AZUSA PACIFIC UNIVERSITY

THRIVING IN COLLEGE: THE ROLE OF SPIRITUALITY AND PSYCHOLOGICAL SENSE OF COMMUNITY IN STUDENTS OF COLOR

by

Eric James McIntosh

A dissertation submitted to the

School of Behavioral and Applied Sciences

in partial fulfillment of the requirements

for the degree Doctor of Philosophy in Higher Education

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DEDICATION

For my partner in life, Emily, and for my children: May you thrive in your God-granted gifts. I love you all from the depth of my soul.

ACKNOWLEDGMENTS

If you are reading this acknowledgment, you deserve acknowledgment from me; either you have supported me through this process, or are reading my study in order to change higher education for the positive. I owe specific gratitude to numerous people who have assisted me along this journey.

A few members of my life have each given me more than I can ever repay. To my dear partner Emily, thank you for your unending support, encouragement, reframing, patience, gracious spirit, and love. To my children, who I pray will never remember how this project took away from my time with them, I love you.

To my greater family, my parents and siblings, thank you for your care and support. To my cohort, you are all wonderful colleagues, encouragers, and friends; however, I must specifically thank the generosity and hospitality of the Lee family – Minho, Helen, Lois, and Joseph. May your family continue its ministry of encouragement, shelter, and nourishment to others as it has to me over these years.

I would be remiss not to acknowledge my grandparents Ed and Dorothy, and Chris and Louise. Although neither Grandpa Ed nor Chris lived to see this occasion, I am certain they would have been proud to see it come to pass – to both my dear grandmothers: I know this process may seem confusing to you, I have been encouraged deeply by both of you over these years and thank you for establishing my family firmly with love, care, and an appreciation for utilizing the gifts God has given each of us.

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Lastly, I write this acknowledgment on Good Friday, April 6, 2012. To the Christ who bled for me: Thank you for the gift of life.

ABSTRACT

THRIVING IN COLLEGE: THE ROLE OF SPIRITUALITY AND PSYCHOLOGICAL SENSE OF COMMUNITY IN STUDENTS OF COLOR

Eric James McIntosh
Doctor of Philosophy in Higher Education, 2012
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Despite increased access to higher education for previously underrepresented ethnic groups, the graduation rates of African Americans and Latinos in higher education pale in comparison to their Caucasian and Asian peers (Aud, Fox, & KewalRamani, 2010). In contrast, Asians are graduating at rates higher than Caucasians; however, the literature reveals the Asian student college experience as isolated and disconnected from the campus community (Bowman, 2010; Ying, 2001). In the next 40 years, people of color will become the majority within the American population (Passel & Cohn, 2008), yet few interventions seem to be resolving the apparent disparity in success across ethnic groups in higher education (McWhorter, 2005). Researchers have suggested that the psychological experiences of students may provide a new means for understanding why students persist to graduation (Bean & Eaton, 2002). Students' psychological processes have been explored in the literature as they relate to the academic, social, and emotional

success of students; that is, the ways students thrive on campus (Schreiner, 2010c). Thriving students demonstrate high levels of interpersonal, intrapersonal, and academic well-being. The purpose of this study was to explore the extent to which student demographic characteristics, campus environmental characteristics, student spirituality, and psychological sense of community explain the variation in thriving among students of color. The *Thriving Quotient*, a reliable and valid instrument that measures thriving across five factors (Schreiner, McIntosh, Nelson, & Pothoven, 2009), was utilized to explore the pathways to thriving in a sample of 7,956 students attending 59 institutions. Using structural equation modeling (SEM), unique pathways to thriving for Caucasian, African American, Asian, and Latino students were explored in this study. A psychological sense of community emerged as the primary predictor of thriving among all student groups, and spirituality emerged as the largest single contributor to a sense of community among students of color, yet structural invariance across the four ethnic groups indicated that the pathways to thriving differ by ethnicity. Implications for practice are highlighted that can help students of color thrive in college.

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CHAPTER 1

INTRODUCTION

The United States is becoming an increasingly diverse nation, as population growth among minority ethnic groups is outpacing the population growth of Caucasian Americans. In 2005, 14% of the American population was Latino; the number of Latinos in the United States is projected to represent 29% of the total population by 2050. By 2050, non-Caucasian people groups will account for the majority of the population in the United States (Passel & Cohn, 2008).

Given the growth among people of color in the United States, institutions of higher education are also experiencing increasing enrollment among historically underrepresented ethnic groups. In 1980, 42.7% of African American high school graduates attended college; in 2008, 55.7% of African American high school completers were college bound. Similarly, 52.3% of college-eligible Latino high school graduates attended college in 1980, increasing to 63.9% in 2008. In comparison, 50% of Caucasian high school completers attended college in 1980, increasing to 72% in 2008 (Aud, Fox, & KewalRamani, 2010).

Although access to higher education in the United States has increased steadily for students of color, these enhanced levels of access have not translated to enhanced success for all ethnic groups. For example, although the proportion of Latino high school graduates entering college has increased 11.6% since 1980, only 13.5% of Latinos age 25

to 29 years have attained a bachelor's degree or higher, compared to 38.6% among Caucasians (Aud et al., 2011). In addition, the African American and Latino student graduation rates from 4-year institutions (40% and 49% respectively) lag significantly behind the 60% graduation rate of Caucasian students (Aud et al., 2011). Without realizing a tangible increase in the graduation rate among these particular ethnic groups, the United States will continue to have a disproportionately lower percentage of college-educated citizens in the workforce among the people groups whose population is experiencing the greatest growth. There is already a significant financial disparity between those who attain a university degree and those with little or no university education (DeNavas-Walt, Proctor, & Smith, 2010). Individuals in the United States without a university education are, on average, earning significantly less income, collecting more unemployment benefits, and more likely to be living at or below the poverty level when compared to those with a university degree. In 2007, the median income of Americans with a bachelor's degree or higher was $57,900, compared to a median income of $32,000 for those with only a high school diploma (Aud, Fox et al., 2010).

Not all ethnic groups exhibit lower college graduation rates when compared to Caucasian students, however; the graduation rate of Asian Americans (67%) exceeds that of Caucasians, as does their levels of academic success (Aud et al., 2011). However, these levels of apparent success mask two concerns for Asian American students. One is that certain subgroups of the Asian American student population, such as Pacific Islanders and students of southeast Asian origin, experience considerably lower levels of academic success and graduation than other Asian students, which is not evident when

they are subsumed into the larger category of Asian American (Yeh & Chang, 2004). The second concern is that although Asian American students may experience higher levels of academic success and graduation than other student groups, they experience significantly lower levels of psychological well-being (Bowman, 2010), greater isolation on college campuses (Ying et al., 2001), and less engagement with faculty members (Kim, Chang, & Park, 2009).

Because Asian American students as a whole appear to be successful students in the traditional sense of grades and graduation rates, they are often perceived as "the model minority" (Museus & Kiang, 2009, p. 6); thus, little research in higher education has focused on the experiences of Asian students on American college and university campuses (Chang, 2008; Museus & Chang, 2009; Museus & Kiang, 2009). When student success is defined primarily in terms of graduation rates and academic performance, Asian American students become the invisible student ethnic group (Chang, 2008).

The disparity in graduation rates across each ethnic group is even more pronounced within public colleges and universities compared to private institutions (Knapp, Kelly-Reid, & Ginder, 2011). As a result, an exploration of success in students of color must consider not only the specific ethnic group, but also the type of institution the student attends. It is also important to consider the way in which success is defined and measured.

Eliminating the disparity of college completion rates between students of color and majority students provides benefit not just to the college graduates of color; building success among students of color in college also addresses a compelling issue of justice in

higher education. Education in America has historically been regarded as an opportunity for all (Rose, 2009). Although the current disparity in graduation and success rates of students of color in college does not exemplify the democratic ethos of American equal opportunity, meaningfully addressing the disparity in college success in America provides an opportunity for true educational equality.

Differences in the College Experiences of Student Ethnic Groups

In response to a greater number of minority ethnic group students on campuses, numerous higher education scholars over the past 2 decades have focused their research specifically on the needs of students of color. Seminal research in higher education, such as Astin's (1977) work on the impact of college on students, Tinto's (1975) student departure model, and Pascarella and Terenzini's (2005) synthesis of the research on the impact of college on student success, has focused primarily on campus student groups as a whole, overlooking many of the nuances specific to students of color.

Differences in the experiences and perceptions of each ethnic group can be profound. For example, researchers have demonstrated that students of color interact with faculty differently than Caucasian students; and such interaction is beneficial in distinctive ways among differing ethnic groups, with some ethnic groups benefitting considerably more than others (Fries-Britt & Turner, 2001; Kim et al., 2009; Kim & Sax, 2009; Lundberg & Schreiner, 2004). In addition, students of color experience a sense of belonging differently (Hurtado & Carter, 1997; Museus & Maramba, 2010; Zirkel, 2004) and report differential levels of engagement (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Laird, Bridges, Holmes, Morelon, & Williams, 2004). Campus involvement has

also been noted to differ both in type and impact across student ethnic groups (Fischer, 2007; Littleton, 2002).

Perspectives on Student Success

The most basic definition of student success focuses on enabling students to gain access to college and complete a certificate or degree. This definition is the basis of arguments that emphasize increasing access, enrollment, and persistence (Bowen, Chingos, & McPherson, 2009; Hauptman, 2007). Student success is equated with graduation; as a result, theories of student success that have arisen from this definition are based on persistence models (Braxton, 2000; St. John, Cabrera, Nora, & Asker, 2000; Tinto, 1975, 1993). Using this perspective, student behaviors predictive of graduation have been outlined as the target of student success initiatives; such behaviors include campus involvement (Astin, 1984, 1993b) and interaction with faculty (Chickering & Gamson, 1987; Kuh & Hu, 2001).

In recent years, research exploring student success has emerged in ways that expand beyond the fundamental benchmarks of college completion rates and grades. Such expanded foci have included learning gains (Barr & Tagg, 1995), talent development (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005), satisfaction (Schreiner, 2004), sense of belonging (Hurtado & Carter, 1997), and student engagement (Kuh, 2001). Kuh, Kinzie, Buckley, Bridges, and Hayek (2007) created perhaps the broadest conceptualization of student success as academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational objectives, and post-college performance.

However, most of the focus in current student success research is on student engagement. The concept of student engagement originates from Pace's (1980) measures of quality of effort and Astin's (1984) theory of involvement and represents two key components. The first is the amount of time and effort students put into their studies and additional activities that lead to the experiences and outcomes that characterize student success. The second component of this perspective of student engagement is how institutions of higher education allocate their human and other resources and organize learning opportunities and services to encourage students to participate in and benefit from such activities (Kuh, 2001). Discussion and research on engagement in higher education is due largely to the expansive research conducted at Indiana University and the National Survey of Student Engagement (NSSE).

Growth in participation in NSSE has nearly tripled over the decade from 2000-2010 from 276 institutions to 761 institutions (National Survey of Student Engagement, 2010). Since the widespread adoption of NSSE and its subsequent release of comparative benchmarking statistics, institutions of higher education have become more interested in trends and issues impacting student engagement. Accrediting bodies and state governments are becoming increasingly interested in NSSE benchmark data as well (Banta, Pike, & Hansen, 2009). Although the availability of NSSE information has informed programs, services, and institutional priorities in higher education (Kuh, 2003), no studies over the last decade have demonstrated that an emphasis on engagement in higher education is improving graduation rates or academic performance among African American and Latino students, nor have studies established that such engagement enhances the psychological well-being of Asian American students.

Accordingly, there is a need for a perspective on student success that expands beyond student behaviors, graduation rates, and academic performance to include psychological well-being and optimal functioning. Such a perspective has emerged in recent years from the positive psychology movement and its intersection with higher education (Schreiner, Hulme, Hetzel, & Lopez, 2009) in a construct labeled *thriving* (Schreiner, 2010c).

At the 1998 annual meeting of the American Psychological Association, then President Martin Seligman stated that psychologists:

> can articulate a vision of the good life that is empirically sound and, at the same time, understandable, and attractive. We can show the world what actions lead to well-being, to positive individuals, to flourishing communities, and to a just society. (Fowler, Seligman, & Koocher, 1999, p. 560)

Seligman termed this new field of study *positive psychology*, suggesting that psychology had established itself as a discipline focusing upon human deficits and had not afforded adequate research on human flourishing. Seligman and Csikszentmihalyi (2000) stated that psychology's "almost exclusive attention to pathology neglects the fulfilled individual and the thriving community" (p. 5).

Studies influenced by the positive psychology movement include those focusing on emotional vitality and positive functioning manifest through positive relationships, or *flourishing* (Keyes, 2002, 2003; Keyes & Haidt, 2003; Keyes, Shmotkin, & Ryff, 2002). A flourishing individual rises to meet the challenges of life and actively interacts with the world. Expressed along a continuum from languishing to flourishing, the construct of flourishing comprises all people who are not mentally ill and specifically emphasizes the

promotion of mental health. Individuals exhibiting a state of flourishing live life reflecting high levels of emotional well-being (Keyes, 2002; Keyes & Haidt, 2003). Members of society who are flourishing actively engage with others and the world around them and are enthusiastic about life (Keyes, 2003). Although theorized by American researchers, flourishing is a reliable indicator of well-being across cultures (Brdar, 2011; Keyes et al., 2008).

Flourishing research has traditionally focused on the elderly and children. In 2007, researchers at Azusa Pacific University began exploring the potential features of a flourishing college student; in seeking to differentiate their study on college students from the traditional flourishing literature, the researchers utilized the term thriving. Thriving has been demonstrated to be a significant predictor of outcomes linked to student success such as GPA and persistence (Schreiner, Nelson, Edens, & McIntosh, 2011; Schreiner, Pothoven, Nelson, & McIntosh, 2009). Students in postsecondary institutions who thrive are more likely to succeed than are their languishing peers (Schreiner, 2010c).

Thriving in Students of Color

When student success is defined as academic performance and graduation, concerns arise for African American, Latino, and Native American students, in particular (Aud, Fox et al., 2010). When that definition is expanded to include the psychological well-being and optimal functioning inherent in thriving, non-Caucasian student groups experience barriers to their success on American college and university campuses that arise from their minority status on predominantly Caucasian campuses (D'Augelli & Hershberger, 1993; Jones, Castellanos, & Cole, 2002; Ying et al., 2001).

In exploring the contributors to thriving among students of color, current literature suggests two primary areas to examine as possible pathways to student success, given that they tend to differ significantly from the experiences of Caucasian students. These two major contributors include student spirituality and a psychological sense of community (Astin, 2004a; Astin, Astin, & Lindholm, 2011b; Braskamp, Trautvetter, & Ward, 2006; Chavis & Pretty, 1999; Chickering, Dalton, & Stamm, 2006; DeNeui, 2003a; Hurtado & Carter, 1997; Jablonski, 2001; Lounsbury & DeNeui, 1995; Nash, 2008).

Spirituality. Although research in higher education has tended to ignore the role of spirituality in student success, recent research indicates that spirituality is an important aspect of the lives of students and faculty (Astin, Astin, & Lindholm, 2011a; Astin et al., 2011b). Distinguished from religiosity that reflects an adherence to doctrines and behavioral practices tied to specific organized religions, spirituality is a broader construct. Astin et al. (2011b) explain that spirituality encompasses:

> …our sense of who we are and where we come from, our beliefs about why we are here – the meaning and purpose that we see in our work and our life – our sense of connectedness to one another and to the world around us. (p. 4)

Spirituality is an often-overlooked ingredient in the success of all students; yet, it is particularly vital to include in any exploration of success among students of color given the role it plays in many African American sub-cultures (Constantine, Miville, Warren, Gainor, & Lewis-Coles, 2006; Mattis, 2000), Latino sub-cultures (Campesino, Belyea, & Schwartz, 2009; Elizondo, 2000), and generally among many people groups of color (Cervantes & Parham, 2005). Spirituality is an important means by which students cope

with the difficulties of college life and make meaning about the world in which they live and study (Astin et al., 2011b). For students of color on predominantly Caucasian campuses, spirituality may be an important internal resource for coping.

Psychological sense of community. Students on campus who report a strong sense of community are those who have trusted friends on campus, believe their contribution to campus matters, and are able to adequately meet their needs within the community (Lounsbury & DeNeui, 1995). Higher education research into the role of community has been conceptualized as sense of belonging by Spady (1971) and as institutional fit by Bean (1990). Behavioral indicators of campus fit and retention-focused results of institutional fit are widely explored in higher education literature due to the prominence of involvement and retention models developed by Astin (1984) and Tinto (1975). More recently, Hurtado and Carter's (1997) exploration of sense of belonging among Latino students and the factors that influence belonging among Latino students has refocused attention in higher education research to the role of belonging and fit among Latino students.

A sense of belonging, however, is more than just membership in a group. A strong feeling of connection to a community, feelings of ownership, membership, and mutual interdependent partnership, or what Sarason (1974) called a *psychological sense of community* (PSC), is a more holistic perspective on belonging in human communities. As a construct, PSC was first explored by community psychologists in the 1970s. PSC offers more perspective into factors of institutional fit and belonging because it considers more than just the notions of membership explored by higher education researchers

(Hausmann, Ye, Schofield, & Woods, 2009; Hurtado & Carter, 1997) or behaviors indicative of membership and fit (Astin, 1984; Tinto, 1975).

Institutional factors influence the ways in which students of color experience PSC. Research suggests that positive student-faculty interaction contributes to PSC among students of color (Cole, 2008; Kim, 2010; Kim & Sax, 2009; Lundberg & Schreiner, 2004). Rendon's (1994) work on the influence of faculty validation on students of color also bolsters support for the role of belongingness in predicting student success. Because research indicates that sense of belonging varies across ethnic groups (Hurtado et al., 2007; Locks, Hurtado, Bowman, & Oseguera, 2008), PSC is a prominent predictor in the proposed model of thriving for this study.

This study explores thriving as the desired student success outcome among students of color and hypothesizes that different ethnic groups will exhibit significantly different pathways to thriving. Two potential major contributors to thriving in students of color are the primary focus of this study: spirituality and a psychological sense of community. The pathways to thriving that are tested in this study control for entering student characteristics and institutional features and include as potential contributors spirituality, student-faculty interaction, campus involvement, and psychological sense of community, with psychological sense of community the primary mediating variable and most direct contributor.

Purpose Statement

The purpose of this study was to explore the relationships among spirituality, campus involvement, student-faculty interaction, and a psychological sense of community in traditional undergraduate college and university students of color in the

United States and to explore how these relationships contribute to student thriving. A path model was developed from the relevant literature, with structural equation modeling (SEM) employed to examine the relationships, direct and indirect effects, and explanatory characteristics of the factors in the model. Utilizing multi-group analysis in SEM allowed exploration of fit for models among African Americans, Asian Americans, and Latino college students. Due to low sample size, thriving among Native American students was not explored in this study.

This study explored the extent to which predictive models of thriving differ across ethnic groups. The research question that guided this study was: To what extent do student demographic characteristics, campus environmental characteristics, student spirituality, and psychological sense of community explain the variation in thriving among students of color?

Significance of This Study

Ultimately, the success of higher education is measured, in part, by the ability of institutions to graduate students who become contributing members of society. Increased access to higher education over the past 3 decades has changed the demographic composition of university and college campuses; however, increased access for historically underrepresented populations has not led to increased graduation rates among members of American ethnic groups (Aud, Fox et al., 2010). The question of why African American and Latino students are not graduating at rates similar to Caucasian and Asian peers has no simple answer. Expanding the definition of student success to incorporate the psychological well-being and optimal functioning implicit in thriving provides a possible route to understanding the student success disparity across ethnic

groups on predominantly Caucasian campuses. Thriving is a complex construct that previous research has demonstrated is mitigated by a psychological sense of community, spirituality, campus involvement, faculty interaction, and student demographic characteristics (Schreiner, Nelson et al., 2011). However, the ways in which students of color experience thriving and the unique pathways to thriving for African Americans, Latinos, and Asian American students are not well understood. This study explored the distinctive characteristics of student thriving and how the predictive models of thriving differ among students of color.

Gaining a better understanding of how the pathways to thriving differ among students of color will provide higher education professionals opportunities to more intentionally impact such thriving among students. Because thriving is predictive of student persistence, learning gains, satisfaction, and academic performance (Schreiner, Pothoven et al., 2009), increasing thriving among students of color will provide a means for improving these external measures of success. By focusing on the construct of thriving as a desireable outcome of a college education and determining the differential pathways that contribute to thriving in students of various ethnic groups, this study will enable colleges and universities to better serve the distinctive needs of all students.

Definition of Terms

Students of Color

For the purposes of this study the term *students of color* is utilized to describe any non-Caucasian students. Where specified ethnic groupings are identified, the following terms are utilized: *African American* describes any students of African origin; the term also describes students who otherwise would consider themselves Black. *Latino*

describes students of Hispanic, Latin American, Puerto Rican, and/or Mexican origin. Students of Asian, Pacific Island, or Hawaiian native descent are referred to as *Asian American*.

Through an online survey assessment tool, students were asked to self-identify ethnic or racial origin across one of nine categories (a) African-American/Black, (b) Caucasian/White, (c) International student, (d) American Indian/Alaskan Native, (e) Latino, (f) Asian-American/Asian/Native Hawaiian/Pacific Islander, (g) Multiracial, (h) Prefer not to respond, and (i) Other. Students were only able to choose one option when identifying their ethnic heritage. The question was optional on the survey; participants who declined to answer were eliminated from the sample.

Thriving

In this study, *thriving* is the dependent variable and is conceptualized as optimal functioning academically, interpersonally, and intrapersonally (Schreiner, 2010a, 2010b, 2010c). Thriving is measured utilizing the Thriving Quotient, a 25-item reliable and valid instrument (Schreiner, Edens, & McIntosh, 2011). The Thriving Quotient consists of five factors: Academic Determination, Engaged Learning, Social Connectedness, Positive Perspective, and Diverse Citizenship (Schreiner, McIntosh et al., 2009). *Academic Determination* is a measure of students' academic effort, use of time, investment in learning, and goal direction. *Engaged Learning* measures the extent to which a student meaningfully processes information from class, expends effort thinking about concepts from coursework outside class, and is energized by what he or she is learning. *Social Connectedness* measures the extent to which students are engaged in meaningful relationships of mutual support on or off campus. *Diverse Citizenship*

measures the desire of students to influence the community around them and the openness of students to diversity. Thriving is a higher order factor identified through confirmatory factor analysis and is the ultimate endogenous variable in this study. Items on the Thriving Quotient are measured utilizing a 6-point Likert scale administered through a web-based survey.

Psychological Sense of Community

The independent variable of psychological sense of community on campus (PSC) is defined in this study as students' perceptions of fit and belonging on campus and the perception of need fulfillment through common experiences within the community. Based on McMillan and Chavis's (1986) conceptualization of a *psychological sense of community* as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9), and inclusive of the sense of belonging that Hurtado and Carter (1997) note is vital to success among students of color, PSC is a latent construct in the model. A latent construct is not observable as a lone measurement and is therefore a combination of multiple observed items statistically demonstrated to measure the latent construct.

Specifically, PSC is operationally defined by eight items that comprise the Psychological Sense of Community Scale (Schreiner, 2006). These eight items assess the four aspects of McMillan and Chavis's (1986) model of PSC: membership, influence, interdependence, and shared emotional connection. *Membership* reflects a sense of belonging, *influence* reflects a sense of mattering or ownership, *interdependence* refers to

reciprocal need fulfillment and partnerships for the common good, and *shared emotional connection* refers to the commitment to continued relationships over time.

Spirituality

For the purposes of this study, *spirituality* is defined as the reliance upon a power greater than the self. Spirituality in this study is distinguished from religiosity. In the context of this study, spirituality is not linked directly to any specific religious practices; rather, it is defined as an internal coping strategy for navigating the complexities of life, specific to belief in a power greater than the self.

Spirituality is a latent construct representing an independent variable in the model. Spirituality is comprised of the following three items: (a) My spiritual or religious beliefs provide me with a sense of strength when life is difficult; (b) My spiritual or religious beliefs are the foundation of my approach to life; and (c) I gain spiritual strength by trusting in a higher power beyond myself. Each item is assessed on a 6-point Likert response scale.

Student-Faculty Interaction

Because of the important role that student interaction with faculty plays in the student success literature, *student-faculty interaction* is placed in the model as a latent construct hypothesized to be predictive of student thriving and mediated by a psychological sense of community. Students are asked to rate their satisfaction with "The amount of contact you have had with faculty this year" and "The quality of the interaction you have had with faculty this year," using a 6-point Likert scale.

Campus Involvement

Campus involvement in this study represents the frequency of participation in student organizations, ethnic organizations, campus events and activities, leadership in student organizations, and participation in community service. Campus involvement is a latent construct measured through a combination of five questions: (a) How involved are you in student organizations on campus; (b) How involved are you in ethnic organizations on campus (e.g., Black Student Society); (c) How involved are you in campus events and activities; (d) How involved are you in leadership of student organizations; and (e) How often do you participate in community service. All items allowed response along a 6-point Likert-type scale.

Summary

The problem statement guiding this study is that African Americans and Latinos are neither entering college nor graduating at rates equivalent to the rate of Caucasian students. The operating hypothesis of this study is that thriving provides a distinctive way of exploring the psychological processes that encourage student success and retention in higher education. Due to the limited success rates of African American and Latino students on campus, this study posits that understanding how students experience thriving on campus will provide opportunities to engage students of color in more ways. Despite the appearance of success of Asian students on college and university campuses, insofar as graduation rates and GPA measure success, Asian students are also explored in this study to determine if the relative success in the classroom is indicative of thriving. Because a psychological sense of community is a holistic way of exploring membership, ownership, and relationships, PSC is used as a primary predictor of thriving in this study.

Spirituality among students of color is hypothesized to provide a means for understanding thriving because of its cultural importance in Latino and African American subgroups.

The following chapter explores literature relevant to this study. A review of the literature explores how diversity impacts culture on campus. The literature review also explores distinctiveness among the distinctive experiences of students of color on college and university campuses and how those experiences impact the understanding of student success. The theoretical construct of thriving that guides this study is explored. Finally, the literature surrounding the predictive variables in this study, psychological sense of community, spirituality, campus involvement, and student-faculty interaction will demonstrate how each influences students of color in college.

CHAPTER 2

REVIEW OF LITERATURE

This chapter provides an overview of the literature relevant to the experience of students of color on college and university campuses, the role of thriving in student success, and the factors that contribute to such thriving among students of color. Research on the campus experiences of students of color, exploring both the barriers and the keys to their success, is reviewed and the conceptual framework for the current study is articulated. The role of a psychological sense of community and spirituality in the lives of students of color is highlighted, along with the contribution of campus involvement and interaction with faculty to the sense of community that students of color experience on campus.

Campus Diversity

Racial diversity on American college and university campuses has become an important focus for many institutions since President Johnson signed Executive Order 11375 in 1967 (Chang, 2000). The Order amended a previous federal mandate of equal opportunity employment by specifically protecting race, color, religion, sex, or national origin against discrimination from any federal government contractor. Affirmative action was also clarified in The Order as the means by which employers would ensure all eligible job applicants were evaluated equally for employment. Following Order 11375, institutions could no longer discriminate based upon race, color, religion, sex, or national

origin without risking the loss of federal funding. Supreme Court rulings on the constitutionality of affirmative action have clarified that universities and colleges may demonstrate a "compelling interest" (Regents of the University of California v. Bakke, 1978, p. 1) in discriminating based upon race for the purposes of creating campus diversity. The Gratz v. Bollinger (Gratz v. Bollinger, 2000) federal appeals court decision reaffirmed the Bakke case. The Supreme Court ruled in Grutter v. Bollinger (Grutter v. Bollinger, 2003) that affirmative action programs in undergraduate admissions serve "a compelling interest" (p. 305) through the educational benefits derived from student body racial and ethnic diversity; race remains an allowable factor in determining admission as long as the decisions utilize "a highly individualized, holistic review of each applicant's file, giving serious consideration to all the ways in which an applicant might contribute to a diverse educational environment" (p. 312) in providing reason to discriminate.

Campus diversity is thus an important aspect of creating a holistic learning environment that benefits all students (Astin, 1993a; Hurtado, Milem, Clayton-Pedersen, & Allen, 1998; Milem & Astin, 1993). Hurtado (2006) reported that student interaction with diversity has positive implications for social and cognitive development. Campus diversity positively influences the learning environment and has direct implications for the social advancement of students of color who attend university. Students of all ethnic backgrounds who experience diversity on campus are best equipped to find success in an increasingly pluralistic world (Hurtado, 2006).

Compositional diversity, or "the numerical and proportional representation of various racial and ethnic groups on a campus" (Milem, Chang, & Antonio, 2005, p. 15),

has been on the rise in American universities and colleges over the past 3 decades (Aud, Fox et al., 2010). Latino students on college campuses represented 4% of total enrollment, or 353,000 students in 1976; by 2008, 2,103,000 Latinos were on college and university campuses representing 13% of total student enrollment. In 1976, African American students comprised 10% of total enrollment, or 943,000 students; in 2008, African American students represented 14% of total enrollment or 2,269,000 students. The population of Asian American students grew six-fold from 169,999 students in 1976 to 1,118,000 in 2008, growing from 2% to 7% of the total student enrollment respectively (Aud, Fox et al., 2010).

Access to higher education for previously underrepresented student populations has been a foundational goal of federal, state, and institutional policies since desegregation began in 1964 with the passing of the Civil Rights Act (Chang, 1999). With changes to policies, focused attention on access, and dramatic increases in available funding for underrepresented populations, more students of color are attending college and university than ever before, while Caucasian student enrollment as a percentage of total enrollment has declined from 82% in 1976 to 63% in 2008 (Aud, Fox et al., 2010). Despite the increase in numbers of diverse students on campuses, African American, Latino, and Native American students are not graduating at rates comparable to that of their Caucasian peers (Aud, Fox et al., 2010). The only minority ethnic group with graduation rates greater than Caucasian students is Asian Americans. The 5-year graduation rate for Asian American students enrolled in cohort years 2003 through 2006 was 66.4%, compared to 59.3% for Caucasian students, 46.2% for Latino students, and 37.7% for African American students (Knapp et al., 2011, p. 15).

Creating compositional diversity on campus does not in and of itself diversify campus culture, curriculum, and student experiences (Milem et al., 2005). Integrating diverse people of all types, reframing diversity-inclusive campus policies and procedures, and creating a positive institutional climate for diversity are all important elements in diversifying campus environments (Milem et al., 2005). Enrolling students of color is not the ultimate goal, but rather finding pathways for all students to become successful graduates. Current American university and college graduation rates do not demonstrate that institutions are creating pathways for success among African American and Latino students (Aud, Hussar et al., 2010). In addition to the goal of graduation, higher education administrators want students to have fulfilling experiences and thrive throughout their university career (Kezar, 2011). A more complete understanding of the ways in which students of color experience college could help explain why some graduate and others fail to graduate. Despite the high graduation rate among Asian students, little is known about what factors help Asian students find success in college (Chang, 2008).

Researchers have explored many different facets of the experience of students of color on American college and university campuses, with no clear evidence that there is a single variable responsible for the lower success rates of students of color. Chickering and Gamson (1987) noted that a keystone principle of good undergraduate education is embracing the unique contribution of all students. Campus diversity is a noted distinctive hallmark of higher education; specifically, that diversity of thought, perspective, and background are what set academia apart from other kinds of institutions (Hurtado, 2007; Milem, 2010; Milem et al., 2005). Not only does diversity in higher education impact the

lives of students on campus, but diversity also positively contributes to a vibrant campus community and benefits the nation as a whole (Astin, 1993a). Rather than exploring students of color as a monolithic group, this study examines the unique pathways to success for African Americans, Latinos, and Asian American students.

African American Students

McWhorter (2005) classified the current underrepresentation of African Americans in higher education as a crisis. Low graduation rates of African Americans, particularly men, are of specific concern (Cuyjet, 2006). In 2008, of all the bachelor's degrees conferred to African American students, only 34% were awarded to African American men. Compounding this concern is the negative cultural stereotype of African-Americans as under-achieving, which often leads to what Steele (1995) referred to as *stereotype threat*, a condition that exists among high-achieving African American students in situations where a concern that they will confirm the negative stereotype interferes with their achievement. Even among those students who are well qualified for college, the prospect of being negatively stereotyped threatens the success of African American students.

Barriers for African American students. Studies focused on the experience of African American students have identified barriers to the success of African Americans in college. Cultural obstacles have been identified that are unique to African American students (McWhorter, 2001, 2005). For example, some segments of the African American community have become skeptical of the value of a college education, which has created opposition to higher education in those communities (Matthews, 2010). For young African American men, the lack of positive role models and encouragement in the

K-12 educational system has resulted in a lack of motivation for young African American men to attend college and created a barrier to their success once enrolled in college (Cuyjet, 2006; Ladson-Billings, 2009).

Along with the cultural barriers that exist within segments of the African-American community, racism and segregation continue to be barriers to success among African American college students once they arrive on predominantly Caucasian campuses (Reynolds, Sneva, & Beehler, 2010; Saenz, 2010). Studies of campus racial climate have demonstrated that students' perception of a racist climate on campus negatively impacts their academic success (Hurtado, 1994; Hurtado & Carter, 1997; Hurtado et al., 1998; Reynolds et al., 2010). In a qualitative study, Harper et al. (2011) reported that even academically successful African American student leaders tired of addressing or experiencing campus racism and skepticism rooted in racial stereotypes. The researchers interviewed 52 African American student leaders on six large campuses. A majority of the participants indicated "tiredness" (p. 190) toward racial stereotyping and role fatigue they associated with being one of the only students of color on a student leadership team. One conclusion made by the researchers was that such role fatigue led many of the participants to consider quitting their leadership role.

Negative stereotypes are not unique to the experience of students of color who hold leadership roles on campus. Negative academic achievement stereotypes are barriers for all African American students (Fries-Britt & Turner, 2001; Harper et al., 2011; Steele, 1997). Cole (2010a) reasoned that the university experience itself boosts academic self-concept and that successful graduation from university is important in dispelling cultural myths regarding academic pursuit within African American

communities. Both qualitative (Fries-Britt & Turner, 2001; Harper et al., 2011) and quantitative (Allen, 1992; Neville, Heppner, Ji, & Thye, 2004; Suarez-Balcazar, Orellana-Damacela, Portillo, Rowan, & Andrews-Guillen, 2003) studies have found that African American students identify racial stereotyping and a negative racial climate on campus as barriers to academic success.

Campus environments and African American students. Additional academic barriers remain for African Americans, such as stereotype threat related to standardized testing, negative stigma associated with remedial course enrollment, and excessive ambition and unrealistic planning (Bennett, McWhorter, & Kuykendall, 2006; Deil-Amen & Rosenbaum, 2002; Rosenbaum, 2011). Many African American students enter college at a disadvantage to their peers for a variety of reasons. A disproportionate number of African Americans in the United States attend lower quality K-12 schools (Ladson-Billings, 2009; Valenzuela, 2002). Students graduating from lower-quality K-12 schools are less prepared for college than their counterparts, due to chronic underfunding of urban schools and lack of social support due to lower family income (Holland & Farmer-Hinton, 2009; Kelly, Schneider, & Carey, 2010). Thus, the socioeconomic realities in the United States result in African American students needing to overcome more obstacles than their Caucasian counterparts. These disparities in primary schooling between lower-income and middle-class Americans create obstacles for successful college enrollment. Such disparities create even greater challenges for underprivileged students to graduate from college. More African American students arrive to college underprepared academically and must enroll in more remedial courses in college than Caucasian students (Kimbrough & Harper, 2006; Parker, 2007). For example, in 2007 and 2008,

45% of first-year African American undergraduates enrolled in remedial courses, compared to 38% of Asian, 43% of Latino, and 31% of Caucasian first-year undergraduate students (Aud et al., 2011).

Despite attempts by the federal government to legislate learning outcomes nationally, and despite efforts by state governments to meet federal standards and to improve education for all Americans, socioeconomic disparities remain (Grant, 2004). More than one-third (34.1%) of African American children under 18 years of age lives in poverty in the United States, compared to 27.1% of Latinos, 11.1% of Asians, and 10.1% of Caucasians (Aud, Fox et al., 2010). When African-American students do overcome barriers and successfully graduate from high school, gain admission to college, and begin attending college, barriers still exist to their success on campus. With the exception of Historically Black Colleges and Universities (HBCUs), the composition of most American campuses is predominantly Caucasian (63.3%; Aud, Fox et al., 2010). Many of the student success initiatives on college campuses focus on methods that have worked well for Caucasian students historically but may not be as effective for today's African American students. Despite research indicating that African American students interact as much or more with faculty outside the classroom (Kim & Sax, 2009), studies have found that such interactions are less rewarding for African American students than for Caucasian students (Lundberg & Schreiner, 2004).

Given the absence of peers who share their cultural and ethnic perspectives, an ongoing challenge for African American students is forming positive relational connections that provide social support and lead to a sense of belonging on campus. This sense of belonging is foundational to experiencing a sense of community on campus, as it

conveys membership and fit (DeNeui, 2003b; Lounsbury & DeNeui, 1995; McMillan & Chavis, 1986; Obst & White, 2007). When students perceive that a peer group exists on campus with which they share a similar worldview, students are more likely to find a sense of belonging. Braxton and Hirschy (2004) called this perception *communal potential*, "the degree to which a student perceives that a subgroup of students exists within the college community with which that student could share similar values" (p. 95). Some researchers (Allen, 1992; Neville et al., 2004) have noted that the experience of African American students on predominantly Caucasian campuses can be isolating. Minority status alone has been identified as a significant source of stress for students of color (Moritsugu & Sue, 1983). Isolation and stress are the antithesis of students experiencing a sense of belonging on college campuses. A sense of belonging can be enhanced through participation, yet African American students are less likely to engage in campus activities than students of other ethnic groups (Flowers, 2004), perhaps because they find less affinity within the campus student body and are less likely to believe that their contribution matters to the campus community. Less campus involvement means African American students are less likely to feel connected to the campus community (Fischer, 2007).

The isolation often experienced by African American students on predominantly Caucasian campuses compounds the challenge of healthy identity formation that is fundamental to a successful adjustment to adult life (Chambers & McCready, 2011). Identity formation is a noted developmental milestone in the process of maturation (Chickering, 1969; Erikson, 1968), and is no less important for members of ethnic minority groups (Anglin & Wade, 2007; Pope, 2000). The development of a distinctly

Afro-American ethnic identity has been demonstrated to be an important part of personal development and adjustment to college for African Americans (Anglin & Wade, 2007; Scottham, Cooke, Sellers, & Ford, 2010). Because a positive sense of ethnic identity among African American students has been linked with academic success (Cokley, 2001, 2003; Nora, Cabrera, Hagedorn, & Pascarella, 1996), African American students who feel isolated and do not have a positive sense of ethnic identity are less likely to thrive in a university setting. For African American students on predominantly Caucasian campuses, lack of a strong racial identity negatively impacts their well-being and adjustment (D'Augelli & Hershberger, 1993), while a strongly developed ethnic identity assists African American students in navigating the social and career complexities of university life (Pope, 2000).

African American students face multiple obstacles in college; cultural obstacles (McWhorter, 2001, 2005), lack of positive role models (Cuyjet, 2006), and racial stereotyping (Harper et al., 2011) are a few of the barriers for African Americans in college. Once in college, African Americans require more remedial coursework than do their peers (Aud et al., 2011) and despite interacting with faculty more than other students (Kim & Sax, 2009), the interaction African American students have with faculty is less rewarding than for other students (Lundberg & Schreiner, 2004). The experience of African American students on college campuses has been characterized as isolated and lonely (Allen, 1992; Neville et al., 2004); the pathways to success for African American students in college are wrought with challenges and obstacles.

Latino Students

Oseguera, Locks, and Vega (2009) noted that while retention may be low for Latino students as a whole, it is difficult to combine Latinos into one ethnic group, given the multiple groups categorized as Latino. The researchers noted that Latinos across the United States have varying heritage and cultural dynamics, speak different Spanish dialects, hold varying citizenship statuses, and are impacted by the dynamics of social class to varying degrees. As a simple example, a group of Latino students may have family heritage from Cuba, Puerto Rico, Mexico, or South America, yet all be categorized as Latinos. Cultural dynamics represented among Latino students further underscore the diversity within the Latino community. Differences exist among Latinos in everything from the ethnic foods, cultural practices, and norms of their place of origin, to the role, importance, and type of spiritual or religious practices common to a specific ethnic group. It is difficult to categorize all Latinos as one ethnic group and determine adequate solutions for student success that are pan-Latino in nature.

As the fastest-growing and largest ethnic group in the United States (DeNavas-Walt et al., 2010), Latino representation in higher education is increasing; growth in the percentages of university-bound Latinos is not congruent, however, with the national Latino population trends (Aud, Fox et al., 2010). Americans of Latino descent accounted for 16% of the total population of the United States (Ennis, Rios-Vargas, & Albert, 2011), yet only 13% of students on college and university campuses are Latino (Aud, Fox et al., 2010). From 2000 to 2010, the population of the United States grew from 281.4 million to 308.7 million people (Ennis et al., 2011). Within the total population growth of 27.3 million people, 15.2 million people reported being of Latino or Hispanic descent.

Although the population growth in the United States over the past 10 years has been overwhelmingly among Latinos, the growth in the proportion of Latino students in universities and colleges during those same years rose only 2.6% of total student enrollment from 10.3% in 2000 to 12.9% in 2008 (Aud, Fox et al., 2010).

Barriers for Latino students. In 2008, 27% of adults in the United States between the ages of 25 and 29 years had at least a bachelor's degree (Aud, Fox et al., 2010). Distributed by ethnic group, the disparities become clear, given that 11% of Latinos, 17% of African Americans, 33% of Caucasians, and 60% of Asian Americans aged 25 to 29 had at least a bachelor's degree. Of those who complete high school, 63.9% of Latinos enroll in higher education (Aud, Fox et al., 2010); yet, persistence to graduation remains problematic for Latino students (Between two worlds, 2009; Fry, 2002); nearly half of all Latinos ages 16 to 24 years are not enrolled in high school, college, or university (Ennis et al., 2011).

In 2009, the Pew Hispanic Center published a landmark document on the status of Latino students in the United States. Among the findings of the report was that Latino youth have the highest high school dropout rate (17%) among high school students in all ethnic groups – a finding noted to be especially problematic among foreign-born Latinos. Researchers at the Pew Center utilizing a nationally-representative sample of 2,012 Latinos found that 74% of respondents who had dropped out of college or university indicated that the decision was financial in nature, and 50% indicated language was the barrier preventing success in college. Utilizing data from a large nationally-representative sample, Becerra (2010) noted that language acculturation was significantly linked with a positive perception of the value of a college degree.

Another Pew study on the American workforce (Taylor et al., 2009) reported that 85% of the Latino student-age participants and their parents indicated that a college education was essential for advancing socioeconomically. Thus, the perceived value of an education is not as much a barrier for Latino students as are the actual costs of an education (Post, 1990) and the difficulties with English as their non-native language. English language proficiency remains a significant barrier for Latinos who wish to pursue postsecondary education in America (Schneider, Martinez, & Owens, 2006).

Students on English-speaking campuses who are second language English speakers, without adequate command of written and spoken English, are at a clear disadvantage to students who speak English as a first language. If it is true that "rather than building on children's social, cultural, and linguistic competencies, schooling, as a tool of Americanization, has played the role of subtracting from children their language, culture, and community-based identities" (Valenzuela, 2002, p. 3), then Latino students may be less inclined to consider higher education because of the perceived cultural threat posed by the educational system. Hurtado and Carter (1997) noted that Latino students may feel that the campus itself is hostile to the presence of Latinos.

Campus environments for Latino students. Researchers have noted that a particular diversity climate on campus does, in fact, have a direct impact on the experience of Latino students (Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005; Reynolds et al., 2010). Campus climate for diversity, according to Hurtado et al. (1998), is:

> (a) an institution's historical legacy of inclusion or exclusion of various racial/ethnic groups, (b) its structural diversity, or the numerical representation of

> various racial/ethnic groups, (c) the psychological climate of perceptions and attitudes between and among groups, and (d) the behavioral climate of campus intergroup relations. (p. 279)

Sólorzano, Villalpando, and Oseguera (2005) argued that not only does campus racial climate impact the success of Latinos, but also racialized structures and campus policies can impede the success of Latino students on university and college campuses. By considering what policies and practices are reinforcing a negative racial climate on campus, campus administrators are able to identify problematic campus practices that negatively impact students of color. In seeking to realign racialized policies and procedures, university officials can create environments that celebrate campus diversity through inclusive campus policies.

Given the projected population growth of Latinos in the United States, universities and colleges face the challenges of changing campus environments to be more responsive to the needs of growing Latino student populations. Many campuses and state governments have led efforts to increase the success of Latino students (Oseguera et al., 2009). However, a campus program, financial initiative, or intervention for individual students may not be sufficient. Hurtado and Carter (1997) asserted that the racial climate on campus has a significant impact on a student's sense of belonging on that campus and that student belonging is highly predictive of student success. Other studies have similarly found that sense of belonging is important in understanding the campus experiences of Latino students (Nuñez, 2009; Walton & Cohen, 2007). In a correlational study involving 151 African American and Latino students on two predominantly Caucasian campuses, Reynolds et al. (2010) found that racial stresses

were negatively correlated with academic motivation. Latino students who perceive a campus to be unwelcoming are less likely to succeed academically on that campus.

Despite low graduation rates from high school and poor retention rates in college, there are many Latino student success stories from across the United States. In a qualitative study of college-bound first-generation Latino students, Boden (2011) found that students achieved success despite perceived academic obstacles. Among the findings, both personal drive to succeed and reliance upon *guides* or mentors were identified as important for success. Cavazos, Johnson, and Sparrow (2010) found that goal setting, intrinsically-motivated action, and support seeking were important actions for the success of 11 Latino college students.

In a qualitative study by Zell (2010), 17 Latino/a students in community college shared how psychological and subjective experiences on campus contributed to their persistence toward achievement of their academic goals. Eight salient themes were identified. Two themes involved campus faculty; both perception of faculty and perception of advisors were noted as important themes identified by the successful Latino students. Zell noted that Latino students held positive perceptions of faculty and the willingness of faculty to assist the students. Conversely, many of the participants reported negative feelings about academic advisors. Advisors were unable to help connect individual student passion with available courses on campus. Participants indicated that academic advisors lacked interest in the individuality of students. Many of the studies that identify cultural nuances within Latino student populations are qualitative studies. It may be difficult to capture the cultural nuances of Latinos in a quantitative

study; nonetheless, quantitative studies do exist that identify differences among the experiences of Latino students.

Zell's (2010) findings are consistent with the findings of Lundberg and Schreiner (2004), whose quantitative study had a sufficiently large sample size to disaggregate Hispanic/Latino students into ethnic groups that captured some of these cultural nuances. These authors explored how the quality and quantity of faculty interaction predicted student learning and found that student-faculty relationship quality significantly predicted student learning among Mexican American students and Hispanic/Puerto Rican students. Lundberg and Schreiner also found that feedback was a significant motivator for student effort among Hispanic/Puerto Rican students but not significantly so for Mexican American students. Other studies have identified that faculty, specifically faculty of color, provide support for Latino students by encouraging, establishing career goals, and supporting students as advisors, mentors, and sponsors (Laden, 1999; Laden & Hagedorn, 2000; Turner & Myers, 2000). A hierarchical linear model developed by Cole (2007) indicated that students who engaged faculty in course-related content and developed a mentoring relationship with a member of faculty reported gains in intellectual self-confidence.

Positive student-faculty interaction is important to the success of Latino students and provides a means for the development of a mentoring relationship. Mentoring relationships, such as those between students and faculty, can be impactful for student retention (Tinto, 2010; Torres & Hernandez, 2009), Mentors can help guide students through the complexities of college life, academic life, and personal life. Latino students gain benefit from faculty mentors in college because faculty contribute as "advocate,

broker of services, importer of knowledge and skills, and friend and wise counselor" (Parker-Redmond, 1990, p. 197). Mentoring relationships are not just of benefit to the student, but also to faculty and the greater college community. Through mentoring, faculty can build bonds of friendship and collegiality with students.

Faculty members who understand the cultural complexities of minority-group students can empathize with the needs of under-represented students. Latino culture is complex; no two Latino ethnic sub-groups are exactly alike (Flores, 2000). Mentors who are aware of the complexities of Latino culture can offer tailored support and relationship to Latino students.

The multitude of Latino subcultures each has cultural nuances distinguishing it from other subgroups despite sharing the Spanish language in common (Oseguera, et al., 2009). Although the Latino population of the United States is the fastest-growing ethnic group, the success of Latinos in higher education is far below Caucasian and Asian peers (Aud, Fox et al., 2010). A negative racial climate on campus is a significant barrier for many Latinos in college (Hurtado & Carter, 1997) as is confidence with the English language (Schneider et al., 2006). Latino students gain benefit from positive relationships with faculty, especially when faculty members build mentoring relationships with Latino students (Torres & Hernandez, 2009).

Asian American Students

Although college graduation rates among Latinos and African Americans remain low in comparison to Caucasian students on American university and college campuses, the opposite is true regarding the rate of graduation among Asian Americans (Aud, Fox et al., 2010). When compared to Caucasians, African Americans, and Latinos, Asian

undergraduates are graduating at higher rates. More Asian American adults ages 25 to 29 years hold a bachelor's or higher degree (60%) than any other ethnic group; comparatively, 11% of Latinos, 17% of African Americans, and 33% of Caucasians ages 25 to 29 hold a bachelor's degree or higher (Aud, Fox et al., 2010). Since 1990, the total percentage of Asian Americans enrolling in higher education is greater than the percentages within any other racial or ethnic group. Asian high school students also report spending more time working on homework (10 hours on average per week) than their peers, all of whom averaged less than 7 hours per week (Aud, Fox et al., 2010); time spent working on homework is an *educationally purposeful* activity linked with student success (Kuh, 2003).

However, the aggregate Asian American graduation rate masks a trend of low completion rates among some Asian American student subgroups. Although the term Asian American is utilized to describe Americans of Asian and Pacific Island origin, Sue and Sue (2002) noted that Asians represent various ethnic groups, each with its own distinct culture, religious practice, language, and history. Over 40 distinct subcultures are represented within the Asian American community (Sandhu, 1997). The U.S. Census Bureau (We the people, 2004) reported that among some Asian American ethnic groups, the percentage of adults holding bachelor's degrees is above the national average of 24.4%. For example, Asian American Indians (63.9%), Pakistani Americans (54.3%), Chinese Americans (48.1%), Filipino Americans (43.8%), Korean Americans (43.8%), Japanese Americans (41.9%), and Thai Americans (38.6%) outpace the general population in bachelor's degree attainment. Conversely, Vietnamese Americans (19.4%),

Cambodian Americans (9.2%), Laotian Americans (7.7%), and Hmong Americans (7.5%) have below-average degree attainment compared to the general population.

Given the graduation rates among some Asian American subgroups, a stereotype exists that all Asians have above-average intelligence, and academically successful, and that education is a priority within Asian culture (Brydolf, 2009; Museus & Kiang, 2009). It is difficult to know with certainty if the graduation rates among certain subgroups of Asian American culture are indicative of student thriving or are merely a result of pressure to do well and meet cultural stereotypes. Bowman (2010) noted that psychological well-being measures among freshmen Asian American students were all significantly lower than those reported by Caucasian students, indicating academic success comprises only one facet of the lives of Asian American students.

Over the past 45 years Asian Americans have been labeled a *model minority* (Chang, 2007; Petersen, 1966; Success story, 1966). The model minority label assumes that Asian Americans have had more success integrating into American life than other minority groups. Higher education has not been immune from labeling Asian Americans a model minority. Astin (1982) reported on the status of minorities in higher education and declared Asians a highly successful minority group that did not require the kind of attention and programming required by African American and Latino students, further perpetuating the model minority label. Twenty-five years after the initial stereotype was published, Suzuki (2002) reflected on the overwhelmingly negative implications the stereotype has caused for Asian Americans in higher education, such as the heightened pressure Asian students report to achieve high grades. Museus (2009) concluded that the model minority label has resulted in a lack of higher education research focused upon the

needs and realities of Asian American college students and thus categorizes the label a myth. Further analysis by Museus and Kiang (2009) identified that within the higher education literature, Asian American students are an invisible minority. Given that Asian Americans are graduating at rates higher than Caucasians, researchers display little need to explore the experiences of Asian American students; it is assumed Asian American students are doing well in college and therefore are not studied.

Despite the relative success of Asian Americans in attending and graduating from college, Chang (2008) noted that the overwhelming growth and success of Asians in higher education is not an Asian *invasion*; rather, it has created an Asian *evasion*. Suyemoto, Kim, Tanabe, Tawa, and Day (2009) noted the invisibility of Asian students in research on campus life perpetuates the stereotype that all Asian students are succeeding well on campus. Suyemoto et al. stated:

> One factor contributing to this lack of scholarship is the model minority myth, or the assumption that Asian Americans are universally academically successful. This myth is associated with a narrow focus on academic achievement that is measured by grades and degree attainment and a lack of attention to other measures of success. (p. 41)

Only 1% of the research published from 1999-2009 in five top higher education research journals, *Journal of College Student Development, NASPA Journal, Journal of Higher Education, Research in Higher Education*, and *The Review of Higher Education,* focused specifically on Asian American students (Museus, 2009).

Suyemoto et al. (2009) asserted that the lack of scholarship on the experience of Asian American students leads to assumptions by faculty and administrators that Asian

American students do not face challenges in college; such a view of Asian students further perpetuates the model minority myth. Hall and Okazaki (2002) argued that the model minority myth further obfuscates the diversity within the Asian American student community by masking the challenging realities faced by Southeast Asian American students.

Not only has the dearth of research on Asian American students in higher education reinforced many false stereotypes, but also researchers have noted that the model minority label has negatively impacted the experience of some Asian American students on campus (Chang, 2007; Singh, Cuyjet, & Cooper, 2011; Suyemoto et al., 2009) and within the larger American culture (Inman & Alvarez, 2010). The model minority label creates pressures for Asian American students; sometimes such pressures to conform or perform are not realistic, given the unique attributes of each student. In a large ethnographic anthropological study, Lee (1994) observed that both high- and low-achieving Asian American students reported feeling pressure to achieve the model minority stereotype. Brydolf (2009) commented that the model minority stereotype causes Asian American parents to place unrealistic academic achievement demands onto their children.

Although Asian American students may be pressured by their parents to achieve high grades, high grades are not necessarily a sign of high general well-being. In a quantitative analysis studying sense of coherence, a construct comprised of individual confidence and the ability to overcome life's challenges as a demonstration of overall competency, GPA was not predictive of overall competency among Asian American students (Ying et al., 2001). Asian Americans in the study exhibited lower levels of

sense of coherence than students of other ethnic groups. Ying et al. also found that Asian American students were the least likely of all ethnic groups to have relationships with students of other ethnic groups. Despite Asian American students reporting higher grades overall, the researchers concluded that the model minority image of Asian Americans was only consistently correlated to GPA and was not indicative of overall coherence among the 291 University of California at Berkeley Asian students in the study.

Another stereotype associated with the model minority concept is that Asian students are quiet, respectful, and submissive (Singh et al., 2011). A comparative analysis study by Park and Kim (2008) examined communication styles between European American students and Asian American students. The researchers noted that Asian American students exhibited less direct communication styles and were more closed in communication than Caucasian students. Through hierarchical multiple regression, the researchers noted that values of humility and collectivism were strongly associated with indirect communication style. They observed that Asian students were more likely to exhibit characteristics of indirect communication and collectivist ideals in contrast to the direct communication and individualistic ideals identified strongly within the Caucasian student sample. The findings of Park and Kim suggest that cultural stereotypes of Asian students as quiet, respectful, and submissive are not merely stereotypes but are cultural attributes supported empirically.

Pressure to conform to racial stereotyping can be a difficult stressor for students in college. Depending on the coping skills of an individual student, stress may encourage change toward positive or negative well-being (Wethington, 2003). A 2000 campus

cultural climate study of freshmen and juniors at a large mid-Atlantic university found that Asian American students were more likely to report pressure to conform to cultural stereotypes than other ethnic group students (Ancis, Sedlacek, & Mohr). Asian American students also reported feeling limited respect and unfair treatment from faculty. In a quantitative study, Kim and Sax (2009) found that Asian American students were the least likely of all student ethnic groups to communicate or interact with faculty. Both pressure to conform to stereotypes and the cultural impact of communication style leave Asian Americans less likely to speak out in the classroom or interact with faculty (Brydolf, 2009; Kim et al., 2009; Park & Kim, 2008; Yoo & Castro, 2011).

Despite the stereotype that Asian students are quiet in the classroom, Lundberg and Schreiner (2004) found that learning among Asian students was significantly predicted by the quality of the relationship the student reported with faculty. They also found that student effort to meet the expectations of faculty predicted learning among Asian American students. These findings suggest that positive relationships with faculty are an important predictor of learning for Asian American students; yet, a majority of Asian American students exhibit indirect communication styles (Park & Kim, 2008) and are the least likely of all students to communicate with a faculty member (Kim & Sax, 2009).

Despite a demonstrable connection between student-faculty relationships and student learning, Asian American students report feeling isolated on campus and are perceived by faculty as isolated (Suyemoto et al., 2009). A structural model of the experiences of Filipino students (Museus & Maramba, 2010) found that their sense of belonging on campus was most highly predicted by the students' ease of cultural

adjustment; thus, students who felt more at ease culturally were more likely to feel a sense of belonging on campus. The study also found that sense of belonging on campus was indirectly predicted by students' commitment to culture. Museus and Maramba found that campus belonging among Filipino students was directly correlated with whether or not the student felt a need to abandon his or her cultural heritage to find belonging within the campus culture. Students who felt the need to abandon their cultural heritage were less likely to feel a sense of belonging on campus.

The literature creates a picture of an isolated Asian American student under pressure to conform to cultural stereotypes (Brydolf, 2009; Kim et al., 2009; Lee, 1994; Museus & Kiang, 2009; Park & Kim, 2008; Singh et al., 2011). Although isolated, Asian American students are less likely to seek support from faculty on campus. Asian American students are also less likely to have friends of other ethnic backgrounds, thus limiting their connections of support among the campus constituency. Despite the high graduation rates among some Asian American subgroups, Asian American students may not be fully thriving in college.

Asian students appear more successful than any other college students due to their high graduation rates (Aud, Fox et al., 2010). The Asian student experience in college, however, is overshadowed by a model minority label (Chang, 2007) perpetuating the invisibility of Asian students in higher education research literature (Museus & Kiang, 2009); the invisibility of Asians in the research literature perpetuates the stereotype that all Asian students are successful in college (Suyemoto et al., 2009). Although some Asian subgroups, such as Asian American Indians and Pakistani Americans, are graduating from college at high rates (63.9% and 54.3% respectively), other subgroups,

such as Laotian American and Hmong Americans have graduation rates much lower (7.7% and 7.5% respectively). The experience of Asian students in college is characterized as isolated and lonely (Suyemoto et al., 2009), filled with pressures to fulfill stereotypes of Asians (Lee, 1994) and achieve academically (Brydolf, 2009).

Thriving

Higher education research, specifically research based theoretically in engagement theory (Kinzie & Kuh, 2004; Kuh et al., 2005), has informed the field of higher education about the behaviors that are indicative of student success. Successful students are more engaged in campus life and academic studies, interact regularly with faculty, and are generally satisfied with their college experience (Kuh, 2003). Engagement theory has grown in scope over the past 13 years, framing much of the recent research in higher education. Large-scale behavioral research in higher education began with involvement-based studies of the Cooperative Institutional Research Program (CIRP) at the University of California Los Angeles (UCLA), an ongoing study of student behavior, and has expanded to include the National Survey of Student Engagement (NSSE) research at Indiana University.

Behavioral research in higher education had its beginnings at the Higher Education Research Institute (HERI) on the campus of UCLA. Early studies by Pace (1969) introduced a tool to measure the cultural, social, and intellectual climate on college and university campuses called the *College and University Environment Scales*. Later studies (Pace, 1979, 1980, 1984) demonstrated that quality of student effort was linked with student learning. Effort theory provided a new framework from which the interaction between studying and learning could be understood and explained.

Involvement theory (Astin, 1984, 1993b) built upon the principles of effort theory by linking time devoted to student learning, both physical and mental time, with student success. Astin (1984) specifically noted:

> Involvement implies a behavioral component. I am not denying that motivation is an important aspect of involvement, but rather I am emphasizing that the behavioral aspects, in my judgment, are critical: It is not so much what the individual thinks or feels, but what the individual does, how he or she behaves, that defines and identifies involvement. (p. 519)

Both effort theory and involvement theory are conceptually grounded in behavior theory; that is, both theories focus upon the behaviors exhibited by successful students.

The large-scale introduction of the NSSE instrument in 2000 provided higher education with a reliable quantitative assessment tool grounded in behavior theory. During the intervening decade, institutions have enriched their understanding of which types of students are engaged (Kuh, 2003; National Survey of Student Engagement, 2010), where they are engaged (National Survey of Student Engagement, 2009), and the predictive outcomes of their engagement (Carini, Kuh, & Klein, 2006; Kinzie & Kuh, 2004; National Survey of Student Engagement, 2008). As a result, much of the engagement literature is focused on the amount of time students spend in activities predictive of success (Kuh, 2003). Activities identified in the NSSE instrument such as the use of campus library resources, time spent socializing with faculty, and the use of campus human resources may be highly correlated with learning outcomes; however, none of these self-report behaviors are specifically indicative of psychological

engagement. Rather, the NSSE assessed involvement-based behaviors, or what Kuh (2003) referred to as "educationally purposeful activities" (p. 27).

The NSSE study built upon the theoretical frameworks established by Pace (1969, 1979, 1980, 1984) and Astin (1968, 1977, 1984) and specifically explored behaviors that are indicative of student engagement. However, there is dispute among researchers regarding the reliability of self-report behavioral studies (Chan, 2008). According to some researchers, self-report behavior is reliable (Baird, 1976; Kuh, 2001), while others emphasized the fallibility of human memory (Schacter, 1999) and that data collected from self-report should be interpreted with caution (DeAngelo & Tran, 2009; Nisbett & Wilson, 1977; Wilson & Dunn, 2004). Although behavior-based theory has been a hallmark of higher education over the past 3 decades, researchers have argued that psychological measures of engagement should also be considered (Bean & Eaton, 2002; Pascarella & Terenzini, 2005).

Because much of the research surrounding student success in higher education has been conceptually based on behavior theory, little research has focused on the psychologically motivating factors of engagement. Accordingly, researchers (Schreiner, 2010c; Schreiner, McIntosh et al., 2009) have explored these psychosocial factors through the construct of *thriving*. This approach includes academic factors but also acknowledges the importance of personal well-being and healthy relationships with others as vital components of a successful student experience.

By 2004, researchers were exploring what it meant for students to be psychologically engaged in classroom learning (Schreiner & Louis, 2006). Qualitative interviews with faculty sought to determine the factors that faculty believed corresponded

with the kind of *deep learning* referenced by Tagg (2004). Following the qualitative analysis, a quantitative tool was developed and tested to measure students' engaged learning (Schreiner & Louis, 2006, 2011). By 2007, the researchers had broadened the focus from engaged learning to a focus on student thriving. The researchers expanded the emphasis on student success beyond "satisfaction, persistence, and high levels of learning and personal development" (Kuh et al., 2005, p. xiv) to encompass some of the psychological processes evident in the construct of human flourishing (Schreiner, 2010c). Subsequent research has confirmed a measurement model of thriving and has articulated success outcomes that thriving predicts, along with structural models of the significant experiences that contribute to thriving (Schreiner, Kammer, Vetter, Primrose, & Quick, 2011; Schreiner, Nelson et al., 2011; Schreiner, Pothoven et al., 2009).

The construct of thriving was derived from research on flourishing within adult populations that emerged from the positive psychology movement. Human flourishing is conceptualized as positive emotions and optimal well-being (Keyes, 2002). Keyes note:

> The mental health continuum consists of complete and incomplete mental health. Adults with complete mental health are flourishing in life with high levels of well-being. To be flourishing, then, is to be filled with positive emotion and to be functioning well psychologically and socially. (p. 210)

Flourishing "exemplifies mental health" (Keyes & Haidt, 2003, p. 6) and is evident in individuals who are experiencing life to its fullest rather than simply existing. Flourishing individuals are resilient to the challenges presented in life and demonstrate personal growth and optimism through adversity. Goal setting, the active pursuit of valued objectives and fulfillment through creatively reaching such objectives, is another

sign of a flourishing individual. Not only is flourishing experienced within a person, but it is also evidenced when individuals actively engage with their world. Lastly, flourishing individuals are connected to the world through emotion (Haidt, 2003); flourishing individuals display moral emotions such as charity, gratitude, and awe toward others and the world around them. Haidt also identified compassion, empathy, courage, and loyalty as positive moral emotions. Individuals who flourish bring flourishing into the world around them, positively and indelibly changing their world.

The construct of thriving builds on the psychological well-being implied in flourishing and encompasses elements critical to college students' success: academic engagement, effort regulation, citizenship, openness to diversity, goal-setting, optimism, and self-regulated learning (Schreiner, McIntosh et al., 2009). Not only do aspects of thriving positively impact the student, but they also positively impact the college or university in which the student enrolls. Students who thrive are actively involved in their community and give back in service to the others within the community. Thriving is based on a conceptualization of student behavior, including engagement and persistence, as psychologically motivated (Bean & Eaton, 2002). Thriving students are fully engaged intellectually, socially, and emotionally, which facilitates students' overall success and well-being (Schreiner, Pothoven et al., 2009).

The study of thriving focuses on student well-being and is grounded in Bean and Eaton's (2002) psychological model of student retention. From this perspective, retention is not merely a function of student behavior, but is rather an outward function of what is happening in the minds of students. Students who are psychologically engaged in

life and vibrantly connected to the world around them are engaged with all aspects of their learning and the community within which they learn, which leads to persistence.

Bean and Eaton's (2002) psychological model of student retention builds on Tinto's (1975) sociological model. Bean and Eaton contended:

> Students enter college with a complex array of personal characteristics. As they interact within the institutional environment several psychological processes take place that, for the successful student, result in positive self-efficacy, reduced stress, increased efficacy, and internal locus of control. Each of these processes increases a student's scholarly motivation. (p. 58)

The process of interaction between the student and the institution is identified by Bean and Eaton as reciprocal and iterative, leading to "academic and social integration, institutional fit and loyalty, intent to persist, and to the behavior in question, persistence itself" (p. 58).

Three Domains of Thriving

Thriving occurs within three domains: (a) academic thriving, (b) interpersonal thriving, and (c) intrapersonal thriving (Schreiner, McIntosh et al., 2009). Academic thriving includes psychological constructs previously linked to academic success, such as learning engagement (Schreiner & Louis, 2011), self-regulated learning and effort regulation (Pintrich, 2004; Pintrich, Smith, Garcia, & McKeachie, 1993; Robbins et al., 2004), environmental mastery (Ryff, 1989), and hope (Snyder, 1995). Intrapersonal thriving includes measures of student perceptions of the quality of their circumstances in life and includes items measuring optimism (Luthans, Youssef, & Avolio, 2007) and subjective well-being (Diener, Suh, Lucas, & Smith, 1999). Interpersonal thriving

explores the social connections of life, such as positive relationships (Ryff, 1989), openness to diversity (Miville et al., 1999), and civic engagement with a desire to make a difference in one's community (Tyree, 1998).

Five Factors of Thriving

Together, all three domains of thriving measure factors that are psychologically rooted and amenable to change through intervention (Schreiner, 2010a). Each domain within thriving is measured through a combination of one or more factors. Through a confirmatory factor analysis, a five-factor model of thriving emerged (Schreiner, McIntosh et al., 2009). The results of the structural equation modeling analysis indicated that both the measurement model of each factor and the structural model predictive of thriving were a strong statistical fit for the data collected. These results mean that the items measuring each factor of thriving were strong indicators of the proposed construct of thriving and that scores on the five factor thriving scale were significantly predictive of elements of student success that tend to be valued within higher education, such as persistence, GPA, and institutional fit (Schreiner, Pothoven et al., 2009). A second-order factor of *thriving* was also identified through structural equation modeling; the presence of a second-order factor means that there is evidence that the construct of thriving is more than the sum of its five scales, but is a unique construct on its own. Each of the five factors that comprise the construct of thriving is described.

Engaged Learning. Demonstrating both behavioral actions and the psychological processes reflective of deep learning (Schreiner & Louis, 2011), Engaged Learning is "defined as a positive energy invested in one's own learning, evidenced by meaningful processing, attention to what is happening in the moment, and involvement in

specific learning activities" (p. 6). The Engaged Learning factor assesses the meaningful processing and focused attention inherent in Tagg's (2004) concept of *deep learning* and Langer's (1997) concept of *mindfulness.* Rather than assessing primarily behavioral indicators as evidence of learning engagement, this component of academic thriving measures the psychological processes underlying such engagement (Schreiner, McIntosh et al., 2009).

Academic Determination. Academic Determination reflects a student's ability to self-regulate his or her learning, set goals, master the learning environment and shape it to suit his or her needs, and demonstrate academic hope. Students with high Academic Detemination can self-regulate and contextualize the amount of effort required to overcome specific challenges (Pintrich, 2000; Pintrich et al., 1993). The goal-setting component of Academic Determination specifically pertains to academic self-regulation (Pintrich, 2004); here, self-regulation is both cognitive and behavioral and is associated with internal thoughts and perceived external pressures.

Environmental mastery (Ryff, 1989) is reflected in the Academic Determination factor. Environmental mastery relies upon the cognitive capacities of regulation by equipping students with the ability to understand and contexualize the environment around them. Students who demonstrate environmental mastery can shape their surroundings in ways that meet their individual needs. Ryff argued that "active participation in and mastery of the environment are important ingredients of an integrated framework of positive psychological functioning" (p. 1071). Braxton, Hirschy, and McClendon's (2004) retention construct of *proactive social adjustment* is similar to environmental mastery. Proactive social adjustment focuses on the student's ability to

positively and purposefully meet the demands of college. Braxton and Hirschy (2005) contended that proactive social adjustment explains 50% of the variation in a student's initial commitment to an institution. In their model, proactive social adjustment and psychosocial engagement – the amount of energy a student devotes to peer and campus activities – predict student social integration and membership in the campus community.

A final component of Academic Determination is academic hope (Snyder, 1995). Hope is comprised of two dimensions: willpower (agency) and waypower (pathways). Agency is the motivation to move toward one's goals, and pathways is the perception that strategies exist to reach one's desired destination. Snyder indicated:

> Higher hope persons, with their elevated sense of agency and pathways for situations in general, approach a given goal with a positive emotional state, a sense of challenge, and a focus on success rather than failure. Low-hope persons, on the other hand, with their enduring perceptions of deficient agency and pathways in general, probably approach a given goal with a negative emotional state, a sense of ambivalence, and a focus upon failure rather than success. (p. 355)

Academically determined students therefore set realistic and achievable goals, know the amount of effort it will take to reach those goals, and adjust their environment to meet the needs presented in achieving such goals.

Positive Perspective. The Positive Perspective factor is a combination of optimism (Carver, Scheier, Miller, & Fulford, 2009) and subjective well-being (Diener et al., 1999), and is a construct reflective of intrapersonal thriving. Optimism "reflects the extent to which people hold generalized favorable expectancies for their future" (Carver,

Scheier, & Segerstron, 2010, p. 879). Optimism is favorably linked with higher levels of subjective well-being, better coping skills, and mental engagement (Scheier, Carver, & Bridges, 1994).

Subjective well-being is more than mere happiness and reflects "a broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgments of life satisfaction" (Diener et al., 1999, p. 277). A positive perspective can be described as one's ability to have a confident attitude on broad dimensions of life's outlook, direction, and purpose. A person with a positive perspective believes good things happen most of the time and that not only are the conditions of life excellent now, but that the outlook for the future is decidedly encouraging.

Diverse Citizenship. Diverse Citizenship is a measure of openness to differences and the desire and belief that one is capable of making a contribution to one's community. As a foundational component to interpersonal thriving, Diverse Citizenship reflects the desire to act for the good of the community on behalf of others (Tyree, 1998) and includes the embracement of diversity. Items from the Universal-Diverse Orientation construct (Miville et al., 1999) were adapted for college students and comprise an element of the Diverse Citizenship scale. Universal-Diverse Orientation is defined as:

> …an attitude toward all other persons which is inclusive yet differentiating in that similarities and differences are both recognized and accepted; the shared experience of being human results in a sense of connection with people and is associated with a plurality or diversity of interactions with others. (p. 292)

A universal-diverse orientation in life is correlated with greater social connection with others and openness to the differences of others (Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000).

The second element of the Diverse Citizenship scale is based on the Citizenship construct from the Social Change Model of Leadership Development (Astin et al., 1996). This model of leadership development emerged from an exploration of how student leaders develop the capacity to impact community change. A team of researchers at UCLA reconsidered the definition and scope of leadership in the context of students in higher education. One goal of the initiative was to broaden the perspective of student leader beyond students who held official leadership roles on campus; the project explored the role of social connection and citizenship on college campuses.

To operationalize the Social Change Model of Leadership Development, Tyree (1998) developed the *Socially Responsible Leadership Scale*. The scale measures the eight constructs conceptualized in the Social Change Model. One scale within the instrument specifically measures citizenship. Citizenship is a value that connects individuals with the greater society (Tyree, 1998). Implying active engagement of the individual within society, citizenship is described by Astin et al. (1996) as a right, a privilege, and a duty.

Being an active citizen means implementing positive change within a community and engaging as an individual to serve the needs of the greater community. For Astin et al. (1996), "citizenship is the value that responsibly connects the individual and the leadership group to the larger community or society" (p. 65). Within the context of

thriving, the desire to positively contribute to the community forms the basis of the Diverse Citizenship scale within the Thriving Quotient.

Social Connectedness. Positive relationships are strongly correlated to life satisfaction among adults (Ryff & Keyes, 1995). The Social Connectedness scale of the Thriving Quotient focuses upon the benefits of close friendships, specifically those upon whom one can rely in times of need. Ryff (1989) identified positive, trusting interpersonal relationships as being a central component of mental health in adults.

In addition to the importance of social connections to life balance, social integration into the university environment is foundational in understanding why students persist at an institution (Tinto, 1993). Tinto theorized that a student's level of commitment was directly correlated with the student's level of academic integration (e.g., academic performance, enjoyment of classroom materials, identification with one's role as a student) and social integration (e.g., number of friends on campus, personal interaction with faculty, enjoyment of the college environment). These two components of integration, according to Tinto, form the basis for understanding why a student chooses to stay or leave an institution.

Both Braxton et al.'s (2004) and Tinto's (1993) retention theories posit that student communities are vital to student success; additional research specifically confirms that such communities positively impact the college experience for students of color (Anglin & Wade, 2007; Nora et al., 1996; Nuñez, 2009; Walton & Cohen, 2007; Zirkel, 2004). Braxton and Hirschy's (2004) definition of *communal potential* as an important element of student retention postulates that "the more a student perceives the potential of community on campus, the greater the student's level of social integration" (p. 23). The

communal potential students perceive impacts their decision of whether or not they will choose to integrate into the campus community. Student social integration is therefore linked to a student's university or college commitment and ultimate retention. Positive communal potential is one indicator of a vibrant campus culture where students feel they can find, join, and build community with one another.

Psychological Sense of Community

Community is both a term used to describe a grouping of people gathered into one place, and a term used to describe the interconnectedness of a group of individuals. The quality of a given community can be measured by the sense of community felt by its members. A psychological sense of community is defined by McMillan and Chavis (1986) as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9). The belongingness that is foundational to a sense of community is noted in the literature as a fundamental need experienced by all human beings (Baumeister & Leary, 1995). Sense of belonging is so important for humans that Baumeister and Leary concluded that search for belonging and fit is what compels most human action.

History of Psychological Sense of Community

Community psychology as a field of study developed in the early 1970s due to the realization that the connection of individuals to one another contributed significantly to mental health. The perception was that connections between individuals were becoming frayed due to the frenetic pace of modern life, and the subsequent social disintegration

was detrimental to community (Sarason, 1974). Sarason judged the interrelatedness of individuals by examining:

> …the degree to which citizens could experience a psychological sense of community: the sense that one belongs in and is meaningfully a part of a larger collectivity; the sense that although there may be conflict between the needs of the individual and the collectivity, or among different groups in the collectivity, these conflicts must be resolved in a way that does not destroy the psychological sense of community; the sense that there is a network of and structure to relationships that strengthens rather than dilutes feelings of loneliness. (p. 41)

McMillan and Chavis (1986) furthered Sarason's work by proposing four dimensions of a psychological sense of community. These included (a) *Membership* – The notion that certain social boundaries provide evidence of who belongs and who does not. Membership provides a sense of belonging and a validation that one is accepted by the group and is willing to personally invest or make sacrifices for the sake of the group. One identified marker of membership is that of "a common symbol system" (p. 10) or social conventions such as language or dress that create boundaries defining who is accepted within the group and who is not a group member. (b) *Influence* – The concept of influence is bi-directional in that group members are attracted to a specific group because they believe they bring an ability to influence decision-making within the group and that the group itself possesses enough cohesion to exhibit influence on its members. Both the power of the individual within a group and the power of the group itself are important hallmarks of community influence. (c) *Integration and Fulfillment of Needs* – Integration and fulfillment of needs can be summarized as interdependence. Sarason

indicated that "some of the rewards that are effective reinforcers of communities are status of membership, success of the community, and competence or capabilities of other members" (p. 13). A successful community fits people together who can fulfill one another's needs, a community model of interdependence. (d) *Shared Emotional Connection* – A bond of common history or a collective identification with a common history creates a shared emotional connection among community members. Another dynamic of such connection is quality time spent with members of the community. Such bonds of friendship and camaraderie build a sense of shared emotional connection.

Psychological Sense of Community on College and University Campuses

The benefits of a psychological sense of community on a college campus have not been overlooked by researchers in higher education (DeNeui, 2003a; Lounsbury & DeNeui, 1995, 1996; McCarthy, Pretty, & Catano, 1990; Pretty, 1990; Schreiner, McIntosh et al., 2009), but have not been fully explored. The lack of extensive literature on a psychological sense of community in higher education is primarily a result of differential terms and backgrounds of researchers. For example, the term *psychological sense of community* is prominent in the discipline of psychology and in the research of psychologists (Baumeister & Leary, 1995; Chavis & Pretty, 1999; Lounsbury & DeNeui, 1995; McMillan & Chavis, 1986; Sarason, 1974), but is not a familiar term in the higher education literature. The term *sense of belonging* is more commonly used in the literature specific to higher education, reflecting more of the sociological roots of the discipline (Hurtado & Carter, 1997; Tinto, 1993, 1997). Although this term reflects the membership component of a psychological sense of community, it is not as comprehensive a view of interpersonal connections within a community as the term

psychological sense of community. Thus, in this study, the construct of a psychological sense of community will be utilized, as it is more reflective of the level of integration and connection between students and the campus community that may be predictive of thriving.

Many of the facets of a psychological sense of community are shared on college campuses through interaction between students and between students and faculty. The themes of membership, influence, need-fulfillment, and emotional connection in psychological sense of community are operationalized when students interact with their campus environment. Whether such interaction is through involvement with other students, through clubs and organizations, or by interacting with faculty members, students build community on campus and the interconnectedness of those relationships build the campus culture and climate of community on campus. Student participation and involvement enhances a sense of community on campus (Hurtado & Carter, 1997).

In their initial assessment of a psychological sense of community on campus, Lounsbury and DeNeui (1995) found that psychological sense of community is not only measurable on campus, but they also noted significantly higher psychological sense of community among members of Greek societies, undergraduates in private schools, resident students, residents from out of state, seniors, and females. Additionally, they noted significant differences between certain academic majors. The higher levels of PSC noted among Greek organization members and students who live on campus supports the notion that social connection builds community. Merely living on campus does not build community, however; students must still make connections within social groups in which they can find association to build community on their campus. Strayhorn's (2008a)

comparative quantitative analysis between African American and Caucasian men found that the belonging of African American men depended greatly upon the quality of the students' interaction with peers of other ethnic groups. Cole (2010a) found a negative relationship between African American involvement in ethnic clubs and organizations and academic achievement, suggesting that a sense of community may not always correlate with higher GPA. The study by Cole, however, contained a sampling of African American students at predominantly Caucasian campuses and the interactive nature of involvement in ethnic organizations and academic achievement may have been impacted by the nature of the data. Involvement in ethnic organizations does not describe a comprehensive measure such as psychological sense of community; association with one student group comprises merely a part of the "multiple affiliations" on campus for students of color (Hurtado & Carter, 1997, p. 327).

Similar to Cole (2010a), DeNeui (2003a) found that too much campus involvement negatively impacted PSC among first-year students in a longitudinal study exploring the extent of change in PSC across the first year. DeNeui's study focused only on one campus of students, and he noted no pattern of increase in PSC across the course of the academic year. However, the study only assessed participants twice: once at the beginning of the first semester and again at the end of the academic year. The researcher did note, however, that students who participated the least in campus activities experienced the greatest decrease in PSC over time. This finding suggests there exists an optimal amount of campus participation that positively impacts PSC over time for students, whereas too little involvement or over involvement are correlated with decreasing PSC.

Not all students who have negative experiences on campus will leave their campus, however. Nuñez (2009) found that Latino students who reported awareness of campus diversity issues were more likely to experience campus hostility; they also reported higher levels of belonging. These findings suggest that students who make strong interpersonal connections on campus are likely to find support within their peer group and persist through adversity. Sense of community provides support for students through the stressful college years. In a correlational study of 260 undergraduates McCarthy et al. (1990) found an inverse relationship between psychological sense of community and student burnout, physical stress, and psychological stress. This research was conducted on one campus, and the data collected represented a single collection point for each student. Data were collected during the third and fourth week of the second semester. In their study, the researchers found GPA and two subscales of PSC, fulfillment of need and shared emotional connections, were predictive of burnout among students.

Walton and Cohen (2007) found that a sense of belonging could be nurtured for students. The researchers normalized doubt about college success among a group of African American computer science majors. The normalization of college doubt was an attempt to protect a sense of belonging among those in the control group. Those in the randomly assigned intervention group demonstrated more frequent interaction with faculty, greater academic self-efficacy, and increased GPA over time compared to the control group. Although the study utilized a membership, or fit, measure tailored to computer science majors, the study demonstrated malleability to a sense of belonging. A sense of belonging is similar to the membership component of a psychological sense of

community. The study protecting a sense of belonging among African American computer science majors demonstrated a clear relationship between campus involvement and academic achievement, and a sense of belonging.

In studies exploring a sense of community across different ethnic groups, researchers have noted differences between Caucasians and African Americans in a health-related study (BeLue, Taylor-Richardson, Lin, McClellan, & Hargreaves, 2006), and among multiple ethnic groups in a Canadian study on the interaction between a sense of community and suicide (Clarke, Colantonio, Rhodes, & Escobar, 2008). Coffman and BeLue (2009) tested for measurement differences between African Americans and Caucasians utilizing the sense of community measure developed by McMillan and Chavis (1986). Coffman and BeLue found between group differences that could not be attributed to measurement error; they supposed that the between-group differences they explored could only be attributed to true variance in the perception of community between African Americans and Caucasians.

A 2005 study (Faircloth & Hamm) of 5,494 high school students from seven ethnically-diverse schools explored the pathways predicting academic success across four different ethnic groups; a sense of belonging measure and an academic motivation measure were utilized in the predictive model of academic success. The researchers found that the pathways to academic success differed across all of the ethnic groups. Faircloth and Hamm hypothesized that the different pathways to success could be attributed to the diverse ways ethnic-group students experience the campus environment.

Involvement in Campus Community

Over 4 decades ago, Chickering (1969) wrote that student adjustment to the campus community involved social, academic, and emotional factors. In early studies on student behavior, Pace (1969, 1980) established a direct interactive effect between student effort and student learning. Pace was concerned more with the quality of interactions than the outcomes of the interactions alone. He later indicated that the quality of the student experience was also a factor directly impacted by how students interacted with their institution (Pace, 1984). Astin's (1984) involvement theory built upon Pace's study to consider more explicitly the role of campus involvement on the student experience in college.

The transition to college provides students with new opportunities to adapt to an entirely unique environment whereby the student pursues active membership into the campus community. Environment has been identified as an important influencing factor on how students experience college and find success navigating the complexities of university learning (Astin, 1968, 1993b; Pascarella & Terenzini, 2005). Astin's (1984) research on student involvement revolutionized the way in which institutions of higher education understood the impact of behavioral engagement in campus activities on student success. Although Astin originally conceptualized student involvement as both psychological and behavioral engagement, his model focused exclusively on the behavioral element of involvement, concluding that "it is not so much what the individual thinks or feels, but what the individual does, how he or she behaves, that defines and identifies involvement" (p. 298). Subsequent research has demonstrated that successful students are involved in the campus environment, engage in campus activities, exert

greater effort, and engage more with faculty (Kuh, 2003; Kuh et al., 2005; Pascarella & Terenzini, 2005). The behavioral focus in research based on Astin's model illuminates what kinds of student actions are outcomes of engagement, but does little to explore what is actually occurring in the minds of students.

Although participation and involvement build a sense of community, there is evidence that such campus involvement is particularly beneficial for students of color, as it contributes to a stronger sense of belonging in an environment in which it is often difficult to experience membership when one is not a part of the dominant culture. For example, in a qualitative study of 10 Latino students, Hernandez (2000) found co-curricular involvement was a pervasive theme that contributed to their retention. All 10 students in the qualitative study noted that co-curricular involvement allowed students to engage the smaller social microcosms of campus instead of feeling isolated and alone because of the impersonal aspects inherent to a larger university campus.

In a large quantitative study, Fischer (2007) found that interaction with faculty was positively correlated with GPA among all non-Caucasian groups and with college satisfaction and student retention. Fischer noted some distinctions among students of color, however:

> Involvement in formal activities on campus contributes not only to greater satisfaction for Black and Hispanic students but also to greater academic success. Formal social ties are only marginally significant for Asians, and they are not at all significant for Whites. Similar cross-context effects were found for Black and Hispanic students in the models predicting satisfaction with college. For both

> groups, having more extensive ties to professors is positively related to satisfaction with college. (p. 154)

Fischer also noted direct and indirect effects between involvement in formal campus activities and college departure for African American and Latino students, even after controlling for college satisfaction and GPA. The findings of this study suggest that Caucasian students automatically experience a sense of fit within the dominant culture and may not benefit from formal social connections in the same ways students of color on predominantly Caucasian campuses gain campus membership benefits.

Student-Faculty Interaction

In addition to campus involvement, student-faculty interaction is a potential mechanism for enhancing a psychological sense of community within students. A psychological sense of community is not a student responsibility alone. Faculty members, individuals in teaching and mentoring relationships with students, also play a vital role in building community on campus. Over the past decade, the NSSE studies have continually emphasized the role of positive faculty interaction on the experience of students (National Survey of Student Engagement, 2008); both interactions in the classroom, and social interactions outside the classroom, positively influence students (Kuh & Hu, 2001; Kuh et al., 2005). The importance of positive student-faculty interaction throughout a student's college career fits well with Tinto's (1993) model of persistence; specifically, faculty members assist with the academic and social integration of students into the university environment. Pascarella and Terenzini (2005) noted that non-substantive social interactions outside the classroom are less impactful for students

than what Kuh and Hu (2001) referred to as conversations of "intellectual substance and depth" (p. 310).

Student-faculty interaction of an academic nature is a strong predictor of student success for students of all ethnic groups (Kuh & Hu, 2001). Lundberg and Schreiner (2004) found, however, that it is not just the quantity of the interaction that matters in student success, but the type and quality of student-faculty interaction. Lundberg and Schreiner also noted that the relationship between student-faculty interaction and student learning differs across the different ethnic groups. Particularly, it was noted that faculty interaction contributed more to student learning for students of color than for Caucasian students; however, African American students indicated that time spent with faculty was less rewarding. Therefore, it cannot be assumed that interaction between faculty and student necessarily benefits all students in the same manner.

Differences in the kind of behaviors exhibited by faculty were demonstrated by Cole (2008) to be highly related to student GPA in African American and Latino students. Cole specifically demonstrated a relationship between faculty use of constructive criticism, encouragement, and support in building the confidence of African American and Latino students. These findings are consistent with Rendon's (1994) theory of validation, that students of color "need to be confirmed and to find structure" (p. 40) within the natural fabric of the institution to flourish. Rendon asserted that students who are involved in social and academic arenas of their university campus are more excited about learning and that faculty members can provide the kind of validation students of color need to feel they belong on campus.

In a quantitative study at a Midwestern community college, Barnett (2010) found that validation by faculty was strongly predictive of student success for ethnic group students, but not for Caucasian students. Students of color are more sensitive to the cues of validation from campus policies and practices, and especially faculty behaviors, than are Caucasian students. Cole's (2010a) study of African American students on predominantly Caucasian campuses found that faculty interaction contributed significantly to the variance in student intellectual self-concept. Faculty members have powerful abilities to encourage students or discourage students merely by action or inaction. Both the words and actions of professors communicate to students whether the student belongs and is affirmed, or does not belong and should not actively participate. When students believe that what they think, feel, and desire to share contributes to the fabric of the academic community, they are more likely to be involved and experience a sense of community.

Spirituality

Faith development, spirituality, and religiosity have not historically been a focus of research in higher education; in short, researchers have not dedicated effort to explore "private" topics such as religion or faith as they interact with the daily functioning of the academy (e.g., little is known about the spiritual practices of faculty or students). Aspects of higher education deemed more "relevant" to the purpose of higher education, such as the development of the mind, have instead historically been the attention of researchers. More recently, however, researchers have published findings and studies focused on constructs such as religious practice, spirituality, faith formation, character development, and life calling (Astin et al., 2011b; Braskamp et al., 2006; Chickering et

al., 2006; Jablonski, 2001; Parks, 2000). A longitudinal study of spirituality in higher education (Astin et al., 2011b) found that the vast majority of students categorize themselves as spiritual. The former Hellenistic dualistic perspective, that the academic aspects of students and faculty can and should be separate from the personal and spiritual aspects, is perhaps not a reflection of reality (Dawson, 2010). Parks asserted that the rise of the research university in the nineteenth century caused a subsequent standard of scientific objectivity to dominate the academy. Parks further noted:

> The academy is dedicated to knowledge. The phenomenal can be known, but the noumenal reality cannot. And if it cannot, the reasoning goes, then questions of meaning, morality, ultimacy and faith – although surely important – stand outside the realm of "knowledge" and are beyond (or irrelevant to) the work of the academy. (p. 160)

Along with the majority of college students who self-identify as spiritual, a majority of faculty at universities in the United States also report high levels of spirituality (Astin et al., 2011b). Yet, despite the presence of spiritually-minded individuals on campus, few institutions other than church-related colleges are willing to engage with the topic of spirituality as part of the broader curriculum (Braskamp et al., 2006).

Despite a vast literature on faith formation, beginning with Fowler's research in 1981, research exploring the intersection of spirituality and learning in the broader college and university arena remains relatively unexplored. Astin et al. (2011b) characterized the modern approach to secular education as "impersonal and fragmented" (p. 7) and urged educators to consider a more holistic approach to education that connects

the mind and spirit to "an education that examines learning and knowledge in relation to an exploration of self" (p. 7). Astin et al. argued that a return to such an education would require faculty and students to explore more deeply and intimately the existential questions of life including: Who am I? What is my purpose in life? and What kind of person am I in the process of becoming?

The mission statement of a university or college describes "its future, where a college wishes to go, what it wants to become or the impact it wants to have on students" (DeJong, 1992, p. 26). If the exploration of the spiritual self is personal and holistic, as implied by Astin et al. (2011b), then university and college mission statements lacking acknowledgement of the spiritual self do not reflect fully the integrative nature of whole persons. Accordingly, research and teaching in higher education that do not reflect holistic learning and development lack full authenticity. Astin et al. (2011b) asserted:

> To ignore the spiritual side of students' and faculty's lives is to encourage a kind of fragmentation and a lack of authenticity, where students and faculty act either as if they are not spiritual beings, or as if their spiritual side is irrelevant to their vocation or work. Within such an environment, academic endeavors can become separated from students' most deeply felt values, and students may hesitate to discuss issues of meaning, purpose, authenticity, and wholeness with each other and especially with faculty. (p. 7)

The authors also noted that some traditional academics may argue that spirituality, or religion, have no place in the academy. However, university and college mission statements "frequently include a commitment to value-laden student outcomes like character, social responsibility, honesty, and citizenship" (Astin et al., 2011b, p. 6).

Meeting the mandates of such missions requires attention to developing the spirit within a student as well as the mind of the student; such spirit development, in the form of mission-oriented outcomes, complements and is arguably inseparable from a traditional university approach to developing the minds of students.

Researchers have noted that there are conceptual differences between spirituality, religiosity, and faith (Astin et al., 2011b; Bosacki, 2005; Braskamp et al., 2006; Chickering et al., 2006; Parks, 2000). For example, Parks distinguished a person's faith as different than their belief, a term often used synonymously with faith. For Parks, a person's faith associates strongly with a particular religion, while his or her belief is more often an expression of the cognitive (e.g., "I believe this to be true"). Although faith is often used synonymously with belief, Parks argued that modern use of the term belief is merely a connotation of an individual's opinion. Braskamp et al. (2006) defined faith as "a student's nonrational, affective, and ethical dimensions" (p. 21), similar to Astin's (2004b) definition of the "interior" of an individual. Religion, however, is generally associated with a set of specific beliefs associated to dogma or doctrine (Zinnbauer, Pargament, & Scott, 1999). Membership is the hallmark Miller (2004) attributed to the distinction between faith and religion. He argued that social boundaries establish membership in a religion based upon a set of beliefs. In contrast, spirituality is defined by Astin et al. (2011b) as:

> …our sense of who we are and where we come from, our beliefs about why we are here – the meaning and purpose that we see in our work and our life – our sense of connectedness to one another and to the world around us. Spirituality can also bear on aspects of our experience that are not easy to define or talk about,

> such things as intuition, inspiration, the mysterious, and the mythical … highly spiritual people tend to exemplify certain personal qualities such as love, compassion, and equanimity. (p. 4)

Although Braskamp et al. (2006) stated that faith, religiosity, and spirituality are interrelated, this study focuses on the relationship between spirituality, as it relates to a reliance on a higher power when life is difficult, and student success. For example, it has been demonstrated that students who develop spiritually throughout college are more likely to pursue careers and life directions that align with their deepest beliefs (Dalton, 2001). Covey (1995) contended that those who live by spiritual convictions possess a heightened awareness of moral reasoning, integrity, and care for society; therefore, a heightened sense of spirituality is theoretically linked with engaged citizenship.

Piedemont (1999) argued that spiritual transcendence, or one's ability to see more broadly how humanity is interconnected, "is a fundamental capacity of the individual, a source of intrinsic motivation that drives, directs, and selects behaviors" (p. 988). Such transcendence is linked conceptually with spirituality – the means by which individuals make meaning of the world around them (Astin et al., 2011b).

Students can benefit from the positive impacts of a healthy spiritual self. Astin et al.'s (2011b) landmark longitudinal study of spirituality in higher education found that students with higher spirituality scores were more satisfied with college, received higher grades, were more likely to desire inner peace in times of hardship (equanimity), were more embracive of diversity, and exhibited higher academic self-esteem. Interacting with faculty positively correlated with student spiritual questing. Findings indicated that

students reported higher spiritual questing scores when faculty encouraged them to think about life purpose and meaning.

Students of all ethnic groups report being spiritual (Astin et al., 2011b); however, spirituality is not a universal experience for all people. Culture and background are important in understanding the impact of spirituality on individuals. According to Cervantes and Parham (2005), spirituality is an important aspect within every Latino ethnic group represented in the United States; the researchers noted, however, that expressions and experiences of spirituality, religiosity, and faith practice differ among Latino groups. For example, some Latino spirituality has a decidedly Catholic overtone; yet, the religious practices and spirituality of another Latino group may be animistic or rooted in native spiritualism. In a quantitative study of Latino spirituality, Campesino et al. (2009) found that Latino students reported significantly higher responses on nearly all religious practice and spiritual questions compared with non-Latinos.

A literature review of counseling practices for people of color by Cervantes and Parham (Cervantes & Parham, 2005) identified links between spirituality and faith practices of Latinos and psychological well-being. The researchers noted that people of color experience spirituality in many ways, and spirituality and religiosity are important in the cultural upbringing and socialization of many minority groups. Implications from the literature review suggested that individual faith practices and cultural spirituality practices among people of color can help build a pathway to wellbeing for many people of color. Whatever their spiritual background, Latino students attend more religious services than students from any other ethnic group (Campesino et al., 2009). The communal aspects of religious practice are important for Latinos. The communal

tendencies inherent in Latino culture are evident not only in religious attendance, but also in faith practice. For many Latinos, faith practice is often embedded into the context of community and family rather than in individualistic behaviors (Elizondo, 2000).

Just as spirituality is an integral part of the Latino experience, spirituality among African Americans is an important part of daily life. An integral dimension of a balanced African American identity is the development of a healthy spiritual self (Jagers & Mock, 1993). In a qualitative study of 12 African American students in a predominantly Caucasian private college, a pervasive theme reported by Constantine et al. (2006) was the importance of spirituality in overcoming life's challenges. Larger quantitative studies, such as Walker and Dixon's (2002) correlational study of 212 undergraduate psychology students, have found a significant relationship between academic success and reliance in a higher power among African American students. In this same study, the cumulative grades of Caucasian students were correlated significantly with religious participation rather than with overall spirituality. African American student grades, both semester and cumulative, were each found to be correlated significantly with overall spirituality and religious participation.

Spirituality among Asian Americans is very diverse (Constantine et al., 2006). Faith practices among Asian Americans represents a spectrum of major world religions such as Hinduism, Buddhism, Islam, and Christianity, and many forms of animism. Despite the diversity of religious practice among Asian Americans, little is known about the intersection of personal faith practice and college success for Asian students.

Summary

This chapter provided the context for this study by examining the existing literature on the diverse experiences of African American, Latino, and Asian American students on predominantly Caucasian college campuses in the United States. Given that students of color often have dramatically different experiences than Caucasian students while in college and often experience greater obstacles to their success, thriving was introduced in this chapter as the theoretical framework for this study, as it conveys a holistic perspective on students' intellectual, interpersonal, and psychological well-being. Psychological sense of community was introduced as the major mediating variable for thriving among students of color, as it provides a means for understanding student integration to the university and college campus and how certain student behaviors such as campus involvement and interaction with faculty can positively impact the success of students on campus. Lastly, spirituality was introduced as an important aspect of holistic student development that is likely to have a bearing on thriving among students of color.

CHAPTER 3

METHODOLOGY

The purpose of this study was to explore the relationships among (a) campus involvement, (b) student-faculty interaction, (c) spirituality, and (d) psychological sense of community in traditional undergraduate college students of color and how these relationships contribute to thriving. To explore the direct, indirect, and total effects of the proposed model, structural equation modeling (SEM) was utilized to test the model fit for predicting thriving in a proposed structural model. SEM is best suited to answer this research question because it is a confirmatory statistical technique (Ullman, 2007). Analysis in SEM allows researchers the ability to explore observed variables and variables that cannot be directly observed, or *latent* constructs (Byrne, 2010). Observed variables utilized in this study include items regarding interaction with faculty, involvement in campus clubs and organizations, indicators related to a psychological sense of community, and items related to spirituality. Control variables in the model include such demographic variables as gender, high school grades, year of study, athlete status, campus resident, hours worked per week off campus, and major certainty. Institutional characteristics also served as control variables; these included the percent of female students enrolled, whether the institution was public or private, institutional selectivity, and the percent of Caucasian students enrolled. One general fit model served as the baseline model that was examined to test fit for all students, including Caucasian

students. Subsequent ethnic group models were then tested to determine if better model fit could be found among students of each identified ethnic group (a) African American, (b) Latino, and (c) Asian American.

Hypothesized Model

To determine how the latent constructs and observed variables contributed to thriving among students of color, a model was developed from the relevant literature. The model presented by Schreiner et al. (2011) was initially tested using multi-group analysis in AMOS modeling software. The model proposed that certain demographic and campus characteristics inform some of the constructs in the model, and all the latent constructs contribute both directly to thriving and a psychological sense of community, and that psychological sense of community also contributes directly to the understanding of thriving. The hypothesized path model is shown in Figure 1.

Participants

Participants in this study included all students of color from the *Thriving Quotient* data collection project of spring 2011. Data were collected from 59 institutions representing a range of private and public institutions of varying Carnegie classifications. Table 1 displays the institutional characteristics of the sample. Participants were only undergraduate students ages 18 to 25 years. Table 2 displays the demographic characteristics of the sample.

Instrumentation

Thriving Quotient

Student thriving is the primary dependent variable in this study; the primary dependent variable is also known as the ultimate endogenous variable in structural

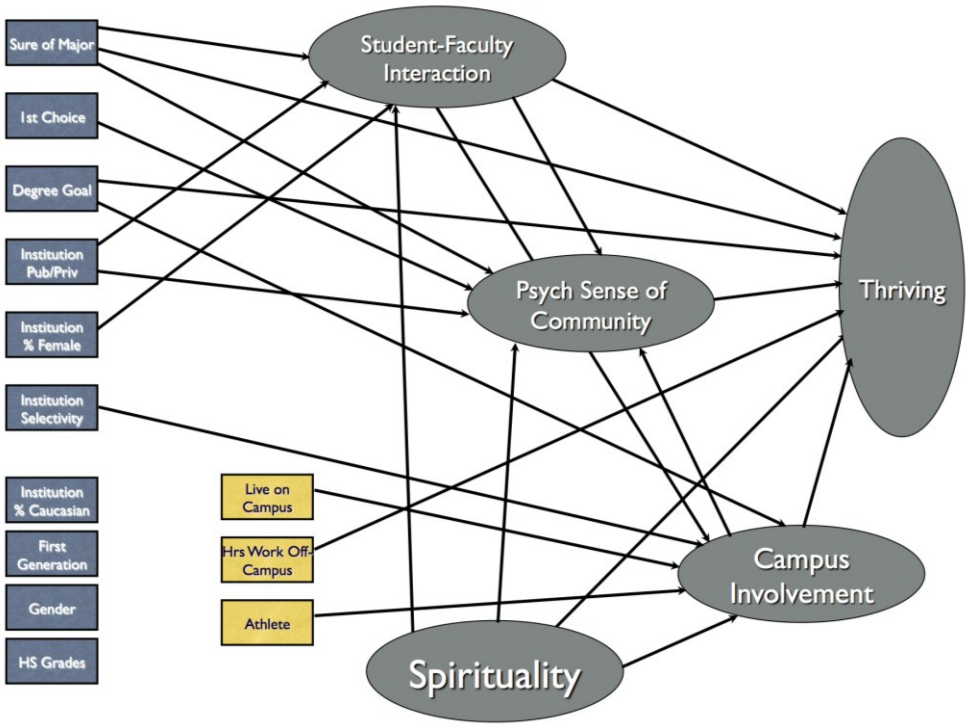

Figure 1. Hypothesized path model.

Table 1

Institutional Characteristics of Dataset (N = 59)

Variable	Mean %	*SD*	Total *N*	Total %
Caucasians on Campus	69.25	.158		
Females on Campus	58.01	.088		
Students Living on Campus	51.86	.278		
Public Institution			13	22.03
Private Institution			46	77.97

Table 2

Demographic Characteristics of Participants (N = 7,956)

Variable		Total	
		N	*%*
Athlete			
	Yes	717	9.00
	No	7,239	91.00
First Generation			
	Yes	1,798	22.60
	No	6,158	77.40
Gender			
	Female	5,645	71.00
	Male	2,311	29.00
Race			
	African American	433	5.40
	American Indian / Alaska Native	37	0.50
	Asian / Pacific Islander	457	5.70
	Caucasian / White	6,188	77.80
	Latino	334	4.20
	Multiracial	304	3.80
	International Student	62	0.80
	Prefer Not to Respond	141	1.80
Type of College			
	Public	3,069	38.60
	Private not-for-profit	4,887	61.40

equation modeling (Kline, 2005). Specifically, thriving among students of color was explored. To measure the latent variable of thriving, the *Thriving Quotient* instrument was utilized. The Thriving Quotient was developed from a pilot study on student thriving in 2008. The original 198-item pilot study involved 2,474 students from 13 institutions (Schreiner, McIntosh et al., 2009). Subsequent hierarchical multiple regression analysis

(Schreiner, Pothoven et al., 2009) along with exploratory and confirmatory factor analysis reduced the instrument to 32 items (Schreiner, McIntosh et al., 2009).

A 25-item instrument is the result of further revision to the instrument (Schreiner, Edens et al., 2011). The Thriving Quotient measures thriving among five factors and demonstrates a reliability of $\alpha = .89$. Items utilize a 6-point Likert scale response (1 = *strongly disagree*, 2 = *disagree*, 3 = *somewhat disagree*, 4 = *somewhat agree*, 5 = *agree*, 6 = *strongly agree*).

A confirmatory factor analysis of the five-factor model of thriving by Schreiner, Edens, and McIntosh (2011) demonstrated excellent fit, ($\chi^2_{(257)} = 2747.67$ $p < .001$, CFI = .956, and RMSEA = .042) with 90% confidence intervals of .040 to .042. Observed variables in their study loaded onto latent constructs (β range = .49 to .88). Alpha coefficients of the five thriving factors were reported as follows: Engaged Learning (5 items, $\alpha = .83$), Diverse Citizenship (6 items, $\alpha = .80$), Academic Determination (6 items, $\alpha = .82$), Positive Perspective (5 items, $\alpha = .83$), and Social Connectedness (3 items, $\alpha = .82$).

Psychological Sense of Community

The *Psychological Sense of Community on Campus Index* (Schreiner, 2006) was utilized to measure PSC in this study; the index consists of eight items. Schreiner (2006) reports consistent internal reliability of the index ($\alpha = .82$). Items measuring PSC are rated along a 6-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *somewhat disagree*, 4 = *somewhat agree*, 5 = *agree*, 6 = *strongly agree*).

Spirituality

For the purposes of this study, spirituality was defined as the reliance on a power greater than the self. The latent construct of Spirituality is comprised of the following three questions measured with a 6-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *somewhat disagree*, 4 = *somewhat agree*, 5 = *agree*, 6 = *strongly agree*):
(1) My spiritual or religious beliefs provide me with a sense of strength when life is difficult (*Spirituality1*); (2) My spiritual or religious beliefs are the foundation of my approach to life (*Spirituality2*); (3) I gain spiritual strength by trusting in a higher power beyond myself (*Spirituality3*).

The three spirituality items were adapted from items on the *Religious Commitment* scale of the College Students' Beliefs and Values (CSBV) survey. The CSBV is a research project associated with the Higher Education Research Institute (HERI) the University of California Los Angeles (UCLA). The full 12-item Religious Commitment Scale has reported consistency of $\alpha = .96$ in a 2004 sample and $\alpha = .97$ in a 2007 sample (Astin et al., 2011a).

Student-Faculty Interaction

Frequency of interaction with faculty and satisfaction with such interaction comprises the observed construct Student-Faculty Interaction. Student answers to these questions were measured along a 6-point Likert scale (1 = *very dissatisfied*, 2 = *dissatisfied*, 3 = *somewhat dissatisfied*, 4 = *somewhat satisfied*, 5 = *satisfied*, 6 = *very satisfied*). Students were asked to rate their satisfaction with each of the following aspects of their college experience: (1) The amount of contact they have had with faculty

this year (*FacInt*); and (2) The quality of the interaction they have had with faculty this year (*FacSat*).

Campus Involvement

Campus involvement included five questions of involvement frequency. Items for this construct were measured along a four-point Likert scale (1 = *never*, 2 = *occasionally*, 3 = *regularly*, 4 = *frequently*). Students were asked to provide the frequency of their involvement in student organizations on campus (*StuOrg*), campus activities (*CampusAct*), fraternity or sororities (*FratSor*), community service (*CommServ*), and leadership in student organizations (*Leader*).

Demographic Variables

Thirteen demographic variables were analyzed in this study. Of the demographic variables, four represent institutional variables such as institutional selectivity (*InstSel*), percent of Caucasian students on campus (*PercCauc*), public or private institution (*PubPri*), and percent of female students on campus (*PercFem*). The remaining demographic variables were student-based. Two of the included demographic characteristics in the study, gender (*Gender*), and first student in the immediate family to attend college (*FirstGen*), could not be altered by student action. Three variables describe current student behaviors or choices, including whether the student lived on or off campus (*OnCampus*), the number of hours the student worked off-campus per week (*HrsWorkOff*), and whether or not the student was a collegiate athlete (*Athlete*). The remaining demographic variables were certainty of major (*MajorSure*), institution was first choice to attend (*FirstChoice*), dichotomous variable for grad school ambition (*DegreeGoal*), and high school grades (*HSGrades*).

Procedures

Data were collected via an online survey tool, encrypted, and accessible only to the researcher by password. The data were downloaded from the internet in Microsoft Excel spreadsheet format and imported into PASW Statistics 18.0 Graduate Pack Edition for analysis. SEM analysis was conducted in AMOS modeling software version 19.

Data Screening

Data from a spring 2011 study were utilized for this study. Analysis of data began with a dataset containing 9,495 individual responses to the *Thriving Quotient* survey. Respondents who chose to leave the question regarding race and ethnicity blank were eliminated from the dataset, leaving 8,389 usable responses. Responses from participants under age 18 were also deleted from the remaining data, leaving 8,378 unique observations. Before any structural modeling could be accomplished, participant data were screened for univariate and multivariate outliers (Tabachnick & Fidell, 2007). SEM techniques assume multivariate normality and therefore require adequate data screening before analysis (Ullman, 2007). Data for this study were screened together, both independent and dependent variables, to assess for univariate and multivariate normality.

Univariate transformation was required to adjust for skewness among 15 variables in the data collection. Recommendations from Tabachnick and Fiddell (2007) were utilized to normalize the univariate distribution within individual variables that displayed skewness and kurtosis outside statistically acceptable maximums/minimums. Two variables (*ethnicorgs* and *hrsoff*) were transformed using the Log10 procedure in PSAW Statistics to adjust for substantial positive skew. Eleven variables required

transformation to normalize the distribution due to substantial negative skewness (*hsgrades, majorsure, psc1, psc2, psc3, psc6, hope2, hope6, eli3, optimism4,* and *swb1*). In order to transform these variables, the Log10(k-x) calculation was performed in the statistical software, where k = a constant from which each value (x) is subtracted, creating a smallest observed value equal to one (in the case of this analysis, k = 7). Two variables (*div2* and *srls5*) were transformed for moderate negative skewness using the Sqrt(k-x) calculation in PASW Statistics.

Structural equation modeling is susceptible to inflated Type 1 error if univariate samples do not conform to the normal distribution (Byrne, 2010). Outliers within the sample were identified through the calculation of the Mahalanobis distance statistic; data points above the identified chi-square critical value were eliminated from the dataset. Outliers represented only 5.04% of the sample and were eliminated, as recommended by Tabachnick and Fidell (2007).

SEM cannot be conducted with datasets containing missing values, so analysis was undertaken to determine the extent of missing data in the dataset. The Missing Values Analysis (MVA) module of SPSS 17.0 was utilized to explore the patterns among missing variables in the dataset (*SPSS Missing Values 17.0*, 2007). Results of Little's MCAR test ($\chi^2_{(7494)} = 9346.70$, $p < 0.001$) indicated that the data were not missing completely at random (MCAR). The only distinct pattern observed among missing data indicated a correlation between missing data and placement of items in the survey; the later the item displayed in the survey, the more likely that it was missing. I determined that survey fatigue was a reasonable explanation for missing data, and because no other patterns among the missing data were observed, determined the data were missing at

random (MAR). No demographic characteristics emerged in the missing data; no patterns indicated any particular kind of student-experienced survey fatigue. Missing data were estimated in MVA using Expectation Maximization as recommended by Tabachnick and Fidell (2007). Upon completion of MVA, a complete dataset of N = 7,956 participants was utilized for CFA and SEM.

Coding

All variables in SEM analysis must be numerical. Where appropriate, scale variables were utilized to measure participant response. Some items included in the analysis required dummy-coded variables. All variables and their corresponding coding structures are presented in Table 3.

Structural Equation Modeling

SEM is a confirmatory statistical analysis that tests the fit of a proposed model, built from assumptions or theories derived from literature review (Ullman, 2007). The first steps performed in SEM are *confirmatory* in nature rather than exploratory. Analysis performed in SEM tests the assumed relationships proposed within the model. Models are represented graphically in a computer program in which arrows represent direct relationships. The pictorial model represents a series of regression equations (Byrne, 2010). Within the representation of the model, arrows enter into *endogenous* variables, while the *exogenous* variables have arrows leading to other variables. The arrows indicate which variable is being regressed on the other. In the case of this study, the *endogenous* variables were *Thriving,* along with the predictive latent constructs *Campus Involvement, Spirituality,* and *Psychological Sense of Community*, and observed variable *Student-Faculty Interaction*. The *exogenous* variables were demographic variables.

Table 3

Variable Coding

	Definition
Latent variables	
Thriving: Academic Determination	Includes the following six items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). *Please rate your agreement with each of the items below: I am good at managing the many responsibilities of my daily life (EM1); I am good at managing my time so that I can fit everything in that needs to be done (EM3); Even when course materials are dull and boring, I manage to keep working until I finish (ER3); I am motivated to do well in school (Hope2); I actively pursue my educational goals (Hope6); When I become confused about something I'm reading for class, I go back and try to figure it out (SR2).*
Thriving: Diverse Citizenship	Includes the following six items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). *Please rate your agreement with each of the items below: Knowing how a person differs from me greatly enhances our friendship (DIV1); I can best understand someone after I get to know how he/she is both similar and different from me (DIV2); I give time to making a difference for someone else (SRLS2); I have the power to make a difference in my community (SRLS3); I value opportunities that allow me to contribute to my community (SRLS4); I am willing to act for the rights of others (SRLS5).*
Thriving: Engaged Learning	Includes the following five items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). *Please rate your agreement with each of the items below: I feel as though I am learning things in my classes that are worthwhile to me as a person (ELI3); I can usually find ways of applying what I'm learning in class to something else in my life (ELI5); I am bored in class a lot of the time (ELI7)* Item reverse scored; *I find myself thinking about what I'm learning in class even when I'm not in class (ELI8); I feel energized by the ideas I'm learning in most of my classes (ELI9).*

(Table 3 continues)

Thriving: Positive Perspective	Includes the following five items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). *Please rate your agreement with each of the items below: When things are uncertain for me, I usually expect the best (Optimism2); I always look on the bright side of things (Optimism3); I'm optimistic about what will happen to me in the future (Optimism4); I am satisfied with my life (SWB1); The conditions of my life are excellent (SWB2).*
Thriving: Social Connectedness	Includes the following three items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). *Please rate your agreement with each of the items below: Other people seem to have more friends than I do (PosRel1)* Item reverse scored; *I often feel lonely because I have few close friends with whom to share my concerns (PosRel2)* Item reverse scored; *I don't have many people who want to listen when I need to talk (PosRel3)* Item reverse scored.
Psychological Sense of Community	Includes the following eight items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). *Please rate your agreement with each of the items below: Being a student here fills an important need in my life (PSC1); I feel like I belong here (PSC2); I have friends on this campus upon whom I can depend (PSC3); Students here know they can get help from others on campus if they are in trouble (PSC4); Students have a voice in what happens on this campus (PSC5); I feel proud of the college or university I have chosen to attend (PSC6); It's hard to make friends on this campus (PSC7)* Item reverse scored; *There is a strong sense of community on this campus (PSC8).*
Spirituality	Includes the following three items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). *Please rate your agreement with each of the items below: My spiritual or religious beliefs provide me with a sense of strength when life is difficult (Spirituality1); My spiritual or religious beliefs are the foundation of my approach to life (Spirituality2); I gain spiritual strength by trusting in a higher power beyond myself (Spirituality3).*

(Table 3 continues)

Campus Involvement	Includes the following five items: (1 = never, 2 = occasionally, 3 = regularly, 4 = frequently). *How often do you participate in: Student organizations on campus (StuOrgs); Campus events or activities (CampusAct); Fraternities or sororities (FratSor); Community service (CommServ); Leadership responsibilities in student organizations (Leader).*
Observed variables	
Student-Faculty Interaction	Sum of the following two items: (1 = very dissatisfied, 2 = dissatisfied, 3 = somewhat dissatisfied, 4 = somewhat satisfied, 5 = satisfied, 6 = very satisfied). *Rate your satisfaction with each of the following aspects of your college experience: The amount of contact you have had with faculty THIS YEAR (FacInt); The quality of the interaction you have had with faculty this year (FacSat).*
Institutional Selectivity	Percent admitted
Percent Caucasian	Percent of total student body that is Caucasian
Public Institution	Coded: 1 = public, 0 = private
Percent Female	Percent of total student body that is female
Gender	Coded: 1 = female, 0 = male
First Generation	Coded: 1 = yes, 0 = no
Live On-Campus	Coded: 1 = yes, 0 = no
Hours Worked Off-Campus	Hours reported per week
Student Athlete	Coded: 1 = yes, 0 = no
Major Certainty	Includes the following question: (1 = very unsure, 2 = unsure, 3 = somewhat unsure, 4 = somewhat sure, 5 = sure, 6 = very sure) *How sure are you of your major?*
Institution First Choice	Coded: 1 = yes, 0 = no

(Table 3 continues)

Grad School	Re-Coded from *DegreeGoal*: 1 = yes, 0 = no
High School Grades	Includes the following question: (1 = mostly A's, 2 = mostly A's and B's, 3 = mostly B's, 4 = mostly B's and C's, 5 = mostly C's, 6 = below a C average) *How would you describe your grades in high school?*

Thriving represents the ultimate endogenous variable, or the dependent variable, of the study.

In SEM, two component analyses can be distinguished – a measurement model which demonstrates the relationships between the latent constructs and their observed variables, and a structural model which demonstrates the proposed interaction between the exogenous and endogenous variables in the model (Byrne, 2010). Although a similar analysis could be accomplished utilizing hierarchical multiple regression techniques, SEM is better suited to address this research question because SEM can simultaneously assess both the direct and indirect relationships and interrelationships among multiple independent and dependent variables; hierarchical multiple regression can explore only a single layer of relationships between independent and dependent variables (Gefen, Straub, & Boudreau, 2000). SEM quantifies error variance, or unexplained variance in the measurement of the variables, within the model; hierarchical linear regression and path analysis cannot quantify error variance. SEM also provides a simultaneous perspective on the loading relationships of variables within the model that is not available through single hierarchical multiple regression analysis. Gefen et al. identifiedy SEM as a technique best-suited to explore the complex causal modeling in behavioral research as "SEM techniques provide fuller information about the extent to which the research model is supported by the data than in regression techniques" (p. 6).

Summary

The purpose of this study was to explore the extent to which demographic characteristics, environmental characteristics, student spirituality, and psychological sense of community explain the variation in thriving among students of color on American college and university campuses. Structural equation modeling was utilized to determine the direct, indirect, and total effects in the proposed model of thriving among students of color. Multiple group analysis was utilized to explore better-fit statistical models to determine if best-fit models differ among African American, Latino, and Asian American students. Failure to find statistical fit utilizing multiple group analysis led to the creation of unique models for African Americans, Asians, Latinos, and Caucasians.

CHAPTER 4

RESULTS

The purpose of this study was to explore the relationships among spirituality, campus involvement, student-faculty interaction, and a psychological sense of community in traditional undergraduate college students of color in the United States and how these relationships contribute to student thriving. The *Thriving Quotient* instrument was utilized to measure thriving among participants. Due to the complex model proposed, structural equation modeling (SEM) was used to confirm a model of thriving among college students.

Model Specification

AMOS software utilizes a graphical layout for presenting theoretical models. This graphical layout allows the user to specify the theoretical interaction between the variables. In the SEM program, researchers draw observed variables, such as items from particular scales, as squares, and latent constructs, or the unobservable theoretical constructs underlying a combination of items, as ovals. Directional arrows that indicate which variable will be regressed upon the other represent the way in which the researcher assumes that the variables interact with one another. Because SEM is a confirmatory technique, the theory behind the model is the most important component in the proper use of structural equation modeling (Byrne, 2010). Each observed variable in the model has an associated error variance term to account for unexplained variation in measurement.

Each latent construct comprised of its observable exogenous variables has an associated disturbance term that quantifies the unexplained variance associated with the latent construct.

SEM utilizes goodness of fit statistics to determine if a particular dataset statistically fits the theorized predictive model (Arbuckle, 2010; Byrne, 2010). Traditional fit measurement for SEM is achieved through chi-square goodness of fit. Because the chi-square goodness of fit indicator is highly inflated in large sample sizes, two other fit tests were utilized. The first fit measurement, root mean square error of approximation (RMSEA; Browne & Cudeck, 1993) is a an adjusted index identifying fit between the proposed model and a fully-saturated model in which all the variables in the model are assumed to be interrelated. Values of RMSEA are reported between 0 and 1. Thompson (2004) indicated that good model fit is represented when RMSEA values are less than .06. The second model-fit indicator utilized was the comparative fix index (CFI; Bentler, 1990). The CFI compares the fit of the proposed model to a null model, or independent model; the independent model assumes no correlation among the observed variables. CFI values range from 0 to 1, where 1 indicates perfect fit. Values greater than .95 are considered to represent a well-fitting model (Thompson, 2004).

Confirmatory Factor Analysis

Prior to implementing SEM, a confirmatory factor analysis (CFA) was conducted on all the latent constructs of the model (Byrne, 2010). CFA confirms that each endogenous variable, comprised of its observed exogenous variables, fits statistically and consistently to identify the given construct (Brown, 2006). In this study, CFA was utilized to determine the statistical viability of the following latent constructs: (a)

Thriving, (b) Psychological Sense of Community, (c) Spirituality, (d) Student-Faculty Interaction, and (e) Campus Involvement. Each latent construct was assessed for fit. Table 4 demonstrates the initial fit characteristics for each factor.

Thriving

Thriving was initially confirmed as comprised of five factors; see Figure 2 ($\chi^2_{(258)}$ = 4257.34 $p < .001$, CFI = .950, RMSEA = .044). The loading characteristics, or regression weights associated with each factor in the model, of the first-order factor model of Thriving are displayed in Table 5. In the case of the Social Connectedness factor, only three observed variables measure the latent construct. Initial analysis of the Social Connectedness factor indicated the variable was under-identified; AMOS could not statistically fit the construct. To address the under-identification of the Social Connectedness factor, the unstandardized regression weights of two pathways in the factor were equalized, thus forcing the software to equalize the weight of all three endogenous variables to properly identify the model (Kline, 2005). Equalizing the parameter constraints can negatively impact model fit; however, in the case of this analysis the equalization of parameter constraints allowed proper identification of the model fit. Modification indices in AMOS provide researchers the ability to identify correlational or regression paths that, if included, may aid in properly identifying the

Table 4

CFA Fit Statistics for Latent Constructs

	DF	CMIN(χ2)	P	CFI	RMSEA
Campus Involvement	3	48.01	.000	.997	.043
PSC	11	215.83	.000	.991	.048
Spirituality	1	18.69	.000	.999	.047
Thriving	263	5,014.12	.000	.940	.048

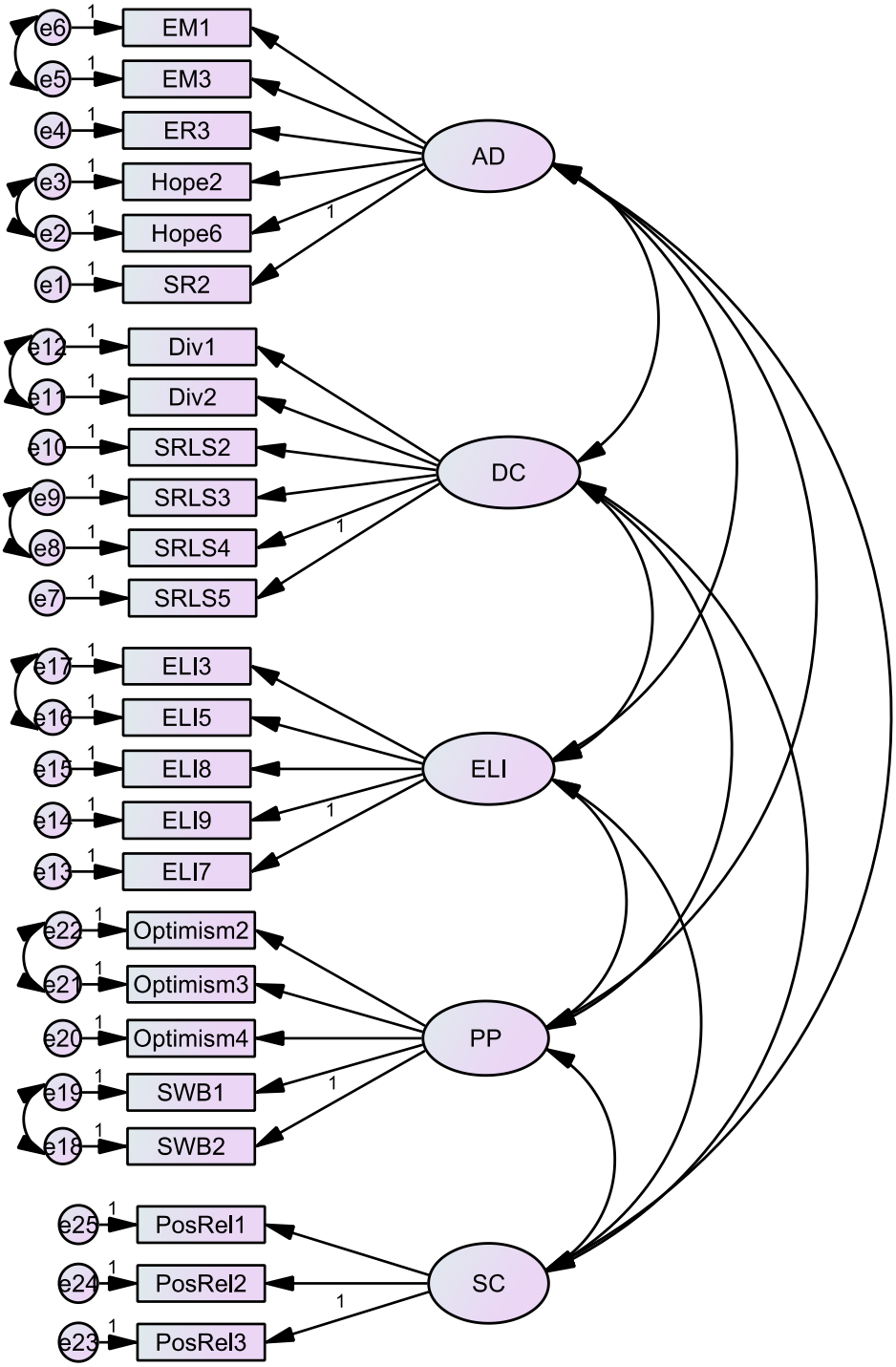

Figure 2. First order factor structure of Thriving.

Table 5

CFA Variable Loading - First Order Factor of Thriving

Variable	Estimate
Academic Determination	
sr2	.643
hope6_tran	-.749
hope2_tran	-.675
er3	.661
em3	.598
em1	.601
Diverse Citizenship	
srls5_tran	.622
srls4	-.720
srls3	-.673
srls2	-.639
div2_tran	.468
div1	-.521
Engaged Learning Index	
eli7_R	.486
eli9	.810
eli8	.719
eli5	.729
eli3_tran	-.717
Positive Perspective	
swb2	.636
swb1_tran	-.718
optimism4_tran	-.738
optimism3	.650
optimism2	.641
Social Connectedness	
posrel3_R	.761
posrel2_R	.840
posrel1_R	.704

model (Arbuckle, 2010; Byrne, 2010). In this case, modification indices indicated potential covariance among seven pairs of variables within four of the latent constructs. Where there was a theoretical justification to support the modification indices, covariance arrows were drawn between the error variances (Byrne, 2010). Each pair of covariance

arrows was included one at a time; model fit was measured after each covariance to determine that the addition of the covariance significantly modified the model.

A five-factor model of Thriving was then tested to determine if Thriving was a second-order factor of its components. The second-order model of Thriving demonstrated statistical fit ($\chi^2_{(263)} = 5014.12$, $p < .001$, CFI = .940, RMSEA = .048) and is shown in Figure 3. Confirmation of a second-order factor of Thriving further confirms previous studies utilizing the *Thriving Quotient* (Schreiner, 2010c; Schreiner, Edens et al., 2011; Schreiner, Nelson et al., 2011). Variable loading characteristics of the latent variables in the second-order factor structure of Thriving are shown in Table 6.

To present a more simplified graphical model in the later stages of SEM, I tested model fit for Thriving using the sum of each component variable in the factor. Sum value variables were calculated in PASW Statistics and utilized in a CFA of Thriving. Modification indices in AMOS indicated potential correlation between the error variances of two pairs of factors; correlation arrows fit both theoretically and statistically. The sum-value factor model of Thriving fit the data well ($\chi^2_{(3)} = 63.89$ $p < .001$, CFI = .992, RMSEA = .051) and was utilized for the SEM. The final Thriving measurement is shown in Figure 4.

Psychological Sense of Community

CFA conducted on the PSC factor indicated excellent statistical fit ($\chi^2_{(11)} = 215.83$ $p < .001$, CFI = .991, RMSEA = .048). Because many of the questions in the PSC instrument measure aspects of community that are interrelated in nature, the items are highly correlated with one another. To account for these relationships, numerous

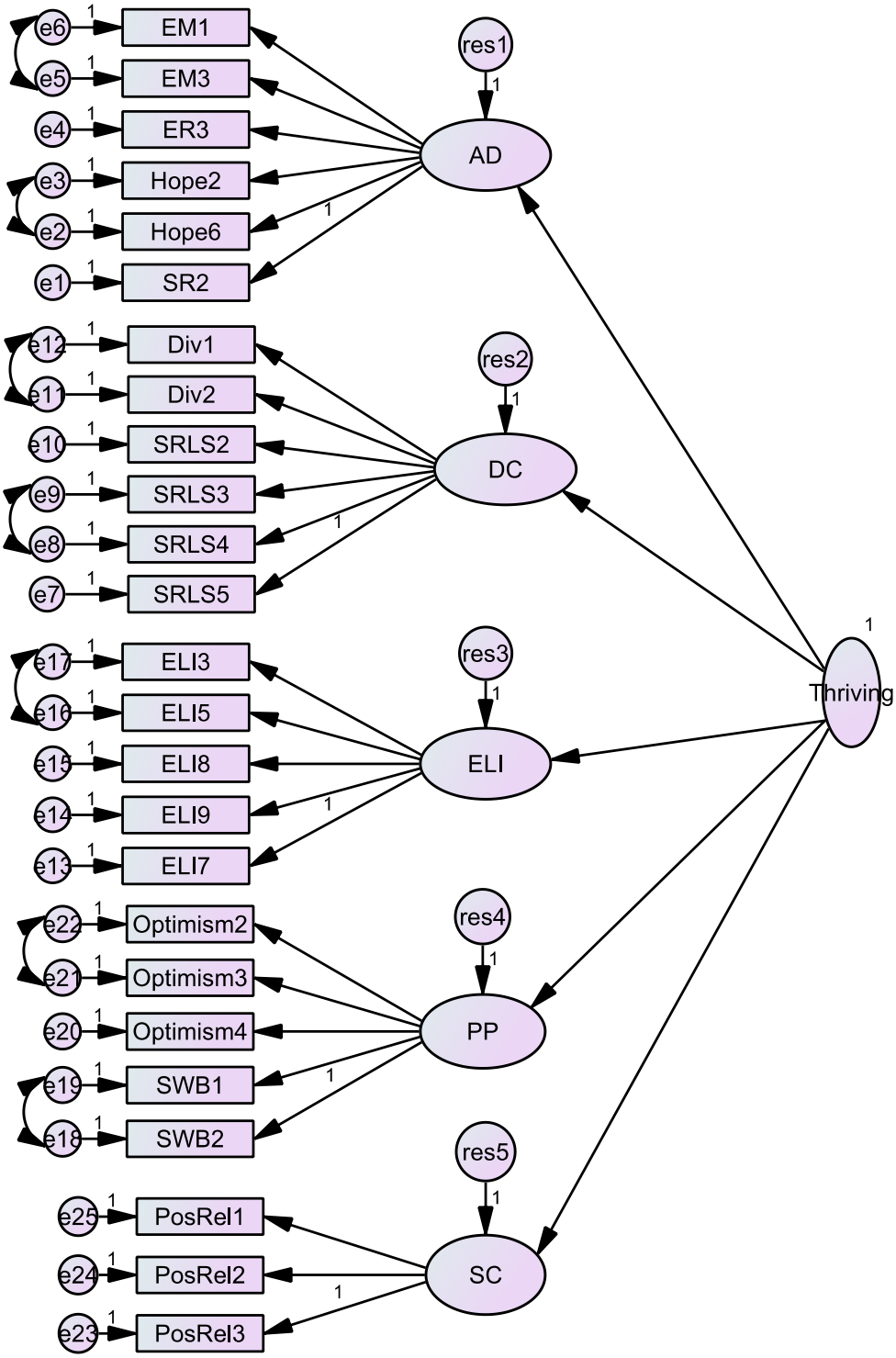

Figure 3. Second order factor structure of Thriving.

Table 6

CFA Variable Loading - Second Order Factor of Thriving

Variable	Estimate
Academic Determination	
sr2	.636
hope6_tran	-.744
hope2_tran	-.665
er3	.662
em3	.612
em1	.618
Diverse Citizenship	
srls5_tran	.621
srls4	-.721
srls3	-.675
srls2	-.641
div2_tran	.466
div1	-.518
Engaged Learning Index	
eli7_R	.488
eli9	.813
eli8	.714
eli5	.729
eli3_tran	-.718
Positive Perspective	
swb2	.628
swb1_tran	-.707
optimism4_tran	-.745
optimism3	.654
optimism2	.647
Social Connectedness	
posrel3_R	.765
posrel2_R	.841
posrel1_R	.700

covariance arrows were added to the model. The measurement of PSC was the most complex latent construct in the model, and good local fit for the CFA measurement demonstrated that the individual components of PSC measured the latent construct well.

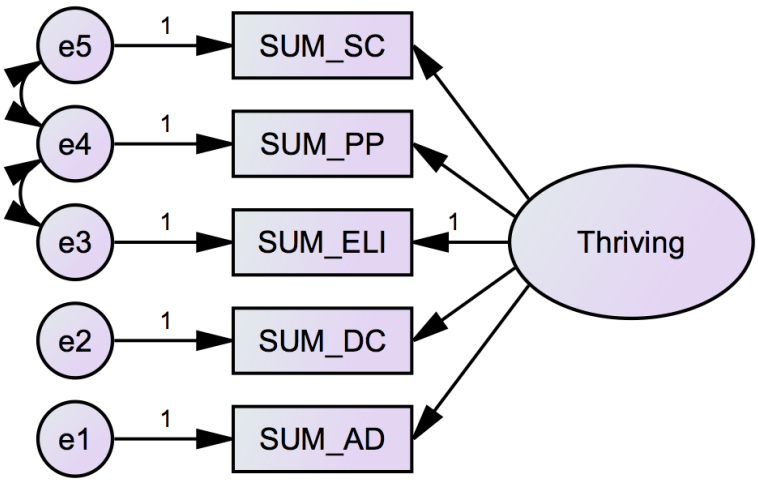

Figure 4. Sum value factor structure of Thriving.

Half of the observed variables in the PSC demonstrated poor loading ($\alpha < 0.60$) on the factor as shown in Table 7; yet, the local fit for the CFA remained good. Figure 5 shows the graphical model for PSC.

Table 7

CFA Variable Loading - PSC

Variable	Estimate
psc1_tran	.719
psc2_tran	.813
psc3_tran	.498
psc4	-.512
psc5	-.461
psc6_tran	.812
psc7_R	-.571
psc8	-.661

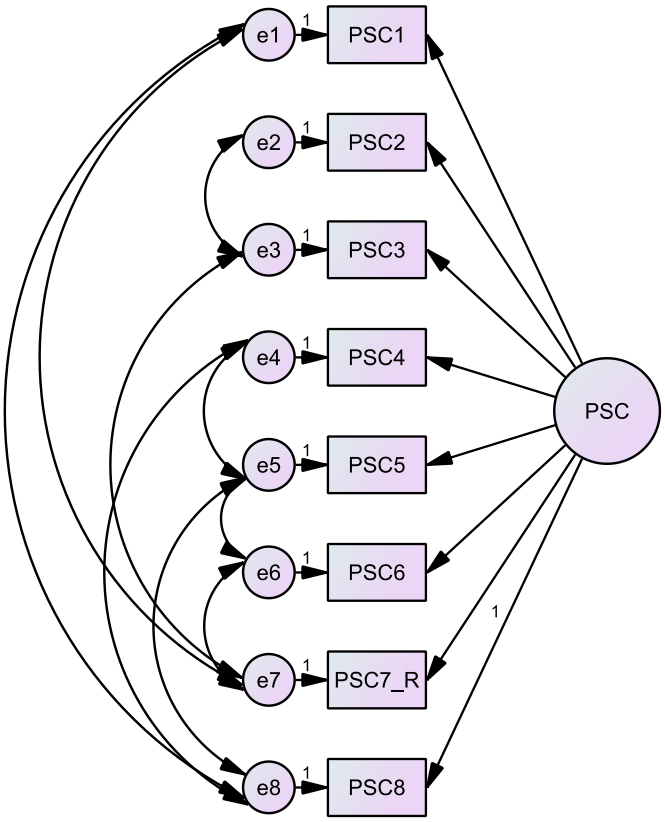

Figure 5. CFA factor structure of PSC latent construct.

Spirituality

The measurement of the latent construct of Spirituality comprises three observed variables. Initial CFA characteristics deemed the model underidentified. To properly identify the model, the unstandardized regression weights were equally constrained in the graphical layout as done in the Social Connectedness factor (in the case of Spirituality, observed variables *spirituality1* and *spirituality2* were equally constrained using lowercase letter "a" in the model); the equalized model was properly identified (Kline, 2005). Constraining both unstandardized coefficients can negatively impact model fit;

however, constraining both coefficients allowed proper identification of the latent construct. Measurement of the Spirituality factor was excellent ($\chi^2_{(1)} = 18.69$, $p < .001$, CFI = .999, RMSEA = .047), with all individual items loading highly on the latent construct as shown in Table 8. Figure 6 shows the graphical interpretation of the Spirituality factor along with the individual loading statistics of its observed components.

Student-Faculty Interaction

Student-Faculty Interaction was a proposed latent construct measured by two observed satisfaction measures: (a) satisfaction with the amount of faculty interaction, and (b) satisfaction with the kind of interaction students had with faculty. Due to underidentification, CFA could not confirm a factor structure of faculty satisfaction; no statistical adjustments to the model created the ability to properly identify the model for fit. Instead of using a latent construct for Faculty Satisfaction, the sum of both items created a new observed variable for the structural model in lieu of a latent construct.

Table 8

CFA Variable Loading - Spirituality

Variable	Estimate
spirituality1	.963
spirituality2	.927
spirituality3	.943

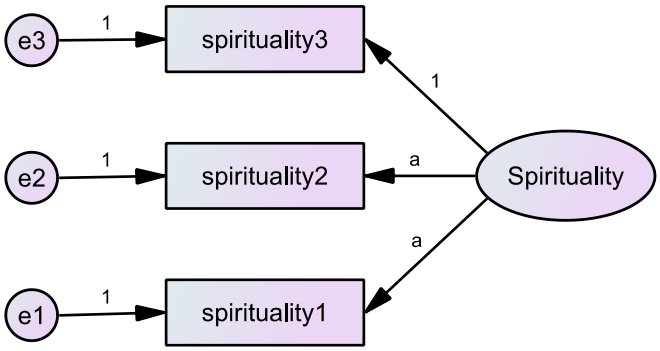

Figure 6. CFA factor structure of Spirituality latent construct.

Campus Involvement

A CFA conducted on the latent construct Campus Involvement concluded good model fit for the construct. Two pairs of observed variables were identified by the modification indices as requiring covariance arrows; covariance arrows were added to the graphical layout (see Figure 7). The resulting analysis indicated excellent model fit for the construct ($\chi^2_{(3)} = 48.01$ $p < .001$, CFI = .991, RMSEA = .043). Variable loadings within the Campus Involvement latent construct are shown in Table 9.

Table 9

CFA Variable Loading - Campus Involvement

Variable	Estimate
stuorgs	.937
commserv	.498
campusact	.671
leader	.789
ethnicorgs	.436

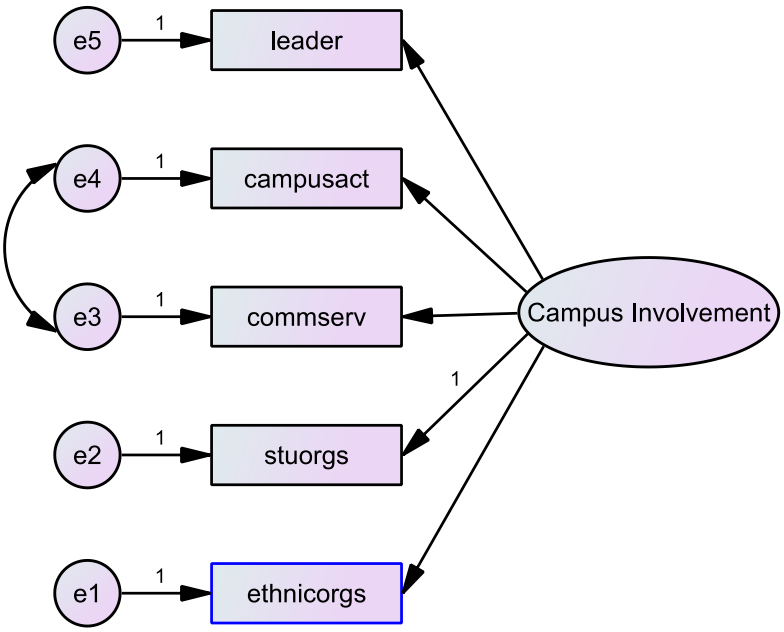

Figure 7. CFA factor structure of Campus Involvement latent construct.

Proposed Structural Model

The structural model proposed in Chapter 3 was initially constructed in AMOS, and the screened dataset was matched to the model. Initial analysis of the structural model indicated lack of fit statistically ($\chi^2_{(522)} = 15800.89$, $p < .001$, CFI = .858, RMSEA = .061). Modification indices suggested further adjustments to the model; however, analysis of the model following the suggested adjustments still indicated poor fit for the model. Initial adjustments were made to the model by eliminating control variables that were not directly predictive of any latent constructs in the model; both first generation status and athlete status thus were eliminated from the model. The slightly modified model still did not fit the data adequately ($\chi^2_{(456)} = 15196.80$, $p < .001$, CFI = .863, RMSEA = .064).

Further analysis indicated poor fit of the omnibus model. Adjustments were made to the Campus Involvement latent construct; involvement in ethnic organizations was eliminated from the construct due to poor loading (0.44) from the variable to the latent construct. Following the changes to the Campus Involvement construct, poor statistical fit remained apparent in the model ($\chi^2_{(426)} = 14756.23$, $p < .001$, CFI = .864, RMSEA = .065). Four observed variables in the PSC construct all demonstrated loading characteristics less than 0.60 and were eliminated from the model, resulting in a final omnibus model as shown in Figure 8.

The new omnibus model demonstrated good model fit ($\chi^2_{(319)} = 9064.21$, $p < .001$, CFI = .901, RMSEA = .059). The omnibus model fit the data from the total sample. Given that the purpose of this study was to explore the unique predictive characteristics of thriving among students of color, multi-group analysis (MGA) was utilized to explore group differences within the dataset. Before pursuing individual group analysis, it was imperative to determine that each ethnic group contained a sufficient number of individual observations to remain statistically robust for analysis. There is little agreement among statisticians regarding sample size requirements for proper SEM analyses (Hoe, 2008; Sivo, Fan, Witta, & Willse, 2006). Statisticians generally agree that sample size and normality of data are strongly correlated (Schreiber, Nora, Stage, Barlow, & King, 2006). Because SEM assumes data are normally distributed, caution should be exercised when interpreting results from smaller samples (Byrne, 2010; Kline, 2005). It is generally accepted that samples greater than 200 provide enough power for SEM analyses (Garver & Mentzer, 1999; Hoelter, 1983).

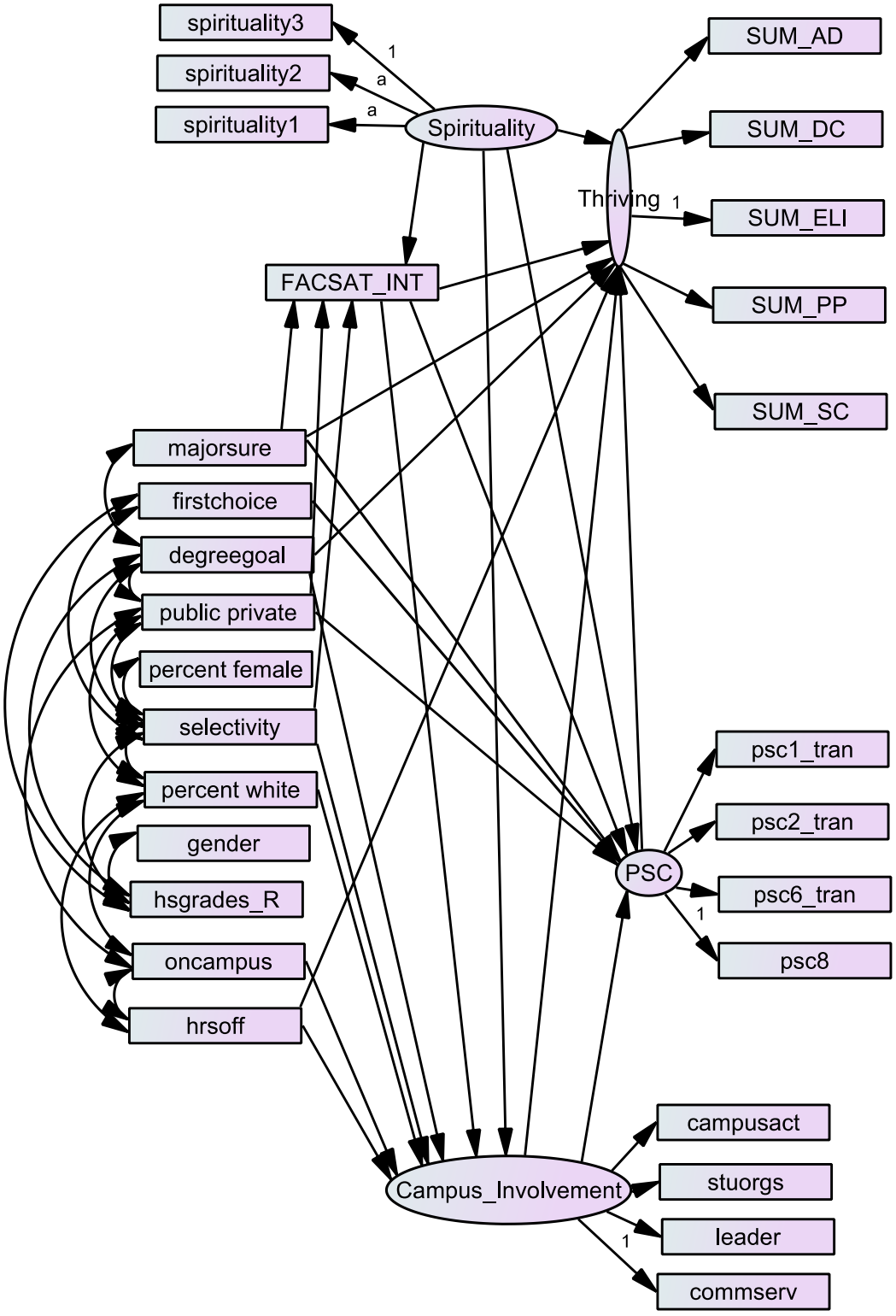

Figure 8. Final omnibus model of Thriving.

Multi-Group Analysis

Adequate numbers of each ethnic group were present in the collected data (African American $n = 433$, Asian $n = 457$, Latino $n = 334$) for MGA in Amos. Lack of participating Native American students ($n = 37$) prevented analysis of unique group characteristics from Native Americans. The MGA component of AMOS allows researchers to begin with a statically sound omnibus model, or what Horn and McArdle (1992) referred to as the configural model for all participants, and end with unique characteristics for each group within the omnibus model.

MGA assumes global equivalent covariance structures, meaning that the interaction of variables between groups, in this case ethnic groups, is similar across groups (Jöreskog, 1971); Byrne (2008, 2010) noted that assuming equivalent structural covariance across groups is problematic. Byrne noted that within-group phenomena, such as the differences within a group of African American students compared to Caucasian students, does not often conform to an assumption of equality due to the variation in behaviors between ethnic groups. AMOS MGA initially displays the fit characteristics for each group. In the case of this study, grouping variables in the model separated African Americans, Asians, Latinos, and Caucasians. MGA initially displays fit statistics across the comparison groups by presenting six models for comparison. Models in MGA successively constrain different types of parameter estimates within the model. The first model is an unconstrained model, otherwise referred to as the configural model (Byrne, 2008). The unconstrained model assumes no equality constraints have been made within the model and is therefore the model against which all other models are compared. The second model constrains measurement weights, or the pathways

associated between an observed variable and the latent construct it is measuring. The third model constrains structural weights, or the pathways in the model between the exogenous and endogenous variables. The fourth model constrains structural covariances, or the covariance associated between exogenous variables. The fifth model constrains structural residuals, or the error terms quantifying the unexplained variance of the endogenous variables. Finally, the sixth model constrains measurement residuals, or the disturbance terms associated with each latent construct. Successively constraining the models allows researchers the ability to see which components of the model best contribute to fit; the goal is the most parsimonious fit, meaning the simplest demonstration of the relationships between the variables in the model. The initial MGA comparing the first five constrained models to the unconstrained model demonstrated lack of statistical fit ($\chi^2_{(1474)} = 11520.35$, $p < .001$, CFI = .880, RMSEA = .030); statistical evidence did not support fit of the omnibus model across all ethnic groups. Although RMSEA indicated excellent statistical fit, CFI remained below the acceptable threshold of .90 to confirm model fit.

To find statistical fit across the groups, further MGA groups were created that released parameter constraints, or the theoretical relationships between variables demonstrated within the model, across each group. New model analysis syntax was created in MGA releasing the measurement residuals from the model. Statistical fit for this seventh MGA model still lacked statistical fit ($\chi^2_{(1486)} = 11534.35$, $p < .001$, CFI = .880, RMSEA = .030). Another model was created that released the measurement residuals and the structural residuals from the model. Poor fit was still characteristic

across groups for the eighth model ($\chi^2_{(1453)} = 11397.27$, $p < .001$, CFI = .881, RMSEA = .030).

AMOS calculates the critical ratios for differences between parameters in the MGA model; the critical ratios are *z*-tests of the difference between the variables in each model (Denis, 2012). With these data, researchers can determine if the differences between two parameters are sufficiently large across groups to justify releasing the constraints in the model between the two specific parameters. A ninth model for MGA was created with released measurement residuals, structural residuals, and structural pathways where individual paired estimates exceeded $z = 1.96$ (representing differences at the $p < 0.05$ critical level). This new model was compared to the previous models and differed significantly from previous models; however, fit statistics were still poor ($\chi^2_{(1435)} = 11328.00$, $p < .001$, CFI = .882, RMSEA = .031).

Given that adequate fit statistics were not identified through MGA, even after releasing multiple constraints within the model, I determined that the unique predictive pathways of thriving among students of color were dramatic enough to prevent MGA of the omnibus model. In other words, measurement invariance was found, but structural variance, or variation within the variable pathways across ethnic groups, prevented the exploration of the data utilizing MGA. To address the research question of this study, to what extent do student demographic characteristics, campus environmental characteristics, student spirituality, and psychological sense of community explain the variation in thriving among students of color, I explored unique models of thriving for each ethnic group.

Unique Ethnic Group Models

To identify unique predictive models of thriving for each ethnic group in this study, I began with the omnibus model. Each ethnic group model began with all the original latent constructs from the omnibus model and all the control variables from the omnibus model. The master dataset was split into four racial groups.

Relationships among the latent constructs were held constant, given the theoretical assumptions that first established the pathways of the omnibus model. Modification indices in AMOS were analyzed to determine the extent to which changes among the ethnic groups presented possibility for changes to the pathways or elimination of control variables. The Specification Search feature in AMOS allows researchers the ability to release pathways or modify how the relationship between two variables is graphically represented in a given model to compare the impact on statistical fit between a model with proposed relationships and a model where such relationships are released (Arbuckle, 2010; Byrne, 2010). Specification search was utilized to help identify a best-fit model for each ethnic group. Where the CMIN statistic indicated change greater than the chi-square critical statistic that matched the change in degrees of freedom between models, and where changes were theoretically sound, modifications to the models were made. Table 10 compares the variables in each unique ethnic group model to the omnibus model.

Caucasian Student Model

To compare all the models of thriving across ethnic groups, a model of thriving for Caucasian students was uniquely developed and demonstrated adequate statistical fit

($\chi^2_{(193)} = 4837.98$, I < .001, CFI = .925, RMSEA = .062). Seven observed predictor variables were eliminated from the Caucasian model of thriving (see Figure 9).

Standard regression weights and error terms from the Caucasian model were compared with standard regression weights and standard error terms from other ethnic group models utilizing a simple *t* test where $t = RW_{b1} - RW_{b2} / \sqrt{SE_{b1}^2 + SE_{b2}^2}$ to determine if the models differed significantly. Path coefficients in the Caucasian model, and the comparison between-model *t* test statistics, are noted in Table 11. Standardized direct and indirect effects on Thriving within the Caucasian model and across all other comparative models are outlined in Table 12. Standardized total effects on latent constructs in the Caucasian model are outlined in Table 13.

The Caucasian model represents a balance in the interplay of the independent variables in predicting the dependent variable of thriving. Although PSC emerged as the primary mediating variable in predicting thriving, other independent variables contributed to the variation in PSC while also directly contributing to the variation in thriving. Within the variation in PSC, student-faculty interaction contributed to the greatest explanation of variation (36.1%), followed by spirituality and campus involvement (27.7 and 23.4% respectively). Pathways within the Caucasian model demonstrated multiple pathways to thriving.

African American Student Model

The unique structural model of thriving for African American students is presented in Figure 10. Changes from the omnibus model included the elimination of seven control variables and the elimination of pathway arrows from control variables to endogenous variables in the model. The path arrow between the latent construct

Table 10

Variable Comparison Between Unique Ethnic Group Models

Variables	Omnibus	Caucasian	African American	Latino	Asian
Campus Involvement	Campus Involvement	Campus Involvement	Campus Involvement	Campus Involvement	Campus Involvement
percent female	percent female				percent female
percent white	percent white				percent white
PSC	PSC	PSC	PSC	PSC	PSC
Public Private	Public Private	Public Private	Public Private	Public Private	
Selectivity	Selectivity	Selectivity	Selectivity	Selectivity	Selectivity
Spirituality	Spirituality	Spirituality	Spirituality	Spirituality	Spirituality
Spirituality3	spirituality3	spirituality3	spirituality3	spirituality3	spirituality3
SUM_AD	SUM_AD	SUM_AD	SUM_AD	SUM_AD	SUM_AD
SUM_DC	SUM_DC	SUM_DC	SUM_DC	SUM_DC	SUM_DC
SUM_ELI	SUM_ELI	SUM_ELI	SUM_ELI	SUM_ELI	SUM_ELI
SUM_PP	SUM_PP	SUM_PP	SUM_PP	SUM_PP	SUM_PP
SUM_SC	SUM_SC	SUM_SC	SUM_SC	SUM_SC	SUM_SC
Thriving	Thriving	Thriving	Thriving	Thriving	Thriving
campusact	campusact	campusact	campusact	campusact	campusact
commserv	commserv	commserv	commserv	commserv	commserv
degreegoal	degreegoal				
firstchoice	firstchoice		firstchoice		
gender	gender				
firstgen				firstgen	
hrsoff	hrsoff	hrsoff	hrsoff		
hsgrades_R	hsgrades_R				
leader	leader	leader	leader	leader	leader
majorsure	majorsure	majorsure	majorsure		majorsure
FACSAT_INT	FACSAT_INT	FACSAT_INT	FACSAT_INT	FACSAT_INT	FACSAT_INT
oncampus	oncampus	oncampus		oncampus	
psc1_tran	psc1_tran	psc1_tran	psc1_tran	psc1_tran	psc1_tran
psc2_tran	psc2_tran	psc2_tran	psc2_tran	psc2_tran	psc2_tran
psc6_tran	psc6_tran	psc6_tran	psc6_tran	psc6_tran	psc6_tran
psc8_tran	psc8_tran	psc8_tran	psc8_tran	psc8_tran	psc8_tran
stuorgs	stuorgs	stuorgs	stuorgs	stuorgs	stuorgs
spirituality1	spirituality1	spirituality1	spirituality1	spirituality1	spirituality1
spirituality2	spirituality2	spirituality2	spirituality2	spirituality2	spirituality2

Note: Missing variables denote distinctions within each model.

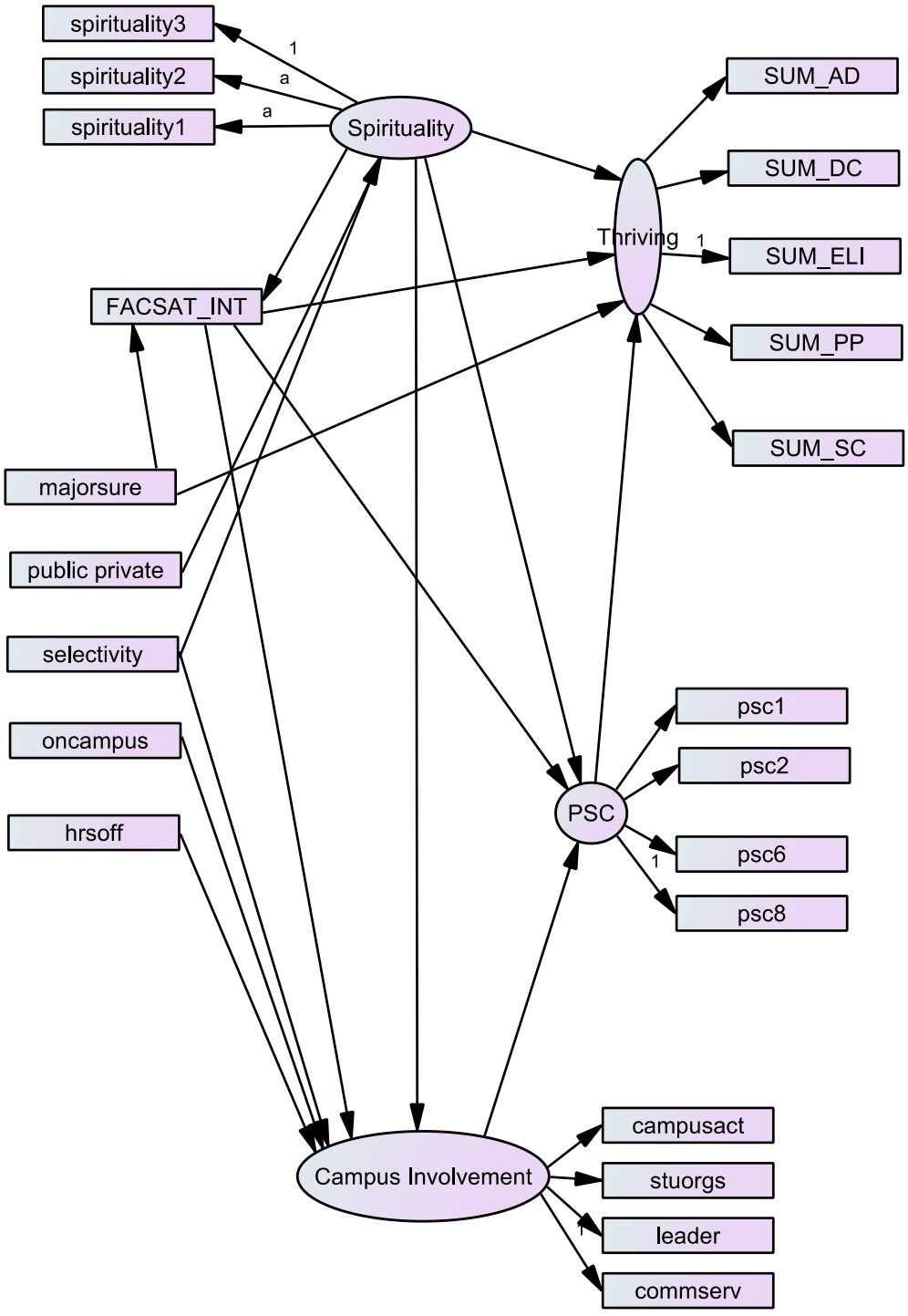

Figure 9. Unique Caucasian student structural model of Thriving.

Table 11

Caucasian Model Path Coefficients and Comparative Differences in t Test for Caucasian Model to Others

	SEM					t-test		
Path	Stand. Reg. Weight	Unstand. Reg. Coeff.	SE	CR	P	Caucasian v. African American	Caucasian v. Asian	Caucasian v. Latino
Campus Involvement <--- selectivity	.247	.173	.010	16.787	***	4.534 **	-1.744	1.688
Campus Involvement <--- Spirituality	.157	.076	.007	10.835	***	20.460 **	-1.101	1.363
Campus Involvement <--- hrsoff	-.157	-.068	.006	-11.341	***			
Campus Involvement <--- FACSAT_INT	.087	.036	.005	6.683	***			
Campus Involvement <--- oncampus	-.174	-.287	.023	-12.461	***			2.711 **
PSC <--- Campus Involvement	.234	.242	.014	16.778	***	1.464	1.327	1.356
PSC <--- Spirituality	.277	.140	.007	21.446	***	-.434	-2.044	-2.018 *
PSC <--- FACSAT_INT	.361	.154	.006	27.436	***	.768	.383	1.089
Spirituality <--- Public Private	.179	.605	.042	14.531	***	.271		.195
Spirituality <--- selectivity	-.312	-.450	.018	-25.244	***	-1.744		-2.072 *
spirituality3 <--- Spirituality	.946	1.000						
SUM_AD <--- Thriving	.569	.908	.025	36.146	***	-1.325	-3.013 **	-.177
SUM_DC <--- Thriving	.615	.885	.023	38.286	***	-.642	-2.125 *	-.097
SUM_ELI <--- Thriving	.644	1.000						
SUM_PP <--- Thriving	.721	1.101	.028	39.678	***	-.213	-1.575	1.652
SUM_SC <--- Thriving	.362	.505	.021	24.051	***	.953	1.931	2.993 **
Thriving <--- PSC	.618	2.001	.063	31.873	***	.890	-1.320	-1.638
Thriving <--- Spirituality	.146	.237	.020	12.151	***	-.966	-.178	.045
Thriving <--- majorsure	.151	.337	.024	13.970	***	.909		
Thriving <--- FACSAT_INT	.196	.271	.017	15.662	***	.044		-.027
campusact <--- Campus Involvement	.654	1.222	.032	38.105	***	-.329	-.915	-.888
commserv <--- Campus Involvement	.481	1.000						
leader <--- Campus Involvement	.787	1.863	.050	37.426	***	.882	.430	1.866
FACSAT_INT <--- Spirituality	.215	.254	.015	17.234	***	.926	-.860	-1.443
FACSAT_INT <--- majorsure	.164	.264	.020	13.353	***	.076	.599	
psc1_tran <--- PSC	-.729	-.194	.004	-45.165	***	-.707	-.229	-2.304 *
psc2_tran <--- PSC	-.813	-.227	.004	-52.008	***	-.354	-.573	-2.183 *
psc6_tran <--- PSC	-.795	-.217	.004	-51.261	***	-.177	.344	-2.001 *
psc8 <--- PSC	.664	1.000						
stuorgs <--- Campus Involvement	.935	2.084	.055	37.888	***	.586	1.593	2.152 *
spirituality1 <--- Spirituality	.964	.989	.005	180.667	***a	-.283	-.392	-.527
spirituality2 <--- Spirituality	.930	.989	.005	180.667	***a	-.283	-.392	-.527

Note: *p<.05, **p<.01, ***p<.001, a=parameter constraints equalized

Table 12

Standardized Indirect, Direct, and Total Effects on Thriving

	Caucasian			African American			Latino			Asian		
	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct	Total
Selectivity	-.099	.000	-.099	-.083	.000	-.083	-.069	.000	-.069	.048	.000	.048
Public Private	.077	.000	.077	.112	.000	.112	.086	.000	.086			
majorsure	.071	.151	.222	.068	.143	.211				.039	.000	.039
hrsoff	-.023	.000	-.023	-.048	.000	-.048						
firstchoice				-.089	.000	-.089						
Spirituality	.287	.146	.432	.248	.160	.407	.337	.103	.440	.373	.152	.526
Campus Involvement	.145	.000	.145	.129	.080	.209	.128	.000	.128	.154	.000	.154
FACSAT_INT	.235	.196	.431	.212	.200	.412	.199	.175	.374	.270	.000	.270
PSC	.000	.618	.618	.000	.595	.595	.000	.692	.692	.000	.756	.756
Percent female										.188	.000	.188
oncampus	-.025	.000	-.025				-.041	.000	-.041			
firstgen							-.057	.000	-.057			

Table 13

Standardized Total Effects on Latent Constructs

	Spirituality				Campus Involvement				PSC			
	Caucasian	African American	Latino	Asian	Caucasian	African American	Latino	Asian	Caucasian	African American	Latino	Asian
Selectivity	-.312	-.282	-.176	.000	.192	.151	.061	.312	-.066	-.066	-.062	.064
Public Private	.179	.182	.196		.031	.000	.006		.071	.097	.083	
majorsure	.000	.000		.000	.014	.000		.000	.062	.059		.052
hrsoff	.000	.000			-.157	-.229			-.037	-.049		
firstchoice		.000				.000				-.149		
Spirituality	.000	.000	.000	.000	.176	.000	.032	.186	.396	.352	.421	.494
Campus Involvement	.000	.000	.000	.000	.000	.000	.000	.000	.234	.216	.185	.204
FACSAT_INT	.000	.000	.000	.000	.087	.000	.000	.000	.381	.355	.287	.358
PSC	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Percent female				.358				.067				.177
oncampus	.000		.000		-.174		-.322		-.041		-.059	
firstgen			.000				.000				-.083	

Spirituality and Campus Involvement did not prove to predict thriving among African American students and therefore was eliminated during a specification search. The model fit the data well ($\chi^2_{(195)} = 5873.37$, $p < .001$, CFI = .926, RMSEA = .061). The African American model was the only model demonstrating a direct contribution to thriving from Campus Involvement. Both institutional selectivity and public/private institution status were present in the African American predictive model.

A similar *t* test analysis was completed comparing the African American model to the other three models. The African American model significantly differed from the Asian model ($p < 0.01$) in three instances; compared to the Caucasian model, two pathways differed significantly ($p < 0.01$); compared to the Latino model, two items differed significantly at the $p < 0.01$ level while four differed at the $p < 0.05$ level. Table 14 displays the pathway coefficients for the model and details the relationships that differed significantly across the four models. Standardized direct and indirect effects on Thriving within the African American model are presented in Table 12. Total effects on latent constructs in the model are shown in Table 13.

Latino Student Model

The unique model of thriving for Latino students is the most graphically simple model of thriving among the four unique models; the Latino model is presented in Figure 11. Eight predictor variables were eliminated from the Latino model, and one predictor was added. Unique to the Latino model is the control variable of first-generation status, which identifies whether a student is the first to go to college within his or her family. The model indicated good statistical fit ($\chi^2_{(176)} = 5298.62$, $p < .001$, CFI = .933, RMSEA

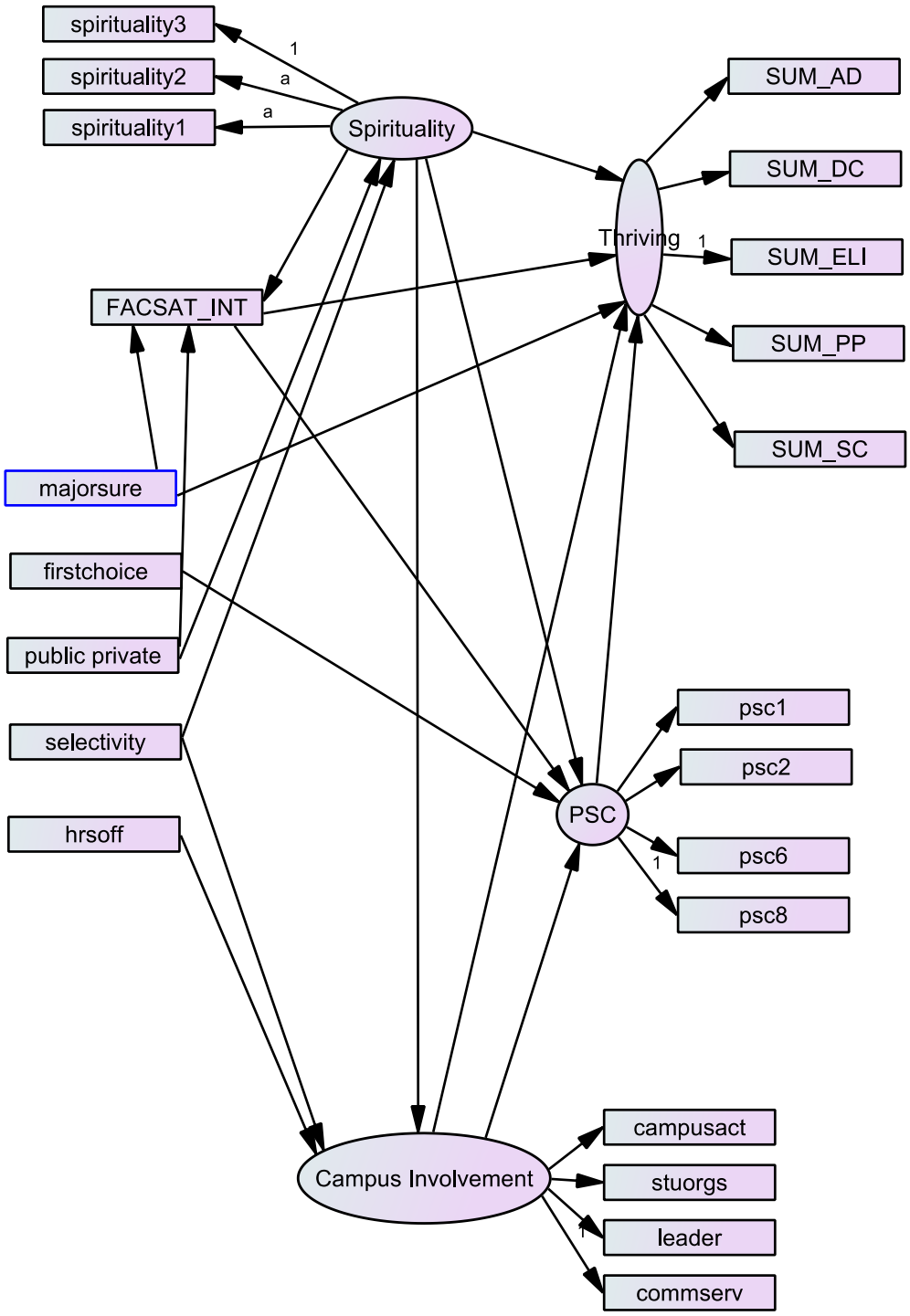

Figure 10. Unique African American student structural model of Thriving.

Table 14

African American Model Path Coefficients and Comparative Differences in t Test for African American Model to Others

	SEM					t-test		
Path	Stand. Reg. Weight	Unstand. Reg. Coeff.	SE	CR	P	African American v. Asian	African American v. Caucasian	African American v. Latino
Campus Involvement <--- selectivity	.151	.112	.009	12.792	***	-3.141 **	-4.534 **	.670
Campus Involvement <--- hrsoff	-.229	-.100	.005	-18.527	***	-6.720 **	-20.460 **	-3.103 **
PSC <--- Campus Involvement	.216	.215	.012	17.737	***	.739	-1.464	.862
PSC <--- Spirituality	.283	.144	.006	24.397	***	-1.916	.434	-1.921
PSC <--- firstchoice	-.149	-.257	.018	-14.124	***			
PSC <--- FACSAT_INT	.355	.148	.005	30.293	***	.097	-.768	.863
Spirituality <--- Public Private	.182	.590	.036	16.578	***		-.271	.104
Spirituality <--- selectivity	-.282	-.408	.016	-25.594	***		1.744	-1.590
spirituality3 <--- Spirituality	.943	1.000						
SUM_AD <--- Thriving	.587	.953	.023	41.605	***	-2.617 **	1.325	.356
SUM_DC <--- Thriving	.618	.905	.021	43.179	***	-1.937	.642	.147
SUM_ELI <--- Thriving	.638	1.000						
SUM_PP <--- Thriving	.714	1.109	.025	44.235	***	-1.517	.213	1.757
SUM_SC <--- Thriving	.338	.478	.019	25.520	***	1.607	-.953	2.634 **
Thriving <--- Campus Involvement	.080	.258	.033	7.718	***			
Thriving <--- PSC	.595	1.926	.056	34.653	***	-1.619	-.890	-1.913 *
Thriving <--- Spirituality	.160	.263	.018	14.913	***	.154	.966	.278
Thriving <--- majorsure	.143	.308	.021	14.911	***		-.909	
Thriving <--- FACSAT_INT	.200	.270	.015	18.086	***		-.044	-.040
campusact <--- Campus Involvement	.669	1.236	.028	44.551	***	-.800	.329	-.777
commserv <--- Campus Involvement	.491	1.000						
leader <--- Campus Involvement	.789	1.806	.041	43.574	***	.071	-.882	1.523
FACSAT_INT <--- Public Private	.093	.368	.044	8.373	***			
FACSAT_INT <--- Spirituality	.193	.235	.014	16.977	***	-1.166	-.926	-1.683 *
FACSAT_INT <--- majorsure	.165	.262	.017	15.320	***	.577	-.076	
psc1_tran <--- PSC	-.718	-.190	.004	-49.702	***	.000	.707	-2.062 *
psc2_tran <--- PSC	-.807	-.225	.004	-57.486	***	-.458	.354	-2.062 *
psc6_tran <--- PSC	-.793	-.216	.004	-56.871	***	.401	.177	-1.940
psc8 <--- PSC	.657	1.000						
stuorgs <--- Campus Involvement	.940	2.042	.046	44.029	***	1.356	-.586	1.931
spirituality1 <--- Spirituality	.962	.991	.005	199.092	***a	-.314	.283	-.457
spirituality2 <--- Spirituality	.928	.991	.005	199.092	***a	-.314	.283	-.457

Note: *p<.05, **p<.01, ***p<.001, a =parameter constraints equalized

= .060). Path coefficients for the Latino model are shown in Table 15. Utilizing the same *t* test formula as the African American model, the Latino model was compared to the other ethnic group model findings. Comparing the Latino model to the other three ethnic group models yielded numerous significant differences across the models; these differences are also noted in Table 15. Standardized direct and indirect effects on Thriving within the Latino model are available in Table 12 and the total effects on latent constructs in the Latino model are outlined in Table 13.

Asian Student Model

Following analysis of the model, a unique model for Asian students emerged demonstrating good statistical fit ($\chi^2_{(180)} = 526.21$, $p < .001$, CFI = .926, RMSEA = .065). The predictive model of thriving for Asian students is presented in Figure 12. Eight predictor variables from the omnibus model were eliminated in the creation of the unique Asian student model. Path coefficients for the Asian student model are presented in Table 16. Comparative analysis of the Asian student model yielded significant differences in path coefficients between the Asian model and each of the other three models in the interaction between *SUM_AD*, the measure of *Academic Determination*, and Thriving; *Academic Determination* was a much stronger indicator of thriving for Asians than for any other student group. Further statistical differences between the Asian model and other ethnic group models are also outlined in Table 16 Standardized direct and indirect effects on Thriving within the Asian student model are shown in Table 12; total effects on latent constructs in the Asian model are shown in Table 13.

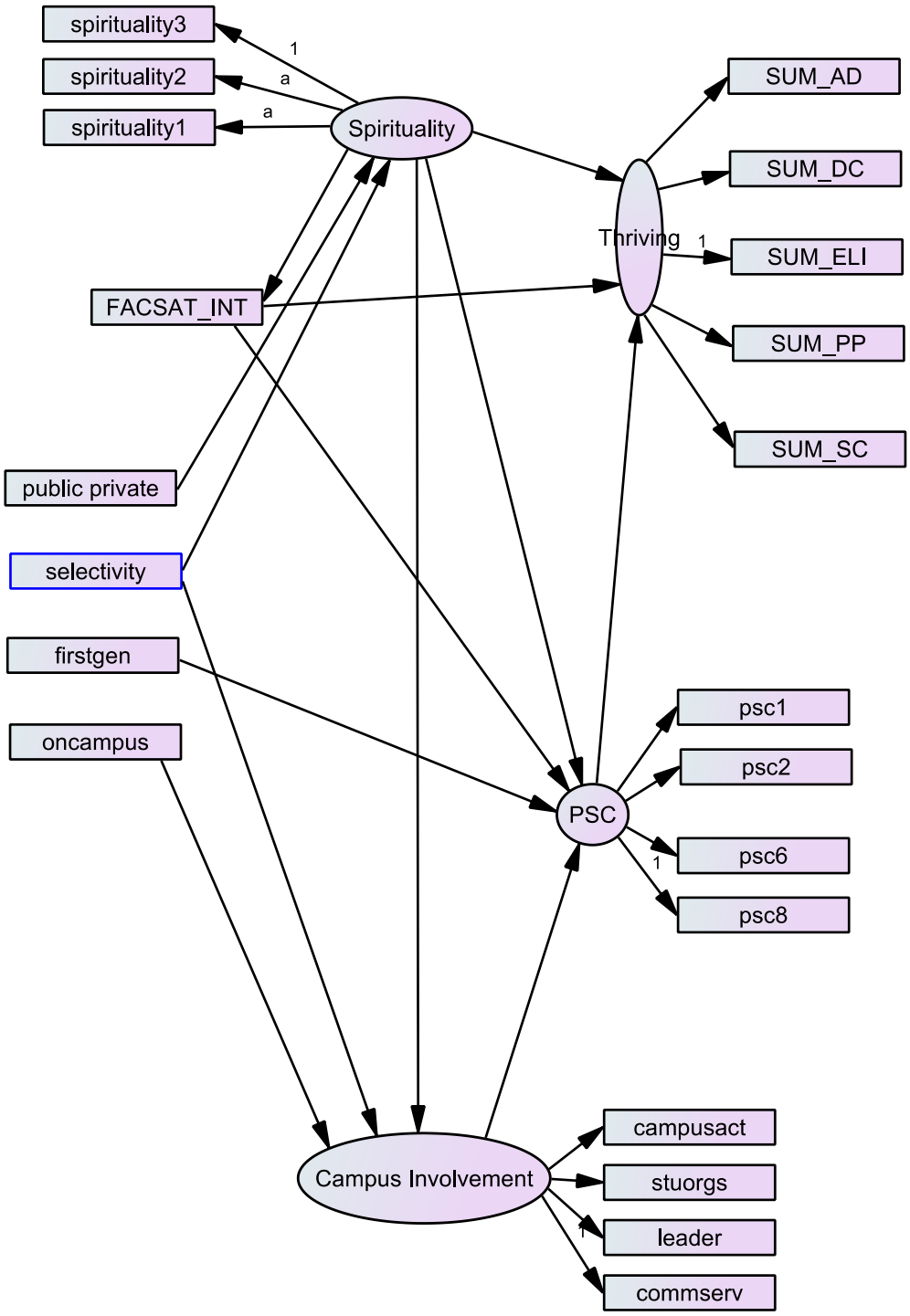

Figure 11. Unique Latino student structural model of Thriving.

Table 15

Latino Model Path Coefficients and Comparative Differences in t Test for Latino Model to Others

	SEM					t-test		
Path	Stand. Reg. Weight	Unstand. Reg. Coeff.	SE	CR	P	Latino v. African American	Latino v. Asian	Latino v. Caucasian
Campus Involvement <--- selectivity	.067	.072	.059	1.208	.227	2.905 **	-2.438 *	-1.688
Campus Involvement <--- Spirituality	.032	.022	.039	.558	.577	3.103 **	-1.786	-1.363
Campus Involvement <--- oncampus	-.322	-.597	.112	-5.311	***			-2.711 **
PSC <--- Campus Involvement	.185	.169	.052	3.250	.001	-.862	-.193	-1.356
PSC <--- Spirituality	.342	.216	.037	5.779	***	1.921	.415	2.018 *
PSC <--- firstgen	-.083	-.153	.095	-1.607	.108	-1.611	-1.611	-1.611
PSC <--- FACSAT_INT	.287	.126	.025	5.078	***	-.863	-.625	-1.089
Spirituality <--- Public Private	.796	.573	.159	3.605	***	-.104		-.195
Spirituality <--- selectivity	-.176	-.272	.084	-3.241	.001	1.590		2.072 *
spirituality3 <--- Spirituality	.927	1.000						
SUM_AD <--- Thriving	.680	.923	.081	11.347	***	-.356	-2.363 *	.177
SUM_DC <--- Thriving	.673	.893	.079	11.251	***	-.147	-1.642	.097
SUM_ELI <--- Thriving	.750	1.000						
SUM_PP <--- Thriving	.757	.950	.087	10.964	***	-1.757	-2.333 *	-1.652
SUM_SC <--- Thriving	.258	.292	.068	4.270	***	-2.634 **	-.551	-2.993 **
Thriving <--- PSC	.692	2.463	.275	8.947	***	1.913	.319	1.638
Thriving <--- Spirituality	.103	.232	.110	2.118	.034	-.278	-.142	-.045
Thriving <--- FACSAT_INT	.175	.273	.073	3.743	***	.040	3.740 **	.027
campusact <--- Campus Involvement	.806	1.328	.115	11.526	***	.777	.013	.888
commserv <--- Campus Involvement	.564	1.000						
leader <--- Campus Involvement	.842	1.575	.146	10.776	***	-1.523	-1.051	-1.866
FACSAT_INT <--- Spirituality	.257	.370	.079	4.707	***	1.683	.621	1.443
psc1_tran <--- PSC	-.675	-.156	.016	-9.889	***	2.062 *	1.456	2.304 *
psc2_tran <--- PSC	-.799	-.191	.016	-12.345	***	2.062 *	1.114	2.183 *
psc6_tran <--- PSC	-.744	-.184	.016	-11.715	***	1.940	1.671	2.001 *
psc8 <--- PSC	.692	1.000						
stuorgs <--- Campus Involvement	.930	1.728	.156	11.064	***	-1.931	-.461	-2.152 *
spirituality1 <--- Spirituality	.952	1.004	.028	35.931	***a	.457	.133	.527
spirituality2 <--- Spirituality	.923	1.004	.028	35.931	***a	.457	.133	.527

Note: *p<.05, **p<.01, ***p<.001, a =parameter constraints equalized

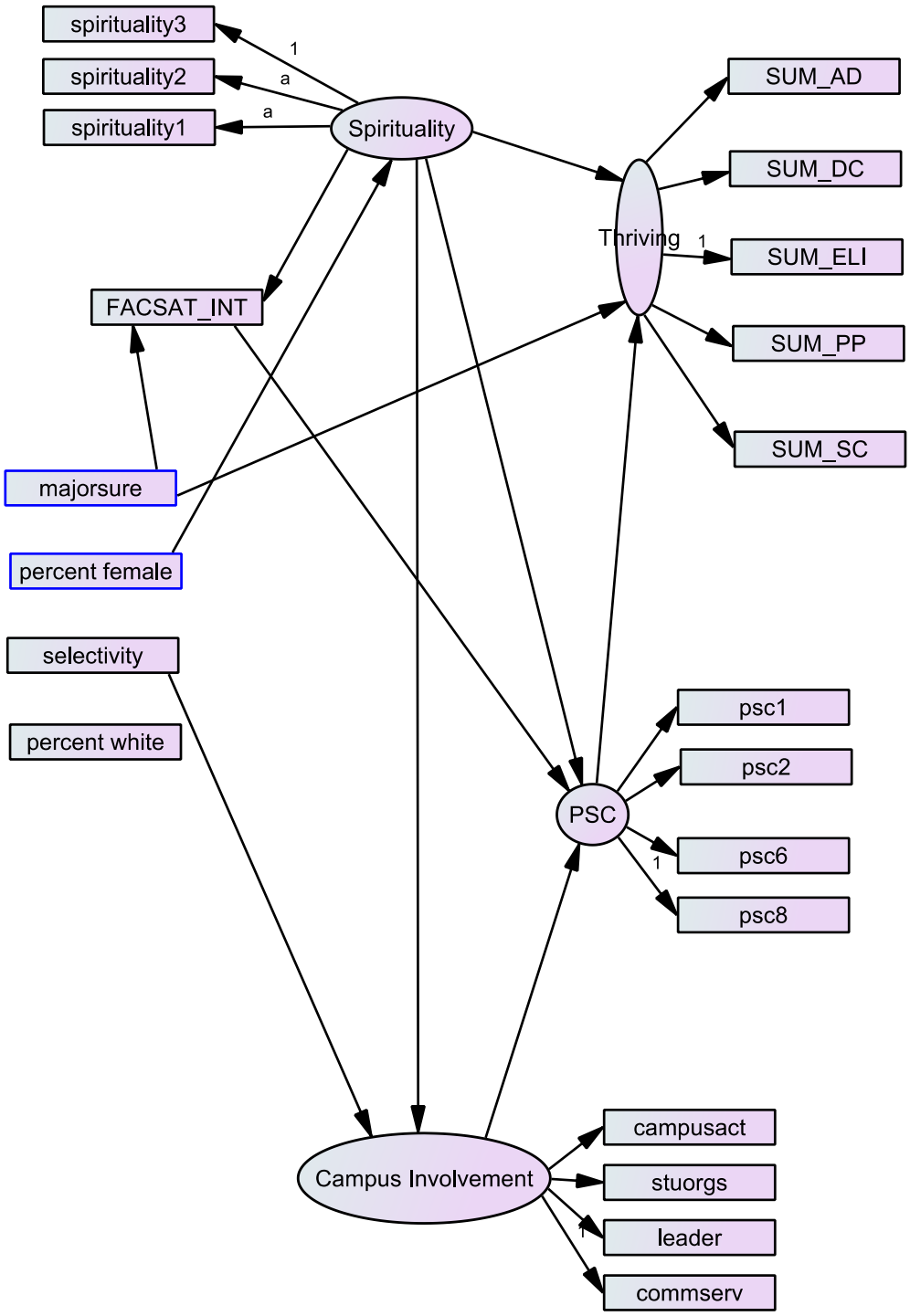

Figure 12. Unique Asian student structural model of Thriving.

Table 16

Asian Model Path Coefficients and Comparative Differences in t Test for Asian Model to Others

	SEM					t-test		
Path	Stand. Reg. Weight	Unstand. Reg. Coeff.	SE	CR	P	Asian v. African American	Asian v. Caucasian	Asian v. Latino
Campus Involvement <--- selectivity	.312	.250	.043	5.780	***	3.141 **	1.744	2.438 *
Campus Involvement <--- Spirituality	.186	.111	.031	3.595	***	6.720 **	1.101	1.786
PSC <--- Campus Involvement	.204	.182	.043	4.276	***	-.739	-1.327	.193
PSC <--- Spirituality	.371	.197	.027	7.358	***	1.916	2.044 *	-.415
PSC <--- FACSAT_INT	.358	.146	.020	7.467	***	-.097	-.383	.625
Spirituality <--- percent female	.358	4.970	.631	7.879	***			
spirituality3 <--- Spirituality	.921	1.000						
SUM_AD <--- Thriving	.689	1.242	.108	11.444	***	2.617 **	3.013 **	2.363 *
SUM_DC <--- Thriving	.659	1.101	.099	11.095	***	1.937	2.125 *	1.642
SUM_ELI <--- Thriving	.633	1.000						
SUM_PP <--- Thriving	.746	1.292	.118	10.956	***	1.517	1.575	2.333 *
SUM_SC <--- Thriving	.240	.349	.078	4.489	***	-1.607	-1.931	.551
Thriving <--- PSC	.756	2.344	.252	9.301	***	1.619	1.320	-.319
Thriving <--- Spirituality	.152	.251	.076	3.322	***	-.154	.178	.142
campusact <--- Campus Involvement	.760	1.326	.109	12.136	***	.800	.915	-.013
commserv <--- Campus Involvement	.538	1.000						
leader <--- Campus Involvement	.859	1.795	.150	11.965	***	-.071	-.430	1.051
FACSAT_INT <--- Spirituality	.236	.308	.061	5.085	***	1.166	.860	-.621
FACSAT_INT <--- majorsure	.145	.221	.069	3.224	.001	-.577	-.599	
psc1_tran <--- PSC	-.732	-.190	.017	-11.075	***	.000	.229	-1.456
psc2_tran <--- PSC	-.781	-.217	.017	-12.806	***	.458	.573	-1.114
psc6_tran <--- PSC	-.797	-.223	.017	-12.962	***	-.401	-.344	-1.671
psc8 <--- PSC	.620	1.000						
stuorgs <--- Campus Involvement	.923	1.828	.151	12.127	***	-1.356	-1.593	.461
spirituality1 <--- Spirituality	.940	.999	.025	39.621	***a	.314	.392	-.133
spirituality2 <--- Spirituality	.921	.999	.025	39.621	***a	.314	.392	-.133

Note: *p<.05, **p<.01, ***p<.001, a=parameter constraints equalized

Conclusion

The findings of this study suggest that measurement invariance in a predictive model of thriving exists across ethnic groups; however, pathway variance was evident. Due to the pathway variance evidenced in the sample, unique path models for each ethnic group were explored for statistical fit. Models for each of the ethnic groups in this study were found to fit statistically and were predictive of thriving within each group. Variation in the demographic characteristics was also evident, as some campus variables were found to not assist predictability in some models, while they helped predict variation in others.

The following chapter discusses the findings of this study. The salient features of this study are articulated and the uniqueness apparent in the models of thriving presented for each ethnic group within this study. Implications for practice, specific to the findings of this study, are explored. Lastly, I will discuss the limitations of this study and suggest a path forward for future research.

CHAPTER 5

DISCUSSION

Given the disparities in success experienced by students from underrepresented groups on predominantly Caucasian campuses, multiple pathways to success for these students are needed. The concept of thriving offers an expanded understanding of success that allows researchers and practitioners to seek new strategies that enable students of color to succeed. Thriving, conceptualized by Schreiner (2010c) as academic, social, and emotional well-being, has been previously demonstrated to be predictive of GPA, persistence, and other student success outcomes (Schreiner, Pothoven et al., 2009). Researchers have also demonstrated that pathways to thriving differ by ethnicity (Schreiner, Kammer et al., 2011). This study explored the unique predictive structural pathways that lead to thriving for African American, Asian, and Latino students. The guiding question of this study was: To what extent do student demographic characteristics, campus environmental characteristics, student spirituality, and a psychological sense of community explain the variation in thriving among students of color? This chapter explores the findings from this study of 7,956 students from 42 different universities and colleges in the United States.

The results of this study differ somewhat from previous findings in the literature. Previous studies implementing structural equation modeling have successfully employed multi-group analysis to explore differences across ethnic groups. As examples, recent

studies exploring sense of belonging and persistence between African American and Caucasian students (Hausmann et al., 2009), worldview development in students (Bryant, 2011), and campus climate for diversity and student transition (Locks et al., 2008) analyzed data across ethnic groups. One salient difference between this study and the other multi-group structural equation modeling studies in the higher education literature was the implementation of psychological characteristics inherent in the thriving. The psychological features of thriving differentiate this study from much of the literature in higher education, which is derived from the sociological foundations established by Tinto's (1975) work on student departure and Astin's (1968) work on student behavior.

This study demonstrated that thriving can be measured consistently across ethnic groups and that understanding the distinctive contributions within each ethnic group of a psychological sense of community, spirituality, faculty satisfaction, and campus involvement provides a divergent perspective on student success within each group. Thriving transcends racial boundaries, as the measure of thriving demonstrated good statistical fit for all ethnic groups measured in the sample. Given the demonstrated links between thriving and student success outcomes such as persistence, GPA, and campus fit, thriving provides a distinctive perspective into the pathways to success for college students (Schreiner, 2010c).

Despite the stability of the measures of thriving, psychological sense of community, spirituality, campus involvement, and faculty satisfaction and interaction in this study, the interplay among the variables differed between ethnic groups; that is, the pathways to thriving differed by ethnicity. For all ethnic groups explored in this study, a psychological sense of community was the transcendent predictive variable in all of the

measurement models, meaning a psychological sense of community explained the most variation in thriving among all students. A psychological sense of community, like thriving, transcended racial barriers in its role of predicting thriving among all ethnic groups.

To find that a psychological sense of community was important in explaining the variation in thriving among students of color on campuses is not entirely surprising. Many studies have indicated the importance of a psychological sense of community, defined as belongingness, integration, shared connection, and member influence, to meaningful student connection to the campus community (Chavis & Pretty, 1999; DeNeui, 2003a; Lounsbury & DeNeui, 1995; McCarthy et al., 1990). In this study, the psychological sense of community (PSC) measure accounted for nearly three-quarters of the variation in thriving within the models explored.

Previous studies have demonstrated the importance a sense of belonging contributes to the success of students of color on college campuses (Hausmann et al., 2009; Hurtado & Carter, 1997; Museus & Maramba, 2010; Strayhorn, 2008a; Zirkel, 2004). A psychological sense of community adds more dimensions to the measure of campus fit than just the membership component inherent to a sense of belonging as defined by Hurtado and Carter, however. Along with membership, a psychological sense of community encapsulates influence, integration and need fulfillment, and shared emotional connection for members within a given community context (Lounsbury & DeNeui, 1995; McMillan & Chavis, 1986). The perspective on community provided by PSC is more holistic in nature than the more narrow focus on membership inherent to a

sense of belonging. Findings from this study certainly emphasize the importance a positive sense of community contributes to the success of students in college.

An expanded perspective on the role of community on campus, such as a psychological sense of community, differs from the traditional role of belonging explored in the higher education literature. Since Hurtado and Carter's (1997) study on the role of a sense of belonging among Latino students, researchers in higher education have studied the importance of belonging in relation to student success (Hausmann et al., 2009; Strayhorn, 2008a; Walton & Cohen, 2007). Sense of belonging, however, is only part of the equation for a sense of community. In addition to the membership component that sense of belonging comprises, the full definition of a sense of community includes the concept of ownership: students must know that their contribution to the campus environment matters and that they have the power to shape the context of the campus culture. How students integrate into the community and how they experience fit within the campus environment also play a role in building a psychological sense of community. When students feel an affinity to the campus, derive meaning from their contribution as a student on campus, and feel that being at that campus helps fill an important need in their life, they will experience an enhanced sense of community. Lastly, students must feel emotional bonds to others in the campus community; a strong sense of campus cohesion contributes to a positive campus climate of community. Together with membership, these aspects of campus culture are a psychological sense of community, which was the single greatest contributor explaining the variation in thriving among students in this study.

A psychological sense of community went beyond the confines of racial, ethnic, or cultural barriers in this study. PSC remained statistically stable and contributed greatly to the understanding of thriving in all the models. It seems this study affirms that a psychological sense of community is important for all students on campus and is an important factor to understanding success in college. This finding is consistent with findings from Ambler's (2006) study exploring the relationship between National Survey of Student Engagement (NSSE) outcomes and flourishing among students. Ambler found the greatest connection between the *Supportive Campus Environment* (SCE) variable in the NSSE study and flourishing, directly correlating the SCE outcome variable with student flourishing measures. Although SCE explores the nature of interpersonal relationships on campus and the perceived supportiveness of the campus in fostering positive social and academic well-being, the outcomes of positive SCE are not too dissimilar to what one would expect from a positive sense of community on campus.

Because a psychological sense of community can be safeguarded and fostered, as demonstrated by Walton and Cohen (2007), college campus communities can utilize the findings of this study toward meaningful interventions that nurture a psychological sense of community for students of color on American campuses. Building a psychological sense of community on campus is a gateway for all students to thrive. Given that thriving students are successful students, a psychological sense of community provides the foundation from which students can be more successful and find greater meaning through their college experience.

Building a psychological sense of community on campus may not always be easy for students of color on predominantly Caucasian campuses. Due to the few numbers of

students of color on predominantly Caucasian campuses, students of color lack mass in numbers to avoid tokenism (Allen & Solórzano, 2001; Kanter, 1977). Often, students of color are one of only a few representatives of an ethnic group in a given class, lab, or residence hall. Building community for students of color may be difficult, given the dissatisfaction among African Americans and Latinos with the diversity among peers and faculty (Park, 2009). Diversity on campus is not only achieved through the presence of diverse students, but it is also experienced when campus environments embrace a culture of diversity through practice (Milem et al., 2005). The high visibility of the student of color on a predominantly Caucasian campus prevents the individuality of the student from contributing to the greater community as anything other than a representative of his or her ethnic group (Smith, 2009).

Not only is it important to note the significant role of a psychological sense of community in explaining variation in thriving, but it is also important to consider the items from this study that contributed significantly to the variation in a psychological sense of community. For Caucasian students, the explanation of variation in a psychological sense of community was spread evenly among all the contributing variables in the model; however, spirituality was the largest single contributor to PSC for all students of color. Spirituality contributed between 35% and 49% of the variation in the psychological sense of community measure within the ethnic group samples in this study. The sheer magnitude of predictive power between spirituality and a psychological sense of community is impressive. This striking finding, that between one-third and half of the variation in a psychological sense of community among students of color on campus is explained by their sense of spirituality, supports the notion that spiritual

beliefs, reliance in a power greater than the self in difficult times, and meaning-making are vital components of feeling a sense of community on campus for students of color.

It is important to note the power of spirituality in explaining a sense of community, especially as it relates to the reliance on a power greater than the self during times of difficulty, for the students of color in this study. The spirituality construct explored in this study emphasized the significance of a higher power in relation to the difficulties experienced in life, the importance of personal beliefs as an "anchor" in life, and the personal strength derived from religious beliefs. Spirituality, defined by these variables, explores the importance of meaning-making in the lives of students on campus. All the models for students of color affirmed the relationship of meaning-making to a psychological sense of community and to thriving. This meaning-making, or spiritual belief system, provides a lens through which students of color frame the world around them when life is difficult; it is not surprising that such reliance in a power greater than the self is a strong contributing factor to a psychological sense of community for these students of color.

The campuses involved in this study were predominantly Caucasian. Spirituality, for students of color, provides a meaningful coping mechanism when life is difficult. It is quite possible that spirituality becomes an important coping mechanism for students of color on campuses filled with students who differ from them. Cervantes and Parham (2005) explored the role of spirituality among students of color. These authors suggested that a healthy sense of spirituality provides a source of meaning and purpose for students of color because:

> Spirituality is the energy, force, and power in people; it helps to further define and delineate the nature of human beingness. Spirituality then becomes connected to authentic personhood by providing a connectedness to the Divine source within the universe. Spirituality provides and affirms a sense of power, by acknowledging each person's ability to transform and transcend situational circumstance in ways that are beneficial for the individual. Spirituality also provides an assured sense of purpose. (p. 71)

When students of color on campus experience the difficulties of "fitting in" (Strayhorn, 2008a) on campus or perceive a hostile racial climate (Cokley, 2001), their spiritual center can provide a pathway to personal meaning and a positive sense of self.

It should not be a surprise that meaning-making and spirituality are important building blocks to community. The problem is that academic culture has historically ignored the important role spirituality contributes to the lives of students. Astin et al. (2011b) noted that despite the self-expressed importance of spirituality in the lives of students and faculty, the academy has historically ignored the spiritual aspect of human interaction and life; many of the environments on college campuses are not designed to foster growth of the spiritual self. Cultural factors, religious factors, and personal belief systems were demonstrated in this study to greatly inform how students of color experienced a sense of community on campus. Environments and programs on campus could easily recognize and validate the importance of spirituality among students of color. Thus, campus initiatives focused on spirituality and meaning-making could help build a psychological sense of community, thereby influencing thriving among students of color.

Although not as distinct as spirituality, it is important to note that campus involvement and student-faculty interaction contributed to the understanding of variation in a psychological sense of community in all of the models. The unique contribution, however, differed only minimally among the models explored. For students of color, the role of faculty was important in building a psychological sense of community. Although the contribution to a psychological sense of community for most student groups was similar, Latino students showed the least amount of contribution from student-faculty interaction to a positive psychological sense of community, compared to African Americans or Asians.

Perhaps both the kind of interaction and the quality of that interaction, dictates the ways in which students of color feel validated by faculty. Research has emphasized the importance of positive faculty interaction with students of color (Cole, 2007, 2008; Kim, 2010; Lundberg & Schreiner, 2004). This study demonstrated that significant improvements could be made to enhance the experience of faculty interaction and satisfaction among Latino students. Steele's (1997) groundbreaking work on stereotype threat demonstrated that *how* faculty interact with students, both tangibly through word or action or intangibly through student-perceived expectations, has varying impact on students. According to Steele, stereotype threat:

> …refers to the strictly situational threat of negative stereotypes, the threat that does not depend on cuing an internalized anxiety or expectancy. It is cued by the mere recognition that a negative group stereotype *could* apply to oneself in a given situation. (p. 617)

Steele noted that the level of threat to the potential of an individual depends on the level to which the individual internalizes anxiety about a particular stereotype. Such threat diminishes the communal potential of a given environment and negatively impacts the environment in which students experience success. For high-achieving students of color, stereotype threat is specifically problematic. Bright students may feel threatened by the existence of a negative stereotype, despite internalizing their ability to disprove the stereotype, and therefore refrain from participating in activities (e.g., actively participating in class discussion). Similarly, Rendon's (1994) work provided another gateway to understanding how validating students of color in the classroom can build a positive campus culture. Cole's (2007) work on student-faculty interaction found that the intellectual self-concept of students of color was positively related to mentorship and research interaction with faculty. Conversely, he found that student intellectual self-concept decreased when students only interacted with faculty for the purposes of correcting mistakes or clarifying errors made in classroom assignment. The research by Cole and Rendon emphasizes the need for enhanced quality of interaction between faculty and students of color. Increased amount of interaction is not enough, unless the interaction validates the student as a meaningfully contributing member of the academic community; more specifically, interaction associated with addressing deficits appears to be counterproductive to supporting the needs of students of color. Faculty members are positioned to positively influence the student experience in college. Careful attention by members of faculty to the kind of interaction they have with students of color can lead to a more positive experience of college for students of color; the role of academic advising,

personal mentorship and encouragement, and career counseling all provide opportunity to positively enrich the campus experience of students of color.

For Latino students, a perceived negative racial climate on campus can lead them to believe they do not belong in college (Hurtado & Carter, 1997). Interaction with faculty can be an important vehicle to build confidence for Latinos. This study confirmed that faculty members, through positive involvement with students, contribute to the pathways that enhance a psychological sense of community for Latino students.

Unique Ethnic Group Thriving Models

Because pathways in each predictive model varied significantly across ethnic groups, unique models were created to predict thriving for each group. Although measurement invariance existed in the constructs of thriving, campus involvement, spirituality, and student-faculty interaction, unique pathways (i.e., structural variance) existed for each ethnic group. This combination of measurement invariance and structural variance, evident in the multi-group analysis, indicates that the pathways to thriving for students differ across ethnic and racial lines, yet affirms the stable measurement of thriving across five factors (a) *Academic Determination*, (b) *Engaged Learning*, (c) *Diverse Citizenship*, (d) *Positive Perspective*, and (e) *Social Connectedness*. The paragraphs that follow outline the unique nature of each ethnic group model explored due to the structural variance found in this study. Given the troubling persistence to graduation rates among Latinos and African Americans in higher education (Aud, Fox et al., 2010), I will first explore the pathways to thriving for these two underrepresented groups. Although Asian students demonstrate a much greater level of persistence than Latino or African American peers, it is difficult to know if their academic success on

campus is actually causing them to thrive; the Asian student model is explored last in this chapter.

Latino Student Model

The pathway model to thriving identified for Latino students is a model with few variables or a parsimonious predictive model of thriving; certainly the model is much less complex than the omnibus student model and affirms previous findings about pathways to thriving for Latino students (Schreiner, Kammer et al., 2011). Such parsimony in the model of thriving underscores the importance of providing the adequate kinds of environments in which Latino students will thrive on campus. Although campus involvement, student-faculty interaction, and spirituality all contribute directly to the thriving of Latino students, the contribution directly to thriving is not as noteworthy as the extent to which each contributes to a psychological sense of community for Latino students. A psychological sense of community contributes significantly to the thriving of college students and is the most powerful single predictor of thriving for Latinos. The significant mediating effect a psychological sense of community plays in predicting thriving among Latino students emphasizes the need to create specific ways for Latino students to find community within the campus environment.

For Latino students, the features that contribute to a sense of community are their spirituality, student-faculty interaction, and campus involvement. Latino student spirituality contributes a great amount to a sense of community, more so for Latino students on private college campuses. In short, Latino students on private college campuses seem more likely to find a sense of community that is rooted in how they see their spiritual self – that is, in the context of meaning-making and reliance in a higher

power. Perhaps this finding suggests that Latino students on predominantly Caucasian campuses use their spiritual centeredness as a coping mechanism to manage the complexities of being a minority on campus; another possibility is that Latino students on private college campuses feel the freedom to express their spiritual self as a contributing factor to building and finding community on campus. It is plausible that either explanation could be the case. Hurtado and Carter's (1997) work on the negative impact of racial climates to the sense of belonging of Latino students seems to indicate that if Latino students perceive a negative racial climate on campus, then they would use their spirituality as a coping mechanism. On the other hand, other research has suggested that spirituality and religious practices among Latinos in America is an important part of the collective and individual identity of Latinos (Elizondo, 2000).

Student-faculty interaction contributed meaningfully to both a sense of community for Latino students and directly to Latino student thriving. The data from this study suggest that the quality of interaction with faculty is an important contributor to the experience of Latino students on campus; however, the significance of this contribution was less than Asians or African Americans. Positive interaction with faculty is important for the success of students of color on campus (Cole, 2008, 2010b; Lundberg & Schreiner, 2004). Anaya and Cole (2001) found demonstrable benefit to academic achievement as it related to GPA for Latinos who reflected positively on their interactions with faculty and talked with faculty. Student-faculty interaction for Latino students is a pathway to both the ways Latino students experience community on campus and ultimately to how Latino students thrive on campus. Anaya and Cole also found Latino students did not interact with faculty as much as anticipated and that talking with

faculty outside the class negatively contributed to GPA. Knowing that the quality of interaction with faculty is more important than the quantity of interaction suggests that frequency of positive interaction with faculty is the best positive contributor to the success of Latinos in college. Not only is the time spent with faculty important, but also the quality of the interaction between students and faculty is important (Cole, 2008; Lundberg & Schreiner, 2004). Building positive affinity between the Latino student and faculty member requires positive affirmation of the student's ability (Rendon, 1994) and the affirmation that the Latino students do belong in college (Hurtado & Carter, 1997).

The final building block to a sense of community for Latino students was campus involvement. Conversely, a significant detractor to campus involvement for Latino students was living off campus. Thus, Latino students who live off campus are much less likely to become involved in campus life, join student organizations, participate in campus activities, or lead student organizations. Astin's (1984) involvement theory links the campus living experience to positive outcomes for students. The positive impact of living on campus has also been noted in the literature explored by Pascarella and Terenzini (2005). Hurtado and Ponjuan (2005) demonstrated the importance of living on campus for Latino student belonging, while Strayhorn (2008b) did not find campus living contributed to a sense of belonging among Latino students. Differences exist in the literature regarding the contributing effects of campus living for Latino students; however, this study found that off-campus living negatively impacted campus involvement for Latino students to a greater extent than other ethnic groups. It is important for Latino students to live on campus and to have a positive campus living

environment. Living on campus allows students to become more involved in campus life and can contribute to students' sense of community on the campus.

It seems that the kinds of relationships Latino students build on campus play a significant role in how those relationships contribute or detract from a healthy sense of community on campus. The contribution to thriving from social connections was low for Latino students, meaning Latino students lack adequate amounts of quality social connection to peers on campus. Positive relationships and social connection with peers help reinforce a campus community for students (DeNeui, 2003a; Lounsbury & DeNeui, 1995). Again, Latino students feel the greatest sense of belonging when the campus environment is receptive to Latinos within the campus culture; negative racial campus climates do not help Latino students feel comfortable building positive relationships that connect them with peers on campus (Hurtado & Carter, 1997).

African American Student Model

The experience of thriving on campus for African American students is a more complex interaction than for Latino or Asian students; the experiences of campus, interaction with faculty, the students' reliance in a power greater than the self, and a psychological sense of community all contribute meaningfully to thriving for African American students. When compared to Caucasian students, the pathways to thriving for African American students are more similar to the dominant ethnic group than any other minority ethnic group; perhaps African American students utilize coping mechanisms as minority members of the campus environment in ways that differ from the adjustments made by Asian or Latino students. Despite the similarities to the dominant group,

specific paths are still worthy of note in understanding how African American thrive on campus.

The path to thriving for African American students on campus is mediated strongly through a psychological sense of community, as it is for all groups. Although a significant percentage of the variation in African American thriving is explained by a psychological sense of community, campus involvement, student-faculty interaction, and spirituality all distinctly contribute directly to thriving as well. In fact, African American students were the only group whose campus involvement contributed directly to their thriving on campus. The connection between campus involvement and thriving affirms much of the efforts over the past number of decades in programming designed to engage African American students in the experiences on campus that build social affinity. Involvement in campus activities and leadership of student organizations were both important contributors to the campus involvement of African American students.

Since Astin's (1984) early work on campus involvement, it has been noted in the literature that when students interact with the campus environment they are more likely to experience success in college. More recent literature has affirmed this finding for all students generally (Kinzie & Kuh, 2004; Kuh et al., 2005; Pascarella & Terenzini, 2005) and for African American students in particular (Fischer, 2007; Flowers, 2004; Littleton, 2002). This study found that the contribution of student leadership was also important for African American students. The importance of student leadership affirms Harper's (2006) findings from a study of African American men on campus: "African American males who are actively involved in campus organizations and hold leadership positions in student organizations have better experiences and gain more from college than do their

uninvolved same-race male peers" (p. 90). Thus, not only is the actual involvement in campus activities importante to the thriving of African American students, but also of equal importance is their ability to become leaders among their peers on campus.

A negative contributor to campus involvement for African American students is the number of hours they work off campus. It seems evident that the greater the number of hours students spend working off campus, the less they involve themselves in campus activities; however, it is worth noting that only the African American and Caucasian models demonstrated evidence of fit for this inverse relationship. Of importance, however, is that nearly 21% of the variation in thriving among African American students was explained by campus involvement; the contribution to thriving from campus involvement for African Americans was between 5% and 8% higher than other student ethnic groups. African American students who are involved on campus are more likely to thrive than their peers; however, when work commitments prevent African American students from actively engaging in campus activities, the contribution of such campus involvement to thriving is reduced. This seems intuitive; however, campuses must consider the reasons African American students work off campus. African American students work on and off campus at greater rates than any other student group to meet the financial burdens associated with the costs of a postsecondary education (Lunsford, 2009). Given the increasing cost of tuition, the burdens to students with financial need and the expectation to work off-campus jobs to meet those needs will not be alleviated unless more attention is focused on financial aid opportunities focused on the needs of African American students (Aud et al., 2011).

Although campus involvement directly contributes to thriving among African American students, campus involvement is also a significant contributor to a psychological sense of community, which leads to thriving among African American students. The global importance of a psychological sense of community among African American students cannot be overlooked. A psychological sense of community provides an opportunity for African American students to feel that their contribution to campus matters, that they have a voice on campus, and that they have what Paredes-Collins (2011) callws "a seat at the table" (p. 140), affirming the importance of African Americans within the campus community .

Not only does the seat at the table affirm the presence of African American students on campus, but it also affirms the kinds of individual characteristics that contribute to that sense of community among African Americans. Spirituality contributes greatly to the sense of community for African American students and directly to the thriving of African American students as well. Spirituality, as evidenced in a reliance in a power greater than the self and personal meaning in life outside the self, is a demonstrated value within the greater African American community (Cervantes & Parham, 2005; Constantine et al., 2006); the meaning-making experiences of African American students helps them find both a sense of community on campus and thrive on campus.

Asian Student Model

The most distinctive aspect of the Asian student model is the power of the variation in PSC predicted by spirituality. Nearly 50% of the variation in Asian students' psychological sense of community is predicted when issues of meaning and purpose are

explored as coping mechanisms when life is difficult. Asian students demonstrated the greatest link between spirituality and a psychological sense of community on campus of any ethnic group. This finding suggests that Asian students find affinity to the campus environment when they have a more rooted sense of self in relation to a belief system or higher power.

The model of Asian student thriving is the simplest of all models in this study. The parsimonious nature of the model suggests the pathways to thriving for Asian students on campus are more limited than other students; thus, it is even more important to be certain the campus environment fosters the kinds of environments that lead Asian students to thriving. Certainty of major, spirituality, and a psychological sense of community are the only factors that directly contribute to thriving for Asian students. Every other predictive pathway to thriving for Asian students is mediated by a psychological sense of community.

The powerful predictive quality a psychological sense of community contributes to the understanding of thriving among Asian students cannot be understated. Over 75% of the variation in thriving is explained by PSC, leaving little doubt that the thriving Asian student is one who feels his or her contribution to the campus is of value to the community, that he or she has a voice on campus, shares a common experience with his or her peers, and belongs to the campus community. Not only does the connection between thriving and a sense of community affirm the importance of belonging as central to all human action (Baumeister & Leary, 1995), but it also emphasizes the need to build a sense of community for Asian students to thrive in college. Cultural traditions within Asian sub-groups, such as the values of hierarchy and compliance with authority in

Confucianism, present barriers preventing Asian students of Confucian-influenced background from embracing campus culture (Yang & Chau, 2011). In fact, some Asian students join campus groups out of respect for authority and not because of reasons congruent with western independent ideals such as personal affinity or desire.

A few nuanced statistical artifacts exist in the Asian model. For example, Asian students in this study demonstrated the greatest amount of Academic Determination than any other ethnic group, a validation of the connection between the academic efficacy of Asian students and GPA (Edman & Brazil, 2009). This finding reinforces the stereotype that Asian students may be more goal-oriented than others. Perhaps the notion of the academically motivated Asian student is not, then, a stereotype; it is conceivable that many Asian students are, indeed, more driven than their peers. Census (We the people, 2004) data also reinforce the notion that academic pursuit is valued among Asians in the United States, and the findings of this study validate the academically-focused nature of Asian students. Academic determination is an important aspect of thriving; however, four other factors of thriving help create a balanced perspective on thriving.

It seems intuitive that high levels of Academic Determination among Asian students would find a natural link to student-faculty interaction. On the contrary, however, the role of student-faculty interaction predicted significantly less variation in thriving among Asian students than any other ethnic group. This finding suggests that thriving among Asian students is less dependent on a positive relationship with faculty. A pathway between student-faculty interaction and thriving was not evidenced within the model. The interactive experiences Asian students have with faculty are mediated through a psychological sense of community. This finding suggests that Asian students

must first experience a sense of community vis-à-vis their interaction with faculty as a precursor to thriving, only further emphasizing the importance of faculty in affirming a sense of community for Asian students.

As a sense of community for Asian students increases, so do their levels of thriving; however, faculty play an important role in fostering a sense of community for Asian students. Asian students who perceive racial difficulty on campus are less likely to engage with faculty in meaningful discussion (Chang, 2005). Literature on the interaction of Asian students with faculty creates a less-than-positive picture of quality and level of engagement between faculty and students (Chang, 2005; Kim et al., 2009; Kuh & Hu, 2001; Lundberg & Schreiner, 2004). Despite the strong link between faculty approachability, perceived respect of students, and availability (Komarraju, Musulkin, & Bhattacharya, 2010), it seems there is a lack of connection between these important student success precursors in the interaction between Asian students and faculty. A recent study of student-faculty interaction by Einarson and Clarkberg (2010) found Asian students interact with faculty the least of all students on campus.

A direct pathway between campus selectivity and campus involvement was only evidenced in the Asian student model. The contribution of selectivity to the variation in campus involvement for Asian students was six times greater than for Latino students, and twice the variation explained for African American students. This finding suggests that Asian students become more involved on more selective campuses. Perhaps these more-involved Asian students feel more inclined to become involved in campus activities on selective campuses because the activities on those campuses provide validation for the greater sense of *Academic Determination* evident among Asian students. That is, campus

involvement for Asian students on highly selective campuses may validate the academic interests and pursuits of those Asian students who get involved.

Implications for Practice

The implications from this study are important to any institution seeking success for students of color. Whether a public institution, mandated to meet the educational needs of a greater populace, or a private institution with a niche mission within the context of higher education, most institutions serve diverse students and can benefit from the findings of this study. Projected growth among peoples of color in the United States in the coming decades (Passel & Cohn, 2008), and the continued growth of access to higher education for previously underrepresented populations (Aud, Fox et al., 2010; Aud et al., 2011), will mean more and more students of color on college campuses across America.

This study represents an attempt to understand the unique pathways to thriving for students of color. The study considered the influence of demographic characteristics, environmental characteristics, campus involvement, student-faculty interaction, student spirituality, and a psychological sense of community in predicting thriving among African Americans, Asians, and Latinos. The following question emerged from the findings of this study: What can campuses do to help students of color thrive in college? Three implications were drawn from the findings of this study: (a) All students have pathways that lead to thriving; however, the pathways differ by ethnicity; (b) a psychological sense of community is a gateway to thriving for all students; and (c) spirituality and meaning-making, especially among students of color, is an important component to a healthy sense of community and ultimately to thriving. Although each

implication holds a solution unique to each institution, all campuses should consider how they can respond to their students' needs to lead students toward thriving.

Pathways to Thriving for All

The most fundamental and important implication from this study is the universal potential of students to thrive. All students measured in this study, regardless of ethnicity, demonstrated a path to thriving. Given thriving measures psychologically motivated facets of well-being that are amenable to intervention (Schreiner, 2010c), campus practitioners have five new roadmaps to plan for student programming. Whether a specific program to address Academic Determination, Engaged Learning, Diverse Citizenship, Social Connectedness, or Positive Perspective, each program provides a strategic avenue to lead students toward thriving.

Knowing how individual students can thrive allows uniquely-tailored interventions for each student. For example, an academic advisor could work with a student who measured low in Academic Determination to help boost time management skills, willpower and way power associated with academic hope, and general academic drive. Administrators in higher education could also generate campus-specific initiatives when campus thriving trends are known compared to national norms. For example, certain campuses or populations within a campus may demonstrate low Social Connectedness, and campus programming could be offered to engage members of the community with one another.

Knowing how students thrive is a gateway to understanding persistence and the behaviors that precede persistence. Bean and Eaton (2002) urged an exploration of the psychological factors that motivate persistence in higher education; thriving offers a

perspective of the kind sought by Bean and Eaton. Thriving also provides a means for unpacking the complicated student departure puzzle. Tinto (1993) conceptualized the interaction between the student and the institution insofar as that interaction contributed to departure from the institution. Thriving provides a more complex understanding of how the student perceives his or her life circumstances in relation to being a college student, offering a much more holistic perspective on the student as individual than has been known before.

Effort should be made to eliminate or diminish barriers that exist for students of color to thrive. As an example, given the rising burden associated with the costs of higher education, students are increasingly required to work during college to afford tuition (Lunsford, 2009). Although the cost of tuition is not likely to decrease over time, the mechanisms in place to enhance affordability for all students generally and for students of color in particular can be tailored to enhance success for students. For example, campus employment can be used as an initial campus connection to enhance success for students (Perozzi, 2009). Whether campus employment is facilitated through work related to faculty research, or through a campus job that builds a sense of community for students of color, on-campus job placement can be a means of connecting the student to campus.

A Psychological Sense of Community: The Gateway to Thriving

Knowing *that* students thrive or can thrive and the extent to which they are thriving are only a part of the puzzle, however. Some of the more immediately important implications from this study apply to the environments on campus that precede thriving. A psychological sense of community on campus was the chief mediating variable

predicting thriving for all ethnic groups and was significant among all the students of color explored in this study.

A psychological sense of community is comprised of the membership of individuals to the campus community, the influence individuals perceive they have on campus to contribute to change in the community, the extent to which students feel integrated and have their needs met, and the shared emotional connection students feel with one another on campus (Lounsbury & DeNeui, 1995). It is worth noting that a sense of community is important for students of all ethnic groups; however, the pathways to thriving through a psychological sense of community are more limited for students of color than for Caucasian students. The specific ways students of color thrive on campus means institutions need to reinvent how culture occurs on campus; dominant culture students are more likely to naturally experience a psychological sense of community on campus than are those of minority status simply because the dominant culture first crafted the campus environment. Campuses must think deeply about the kind of culture they wish to pursue and how they wish to pursue such a culture; building a psychological sense of community on campus for all students will not be simple.

Here is where the power of validation can become a critical building block to community on campus. Rendon (1994) indicated that the academy is filled with significant amounts of invalidation:

> A great deal of invalidation is built into the present model of teaching and learning found in most two- and four-year institutions. Calling students by social security numbers, discounting life experiences, detaching faculty from students,

> promoting fiercely competitive environments that pit students against each other, are just some examples of invalidating situations that students experience. (p. 45)

Such invalidating experiences are not likely to lead toward a greater sense of community, but rather lead away from community.

Faculty members are positioned to provide some of the greatest forms of validation for students of color – validation that builds confidence inside and outside the classroom. Cole (2007) previously noted that faculty criticism and feedback negatively impacts self-concept among African Americans, yet faculty feedback has the potential to be the greatest mechanism to build confidence in students of color and affirm their place in the academy. In another study on the student-faculty relationship for students of color, Cole (2010a) offered:

> For African American students at predominantly White colleges, the unequivocal majority of their faculty contact is interracial in nature. This interracial interaction with key institutional agents creates a complex social environment that is potentially rich with opportunities for students' intellectual development and academic success. (p. 274)

Faculty must consider the power they have in creating an environment of success for students of color and also in affirming the "seat at the table" (Paredes-Collins, 2011) on campus for students of color.

Spirituality and Meaning-Making as a Building Block to Healthy Community

The third significant implication from this study is the powerful role of spirituality in the lives of students on campus. This sense of reliance on a higher power when life is difficult was a predictor of thriving for all students but was a more powerful predictor for

all the minority student groups explored in this study. Given the landmark study on spirituality in the academy by Astin et al. (2011b) that demonstrated the growth in student spirituality that occurs during the college years, it is imperative that campuses adopt practices that foster this important aspect in the lives of students.

Just as Frankl (1992) found that meaning in live provided motivation during the darkest of times, students in college seek *a meaning to live for* and ask their own existential questions along the journey. The search for meaning is powerful. Nash and Murray (2010) contended:

> Meaning therefore helps us to make cosmos out of chaos; it gives us choice in place of chance. Most of all, it gets us out of bed in the morning and off to face life's inevitable daily mixtures of pleasure and pain. (p. xxi)

Campus student affairs practitioners, faculty, and administrators who are able to reconceptualize how they engage this vital spiritual part of the student may create new pathways for thriving, particularly among students of color. Campuses can begin by affirming the importance of the spiritual self and move toward fostering the spiritual side of the student throughout the college years.

It is also important to continue to distinguish between the spirituality explored in this study and religiosity. Although spirituality and religiosity are seemingly overlapping constructs, they have distinct meanings. Religiosity, like spirituality, "most often include(s) references to connection or relationship with a Higher Power of some kind, belief or faith in a Higher Power of some kind" (Zinnbauer et al., 1997, p. 557). However, religiosity also includes "integrating one's values and beliefs with one's behavior in daily life … references to organized activities such as church, or attendance

and performance of rituals, and commitment to organizational beliefs or dogma" (p. 557). None of the items associated with religiosity, such as lifestyle, organizational affiliation, or dogma were explored in the context of this study. As an implication, many may believe that faith-based campuses in America are adequately addressing the spiritual needs of students. However, some are meeting the spiritual needs, and many are addressing the religious needs. The perspective of spirituality explored in this study seems to precede many religious practices by first asking the question: Is there a power inside or outside this world that is greater than me (Parks, 2000)?

For students of color on college campuses, the campus must first embrace a culture that is not hostile to the exploration of spirituality. Only then would the creation and flourishing of smaller affinity groups safeguard the kind of safe spaces students need to explore deep meaning in life. Whether such groups are formed in the context of living spaces, such as residence halls, social gatherings, and student groups or clubs; through the work of student affairs professionals; or by the invitation of faculty, campus opportunities designed to engage the spiritual side of students must be as diverse as the student population on campus. To maximize opportunity, effort and energy should be most directed at fostering a campus culture that positively affirms the exploration of the spiritual self and then offers specific contexts in which students can explore their spirituality and meaning-making.

Limitations

Although this study illuminates distinctive pathways to thriving for students of color, limitations exist within the study. Sampling remains the greatest limitation to this study. The collection of data for this study was limited to moderately selective and

selective campuses and therefore does not fully represent the American postsecondary landscape. For example, no community colleges were included in the sample, nor were non-selective colleges. No minority-serving institutions, such as Historically Black Colleges and Universities or Hispanic-Serving Institutions were included in this study. Because these institutions were not included in the data gathering, students of color on predominantly Caucasian campuses comprise the sample. Following data screening and the elimination of outliers, usable data collected from students of color met minimal thresholds of statistical power for this study. In the future, the inclusion of more students of color would allow greater confidence in the findings.

The sample of this study is also disproportionately Caucasian, female, and under age 25 years. Although studies have indicated that the disproportionate response rate from Caucasian females in modern social science data collection is not a new phenomenon (Pike, 2008), the numbers in this study are not a representative sampling of American college students. Students included in this sample did not include adult learners of any type; thus the findings of this study should not be generalized to adult learners.

The instrument used to collect data for this project, *The Thriving Quotient*, is internally reliable (Schreiner, McIntosh et al., 2009); that is, the items are statistically consistent within the survey (Meeker & Escobar, 1998). However, little work has been published on *The Thriving Quotient* demonstrating that its measure of thriving is confirmed to actually quantify measures of human flourishing in participants; such confirmation is referred to as the concurrent validity of the instrument. It would be

valuable to know that a person who is measured to be thriving by the instrument would also be considered by others in their community to be a person who is thriving.

This study is also limited by how data were collected. Data for this study represent a one-time sample of thriving collected through a single survey in the second semester of the college academic year. In no way is this study able to explore the relationship between time and student thriving. Lastly, the study is correlational in nature. Correlational designs limit researchers to the exploration of relationships between variables; therefore, causal linkage between variables cannot be assumed or explored through correlational design.

Suggestions for Future Research

Research into student thriving, as defined in this study, is a relatively new area of the literature. Although others are exploring domains of flourishing in college students (see CU thrive: Students helping students, 2012; Thrive: Monitoring global progress toward improving health and wellbeing, 2010), no other research has conceptualized thriving in the same way. The current literature on thriving, as conceptualized for this study, remains limited. Future research into student thriving will provide a better understanding into which students are truly thriving, the ways in which they thrive, and the campus environments that foster thriving.

Because the research on thriving was limited to psychological measures that were amenable to change, no exploration of the relationship of thriving to other personality-related phenomenon was explored. Lounsbury and DeNeui (1995) noted that PSC is strongly correlated to personality type; they noted that extroverts experience higher levels of PSC than introverts. Although personality type was not the focus of the thriving

research, future study could explore the nature of the relationship between thriving and personality to provide richer meaning to the kinds of students who thrive on campus. Exploration of the relationship between personality type and thriving could be especially important in understanding the nuances in thriving among students of color.

Qualitative studies of thriving would positively contribute to the understanding of thriving in the literature. Qualitative studies of students who thrive and also of their languishing peers would add depth and richness to the current quantitative measurement of thriving. Individualizing the thriving experience through story and case study could provide greater understanding of the ways in which thriving impacts the individual during college.

Further studies in thriving should gather from a wider variety of institutional types (e.g., community colleges, HBCUs, non-selective) to gain a better understanding of the pathways to thriving for all students. Expanding the study of thriving to include a greater variety of institutional types should also afford researchers the ability to explore more facets of the American higher education landscape (e.g., adult learners, online learners). Increased responses from minority populations would also allow exploration of the nature of thriving among Native American groups and within ethnic-group exploration (e.g., Mexican-Americans, Puerto Rican Americans, Southeast Asians).

Conclusion

The landscape of higher education in America foreshadows increasingly diverse student populations on campus (Aud, Fox et al., 2010). Providing avenues of success in college for previously underrepresented student groups such as African Americans and Latinos has proven a challenge. On the other hand, Asian students fight an ongoing

battle against a "model minority" stereotype that keeps them marginalized on campus (Chang, 2008). Although the research exploring the behaviors associated with student success in college is expansive (e.g., CIRP at UCLA, or NSSE at Indiana University), research into the psychological factors that foster student success is more limited. This study utilized the framework of thriving to explore the pathways to success for students of color. This study identified that when split by ethnicity, variance exists in the pathways to thriving for students. For students of color, a psychological sense of community on campus was the chief mediating variable to thriving. Spirituality emerged as a significant contributor to a psychological sense of community for students of color. The results of this study are of particular relevance to student affairs professionals, faculty, staff, and senior administrators on college campuses.

When students feel a psychological sense of community on campus, they are more likely to thrive. The connection between a psychological sense of community and thriving was significant for all students in this study; however, the pathways to thriving for students of color were more limited than the pathways for Caucasian students. As the findings of this study suggest, spirituality is an important contributor to building a psychological sense of community on campus for students of color. Student-faculty interaction, along with campus involvement, are also contributors to thriving for many students and to a psychological sense of community for all students.

The student experience in college is complex. The time, effort, and resources put into a postsecondary education are daunting. Should campuses expect to graduate students of color in greater numbers than before, campus cultures will need to change. If college decision-makers and administrators truly embrace the diversity expected to arrive

on their campuses in the coming decades and provide space for all students to build a sense of community, then all students, including students of color, will find they will not only have an opportunity to survive college, but thrive while in college.

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APPENDIX A

PARTICIPANT RESPONSES BY ETHNIC GROUP

Appendix A

Participant Responses by Ethnic Group

Variables	Caucasian *N* = 6,188		African American *N* = 433		Latino *N* = 334		Asian *N* = 457	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Sum Thriving Factors								
SUM_AD	29.32	4.20	29.23	4.69	28.77	4.47	28.25	4.46
SUM_DC	28.65	3.79	29.28	3.98	28.99	4.37	27.88	4.14
SUM_ELI	22.15	4.09	22.24	4.76	22.69	4.39	21.48	3.91
SUM_PP	22.94	4.04	22.88	4.76	23.10	4.14	21.99	4.29
SUM_SC	12.34	3.66	11.83	3.88	11.78	3.72	11.11	3.60
Academic Determination								
EM1	4.89	0.91	4.80	1.02	4.72	1.06	4.61	0.99
EM3	4.55	1.12	4.37	1.24	4.33	1.18	4.31	1.16
ER3	4.58	1.02	4.64	1.09	4.49	1.09	4.49	1.00
Hope2	5.32	0.85	5.29	0.95	5.31	0.87	5.17	0.89
Hope6	5.22	0.81	5.20	0.91	5.13	0.88	4.94	0.93
SR2	4.74	0.94	4.93	0.93	4.80	1.01	4.73	0.93
Diverse Citizenship								
DIV1	4.55	0.93	4.72	0.96	4.70	1.02	4.61	0.89
DIV2	4.92	0.82	4.95	0.92	4.99	0.95	4.88	0.85
SRLS2	4.70	0.93	4.74	1.04	4.68	1.03	4.53	0.96
SRLS3	4.68	1.01	4.95	1.03	4.75	1.02	4.45	1.15
SRLS4	4.75	0.91	4.94	0.97	4.84	0.99	4.61	1.00
SRLS5	5.04	0.83	4.98	0.85	5.03	0.92	4.80	0.84
Engaged Learning Index								
ELI3	4.94	0.95	4.89	1.15	4.94	1.05	4.75	1.04
ELI5	4.78	0.96	4.81	1.14	4.86	1.05	4.68	0.98
ELI8	4.55	1.07	4.51	1.27	4.65	1.18	4.34	1.07
ELI9	4.30	1.07	4.42	1.20	4.49	1.12	4.28	1.04
ELI7_r	3.57	1.26	3.62	1.50	3.75	1.35	3.42	1.30
Positive Perspective								
Optimism2	4.08	1.11	4.38	1.24	4.20	1.17	4.03	1.19
Optimism3	4.48	1.07	4.62	1.20	4.59	1.09	4.50	1.09
Optimism4	4.98	0.94	4.95	1.13	4.99	1.04	4.65	1.05
SWB1	4.86	0.99	4.70	1.19	4.81	1.08	4.45	1.13
SWB2	4.54	1.10	4.24	1.27	4.51	1.15	4.35	1.16
Social Connectedness								
PosRel1_r	3.54	1.43	3.32	1.58	3.34	1.49	3.18	1.40
Posrel2_r	4.24	1.51	4.09	1.68	3.99	1.64	3.73	1.54
PosRel3_r	4.55	1.32	4.42	1.48	4.46	1.35	4.20	1.41
Psychological Sense of Community								
PSC1	4.85	1.10	4.85	1.21	4.93	1.04	4.82	1.03
PSC2	4.79	1.19	4.63	1.33	4.74	1.16	4.47	1.21
PSC3	5.07	1.07	4.62	1.30	4.87	1.17	4.79	1.14
PSC4	4.45	1.02	4.53	1.15	4.43	1.14	4.34	1.02
PSC5	4.06	1.24	4.38	1.26	4.10	1.28	4.19	1.12
PSC6	4.95	1.13	4.92	1.25	4.98	1.20	4.67	1.17
PSC7	4.47	1.22	4.45	1.30	4.32	1.34	4.16	1.29
PSC7_r	4.25	1.37	4.15	1.48	4.09	1.49	3.85	1.42
Spirituality								
Spirituality1	4.50	1.66	5.15	1.29	4.56	1.56	4.27	1.58
Spirituality2	4.36	1.69	4.93	1.34	4.31	1.58	4.11	1.64
Spirituality3	4.54	1.70	5.15	1.28	4.56	1.58	4.18	1.62
Student-Faculty Interaction								
FacInt	4.70	1.01	4.62	1.13	4.53	1.13	4.42	1.02
FacSat	4.71	1.01	4.59	1.15	4.61	1.12	4.44	1.04
Control Variables								
CampusAct	3.78	1.46	3.81	1.73	3.56	1.67	3.59	1.56
CommServe	3.32	1.62	3.26	1.86	3.40	1.79	3.12	1.66
EthnicOrgs	1.49	1.02	2.66	1.91	2.27	1.67	2.40	1.71
FirstChoice	1.28	0.45	1.54	0.50	1.43	0.50	1.53	0.50
FirstGen	1.81	0.39	1.66	0.47	1.48	0.50	1.70	0.46
HoursOff	2.13	1.80	2.59	2.24	2.92	2.30	2.15	1.85
HSGrades_r	5.23	0.97	4.67	1.12	4.78	1.14	5.05	1.03
Leader	2.88	1.85	2.72	1.85	2.97	1.89	3.03	1.87
MajorSure	5.19	1.17	5.04	1.37	4.96	1.38	4.91	1.28
StuOrgs	3.59	1.74	3.38	1.91	3.55	1.88	3.53	1.77

APPENDIX B

SURVEY INSTRUMENT

You are invited to participate in a survey as part of a national project on student success. Your confidentiality is protected, as no individual responses will be reported at any time. In addition, there are no questions that pose any risk to you. This survey will take about 15-20 minutes to complete. By submitting the completed survey electronically, you are granting us permission to use your results in our study.

First we'd like to know about your academic and studying experiences. To what extent do you agree with each of the following statements?

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I feel as though I am learning things in my classes that are worthwhile to me as a person.	◯	◯	◯	◯	◯	◯
I am motivated to do well in school.	◯	◯	◯	◯	◯	◯
I can usually find ways of applying what I'm learning in class to something else in my life.	◯	◯	◯	◯	◯	◯
When I become confused about something I'm reading for class, I go back and try to figure it out.	◯	◯	◯	◯	◯	◯
I actively pursue my educational goals.	◯	◯	◯	◯	◯	◯
I find myself thinking about what I'm learning in class even when I'm not in class.	◯	◯	◯	◯	◯	◯

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Even when course materials are dull and uninteresting, I manage to keep working until I finish.	◯	◯	◯	◯	◯	◯
I feel energized by the ideas I am learning in most of my classes.	◯	◯	◯	◯	◯	◯
I am bored in class a lot of the time.	◯	◯	◯	◯	◯	◯
I know how to apply my strengths to achieve academic success.	◯	◯	◯	◯	◯	◯

Now please think about your life right now as a college student on this campus as you answer these next questions.

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I feel like I belong here.	◯	◯	◯	◯	◯	◯
I am good at managing the many responsibilities of my daily life.	◯	◯	◯	◯	◯	◯
Being a student here fills an important need in my life.	◯	◯	◯	◯	◯	◯
I often feel lonely because I have few close friends with whom to share my concerns.	◯	◯	◯	◯	◯	◯
Students here know they can get help from others on campus if they are in trouble.	◯	◯	◯	◯	◯	◯
I give time to making a difference for someone else.	◯	◯	◯	◯	◯	◯
Students have a voice in what happens on this campus.	◯	◯	◯	◯	◯	◯

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I feel proud of the college or university I have chosen to attend.	◯	◯	◯	◯	◯	◯
My family approves of me attending this institution.	◯	◯	◯	◯	◯	◯
I can best understand someone after I get to know how he/she is both similar and different from me.	◯	◯	◯	◯	◯	◯
It's hard to make friends on this campus.	◯	◯	◯	◯	◯	◯
My family encourages me to complete my degree.	◯	◯	◯	◯	◯	◯
There is a strong sense of community on this campus.	◯	◯	◯	◯	◯	◯
My close friends encourage me to continue attending this school.	◯	◯	◯	◯	◯	◯

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I have the power to make a difference in my community.	○	○	○	○	○	○
I don't have many people who want to listen when I need to talk.	○	○	○	○	○	○
My spiritual or religious beliefs provide me with a sense of strength when life is difficult.	○	○	○	○	○	○
There are lots of ways around any problem.	○	○	○	○	○	○
Knowing how a person differs from me greatly enhances our friendship.	○	○	○	○	○	○
I can think of many ways to get out of a jam.	○	○	○	○	○	○
The conditions of my life are excellent.	○	○	○	○	○	○
I am good at managing my time so that I can fit everything in that needs to be done.	○	○	○	○	○	○

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
My spiritual or religious beliefs are the foundation of my approach to life.	◯	◯	◯	◯	◯	◯
I always look on the bright side o things.	◯	◯	◯	◯	◯	◯
I can think of many ways to get the things in life that are most important to me.	◯	◯	◯	◯	◯	◯
Other people seem to have more friends than I do.	◯	◯	◯	◯	◯	◯
Even when others gets discouraged, I know I can find a way to solve the problem.	◯	◯	◯	◯	◯	◯
I value opportunities that allow me to contribute to my community.	◯	◯	◯	◯	◯	◯
When things are uncertain for me, I usually expect the best.	◯	◯	◯	◯	◯	◯

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I'm optimistic about what will happen to me in the future.	◯	◯	◯	◯	◯	◯
I gain spiritual strength by trusting in a higher power beyond myself.	◯	◯	◯	◯	◯	◯
I am satisfied with my life.	◯	◯	◯	◯	◯	◯
I am willing to act for the rights of others.	◯	◯	◯	◯	◯	◯
I have friends on this campus upon whom I can depend.	◯	◯	◯	◯	◯	◯

Please rate your agreement with each of the items.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I am confident that the amount of money I'm paying for college is worth it in the long run.	◯	◯	◯	◯	◯	◯
I intend to re-enroll at this institution next year (graduating seniors please leave this blank!).	◯	◯	◯	◯	◯	◯
I intend to graduate from this institution.	◯	◯	◯	◯	◯	◯
Given my current goals, this institution is a good fit for me.	◯	◯	◯	◯	◯	◯
If I had to do it over again, I would choose a different college/university to attend.	◯	◯	◯	◯	◯	◯
I really enjoy being a student here.	◯	◯	◯	◯	◯	◯

How often do you participate in the following:

	Never					Frequently
Student organizations on campus	◯	◯	◯	◯	◯	◯
Campus events or activities	◯	◯	◯	◯	◯	◯
Leadership of student organizations	◯	◯	◯	◯	◯	◯
Interaction with faculty outside of class	◯	◯	◯	◯	◯	◯
Music or theater performance groups on campus	◯	◯	◯	◯	◯	◯
Fraternity/Sorority	◯	◯	◯	◯	◯	◯
Community Service	◯	◯	◯	◯	◯	◯
Religious services or activities	◯	◯	◯	◯	◯	◯
Campus ethnic organizations (such as Black Student Association)	◯	◯	◯	◯	◯	◯

Please rate your satisfaction with each of the following:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Satisfied	Very Satisfied
The amount you are learning in college.	◯	◯	◯	◯	◯	◯
The grades you are earning in college.	◯	◯	◯	◯	◯	◯
Your overall experiences on this campus so far.	◯	◯	◯	◯	◯	◯
The amount of contact you have had with faculty.	◯	◯	◯	◯	◯	◯
The academic advising you have received on this campus.	◯	◯	◯	◯	◯	◯
The kinds of interaction you have with other students on this campus.	◯	◯	◯	◯	◯	◯
The kinds of interaction you have with faculty on this campus.	◯	◯	◯	◯	◯	◯
Your current living situation.	◯	◯	◯	◯	◯	◯
Your physical health.	◯	◯	◯	◯	◯	◯
The interactions you have with s udenfs ɒ df ferent ethnic backgrounds.	◯	◯	◯	◯	◯	◯
The amount of money you personally have to pay to attend college here.	◯	◯	◯	◯	◯	◯
Faculty sensitivity t t e needs of diverse students.	◯	◯	◯	◯	◯	◯

Finally, please tell us a little about yourself. Your answers will be grouped with those of other students to help us understand our students better. No individual information will be reported for any reason.

What is your class level?

○ Freshman ○ Sophomore ○ Junior ○ Senior ○ Other

Other (please specify)

Are you the first in your immediate family to attend college?

○ Yes

○ No

What is your household income level?

○ less than $30,000 a year

○ $30,00 to $59,999

○ $60,000 to $89,999

○ $90,000 to $119,999

○ $120,000 and over

○ I don't know

Gender:

○ Female

○ Male

Age:

What is your enrollment status this semester?

○ Full-time student

○ Part-time student

How would you describe your grades in high school?

- ○ Mostly A's
- ○ Mostly A's and B's
- ○ Mostly B's
- ○ Mostly B's and C's
- ○ Mostly C's
- ○ Below a C average

What is the HIGHEST degree you see yourself obtaining at some point in your life?

- ○ None
- ○ Bachelor's
- ○ Teaching Credential
- ○ Master's Degree
- ○ Doctorate
- ○ Medical or Law Degree
- ○ Other

Do you live on campus?

- Yes
- No

Do you work on campus?

- yes
- no

How many hours per week do you spend working for pay off campus?

- none
- less than 5 hours per week
- 5-10 hours per week
- 11-15 hours per week
- 16-20 hours per week
- more than 20 hours per week

Did you transfer into this institution?

- Yes
- No

If you transferred into this institution, when did you transfer?

- within the last three months
- 3-6 months ago
- 7-12 months ago
- 13-18 months ago
- more than 18 months ago
- I did not transfer here

Race/Ethnicity:

- African-American/Black
- American Indian/Alaskan Native
- Asian-American/Asian/Native Hawaiian/Pacific Islander
- Caucasian/White
- Latino
- Multiracial
- International Student
- Prefer not to respond

Other (please specify)

What was your ACT or SAT admission score when you entered college?

- ○ 15-19 ACT or 740-940 SAT
- ○ 20-24 ACT or 950-1130 SAT
- ○ 25-29 ACT or 1140-1300 SAT
- ○ 30-34 ACT or 1310-1520 SAT
- ○ above 34 ACT or above 1520 SAT
- ○ don't remember or didn't take either test

How sure are you of your major?

- ○ Very Unsure
- ○ Unsure
- ○ Somewhat Unsure
- ○ Somewhat Sure
- ○ Sure
- ○ Very Sure

How often have you participated in service learning courses in college?

- not at all
- one course
- more than one course

Please indicate whether you have participated in any of the following activities while a student at APU:

	yes	no
served in an international context (e.g., Mexico Outreach or World Missions)		
servied in a local context (e.g., Azusa or Los Angeles)		
studied abroad		
done research with a faculty member		
attended Common Day of Learning		
presented at Common Day of Learning		
attended a research conference off campus		
presented at a research conference off campus		
conducted a research project as part of a class		

How often do you call or text home (parents or spouse/children) while you are on campus?

- never
- once a week or less
- 2-3 times a week or so
- about once a day
- 2-3 times a day
- 4 or more times a day

How often do you get less than 4 hours of sleep in a night?

- never
- rarely
- occasionally
- fairly often
- frequently
- almost always

Considering the financial aid you've received and the money you and your family have, how much difficulty have you had so far in paying for your college education?

- no difficulty
- a little difficulty
- some difficulty
- a fair amount of difficulty
- great difficulty

When you chose to enroll in this institution, was it your first choice?

- Yes
- No

How would you describe your grades in college so far?

- Mostly A's
- Mostly A's and B's
- Mostly B's
- Mostly B's and C's
- Mostly C's
- Below a C average

Are you a student athlete?

- Yes
- No

Please add anything else you think is important for us to know about your college experience. For instance, if you could change one thing, what would it be?

Please enter your student ID below, so that this research project can track your enrollment and GPA to help us better understand the elements of student success at this university. Your ID will never be released to anyone other than the researchers involved in this project.

By entering your e-mail address, you are automatically entered in a drawing for a $25 amazon.com gift card. We have 20 gift cards we are distributing at random; once we do that, all e-mail addresses will be removed from the database. Thanks so much for your time!

THANK YOU for your willingness to give us your time and feedback on this survey!