs like the one I participated in with incoming students of color and encourage all to participate. This builds a strong campus community and network system for a positive campus climate.

These are important opportunities for Asian American college students that are made accessible on all of our college campuses. Campus educators must work diligently to make students aware of these multiple resources and opportunities. One method may be a tailored one-day orientation specifically geared to Asian Americans for their first semester on campus. This allows an ideal setting for students to meet

other students who have much in common and an avenue for the institution to properly present the many opportunities that increase sense of belonging. These include having a mentor, joining a student organization, participating in a socio-cultural conversation with peers among other available resources and opportunities.

Accessibility and availability of general involvement via student organizations is another valuable opportunity for students to feel like they belong to a group and community in which they become active members. Once these activities and involvement are made known and recommended to students, the long-term effect should start to be evident through stronger sense of belonging in Asian American students as seen through increased involvement and other tangible outcomes related to academic and social success while on campus.

Direction for Future Research

This exploratory study revealed several areas for future research. Further questions arise from the original research questions that warrant additional investigation into Asian American college students and sense of belonging. I would like to focus on three specific areas for future inquiry that will give a more comprehensive understanding of the predictors of sense of belonging and Asian Americans. These three areas are: (a) disaggregated data of Asian American subpopulations; (b) specific types of individual involvements and activities; and, (c) institutional commitments and initiatives.

Disaggregate Data on Asian Americans Subpopulations

As students of color will soon become the new majority on college campuses, it is vital to understand who they are and how college educators can support them,

specifically regarding to Asian American college students. There is much more work that is necessary to better understand this complex constituency and build a stronger sense of community and sense of belonging for Asian American college students. The surface is barely scratched on the three subpopulation groups examined in this study while there are many other ethnic groups that are in dire need of such similar study and inquiry. Future studies must continue to disaggregate data by ethnic subpopulations given the differential results found in this study to suggest that is an essential step that must be taken. An inherent challenge to this type of quantitative research is the ability to obtain robust sample sizes especially for the smaller ethnic groups that do not have large representation on college campuses to date. Through more studies and targeted research, our intimate understanding and knowledge of this complex constituency will no longer be a mystery.

Individual Involvements and Activities

Analysis within this study showed significant predictors within the model. Since there are multiple variables, future research can examine each unique variable and assess how each contribute and relate to sense of belonging. As mentioned earlier, participation in certain types of organizational involvement such as sports/recreation and SGA/campus-wide programming were significant predictors on sense of belonging. Yet, what particular groups (e.g., tennis versus volleyball or student governance versus programming board) matter more or have a stronger relationship? More specific questions, like these, demand further studies and investigations to be conducted on more specific co-curricular activities and roles.

Research must delve deeper and reveal a clearer picture of particular involvements and activities that impact each subpopulation ethnic group.

Institutional Commitments and Initiatives

Institutions should share in the burden and the responsibility of providing resources and services that can build and perpetuate a stronger sense of belonging on campus for all Asian American college students as well as for all students of color. In a most recent article, researcher Laurie Schreiner (2014) shared her similar view on how campuses need to respond to our more diverse learners and to make changes to ways of doing business in order to facilitate their success. Institutions must meet students where they are and foster their sense of belonging through specific action. Some of these action steps that have been previously mentioned include: supporting a nondiscriminatory campus climate, diversity training of all campus personnel, intergroup dialogues, and mentorship programs. Through these various commitments and initiatives, institutions can play a vital role in its contributions to positively effect sense of belonging for Asian American college students. Future inquiry and research will explore and broaden other opportunities to strengthen sense of belonging.

Conclusion

As the face of the college student continues to shift and change, it is our obligation as campus educators to be most prepared to meet the needs of students and have in place services and amenities to enable the student to integrate positively into the life of campus. A continued need for research and scholarly work on all the ethnic groups umbrellaed under the Asian diaspora is essential for a comprehensive understanding of the varying nuances between and within these groups. With these

efforts done in tandem, the growing Asian American population at institutions of higher education will have all the necessary tools to be equipped for student academic and developmental success.

Yet, race still matters especially to students of color, in particular Asian American college students. Despite the perception of success and high academic achievement, it colors the whole of their collegiate experience. Being valorized as “*the model minority*” does not prevent people from feeling left out or not fitting in. The individual experience with racism is what drives a discriminatory climate which contributes to a lower sense of belonging.

Institutions play a key role in eradicating these negative perceptions and stereotypes, and several initiatives can raise and strengthen sense of belonging in Asian American college students. Cultural competency is essential for both faculty and administrators alike to strive for this goal. This can be achieved through education and training that occurs on a regular basis during orientation and annual certification. Ensuring curriculums incorporate similar messages of institutional values, inclusion and acceptance of a nondiscriminatory climate should be mandated. Further, continued research is necessary to ensure these Asian ethnic subgroups are identified and understood in their particular needs and services for retention and academic success.

Appendices

Appendix 1 *Variables and Coding Schema*

Block	Concept	Variable/Question	Coding	Recode Notes
Block 1: Inputs	Gender	What is your gender?	0=Female 1=Male	Recode; Male is the referent group
	Parents' Education	What is the HIGHEST level of formal education obtained by any of your parent(s) or guardian(s)?	1=Less than high school diploma or less than a GED 2=High school diploma or a GED 3=Some college 4=Associates degree 5=Bachelors degree 6=Masters degree 7=Doctorate or professional degree (ex. JD, MD, PhD)	Continuo us index from 1-7, high value indicates higher levels of formal education obtained by parents.
Block 2: Inputs	Pre-college Org involvement	Looking back to when you were in high school, how often did you engage in the following activities: Student council or student government Pep Club, School Spirit Club, or Cheerleading	0=No 1=Yes 0=No 1=Yes 0=No 1=Yes	New variable created, <i>HS_Involvem ent</i> , combinin g all six pre-college org

Block 3: Bridge Variables		Performing arts (ex. Band, orchestra, dance, drama, art)	0=No 1=Yes	involvement.
		Academic clubs (ex. Science fair, math club, debate club, foreign language club, chess club, literary magazine)	0=No 1=Yes	
		Organized sports (ex. Varsity, club sports)	0=No 1=Yes	
	Pre-college leadership position	Leadership positions in student clubs, groups, sports (ex. Officer in a club or organization, captain of athletic team, first chair in musical group, section editor of newspaper)	Open response for participants	
	Age	What is your age?		
	Major	Which of the following best describes your <u>primary</u> major?	5.1 Agriculture, Parks, Recreation, Leisure Studies, Sports Management 5.2 Architecture/Urban planning 5.3 Computer/Information Science, Math, & Natural Sciences 5.4 Business 5.5 Arts & Humanities 5.6 Education 5.7 Engineering 5.8 Behavioral & Social Sciences 5.9 Health 5.10 General	Create new variables; collapse original 22 categories into 10.

Block 4: Distal Environm ents	Selectivity	Institutional Selectivity	Education 1=Non-competitive 2=Less competitive 3=Competitive 4=Very competitive 5=Highly competitive 6=Most competitive	Continuo us index 1-6, high value indicates greater institution al selectivity
	Size	Institutional Size	1=Small (3,000 or less) 2=Medium (3,001 – 10,000) 3= Large (10,001 or more)	
	Control	Public or Private Institutional Status	1=Public 2=Private	
Block 4: Proximal Environm ents	Live on-campus	On-campus vs. Off-campus Housing	0=Off-campus 1=On-campus	Recode

	Work on-campus	Are you currently working ON CAMPUS?	0=Off-campus 1=On-campus	Recode
	Involvement in a college organization	Since starting college, how often have you: Been an involved member in college organizations?	1=Never 2=Once 3=Sometimes 4=Many Times 5=Much of the Time	Recode 0=No 1=Yes
	Involvement in what types of student groups	Have you been involved in the following kinds of student groups: Honor Societies; Academic/International/Social/Special Interest	0=No 1=Yes	Recode; Scale 0-4*
		Arts/Theater/Music/Media	0=No 1=Yes	Recode; Scale 0-2*
		Identity-Based	0=No 1=Yes	Recode; Scale 0-1*
		Military	0=No 1=Yes	Recode; Scale 0-1*
		Resident Assistants; New Student Transitions; Peer Helpers	0=No 1=Yes	Recode; Scale 0-3*
		Political	0=No 1=Yes	Recode; Scale 0-1*
		Religious	0=No 1=Yes	Recode; Scale 0-1*
		Service; Advocacy	0=No 1=Yes	Recode; Scale 0-

		Greeks	0=No 1=Yes	2* Recode; Scale 0-2*
		Sports/Recreation	0=No 1=Yes	Recode; Scale 0-4*
		Student Governance; Campus-wide programming	0=No 1=Yes	Recode; Scale 0-2*
	Mentorship	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 our current college/university, have you been mentored by the following types of people:		
		Faculty/Instructor	0=No 1=Yes	Recode
		Student Affairs Professional Staff (ex. Student organization advisor, career counselor, Dean of Students, residence hall coordinator)	0=No 1=Yes	Recode
		Employer	0=No 1=Yes	Recode
		Community member (not your employer)	0=No 1=Yes	Recode
		Parent/Guardian	0=No 1=Yes	Recode
		Other Student	0=No 1=Yes	Recode
	Socio-cultural discussions	Talked about different lifestyles/customs; held discussions with students whose personal values were very different from your own;	1=Never 2=Sometimes 3=Often 4=Very often	Continuous index 1-4, high value

		discussed major social issues such as peace, human rights, and justice; held discussions with students whose religious beliefs were very different from your own; discuss your views about multiculturalism and diversity; held discussions with students whose political opinions were very different from your own		indicates greater frequency of socio-cultural discussions
	Nondiscriminatory climate	I have observed discriminatory words, behaviors or gestures directed at people like me; I have encountered discrimination while attending this institution; I feel there is a general atmosphere of prejudice among students; Faculty have discriminated against people like me; Staff have discriminated against people like me	Likert scale with (1) strongly disagree and (5) strongly agree for each item, total scale 5=min; 25=max	
Dependent Variable	Belonging Climate	I feel valued as a person at this school; I feel accepted as a part of the campus community; I feel I belong on this campus	Likert scale with (1) strongly disagree and (5) strongly agree for each item, total scale 3=min; 15=max	

*Block 4 involvement recodes – max value of the scale is contingent on the # of variables that are included in the respective scale.

Appendix 3 Significant Differences in Predictors (beta, B)

Appendix 3 Significant Differences in Predictors (beta, B)

Predictors	b_1	SE_1	b_2	SE_2	b_diff	SE_1^2	SE_2^2	t
Gender	-.004	.031	.076	.054	-0.0805332	0.00096393	0.00294906	-1.2874215
DEM14: What is the highest level of formal education	.010	.007	.004	.017	0.0066709	4.8854E-05	0.00027682	0.3696502
HS_Involve3	.008	.029	-.011	.049	0.01887487	0.00083297	0.00244226	0.3298093
DEM6: What is your age?	.018	.005	.011	.009	0.00752011	2.7455E-05	7.402E-05	0.74652541
AGR	-.520	.240	.154	.382	-.674	0.0576	0.145924	-1.4940051
CMNS	-.040	.083	.207	.162	-.247	0.006889	0.026244	-1.3569585
ARHU	-.129	.890	.138	.183	-.267	0.7921	0.033489	-0.2938524
BSOS	-.093	.088	.058	.171	-.151	0.007744	0.029241	-0.7851708
Business	-.016	.083	.196	.167	-.212	0.00693097	0.027889	-1.1361134
DEM5_ArchUrbanPlan	-.130	.182	.310	.477	-.44	0.033124	0.227529	-0.8618294
DEM5_Education	-.024	.132	.289	.250	-.293	0.017424	0.0625	-1.0364038
DEM5_Engineering	-.110	.090	.171	.173	-.281	0.0081	0.029929	-1.4409499
DEM5_Health	-.164	.109	.015	.196	-.179	0.011881	0.038416	-0.7981454
Selectivity	-.010	.016	-.006	.023	-0.0038846	0.00024497	0.00054018	-0.1386324
Size	-.060	.036	-.035	.056	-.0249591	0.00129153	0.00309664	-0.3767785
Control	-.057	.047	-.226	.070	0.16819706	0.00222817	0.00487338	1.99591458 *
On versus Off Campus Living Indicator	.073	.034	-.034	.057	0.10736596	0.00114664	0.00320022	1.62846727
ENV2: Are you currently working on campus?	-.019	.031	-.045	.055	0.02650539	0.00096542	0.00298704	0.42159987
Did you have a mentor(s)?	.185	.042	.301	.084	-.1160638	0.00178532	0.00712165	-1.229793
INVOLVED_COL	.157	.042	-.027	.083	0.18373723	0.00180508	0.00696696	1.96176473 *
DFSL3	.031	.041	.095	.067	-.0633296	0.0016419	0.00454572	-0.8050912
SGA_CWP2	.144	.036	.144	.059	0.00049269	0.00133026	0.00351177	0.00708043
SPORTS_REC2	.025	.032	.102	.056	-.0773154	0.00100962	0.00314945	-1.198858
HH2	.046	.031	.035	.053	0.01100606	0.00096235	0.00281111	0.17916849
ARTS_MEDIA2	.046	.034	.008	.059	0.03794791	0.00114406	0.00349547	0.55712244
RA_NST_PH2	.043	.032	.120	.056	-.0769088	0.00103139	0.00313871	-1.1909759
SERV_ADV2	.051	.035	-.007	.058	0.05753902	0.00121744	0.00336738	0.84976945
ENV7D: Identity-Based (ex. Black Student Union)	.044	.031	.132	.054	-.087981	0.00096388	0.00294201	-1.4077608
ENV7H: Military (ex. ROTC, cadet corps), Which	-.239	.093	-.104	.166	-.1348499	0.00858577	0.02751771	-0.709702
ENV7M: Political (ex. College Democrats, College	-.088	.060	.121	.076	-.20863	0.00360813	0.0057658	-2.1548456 *
ENV7N: Religious (ex. Fellowship of Christian Athletes)	.071	.039	.055	.061	0.01544915	0.00152089	0.00367374	0.21435182
Socio-Cultural Discussions	.181	.022	.169	.035	0.01188098	0.00046678	0.0012312	0.28832689
Discriminatory Climate	.149	.018	.263	.028	-0.1149452	0.00030967	0.00077517	-3.4898618 ***
					0	0	0	#DIV/0!

*
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Critical values +/- t scores			
P	1 tail	2 tail	2 tail
0.05	1.65	1.96	
0.025	1.96	2.24	
0.01	2.33	2.58	
0.005	2.58	2.81	
0.001	3.08	3.3	

<http://vassarstats.net/zsamp0.html>

P	±t	2 tail
	0	1
	0.1	0.92034
	0.2	0.84148
	0.3	0.76418
	0.4	0.68916
	0.5	0.61707
	0.6	0.54851
	0.7	0.48393
	0.8	0.42371
	0.9	0.36812
	1	0.31731
	1.1	0.27133
	1.2	0.23014
	1.3	0.1936
	1.4	0.16151
	1.5	0.13361
	1.6	0.1096
	1.7	0.08913
	1.8	0.07186
	1.9	0.05743
	2	0.0455
	2.1	0.03573
	2.2	0.02781
	2.3	0.02145
	2.4	0.0164
	2.5	0.01242
	2.6	0.00932
	2.7	0.00693
	2.8	0.00511
	2.9	0.00373
	3	0.0027
	3.1	0.00194
	3.2	0.00137
	3.3	0.00097
	3.4	0.00067
	3.5	0.00047
	3.6	0.00032
	3.7	0.00022
	3.8	0.00014
	3.9	0.0001
	4	0.00006

Chinese vs. Asian Indian

Formula for comparing unstandardized beta predictors with large samples and many predictors. Retrieved from page 5: http://psych.unl.edu/psycrs/statpage/rhstest_eg2a.pdf
 Citation: Brame, Paternost, Mazerolle & Fiquero, 1998; Clogg, Petrova & Haritou, 1995

Predictors	b_1	SE_1	b_2	SE_2	b_diff	SE_1^2	SE_2^2	Z
Gender	-.004	.031	.068	.060	-0.0722737	0.00096393	0.00363119	-1.0661835
DEM14: What is the highest level of formal education	.010	.007	-.003	.019	0.01323744	4.8854E-05	0.00037664	0.64173426
HS_Involve3	.008	.029	-.037	.057	0.04473836	0.00083297	0.00324155	0.70087641
DEM6: What is your age?	.018	.005	.026	.009	-0.0083909	2.7455E-05	8.7037E-05	-0.7841921
AGR	-.520	.240	.040	.565	-.056	0.0576	0.319225	-0.912259
CHNS	-.040	.083	.108	.150	-0.148	0.0068889	0.0225	-0.863315
ARHU	-.129	.890	-.022	.156	-0.107	0.7921	0.024336	-0.1184194
BSOS	-.093	.088	.098	.154	-0.191	0.007744	0.023716	-1.076847
Business	-.016	.083	.116	.149	-0.132	0.00693097	0.022201	-0.773373
DEMS_ArchUrbanPlan	-.130	.182	.259	.317	-0.389	0.033124	0.100489	-1.0642049
DEMS_Education	-.024	.132	.128	.218	-0.152	0.017424	0.047524	-0.5964317
DEMS_Engineering	-.110	.090	-.037	.190	-0.073	0.0081	0.0361	-0.3472256
DEMS_Health	-.164	.109	.317	.153	-0.481	0.011881	0.023409	-2.5604674 **
Selectivity	-.010	.016	-.044	.028	0.03382332	0.00024497	0.00077507	1.05902856
Size	-.060	.036	-.060	.066	0.00051348	0.00129153	0.00437427	0.00682171
Control	-.057	.047	-.006	.089	-0.0517285	0.00222817	0.007842	-0.5154801
On versus Off Campus Living Indicator	.073	.034	.074	.067	-0.0001984	0.00114664	0.00446944	-0.0026475
ENV2: Are you currently working on campus?	-.019	.031	-.122	.065	0.1031606	0.00096542	0.00422948	1.43128196
Did you have a mentor(s)?	.185	.042	.114	.095	0.07059246	0.00178532	0.00906525	0.67769165
INVOLVED_COL	.157	.042	.198	.076	-0.0415713	0.00180508	0.00578632	-0.47711254
DFSL3	.031	.041	.129	.081	-0.0977162	0.0016419	0.00658575	-1.0772808
SGA_CWP2	.144	.036	.160	.077	-0.0158692	0.00133026	0.00588806	-0.186783
SPORTS_REC2	.025	.032	.189	.063	-0.1635426	0.00100962	0.00391692	-2.3300195 *
HH2	.046	.031	-.019	.061	0.06460334	0.00096235	0.00367433	0.94874888
ARTS_MEDIA2	.046	.034	.020	.072	0.02651265	0.00114406	0.00513102	0.33469042
RA_NST_PH2	.043	.032	.019	.071	0.02359319	0.00103139	0.00500203	0.30374207
SERV_ADV2	.051	.035	-.008	.070	0.05849956	0.00121744	0.00495554	0.74456941
ENV7D: Identity-Based (ex. Black Student Union)	.044	.031	.022	.066	0.02136553	0.00096388	0.00430186	0.29443121
ENV7H: Military (ex. ROTC, cadet corps); Which	-.239	.093	-.131	.134	-0.108382	0.00858577	0.01804366	-0.6641656
ENV7M: Political (ex. College Democrats, Colleg	-.088	.060	-.038	.127	-0.0492564	0.00360813	0.01616196	-0.3503146
ENV7N: Religious (ex. Fellowship of Christian At	.071	.039	.139	.085	-0.0679169	0.00152089	0.0072921	-0.7234627
Socio-Cultural Discussions	.181	.022	.173	.038	0.00753863	0.00046678	0.0014192	0.17358969
Discriminatory Climate	.149	.018	.218	.034	-0.0699194	0.00030967	0.00117464	-1.8148278
					0	0	0	#DIV/0!

Critical values +/- t scores			
P	1 tail	2 tail	
0.05	1.65	1.96	
0.025	1.96	2.24	
0.01	2.33	2.58	
0.005	2.58	2.81	
0.001	3.08	3.3	

P	±t	2 tail
0		1
0.1	0.92034	
0.2	0.84148	
0.3	0.76418	
0.4	0.68916	
0.5	0.61707	
0.6	0.54851	
0.7	0.48393	
0.8	0.42371	
0.9	0.36812	
1	0.31731	
1.1	0.27133	
1.2	0.23014	
1.3	0.1936	
1.4	0.16151	
1.5	0.13361	
1.6	0.1096	
1.7	0.08913	
1.8	0.07186	
1.9	0.05743	
2	0.0455	
2.1	0.03573	
2.2	0.02781	
2.3	0.02145	
2.4	0.0164	
2.5	0.01242	
2.6	0.00932	
2.7	0.00693	
2.8	0.00511	
2.9	0.00373	
3	0.0027	
3.1	0.00194	
3.2	0.00137	
3.3	0.00097	
3.4	0.00067	
3.5	0.00047	
3.6	0.00032	
3.7	0.00022	
3.8	0.00014	
3.9	0.0001	
4	0.00006	

<http://vassarstats.net/zsamp0.html>

Chinese vs. Filipino

Predictors	b_1	SE_1	b_2	SE_2
Gender	.076	.054	.068	.060
DEM14: What is the highest level of formal education	-.004	.017	-.003	.019
HS_Involv3	-.011	.049	-.037	.057
DEM6: What is your age?	.011	.009	.026	.009
AGR	.154	.382	.040	.565
CMNS	.207	.162	.108	.150
ARHU	.138	.183	-.022	.156
BSOS	.058	.171	.098	.154
Business	.196	.167	.116	.149
DEMS.ArchUrbanPlan	.310	.477	.259	.317
DEMS.Education	.269	.250	.128	.218
DEMS.Engineering	.171	.173	-.037	.190
DEMS.Health	.015	.198	.317	.153
Selectivity	-.006	.023	-.044	.028
Size	-.035	.056	-.060	.066
Control	-.226	.070	-.006	.089
On versus Off Campus Living Indicator	-.034	.057	.074	.067
ENV2: Are you currently working on campus?	-.045	.055	-.122	.065
Did you have a mentor(s)?	.301	.084	.114	.095
INVOLVED_COL	-.027	.083	.198	.076
DFSL3	.095	.067	.129	.081
SGA_CWP2	.144	.059	.160	.077
SPORTS_REC2	.102	.056	.189	.063
HH2	.035	.053	.061	.062
ARTS_MEDIA2	.008	.059	.020	.072
RA_NST_PH2	.120	.056	.019	.071
SERV_ADV2	-.007	.058	-.008	.070
ENV7D: Identity-Based (ex. Black Student Union)	.132	.054	.022	.066
ENV7H: Military (ex. ROTC, cadet corps); Which	-.104	.166	-.131	.134
ENV7M: Political (ex. College Democrats, Colleg	.121	.076	-.038	.127
ENV7N: Religious (ex. Fellowship of Christian At	.055	.061	.139	.085
Socio-Cultural Discussions	.169	.035	.173	.038
Discriminatory Climate	.263	.028	.218	.034

Asian Indian vs. Filipino

b_diff	SE_1^2	SE_2^2	t
0.00825946	0.00294906	0.00363119	0.10181936
0.00656654	0.00027682	0.00037664	0.25687666
0.02586349	0.00244226	0.00324155	0.3430577
-0.0159111	7.402E-05	8.7037E-05	-1.2537441
0.114	0.145924	0.319225	0.16715093
0.099	0.026244	0.0225	0.4484093
0.16	0.033489	0.024336	0.66536839
-0.04	0.029241	0.023716	-0.1738194
0.08	0.027889	0.022201	0.35744932
0.051	0.227529	0.100489	0.08904742
0.141	0.0625	0.047524	0.42508463
0.208	0.029929	0.0361	0.80946109
-0.302	0.038416	0.023409	-1.2145765
0.03770788	0.00054018	0.00077507	1.03974591
0.02547254	0.00309664	0.00437427	0.29470356
-0.2199256	0.00487338	0.007842	-1.9503436 *
-0.1075644	0.00320022	0.00446944	-1.228232
0.07665521	0.00298704	0.00422948	0.90235614
0.18665631	0.00712165	0.00906525	1.46710407
-0.2253085	0.00696696	0.00578632	-1.9951091 *
-0.0343866	0.00454572	0.00658575	-0.3259215
-0.0163619	0.00351177	0.00588806	-0.1687618
-0.0862272	0.00314945	0.00391692	-1.0257609
0.05359728	0.00281111	0.00367433	0.66553789
-0.0114353	0.00349547	0.00513102	-0.12312
0.10050201	0.00313871	0.00500203	1.11389117
0.00096054	0.00336738	0.00495554	0.01052881
0.1093465	0.00294201	0.00430186	1.28475295
0.02646785	0.02751771	0.01804366	0.12399961
0.15937364	0.0057658	0.01616196	1.07626535
-0.083366	0.00367374	0.0072921	-0.7961011
-0.0043424	0.0012312	0.0014192	-0.0843469
0.0450258	0.00077517	0.00117464	1.01968222
0	0	0	#DIV/0!

*
**

Critical values +/- t scores			
P	1 tail	2 tail	
0.05	1.65	1.96	
0.025	1.96	2.24	
0.01	2.33	2.58	
0.005	2.58	2.81	
0.001	3.08	3.3	

<http://vassarstats.net/zsamp0.html>

P	z	2 tail
0	1	
0.1	0.92034	
0.2	0.84148	
0.3	0.76418	
0.4	0.68916	
0.5	0.61707	
0.6	0.54851	
0.7	0.48393	
0.8	0.42371	
0.9	0.36812	
1	0.31731	
1.1	0.27133	
1.3	0.1936	
1.4	0.16151	
1.5	0.13361	
1.6	0.1096	
1.7	0.08913	
1.8	0.07186	
1.9	0.05743	
2	0.0455	
2.1	0.03573	
2.2	0.02781	
2.3	0.02145	
2.4	0.0164	
2.5	0.01242	
2.6	0.00932	
2.7	0.00693	
2.8	0.00511	
2.9	0.00373	
3	0.0027	
3.1	0.00194	
3.2	0.00137	
3.3	0.00097	
3.4	0.00067	
3.5	0.00047	
3.6	0.00032	
3.7	0.00022	
3.8	0.00014	
3.9	0.0001	
4	0.00006	

APPENDIX 4 MSL INSTRUMENT

MULTI-INSTITUTIONAL STUDY OF LEADERSHIP 2009

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NOTE:

This is a paper and pencil version of what will be presented as an on-line web survey.

- Skip patterns will automatically take the respondent to the appropriate section.
- Shaded sections/ items will be used in sub-samples and will not be asked of all participants.

COLLEGE INFORMATION

1. Did you begin college at your current institution or elsewhere? (Choose One)

Started Here = 1 Started Elsewhere = 2

2. How would you characterize your enrollment status? (Choose One)

Full-Time = 1 Less than Full-Time = 2

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

- | | |
|--|---|
| Freshman/First-year | 1 |
| Sophomore | 2 |
| Junior | 3 |
| Senior (4 th year and beyond) | 4 |
| Graduate Student | 5 |
| Unclassified | 6 |

4. Are you currently working OFF CAMPUS in a position unaffiliated with your school?

1 = Yes 2 = No

If NO, skip to #5

4a. Approximately how many hours do you work off campus in atypical 7-day week?

5. Are you currently working ON CAMPUS? (Circle one)

Yes No

If NO, skip to #6

5a. Approximately how many hours do you work on campus in a typical 7-day week?

6. In an average month, do you engage in any community service?

1 = Yes 2 = No

If NO, skip to #7

6a-e. In an average month, approximately how many hours do you engage in community service? (Choose one from each category).

- | | |
|-----------|----------------|
| 1 = None | 5 = 16-20 |
| 2 = 1-5 | 6 = 21-25 |
| 3 = 6-10 | 7 = 26-30 |
| 4 = 11-15 | 8 = 31 or more |

- | | |
|---|-----------------|
| As part of a class | 1 2 3 4 5 6 7 8 |
| As part of a work study experience | 1 2 3 4 5 6 7 8 |
| With a campus student organization | 1 2 3 4 5 6 7 8 |
| As part of a community organization unaffiliated with your school | 1 2 3 4 5 6 7 8 |
| On your own | 1 2 3 4 5 6 7 8 |

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

1 = Yes 2 = No

- | | |
|---|-----|
| Study abroad | 1 2 |
| Practicum, internship, field experience, co-op experience, or clinical experience | 1 2 |
| Learning community or other formal program where groups of students take two or more classes together | 1 2 |
| <i>Living-learning</i> program (ex. language house, leadership floors, ecology halls) | 1 2 |
| Research with a faculty member | 1 2 |
| First-year or freshman seminar course | 1 2 |
| Culminating senior experience (ex. capstone course, thesis) | 1 2 |

YOUR PERCEPTIONS BEFORE ENROLLING IN COLLEGE

8. Looking back to *before you started college*, how confident were you that you would be successful in college at the following: (Select one for each response)

1 = Not at all confident 3 = Confident
2 = Somewhat confident 4 = Very confident

Handling the challenge of college-level work	1 2 3 4
Analyzing new ideas and concepts	1 2 3 4
Applying something learned in class to the “real world”	1 2 3 4
Enjoying the challenge of learning new material	1 2 3 4
Appreciating new and different ideas, beliefs	1 2 3 4
Leading others	1 2 3 4
Organizing a group’s tasks to accomplish a goal	1 2 3 4
Taking initiative to improve something	1 2 3 4
Working with a team on a group project	1 2 3 4

9. Looking back to *when you were in high school*, how often did you engage in the following activities: (Select one response for each)

1 = Never 3 = Often
2 = Sometimes 4 = Very Often

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

10. Looking back to *before you started college*, how often did you engage in the following activities: (Select one response for each)

1 = Never 3 = Often
2 = Sometimes 4 = Very Often

Performed community service	1 2 3 4
Reflected on the meaning of life	1 2 3 4
Participated in community organizations (ex. church group, scouts)	1 2 3 4
Took leadership positions in community organizations	1 2 3 4
Considered my evolving sense of purpose in life	1 2 3 4
Worked with others for change to address societal problems (ex. rally, protest, community organizing)	1 2 3 4
Participated in training or education that developed your leadership skills	1 2 3 4
Found meaning in times of hardship	1 2 3 4

11. Looking back to **before you started college**, please indicate your level of agreement with the following items:

- | | |
|------------------------------|---------------------------|
| 1 = Strongly disagree | 4 = Agree |
| 2 = Disagree | 5 = Strongly Agree |
| 3 = Neutral | |

Hearing differences in opinions enriched my thinking	1 2 3 4 5
I had low self esteem	1 2 3 4 5
I worked well in changing environments	1 2 3 4 5
I enjoyed working with others toward common goals	1 2 3 4 5
I held myself accountable for responsibilities I agreed to	1 2 3 4 5
I worked well when I knew the collective values of a group	1 2 3 4 5
My behaviors reflected my beliefs	1 2 3 4 5
I valued the opportunities that allowed me to contribute to my community	1 2 3 4 5

12. Please indicate how well the following statements describe *how you were prior to college*.

- | | |
|-------------------------------|----------------------------|
| 1 = Does Not Describe Me Well | 4 = |
| 2 = | 5 = Describes Me Very Well |

3 =

I attempted to carefully consider the perspectives of those with whom I disagreed. 1 2 3 4 5

I regularly thought about how different people might view situations differently. 1 2 3 4 5

Before criticizing someone, I tried to imagine what it would be like to be in their position. 1 2 3 4 5

13. We would like you to consider your BROAD racial group membership (ex. White, Middle Eastern, American Indian, African American/ Black, Asian American/ Pacific Islander, Latino/ Hispanic, Multiracial) in responding to the following statements. Please indicate what your perceptions were prior to college.

1 = Strongly Disagree 5 = Agree Somewhat

2 = Disagree 6 = Agree

3 = Disagree Somewhat 7 = Strongly Agree

4 = Neutral

My racial group membership was important to my sense of identity. 1 2 3 4 5 6 7

I was generally happy to be a member of my racial group. 1 2 3 4 5 6 7

I did not feel a strong affiliation to my racial group. 1 2 3 4 5 6 7

YOUR EXPERIENCES IN COLLEGE

14. How often have you engaged in the following activities during your college experience:

1 = Never 3 = Often
2 = Sometimes 4 = Very Often

Performed community service 1 2 3 4

Acted to benefit the common good or protect the environment 1 2 3 4

Been actively involved with an organization that addresses a social or environmental problem 1 2 3 4

Been actively involved with an organization that addresses the concerns of a specific community (ex. academic council, neighborhood association) 1 2 3 4

Communicated with campus or community leaders about a pressing concern 1 2 3 4

Took action in the community to try to address a social or environmental problem 1 2 3 4

Worked with others to make the campus or community a better place	1 2 3 4
Acted to raise awareness about a campus, community, or global problem	1 2 3 4
Took part in a protest, rally, march, or demonstration	1 2 3 4
Worked with others to address social inequality	1 2 3 4

15. Since starting college, how often have you:

- | | |
|----------------------|-----------------------------|
| 1 = Never | 4 = Many Times |
| 2 = Once | 5 = Much of the Time |
| 3 = Sometimes | |

Been an involved member in <u>college</u> organizations?	1 2 3 4 5
Held a leadership position in a <u>college</u> organization(s)? (ex. officer in a club or organization, captain of athletic team, first chair in musical group, section editor of newspaper, chairperson of committee)?	1 2 3 4 5
Been an involved member in an <u>off-campus</u> community organization(s) (ex. Parent-Teacher Association, church group)?	1 2 3 4 5
Held a leadership position in an <u>off-campus</u> community organization(s)? (ex. officer in a club or organization, leader in youth group, chairperson of committee)?	1 2 3 4 5

16. Have you been involved in the following kinds of student groups during college? (Respond to each item)

- | | |
|----------------|---------------|
| 1 = Yes | 2 = No |
|----------------|---------------|

Academic/Departmental/Professional (ex. Pre-Law Society, an academic fraternity, Engineering Club)	1 2
Arts/Theater/Music (ex. Theater group, Marching Band, Photography Club)	1 2
Campus-Wide Programming (ex. program board, film series board, multicultural programming committee)	1 2
Identity-Based (ex. Black Student Union, LGBT Allies, Korean Student Association)	1 2
International Interest (ex. German Club, Foreign Language Club)	1 2
Honor Societies (ex. Omicron Delta Kappa [ODK], Mortar Board, Phi Beta Kappa)	1 2

Media (ex. Campus Radio, Student Newspaper)	1	2
Military (ex. ROTC, cadet corps)	1	2
New Student Transitions (ex. admissions ambassador, orientation advisor)	1	2
Resident Assistants	1	2
Peer Helper (ex. academic tutors, peer health educators)	1	2
Advocacy (ex. Students Against Sweatshops, Amnesty International)	1	2
Political (ex. College Democrats, College Republicans, Libertarians)	1	2
Religious (ex. Fellowship of Christian Athletes, Hillel)	1	2
Service (ex. Circle K, Habitat for Humanity)	1	2
Multi-Cultural Fraternities and Sororities (ex. National Pan-Hellenic Council [NPHC] groups such as Alpha Phi Alpha Fraternity Inc., or Latino Greek Council groups such as Lambda Theta Alpha)	1	2
Social Fraternities or Sororities (ex. Panhellenic or Interfraternity Council groups such as Sigma Phi Epsilon or Kappa Kappa Gamma)	1	2
Sports-Intercollegiate or Varsity (ex. NCAA Hockey, Varsity Soccer)	1	2
Sports-Club (ex. Club Volleyball, Club Hockey)	1	2
Sports-Intramural (ex. Intramural flag football)	1	2
Recreational (ex. Climbing Club, Hiking Group)	1	2
Social/ Special Interest (ex. Gardening Club, Sign Language Club, Chess Club)	1	2
Student Governance (ex. Student Government Association, Residence Hall Association, Interfraternity Council)	1	2

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

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

1 = Yes 2 = No

Faculty/Instructor	Yes	No
Student Affairs Professional Staff	Yes	No

17d. When thinking about your most significant mentor at this college/university, what was this person's gender?

Female	1
Male	2
Transgender	3

17e. When thinking about your most significant mentor at this college/university, what was this person's race/ethnicity?

White/ Caucasian	1
Middle Eastern	2
African American/ Black	3
American Indian	4
Asian American/ Pacific Islander	5
Latino/ Hispanic	6
Multiracial	7
Unsure	8
Race/ethnicity not indicated above	9

17f. When thinking of your most significant mentor at this college/university, indicate your level of agreement or disagreement with the following: This mentor helped me to:

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

Empower myself to engage in leadership	1 2 3 4 5
Empower others to engage in leadership	1 2 3 4 5
Engage in ethical leadership	1 2 3 4 5
Live up to my potential	1 2 3 4 5
Be a positive role model	1 2 3 4 5
Mentor others	1 2 3 4 5
Value working with others from diverse backgrounds	1 2 3 4 5
Be open to new experiences	1 2 3 4 5
Develop problem-solving skills	1 2 3 4 5
Identify areas for self improvement	1 2 3 4 5

18. During interactions with other students outside of class, how often have you done each of the following in an average school year? (Select one for each)

1 = Never **3 = Often**
2 = Sometimes **4 = Very Often**

Talked about different lifestyles/ customs	1 2 3 4
Held discussions with students whose personal values were very different from your own	1 2 3 4
Discussed major social issues such as peace, human rights, and justice	1 2 3 4
Held discussions with students whose religious beliefs were very different from your own	1 2 3 4
Discussed your views about multiculturalism and diversity	1 2 3 4
Held discussions with students whose political opinions were very different from your own	1 2 3 4

19. Since starting college, have you ever participated in a leadership training or leadership education experience of any kind (ex. leadership conference, alternative spring break, leadership course, club president's retreat...)?

1 = Yes **2 = No**

If NO, skip to #20

19a. Since starting college, to what degree have you been involved in the following types of leadership training or education?

1 = Never **3 = Sometimes**
2 = Once **4 = Often**

Leadership Conference	1 2 3 4
Leadership Retreat	1 2 3 4
Leadership Lecture/Workshop Series	1 2 3 4
Positional Leader Training (ex. Treasurer's training, Resident Assistant training, Student Government training)	1 2 3 4
Leadership Course	1 2 3 4
Alternative Spring Break	1 2 3 4
Emerging or New Leaders Program	1 2 3 4
Living-Learning Leadership Program	1 2 3 4

Peer Leadership Educator Team	1 2 3 4
Outdoor Leadership Program	1 2 3 4
Women's Leadership Program	1 2 3 4
Multicultural Leadership Program	1 2 3 4

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

19b. Since starting college, have you been involved in the following types of leadership training or education?

	1 = Yes	2 = No
Leadership Certificate Program	1	2
Leadership Capstone Experience	1	2
Leadership Minor	1	2
Leadership Major	1	2

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

	1 = Not at all	2 = Minimally	3 = Moderately	4 = A Great Deal
Leadership Conference	1	2	3	4
Leadership Retreat	1	2	3	4
Leadership Certificate Program	1	2	3	4
Leadership Lecture/Workshop Series	1	2	3	4
Positional leader training (ex: Treasurer's training, Resident Assistant training, Student Government training)	1	2	3	4
Leadership Capstone Experience	1	2	3	4
Leadership Course	1	2	3	4
Leadership Minor	1	2	3	4
Leadership Major	1	2	3	4
Short-Term Service Immersion (ex. alternative spring break, January term service project)	1	2	3	4
Emerging or New Leaders Program	1	2	3	4
Living-Learning Leadership Program	1	2	3	4

Peer Leadership Educator Program	1 2 3 4
Outdoor Leadership Program	1 2 3 4
Women's Leadership Program	1 2 3 4
Multicultural Leadership Program	1 2 3 4

ASSESSING YOUR GROWTH

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

For the statements that refer to a group, think of the most effective, functional group of which you have been a part. This might be a formal organization or an informal study group. For consistency, use the same group in all your responses.

1 = Strongly Disagree

4 = Agree

2 = Disagree

5 = Strongly Agree

3 = Neutral

I am open to others' ideas	1 2 3 4 5
Creativity can come from conflict	1 2 3 4 5
I value differences in others	1 2 3 4 5
I am able to articulate my priorities	1 2 3 4 5
Hearing differences in opinions enriches my thinking	1 2 3 4 5
I have low self esteem	1 2 3 4 5
I struggle when group members have ideas that are different from mine	1 2 3 4 5
Transition makes me uncomfortable	1 2 3 4 5
I am usually self confident	1 2 3 4 5
I am seen as someone who works well with others	1 2 3 4 5
Greater harmony can come out of disagreement	1 2 3 4 5
I am comfortable initiating new ways of looking at things	1 2 3 4 5
My behaviors are congruent with my beliefs	1 2 3 4 5
I am committed to a collective purpose in those groups to which I belong	1 2 3 4 5
It is important to develop a common direction in a group in order to get anything done	1 2 3 4 5
I respect opinions other than my own	1 2 3 4 5

Change brings new life to an organization	1 2 3 4 5
The things about which I feel passionate have priority in my life	1 2 3 4 5
I contribute to the goals of the group	1 2 3 4 5
There is energy in doing something a new way	1 2 3 4 5
I am uncomfortable when someone disagrees with me	1 2 3 4 5
I know myself pretty well	1 2 3 4 5
I am willing to devote the time and energy to things that are important to me	1 2 3 4 5
I stick with others through difficult times	1 2 3 4 5
When there is a conflict between two people, one will win and the other will lose	1 2 3 4 5
Change makes me uncomfortable	1 2 3 4 5
It is important to me to act on my beliefs	1 2 3 4 5
I am focused on my responsibilities	1 2 3 4 5
I can make a difference when I work with others on a task	1 2 3 4 5
I actively listen to what others have to say	1 2 3 4 5
I think it is important to know other people's priorities	1 2 3 4 5
My actions are consistent with my values	1 2 3 4 5
I believe I have responsibilities to my community	1 2 3 4 5
I could describe my personality	1 2 3 4 5
I have helped to shape the mission of the group	1 2 3 4 5
New ways of doing things frustrate me	1 2 3 4 5
Common values drive an organization	1 2 3 4 5
I give time to making a difference for someone else	1 2 3 4 5
I work well in changing environments	1 2 3 4 5
I work with others to make my communities better places	1 2 3 4 5
I can describe how I am similar to other people	1 2 3 4 5
I enjoy working with others toward common goals	1 2 3 4 5

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

It is important to me that I play an active role in my communities 1 2 3 4 5

I volunteer my time to the community 1 2 3 4 5

I believe my work has a greater purpose for the larger community 1 2 3 4 5

THINKING MORE ABOUT YOURSELF

21. How would you characterize your political views?

(Choose One)

1 = Very Liberal

2 = Liberal

3 = Moderate

4 = Conservative

5 = Very Conservative

22. In thinking about how you have changed during college, to what extent do you feel you have grown in the following areas? (Select one response for each.)

1 = Not grown at all

3 = Grown

2 = Grown somewhat

4 = Grown very much

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

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

Ability to critically analyze ideas and information 1 2 3 4

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

23. How confident are you that you can be successful at the following: (Select one response for each.)

1 = Not at all confident

3 = Confident

2 = Somewhat confident

4 = Very confident

Leading others 1 2 3 4

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

Taking initiative to improve something 1 2 3 4

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

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

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

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

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

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

25. The following statements inquire about your thoughts and feelings in a variety of situations. For each item, be as honest as possible in indicating how well it describes you.

1=Does Not Describe Me Well

2

3

4

5 = Describes Me Very Well

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

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

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

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

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

I believe that there are two sides to every question and try to look at them both. 1 2 3 4 5

When I'm upset at someone, I usually try to "put myself in their shoes" for a while. 1 2 3 4 5

Before criticizing somebody, I try to imagine
how I would feel if I were in their place.

1 2 3 4 5

YOUR COLLEGE CLIMATE

26a. Indicate your level of agreement with the following
statements about your experience on your current
campus

1 = Strongly Disagree 4 = Agree

2 = Disagree 5 = Strongly Agree

3 = Neutral

I feel valued as a person at this school	1 2 3 4 5
I feel accepted as a part of the campus community	1 2 3 4 5
I have observed discriminatory words, behaviors or gestures directed at people like me	1 2 3 4 5
I feel I belong on this campus	1 2 3 4 5
I have encountered discrimination while attending this institution	1 2 3 4 5
I feel there is a general atmosphere of prejudice among students	1 2 3 4 5
<u>Faculty</u> have discriminated against people like me	1 2 3 4 5
<u>Staff</u> members have discriminated against people like me	1 2 3 4 5

BACKGROUND INFORMATION

27. Which of the following best describes your primary
major? (Select the category that best represents your field of
study)

Agriculture

Architecture/ Urban planning

Biological/ Life Sciences (ex. biology, biochemistry,
botany, zoology)

Business (ex. accounting, business administration,
marketing, management)

Communication (ex. speech, journalism, television/radio)

Computer and Information Sciences

Education

Engineering

Ethnic, Cultural Studies, and Area Studies

Foreign Languages and Literature (ex. French, Spanish)

Health-Related Fields
(ex. nursing, physical therapy, health technology)

Humanities (ex. English, Literature, Philosophy, Religion, History)

Liberal/ General Studies

Mathematics

Multi/ Interdisciplinary Studies (ex. international relations, ecology, environmental studies)

Parks, Recreation, Leisure Studies, Sports Management

Physical Sciences
(ex. physics, chemistry, astronomy, earth science)

Pre-Professional
(ex. pre-dental, pre-medical, pre-veterinary)

Public Administration
(ex. city management, law enforcement)

Social Sciences (ex. anthropology, economics, political science, psychology, sociology)

Visual and Performing Arts (ex. art, music, theater)

Undecided

Asked but not answered

28. Did your high school require community service for graduation?

1 = Yes 2 = No

29. What is your age?

30a. What is your gender?

1 = Female 2 = Male 3 = Transgender

If 1 or 2, skip to # 31

30b. Please indicate which of the following best describe you?

Female to Male	1	Intersexed	3
Male to Female	2	Rather not say	4

31. What is your sexual orientation?

Heterosexual	1	Questioning	4
Bisexual	2	Rather not say	5

32. Indicate your citizenship and/ or generation status:

(Choose One)

- Your grandparents, parents, and you were born in the U.S. 1
- Both of your parents AND you were born in the U.S. 2
- You were born in the U.S., but at least one of your parents was not 3
- You are a foreign born, naturalized citizen 4
- You are a foreign born, resident alien/ permanent resident 5
- International student 6

33a. Please indicate your broad racial group membership:

(Mark all that apply)

- White/ Caucasian 1
- Middle Eastern 2
- African American/ Black 3
- American Indian/ Alaska Native 4
- Asian American/ Asian 5
- Latino/ Hispanic 6
- Multiracial 7
- Race/Ethnicity not included above 8

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

33b. Please indicate your ethnic group memberships

(Mark all that apply)

- African American/ Black**
- Black American 1
- African 2
- West Indian 3
- Brazilian 4
- Haitian 5
- Jamaican 6

Other Caribbean	7
Other Black	8
Asian American/ Asian	
Chinese	1
Indian/Pakistani	2
Japanese	3
Korean	4
Filipino	5
Pacific Islander	6
Vietnamese	7
Other Asian	8
Latino/ Hispanic	
Mexican/ Chicano	1
Puerto Rican	2
Cuban	3
Dominican	4
South American	5
Central American	6
Other Latino	7

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

1 = Strongly Disagree 5 = Agree Somewhat

2 = Disagree 6 = Agree

3 = Disagree Somewhat 7 = Strongly Agree

4 = Neutral

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

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

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

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

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

group	
In general, I'm glad to be a member of my racial group	1 2 3 4 5 6 7
Most people consider my racial group, on the average, to be more ineffective than other groups	1 2 3 4 5 6 7
The racial group I belong to is an important reflection of who I am	1 2 3 4 5 6 7
I am a cooperative participant in the activities of my racial group	1 2 3 4 5 6 7
Overall, I often feel that my racial group is not worthwhile	1 2 3 4 5 6 7
In general, others respect my race	1 2 3 4 5 6 7
My race is unimportant to my sense of what kind of a person I am	1 2 3 4 5 6 7
I often feel I am a useless member of my racial group	1 2 3 4 5 6 7
I feel good about the racial group I belong to	1 2 3 4 5 6 7
In general, others think that my racial group is unworthy	1 2 3 4 5 6 7
In general, belonging to my racial group is an important part of my self image	1 2 3 4 5 6 7

35a. Do you have any of the following conditions:

1 = Yes 2 = No

If no, skip to # 36

- a. Blindness, deafness, or a severe vision or hearing impairment;
- b. A psychological, mental, or emotional condition;
- c. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting,
- d. A condition that affects your learning or concentration; or
- e. A permanent medical condition such as diabetes, severe asthma, etc.?

35b. Please indicate all that apply:

Deaf/Hard of Hearing	1
Blind/Visually Impairment	2
Speech/Language Condition	3

Learning Disability	4
Physical or Musculoskeletal (ex. multiple sclerosis)	5
Attention Deficit Disorder/ Attention Deficit Hyperactivity Disorder	6
Psychiatric/Psychological Condition (ex. anxiety disorder, major depression)	7
Neurological Condition (ex. brain injury, stroke)	8
Medical (ex. diabetes, severe asthma)	9
Other	10

36. What is your current religious preference?

(Mark Your Primary Affiliation)

Agnostic	1
Atheist	2
Baptist	3
Buddhist	4
Catholic	5
Church of Christ	6
Eastern Orthodox	7
Episcopalian	8
Hindu	9
Islamic	10
Jewish	11
LDS (Mormon)	12
Lutheran	13
Methodist	14
Presbyterian	15
Quaker	16
Roman Catholic	17
Seventh Day Adventist	18

Unitarian/Universalist	19
UCC/Congregational	20
Other Christian	21
Other Religion	22
None	23

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

3.50 – 4.00	1
3.00 – 3.49	2
2.50 – 2.99	3
2.00 – 2.49	4
1.99 or less	5

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

Less than high school diploma or less than a GED	1
High school diploma or a GED	2
Some college	3
Associates degree	4
Bachelors degree	5
Masters degree	6
Doctorate or professional degree (ex. JD, MD, PhD)	7
Don't know	8

39. What is your best estimate of your parent(s) or guardian(s) combined total income from last year? If you are independent from your parent(s) or guardian(s), indicate your income. (Choose one)

Less than \$12,500	1
\$12,500 - \$24,999	2
\$25,000 – \$39,999	3
\$40,000 – \$54,999	4

\$55,000 - \$74,999	5
\$75,000 - \$99,999	6
\$100,000 - \$149,999	7
\$150,000 - \$199,999	8
\$200,000 and over	9
Don't know	10
Rather not say	11

40. Which of the following best describes where you are currently living while attending college?

(Choose one)

- | | |
|---|---|
| Parent/guardian or other relative home | 1 |
| Other off-campus home, apartment, or room | 2 |
| College/university residence hall | 3 |
| Other on-campus student housing | 4 |
| Fraternity or sorority house | 5 |
| Other | 6 |

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

References

- Abe-Kim, J., Takeuchi, D. T., Hong, S., Zane, N., Sue, S., Spencer, M. S., ... Alegría, M. (2007). Use of mental health–related services among immigrant and US-born Asian Americans: Results from the National Latino and Asian American Study. *American Journal of Public Health, 97*, 91-98.
- Alford, S. M. (1998). The impact of inner-city values on student social adjustment in commuter colleges. *NASPA Journal, 35*, 225-233.
- Alva, S. A. (1993). Differential patterns of achievement among Asian American adolescents. *Journal of Youth and Adolescents, 22*, 407-423.
- Alvarez, A. N. (2002). Racial identity and Asian Americans: Supports and challenges. In M. K. McEwen, C. M. Kodama, A. N. Alvarez, S. Lee, C. T. H. Liang (Eds.), *Working with Asian American college students* (New Directions for Student Services no. 97, pp. 33-43). San Francisco, CA: Jossey-Bass.
- American Council on Education. (1987). The student personnel point of view, 1949, *Points of view* (pp. 17-35). Washington DC: National Association of Student Personnel Administrators. (Original work published in 1949).
- Asian American Justice Center & Asian Pacific American Legal Center. (2011). *Asian American Center for Advancing Justice: A community of contrasts: Asian Americans in the United States 2011*. Washington, DC: Asian American Center for Advancing Justice.
- Astin, A. W. (1975). *Preventing students from dropping out*. San Francisco, CA: Jossey- Bass.
- Astin, A. W. (1977). *Four critical years*. San Francisco, CA: Jossey-Bass.

- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- Astin, A. W. (1985). *Achieving educational excellence: A critical assessment of priorities and practices for higher education*. San Francisco, CA: Jossey-Bass.
- Astin, A. W. (1991). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. New York, NY: American Council on Education/Macmillan.
- Astin, A. W. (1993). *What matters in college? Four critical years revisited*. San Francisco, CA: Jossey-Bass.
- Astin, A. W. (2001). *What matters in college? Four critical years revisited*. San Francisco, CA: Jossey-Bass.
- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12(2), 155-187.
- Berger, J. B. (1997). Students' sense of community in residence halls, social integration, and first-year persistence. *Journal of College Student Development*, 38(5), 441-452.
- Berkner, L., He, S., & Caraldi, E. F. (2002). *Descriptive summary 1995-96 beginning postsecondary students: Six years later*. Washington, DC: National Center for Education Statistics, U.S. Department of Education.
- Bollen, K. A., & Hoyle, R. H. (1990). Perceived cohesion: A conceptual and empirical examination. *Social Forces*, 69(2), 479-504.
- Braxton, J. (2002). *Reworking the student departure puzzle*. Nashville, TN: Vanderbilt University Press.

- Braxton, J. M., Sullivan, A. V., & Johnson, R. M. (1997). Appraising Tinto's theory of college student departure. In J. C. Smart (Ed.) *Higher education: Handbook of theory and research* (pp. 107-165). New York, NY: Agathon Press.
- Buenavista, T. L., Jayakumar, U. M., & Misa-Esalante, K. (2009). Contextualizing Asian American education through critical race theory: An example of U.S. Pilipino college student experiences. In S. D. Museus (Ed.), *Conducting research on Asian Americans in higher education*. (New Directions for Institutional Research no. 142, pp. 69-82). San Francisco, CA: Jossey-Bass.
- Cabrera, A. F., Nora, A., Terenzini, P. T., Pascarella, E., & Hagedorn, L. S. (1999). Campus racial climate and the adjustment of students to college. *The Journal of Higher Education*, 70, 134-160.
- Campbell, C. M., Smith, M., Dugan, J. P., & Komives, S. R. (2012). Mentor and college student leadership outcomes: The importance of position and process. *The Review of Higher Education*, 35(4), 595-625.
- Chang, M. J. (2008). Asian evasion: A recipe for flawed resolution. *Diverse: Issues in Higher Education*, 25(7), 26.
- Chavous, T. M. (2005). An intergroup contact-theory framework for evaluating racial climate on predominantly white college campuses. *American Journal of Community Psychology*, 36, 239-257.
- Cheng, D. X. (2004). Students' sense of campus community: What it means, and what to do about it. *NASPA Journal*, 41(2), 216-234.
- Chun, K. (1980). The myth of Asian American success and its educational

- ramifications. In D. T. Nakanishi & T. Y. Nishida (Eds). (1995). *The Asian American educational experience: A source book for teachers and students* (pp. 95-112). New York, NY: Routledge.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.
- Cress, C. M., & Ikeda, E. K. (2003). Distress under duress: The relationship between campus climate and depression in Asian American college students. *NASPA Journal*, *40*(2), 74-97.
- Dao, M. (1991). Designing assessment procedures for educationally at-risk South Asian American students. *Journal of Learning Disabilities*, *24*, 594-601, 629.
- Dela Cruz, M., & Agbayani-Siewert, P. (2003). Swimming with and against the tide. In E. Lai & D. Arguelles (Eds.), *The new face of Asian Pacific America: Numbers, diversity and change in the 21st century* (1st ed.; pp. 45-50). Berkeley, CA: Consolidated Printers, Inc.
- Drezner, N. D., & Huehls, F. (2014). *Fundraising and institutional advancement: Theory, practice, and new paradigms*. New York, NY: Routledge.
- Dugan, J. P., & Komives, S. R. (2007). *Developing leadership capacity in college students: Findings from a national study*. College Park, MD: National Clearinghouse for Leadership Programs.
- Dugan, J. P., & Komives, S. R. (2010). Influences on college students' capacities for socially responsible leadership. *Journal of College Student Development*, *51*, 525-549.
- Dugan, J. P., Komives, S. R., & Associates. (2006). *Multi-Institutional Study of*

Leadership: A guidebook for participating campuses. College Park, MD:
National Clearinghouse for Leadership Programs.

Dugan, J. P., Komives, S. R., & Associates. (2009). *Multi-Institutional Study of Leadership 2009: Institutional reports.* College Park, MD: National Clearinghouse for Leadership Programs.

Educational Testing Service & National Commission on Asian American and Pacific Islander Research in Education. (2013). *iCount: A data quality movement for Asian Americans and Pacific Islanders in higher education.* Princeton, NJ: Educational Testing Service.

Espiritu, Y. L., & Wolf, D. L. (2001). The paradox of assimilation: Children of Filipino immigrants in San Diego. In R. G. Rumbaut & A. Portes (Eds.), *Ethnicities: Children of immigrant America* (pp. 157-186). Berkeley, CA: University of California Press.

Gilliard, M. D. (1996). Racial climate and institutional support factors affecting success in predominantly White institutions: An examination of African American and White student experiences. Retrieved from *Dissertation Abstracts International*. (UMI No. 9624618)

Gregersen, A. T., Nebeker, R. S., Seely, K. L., & Lambert, M. J. (2004). Social validation of the outcome questionnaire-45: An assessment of Asian and Pacific Islander college students. *Journal Multicultural Counseling & Development, 32*, 194–205.

Hagerty, B. M., Williams, R. A., Coyne, J. C., & Early, M. R. (1996). Sense of

belonging and indicators of social and psychological functioning. *Archives of Psychiatric Nursing*, 10, 235-244.

Harper, S., & Hurtado, S. (2007). Nine themes in campus racial climates and implications for institutional transformation. In S. Harper & L. Patton (Eds.), *Responding to the realities of race on college campuses*. (New Directions for Student Services, no. 120. pp. 7-24). San Francisco, CA: Jossey-Bass.

Hausmann, L. R., Ward Schofield, J., & Woods, R. L. (2007). Sense of belonging as a predictor of intentions to persist among African American and White first-year college students. *Research in Higher Education*, 48(7), 803-839.

Hershey, K. R. (2007). *Engaging with diversity: Examining the relationships between undergraduate students' frequency of discussions of socio-cultural issues and their understanding of diversity and self-awareness*. Unpublished master's thesis, University of Maryland, College Park.

Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "Sense of Belonging" in first-year college students. *Journal of College Student Retention*, 4(3), 227-256.

Hu, A. (1989). Asian Americans: Model minority or double minority? *Amerasia Journal*, 15, 243-257.

Huang, K. (2012). Asian American mental health on campus. In D. Ching & A. Agbayani (Eds.), *Asian Americans and Pacific Islanders in higher education* (pp. 231-250). Washington, DC: NASPA – Student Affairs Administrators in Higher Education.

Hune, S. (2002). Demographics and diversity of Asian American college students. In

- M. K. McEwen, C. M. Kodama, A. N. Alvarez, S. Lee, C. T. H. Liang (Eds.), *Working with Asian American college students* (New Directions for Student Services no. 97, pp. 11-20). San Francisco, CA: Jossey-Bass.
- Hune, S., & Chan, K. S. (1997). Special focus: Asian Pacific American demographic and educational trends. In D. J. Carter & R. Wilson (Eds.), *Fifteenth Annual Status Report on Minorities in Higher Education, 1996-1997*. Washington, DC: American Council on Education.
- Hurtado, S. (1992). Campus racial climate: Contexts of conflict. *Journal of Higher Education, 63*, 539-569.
- Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino students' sense of belonging. *Sociology of Education, 70*, 324-345.
- Hurtado, S., Carter, D. F., & Spuler, A. J. (1996). Latino students' transition to college: Assessing difficulties and factors in successful adjustment. *Research in Higher Education, 37*, 135-157.
- Hurtado, S., Han, J. C., Saenz, V. B., Espinosa, L. L., Cabrera, N. L., & Cerna, O. S. (2007). Predicting transition and adjustment to college: Biomedical and behavioral science aspirants' and minority students' first year of college. *Research in Higher Education, 48*(7), 841-887.
- Hurtado, S., & Ponjuan, L. (2005). Latino educational outcomes and the campus climate. *Journal of Hispanic Higher Education, 4*, 235-251.
- Inkelas, K. K., & Associates. (2004). National Study of Living-Learning Programs:

2004 report of findings. Retrieved from http://www.livelearnstudy.net/images/NSLLP_2004_Final_Report.pdf

Johnson, M. T. (2012). *Exploring the effects of social perspective-taking and socio-cultural issues discussions on college students' civic identity*.

Unpublished doctoral dissertation, University of Maryland, College Park.

Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-

Kenyon, H., & Longerbeam, S. (2007). Examining sense of belonging among first-year undergraduates from different racial/ethnic groups. *Journal of College Student Development, 48*(5), 525-542.

Kearney, L. K., Draper, M., & Baron, A. (2005). Counseling utilization by ethnic minority college students. *Cultural Diversity and Ethnic Minority Psychology, 11*(3), 272-285.

Kezar, A., & Moriarty, D. (2000). Expanding our understanding of student leadership development: A study exploring gender and ethnic identity. *Journal of College Student Development, 41*(1), 55-69.

Kim, Y. K., Chang, M. J., & Park, J. J. (2009). Engaging with faculty: Examining rates, predictors, and educational effects for Asian American undergraduates. *Journal of Diversity in Higher Education, 2*(4), 206-218.

Kodama, C., McEwen, M., Liang, C., & Lee, S. (2002). An Asian American perspective on psychosocial development theory. In M. K. McEwen, C. M. Kodama, A. N. Alvarez, S. Lee, C. T. H. Liang (Eds.), *Working with Asian American college students* (New Directions for Student Services no. 97, pp. 45-59). San Francisco, CA: Jossey-Bass.

- Komives, S.R., Owen, J. E., Longerbeam, S. D., Mainella, F. C., & Osteen, L. (2005). Developing a leadership identity: A grounded theory. *Journal of College Student Development, 46*(6), 593-611.
- Lee, R. M. & Davis III, C. (2000). Cultural orientation, past multicultural experience, and a sense of belonging on campus for Asian American college students. *Journal of College Student Development, 41*(1), 110-115.
- Lee, S. J., Wong, N. A., & Alvarez, A. A. (2009). The model minority and the perpetual foreigner. In N. Tewari & A. Alvarez (Eds.), *Asian American psychology: Current perspectives*. (pp. 69-84). New York, NY: Taylor & Francis Group, LLC.
- Leong, F. T. L., & Lau, A. S. L. (2001). Barriers to providing effective mental health services to Asian Americans. *Mental Health Services Research, 3*(4), 201-214.
- Levs, J. (2009, February 23). U.S. to pay 'forgotten' Filipino World War II veterans. *CNN*. Retrieved from http://articles.cnn.com/2009-02-23/us/forgotten.veterans_1_philippine-veteran-filipino-world-war-ii-filipino-veterans-equity?_s=PM:US
- Liu, C. H., Murakami, J., Eap, S., & Hall, G. C. N. (2009). Who are Asian Americans: An overview of history, immigration, and communities. In N. Tewari & A. Alvarez (Eds.), *Asian American psychology: Current perspectives*. (pp. 1-29). New York, NY: Taylor & Francis Group, LLC.
- Locks, A. M., Hurtado, S., Bowman, N. A., & Oseguera, L. (2008). Extending

- notions of campus climate and diversity to students' transition to college. *The Review of Higher Education*. 31(3), 257-285.
- Louie, V. S. (2004). *Compelled to excel: Immigration, education, and opportunity among Chinese Americans*. Stanford, CA: Stanford University Press.
- Maestas, R., Vaquera, G. S., & Zehr, L. M. (2007). Factors impacting sense of belonging at a Hispanic-serving institution. *Journal of Hispanic Education*, 6(3), 237-256.
- Mandell, C., Mulvey, A., & Bond, M. A. (1992, April). *The determinants of quality of life on college campuses*. Paper presented at the meeting of the Eastern Psychological Association, Boston, MA.
- Maramba, D. C. (2008a). Immigrant families and the college experience: Perspectives of Filipina Americans. *Journal of College Student Development*, 49(4), 336-350.
- Maramba, D. C. (2008b). Understanding campus climate through the voices of Filipina/o American college students. *College Student Journal*, 42(4), 1045-1060.
- Maramba, D. C., & Museus, S. D. (2011). The utility of using mixed-methods and intersectionality approaches in conducting research on Filipino American students' experiences with the campus climate and on sense of belonging. In K. A. Griffin & S. D. Museus (Eds.), *Using mixed-methods approaches to study intersectionality in higher education*. (New Directions for Institutional Research no. 151, pp. 93-101.) San Francisco, CA: Jossey-Bass.
- Maramba, D. C., & Museus, S. D. (2012). Examining the effects of campus climate,

- ethnic group cohesion, and cross-cultural interactions on Filipino American college students' sense of belonging in college. *Journal of College Student Retention: Research, Theory and Practice*, 14(4), 495-522.
- Matsuoka, J., Breux, C., & Ryujin, D. H. (1997). National utilization of mental health services by Asian Americans/Pacific Islanders. *Journal of Community Psychology*, 25, 141-145.
- McCarron, G. P., & Inkelas, K. K. (2006). The gap between educational aspirations and attainment for first-generation college students and the role of parental involvement. *Journal of College Student Development*, 47, 537-549.
- McEwen, M. K., Kodama, C. M., Alvarez, A. N, Lee, S., & Liang, C. T. H. (Eds.). (2002). *Working with Asian American college students*. (New Directions for Student Services no. 97, pp. 1-4). San Francisco, CA: Jossey-Bass.
- Mertens, D. M. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Miller, S. C. (1969). *The unwelcome immigrant: The American image of the Chinese, 1785-1882*. Berkeley, CA: University of California Press.
- Morello, C., & Keating, D. (2011, March 24). Census offers new proof that Hispanic, Asian growth skyrocketed in past decade. *The Washington Post*. Retrieved from <http://www.washingtonpost.com>
- Museus, S. D. (2009). A critical analysis of the exclusion of Asian American from

- higher education research and discourse. In L. Zhan (Ed.), *Asian American voices: Engaging, empowering, enabling* (pp. 59-76). New York, NY: NLN Press.
- Museus, S. D., & Maramba, D. C. (2010). The impact of culture on Filipino American students' sense of belonging. *The Review of Higher Education*, 34(2), 231-258.
- Museus, S. D., & Kiang, P. N. (2009). Deconstructing the model minority myth and how it contributes to the invisible minority reality in higher education research. In S. D. Museus (Ed.), *Conducting research on Asian Americans in higher education*. (New Directions for Institutional Research no. 142, pp. 5-16). San Francisco, CA: Jossey-Bass.
- Museus, S. D., & Quayle, S. J. (2009). Toward an intercultural perspective of racial and ethnic minority college student persistence. *The Review of Higher Education*, 33(1), 67-94.
- Museus, S. D., & Truong, J. A. (2009). Disaggregating qualitative data from Asian American college students in campus racial climate research and assessment. In S. D. Museus (Ed.), *Conducting research on Asian Americans in higher education*. (New Directions for Institutional Research no. 142, pp. 17-26). San Francisco, CA: Jossey-Bass.
- Nadal, K. L. (2004). Pilipino American identity development model. *Journal of Multicultural Counseling & Development*, 32(1), 45-62.
- Nakanishi, D. T. (1995). Growth and diversity: The education of Asian-Pacific

Americans. In D.T. Nakanishi & T. Y. Nishida (Eds.), *The Asian American Educational Experience: A Source Book for Teachers and Students* (pp. xi-xx). New York, NY: Routledge.

Nakanishi, D. T., & Nishida, T. Y. (1995). *The Asian American educational experience: A source book for teachers and students*. New York, NY: Routledge.

National Commission on Asian Americans and Pacific Islander Research in Education & Asian & Pacific Islander American Scholarship Fund (2011). *The relevance of Asian Americans & Pacific Islanders in the college completion agenda*. New York, NY: National Commission on Asian Americans and Pacific Islander Research in Education.

Nora, A. (2004). The role of habitus and cultural capital in choosing a college, transitioning from high school to higher education, and persisting in college among minority and nonminority students. *Journal of Higher Education*, 3, 180-208.

Nora, A., & Cabrera, A. F. (1996). The role of perceptions of prejudice and discrimination on the adjustment of minority students to college. *The Journal of Higher Education*, 67, 119-148.

Nora, A., Kramer, B., & Itzen, R. (1996, November). *Persistence among non-traditional Hispanic college students: A causal model*. Paper presented at the annual meeting of the Association for the Study of Higher Education, Albuquerque, NM.

Novas, H., Cao, L., & Silva, R. (2004). *Everything you need to know about Asian*

- American history*. New York, NY: Penguin Group.
- Nunez, A. M. (2009). Latino students' transitions to college: A social and intercultural capital perspective. *Harvard Educational Review*, 79, 22-48.
- Nunez, A., & Cuccaro-Alamin, S. (1998). *First-generation students: Undergraduates whose parents never enrolled in postsecondary education* (NCES Rep. No. 98-082). Washington, DC: National Center for Educational Statistics.
- Ogawa, D. (1971). *From Japs to Japanese: The evolution of Japanese-American stereotypes*. Berkeley, CA: McCutchan.
- Ong, P. M., & Leung, L-S. (2003). Diversified growth. In E. Lai, D. Arguelles (Eds.), *The new face of Asian Pacific America: Numbers, diversity and change in the 21st century* (1st ed.; pp. 7-16). Berkeley, CA: Consolidated Printers, Inc.
- Pallant, J. (2007). *SPSS survival manual* (3rd ed). Sydney: Allen & Unwin.
- Park, J. J. (2009). Are we satisfied? A look at student satisfaction with diversity at traditionally White institutions. *The Review of Higher Education*, 32(3), 291-320.
- Park, J. J. (2012a). It takes a village (or an ethnic economy): The varying roles of socioeconomic status, religion, and social capital in SAT preparation for Chinese and Korean American students. *American Educational Research Journal*, 49(4), 624-650.
- Park, J. J. (2012b). *Asian Americans and the benefits of campus diversity: What the research says*. New York, NY: National Commission on Asian American and Pacific Islander Research in Education.
- Park, J.J., Lin, M.H., Poon, O.A., & Chang, M.J. (2008). Asian American college

- students and civic engagement. In P. Ong (Ed.), *The state of Asian America: The trajectory of civic and political engagement* (pp. 75-98). Los Angeles, CA: LEAP Asian Pacific American Public Policy Institute.
- Pascarella, E. T, & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco, CA: Jossey-Bass.
- Pedhazur, E. J. (1997). *Multiple regression in behavioral research: Explanation and prediction*. (3rd ed.). New York, NY: Holt, Rinehart and Winston.
- Peterson, W. (1971). *Japanese Americans: Oppression and success*. New York, NY: Random House.
- Pew Research Center (2012). *The rise of Asian Americans*. Washington, DC: Pew Research Center.
- Pope, R. L., & Mueller, J. A. (2011). Multicultural competence. In J. H. Schuh, S. R. Jones, S. R. Harper. (Eds.), *Student services: A handbook for the profession* (5th ed.; pp. 337-352). San Francisco, CA: Jossey-Bass.
- Rao, K. V. (2003). Instant identity: The emergence of Asian Indian America. In E. Lai, D. Arguelles (Eds.), *The new face of Asian Pacific America: Numbers, diversity and change in the 21st century* (1st ed.; pp. 51-56). Berkeley, CA: Consolidated Printers, Inc.
- Reid, L. , & Radhakrishnan, P. (2003). Race matters: The relationship between race and the general campus climate. *Cultural Diversity and Mental Health*, 9, 263-275.
- Rendon, L. I., Jalomo, R. E., & Nora, A. (2002). Theoretical considerations in the

- study of minority student retention in higher education. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (2nd ed.; pp. 127-156). Nashville, TN: Vanderbilt University Press.
- Roper, L. (2014). Naming our ignorance in service to our diversity commitment. *Journal of College & Character, 15*(3), 207-209.
- Rhee, B. (2008). Institutional climate and student departure: A multinomial multilevel modeling approach. *The Review of Higher Education, 31*, 161-183.
- Riggert, S. C., Boyle, M., Petrosko, J. M., Ash, D., & Rude-Parkins, C. (2006). Student employment and higher education: Empiricism and contradiction. *Review of Educational Research, 76*(1), 63-92.
- Rosenberg, M., & McCullough, B. C. (1981). Mattering: Inferred significance to parents and mental health among adolescents. In R. Simons (Ed.), *Research in community and mental health*. Greenwich, CT: JAI Press.
- Sakamoto, A., Goyette, K.A., & Kim, C. (2009). Socioeconomic attainment of Asian Americans. *The Annual Review of Sociology, 35*, 255-276.
- Schlossberg, N. K. (1989). Marginality and mattering: Key issues in building community. In D. C. Roberts (Ed.), *Designing campus activities to foster a sense of community* (New Directions for Student Services, No. 48, pp. 1-15). San Francisco, CA: Jossey-Bass.
- Schreiner, L. A. (2014). Different pathways to thriving among students of color: An untapped opportunity for success. *About Campus, 19*: 10–19.
doi:10.1002/abc.21169
- Schussler, D., & Fierros, E. (2008). Students' perceptions of their academics,

- relationships, and sense of belonging: Comparisons across residential learning communities. *Journal of the First-Year Experience & Students in Transitions*, 20, 71-96.
- Siu, S. F. (1996). *Asian American students at risk: A literature review*. Baltimore, MD: Center for Research on the Education of Students Placed at Risk, Johns Hopkins University.
- Strayhorn, T. L. (2008a). Fittin' in: Do diverse interactions with peers affect sense of belonging for Black men at predominantly White institutions? *NASPA Journal*, 45, 501-527.
- Strayhorn, T. L. (2008b). Sentido de pertenencia: A hierarchical analysis predicting sense of belonging among Latino college students. *Journal of Hispanic Education*, 7, 301-320.
- Strayhorn, T. L. (2012). *College students' sense of belonging: A key to educational success for all students*. New York, NY: Routledge.
- Stebbleton, M. J., Huesman, R. L., & Kuzhabekova, A. (2010). Do I belong here? Exploring immigrant college student responses on the SERU survey sense of belonging/satisfaction factor. *Research & Occasional Paper Series: CSHE.13.10*.
- Suzuki, B. H. (1977). Education and the socialization of Asian Americans: A revisionist analysis of the 'model minority' thesis. In D. T. Nakanishi & T. Y. Nishida (Eds). (1995). *The Asian American educational experience: A source book for teachers and students* (pp. 95-112). New York, NY: Routledge.
- Suzuki, B. H. (1989). Asian Americans as the 'model minority:' Outdoing Whites?

Or media hype? *Change*. Nov-Dec, 13-19.

- Suzuki, B. H. (2002). Revisiting the model minority stereotype: Implications for student affairs practice and higher education. In M. K. McEwen, C. M. Kodama, A. N. Alvarez, S. Lee, & C. T. H. Liang. (Eds.) *Working with Asian American college students*. (New Directions for Student Services no. 97, pp. 21-32.) San Francisco, CA: Jossey-Bass.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In S. Worchel & W. G. Austin (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.
- Teranishi, R. T., Ceja, M., antonia, a. l., Allen, W. R., & McDonough, P. M. (2004). The college-choice process for Asian Pacific Americans: Ethnicity and socio-economic class in context. *Review of Higher Education*, 27(4), 527-551.
- Thompson, M. D. (2006). Student leadership process development: An assessment of contributing college resources. *Journal of College Student Development*, 47, 343-350.
- Tierney, W. G. (1992). An anthropological analysis of student participation in college. *Journal of Higher Education*, 63, 603-617.
- Tierney, W. G. (1993). *Building communities of difference: Higher education in the 21st century*. Eastport, CT: Bergin & Garvey.
- Tinto, V. (1987). Theories of student departure revisited. In J. Smart (Ed.), *Higher education: Handbook of theory and research*. New York, NY: Agathon Press.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attribution* (2nd ed.). Chicago, IL: The University of Chicago Press.

- Tovar, E., Simon, M. A., & Lee, H. B. (2009). Development and validation of the college mattering inventory with diverse urban college students. *Measure & Evaluation in Counseling & Development*, 42, 154-178.
- U.S. Census Bureau. (1993). *1993 Census*. Washington, DC: U.S. Government Printing Office.
- U.S. Census Bureau. (2000). *2000 Census*. Washington, DC: U.S. Government Printing Office.
- U.S. Census Bureau. (2010). *2010 Census*. Washington, DC: U.S. Government Printing Office.
- U.S. Census Bureau. (2012). *2012 Census*. Washington, DC: U.S. Government Printing Office.
- University of Maryland Institutional Research Planning & Assessment. (n.d.). *UMD Undergraduate Student Profile*. Retrieved from https://www.irpa.umd.edu/CampusCounts/Enrollments/stuprofile_allug.pdf
- University of Maryland Institutional Research Planning & Assessment. (n.d.). *Report: Degree recipients by race/gender*. Retrieved from <https://www.irpa.umd.edu/Profiles2/Main/index.cfm?action=15>
- University of Maryland MSL Working Group. (2010). *Executive Summary*. College Park, MD: Adele H. Stamp Marketing.
- Urban Associates, Inc. (1974). *A study of selected socio-economic characteristics of ethnic minorities based on the 1970 census, II: Asian Americans*. Washington, DC: Office of Special Concerns, Department of Health, Education and Welfare.

- Uyematsu, A. (1971). The emergence of yellow power in American. In A. Tachiki (Ed.) *Roots: An Asian American Reader*. Los Angeles, CA: UCLA Asian American Studies Center.
- Velásquez, P. (1999, November). *The relationship between cultural development, sense of belonging, and persistence among Chicanos in higher education: An exploratory study*. Paper presented at the meeting of the Association of the Study of Higher Education, San Antonio, TX.
- Wake, L. (1970, February). Shhh! An Asian American is speaking. *Hokubei Mainichi*.
- Wong, J., Ramakrishnan, S. K., Lee, T., & Junn, J. (2011). *Asian American political participation: Emerging constituents and their political identities*. New York, NY: Russell Sage Foundation.
- Yeh, T. L. (2002). Asian American college students who are educationally at risk. In M. K. McEwen, C. M. Kodama, A. N. Alvarez, S. Lee, C. T. H. Liang (Eds.), *Working with Asian American college students* (New Directions for Student Services no. 97, pp. 61-71). San Francisco, CA: Jossey-Bass.
- Zia, H. (2000). *Asian American dreams: The emergence of an American people*. New York, NY: Farrar, Straus and Giroux.
- Zhou, M. (2003). Once excluded, now ascendant. In E. Lai, D. Arguelles (Eds.), *The new face of Asian Pacific America: Numbers, diversity and change in the 21st century* (1st ed.; pp. 37-44). Berkeley, CA: Consolidated Printers, Inc.
- Zhou, M., & Cai, G. (2002). Chinese language media in the United States:

Immigration and assimilation in American life. *Qualitative Sociology*, 25(3), 419-441.

Zhou, M., & Kim, S. (2006). Community forces, social capital, and educational achievement: The case of supplementary education in the Chinese and Korean immigrant communities. *Harvard Educational Review*, 76, 1-29.