AZUSA PACIFIC UNIVERSITY

HISPANIC STUDENT THRIVING AT HISPANIC-SERVING INSTITUTIONS

by

Michael Christopher Allen

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

To my children, Caleb and Elizabeth, I look forward to watching you both accomplish things far greater than this study for many years to come.

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The list of people who helped and supported me through this process could fill another hundred pages all on its own. I want to start by thanking my family and friends. Kristi, Caleb, Elizabeth, and Jerry, I could never have completed this without your loving support. Chuck, Lynni, Penny, and Lorraine, your loving, grace-filled support of me through this process was worth much more than just money. My godparents, Marcia and Eddy Jacoby, thank you so much for the food, shelter, comfort, laughter, and patience! My close friends, Carrie, Becca, Ellen, Matt, Katie, Andrew, Melinda, and Luis, the last year was long, and I am standing here now because of your loving support.

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ABSTRACT

HISPANIC STUDENT THRIVING AT HISPANIC-SERVING INSTITUTIONS

Michael Christopher Allen
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Latino/as are the largest minority group within the United States and have the fastest projected population growth within the United States but currently have the lowest baccalaureate attainment rate of any racial or ethnic group. Traditional methods of measuring and supporting Latino/a students have not been successful and need reevaluation. Thriving has emerged as a concept that describes the psychological engagement required for students to succeed (Schreiner, 2010b). Students thrive when they function optimally academically, socially, and psychologically. The study was guided by the research question: To what extent do students' characteristics and campus experiences contribute to thriving for Latino/a students attending HSIs? Based upon a review of the relevant literature, a hypothesized structural model for explaining Latino/a students' thriving was developed. Thriving is measured using the Thriving Quotient, a 24-item online survey that has been found reliable in predicting traditional measures of student success such as college GPA and persistence. A sample of 501 Latino/a students

attending 5 Hispanic-serving institutions participated in this study, and their responses were analyzed using structural equation modeling. The final model predicted 73% of the variation within Latino/a students' thriving. Students' Psychological Sense of Community (β = .684), Institutional Integrity (β = .527), tuition worth (β = .433), and Spirituality (β = .333) had the largest total effects on students' thriving. Additional variables were significant but indirect contributors to the variation in student thriving, with much smaller total effects. Although many of these variables are congruent with previous literature, the emergence of financial issues as a significant predictor of Latino/a students' thriving represents a new finding within this study. Further discussion of these results, how the results agree with or diverge from the current literature, and how institutions might apply these results are also provided.

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CHAPTER 1

INTRODUCTION

Despite the increased number of Latino/as attending college (NCES, 2016e), decades of research on Latino/a student success (Hurtado, 1994; NCES, 1980), and programs intended to benefit Latino/a student success (Higher Education Act, 1992; Mercer, 2008), Latino/a graduation rates continue to lag behind their White peers (NCES, 2016e). Latino/as are the largest minority group in the United States, and they experienced the second largest population growth between 2000 and 2010 (U.S. Bureau of the Census, 2017). Government estimates predict that Latino/as will continue to be the largest minority population in the United States, and they will comprise approximately one-third of the population by 2060 (U.S. Bureau of the Census, 2012). Latino/as also now represent the largest minority group attending higher education (NCES, 2016d). Higher education and government policy have attempted to adjust to the influx of this historically underrepresented group.

The increased number of Latino/a students attending college has caused shifts within higher education. The Higher Education Act of 1992 provided the option for institutions with at least 25% Hispanic enrollment to be designated as a Hispanic-serving Institution (HSI). The HSI designation allows institutions access to government grants dedicated to the advancement of Latino/a students (Higher Education Act, 1992). Between 2004 and 2013, the number of HSIs increased from 238 to 370, and the number

of bachelor degrees awarded to Latino/a students increased by 71% (Excelencia in Education, 2015). The U.S. Department of Education's projections indicated Latino/a participation in higher education will continue to grow for the foreseeable future (Grace et al., 2015). Although Latino/a students comprise a significant percentage of the postsecondary student population, their rates of degree completion remain lower than other groups.

Latino/a Student Success

Latino/a participation in higher education has increased, but Latino/as continue to struggle with postsecondary completion more than any other racial or ethnic group in the United States (NCES, 2016c, 2017a). For example, Latino/as earn a greater number of bachelor's degrees than African-Americans or Native Americans, but their overall baccalaureate completion rate remains the lowest of any racial or ethnic group (NCES, 2016a, 2016c). In addition to possessing the lowest completion rate, projections indicate the percentage of Latino/as completing baccalaureate degrees will grow more slowly than Latino/a growth within the general population, resulting in a much larger number of Latino/a adults without a college degree over the long term (Excelencia in Education, 2015). With more Latino/a students enrolling but not successfully completing college, additional research on how to facilitate the success of this population is needed.

Researchers have identified a number of factors that contribute to the lower success rates among Latino/a students. For example, Latino/a students are more likely to begin their postsecondary career at a community college and are less likely to transfer to a 4-year institution than other racial/ethnic groups (CPEC, 2007; Fry, 2004; Sólorzano, Villalpando, & Oseguera, 2005). Latino/a students are more likely to enroll part-time,

regardless of institutional type, which is linked to lower success rates (Crisp & Nora, 2010; Fry, 2002). Latino/a students also tend to begin college later than other student groups, with the majority enrolling after the traditional 18- to 24-year-old age range (Fry, 2002; Sólorzano et al., 2005). These factors represent just a few of the barriers to Latino/a students' ability to thrive within higher education.

Astin (1984) theorized that student success originated from student engagement, postulating such engagement was both physical and psychological. Physical engagement included activities such as writing papers, reading books, and attending class. Psychological engagement referred to the "psychological energy that the student devotes to the academic experience" (Astin, 1984, p. 297). This psychological energy is an important factor in student success (Bean & Eaton, 2000), but researchers have tended to focus almost exclusively on Latino/a students' physical engagement.

The research conducted on Latino/a students' psychological engagement begins to provide insights on why Latino/a student success continues to fall below other groups. Indicators of lower levels of psychological engagement begin as early as the first year of high school for some Latino/a students. Turcios-Cotto and Milan (2013) found that compared to African-American and White students, Latino/a first-year high school students' 5-year plans evidenced significantly lower expectations of attending college, but significantly higher expectations of both materialistic success and parenthood. Researchers have also confirmed what Hernandez (2000) found in his seminal work, that Latino/a students who plan to attend college have higher levels of emotional stress than their peers because their decision was contrary to many cultural norms (Ojeda, Navarro, Meza, & Arbona, 2012; Torres, Howard-Hamilton, & Cooper, 2011). Because the way

students imagine themselves in the future affects future outcomes (Pizzolato, 2006; Pizzolato, Chaudhari, Murrell, Podobnik, & Schaeffer, 2008) these students' early decisions not to attend college or the additional stress caused by the decision to attend hampers Latino/a students' future ability to engage fully with higher education.

These negative influences during high school then exert negative influences on Latino/a students' ability to thrive within higher education. Schreiner (2010b) defined thriving students as those "who are fully engaged intellectually, socially, and emotionally" (p. 4) with their education. The thriving construct reliably accounts for significant additional variation in such traditional measures of students' success as college grade point average (GPA) and intent to persist (Schreiner et al., 2013; Schreiner, McIntosh, Kalinkewicz, & Propst Cuevas, 2013). Therefore, thriving represents a holistic way for researchers to measure students' engagement with their education and institution.

Latino/a students who attend college often face a number of psychological challenges that discourage thriving, however. Latino/a students may be the victims of racist actions, which decreases their desire to interact with other people on campus (Hurtado, 1994; Reynolds, Sneva, & Beehler, 2010; Zell, 2010). The presence of stereotype threat that occurs in academic environments where talented students of color are not expected to perform well can affect students' academic performance and lead to decreased engagement as well (Reynolds et al., 2010; Steele, 1997; Steele & Aronson, 1995).

In addition to interpersonal experiences that are hurdles to Latino/a student engagement, institutional characteristics can influence Latino/a students' ability to thrive.

For example, Latino/a students attending HSIs have reported a number of experiential differences compared to their peers at predominantly White institutions (PWI). Nelson Laird, Bridges, Holmes, Morelon, and Williams (2004) found Latino/a students at HSIs reported a more supportive environment and greater levels of overall development compared to Latino/a students at PWIs. This increased level of support and development can enhance students' sense of belonging (Strayhorn, 2008), which benefits Latino/a students' engagement (Hurtado, 1994; Nora & Cabrera, 1996; Nora, Cabrera, Serra Hagedorn, & Pascarella, 1996; Reason, Terenzi, & Domingo, 2007).

However, the research on Latino/a student thriving has been conducted with students attending PWIs. Researchers have consistently found Latino/a students have fewer pathways to thriving than their White peers at PWIs (McIntosh, 2012; Paredes-Collins, 2011; Petridis, 2015). Additional research on how Latino/a students thrive at HSIs is needed to help colleges and universities better serve Latino/a students.

Purpose Statement

The purpose of this research is to determine what factors contribute to Latino/a students' psychological and physical engagement with higher education. Thriving was selected as an indicator of this vital engagement because of its malleability and ability to predict student success (Schreiner et al., 2013). Students who thrive in college are more engaged and therefore more likely to complete their studies (Schreiner, 2010b, 2014; Schreiner et al., 2013). Because of the benefits found with attending an HSI, my hypothesis is that additional pathways to thriving may be found by studying Latino/a students attending HSIs. The study was guided by the research question: To what extent

do students' characteristics and campus experiences contribute to thriving for Latino/a students attending HSIs?

Significance of This Study

Latino/a students represent the fastest-growing group of college students within the United States (U.S. Bureau of the Census, 2012), but they are not completing college at the same rate as their peers from other ethnic groups (NCES, 2017a). These students spend their time and money on programs they do not complete, often resulting in debt they will struggle to repay (Zhan & Sherraden, 2011). American higher education is failing with its fastest-growing group of students.

To succeed with this group of students, U.S. colleges and universities may need to reexamine their definition and measurement of student success (Schreiner, 2015). Tinto (1975) and Astin (1984) established that student success, in the form of grades and graduation rates, are a result of the interactions and experiences students have with their institutions for the 4 or more years that culminate in a degree. To succeed with Latino/a students, researchers must examine how Latino/a students are experiencing all aspects of their education. This study explores how Latino/a students attending institutions in significant numbers interact with those institutions academically, interpersonally, and intrapersonally.

Gaining additional understanding of the holistic nature of Latino/a student success will provide higher education institutions with vital information on how to better help these students succeed. Institutions that do not yet have enough Latino/a students to qualify for HSI status may identify success areas from this study that can be reproduced with their current student body. Institutions that do enroll enough Latino/a students to

qualify for HSI status may identify success areas present within the study they do not have on their campus and use that information as the basis for further investigation and improvement. This study can potentially enable all U.S. colleges and universities to better serve the unique needs of their Latino/a students.

Definition of Terms

Hispanic Versus Latino/a

Hispanic is used only in reference to labels assigned by the U.S. government. The term *Latino/a* is used to describe all students who identify their ancestry as associated with Latin America, including Puerto Rico and Mexico. Students who self-identified using an online survey as ethnically Latino/a were included in this study regardless of racial identity. The survey does not distinguish between the various national origins that compose the Hispanic or Latino/a labels (Page, 2013). Due to the current political climate, including a federal administration with ongoing political tension with Latino/a groups (Reilly, 2016), I decided not to ask students to provide nationality information.

Hispanic-Serving Institution

For the purpose of this study, the federal government's definition of an *Hispanic-serving Institution* (HSI) isused; that is, an HSI is any 4-year baccalaureate granting institution whose student body is composed of a minimum of 25% of students who self-identify as Hispanic or Latino/a (Higher Education Act, 1992). All students who self-identify as Hispanic or Latino/a are included in the percentage, regardless of any additional racial identities. Although additional requirements exist to qualify for federal HSI grants, those institutional finance factors are not included in this study.

Student Demographic Characteristics

Student demographic characteristics are those variables over which students exercise little to no control (Tinto, 1975). For example, gender and first-generation status are both variables outside students' control. Variables such as ability to pay for college and on-campus residency may be influenced by students, but are still largely affected by outside forces, such as parents' income level. The complete listing of these variables is provided in Chapter 2.

Campus Experiences

Campus experiences refers to how frequently students participate in institutional activities (McIntosh, 2012). These activities include student organizations, community service, and events. It is important to note that some of these activities may occur off the physical campus, but would still be included within this measure. The complete listing of these variables is provided in Chapter 2.

Thriving

Thriving is the dependent variable in this study; it is conceptualized as optimal academic, intrapersonal, and interpersonal functioning in college (Schreiner, 2010b). Thriving is measured using the Thriving Quotient, an online, 24-item survey found to be reliable and valid (Schreiner et al., 2013). All items on the Thriving Quotient utilize a 6-point Likert-scale for measurement.

Thriving consists of five sub-scales: Academic Determination, Engaged Learning, Positive Perspective, Diverse Citizenship, and Social Connectedness. *Academic Determination* measures students' ability to self-regulate learning, set goals, and master the learning environment. *Engaged Learning* measures the extent to which students

process course information in meaningful ways, take the time and effort to think about course information outside of class, and are energized by the prospect and process of learning new information. *Positive Perspective* measures students' optimism. *Diverse Citizenship* measures students' openness to diversity and desire to create change for their community. Finally, *Social Connectedness* measures students' level of meaningful relationships from which they can draw support.

Psychological Sense of Community

Psychological Sense of Community (PSC) is a latent independent variable that measures students' sense of belonging and belief that they are a meaningful part of their community. PSC is measured using six items based on Schreiner's (2013b) and McMillan and Chavis's (1986) concept of sense of community. This factor measures the extent to which students feel they belong as a member of the campus community, that members are important to one another, that the group will meet their needs, and that they have a voice within the group (Schreiner, 2013b).

Institutional Integrity

In this study, *Institutional Integrity* refers to how well institutions fulfill the promises they make to students. These promises are most frequently made during the admissions process but can originate at any point during students' time with the institution. This latent factor is measured using three items adapted from Braxton, Hirschy, and McClendon (2004): the extent to which expectations are met, the degree to which the institution was accurately portrayed during the admissions process, and the extent to which faculty and staff embody the mission of the institution in their daily actions. Students with higher levels of institutional integrity experience increased

academic and persistence outcomes (Braxton, Jones, Hirschy, & Hartley, 2008). Institutional integrity has been found to be a reliable factor and a significant predictor of PSC for students of color (Ash & Schreiner, 2016).

Spirituality

Spirituality refers to the ways students' spiritual or religious beliefs serve as a coping resource and foundation for decision-making in life. This three-item latent factor is based on the Religious Commitment factor developed by Astin, Astin, and Lindholm (2011a). Spirituality helps students cope with and make meaning out of difficult and complicated situations, which can be particularly important for Latino/a students (Salas, Aragon, Alandejani, & Timpson, 2014). The Spirituality factor has been found reliable and significant for Latino/a students' thriving (McIntosh, 2012).

Student-Faculty Interaction

Student-faculty interaction refers to students' perceptions of the quantity and quality of their interactions with their instructors. This eight-item latent factor measures how frequently students interact with faculty, the quality and type of interactions, and students' satisfaction with the interactions. Researchers have found student-faculty interactions significantly predict Latino/a students' thriving (McIntosh, 2012), and the factor has been found to be reliable (Petridis, 2015)

Campus Involvement

The concept of *campus involvement* refers to how frequently students participate in organized institutional activities, including those activities that may occur off-campus, such as community service. This five-item factor has been found to be reliable

(McIntosh, 2012) and is a significant predictor of Latino/a students' PSC (Schreiner, 2014).

Summary

This chapter reviewed the problem of Latino/a student success. Latino/as are the largest minority group in the United States (U.S. Bureau of the Census, 2017), yet have the lowest overall baccalaureate attainment rate (NCES, 2016e). Issues associated with Latino/a student thriving were also reviewed. The purpose and importance of this study, the research question that guided the study, and an overview of how specific terms and phrases used within the context of this study were also provided.

CHAPTER 2

LITERATURE REVIEW

This chapter presents a review the literature associated with Latino/a students in higher education and research conducted on Latino/a student success, as well as literature on college student thriving, with a particular emphasis on the pathways to thriving among Latino/a students. The conceptual framework of thriving is described, and research conducted on Latino/a student thriving is evaluated.

Latino/as and Higher Education

Decades ago, researchers began to identify the primary forces contributing to Latino/a college student success, as well as the significant barriers to that success (Hurtado, 1994; Hurtado & Carter, 1997; Hurtado, Carter, & Spuler, 1996; Nora & Cabrera, 1996; Nora et al., 1996). However, the identification of these contributors and barriers, along with continued efforts to improve the success of Latino/a students, has not resulted in greater persistence to graduation (Gonzalez & Morrison, 2015; Kiyama, Museus, & Vega, 2015; Núñez, Hoover, Pickett, Stuart-Carruthers, & Vásquez, 2013). The following sections review the historical, secondary, and postsecondary catalysts for Latino/a students' lower rates of bacclaureate completion.

Historical Lack of Recognition

Latino/as did not receive official recognition from the federal government as a distinct ethnic group until much later than other historically underrepresented groups.

The term Hispanic was created by the U.S. government in 1973 (Trevino, 1987). Because this recognition did not occur until the 1970s, the first research on self-identified Latino/a students did not occur until 1980 (NCES, 1980). Prior to this designation, researchers attempted to identify Latino/a students based on students' surnames (MacDonald & Garcia, 2003). The Higher Education Act Amendments of 1984 provided grant funds for institutions whose student bodies contained high Latino/a representation, but the term Hispanic-serving institution (HSI) did not become a federally recognized institutional designation until the Higher Education Act of 1992. Therefore, although researchers have been able to segment and investigate other groups over a longer period of time, research on Latino/a success is still comparatively new (MacDonald & Garcia, 2003). The research remains complicated by the broad range of nationalities included within the Latino/a and Hispanic designations (Page, 2013; Trevino, 1987) and the current negative political climate associated with increased tension with the Latino/a community (Reilly, 2016).

Lack of Financial Resources

Lack of financial resourncs directly affects students' participation in and completion of higher educaiton. Fewer than half of students from low-income backgrounds enter college the fall semester after completing high school (NCES, 2016b). Those students from low socioeconomic backgrounds who do enter college are more likely to do so at less selective institutions and are less likely to complete a degree (Flores & Oseguera, 2013). Fewer than 10% of people who grow up in poverty will complete a bachelors degree by age 24 years (Mortenson, 2012). Latino/a students have reported

that money is a primary influence on their persistence decisions (Ganderton & Santos, 1995; Gonzalez, 2015).

Latino/as have faced a significant historical income disparity when compared to Whites in the United States. The overall poverty rates of Latino/as in the United States has changed little since 1970 (Orrenius & Zavodny, 2011). Although the median income for Latino/as in the United States increased from aproximately $30,000 to $35,000 from 1996 to 2008, it remained significantly lower than White families, whose median income remained at or above $50,000 per year during the same period (Monnat, Raffalovich, & Tsao, 2012).

Secondary Education

Higher poverty rates also affect the level of academic preparation Latino/as receive during their secondary education. Students from low socioeconomic backgrounds are more likely to attend underfunded high schools that cannot provide the support services students need (Blustein, Kenny, & Kozan, 2014). Secondary schools with large numbers of low socioeconomic students are also less likely to provide the academically rigorous coursework that prepares students for the academic work encountered in postsecondary education (Venezia & Jaeger, 2013). The less academically rigorous coursework may be in part due to the difficulty these schools have recruiting qualified and trained teachers (Blustein et al., 2014).

In addition to providing students with fewer academic resouces, many secondary schools have policies that exert negative pressure on students of color. Conchas (2001) noted in his seminal study that "cultural and structural processes [in] high school divided students by race and distributed opportunities among students in a way that reinforced

social inequities" (p. 484). For example, policies that focus on preparing students for standardized exams in high school detract from the academic preparation Latino/a students need to succeed (Martinez & Welton, 2014; Ruecker, 2013). This negative pressure results in Latino/a students participating in college preparation courses less frequently than Whites (Zarate & Burciaga, 2010). Latino/a students also struggle with overrepresentation in special education programs (Saenz & Ponjuan, 2009). Curricular choices that favor majority authors make it more difficult for students of color to imagine themselves in advanced positions that require college educations (McLaren, 2009).

These policies and school cultures result in both micro- and macro-level aggressions toward Latino/a students. Latino/a students who prepare for college are often shunned by their peers during high school (Conchas, 2001; Strayhorn, 2010). Some Latino/a students have described high school faculty and staff actively attempting to dissuade them from attending postsecondary education (Graff, McCain, & Gomez-Vilchis, 2013; Marsico & Getch, 2009). These negative experiences harm Latino/a students' ability to engage fully when they do go to college (Saenz, Ngai, & Hurtado, 2007).

All of these negative experiences during their secondary education affect Latino/a students' postsecondary plans. Beginning as early as their first year of high school, fewer Latino/a students intend to pursue postsecondary education than their White or African-American peers (Hernandez, 2002; Turcios-Cotto & Milan, 2013). The tendency to avoid higher education then has a snowball effect, as researchers have found the number of Latino/a peers a Latino/a student has in high school who intend to pursue higher education is a strong predictor of whether or not that student will attend college

(Alvarado & López Turley, 2012; Arbona & Nora, 2007). Given the number of their peers who do not plan to attend college and the associated sociocultural pressure, it is not surprising that Latino/a high school students who do plan to attend college experience significantly higher stress levels than their counterparts (Turcios-Cotto & Milan, 2013).

In addition to having direct negative effects on students, these policies and behaviors harm Latino/a students by undermining their support structures. Parents of Latino/a students are often marginalized or ignored by secondary school employees (Auerbach, 2002). The assumption of many of these high school employees is the parents do not know enough about college to have a valid opinion. This marginalization directly affects parents' ability to intercede on their students' behalf (Auerbach, 2002; Hernandez, 2000, 2002). Latino/a parents' inability to intercede to obtain additional instructional support students may need then negatively affects Latino/a students' academic preparedness when they enter higher education (Charles, Roscigno, & Torres, 2007).

Postsecondary Transition

The effects of Latino/a students' negative encounters with education during high school can then be seen in college. The majority of Latino/a students begin their postsecondary education at a 2-year institution, rather than a baccalaureate-conferring college or university (NCES, 2016c; Núñez, Johnelle Sparks, & Hernández, 2011; Sólorzano et al., 2005). Although the rate at which Latino/a students' transfer from two-year to 4-year institutions has increased over the previous 10 years from approximately 10% to 25%, Latino/a transfer and completion rates remain below that of Whites, which are at approximately 50% (Contreras & Contreras, 2015). This low transfer rate is due, in

part, to the lower levels of academic preparation Latino/as receive in high school (Ganderton & Santos, 1995; Nora & Crisp, 2012), which result in Latino/a students' overrepresentation in remedial coursework (Grimes & David, 1999; Penny & White, 1998; Valliani, Siqueiros, Ryan, & Dow, 2015). For Latino/a students, starting their baccalaureate career at a 2-year institution significantly reduces the likelihood they will ever complete a bachelor's degree (Arbona & Nora, 2007; Valliani et al., 2015).

Higher education research has found for decades that institutions' campus climate toward diversity directly influences Latino/a students' persistence and completion rates (Hurtado, 1994; Hurtado & Carter, 1997; Hurtado et al., 1996). If students feel that they are not welcome or do not belong on campus, then they may leave (Smith, 2015). Latino/a students who face discrimination on campus are more likely to feel they do not belong and therefore may not persist to completion (Arbona & Nora, 2007; Hurtado & Carter, 1997; Locks, Hurtado, Bowman, & Oseguera, 2008).

One potential reason Latino/a students leave higher education prior to degree completion is their experience with faculty and staff. Negative interactions with faculty and staff can influence Latino/a students' perceptions of the institution's climate toward diversity (Hurtado, Ruiz Alvarado, & Guillermo-Wann, 2015). Some Latino/a students have reported negative interactions with faculty and staff as a deterrent to continuing their degree (Gross, Zerquera, Inge, & Berry, 2014). However, the relationship between Latino/a students and faculty and staff is not always negative, and the potential positive effects of faculty and staff are described later in this chapter. The complex way Latino/a students engage with higher education requires a multifaceted approach to understanding how Latino/a students can succeed.

Hispanic-Serving Institutions

One aspect of Latino/a student success is attending an HSI. Although HSIs currently compose fewer than 10% of total postsecondary institutions within the United States, they enroll more than 50% of all Latino/as within higher education (Gastic & Nieto, 2010). For example, attending an HSI can result in higher levels of intrinsic motivation and academic achievement (Trevino & DeFreitas, 2014). Attending an HSI also positively influences Latino/a students' academic engagement and perceived cognitive gains, although this influence was stronger for first-year students than for seniors (Fosnacht & Nailos, 2015). For Latino/as, attending an HSI also increases the likelihood of majoring in a science, technology, engineering, or mathematics (STEM; Crisp, Nora, & Taggart, 2009). In contrast, Garcia (2013) found in a study of 296 HSI and non-HSI institutions that the percentage of Latino/a faculty and staff or students was not predictive of Latino/a students' graduation rates. The inclusion of non-HSI institutions in the study may have skewed the results, and Garcia did not conduct a multi-group analysis (MGA) to confirm if attending an HSI affected the results.

Some of the positive outcomes associated with Latino/a students attending an HSI may be associated with the distinct ways Latino/as engage with HSIs. For example, compared to their peers at PWIs, Latino/a students at HSIs identified more resources to increase their sense of belonging on campus and reported receiving additional peer support in academic areas such as choosing a major (Musoba, Collazo, & Placide, 2013). Additionally, Musoba and Krichevskiy (2014) found that along with high school GPA, taking English and math courses their first year was predictive of Latino/a students' persistence at HSIs, and this combination of predictors contributed uniquely to the

variance in persistence when compared to White and African-American students at the same institutions. However, Latino/a students also identified similar challenges as their peers at PWIs, such as not fully understanding institutional policies and experiencing negative consequences for that lack of knowledge (Musoba et al., 2013).

Student Success and Persistence Theories

The factors and characteristics that influence students' persistence and completion decisions has been a significant area of research for more than 40 years. In 1975, Tinto published his theory for why students leave school before completing their degree. His initial theory was that students enter college with a set of characteristics, such as educational and family background. The institution also had a set of pre-existing characteristics, such as institutional type, governance model, and campus climate. The interaction between students' and institutional characteristics influenced students' persistence decisions. Although expanded upon in later years (Tinto, 1986, 1993), Tinto's original theory placed little value on students' personal behaviors or motivations to attend or complete college, but rather on the academic and social integration of the student into the institutional culture.

Astin (1984) expanded upon Tinto's (1975) theory with his model of student involvement. Astin's model stated that student success originated from a combination of students' entry characteristics and engagement with their institution. His model followed the input-environment-outcome (IEO) flow, with input representing student and institutional characteristics, environment representing students' engagement with the institution, and ultimate endogenous variable representing students' learning outcomes and persistence decisions. Astin postulated student engagement took two forms: physical

and psychological. Physical engagement referred to the amount of time students spent working on academic tasks. Psychological engagement referred to the "psychological energy that the student devotes to the academic experience" (p. 297). The interaction between student and institutional characteristics, therefore, only affected students' retention decisions to the extent those interactions affected students' ability to engage with the institution.

The concept of student and institutional characteristics interacting to affect students' engagement was expanded by Bean and Eaton (2000). These authors developed a psychological framework that accounted for how student-institution interactions affected various aspects of students' mental and emotional states within Astin's (1984) IEO model. Bean and Eaton's psychological model used factors such as locus of control (Weiner, 1986), coping behavior (Lazarus, Averill, & Opton, 1974), and self-efficacy (Bandura, 1997) to describe the psychological reasons for students leave before completing their degree. Subsequent research has confirmed psychological factors may contribute more to students' persistence and success than entry characteristics (Johnson, Wasserman, Yildirim, & Yonai, 2014; Robbins et al., 2004).

Conceptual Framework

Schreiner's (2010b) concept of *thriving* is the conceptual framework that undergirds this study. Derived from Bean and Eaton's (2000) psychological model of student retention, as well as from research in positive psychology on human flourishing (Keyes & Haidt, 2003; Seligman, 2011), thriving is defined as optimal intellectual, interpersonal, and psychological functioning (Schreiner, Louis, & Nelson, 2012).

Flourishing refers to positive emotions, engagement, positive relationships, meaning and purpose, and accomplishment (Seligman, 2011). In developing the construct of thriving, Schreiner (2010b) included these components of flourishing and expanded them to include academic items:

> Thriving students are engaged in the learning process, invest effort to reach important educational goals, manage their time and commitments effectively, connect in healthy ways to other people, are optimistic about their future and positive about their present choices, are appreciative of differences in others, and are committed to enriching their community. (p. 4)

The operationalization of thriving consists of five latent variables that encompass academic, intrapersonal, and interpersonal domains (Schreiner, 2010b). The five latent variables include the scales of Academic Determination, Engaged Learning, Positive Perspective, Diverse Citizenship, and Social Connectedness. Each latent construct measures a specific area of students' engagement and well-being. Measured together, these factors compose the second-order latent construct of thriving (Schreiner et al., 2013).

Academic Thriving

Students thrive academically when they psychologically invest in the learning process (Schreiner et al., 2013). The concept of students' psychological investment can be found in the literature going back more than 30 years (Astin, 1984). Academic thriving consists of Academic Determination and Engaged Learning (Schreiner, 2010b) and has been linked to students' college GPAs, satisfaction, and intent to persist to

graduation, as well as their self-reported learning gains and the perceived value of their tuition (Schreiner et al., 2013; Schreiner, Pothoven, Nelson, & McIntosh, 2009).

Academic determination. Students demonstrate academic determination when they invest psychological effort into their academic work and experience high levels of academic self-efficacy, as well as when they self-regulate their time and commitments and apply their strengths to academic challenges (Schreiner et al., 2013). Unlike grit and perseverance (Bowman, Hill, Denson, & Bronkema, 2014), Academic Determination is malleable (Schreiner, 2010b). As Robbins et al. (2004) found, psychological investment and study skills contributed to student success more than "socioeconomic status, standardized achievement, and high school GPA" (p. 261), and previous research has established Academic Determination's reliability and construct validity (Petridis, 2015; Schreiner et al., 2013).

Thriving students know how to apply their strengths to the challenges they face. As Schreiner (2013a) noted, students can use and build upon the assets that have enabled them to be successful in the past to improve their academic outcomes. Incorporating students' strengths can help students select majors where they will experience higher levels of success (Leach, 2014). However, the level at which students benefit from strengths is highly individualized and dependent upon students' ability to integrate their strengths profile into their previously held paradigm of self-belief and understanding (Pritchard, 2009).

Students who are able to apply their strengths to their academic work are more likely to feel they are capable of completing their academic tasks (Leach, 2014). Academic self-efficacy represents how strongly a student believes he or she can

overcome whatever obstacles are present and complete assigned academic tasks (Chemers, Hu, & Garcia, 2001). Self-efficacy influences students' academic performance, stress levels, and physical health. Robbins et al. (2004) found this self-belief to be a top predictor of students' GPA. The more strongly students believe they are capable of completing their academic work or overcoming academic obstacles, the more likely they are to succeed (Chemers et al., 2001; Coyle, 2009; Dweck, 2006).

However, even highly motivated and confident students run the risk of becoming overwhelmed with the number of tasks associated with successfully completing their academic work, social commitments, and basic daily needs. Students must be able to self-regulate their learning, which Pintrich and Zusho (2002) defined as the "active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior in the service of those goals" (p. 250). Students' characteristics, classroom context, and motivation all affect students' ability to self-regulate their learning (Pintrich & Zusho, 2007). An older student in a major course with an engaging and dynamic instructor will likely have an easier time self-regulating his or her learning than a younger student enrolled in a general education course whose instructor relies solely on lecture. The more students can actively plan, monitor, act, and reflect on their education, the higher their level of self-regulation and learning (Pintrich & Zusho, 2002, 2007; Svinicki, 2004).

Part of how students self-regulate their learning is through time management (Pintrich & Zusho, 2007). The ability to manage workloads and schedules are important skills for any college student (Kelly, Lavergne, Boone, & Boone, 2012; Lichtinger & Kaplan, 2011; Pintrich, 2002; Schreiner, 2010b; Sparkman, Maulding, & Roberts, 2012).

College students have more responsibility for tracking and completing their academic work and increased social demands compared to secondary school, which results in an increased demand for time-management skills (Lichtinger & Kaplan, 2011). Although time management alone is insufficient for students to thrive, lacking effort regulation and time management skills can result in sufficient stress to prevent thriving (Lichtinger & Kaplan, 2011; Schreiner, 2010b) and can negatively influence student persistence (Kelly et al., 2012).

Although these elements of Academic Determination may enable all college students to succeed, Latino/a students particularly benefit from the components of Academic Determination in college. For example, researchers have found that academic self-efficacy is predictive of Latino/a students' retention and ability to interact effectively with people from different racial and ethnic groups (Graff et al., 2013; Zell, 2010). Latino/a students, especially those who have attended high schools that provided poor academic preparation, are more likely to succeed when they believe they are capable of completing their academic tasks (Graff et al., 2013; Hernandez et al., 2010).

The ability to manage their time can also be especially crucial for Latino/a students to balance academic and personal requirements (Graff et al., 2013; Hernandez, 2000; Musoba et al., 2013). Latino/a students can experience increased pressures to support their household (Dika & D'Amico, 2015; Graff et al., 2013; Hernandez, 2000; Urias & Wood, 2015), as well as cultural pressure to maintain close ties to old friends in their home communities, all of which require time (Curtis, 2015; Heifetz, Grashow, & Linsky, 2009; Katsiaficas et al., 2016; Pyne & Means, 2013; Turcios-Cotto & Milan, 2013). Therefore, researchers have found Latino/a students benefit from establishing and

maintaining time management goals that ensure sufficient time-on-task for academic work (Musoba et al., 2013; Urias & Wood, 2015).

Research on intrinsic and extrinsic motivation for Latino/a students, however, has not always aligned with the research published on the general populace. Intrinsic motivation helps Latino/a students overcome institutional barriers (Conchas, 2001), including racist comments and experiences (Reynolds et al., 2010; Yosso, Smith, Ceja, & Solórzano, 2009), yet Reynolds et al. (2010) found racism-related stress was positively correlated with Latino/a students' intrinsic motivation. Therefore, Latino/a students felt more internally motivated to succeed in higher education when they faced racial prejudice. In contrast to much of the literature on the importance of intrinsic motivation (Ryan & Deci, 2000; Svinicki, 2004), extrinsic motivation, especially from family, was found to exert a powerful positive influence on Latino/a students' success (Enriquez, 2011; Prospero, Russell, & Vohra-Gupta, 2012). This finding may be due to cultural expectations that the student is pursuing higher education not only to better himself or herself, but alsoto benefit his or her entire family or community (Conchas, 2001; Enriquez, 2011; Hernandez, 2000; Musoba et al., 2013). In researching Latino first-generation students, Trevino and DeFreitas (2014) found research on intrinsic motivation for this group "is lacking" (p. 298), and continued the remainder of their article under the assumption intrinsic motivation benefits Latino students in similar manners to other groups. However, Urias and Wood (2015) found intrinsic motivation positively affected Latino students' retention and increased their comfort with the idea that higher education exists for both men and women. Additional research on how intrinsic motivation benefits Latinos appears to be needed.

Engaged learning. Time management skills are important for college students because students must spend sufficient amounts of time engaging their academic work to learn the material. However, simple physical engagement with academic work, as measured by many standard measures of student engagement, such as the National Survey of Student Engagement (NSSE), does not adequately explain how students learn (Bean, 2005; Schreiner & Louis, 2011). Therefore, Schreiner and Louis (2011) created the Engaged Learning Index "to measure cognitive, affective, and behavioral components of engaged learning" (p. 6).

Engaged Learning begins with the physical engagement of academic work and expands to include the psychological work of processing and making connections associated with deeper levels of learning (Schreiner, 2010b). Students exhibiting high levels of engaged learning have many of the characteristics of a person who is in *flow* (Csikszentmihalyi, 1990; Schreiner & Louis, 2011). Originally conceptualized by Csikszentmihalyi (1990), flow can be found in college students who experience an increased level of awareness and attention toward challenging academic material (Coyle, 2009; Schreiner & Louis, 2011). Students experience flow when they encounter difficult material they find highly engaging and stretches them slightly beyond their current abilities. Differentiated from other intense periods of studying, flow involves a high level of both mental and physical absorption with the material (Steele & Fullagar, 2009). Steele and Fullagar (2009) found faculty support of students' autonomous learning also benefitted students' flow.

Students deepen their learning through a focus on creating connections between new and old information, rather than relying on rote memorization (Coyle, 2009;

Schreiner & Louis, 2011; Svinicki, 2004). The mental effort required for students to make connections between their academic work and professional lives deepens learning (Bain, 2011; Carnes, 2010; Coyle, 2009; Inglis, Dawson, & Nishioka, 2014; Svinicki, 2004). One of the primary deep learning habits measured by the Engaged Learning scale is the level to which students connect their academic work with their non-academic lives (Schreiner et al., 2013). These mental connections can benefit student success and can result in higher college GPAs (Bain, 2011; Svinicki, 2004). The inclusion of deep learning habits separates Engaged Learning from other measures of learning engagement (Schreiner, 2010b; Schreiner & Louis, 2011), and previous research has confirmed Engaged Learning as a reliable and valid factor (Petridis, 2015; Schreiner et al., 2013).

Latino/as benefit from deep learning activities in similar ways to other populations. Making connections between their academic work in their current or future professional lives helps Latino/a students increase both their retention and GPA (Stern, 2014). For example, making connections between their academic work and personal lives increased Latino/a students' retention and GPA in at least three specific studies (Graff et al., 2013; Stern, 2014; Zell, 2010). In addition, understanding how their coursework benefited their families helped Latino/a students persist through difficult times, including coping with such problems as stereotype threat (Conchas, 2001; Enriquez, 2011; Hernandez, 2002).

Researchers have found developing a relationship with a Latino/a mentor helps Latino/a students more effectively make these connections (Cerezo, Lyda, Beristianos, Enriquez, & Connor, 2013; Salas et al., 2014). In addition to helping Latino/a students successfully navigate institutional policies and procedures, mentors were able to more

effectively communicate how students' academic work connected to students' broader lives. A shared cultural understanding allowed the mentors to use more impactful language and allowed the students to be more receptive to what the mentors communicated.

Intrapersonal Thriving

Intrapersonal thriving focuses on students' optimism (Carver, Scheier, & Segerstrom, 2010; Schreiner, 2010b; Schreiner et al., 2013). Schreiner et al. (2009) referred to this mindset as Positive Perspective. In his seminal work, Seligman (1990) described an explanatory style as the way people explain negative events to themselves. According to Seligman, people with an optimistic explanatory style are more likely than those with a pessimistic style to believe negative events are temporary and indicative of external circumstances, rather than personal characteristics. He also stated it is possible for people to learn how to change their thinking from a pessimistic to an optimistic orientation.

The positive outlook associated with optimism is "foundational to thriving" (Schreiner, 2010b, p. 6). When negative events occur, optimistic students acknowledge the problem, but maintain a positive outlook for the future (Carver et al., 2010). This positive outlook helps students confront obstacles directly, rather than avoid them. This direct approach to problem solving increases the likelihood the student will resolve the issue, which helps increase the continuity between students' positive expectations and their experienced reality (Ryan & Deci, 2001). In addition to benefitting students' well-being, students' optimism leads to increased retention and college GPA (Carver et al., 2010; Chemers et al., 2001; Solberg Nes, Evans, & Segerstrom, 2009).

Latino/a students who maintain a positive outlook can better overcome the obstacles they encounter in higher education. Latino/a students with higher levels of optimism more consistently overcome institutional barriers, such as racist policies and procedures (Conchas, 2001). Maintaining an optimistic attitude also helps Latino/a students overcome negative, frequently race-based, interpersonal experiences with peers, faculty, and staff (Enriquez, 2011; Graff et al., 2013; Hernandez, 2000; Yosso et al., 2009). Expecting a positive outcome and then directly confronting barriers to that positive outcome represents a key strength for Latino/a students.

Gloria, Castellanos, and Orozco (2005) found in their seminal study that planning and then taking constructive action to resolve problems was the key factor in Latino/a students' psychological well-being. Researchers further found that Latino/a students tend to have higher levels of psychological well-being than their peers (Bowman, 2010b). It is important to note that Latino/a students often find methods of protecting their well-being that help them endure the challenges they face in higher education (Perez, Espinoza, Ramos, Coronado, & Cortes, 2009). By maintaining close familial and peer relationships, Latino/a students build support networks that reinforce their well-being and help them endure negative experiences. These support structures may explain why Latino/a students experience higher levels of well-being, but lower levels of postsecondary success.

Interpersonal Thriving

Although students require a strong, positive inward focus to thrive, thriving also requires healthy relationships with others (Schreiner, 2010b; Schreiner et al., 2013). Whether it is relationships with family (Hernandez, 2000), other students (Musoba et al.,

2013), or faculty and staff (Schreiner, Noel, Anderson, & Cantwell, 2011), students require supportive relationships with other people to successfully complete college. Researchers have found interpersonal thriving, composed of Diverse Citizenship and Social Connectedness, is associated with increased college retention, college GPA, academic and social engagement, and degree completion (Schreiner, 2010b, 2014; Schreiner & Louis, 2011; Schreiner et al., 2013).

Diverse citizenship. Diverse citizenship measures a combination of students' openness to people and ideas from diverse groups and the belief they are capable of affecting positive change in their environment (Schreiner et al., 2013). Petridis (2015) noted that a student who exhibits Diverse Citizenship "embraces diversity, encompasses a willingness to consider the viewpoint of others, values the diverse contributions of all individuals, and reflects the willingness to act on another person's behalf" (p. 58).

Diverse Citizenship is measured, in part, through the Citizenship portion of the Socially Responsible Leadership Survey (Tyree, 1998). This scale measures the degree to which students seek to change their environment through active participation (Astin & Astin, 1996). Diverse Citizenship also measures students' openness to diversity based on the Miville-Guzman University-Diversity scale (Miville et al., 1999) and students' openness to diverse perspectives (Schreiner et al., 2013). Researchers have confirmed Diverse Citizenship represents a valid factor in predicting students' success (Petridis, 2015; Schreiner et al., 2013). Thriving students not only believe they are capable of enacting change, but they also act on that belief. This community engagement resulting in meaningful change and openness to diversity is what distinguishes thriving students from their peers (Schreiner et al., 2013).

The benefits of openness to diversity are well established within higher education. Students who attend diverse institutions experience greater gains in critical thinking (Loes, Pascarella, & Umbach, 2012), learning engagement (Bowman, 2013), and emotional well-being (Bowman & Park, 2015). Students at diverse institutions also experience greater gains in cognitive development (Bowman, 2010a), academic success skills (Gurin, Dey, Hurtado, & Gurin, 2002), and civic participation (Gurin, Nagda, & Lopez, 2004). However, students only realize these gains if they regularly interact with people from other groups, and the presence of diversity without interaction can negate the benefits and even lead to decreased levels of engagement and psychological well-being (Bowman, 2013).

There is conflicting research on the degree to which Latino/a students interact with people from other groups. Bowman and Park (2015) found Latino/a students interacted with people from other racial groups and believed people from other racial groups were hard working at higher rates than people from other races or ethnicities. However, Jones (2015) found the frequency of Latino/a community college students' diverse interactions was significantly less than people from other groups. Bowman and Park also found Latino/a students were more satisfied with college than other groups, but reported lower levels of growth in academic content mastery than African Americans or Asians. This same inconsistency was demonstrated in Gurin et al.'s (2002) seminal study, which found Latino/a students interacted with people from different groups less than Whites and Asians, but those interactions resulted in a greater likelihood of engaging with diverse groups than exhibited by the other racial groups.

The literature that has studied Latino/a students' seeking change through active engagement has tended to focus on Latino/a students' feeling unable to affect change (Perez, Cortes, Ramos, & Coronado, 2010). Feeling helpless to effect change resulted in negative perceptions of institutional integrity (Conchas, 2001), with some students remarking they are "held accountable for what they do not know" (Musoba et al., 2013, p. 356). Because Latino/a students may feel they are unable to change the institutional power structures, they may actively disengage from the educational process through actions such as nonattendance (Fernández, 2002), or they may develop support communities intended to help peers successfully navigate institutional policies and procedures (Yosso et al., 2009). This feeling of social powerlessness may account for some of McIntosh and Schreiner's (2013) findings that Latino/a students possessed significantly fewer pathways to thriving than White students at PWIs.

Social connectedness. As the second component of interpersonal thriving, Social Connectedness refers to the quality of students' interpersonal relationships (Schreiner, 2010b; Schreiner et al., 2013). Students thrive socially when they have enough healthy friendships with people to whom they feel sufficiently connected that they do not feel lonely (Schreiner et al., 2013). This factor is partially based on the Positive Relations scale of Ryff's (1989) Psychological Well-Being instrument. Other researchers have found the Positive Relations scale significantly predicts students' psychological well-being (Bowman, 2010b). Researchers have found Social Connectedness is a valid and reliable factor (Petridis, 2015; Schreiner et al., 2013).

Peers represent an important influence on all students (Astin, 1993), and they are one of the primary influences on Latino/a students' success. Peers influence Latino/a

students' decisions to continue from high school to college (Turcios-Cotto & Milan, 2013) and can become a potential source of tension for Latino/a students once in college. Latino/a students have a strong need to find a Latino/a community in college, which then benefits their retention and completion (Gonzalez, 2015; Hernandez, 2000, 2002; Hurtado & Carter, 1997; Strayhorn, 2008). Latino/a students also experience greater academic success when they have a network of people who support and encourage them through the college process (Conchas, 2001; Graff et al., 2013; Hernandez, 2000). Rodriguez, Ratanasiripong, Hayashino, and Locks (2014) found close friendships benefited Latino/a student success, but Cibik and Chambers (1991) found in their seminal study that Latino/a students had a more difficult time making the new associations on campus that would result in deeper friendships. Latino/as also realize increased internal locus of control and positive cross-cultural relations from peer interactions (Hernandez, 2000; Saenz et al., 2007). However, Hernandez (2002) found in his seminal study that the time required for peer interactions and maintaining healthy friendships can be viewed as a hindrance, because those activities take time away from academics. Therefore, it is not only the quantity of the support available to Latino/a students, but also the type and quality of that support that can influence their likelihood of academic success.

Thriving was selected for this study because of its holistic view of students (Schreiner, 2010b). Thriving extends beyond many traditional measures of student success, such as retention and grades, to consider students' need to flourish personally, relationally (Seligman, 2011), and academically (Schreiner et al., 2013). However, thriving also predicts traditional measures of student success; for example, students who thrive in higher education have better persistence and college GPAs (Schreiner et al.,

2013). Therefore, because the literature has found non-cognitive factors influence Latino/a students' success (Ash & Schreiner, 2016; Natividad, 2015; Palacios & Alvarez, 2016; Swanson, Vaughan, & Wilkinson, 2015), thriving was selected as the outcome of interest in this study.

Campus Experiences Affecting Latino/a Student Success

Although thriving describes key areas associated with student success, researchers have confirmed other variables that also influence Latino/a student success. Researchers have found these factors influence students' thriving and therefore are included in this study. This section reviews the additional literature associated with Latino/a student engagement.

Psychological Sense of Community

Psychological Sense of Community (PSC) describes the degree to which students feel they are part of the campus community. McMillian and Chavis (1986) defined PSC as "a feeling that members have of belonging and being important to each other, and a shared faith that their needs will be met by their commitment to be together" (p. 9). Previous research has found PSC significantly contributes to the variation in intent to graduate among students of color (Ash & Schreiner, 2016). PSC is composed of four primary elements: membership, ownership, relationship, and partnership (Schreiner, 2010a).

The extent to which students feel they belong on campus describes their *membership* (Schreiner, 2013b). Students who are unable to find a group of students who are like them in some way, such as similar interests and racial group, have lower levels of PSC (Lounsbury & DeNeui, 1996). The effects of a sense of belonging on Latino/a

students have been extensively studied (Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005; Kim, Edens, Parra, & Lopez, 2015; Musoba et al., 2013; O'Keeffe, 2013; Soria & Stubblefield, 2015). In their seminal study on Latino/a student sense of belonging, Hurtado and Carter (1997) defined sense of belonging as when students think and feel they are a part of the group. Sense of belonging is a critical component for Latino/a students' retention, completion, and engagement (Hernandez, 2000, 2002; Hurtado & Carter, 1997; Irizarry, 2012; Locks et al., 2008; Strayhorn, 2008). Increased sense of belonging benefits students' academic engagement (Braxton et al., 2008; Tinto, 1986) and classroom engagement (Kim & Lundberg, 2015). Higher levels of sense of belonging are also positively associated with students' retention (Bowman & Denson, 2014; O'Keeffe, 2013) and completion (Sparkman et al., 2012).

Campus climate is a consistent influence on Latino/a students' sense of belonging. Researchers have found for decades that a racially intolerant campus climate negatively affects Latino/a students' sense of belonging (Hurtado, 1994; Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005). However, familial support (Hurtado & Carter, 1997; Locks et al., 2008; Nora & Cabrera, 1996), friendships (Pizzolato et al., 2008), and involvement in academic support programs (Hurtado & Ponjuan, 2005) can mitigate some of the negative effects.

In addition to feeling a sense of belonging on campus, students feel *ownership* when their voices are considered seriously and they are able to contribute to the campus community (Schreiner, 2013b). In all aspects of life, people who feel they can influence the circumstances in which they find themselves experience higher levels of happiness, energy, and endurance (Duhigg, 2016; Seppälä, 2016). It is understandable, therefore,

that situations where students feel their opinions are not taken seriously or perceive institutional representatives are unwilling to listen result in lower levels of PSC (Swerlick & Tarnacki, n.d.). When Latino/a students feel they are not heard or unable to influence their circumstances, they experience lower levels of PSC and sense of belonging (Saenz et al., 2016). These decreased levels result in lower levels of engagement and academic success.

Students experience *relationship* on campus through their positive interpersonal connections that help them develop emotional connections with other people on campus (Schreiner, 2013b). It follows, therefore, that early research on PSC in college students concluded that extroverts, or persons with "such characteristics as sociability, talkativeness, gregariousness, interpersonal warmth, positive emotions, activity, sensation-seeking, social assertiveness, and preference for groups or gatherings," (Lounsbury & DeNeui, 1996, p. 383) tended to report higher levels of PSC.

Latino/a students benefit from interpersonal connections in the same ways as other students (Smith, 2015; Swanson et al., 2015). The positive relationships Latino/a students build on campus can reach the level of becoming "campus brothers and sisters" (Kiyama et al., 2015, p. 31). These positive relationships with peers (Pérez & Taylor, 2015) and mentors (O'Donnell, Botelho, Brown, González, & Head, 2015; Sáenz, Ponjuan, Segovia, & Del Real Viramontes, 2015) benefit Latino/a students' persistence and academic success. For example, Cerezo and Chang (2012) found developing a community of fellow Latino/a students was a significant positive predictor of students' college GPA. Although this finding conflicts with Fischer's (2007) conclusion that Latino/a students' informal on-campus connections significantly harmed their college

GPA, the difference between these two studies may be that Cerezo and Chang were interested in the quality of students' interactions that could benefit Latino/a students' success, while Fisher investigated the simple quantity of peer relationships. Finally, Cole (2010) found peer relationships were not significant contributors to Latino/a students' college GPA when first-generation status and institutional characteristics were included. The one exception to this finding in Cole's study was that Latino/a students' did benefit from learning about diverse philosophical perspectives from their peers, as described in Diverse Citizenship (Bowman, 2013).

In addition to positive interpersonal relationships, a sense of community is characterized by *partnership*, or the experience of working with other people to accomplish shared goals (Schreiner, 2013b). Students develop partnership and thereby build PSC through activities such as group projects, team sports, and music or theater groups (DeNeui, 2003). Activities that require students to contribute to a group goal allow students to "experience themselves as an integral part of the community, people whose needs are being met and who are meeting the needs of others" (Schreiner, 2013b, p. 49). Working in interdependent groups helps Latino/a students adjust to the college environment and decreases their levels of depression and loneliness, according to Gray, Vitak, Easton, and Ellison (2013).

PSC is a significant predictor of thriving for Latino/a students at PWIs (McIntosh, 2012; Petridis, 2015). McIntosh (2012) found PSC for Latino/a students at PWIs was directly influenced by their levels of campus involvement, student-faculty interactions, and spirituality, with spirituality being significantly more influential for Latino/a students than White students. However, when researching graduate students, Petridis (2015)

discovered campus climate and social support were significant influences on Latino/a students' PSC, but student-faculty interactions did not significantly influence their PSC. Although both studies concluded PSC contributes significantly to the variation in Latino/a students' thriving, these studies differ from the current study in that they researched students at PWIs and included groups other than Latino/as. The consistent importance of sense of belonging in the literature (Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005; Kim et al., 2015; McIntosh, 2012; Musoba et al., 2013; Petridis, 2015; Strayhorn, 2008) implies PSC will represent an important factor in Latino/a students' thriving at HSIs.

Institutional Integrity

Latino/a students' PSC is also closely related to their perceptions of institutional integrity (Ash & Schreiner, 2016). *Institutional integrity*, a phrase coined by Braxton et al. (2004) to describe how well an institution embodies its mission, contributes significantly to the variation in PSC among students of color (Ash & Schreiner, 2016). Institutions make implicit and explicit promises beginning with the admissions process and continuing throughout students' entire academic career (Braxton et al., 2014). Explicit promises often take the form of anticipated levels of financial aid or potential careers upon graduation. Institutions' implicit promises can appear as images on college websites and brochures. These implicit and explicit promises ultimately shape what students expect from their institution (Rosenbaum, Becker, A, & Zapata-Gietl, 2016).

How well institutions follow through on their promises and meet students' expectations represents a significant influence on students' college experience (Braxton et al., 2014). Students enter college with a variety of expectations of how well the

institution will support their learning; these expectations are not only regarding the classroom, but also target their co-curricular experiences and include areas such as residence halls. For example, when residence hall staff meet students' expectations, it can build students' psychological engagement by increasing their social integration (Swerlick & Tarnacki, n.d.).

Institutional integrity significantly predicts students' academic engagement (Braxton et al., 2008) and persistence decisions (Braxton, Brier, & Steele, 2007; Schreiner et al., 2011). When the expectations students develop during the admissions process and throughout their entire academic career are consistently met, students experience an increase in trust, which can help compensate for those times when students' expectations are not met (Graff et al., 2013). The more faculty, staff, and administrators' actions are consistent with their stated promises, the more confidence students can build in that trust. These consistent interactions over time help students engage in their academic work, rather than worry about potential future interactions, and build a desire to continue with the institution (Braxton et al., 2007).

Researchers have also studied the influence of Institutional Integrity on standard measures of student success, such as retention and completion, for students of color. Ash and Schreiner (2016) found Institutional Integrity was a significant influence on PSC for students of color. Institutional integrity represented a direct influence on how well students of color felt the institution was a good fit for them. Therefore, how well an institution keeps its promises directly influences students' perceptions of fit and their sense of community on campus. Institutional integrity benefits students' sense of

belonging on campus, because students feel more comfortable and can socially integrate into campus more easily (Braxton et al., 2014).

Comarcho (2009) found institutional integrity was an important influence on the persistence decisions of Latino and African-American students. Latino/a students who felt their institution applied its policies and procedures in an unfair manner, such as holding them accountable for late fees they did not know were a possibility, viewed their institution as uninterested in them as individuals. This lack of individualized care harmed students' ability to trust and, therefore, engage both psychologically and academically.

Researchers have also found institutional integrity is a significant influence on Latino/a students' completion rate (Metzger-Mugg, 2013). Students of color enter higher education with the expectation of completing their degree within a certain timeframe. When it takes longer than expected to complete a degree, students' perceptions of institutional integrity decline, and students become more likely to leave college before finishing their degree. Metzger-Mugg's (2013) findings may help explain Gross et al.'s (2014) findings that the positive influence of financial aid for Latino/a students declined over time. Even though students remained able to finance their education, their decreased sense of institutional integrity resulted in early departure decisions.

There is currently a deficit of research on the effects of institutional integrity on Latino/a students' thriving. Previous research on Latino/a students' thriving either did not include Institutional Integrity as a factor (McIntosh, 2012; Paredes-Collins, 2011) or included Latino/a students in the broader category of students of color (Ash & Schreiner, 2016). Therefore, this study presents an opportunity to understand how institutional integrity contributes to the variation in Latino/a students' thriving.

Student-Faculty Interactions

Researchers have studied the importance of students' interactions with their faculty members both inside and outside the classroom for decades (Bean & Kuh, 1984; Endo & Harpel, 1982; Lamport, 1993). Interaction within the classroom can occur through activities such as a student asking a question in class, responding to an instructor's question, participating in research activities, or engaging the instructor in conversation regarding course content. Student-faculty interactions outside the classroom can include academic conversations and research activities, but expands to include mentoring and coaching activities as well. The quality and frequency of student-faculty interactions are a primary predictor of such indicators of student success as GPA, completion rates, and academic self-concept (Cole, 2007; McClenney, Marti, & Adkins, 2012).

Students benefit from both the quantity and quality of student-faculty interaction (Lundberg, 2014). Students who have frequent positive interactions with faculty tend to have higher levels of a sense of belonging on campus (O'Keeffe, 2013). Visiting a faculty member's home is positively correlated with students' academic self-concept, especially if students felt faculty members were available and approachable on campus (Kim & Sax, 2014). Informal student-faculty interaction has also been found to benefit nontraditional students' intent to persist and their ability to integrate into the institution (Shepherd & Sheu, 2014). In addition to the correlation between student-faculty interaction and academic self-concept, Micari and Pazos (2012) found positive student-faculty interactions predicted students' course grades.

Although all students benefit from positive student-faculty interactions, several factors influence the extent of those benefits. For example, the ways in which students interact with faculty differ significantly by gender, with females tending to engage more frequently than males, but benefiting less (Kim & Sax, 2009; Sax, Bryant, & Harper, 2005). One study found an inverse relationship between the number of males in the course and the number of voluntary responses given by students (Tatum, Schwartz, Schimmoeller, & Perry, 2013). The length of time it takes for students to have these interactions after they begin college is another important factor that predicts the positive benefits of student-faculty interactions throughout students' academic career (Fuentes, Alvarado, Berden, & DeAngelo, 2014).

Students experience direct and indirect benefits from student-faculty interactions (Arum & Roksa, 2011). Students who have positive interactions with their faculty members engage with the material more (Bain, 2011), learn more (MacDonald, 2014), and have higher grades (Guerrero & Rod, 2013). In addition to direct academic benefits, positive interactions with faculty members can help students develop their spirituality (Bryant, Wickliffe, Mayhew, & Behringer, 2009), process difficult experiences (Torres & Hernandez, 2010), plan for future careers (Estepp, Velasco, Culbertson, & Conner, 2016), and better integrate into the campus community (Fuentes et al., 2014).

The relationships students of color have with their faculty differ from majority students (Cole, 2007), however, and the benefits from student-faculty interaction differ based on students' race and ethnicity (Kim, 2010; Kim & Sax, 2017). Latino/as, especially Latinas, tend to develop relationships with faculty regardless of the faculty member's race (Zell, 2010). Latino/a students' interactions with their faculty are

positively related to college GPA and degree aspirations (Kim, 2010; Kim & Sax, 2009). However, Latino/a students are less likely than Whites and African Americans to interact with faculty (Kim & Lundberg, 2015; Kim & Sax, 2009). In addition to lower levels of interaction, Cole (2010) found that the benefit to Latino/a students' college GPA from student-faculty interaction became insignificant when the author added first-generation status and institutional characteristics to his model. However, Cole's study consisted of students located at PWIs only, which may account for some of the differences from other studies.

Faculty members can also negatively affect Latino/as students' ability to engage the college environment. If the faculty member holds a negative stereotype against Latino/a students, believing they will perform less well academically because of their race or ethnicity (Steele & Aronson, 1995), then that increases students' race-related stress (Nora et al., 1996; Pizzolato et al., 2008), which negatively affects students' academic outcomes (Steele, 1997).

Student-faculty interaction is a significant predictor of thriving across all racial and ethnic groups, although the strength of that prediction varies significantly by race. Student-faculty interaction is also a significant predictor of institutional integrity for students of color (Ash & Schreiner, 2016; Schreiner, 2014) and of PSC for Latino/a students (McIntosh, 2012). The more positive Latino/a students' interactions are with their faculty, the more they feel a part of the institutional community, the more they feel they can trust the institution, and the more successful they are. However, all three of the afore-mentioned studies were conducted on Latino/a students attending PWIs. Additional research on how Latino/a students' interactions with faculty members

influences students' thriving at HSIs may provide additional insights into the benefits of student-faculty interactions.

Campus Involvement

Involvement with the campus community has been acknowledged as a key component to students' success for more than 30 years (Astin, 1984). This involvement can include activities such as co-curricular groups (Hernandez, 2000) and community service (Palacios & Alvarez, 2016), all of which have been found beneficial for students' success. By engaging with campus activities, students can more fully engage and put effort into their educational experience (Kuh, Kinzie, Schuh, & Whitt, 2005; Pascarella & Terenzini, 2005).

Campus involvement also helps students feel more connected socially, which benefits their PSC. In her seminal study, Fischer (2007) found with campus involvement, Latino/a students had higher levels of social adjustment on campus than White students. That increased level of social integration then benefits students' PSC (Zell, 2010). Although researchers have found campus involvement is predictive of students' PSC, the effect on students' thriving is consistently small and indirect (McIntosh, 2012; Petridis, 2015; Schreiner et al., 2013).

Latino/as have reported that involvement in campus activities was important to their college success (Hernandez, 2000). Campus involvement benefits students' cross-racial interaction (Saenz et al., 2007), which benefits their Diverse Citizenship (Schreiner, 2010b, 2014). In addition to more positive peer interactions, campus activities help Latino/a students develop their racial identity, which benefits academic

success (Hurtado et al., 2015). Finally, participation in campus activities was the most significant contributor to Latino/a students' PSC in previous studies (Schreiner, 2014).

Student Characteristics That Influence Latino/a Success

Although thriving describes the psychological areas associated with student success, researchers have documented particular demographic characteristics that affect Latino/a student success. Characteristics that influence student success may also influence students' thriving, just as being a first-generation student influences Latino/a students' PSC (McIntosh, 2012). This section reviews the literature associated with Latino/a student characteristics and the extent to which they contribute to the variation in their success.

Socioeconomic Status

Latino/a students' success is often related to their socioeconomic status (SES), as they experience a variety of negative influences associated with finances. Latino/a students tend to come from families with higher levels of poverty (Núñez et al., 2013) who view academic success, at least partially, through the lens of how well equipped they will be to find employment or better their economic future (Flores et al., 2014). Cerezo et al. (2013) described "financial hardship as the most prominent barrier to [student] achievement" Latino/as have in higher education (p. 352). Latino/a students often receive less financial aid than they had anticipated (Kim, DesJardins, & McCall, 2009). Not receiving enough financial aid has a direct influence on Latino/a students' decision to enroll in college (Gross, 2011; Kim et al., 2009). Wohlgemuth et al. (2006) found receiving enough financial aid was positively associated with retention and completion rates, but Gross et al. (2014) found this influence decreased over time, suggesting time to

degree may be an additional factor. Although previous studies have not found finances to be a significant influence on students' thriving, financial variables are included in this study based on the consistent influence finances have on Latino/a students' success. Four financial variables are included in this study: (a) students' household income, (b) their perceived difficulty paying their college expenses, (c) their perception that tuition is worth the investment, and (d) whether they work for pay on or off campus.

First-Generation Status

First-generation students are those students whose parents never attended college (Núñez & Cuccaro-Alamin, 1998). First-generation students of all races and ethnicities tend to have lower completion (Ishitani, 2003) and retention rates (Wohlgemuth et al., 2006) and are less academically prepared than their multigenerational peers (ACT, 2015a). They also tend to have more difficulty socially integrating into college than multigenerational students (Núñez & Cuccaro-Alamin, 1998). Researchers have found first-generation students interact with faculty less often (Kim & Sax, 2009) and are more likely to select an institution based on the ability to live at home (Martin Lohfink & Paulsen, 2005). The majority of Latino/a students entering higher education are first-generation students (Núñez et al., 2013). Latino/a first-generation students experience many of the same issues as the broader first-generation community. First-generation Latino/as have expressed difficulty with social integration leading to "feeling invisible" (Pyne & Means, 2013). They tend to be less academically prepared (ACT, 2015b; Oseguera, Locks, & Vega, 2009), but first-generation Latino/as tend to not view themselves as less prepared than their peers (Boden, 2011). First-generation Latino/as also tend to view their first-generation status as a motivating factor to persist, wanting to

be the first in their family to complete college or viewing college as a way to help better their entire family's circumstances (Arana, Castañeda-Sound, Blanchard, & Aguilar, 2011). These various issues may affect students' Social Connectedness and therefore their ability to thrive (Schreiner, 2014).

Gender

Latino/a students engage with higher education differently based on gender (Cerezo et al., 2013; Pyne & Means, 2013). For example, Kim, Rennick, and Franco (2014) found males experienced fewer gains in self-awareness and civic attitudes as a result of college enrollment than females did. Latino/as are pressured by cultural expectation to fulfill the roles traditionally associated with their gender (Ojeda et al., 2012; Schwartz, Donovan, & Guido-DiBrito, 2009; Torres et al., 2011).

This cultural pressure at least partially explains why Latinas are enrolling in and completing higher education at higher rates than Latinos (Saenz & Ponjuan, 2009; Zarate & Burciaga, 2010). Latinos tend to view education as feminine (Urias & Wood, 2015) and use education as a form of cultural resistance by refusing to participate (Cammarota, 2004). Latinos view money as a primary barrier to college attendance (Cerezo et al., 2013) and experience greater pressure to contribute to family finances when they do enroll (Saenz & Ponjuan, 2009; Schwartz et al., 2009). Although Latinas also use education as a form of cultural resistance, they often express that resistance through increased cultural and professional advancement that rejects traditional gender roles (Cammarota, 2004). Family members often expect Latinas to stay home and help with housekeeping (Schwartz et al., 2009), while education helps them move beyond those expectations (Cammarota, 2004; Graff et al., 2013).

Additional gender differences among Latino/a students include types of support that are of greatest benefit. Latinos benefit more from peer support than family support (Pérez & Taylor, 2015), while Latinas benefit more from familial support (Graff et al., 2013; Pyne & Means, 2013). Latinos appear to need courses and mentors that focus on leadership development (Pena, 2015; Saenz & Ponjuan, 2009), while Latinas experience a more direct benefit from academic self-efficacy than their Latino peers, allowing them to realize greater academic returns from their belief in their ability to complete their academic assignments (Graff et al., 2013). Finally, Latinas are more likely to interact with faculty and staff than Latinos (Zarate & Burciaga, 2010). Therefore, although previous research on pathways to thriving has not found gender to be a significant predictor, it is included in this study because of its differential effects within the Latino/a community.

Spirituality

In addition to institutional integrity, spirituality also influences students PSC and thriving (McIntosh, 2012). Astin and Astin (2010) defined spirituality as students' values, beliefs, and how they view and connect to the world around them. Spirituality includes how they understand themselves, their larger context, and their place within that context (Astin, Astin, & Lindholm, 2011b; Mayhew, 2004). Spirituality differs from *religiousness* in that religiousness refers to students' outward acts and ceremonious behaviors. Although religious actions often reflect students' inward spirituality (Magolda & Gross, 2009), this study focuses on how students' attitudes and beliefs ultimately contribute to their actions in general. Students' spirituality becomes an important factor when their spiritual or religious beliefs influence their actions (Astin et al., 2011b).

Levels of spirituality help students navigate the process of identity development and meaning-making encountered in college. Astin et al. (2011b) referred to spirituality as "fundamental to students' lives" (p. 1). Many higher education researchers' previous views of American higher education as a strictly secular exercise does not accurately reflect students' experiences (Dawson, 2010). Many students rely on their spiritual beliefs to help them through the college experience (Astin & Astin, 2010; Park, 2014). The meaning-making associated with spirituality can help students process and reframe negative experiences, such as when students of color must process racist encounters on campus (McIntosh, 2012). A strong spiritual identity helps students wrestle with the difficult questions and ethical dilemmas they encounter as a part of their collegiate experience (Astin et al., 2011b).

Students' spiritual identity development is an important part of their overall identity development process in higher education (Rockenbach, Walker, & Luzader, 2012). Students encounter differing spiritual perspectives in college, which then forces them to examine their own beliefs in new ways. This self-examination helps students better understand and solidify their spiritual identity. As students develop their spirituality, they can better cope with difficult circumstances and make decisions that align with their ethical framework (Astin et al., 2011b).

Students' spirituality is an important factor in their academic success. Astin et al. (2011b) found students with higher levels of spirituality had higher academic self-efficacy, equanimity, college satisfaction, and college grades; students' spirituality also was positively correlated to their openness to diversity. In addition, McIntosh (2012) found spirituality was the most significant contributor to the variation in Latino/a

students' PSC (β = .342) and a significant contributor to their thriving (β = .103) and satisfaction with student-faculty interactions (β = .257).

Some faculty members believe they have a responsibility to help students explore their spiritual beliefs. Not to be confused with the instructor imparting his or her personal "truth" to students, faculty have expressed the need to ensure they are careful how they phrase things, act as a mentor, and create safe spaces for students to explore their beliefs (Bryant et al., 2009). The safer students feel and the more time they have to reflect on their spiritual beliefs, the greater their overall spiritual development (Mayhew & Bryant, 2013; Rockenbach & Mayhew, 2014; Rockenbach et al., 2012). Safe classroom spaces and opportunities for reflection help students develop and commit to their spiritual perspectives (Rockenbach & Mayhew, 2014).

However, not all students equally feel college campuses represent safe spaces. An intolerant campus was a significant predictor of how strongly students will commit to their spiritual perspective (Mayhew & Bryant, 2013; Rockenbach & Mayhew, 2014). Religious majority students from various Christian denominations feel college campuses are more spiritually intolerant than religious minority students (Mayhew, Bowman, & Rockenbach, 2014). The seeming contradiction majority students feel the college campus does not represent a safe place may be due to the concentration of non-religious people in the traditional college age range of 18 to 26 years (Putnam & Campbell, 2010). Majority students may also feel the campus is hostile due to changes in the language used on campus, such as institutions transitioning from language such as "Christmas Break" to "Winter Break" (Mayhew et al., 2014).

Although the research on how Latino/a students' spirituality influences their collegiate experiences is limited, some recent research has been conducted. Rockenbach and Mayhew (2013) found Latino/as tend to be more aware of the intersection between their spiritual and academic lives. This same study found students who had positive experiences with diversity were significantly more likely to report their beliefs influenced their behaviors. This influence may be due to the self-reflection in which students often engage after encountering beliefs that differ from their own (Rockenbach et al., 2012).

In this study, spirituality is measured using an adaptation of the Religious Commitment portion of the College Students' Beliefs and Values survey (Astin et al., 2011a). This factor was developed as part of a longitudinal study on how to understand students' spiritual and religious beliefs and how those beliefs influenced their collegiate experiences and outcomes (Astin & Astin, 2010; Astin et al., 2011a). The Religious Commitment factor determines "the degree to which the student seeks to follow religious teaching in everyday life, finds religion to be personally helpful, and gains personal strength by trusting in a higher power" (p. 47). Therefore, although the scale that was adapted contains the term religious, it focuses on students' internal beliefs and how those beliefs subsequently influence students' actions.

Previous research has confirmed spirituality is an important factor in students' thriving. Researchers have found students' gender and class level influenced students' spirituality (Ash & Schreiner, 2016; Paredes-Collins, 2011). These studies also found spirituality directly correlated with students' sense of belonging, satisfaction with their institution, well-being, satisfaction with diverse peer interactions, perceptions of faculty sensitivity to diversity, and Institutional Integrity scores. Ash and Schreiner (2016) found

Spirituality scores represented the greatest total contribution to the variation in thriving among students of color in Christian colleges and universities, although that relationship was entirely indirect. McIntosh (2012) found that institutional type and selectivity both positively correlated with the spirituality of Latino/a students' attending PWIs. He also found Spirituality directly correlated with the quality of Latino/a students' interactions with their faculty, their PSC, and their thriving.

Summary

Students who thrive perform better in college. Students' thriving has been positively correlated to college GPAs, intent to graduate from their current institution, and viewing tuition cost as a worthwhile investment (Schreiner et al., 2013). Thriving students are also more likely to view their institution as a good fit and would choose their institution again if given the opportunity (Schreiner et al., 2009). Students who thrive in college perform better not only academically, but also in a variety of aspects important to who they are as people (Schreiner, 2015).

Although thriving does benefit students of color, students from historically underrepresented groups experience thriving and its benefits differently from their majority peers (Schreiner, 2014). In one of the few articles published that focused on thriving's benefits exclusively for students of color, Ash and Schreiner (2016) confirmed thriving positively correlates to students' intent to graduate from their current institution. However, research has consistently found Latino/a students have fewer pathways to thriving (McIntosh, 2012; Petridis, 2015).

The previous studies on thriving differ from this current study in several significant ways that lead to the need for this study. The previous research on Latino/a

student thriving was conducted on Latino/a students attending PWIs (McIntosh, 2012; Petridis, 2015). Because PWIs have a smaller percentage of Latino/a students in their student body, certain pathways may not have emerged due to an insufficient number of students needed to generate the related benefit. These previous studies also began by developing a hypothesized structural equation model intended for all student racial and ethnic groups rather than a model intended to investigate the unique experiences of Latino/a students. Because those previous studies began by considering students as a single homogeneous group, they did not include all the factors found to correlate with Latino/a students' success. The gap in the literature this study fills is examining the extent to which Latino/a students' demographic characteristics and campus experiences contribute to the variation in their thriving in Hispanic-serving institutions.

CHAPTER 3

METHODOLOGY

This study investigated the direct and indirect relationships between Latino/a students' demographic characteristics, college experiences, and their thriving. Researchers have established students' entry characteristics and psychological engagement are contributors toward students' collegiate success (Astin, 1984; Robbins et al., 2004; Tinto, 1975). In this study, thriving was selected as the ultimate student outcome because researchers have found thriving incorporates physical, academic, and psychological forms of engagement and predicts traditional measures of student success, such as retention and GPA (Schreiner, 2010b; Schreiner et al., 2013).

This chapter provides an overview of the selected research design, measures, and participants for this study. Theoretical and empirical evidence from the literature for the hypothesized correlations in the model are also discussed. The chapter concludes with the proposed data screening and statistical methods for the data analysis.

Research Design

This study utilized a cross-sectional correlational research design. Data were collected online from Latino/a participants across multiple institutions during the 2016-17 academic year, and relationships among the variables were ascertained via structural equation modeling (SEM). SEM was selected as the statistical method for this study because it can investigate the direct and indirect relationships between variables, both

observed and latent, and can account for measurement and prediction errors (Agresti & Finlay, 2009; Byrne, 2010; Tabachnick & Fidell, 2013). SEM is a confirmatory approach (Tabachnick & Fidell, 2013); thus, it allowed this study to use existing literature to create a baseline model against which the new sample of data was tested for fit. The intent was to confirm the adaptation of previous models developed by McIntosh (2012), Paredes-Collins (2011), and Petridis (2015). The research question guiding the study was: To what extent do students' characteristics and campus experiences contribute to thriving for Latino/a students attending HSIs?

SEM's confirmatory nature allows the identification of the correlational relationships between all variables, both observed and latent (Byrne, 2010; Tabachnick & Fidell, 2013). SEM uses two types of modeling to establish these correlations: measurement and structural regression. The measurement model, or Confirmatory Factor Analysis (CFA), establishes relationships between latent variables and their component observed variables. The structural regression model establishes relationships between the exogenous and endogenous variables.

Although hierarchical regressions could establish a similar outcome by determining correlations between dependent (endogenous) and independent (exogenous) variables, SEM is a better technique for this study. In addition to the direct dependent-independent relationships, SEM establishes indirect relationships between the endogenous and exogenous variables, allowing a more thorough investigation of the correlational relationships between the variables (Byrne, 2010; Tabachnick & Fidell, 2013). Unlike hierarchical regressions, SEM also accounts for measurement errors, generating more reliable parameter estimates(Byrne, 2010). It is important to note,

however, that similar to hierarchical modeling, SEM only establishes correlational and not causal relationships between variables.

Hypothesized Model

The hypothesized model was based on a combination of previous research on Latino/a student thriving at PWIs and studies on Latino/a student success. Student input characteristics of the hypothesized model for this study were selected according to those items found in the literature to predict Latino/a students' success or thriving and include gender (Cerezo et al., 2013; Kim, Edens, & Allen, 2016), high school GPA (Nora & Crisp, 2012), first-generation status (Pyne & Means, 2013), and SES (Gross, 2011). College experiences were also selected according to those aspects within the literature that predicted Latino/a students' success or thriving, including spirituality (McIntosh, 2012), institutional integrity (Ash & Schreiner, 2016), campus involvement (McIntosh, 2012), degree aspirations, student-faculty interactions, on-campus residency, and PSC. The dependent variable, also known as the ultimate endogenous variable of the hypothesized model, was student thriving. Thriving represents a second-order latent variable that consists of students' Academic Determination, Engaged Learning, Diverse Citizenship, Social Connectedness, and Positive Perspective (Schreiner, 2012). See Figure 1 for the hypothesized model.

Participants

Participants in this study were undergraduate students who self-identified as Hispanic and attended a 4-year HSI, as recognized by the Hispanic Association of Colleges and Universities (HACU). Five institutions participated in the study, one private and four public universities. Participants consisted of 3,526 students who

completed the survey at these institutions, of which 501 were Latino/a students. See Table 1 for demographic information on the participants, disaggregated by institution.

Instruments

Thriving Quotient

The Thriving Quotient measures students' levels of thriving, expressed as scale scores on Academic Determination, Engaged Learning, Positive Perspective, Diverse Citizenship, and Social Connectedness (Schreiner, 2016). Students' thriving is a second-

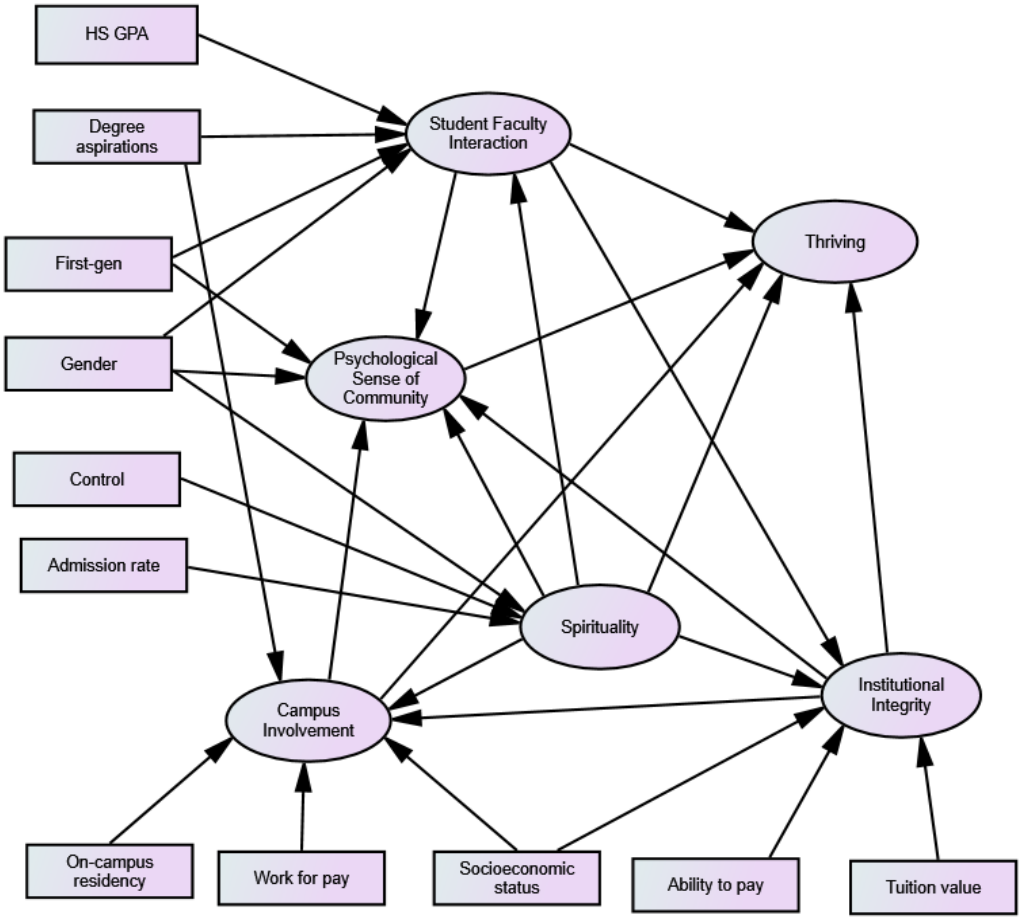

Figure 1. Hypothesized model of thriving for Latino/a students attending Hispanic-serving institutions.

Table 1

Participants' Demographic Information by Institution and in Total [a]

Demographic	Institution 1	Institution 2	Institution 3	Institution 4	Institution 5	Total
Total participants	231	623	170	743	1759	3526
Total Latino/a students	66	245	27	67	332	737
Included in final dataset	48	88	18	60	287	501
Female	48	88	14	47	198	396
Students who expressed little to no trouble paying for college	28	25	9	22	143	227
Students who worked for pay	17	67	9	44	171	308
On-campus residents	24	26	2	14	58	124
First-generation students	26	33	7	24	98	210
Students who believed their tuition was a worthwhile investment	29	42	10	22	134	237
Students who earned Bs or better in high school	45	62	14	55	278	454
Institution type	Public	Private	Public	Public	Public	
Institution Admission Rate	78%	69%	69%	80%	49%	

Note. a – With the exception of total participants and total Latino/a students, all student demographic information reflects students actually included in this study.

order latent variable that consists of these five subscales. Analysis of 3,353 students at 21 institutions across the United States and Canada found the five-subscale model with second-order latent thriving represented a good statistical fit to the sample ($X^2_{(114)}$ = 1093.83, $p < .001$, CFI = .954, RMSEA = .054; Schreiner et al., 2013). All subscales also

possessed good levels of internal consistency: Academic Determination (α = .81), Engaged Learning (α = .88), Positive Perspective (α = .74), Diverse Citizenship (α = .78), and Social Connectedness (α = 78.). See Table 2 for the variable coding scheme that includes the items on each scale.

Psychological Sense of Community

Students' Psychological Sense of Community (PSC; Schreiner, 2010a) was measured using four items: (a) I feel like I belong here, (b) Being a student here fills an important need in my life, (c) I feel proud of the college or university I have chosen to attend, and (d) There is a strong sense of community on this campus. Previous research has found these items have a good level of internal consistency (α = .85) and represent an acceptable fit for the data ($X^2_{(1)}$ = 11.21, p < .001, CFI = .998, RMSEA =.059; Schreiner et al., 2013). All items were measured using a 6-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*). The hypothesized model of this study (Figure 1) reflects the previous findings indicating PSC significantly predicts students' thriving (McIntosh, 2012). The model also reflects previous research that found that institutional integrity (Ash & Schreiner, 2016), campus involvement (McIntosh, 2012), gender (Ponjuan, Palomin, & Calise, 2015), spirituality (McIntosh, 2012) and first-generation status (Schreiner et al., 2013) significantly predicts Latino/a students' PSC.

Institutional Integrity

Institutional Integrity, or how well institutions follow through on the expectations students developed preceding, during, and subsequent to the admissions process (Braxton et al., 2004; Braxton et al., 2008), was measured using three items: (a) My experiences on campus so far have met my expectations, (b) The institution was accurately portrayed

Table 2

Variable Scales and Definitions

Variable	Definition
Thriving	
Academic Determination	Latent variable consisting of (1) I am confident I will reach my educational goals, (2) Even if assignments are not interesting to me, I find a way to keep working at them until they are done well, (3) I know how to apply my strengths to achieve academic success, (4) I am good at juggling all the demands of college life, (5) Other people would say I'm a hard worker, and (6) When I'm faced with a problem in my life, I can usually think of several ways to solve it. Measured with a 6-point scale, 1 = *strongly disagree*, 6 = *strongly agree*.
Engaged Learning	Latent variable consisting of (1) I feel as though I am learning things in my classes that are worthwhile to me as a person, (2) I can usually find ways of applying what I'm learning in class to something else in my life, (3) I find myself thinking about what I'm learning in class even when I'm not in class, and (4) I feel energized by the ideas I am learning in most of my classes. Measured with a 6-point scale, 1 = *Strongly Disagree*, 6 = *Strongly Agree*.
Diverse Citizenship	Latent variable consisting of (1) I spend time making a difference in other people's lives, (2) I value interacting with people whose viewpoints are different from my own, (3) I know I can make a difference in my community, (4) It is important to become aware of the perspectives of individuals from different backgrounds, (5) It's important for me to make a contribution to my community, and (6) My knowledge or opinions have been influenced or changed by becoming more aware of the perspectives of individuals from different backgrounds. Measured with a 6-point scale, 1 = *Strongly Disagree*, 6 = *Strongly Agree*.
Social Connectedness	Latent variable consisting of (1) Other people seem to make friends more easily than I do (reverse-scored), (2) I don't have as many close friends as I wish I had (reverse-scored), (3) I feel like my friends really care about me, (4) I feel content with the kinds of friendships I currently have, (5) It's hard to make friends on this campus (reverse-scored), and (6) I often feel lonely because I have few close friends with whom to share my concerns (reverse-scored). Measured with a 6-point scale, 1 = *Strongly Disagree*, 6 = *Strongly Agree*.
Positive Perspective	Latent variable consisting of (1) I look for the best in situations, even when things seem hopeless and (2) My perspective on life is that I tend to see the glass as "half full" rather than "half empty". Measured with a 6-point scale, 1 = S*trongly Disagree*, 6 = *Strongly Agree*.
Psychological Sense of Community	Latent variable consisting of (1) I feel like I belong here, (2) Being a student here fills an important need in my life, (3) I feel proud of the college or university I have chosen to attend, and (4) There is a strong sense of community on this campus. Measured with a 6-point scale, 1 = *Strongly Disagree*, 6 = *Strongly Agree*.
Institutional Integrity	Latent variable consisting of (1) My experiences on campus so far have met my expectations, (2) The institution was accurately portrayed during the admissions process, and (3) Overall, the actions of faculty, staff, and administrators on this campus are consistent with the mission of the institution. Measured with a 6-point scale, 1 = *Strongly Disagree*, 6 = *Strongly Agree*.

Table 2, continued

Variable	Definition
Student-Faculty Interaction	Latent variable consisting of (1) How often do you interact with faculty outside of class? Measured with a 6-point scale, 1 = *Never*, 6 = *Frequently* (2) Rate your satisfaction with the amount of contact you have had with faculty this semester. Measured with a 6-point scale, 1 = *Very Dissatisfied*, 6 = *Very Satisfied*, (3) Rate your satisfaction with the quality of the interaction you have with faculty on this campus so far this semester. Measured with a 6-point scale, 1 = *Very Dissatisfied*, 6 = *Very Satisfied*, (4) How often this year have you met with your academic advisor? Measured with a 6-point scale, 1 = *Never*, 6 = *Frequently*, (5) How often this year have you discussed career or grad school plans with faculty? Measured with a 6-point scale, 1 = *Never*, 6 = *Frequently*, (6) How often this year have you discussed academic issues with faculty? Measured with a 6-point scale, 1 = *Never*, 6 = *Frequently*, (7) How often this year have you met with faculty during office hours? Measured with a 6-point scale, 1 = *Never*, 6 = *Frequently*, and (8) How often this year have you E-mailed, texted, or Facebooked faculty? Measured with a 6-point scale, 1 = *Never*, 6 = *Frequently*.
Spirituality	Latent variable consisting of (1) My spiritual or religious beliefs provide me with a sense of strength when life is difficult, (2) My spiritual or religious beliefs are the foundation of my approach to life, and (3) My spiritual or religious beliefs give meaning/purpose to my life. Measured with a 6-point scale, 1 = *Strongly Disagree*, 6 = *Strongly Agree*.
Campus Involvement	Latent variable consisting of: How often do you participate in the following: (1) Campus events or activities, (2) Student organizations on campus, (3) Leadership of student organizations, (4) Community Service, and (5) Campus ethnic organizations (such as Black Student Association). Measured with a 6-point scale, 1 = *Never*, 6 = *Frequently*.
First-Generation Status	Are you the first in your immediate family to attend college? Dummy variable coded 0 = No, 1 = Yes.
Gender (Female)	Dummy variable coded 0 = male, 1 = female.
High School GPA	How would you describe your grades in high school? Measured on a 6-point scale, 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. Reverse scored.
Socioeconomic Status	What is your best guess about your household income level? Measured on a 5-point scale: 1 = less than $30,000 a year, 2 = $30,000 to $59,999, 3 = $60,000 to $89,999, 4 = $90,000 to $119,999, 5 = $120,000 or over.
Work Off-Campus	Do you work for pay? Measured on a 3-point scale: 0 = no, 1 = on campus, 2 = off campus, 3 = both on and off campus. Recoded as a dummy variable: 0 = no, 1 = yes (responses 1, 2, or 3).
Degree Aspirations	What is the HIGHEST degree you intend to pursue in your lifetime? Measured on a 7-point scale: 1 = None, 2 = Bachelor's, 3 = Teaching credential, 4 = Master's degree, 5 = Doctorate, 6 = Medical or law degree, 7 = Other graduate degree. Recoded as a dummy variable: 0 = No graduate school plans, 1 = Graduate school plans.
On-Campus Resident	Do you live on campus? Dummy variable coded 0 = No, 1 = Yes.

Table 2, continued

Variable	Definition
Ability to Pay for School	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 school expenses? Measured on a 5-point scale, 1 = No difficulty, 2 = A little difficulty, 3 = Some difficulty, 4 = A fair amount of difficulty, 5 = Great difficulty.
Tuition Value	I am confident that the amount of money I'm paying for college is worth it in the long run. Measured with a 6-point scale, 1 = *Strongly Disagree*, 6 = *Strongly Agree*.
Institutional Selectivity	Percentage of students admitted.
Institutional Control	Institutional Control: 0 = Public, 1 = Private

during the admissions process, and (c) Overall, the actions of faculty, staff, and administrators on this campus are consistent with the mission of the institution. This factor has been found to be an excellent fit for the data ($X^2_{(2)} = 2.77$, $p = .250$, CFI = 1.0, RMSEA =.019; Romero, 2016), and provides important information on how Latino/a students perceive their institution (Schreiner, 2014). The model mirrors previous research, which has found the factor is significantly predicted by student-faculty interaction (Ash & Schreiner, 2016), financial issues (Comarcho, 2009), and students' spirituality (Ash & Schreiner, 2016). Institutional integrity has also been found to significantly predict students' thriving (Romero, 2016), PSC (Ash & Schreiner, 2016), and campus involvement (Swerlick & Tarnacki, n.d.).

Student-Faculty Interaction

Student-Faculty Interaction was measured using eight items on a 6-point scale: (a) How often do you interact with faculty outside of class?, (b) Rate your satisfaction with the amount of contact you have had with faculty this semester, (c) Rate your satisfaction with the quality of the interaction you have with faculty on this campus so far this semester, (d) How often this year have you met with your academic advisor?, (e) How often this year have you discussed career or grad school plans with faculty?, (f) How

often this year have you discussed academic issues with faculty?, (g) How often this year have you met with faculty during office hours?, and (h) How often this year have you e-mailed, texted, or Facebooked faculty? These items focus on the quantity and satisfaction students have with their faculty interactions. Researchers have found these items have a high level of internal consistency (α = .86) and represent an excellent fit for the data ($X^2_{(9)}$ = 47.52, p =.025, CFI = .996, RMSEA =.038; McIntosh, 2012). In addition to significantly predicting thriving (Ash & Schreiner, 2016), student-faculty interaction is significantly predicted by students gender, degree aspirations, first-generation status, high school GPA (Kim, 2010), and spirituality (Ash & Schreiner, 2016).

Spirituality

Students' level of spirituality was measured using an adaptation of the Religious Commitment scale of the College Students Beliefs and Values (CSBV) survey (Astin et al., 2011a). This latent variable consists of 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) My spiritual or religious beliefs give meaning/purpose to my life. Spirituality has been found to have a high level of internal consistency (α = .95) and represented a good fit for the data in prior studies ($X^2_{(1)}$ = 8.53, p =.003, CFI = .999, RMSEA =.051; Schreiner et al., 2013). The literature has established students' spirituality significantly predicts students' thriving, interactions with faculty, campus involvement (McIntosh, 2012), and institutional integrity (Ash & Schreiner, 2016). Students' spirituality is significantly predicted by

students' PSC, being a public or private institution, institutional selectivity (McIntosh, 2012), and gender (Ash & Schreiner, 2016).

Campus Involvement

Students' on-campus involvement was measured according to self-reported levels of involvement in various campus activities. This latent variable was measured using five items on a 6-point scale (1 = *never*, 6 = *frequently*): (a) Campus events or activities, (b) Student organizations on campus, (c) Leadership of student organizations, (d) Community Service, and (e) Campus ethnic organizations (such as Black Student Association). Previous research has found that this factor represented an excellent fit for the data ($X^2_{(3)} = 48.01$ $p < .001$, CFI = .991, RMSEA = .043; McIntosh, 2012). Students' campus involvement is a significant predictor of PSC and is significantly predicted by on-campus residency, institutional selectivity, and spirituality (McIntosh, 2012).

Student Characteristics, College Environment, and College Experiences Variables

Nine student input characteristics and observed college experiences were included in the hypothesized model of this study. These variables include students' first-generation status (*First-gen*), gender (*Gender*), high school GPA (*HS GPA*), SES (*Socioeconomic status*), working for pay (*Work for pay*), degree aspirations (*Degree aspirations*), on-campus residency (*On-campus residency*), ability to pay for school (*Ability to pay*), and tuition worth (*Tuition value*). The only institutional characteristics mentioned as significant in the previous literature on Latino/a student thriving were institutional selectivity (*Admissions rate*) and institutional status as a public or private

(*Control;* McIntosh, 2012); therefore, these are the only two institutional characteristics included in this study. In this study, institutional selectivity was measured by the percentage of students admitted (McIntosh, 2012), while institutional control (public/private status) was gauged by the data gathered from the Department of Education's College Navigator website.

Procedures

Communication with students occurred via individual institutions. The institutions were provided with email templates that invited and reminded students to participate in the survey and included a link to that institution's survey. The appropriate staff at each institution sent the customized template to their students, followed by a reminder 1 week later encouraging students to participate. Students had 2 weeks to complete their survey. Students were given the opportunity to provide an email address if they wanted a chance to win a $25 Amazon gift card. I provided one Amazon gift card per participating institution.

Data Screening

Student responses were first examined for completeness. Any student who responded to fewer than 90% of the questions in the study was removed. Because SEM requires a complete data set (Byrne, 2010), missing values were confirmed to be missing at random, then analyzed and imputed using SPSS missing values analysis version 24 linear interpolation. SEM is a robust analytic tool but still requires homogeneity of variance (Tabachnick & Fidell, 2013).

Prior to conducting the confirmatory factor analyses needed to conduct an SEM, data were screened for completeness and homogeneity of variance. Five HSIs were

included in the dataset, with 3,526 respondents. Because of the self-reported nature of students' high school GPA and the strong connection in the literature between high school GPA and postsecondary academic performance (Musoba & Krichevskiy, 2014), I first removed all students who did not provide high school academic performance information (n = 282). I then removed all students who did not provide gender information, because it could not be imputed (n = 158). Because the study is focused on students who are considered traditionally-aged students, I then removed all respondents over age 26 years (n = 214).

Once those students had been removed from the dataset, I reviewed all students who indicated a race of "Other" and recoded all students who indicated a variation of Hispanic in their written comments (e.g., "Hispanic and White" or "Chicano") as Hispanic (n = 11). I removed all non-Hispanic students from the dataset (n = 2,280). SPSS version 24 confirmed the number of questions used in the study students had skipped, and I removed anyone who had skipped six or more questions (n = 2).

I used SPSS missing value analysis (MVA) to impute the missing variables for the remaining students using linear interpolation. To remove univariate outliers, SPSS calculated a z-score for each student's response to each variable, and I removed any case with a score greater than 4 or lower than -4 (n = 23). Then, I removed multivariate outliers (n = 66), using Mahalanobis's distance statistics. All variables were confirmed to be free of skewness and kurtosis. The data screening process resulted in a final dataset of 501 Latino/a students. (Tabachnick & Fidell, 2013)

Once all data screening was completed, the relationships between all latent constructs and their component observed variables were confirmed through a series of

confirmatory factor analyses and reliability estimates. After all factors were verified as appropriate for analysis, I utilized structural regression modeling to confirm how well the hypothesized model of this study fits the data. Modifications were made to the model according to the modification indices and pathway significance. Chapter 4 presents the findings from this analysis.

CHAPTER 4

RESULTS

This study was conducted to determine the student characteristics and campus experiences that influence Latino/a students' thriving. The Thriving Quotient (Schreiner, 2016) was administered to measure students' thriving, as well as all other variables in the model. Because of the complex and interconnected nature of the proposed model, structural equation modeling (SEM) was utilized to confirm the hypothesized model of Latino/a student thriving.

Model Specification

AMOS version 23 modeling software was used to graphically represent the hypothesized model. AMOS allows researchers to visually represent an intended model and investigate the interactions between the variables within that model, making it an ideal software for SEM (Byrne, 2010). Within SEM, the hypothesized model was diagramed using boxes for observed variables and ovals for latent variables. Bidirectional arrows were then added to indicate anticipated covariance or unidirectional arrows to establish intended regression pathways.

Three fit statistics were used to determine how well the model fit the sample data. The first statistic was the comparative fit index (CFI). The CFI compares the proposed model with an independent model that assumes no correlations exist between the variables. CFI calculations of how well the proposed model fits the data compared to the

independent model with a range of 0 to 1, with 1 indicating perfect fit. The second fit statistic used was the root mean square error of approximation (RMSEA; Barrett, 2007). The RMSEA calculation takes the opposing view of the CFI and compares the proposed model to a fully saturated model, wherein all variables are assumed to be interrelated. There is ongoing discussion over the appropriate value levels for each, depending on the size of the sample dataset and the complexity of the proposed model (Tabachnick & Fidell, 2013). Traditionally, CFI above .90 and RMSEA below .06 are considered to represent a good fit between the sample data and the proposed model (Barrett, 2007). Because of the complexity of the hypothesized model in this study and the size of the final sample data set, CFI above .85 and RMSEA below .07 were considered acceptable fits for this data. The final fit statistic used was chi-square; however, because chi-square statistics are inflated with larger datasets, this statistic was only used to confirm if changes to the model were or were not statistically significant (Byrne, 2010).

Confirmatory Factor Analysis

Once the data had been properly prepared for SEM, I conducted confirmatory factor analyses (CFA) on all latent variables within the hypothesized model (Byrne, 2010). CFA allows researchers to confirm the latent variables statistically fit the sample data. For this study, CFAs were conducted to confirm the statistical fit of Thriving, Campus Involvement, Student-Faculty Interaction, Institutional Integrity, Spirituality, and Psychological Sense of Community (PSC). The fit statistics for all variables are presented in Table 3.

Table 3

CFA Fit Statistics for Latent Variables

Factor	*df*	CMIN(χ2)	*p*	CFI	RMSEA
Thriving	243	806.044	.000	.907	.068
Campus Involvement	4	7.139	.029	.997	.040
Student-faculty Interaction	10	22.474	.013	.991	.050
Institutional Integrity	1	16.727	.000	.975	.177
Spirituality	1	.382	.037	1.000	.000
PSC	2	6.187	.045	.995	.065

Thriving

Thriving was confirmed as a first-order latent variable ($\chi^2_{(237)} = 745.880$, $p < .001$, CFI = .916, RMSEA = .068) comprised of Academic Determination ($\alpha = .846$), Engaged Learning ($\alpha = .874$), Diverse Citizenship ($\alpha = .811$, Social Connectedness ($\alpha = .846$), and Positive Perspective ($\alpha = .746$); see Figure 2. The model modification indices created by AMOS help researchers identify potential improvements to the model to increase how well the model fits the data (Byrne, 2010). The modification indices indicated the potential presence of several covariances, and when there was appropriate theoretical backing, those covariance were added to the model to increase overall model fit. Each covariance was added one at a time, and model fit statistics were verified to show each addition made the model better in a statistically significant way.

Thriving ($\alpha = .902$) was then added to the CFA to confirm it functioned as a second-order latent variable with this dataset; see Figure 3. Thriving was found to be an appropriate second-order latent variable ($\chi^2_{(243)} = 806.044$, $p < .001$, CFI = .907, RMSEA = .068). To provide an easier version of the model to read, the observed variables, error variables, and covariances were hidden after Figure 3, leaving Thriving and the five

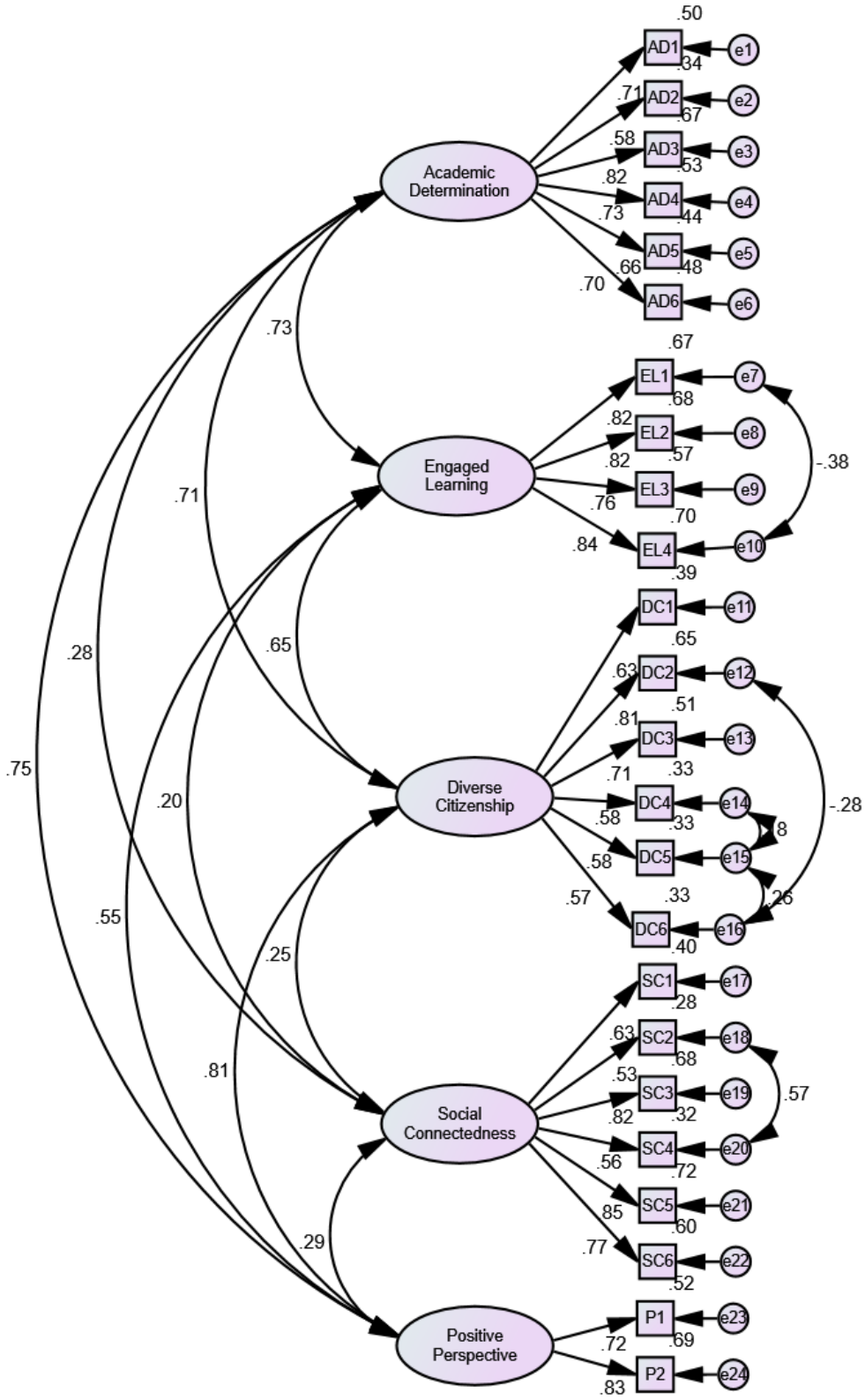

Figure 2. First-order factor structure of Thriving.

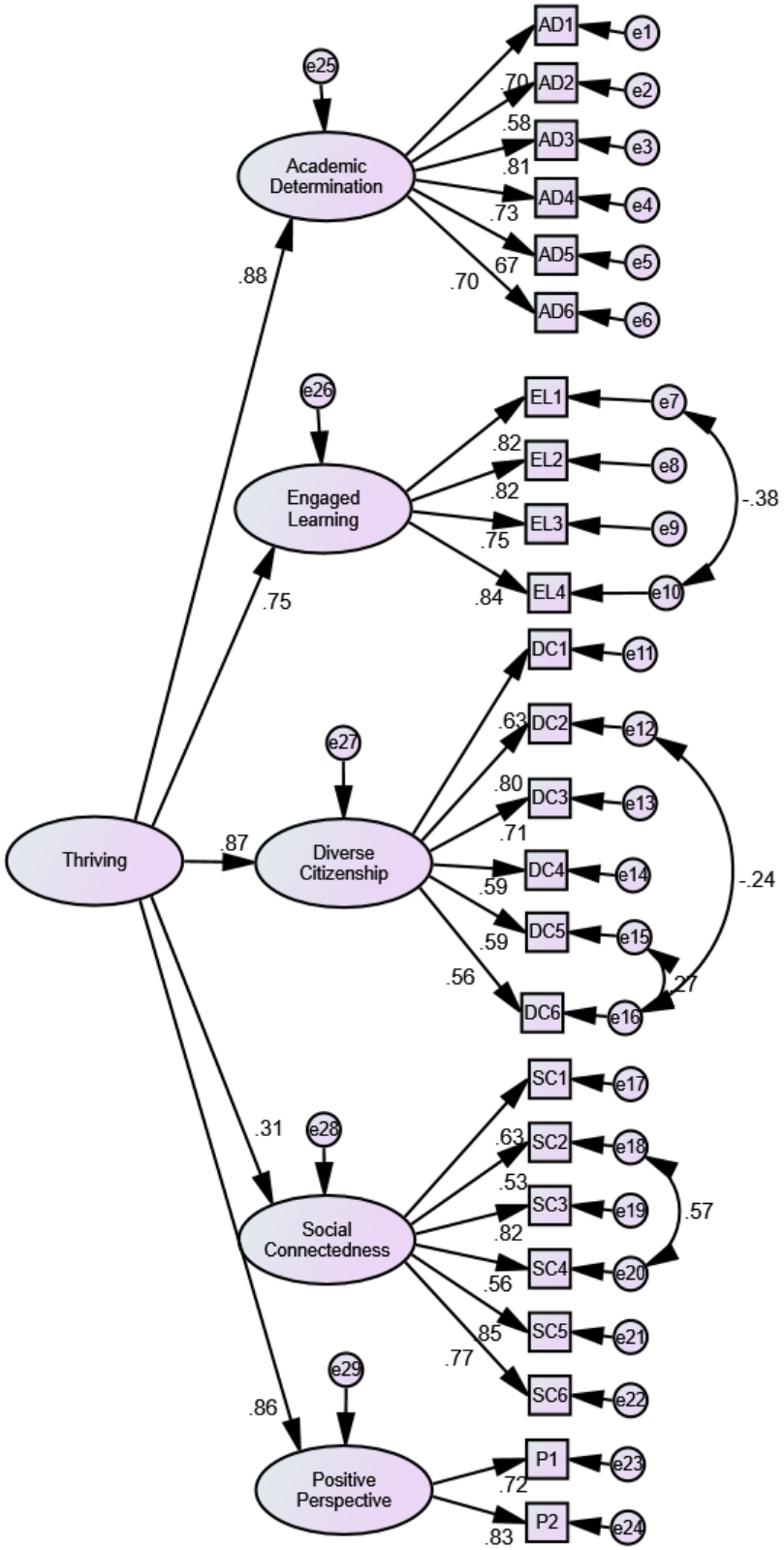

Figure 3. Second-order structure of Thriving.

thriving subscales. All hidden variables and covariances remained within the calculations.

Campus Involvement

The CFA conducted on Campus Involvement (α = .842) indicated a good overall fit with the data ($\chi^2_{(4)}$ = 7.139, p = .029, CFI = .997, RMSEA = .040); see Figure 4. Once again, the AMOS modification indices indicated the addition of a single covariance would potentially improve the factor's overall fit with the data. I added the single covariance and confirmed the addition significantly improved the factor's fit with the data.

Student-Faculty Interaction

The CFA for Student-Faculty Interaction (α = .874) indicated the factor was a good overall fit for the sample dataset ($\chi^2_{(10)}$ = 22.474, p = .013, CFI = .991, RMSEA = .050); see Figure 5. The modification indices indicated the potential improvement of the model through the addition of four covariances. Each covariance was added to the model one at a time and then confirmed to significantly improve the factor's overall fit.

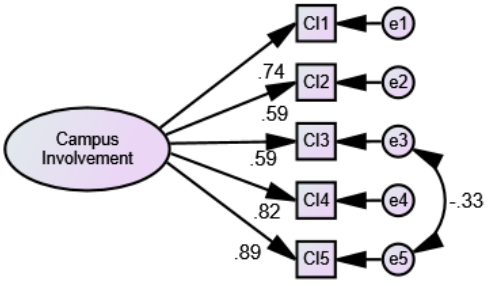

Figure 4. Factor structure of Campus Involvement.

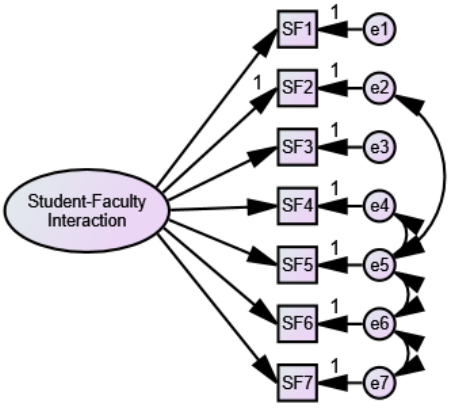

Figure 5. Factor structure of Student-Faculty Interaction.

Institutional Integrity

The CFA conducted on Institutional Integrity indicated it was not an acceptable fit for the data ($\chi^2_{(1)} = 16.727$, $p < .001$, CFI = .975, RMSEA = .177); see Figure 6. The initial CFA indicated the factor was under-identified. Therefore, I equally constrained two variables, which are indicated in the model using a lowercase letter "a". This constraint can negatively affect model fit, which may account for the high RMSEA score, but it did allow the model to be identified and confirmed (Byrne, 2010). Although the RMSEA score is high for this factor, the high level of internal consistency found in the Cronbach's alpha and factor loading scores (see Table 4) helped confirm this variable would perform better as an observed variable rather than a latent variable within the

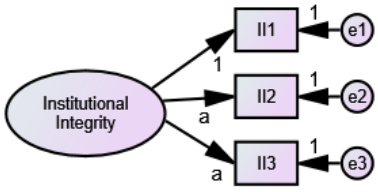

Figure 6. Factor structure of Institutional Integrity.

Table 4

CFA Variable Loading – Institutional Integrity

Variable	Estimate
Institutional Integrity	α = .840
II1	.858
II2	.899
II3	.855

model. Therefore, I calculated the mean Institutional Integrity score for each student and replaced the latent variable with the observed mean score within the model.

Spirituality

Similar to Institutional Integrity, the small number of variables within Spirituality (α = .931) required that I equally constrain two of the variables for AMOS to identify the model (see Figure 7). Constraining the variables with a lowercase letter "b" resulted in a single degree of freedom within the model, which, in this circumstance, led the system to indicate a perfect fit with the data ($\chi^2_{(1)}$ = .382, p = .037, CFI = 1.000, RMSEA = .000). However, these perfect fit statistics may be due to the model only possessing a single degree of freedom with which to confirm the model's fit. The regression weights confirmed the overall good fit of the factor model with the sample dataset.

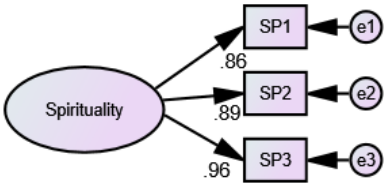

Figure 7. Factor structure of Spirituality.

Psychological Sense of Community

The CFA conducted on the final factor in this study, Psychological Sense of Community (PSC; $\alpha = .843$), also confirmed its overall fit with the dataset ($\chi^2_{(2)} = 6.187$, $p = .045$, CFI = .995, RMSEA = .065); see Figure 8. Although previous studies found the need to add multiple covariances to this factor (McIntosh, 2012), the modification indices for this dataset indicated no covariances were needed.

Structural Model

The hypothesized structural equation model based on the literature was constructed in AMOS. For readability, the observed variables, error variables, and covariances of the factors were hidden, as well as the covariances between the observed control variables. All hidden varables and covariances remained within AMOS's calculations; they were hidden only to make the model more legible. The initial fit statistics of the hypothesized model indicated the need for model modifications to better fit the model with the data ($\chi^2_{(1453)} = 3361.757$, $p < .001$, CFI = .865, RMSEA = .051). The modification indices indicated additional pathways that would help the model better fit the dataset. After the additional pathways were added and confirmed to significantly

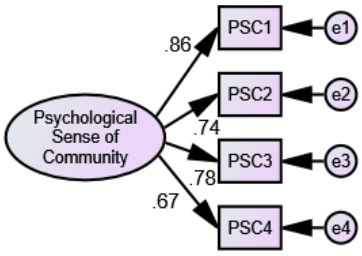

Figure 8. Factor structure of Psychological Sense of Community.

improve the model's fit, non-significant pathways were eliminated. Each eliminated pathway was confirmed to not significantly reduce the model's fit. Campus Involvement was eliminated from the model when it was confirmed it had no significant pathways of prediction to any other variable within the model and had no effect, direct or indirect, on students' thriving. Similarly, high school grades, gender, and on-campus residency were removed from the model when they were found to have no significant predictive power of any variables in the model and no effect on thriving. Although the removal of Campus Involvement and on-campus residency were both statistically significant changes, the reduction in chi-square values indicated the changes were significant improvements. The final model (see Figure 9) indicated an acceptable fit with the data ($\chi^2_{(986)} = 2300.890$, $p < .001$, CFI = .889, RMSEA = .052). All standardized regression weights in Figure 9 are statistically significant, as all non-significant correlations were removed from the model during the specification process. See Table 5 for the complete listing of adjustments made to the hypothesized model, along with all relevant fit statistics.

Effects on Thriving

The research question guiding this study was: To what extent do students' characteristics and campus experiences contribute to thriving for Latino/a students attending HSIs? To answer this question, I examined the indirect, direct, and total effects on Thriving (see Table 6).

The final model indicated multiple pathways to Thriving. The strongest effect occured directly from students' PSC. Institutional Integrity possessed the second largest overall effect on students' thriving, although that effect was entirely indirect and

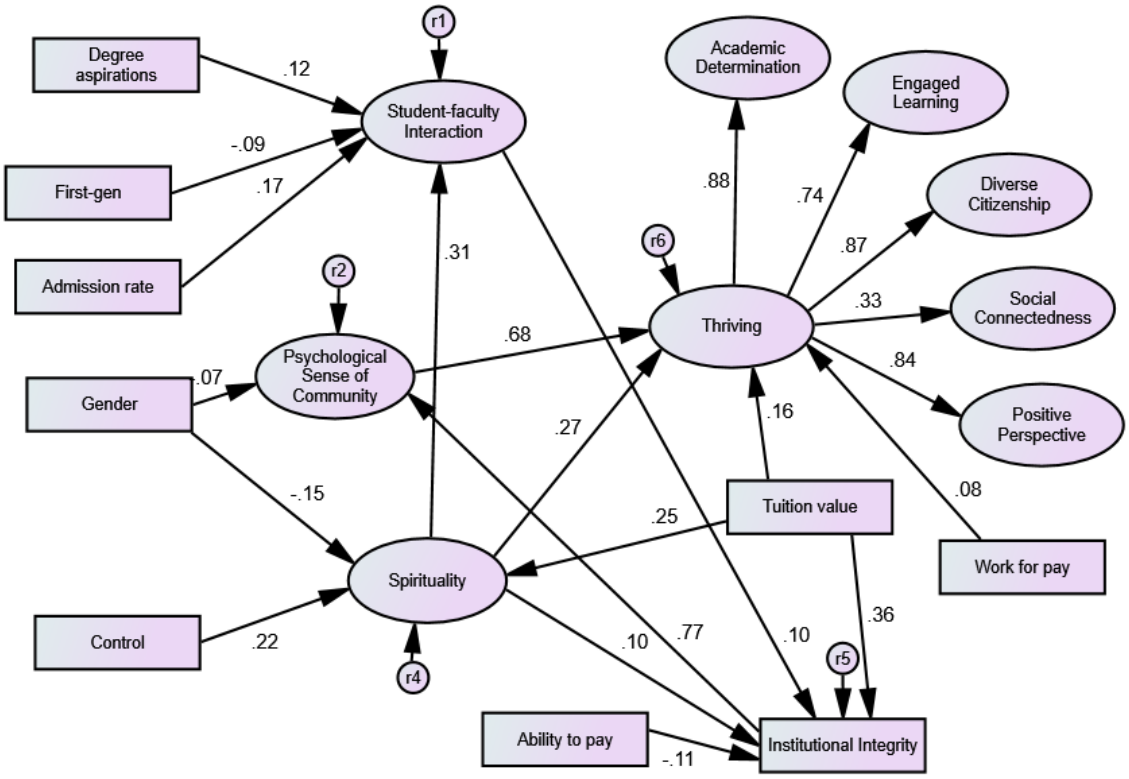

Figure 9. Final model of Latino/a student thriving, including standardized regression weights.

mediated solely by PSC. Although the strengths of the effect of Institutional Integrity is entirely indirect, Institutional Integrity also mediated the relationship between other variables and thriving. These findings indicate PSC and Institutional Integrity remain important influences on Latino/a students thriving, as they are for White students and other students of color (Ash & Schreiner, 2016; Schreiner, 2010a), even after considering other student input characteristics, college environment, and other college experience variables.

Table 5

Modifications Made to Hypothesized Model and Model Fit Statistics

Change	χ^2	*df*	CFI	RMSEA	Δdf	$\Delta\chi^2_a$
Hypothesized Model	3361.757	1453	.865	.051		
Added Tuition → Spirituality	3326.664	1452	.868	.051	1	35.093***
Added Student-faculty Interaction → Campus Involvement	3283.383	1451	.871	.050	1	43.281***
Added Control → Campus Involvement	3257.996	1450	.873	.050	1	25.387***
Added Admission rate → Student-faculty Interaction	3245.365	1449	.873	.050	1	12.631***
Added Tuition value → Thriving	3233.271	1448	.874	.050	1	12.094***
Added Work for pay → Thriving	3227.051	1447	.875	.050	1	6.22*
Removed Degree aspirations → Campus Involvement	3227.055	1448	.875	.050	1	.004
Removed Campus involvement → Thriving	3227.119	1449	.875	.050	1	.064
Removed First-gen → PSC	3227.228	1450	.875	.050	1	.109
Removed Socioeconomic status → Campus Involvement	3227.532	1451	.875	.049	1	.304
Removed Student-faculty Interaction → PSC	3228.124	1452	.875	.049	1	.592
Removed Institutional Integrity → Thriving	3228.876	1453	.875	.049	1	.752
Removed Work for pay → Campus Involvement	3229.945	1454	.875	.049	1	1.069
Removed Campus Involvement → PSC	3231.324	1455	.875	.049	1	1.379
Removed Gender → Student-faculty Interaction	3232.677	1456	.875	.049	1	1.353
Removed Institutional Integrity → Campus Involvement	3234.924	1457	.875	.049	1	2.247
Removed High school grades	3165.731	1412	.875	.050	45	30.807
Removed Socioeconomic status	3120.240	1367	.875	.051	45	45.491
Removed Campus Involvement	2539.492	1117	.887	.050	250	580.748***
Removed On-campus residency	2476.332	1076	.888	.051	41	63.16*
Removed Student-faculty interaction → Thriving	2479.174	1077	.888	.051	1	2.842
Removed Admission rate → Spirituality	2482.336	1078	.888	.051	1	3.162
Removed Spirituality → PSC	2485.181	1079	.888	.051	1	2.845
Replaced Institutional Integrity latent variable with observed variable	2300.890	986	.889	.052	93	184.291***

Note. a - *$p < .05$, **$p < .01$, ***$p < .001$

As a general theme, financial issues, the variables Tuition Value, Work for Pay, and Ability to Pay, combined to represent the second largest overall effect, but Institutional Integrity has the second largest total effect size. Although previous research

Table 6

Variables' Indirect, Direct, and Total Effect on Thriving

Variable	Indirect	Direct	Total
PSC		.684	.684
Institutional Integrity	.527		.527
Tuition value	.274	.159	.433
Spirituality	.068	.266	.333
Work for pay		.084	.084
Control	.075		.075
Student-faculty Interaction	.054		.054
Degree aspiration	.006		.006
First-gen	-.005		-.005
Admission selectivity	.009		.009
Ability to pay	-.060		-.060
Gender	-.099		-.099

has found financial issues are an important factor in Latino/a students' success (Gross et al., 2014; Saunders & Serna, 2004), their level of importance for Latino/a students' thriving found in this study represents a new understanding.

Spirituality also had a significant effect, directly and indirectly, on students' thriving. A small portion of Spirituality's effect is indirect, mediated by Institutional Integrity and Student-Faculty Interaction. However, the majority of Spirituality's effect on Latino/a students' Thriving is direct, a finding congruent with previous research on Latino/a students' thriving (McIntosh, 2012).

The remaining variables of Institutional Control, Student-Faculty Interaction, Degree Aspirations, First-Generation, Admission Rate, and Gender all have small but statistically significant effects on Latino/a students' Thriving. The model also accounts for a significant portion of the variation within students' thriving (R^2 = .73). Further analysis of these findings are presented in Chapter 5. It also includes limitations of the study, implications for practice, and suggestions for future research.

CHAPTER 5

DISCUSSION

Given Latino/as continuing to possess the lowest baccalaureate completion rate of any racial or ethnic population within higher education (NCES, 2016e), research into what influences Latino/a student thriving is needed. The thriving concept expands researchers' understanding of student success and allows alternative methods of helping Latino/a students succeed in their college careers (Schreiner, 2014). Researchers have found thriving is predictive of traditional measures of student success, such as college GPA, persistence, and graduation rates (Schreiner, 2010b; Schreiner et al., 2013). This study expands on previous research on Latino/a students at PWIs (McIntosh & Schreiner, 2013; Paredes-Collins, 2012; Petridis, 2015) by investigating their thriving at Hispanic-Serving Institutions (HSI), with the hypothesis the increased population density of Latino/as at HSIs would reveal additional pathways to thriving for these students. The research question guiding this study was: To what extent do students' characteristics and campus experiences contribute to thriving for Latino/a students attending HSIs? In addition to discussing the results of the study, this chapter present the limitations, implications for practice, and suggestions for further research arising from this study.

Pathways to Latino/a Student Thriving

The final model contained four items with direct effects on students' thriving: Psychological Sense of Community, Spirituality, tuition value, and work for pay. Eight

variables, Institutional Integrity, financial difficulty, Student-Faculty Interaction, degree aspirations, first-generation status, gender, institutional control, and institutional admissions rate, indirectly influenced students' thriving and were ultimately mediated by PSC or Spirituality. Four variables were removed from the model: Campus Involvement, high school grades, SES, and on-campus residency.

In McIntosh's (2012) study of Latino/a student thriving at Predominantly White Institutions (PWIs), he found PSC and Spirituality both had direct effects on Latino/a students' thriving. However, he also found Campus Involvement had an indirect effect, whereas Campus Involvement was ultimately removed from this model. Finally, he found Student-Faculty Interactions had a direct effect on Latino/a students' thriving, although he measured only satisfaction with those interactions, compared to this study which investigated both the quantity and quality of students' interactions with their faculty.

In Romero's (2016) study of the thriving of low socioeconomic students attending 2-year HSIs, he also found PSC had a direct effect on students' thriving, and the effect of Institutional Integrity was entirely indirect and mediated by PSC. However, he found students' high school grades had a direct effect on students' thriving, which was not a significant contributor to Latino/a student thriving in this study. Another key difference between Romero's study and this one was that Romero found the frequency of student-faculty interaction had a direct effect on students' thriving, but the level of satisfaction with those interactions had only indirect effects on students' thriving. In this study, student-faculty interaction had only indirect effects on Latino/a student thriving.

Finally, in Petridis's (2015) study of graduate students at PWIs, she found the model of thriving for Latino/a students indicated direct effects on their thriving from PSC, gender, the support of family and friends, Student-Faculty Interaction, age, and the number of hours they worked. However, in addition to sampling an older population at a different academic level, the number of Latino/a participants in her study (*n = 262*) was just over half the number of Latino/a participants in this study (*n* = 501).

Psychological Sense of Community

In this study, students' PSC (Schreiner, 2010a) emerged as the most significant predictor of Latino/a students' thriving, explaining more than two-thirds of the variation in thriving levels (R^2 = .677). This finding is consistent with previous literature that found PSC to be a major predictor of Latino/a students' thriving (McIntosh, 2012; Romero, 2016), as well as the literature on the contribution of Latino/a students' sense of belonging to their adjustment and success in college. The total effect of PSC in this study (β = .648) was approximately equal to McIntosh's (2014) study (β = .692) that investigated only Latino/a students and higher than Romero's study (β = .458) on students at 2-year HSIs.

PSC describes the extent to which students feel they are a part of the institutional community. PSC is comprised of four dimensions: membership, ownership, relationship, and partnership (Schreiner, 2013b). Membership refers to how much students feel they belong on campus. Given the consistency in the literature between Latino/a students' sense of belonging predicting their academic success (Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005; Musoba et al., 2013; O'Keeffe, 2013), it logically follows that the sense of belonging experienced through PSC would also be highly predictive of thriving.

Students experience ownership when they can contribute to the campus community and their concerns and recommendations are taken seriously by staff and administrators (McMillian & Chavis, 1986). For Latino/a students, the ability to feel heard and understood has a direct effect on their sense of belonging (Saenz et al., 2016), and therefore had a direct effect on their ability to thrive on campus. Relationship occurs through positive interpersonal experiences that allow students to develop emotional connections on campus (McMillian & Chavis, 1986). Once again, this ability to develop interpersonal connections on campus is highly predictive of Latino/a students' sense of belonging (Smith, 2015; Swanson et al., 2015). By developing a network of peers with whom Latino/a students can feel emotionally connected, they are able to bolster both their sense of belonging and thriving. Finally, partnership refers to the ability of students to work with others to accomplish shared goals (McMillian & Chavis, 1986). This ability to work with others also directly influences Latino/a students' sense of belonging and can even decrease levels of depression and loneliness by helping them feel they are a valued and contributing member of the campus community (Gray et al., 2013).

The sense of belonging associated with PSC is a well-studied topic within Latino/a students in higher education (Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005; Kim et al., 2015; Musoba et al., 2013; O'Keeffe, 2013; Soria & Stubblefield, 2015). The more Latino/a students feel they belong as a genuine member of the campus, the more successful they are academically. It follows, therefore, that the more Latino/a students feel they belong, the more they will thrive on campus. The more Latino/a students feel they are connected to their peers (Hernandez, 2000) and institutional employees (Graff et al., 2013), the more they will feel they belong within the community.

PSC is not only sense of belonging, however; but it is also comprised of feeling one's needs will be met, one has a contribution to make, and there are opportunities to work together toward common goals. It is these broader elements of PSC that extend beyond a sense of belonging that appear to make this variable such a powerful contributor to student thriving, particularly among Latino/a college students (McIntosh, 2012; Romero, 2016).

Given the cultural importance placed on family and interpersonal connections (Graff et al., 2013; Hernandez, 2000), it is unsurprising that interpersonal connections represent such an important factor in Latino/a students' thriving. The need for interpersonal connections that facilitate learning (Rodriguez et al., 2014) and personal growth (Graff et al., 2013) that are common among students of all racial and ethnic backgrounds have a particularly special emphasis placed upon them within Latino/a cultures (Conchas, 2001). Therefore, the more interpersonally connected Latino/a students are on campus, the more they will thrive.

Latino/a students also have a very strong need to feel they belong (Hurtado & Carter, 1997). The most predictive item within the PSC factor was the simple statement "I feel like I belong here." This response was also the most predictive item within McIntosh's (2012) study and the second most predictive within Romero's (2016) study, although those studies included non-Hispanic students within the confirmatory factor analysis samples. Latino/a students need to feel they are a valued member of the larger community, and the more institutions can do to help Latino/a students feel they are a part of the institutional community, the more those students will thrive.

This need for membership should not be confused with pride in the institution. The item with the lowest factor loading was the statement "I feel proud of the college or university I chose to attend." Although pride in the institution is still an important and significant piece of Latino/a students' PSC, the need to feel like a member of the larger community is not the same as feeling pride in the community itself. Focusing on membership and inclusion, rather than school spirit, is more likely to help Latino/a students engage and thrive.

The lack of any effect from Campus Involvement on students' thriving and its ultimate removal from the model also suggests Latino/a students are not necessarily looking for large-scale campus events in which to develop these relationships or to develop their feelings of membership. However, the removal of Campus Involvement from the model contrasts with McIntosh's (2012) model of Latino/a students attending PWIs, in which he found Campus Involvement contributed to Latino/a students' PSC. This difference could be due to the environment of PWIs that encourages campus involvement of all students, whereas in HSIs, Latino/a students can feel a sense of belonging among their peers on campus without such involvement. Rather than looking for traditional college experiences in which to develop their sense of belonging, Latino/a students are generally more interested in close, interpersonal relationships that develop naturally over time (Graff et al., 2013; Hernandez, 2002). This desire for close, interpersonal relationships provides an interesting quandary for higher education leaders, who must rethink how to provide spaces and opportunities for students to meet and develop these relationships, ensure students feel heard, can work together, and ultimately feel they belong as a member of the campus community.

Institutional Integrity

According to this study, the most significant way institutions can improve Latino/a students' PSC, and indirectly their thriving, is by keeping the implicit promises the institution made to students. Possessing the second largest total effect size (β = .565), Institutional Integrity was mediated entirely through students' PSC. Institutional Integrity represents the levels students believe the institution has fulfilled the promises it has made, particularly during the admissions process (Braxton et al., 2014). This mediation of Institutional Integrity through PSC confirms te previous research involving Institutional Integrity and students' thriving (Ash & Schreiner, 2016), although Romero (2016) did find Institutional Integrity had both direct effects on thriving in addition to the indirect effect through PSC.

Although other research has found Institutional Integrity to have an indirect effect on students' thriving, Institutional Integrity emerged in a unique way compared to previous literature. Ash and Schreiner (2016) also found Institutional Integrity's effect on thriving was entirely indirect, but at a much lower level. Romero (2016) found Institutional Integrity had both direct and indirect effects on students' thriving, once again at a lower overall effect. However, both studies included other racial groups in addition to Latino/as. Therefore, this study's specific focus on Latino/a students and its specific finding of a stronger, albeit indirect, contribution of this variable to thriving suggest Latino/a students are more heavily influenced by Institutional Integrity than the general student population. This level of influence may be explained, in part, by Hurtado and Kamimura's (2003) research on Latino/a student retention, which found institutional

factors, including levels of trust with faculty and staff, influenced Latino/a students' retention decisions.

The more an institution follows through on its promises, the more effectively students can make meaningful connections on campus. If Latino/a students believe an institution will follow through on its promises, then those students will have an easier time trusting the people they encounter on campus (Braxton et al., 2008). It is understandable that students who feel they cannot trust their institution will have a more difficult time trusting and making interpersonal connections on campus. The more students believe the institution values them, the more students will value relationships they develop on campus (Hurtado & Kamimura, 2003; Hurtado & Ponjuan, 2005).

The most significant indicator in this latent variable was the level at which students felt the institution had been accurately portrayed during the admissions process. The more admissions counselors can help Latino/a students accurately understand the institution, the more students will trust that the institution has integrity, and the more likely they will be to experience a sense of community and thrive. By ensuring students have a clear understanding of what to expect in their college experience, admissions counselors can help ensure Latino/a students thrive throughout their college experience.

Student-Faculty Interaction

The need to keep promises also extends to the student-faculty relationship. Although the direct relationship between student-faculty interaction and thriving was not statistically significant, the contribution of student-faculty interaction to Latino/a students' thriving occurs indirectly, mediated by Institutional Integrity and PSC. The effect size for student-faculty interaction is lower than found in previous studies

(McIntosh, 2012; Romero, 2016); however, those previous studies used only a single observed variable that measured students' satisfaction with their interactions with their faculty members, whereas this study used a factor that included both frequency and satisfaction.

On the surface, the lack of direct influence between student-faculty interactions and Latino/a students' thriving appears to contradict much of the current literature, which has consistently found faculty to be the primary influence on students (Arum & Roksa, 2011; Braxton et al., 2008; Trolian, Jach, Hanson, & Pascarella, 2016). However, the significant pathway from Student-Faculty Interaction to Institutional Integrity indicates faculty do indirectly influence Latino/a students' thriving. This indirect effect through Institutional Integrity partially confirms Romero's (2016) findings that students' satisfaction with their faculty interactions was predictive of Institutional Integrity, whereas the actual amount of student-faculty interaction was directly predictive of students' thriving. In the current study, student-faculty interaction's influence is mediated first by Institutional Integrity, which in turn predicts students' PSC, compared to previous research that found at least some direct influence between students' interactions with their faculty and thriving (McIntosh, 2012; Romero, 2016). Therefore, in the same way admissions counselors establish students' expectations, faculty both establish and attempt to meet students' expectations. The level by which they meet those expectations influences students' Institutional Integrity.

The influence faculty members have on students' perceptions of institutional integrity in turn contributes to how easily students develop and maintain meaningful relationships on campus. For example, if a student has an unfortunate experience with an

instructor, then that experience may negatively affect the student's perception of the institution, which may diminish his or her sense of belonging and desire to develop meaningful relationships on campus. Therefore, faculty influence Latino/a students' thriving by having a positive or negative influence on students' desire to consider themselves a member of the same institution as that instructor. The more the student feels a sense of belonging to the campus community, the more that student will thrive. By the same logic, if students can form meaningful relationships with their faculty, ones where the Latino/a students can establish trust and build connections with their instructors, then those students are more likely to view the institution as being true to its mission; these positive perceptions then encourage the students to develop additional relationships that enable them to thrive.

Spirituality

A continued exploration of the chain of indirect relationships that contributes to Latino/a students' thriving leads to the role of spirituality. Although Spirituality does not directly contribute to thriving, it has an indirect effect through Student-Faculty Interaction. The level of spirituality these Latino/a students reported predicted their satisfaction with the quantity and quality of their interactions with faculty members. Therefore, it appears faculty can support students' thriving by remaining open and supportive of students' values and beliefs. (Astin et al., 2011b).

As in previous studies, Spirituality was an important influence on Latino/a students' thriving in this study. The total effect levels of Spirituality on thriving for Latino/a students at HSIs were similar to the levels found by McIntosh (2012; $\beta = .364$) compared to this study ($\beta = .333$). This finding suggests Spirituality remains an

important factor in Latino/a students' thriving at both HSIs and PWIs. The values, beliefs, and ways Latino/a students view the world around them are as important, if not more so, at HSIs. By attending institutions or associating with other individuals on campus that align with their personal beliefs, Latino/a students may experience higher levels of thriving and experience the associated academic benefits (McIntosh, 2012).

It is possible the increased number of Latino/a students present at HSIs helps amplify this effect, as they can more easily find other students who share their core beliefs. By finding other students who share their values and beliefs, students will feel a greater sense of belonging as they engage with other students who have similar beliefs on a wide variety of areas, including family, finances, and the role of higher education (Hernandez, 2000).

This need for acceptance and agreement with values and beliefs is not surprising, given Rockenbach and Mayhew's (2014) findings. In their study, students who had diverse and challenging experiences around spirituality, coupled with support and opportunities for personal expression, experienced increased levels of satisfaction. In their sample, Latino/a students exhibited no significant differences from other student groups in how these spiritual experiences influenced their satisfaction. Therefore, this study's findings of Spirituality predicting Student-Faculty Interaction and Institutional Integrity support Rockenbach and Mayhew's original findings. The more students can feel the campus supports them and provides a safe place for spiritual exploration, the higher their levels of satisfaction, and thereby higher levels of thriving.

Financial Issues

An important distinction between this study and previous quantitative research on Latino/a student thriving is the emergence of the importance of finances. In addition to how much value Latino/a students feel they receive for their tuition investment, working for pay and having difficulty affording college both emerged as significant predictors of thriving.

Tuition worth. One predictor of levels of spirituality and a significant predictor of Latino/a students' thriving is how worthwhile an investment they consider their tuition to be. How much perceived value Latino/a students receive for their tuition dollars emerged as a key factor in explaining the variation in Latino/a students' thriving. The importance of this variable represents a departure from the other models that have investigated Latino/a students' thriving at PWIs. The overall effect size of tuition worth makes it the third most significant predictor in this study; only PSC and Institutional Integrity have larger total effect sizes. In addition to directly affecting students' thriving, it indirectly affects thriving through its contribution to the variation in Institutional Integrity and Spirituality.

The cultural factors involved in Latino/a students attending higher education help explain why tuition value would directly influence their thriving. Many Latino/a students attend higher education to help their larger families or communities financially (Graff et al., 2013; Hernandez, 2000). This close connection to family can be seen in higher levels of commuting, as families often expect students to remain at home and continue helping with various household duties (Caldera, Robitschek, Frame, & Pannell, 2003; Graff et al., 2013). Therefore, Latino/a students who believe they are not getting their money's worth

in the tuition they pay may view that money and time as wasted, negatively influencing their thriving.

It also follows that the value Latino/a students feel they are receiving for their tuition dollars would influence their perceptions of institutional integrity. If students feel their tuition money is spent well, in ways that benefit them and their education, then they will have a more positive view of the institution, which directly affects their sense of community on campus and has a positive effect on their thriving.

Work for pay. Latino/a students who work for pay, regardless of whether that work is on or off campus, experience higher levels of thriving. It is interesting that working has a direct influence on student thriving, independent of all other variables in the model. This finding aligns with previous research that has found working on campus is beneficial to students' on-campus engagement (Stern, 2014); however, this current study indicates the location of the work is less important than working for pay at all. This finding also confirms Romero's (2016) finding that the number of hours students worked was directly predictive of their thriving. However, it contradicts Ash and Schreiner (2016), who did not find working for pay had any significant relationship associated with thriving in students of color on predominantly White Christian college campuses.

Part of the reason this variable emerged as important may be explained by the cultural importance placed on family. As stated previously, Latino/a students often encounter a strong desire from their families to continue living at home and contributing to the household (Caldera et al., 2003; Graff et al., 2013). The expectation to contribute to the household can often include contributing financially (Conchas, 2001; Graff et al., 2013; Hernandez, 2000). Because Latino/a students often attend higher education as a

means of benefiting themselves and their families financially (Graff et al., 2013; Hernandez, 2000), students who work while attending school may find additional ways of applying their learning that help them both imagine and realize the long-term benefits of a college education. This real-world application of their learning would greatly benefit their Engaged Learning and, therefore, their ability to thrive (Schreiner & Louis, 2011).

Ability to pay. Although working benefits Latino/a students' thriving, having difficulty paying for school negatively influences their thriving. This negative influence occurs indirectly, mediated through Institutional Integrity. In the same way tuition value can influence students' perception of institutional integrity, having difficulty paying for college can result in negative feelings toward the institution's integrity. This negative influence on Institutional Integrity may be due to a lack of clear communication during the admissions process regarding the level of funding or funding sources available to Latino/a students. If the institution sets expectations regarding the availability of funding and how much students will be expected to pay out of pocket that then do not align with students' lived experiences, then that might negatively affect students' Institutional Integrity and thereby their ability to thrive.

Institutional Variables

In addition to student-based variables, both institutional characteristics in the model had indirect effects on students' thriving. The institution's admission rate and whether it is publicly or privately controlled showed small but significant effects on Latino/a students' thriving, although that influence may be due to issues with the sample.

Admission rate. Latino/a students at less selective institutions reported higher levels of Student-Faculty Interaction than students at institutions with more selective

admissions standards. This increased level of Student-Faculty Interaction contributed to students' Institutional Integrity and PSC, and thereby their thriving. Given the number of pathways this variable encounters to eventually reach thriving, the overall effect is entirely indirect and quite small, but still statistically significant (β = -.007). This finding aligns with McIntosh's (2012) study, which found an even stronger effect (β = -.069), although McIntosh's model possessed much fewer latent variables, and therefore institutional selectivity had a more direct pathway to students' thriving in his study.

Latino/a students at less selective institutions may report more satisfying interaction with their faculty because these institutions have a mission for reaching students who have not always been well-served by the educational system; thus, their faculty are better equipped for the kinds of relationships that are likely to support students. Likewise, this greater interaction may be the result of Latino/a students being more likely to seek faculty assistance in less selective institutions. Latino/a students are typically less academically prepared for college after high school than their White peers, due to complex systemic and cultural issues within the U.S. education system (Charles et al., 2007; Conchas, 2001). This lack of academic preparedness and the heightened academic rigor found in college may create a greater likelihood for Latino/a students in less selective institutions to seek additional support from their faculty compared to their peers at more selective institutions.

The increased level of contact at less selective institutions resulted in an overall positive effect on students' thriving. Researchers have found the levels and quality of student-faculty interaction are somewhat differentiated by race (Cole & Griffen, 2013), and students of color are more significantly influenced by interactions with faculty,

particularly faculty of the same racial background, than by other motivating factors that influence White students (Roksa & Whitely, 2017). Therefore, it is possible that the effect on students' thriving could originate from the ability to find faculty members of the same racial background. It is also possible that students who struggle academically seek the assistance of their instructor and thereby develop the interpersonal relationships that help them to thrive.

Institutional control. In this study, students at private institutions experienced higher levels of Spirituality than their counterparts at public institutions. However, it is important to note the study contained only one privately-controlled institution. The lone privately-controlled institution is a faith-based university, which may explain why the institutional control variable predicted students' Spirituality. Therefore, because there was a systematic difference between the single privately-controlled and the publicly-controlled institutions, one cannot conclude that attending a private institution contributes to the variation in students' levels of spirituality. This systemic difference may explain why this study found private institutions to be more beneficial, while McIntosh (2012) found publicly-controlled institutions were more beneficial to Latino/a students' thriving.

Student Characteristics

In addition to the various ways students engage their institutions, students enter college with existing characteristics that remain fairly stable throughout their college experience (Tinto, 1986). This section discusses the interactions between Latino/a students' thriving and their gender, degree aspirations, and first-generational status.

Gender. The effect of gender on Latino/a students' thriving was mediated through Spirituality and PSC. As previous research has found, Latinos and Latinas

engage with higher education differently (Kim et al., 2016). Romero (2016) found gender was predictive of PSC, although his study did not include spirituality. This study found Latinos and Latinas experience different pathways to thriving.

Latinos in this study thrive more through PSC directly, rather than mediated through additional variables. This finding agrees with previous literature that found Latinos find more benefit in direct interpersonal relationships, such as mentoring and Latino student peers, than their Latina counterparts (Pena, 2015; Pérez & Taylor, 2015). These interpersonal relationships may provide the safe spaces Latino students need to process various difficulties, both internal and external, associated with attending college.

Although Latinas do benefit from PSC, this study found they are more likely to realize that benefit as it connected with their spirituality. This difference may have several root causes, including the faith-based nature of the private institution included in the study. The college experience for Latinas is distinct from that of Latinos. In addition to enrolling and completing in greater numbers (NCES, 2016e), Latinas experience greater gains in both self-awareness and civic attitudes during college compared to their Latino peers (Kim et al., 2014). Latinas also express a stronger relationship between the need for college education to benefit future generations of their family (Graff et al., 2013). Because of these strongly held beliefs and values, which is the way this study defined spirituality, Latinas in this study appear better able to thrive when the PSC they experience on campus agrees with their values and beliefs.

Degree aspirations. Although previous research on students of color in PWIs had found degree aspirations were not predictive of thriving (Ash & Schreiner, 2016), degree aspirations had a small indirect effect on Latino/a students' thriving in this study,

mediated by student-faculty interaction. In the final model, undergraduate students who intended to pursue additional education beyond their bachelor's degree were more likely to interact with and be satisfied with the interactions they have with their faculty. This increased communication ultimately benefits students' thriving because it can bolster institutional integrity, and thereby students' PSC. It is understandable that students who intend to continue their education beyond the baccalaureate level would have an increased level of communication and contact with their faculty members, as conversations from topics such as deeper understanding of certain course material to which graduate schools to consider attending would all be natural results of such desires. It is also understandable that students wishing to continue to graduate school would want to develop good quality relationships with their faculty members, to help ensure full, open advice, as well as provide support through items such as reference letters for graduate school.

First-generation. Similar to degree aspirations, first-generation status had a small indirect effect on Latino/a students' thriving, mediated by student-faculty interaction, similar to what has been found previously in models of thriving among students of color in general (Ash & Schreiner, 2016). According to this study, first-generation students have lower levels of Student-Faculty Interaction. This finding agrees with McIntosh's (2012) finding, although his study had twice the overall effect level. Once again, McIntosh's study contained much fewer latent variables, resulting in a more direct pathway between first-generation status and students' thriving, which may account for the overall difference in effect levels.

This finding also agrees with the broader literature on first-generation students, finding they often meet less frequently with faculty members than their multi-generational peers (Kim & Sax, 2009). The reason for this finding may be related to first-generation students' lack of awareness of the benefits of meeting with faculty members outside the classroom (DiMaria, 2006) or a fear of being viewed in a negative way by the faculty member for admitting to needing additional help (Graff et al., 2013). It is also possible that because of the high rate of first-generation students within the Latino/a population (Núñez et al., 2011), these students may have an easier time finding peers who struggle with and have the same concerns they do, thereby increasing their sense of belonging and potentially benefitting thriving.

Limitations

This study has several limitations that affect its generalizability to the larger higher education community. The type of institutions selected for the study also represents another limitation. All institutions in this study were 4-year institutions that admitted 49% to 80% of the students who applied. Therefore, the institutions do not represent the spectrum of higher education, including community colleges and those institutions from much higher selectivity to those that offer open enrollment. This level of specificity in selecting the institutions may affect the applicability of the findings outside moderately-selective 4-year institutions.

In addition to generalizability, the study was correlational in nature; therefore, causal relationships cannot be made from the relationships demonstrated within the model. Another limitation is the large geographical and cultural differences grouped into the singular Latino/a term. Although this term is used and recognized widely, there is a

large amount of diversity represented within the peoples represented by this singular term (Page, 2013). For example, the cultural differences in how various geographic groups engage with and value higher education may vary greatly between Puerto Rican and Brazilian students, but all of these students, in addition to many other groups, are gathered together under this singular term. This generalization also extended to the work for pay variable, which did not specify how many hours students worked. It is possible that the number of hours worked may demonstrate that attempting to work too much has a negative correlation with thriving.

Finally, except for admissions rate and institutional control, all variables were self-reported. Therefore, variables such as high school GPA and income may have been inaccurately reported. This self-reporting indicates these variable serve as a proxy for SES and academic preparedness, rather than as a specific measure (Kuncell, Crede, & Thomas, 2005). Inaccuracies within the self-reporting may have also contributed to the lack of significance for these variables within this study, despite their consistent significance found within the broader literature (Curtis, 2015; Enriquez, 2011; Musoba & Krichevskiy, 2014; Sparkman et al., 2012).

Implications

Theory

Theories of student success and engagement, such as those proposed by Astin (1984) and Tinto (1975), have often been based on the experiences of majority students. This study provides information that may allow these theories to be adjusted to better meet the needs of Latino/a students.

Financial engagement. Previous research on how students engage with their institutions did not include students' feelings and beliefs regarding money (Astin, 1984; Braxton et al., 2014). Although financial considerations may have been an implied element of students' engagement with their campuses, this study indicates financial concerns are significant enough for Latino/a students to warrant making those financial interactions explicit. The theme of finances had the second largest overall effect in this study; therefore, it follows that money is important to Latino/a students.

Many significant institutional interactions with its students are financial transactions. Most institutions will not allow students to register for classes if they have a previously owed balance, will not release transcripts or diplomas if the student owes money, and will not allow students to participate in commencement ceremonies if their account is not paid in full. Therefore, it should not be surprising that from Latino/a students' perspective, money represents an important factor in their engagement with their institution. Current theories on student engagement and retention may benefit by adding explicit factors concerning students' perceptions about finances.

Students as communities. Previous theories on students' engagement and success have focused on individuals (Astin, 1984; Bean & Eaton, 2000; Tinto, 1975, 1986). These theories are based on traditional collegiate experiences, often portraying students leaving their parental home and transitioning into independent adulthood. Although students may continue to have regular, even close, contact with their families, the assumption behind many student success theories is these young adults are now acting as independent agents relatively uninfluenced by family dynamics. Given the age of the students in this study, the cultural importance of continuing to live with parents

(Hernandez, 2000), the small percentage of students who lived on campus, and the lack of significance for on-campus residency and Campus Involvement, it is reasonable to assume these students are continuing to have high levels of contact and engagement with their families.

This traditional view of the collegiate experience fails to consider the cultural needs and background of Latino/a students. Many of these students continue to live at home with their family of origin and continue to assume domestic responsibilities for their families (Hernandez, 2000). Latino/a students are also often expected to seek and heed the advice of their parents and older family members. Therefore, Latino/a students' sense of community associated with their on-campus experiences may very well be influenced by their family and friends with whom they have remained close. By viewing students as retaining a significant part of their support network entering college, rather than having to form a new network as soon as they arrive at their new institution, theories on student success and engagement may be able to better understand how these larger networks of individuals work to help or hinder Latino/a students' success.

Policy

Many institutional policies are often created or implemented in ways that unintentionally harm Latino/a students (Musoba et al., 2013). Information from this study may be used to help institutions adjust their policies in ways that benefit this growing population of students.

Family Educational Rights and Privacy Act (FERPA). The ways many institutions interpret and implement their institutional policies regarding student privacy may be overly restrictive. FERPA, the set of regulations governing student privacy, has

provisions that can allow parents and other concerned individuals to have access to students' information (Family Educational Rights and Privacy Act of 1974, 2016). Some of these provisions do not even require students' permission, such as if the student is claimed as a dependent on his or her parents' federal income taxes. Many institutions do not allow outside individuals to have as much access as they may be permitted either because of fear of accidentally violating a student's privacy or because of the work-intensive nature of providing access.

Because of the family influence in Latino/a students' lives and the higher percentage of those who live at home throughout their college years, colleges and universities need to reimagine some of the areas traditionally considered to be students' sole responsibility, such as including parents in communications regarding assignment due dates and account balance information. Allowing parents to play a more active role in their Latino/a child's education may increase the benefits of student-faculty interaction and spirituality, as they encourage their children to participate in those activities. Although some in higher education may resist this concept, possibly from fear of reinforcing so-called "helicopter parents" (Coburn, 2006; Lum, 2006), the cultural reality is that outside of higher education, parents of Latino/a students often maintain extremely close ties to most aspects of a student's life. The unique separation around higher education can create cultural dissonance that results in parents unintentionally harming their child's chances of completing their degree (Hernandez, 2000, 2002).

Finance notifications. Many Latino/a students are unaware of the various policies surrounding money when entering postsecondary education (Musoba et al., 2013). Helping ensure students are aware of where those policies are located is not

sufficient to ensure they understand the policies and their implications. Therefore, additional policies to ensure regular communication with students regarding finances may prove beneficial. Given the total effects of financial issues on the levels of thriving among students in this study and the effect on students' perceptions of Institutional Integrity, institutions should make every effort to ensure Latino/a students remain informed and supported regarding those finances.

Policies intended to ensure Latino/a students are continually aware of the institution's financial policies will ultimately benefit all students. For example, a communications policy that requires regular communications to students regarding impending deadlines that result in late fees, such as course registration or intent to graduate, would benefit all students. Policies that also require students to participate in a financial orientation would benefit all students. By enacting policies such as these, institutions can help Latino/a students better engage and thrive at college, while also increasing the likelihood of success for the entire student body.

Practice

The success of Latino/a students has been studied for decades. Given the ongoing and anticipated growth of Latino/as within the general population (U.S. Bureau of the Census, 2012), and within higher education (NCES, 2016d), all institutions can benefit from considering how they can adapt to help these students succeed. This study provides potential practical applications within higher education in the following subsections.

Increase Latino/a students' PSC. Given the strong connection between students' PSC and their thriving, institutions desiring to increase the success of their Latino/a population would be wise to increase Latino/a students' PSC by addressing each of its

components: membership, ownership, relationship, and partnership. There may be a temptation on HSI campuses to assume that because the campus possesses a larger proportion of Latino/a students, the institution does not need to focus efforts on helping those students feel they belong in the same way as on a PWI campus. However, because of the ongoing structural racism and White dominance of higher education (Yosso et al., 2009), all institutions need to consider how they can best help Latino/a students feel included and important on campus.

The methods used to increase PSC should be culturally relevant to Latino/a students, which means a strong emphasis on students' sense of belonging (Hurtado & Carter, 1997) and openness to larger cultural factors that benefit PSC. For example, the strong family connection (Hernandez, 2000) suggests students' families should be included throughout the entire college experience, not just the admissions process, which would help Latino/a students feel more comfortable that their family supports their membership in the college community. The inclusion of family throughout the academic process would require rethinking several areas of how higher education currently functions. For example, as stated, many registrars feel the Family Educational Rights and Privacy Act (FERPA) precludes institutions from communicating details about students' academics to parents, even though FERPA includes provisions to allow such communications (Family Educational Rights and Privacy Act of 1974, 2016).

Given that sense of belonging only reflects the membership domain of PSCy, culturally relevant practices are also vital in building the other dimensions of PSC: ownership, partnership, and relationships. For example, by providing Latino/a students with a specific cultural center of their own and including their voice and input into

decisions about the design and purpose of such a space, institutions would help Latino/a students feel they have a level of ownership on campus, as well as a place where they can build relationships. As they feel a stronger sense of belonging and ownership, the campus becomes a safe space in which to work in partnership with others toward larger goals. All these elements directly benefit students' PSC and, thereby, their thriving.

Ensure accurate and informative admissions processes. Due to the strong link between Institutional Integrity and PSC as pathways to thriving found in this study, one implication is that admissions offices should ensure they are representing the institution accurately and completely. Admissions offices create many expectations students carry throughout their academic careers, and those expectations have a significant effect on Latino/a students' ability to thrive (Braxton et al., 2008). When Latino/a students more fully understand the institution into which they are entering, through the holistic efforts of an admissions office that has established clear and accurate expectations of what students will encounter on campus, the more likely Latino/a students will be to thrive. Ensuring brochures and advertisements reflect the actual student body rather than an idealized diverse mix of students, academic rigor expectations are clearly articulated, and clear degree requirements are communicated from the beginning are all items that can bolster Latino/a students' impression that there is congruence between the admissions process and their own campus reality, which will in turn help Latino/a students thrive.

The admissions process should also include the opportunity to learn about finances. Because difficulty paying for school expenses had a direct effect on students' perception of institutional integrity, the admissions or financial aid counselors should include information about financial items such as expected tuition increases for the 4 to 5

years of their program. In addition to helping students understand 5 tuition will increase over time, it will also help them understand how much they will be expected to pay out of their own funds—the amount not covered by institution, state, or federal aid—each semester over the entirety of the program. Establishing these clear expectations at the start of students' programs can help avoid the potential for students perceiving the institution's staff deceived them. As Musoba at al. (2013) noted, students who are told how much they have to pay the first year too often falsely believe that amount will remain consistent throughout their time at the institution.

Ensure registration and advising activities aid timely completion. Financial issues had a strong and direct effect on students' thriving in this sample, second only to PSC, and surpassing Institutional Integrity in total effect size. Because of this direct effect and because of the research indicating how Latino/a students view money within higher education as an investment in improved career opportunities and increased income for their families (Cerezo et al., 2013; Gross et al., 2014; Venegas, 2015; Zarate & Burciaga, 2010), it is important that colleges and universities take steps to ensure students complete their degree in a timely manner. The longer Latino/a students are in higher education, the less effective financial aid is in helping them persist, and the more likely they are to view college as an unneeded expense.

Colleges and universities can help Latino/a students with this issue in several ways. Providing opportunities for priority registration may ensure students can register for the classes they need. Proactive academic advising can assist students to register for classes that will help them advance toward graduation, rather than unintentionally taking courses that cannot be applied to their degree. Active program planning and course

mapping can help institutions ensure they are providing the courses students need, while also remaining responsible with their resources.

Failing to help students graduate in a timely manner may increase the likelihood these financial issues will negatively affect their thriving. For example, the longer students have to pay tuition, the more likely they will have difficulty at least one of those semesters paying for their schooling, thus negatively affecting their perceptions of institutional integrity and their ability to thrive. In addition to difficulty paying, having to pay more and more tuition for the same degree may cause students to question the value they receive for their tuition dollars, once again negatively affecting thriving. The best option for both the institution and Latino/a students is to ensure these students can graduate in as close to 4 years as possible.

Suggestions for Future Research

Although this study helped identify a model for Latino/a student thriving at HSIs, it also raised several questions and potential opportunities for future research. These questions and opportunities are addressed in the following subsections.

Thriving Quotient

The addition of several questions to the Thriving Quotient survey may help future researchers gain additional insight into Latino/a student thriving. The addition of a question that ascertains the level of financial support the student is expected to contribute to family or household expenses may provide additional insight into how finances influence Latino/a students' thriving. Future researchers may also benefit from a question that asks those students who work for pay how many hours per week they work to determine if there is a point at which working for pay becomes detrimental to students'

thriving. Finally, additional questions on the level of familial and peer support these students receive may provide additional insight into how sense of belonging among peers and the pull or push of family to attend college affects Latino/a students' thriving.

Although the financial variables in this model did not demonstrate enough internal consistency or factor loading to indicate the current possibility of a latent variable regarding money, adding the questions mentioned may provide for the exploration of a latent construct regarding the financial issues Latino/a students face. Financial issues for all students and for Latino/a students, in particular, is a well-documented topic within the literature (Boatman & Long, 2016; Cerezo et al., 2013; Enriquez, 2011; Gross et al., 2014). It follows, therefore, that a latent variable based on student finances may still be determined once the appropriate observed variables have been identified and collected.

Study by Cultural Group

The term Latino/a represents a large and diverse group of cultures (Hayes-Bautista & Chapa, 1987). Additional research into how Latino/a students from distinct groups thrive may help institutions better tailor their support efforts to their unique student body. Determining how the thriving of Mexican students is similar or dissimilar to Puerto Rican or Uruguayan students may provide additional insights into thriving for those students. Adding an item to the online survey that asks for more detailed cultural identification may be helpful.

Qualitative Research

The correlational nature of this study means it is unable to determine causality in the pathways to thriving among these students. Performing qualitative research on

students who are thriving, compared to those who are only surviving, will not determine causality but may help institutions understand from the students' perspective why these variables affect students the way they do. For example, case studies of the ways frequent and positive student-faculty interaction influences students' ability to thrive or interviews on how students' perceptions of institutional integrity affect their thriving may provide additional insights on why these variables influence students' thriving. Additional qualitative research may also provide further variables to include in future quantitative studies that can be generalized to a broader population.

Conclusion

An increasing number of Latino/a students enroll in colleges and universities, but these students continue to struggle within the current postsecondary educational system (NCES, 2016a, 2016c, 2017b). Although the research on this ethnic group is substantive and consistent in its findings, this group continues to struggle (Crisp & Nora, 2009; Hurtado & Carter, 1997; Nora, 2003; Nora & Cabrera, 1996). By investigating factors that influence Latino/a students' thriving, this study sought to provide an alternative means to aid Latino/a students in completing their college degree. The results of this study are relevant for student service personnel, staff, faculty, and senior administrative leadership.

The most predictive influence on Latino/a students' thriving was their sense of community on campus (PSC), followed by their perceptions of institutional integrity and financial issues. Latino/a students' PSC was most significantly indicated by the simple statement, "I feel like I belong here." This need to belong and its influence on Latino/a students' thriving is congruent with the significant body of literature on Latino/a

students' sense of belonging on campus (Bowman, 2010b; Hurtado & Carter, 1997; Kim et al., 2015; Musoba et al., 2013; Strayhorn, 2008). The more connected Latino/a students feel on campus, the more they will thrive.

The differences between how colleges and universities have historically operated and the cultural expectations of Latino/a students are significant (Conchas, 2001; Hernandez, 2000, 2002; Martinez et al., 2012). If institutions of higher education desire to fulfill their missions and successfully graduate larger numbers of Latino/a students, then they must reexamine the ways they operate and adjust to the cultural needs and norms of the Latino/a community. By making these adjustments, these institutions will help their Latino/a students not just survive the college experience, but thrive because of it.

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