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Motivation to Persist: The Role of Hope, Academic Self-Efficacy, and Sense of Belonging on First Generation Latinx College Students and Their Intent to Persist

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MOTIVATION TO PERSIST: THE ROLE OF HOPE, ACADEMIC SELF-EFFICACY,
AND SENSE OF BELONGING ON FIRST GENERATION LATINX COLLEGE
STUDENTS AND THEIR INTENT TO PERSIST

A Dissertation

Presented to

The Faculty of the Educational Doctoral Program in Educational Leadership

San José State University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

by

Deanna Peck

May 2017

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The Designated Thesis Committee Approves the Thesis Titled

MOTIVATION TO PERSIST: THE ROLE OF HOPE, ACADEMIC SELF-EFFICACY,
AND SENSE OF BELONGING ON FIRST GENERATION LATINX COLLEGE
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by

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ABSTRACT

MOTIVATION TO PERSIST: THE ROLE OF HOPE, ACADEMIC SELF-EFFICACY, AND SENSE OF BELONGING ON FIRST GENERATION LATINX COLLEGE STUDENTS AND THEIR INTENT TO PERSIST

by Deanna Peck

The landscape of higher education is changing. More diverse students are attending universities at higher numbers, yet these students are not graduating. This quantitative study uses linear regression, stepwise regression, and then exploratory factor analysis to examine three constructs - hope, academic self-efficacy, and sense of belonging - in first generation Latinx college students to see if these constructs made a difference in their intent to persist. While these constructs were positively statistically significant, their effect sizes were weak and do not explain all the reasons why first generation Latinx college students intend to persist to graduation. In addition, there were differences in the role the constructs played when intersectional identities were concerned. More research, both quantitative and qualitative, must be done to validate and refine current theories in order to discover programs and environments that will motivate and support diverse students attending higher education to their final degree.

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LIST OF ABBREVIATIONS

ADHS – Adult Dispositional Hope Scale
CRT – Critical Race Theory
DSHS – Domain Specific Hope Scale
EFA – Exploratory Factor Analysis
FGLCS – First Generation Latinx College Students
IRB – Institutional Review Board
NCES – National Center for Education Statistics
NFGLCS – Non-First Generation Latinx College Students
PWI – Predominantly White Institution

Chapter 1

Introduction

Higher education is a way to improve one's life standing economically and professionally (Hershbein & Kearney, 2014). It opens one's beliefs and willingness to interact with others (Astin, 1993) and it increases cultural and community participation (Choy, 2001; Giroux, 2003). In addition, a college degree leads to a greater sense of well-being (Seifert et al., 2008), yet 40% of students nationally are not completing their higher education degree within six years of entry (National Center for Education Statistics, 2016).

Some would look at these numbers and suggest that in order to maintain the wealth that the United States has, students must continue to graduate from college at a higher rate because these students earn \$1.19 million over a lifetime, two times more than a student with a high school degree (Hershbein & Kearney, 2014). If college graduates are earning that much more over a lifetime, it follows they will pay more into taxes and social security. Yet, it is important to recognize that the school is a system. In a capitalistic society, schools mirror important elements of capitalism because schools are reproductive (Collins, 2009). It has inputs - the uneducated children - and outputs - the graduates. And as such, the school system reproduces social inequalities (Anyon, 1980; Bowles & Gintis, 2011; Syed, Azmitia, & Cooper, 2011). One of the ways this is accomplished is through a systems trap explained by Meadows (2008) as success begets success. This trap is fallen into by school children and teachers every day. The child who knows the norms and primary discourse will be rewarded by good grades and accolades.

In turn, this child will feel positive about his/her experience and will reproduce it in order to be rewarded again (Stanton-Salazar, 2011). Hence, a successful child will continue to be successful. This child may then have hope, believe in themselves, and feel like they belong in school. The child who does not begin with these cultural expectations of school may be labeled as the “troublemaker” and may not reach higher levels of education attainment (Collins, 2009). Herein, lies a dichotomy of education. It is a place where the opportunity for social mobility exists, yet it also maintains the “deeply rooted historical inequalities between social groups” (Deil-Amen & Lopez Turley, 2007, p. 2326). There is a common belief in the American Dream and that if one works hard enough and gets enough education, then one will succeed. This is not always the case, especially if colleges are not graduating the majority of its students. Hence, this argument should be enough to support the need to encourage everyone to obtain a bachelor’s degree because “the only path to economic success – for both individuals and the nation- is to be more intentional and equitable in our efforts to provide quality learning opportunities” (Association of American Colleges and Universities, 2015, p. 3).

Nevertheless, since the reality of economic growth does not always come to fruition, the argument for a more just education system might be better made using a value based approach. Educating children to their fullest potential is just the right thing to do. The Spanish term and meaning of *educación* goes beyond the content knowledge of school and beyond the belief that school is for training one to take on a certain career or to earn a certain amount of money. This term is about caring for the whole person and the culture with which that person exists. “With its emphasis on respect, responsibility, and

sociality, it provides a benchmark against which all humans are to be judged” (Valenzuela, 1999, p. 21). In addition, Freire (1970; 1998) suggests that literacy is an act of knowing, critical reflection, and action; he writes of action that advocates for changes in the community. Since literacy is a prominent goal of education, as is having citizens that can contribute to society, then educating all children holistically is indispensable – for education is full of possibility. Education brings knowledge to people, and education brings people together and engages them in “creative and collaborative problem solving” (Sutton, 2016). Admittedly, this goal of education is the ideal, yet in the United States, education has not historically done these things. In fact, Owens (2010) found that when students from diverse neighborhoods came together in high school, the students from the lower socioeconomic status neighborhoods often fared worse than the students from the higher socioeconomic neighborhoods. A similar effect was noticed when comparing Black students attending schools with more Black students and the fact that if they were in attendance at this school rather than the school with more White students, the students were more likely to have resources and academic achievement needed to enroll in college (Owens, 2010).

These findings reinforce the dichotomy of education. Imada (2012) purports that education is used to teach children the cultural values of its society. As such, schooling is at the crossroads of many perspectives - the individual and the collective; democracy and authoritarianism; social mobility and status quo; economy and morality; and domination and equality. These intersections create a space where education can oppress and marginalize, yet it can emancipate and empower students as well (Bowles & Gintis,

1976; Collins, 2009; Labaree, 2012; Yosso, 2005). These tides of values seem to ebb and flow with time and context (Collins, 2009), however if education is meant to be used as a means to social mobility or as a way to raise educated citizens who uphold societal values then higher education must be accessible both structurally and financially.

This study inspects how three psychological constructs – hope, academic self-efficacy, and sense of belonging – may be able to empower first generation Latinx college students (FGLCS). A more complete understanding of these constructs, how they are related, and their impact on FGLCS will inform educational leaders and policy makers about factors that can lessen the structural barriers to success for all students.

Statement of the Problem

According to the 2013 6-year graduation rate listed from the National Center for Education Statistics (NCES), 59% of the students entering college in 2007 had achieved a bachelor's degree (National Center for Education Statistics, n.d.). If the type of institution is taken into consideration, this figure is even more alarming. Institutions that have open admission policies, ones that are not highly selective, had a 6-year graduation rate of 34% (National Center for Education Statistics, n.d.). These are the institutions that are educating 75% of the students in the United States and so few of these students are graduating. If one looks at this data even further, the discrepancies between different races and ethnicities is staggering as is the difference between students whose parents went to college and those who did not; that is, students who are first generation college students as opposed to students whose parents have also attended college.

In the past 15 years, much has changed for Latinxs (see definitions of key terms) in the educational system. Many more Latinx students are going to college and graduating. Between 2004 and 2013, there was a 63% increase in Latinxs who earned a bachelor's degree (Santiago, Galdeano, & Taylor, 2015); however, the discrepancy between the college graduation rate of Latinxs and other races or ethnicities is still quite large. The largest gap shows Asians having obtained a bachelor's degree 53.9% of the time and Latinxs earning a bachelor's degree 15.5% of the time (Ryan & Bauman, 2016). These numbers demonstrate a large difference which may support the idea of inequities within the educational system. It is imperative that the system begin to meet the needs of our Latinx students because it is estimated that by 2060 Latinxs will represent 31% of the total US population (Santiago et al., 2015). In fact, in some states, such as California, Latinxs (39%) are already the largest demographic population surpassing Whites (38.4%) (Governor's Budget Summary, 2015-16).

Another population that does not obtain the bachelor's degree at a high level is first generation college students (Choy, 2001; Horn & Nuñez, 2000; Toutkoushian, Stollberg, & Slaton, 2015) and 38.2% of Latinx students are also first generation college students (Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007) which makes the risk for not reaching graduation even more likely. There are a variety of reasons why Latinx (Crisp, Taggart, & Nora, 2015) and first generation college students (Petty, 2014) are not graduating at the same rates as others. The question remains then, if being college educated is so important and so many students are not completing the college degree, then what needs to be different? What factors contribute to student success? This study focuses on three

specific factors that may contribute to student persistence or keeping the student in college and graduating – hope, academic self-efficacy, and sense of belonging.

Purpose of Study

A long-held belief is that higher education is necessary for improving one's life situation at least economically (Hershbein & Kearney, 2014; Peden, 2015), yet the current generation of college students is very diverse and have different needs and different factors that motivate them to continue through higher education to ultimately obtain their degree. Unfortunately, much of the research completed to date has taken hope (a way of thinking, feeling, and behaving depending on one's context (Webb, 2013) that inspires and encourages sustained action towards a goal), academic self-efficacy (the belief that one has the capacity to succeed academically), and sense of belonging (the belief that one fits in with their surroundings) and assumed universality in their role towards contributing to academic achievement. The purpose of this study was to challenge or confirm that universality by examining a different institutional setting and a demographic of students who have not participated in such research.

Significance of the Study

Previous studies have shown that hope (Snyder et al., 2002), academic self-efficacy (Honicke & Broadbent, 2016), and sense of belonging (Walton & Cohen, 2011) positively influence academic achievement. Studies considering hope and academic self-efficacy have included White students from Predominately White Institutions (PWIs) and have not specifically examined the impact of hope and academic self-efficacy on Latinx or first generation college students (Chemers, Hu, & Garcia, 2001; Feldman & Kubota,

2015; Snyder, et al., 2002; Sympson, 1999). Sense of belonging has been studied with students of color, but mostly at PWIs as well (Hausmann, Schofield, & Woods, 2007; Hurtado & Carter, 1997; Strayhorn, 2012). The three constructs have not been studied together nor have they been extensively studied at universities with a diverse student population. Therefore, this study is significant because it will examine sense of belonging at a diverse institution and in relation with two other psychological and motivational constructs.

Research Questions

This study will examine the three constructs' relationship to each other and their influence on FGLCS' intent to persist. If the findings confirm that these factors enhance persistence (intent to persist is used as a proxy), universities and the student success services within may be able to implement programs and services that support these factors in FGLCS. Therefore, the research question being asked is: Do hope, academic self-efficacy, and sense of belonging play a role on the intent to persist for first generation Latinx college students at a large diverse urban comprehensive public university? Breaking this down further, one can operationalize this question into four specific questions.

1. Does hope influence the intent to persist for first generation Latinx college students?
2. Does academic self-efficacy impact first generation Latinx college students' intent to persist?
3. Does sense of belonging motivate first generation Latinx college students to persist?

4. Is there a relationship between hope, academic self-efficacy, and sense of belonging for first generation Latinx college students?

Research Design Overview

Conceptual model. It would be very rare for a researcher to enter a study with complete unbiased predictions of what the results might demonstrate. In fact, if the study is a quantitative study using structural equation modeling for its analysis, it is necessary to predict the model prior to conducting the research (Weston & Gore, Jr., 2006).

Therefore, an explanation of the initial assumptions are prudent at this time.

Many factors influence a student's intent to persist (Cabrera, Nora, & Castaneda, 1993; Reason, 2009). Three such factors may be hope (Snyder, et al., 2002), academic self-efficacy (Bordes-Edgar, Arredondo, Kurpius, & Rund, 2011), and sense of belonging (Hausmann, Schofield, & Woods, 2007). These three factors are interrelated. While it is uncertain as to how exactly they are related – which direction does causality flow or how strong one factor is compared to another, it is initially predicted that sense of belonging would lead to greater hope and academic self-efficacy. Put another way, the more one feels a sense of belonging at an institution, the more hope and the more academic self-efficacy one will feel which, in turn, will lead to greater academic achievement and persistence. Since previous research has shown that the two constructs, hope and academic self-efficacy, influence academic achievement (Chemers, Hu, & Garcia, 2001; Feldman & Kubota, 2015; Snyder et al., 2002), it is hypothesized that they may have greater influence over the intent to persist. A visual representation of this model can be seen in Figure 1.

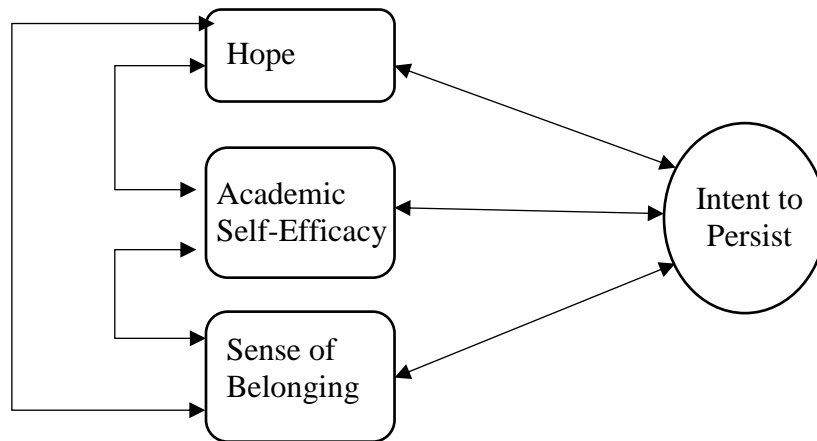


Figure 1. Proposed conceptual model for the role of hope, academic self-efficacy, and sense of belonging on the intent to persist for first generation Latinx college students.

Researcher perspective. Just as most researchers have ideas about what they are studying and the conclusions they may find, researchers bring in their own experiences and epistemology when deciding what to study. While it may be unusual for quantitative researchers to share this information in hopes that their studies are purely objective and the data will do the work for them, Carter and Hurtado (2007) recommend that quantitative researchers “begin to explain more about the intent, motivations, and objectives of [their] approach and to take responsibility for the aims [they] wish to achieve” (p. 33). Therefore, it is important to present a few philosophical stances that guide my choices.

Critical race theory. Critical Race Theory (CRT) is used as a lens for approaching this study’s design and interpreting its findings. CRT has its origins in Legal Studies and has evolved by pulling in Freirean pedagogy, race and ethnic studies, and women’s studies to adapt its use for education (Dolórzano, 2013). CRT has five basic theoretical

underpinnings as described by Delgado and Stefancic (2012). First, racism is ordinary – racism happens every day and may appear at any time. Racism is built into the fabric of society. Second, interest convergence – there is little desire to eliminate racism because it maintains the power and privilege status quo. When movement is made to change, it is because it will benefit the dominant power structure. Third, race is a social construction – race is not a biological construct. One race is more powerful than another because society makes it so. Fourth, intersectionality and anti-essentialism – race is not the only thing that matters, there are intersecting identities that must be considered. These intersecting identities make one unique. Anti-essentialism speaks to the knowledge that people who belong to a particular group are not all alike. Finally, unique voice – because one is a minority, they have a unique perspective that can and ought to be shared. These tenets must be kept at the forefront of any research done by someone who uses CRT and is undertaken in the name of social justice (Ladson-Billings, 2013). The tenets of intersectionality and voice will be called upon when interpreting the findings of this study.

Intersectionality and borderlands. Another theory that blurs the lines and is useful in examining why students intend to persist in higher education is that of intersectionality. Intersectionality speaks to the belief system that individuals have multiple dimensions to their identities with varying forms of power and privilege as deemed by societal inequalities (Cho, Crenshaw, & McCall, 2013). These dimensions both cross over, intersectionality, and walk parallel to each other, borderlands. Therefore, it makes sense that these dimensions would inform an individual's hope, academic self-efficacy, and

sense of belonging.

McCall (2005) suggested that Kimberlé Crenshaw, a Black feminist, introduced the term “intersectionality” in 1989 to discuss the multiple identities (race, gender, and class) that one may experience. In addition, McCall (2005) gave quite a list of other scholars who have previously discussed this concept without using the term intersectionality, one of whom is bell hooks (1984). Gloria Anzaldúa (1987) is another author who discusses this concept. She used the term “borderlands” to describe her experiences having multiple identities and what it meant growing up. This framework is important to understand since it directly impacted the content included within the study, specifically demographic questions that were included for interpretation. Students cannot be lumped into general categories because each one has a different set of characteristics that influence their success. It is all of these characteristics that must be taken into consideration.

Method Rationale

Since the goal was to look at theory from a different angle and much of existing research utilizes quantitative methodology, this study continues that practice and has a cross-sectional quantitative design similar to previous studies that have examined these constructs. This type of research is best for situations where there is not a lot of time available to follow a group of students longitudinally and if one wants to get a cursory overview of a phenomena. It does not provide a rich description and delve into the nuanced complexities, but it is an appropriate place to begin gathering data. Carter and Hurtado (2007) suggest that critical quantitative approaches are useful to “identify

discrepancies between theory and fact” (p. 25) and that noticing when ideas or groups are different from the average norms are “critical to improving practice” (p. 30). Therefore, this is the beginning of an investigation to find the outliers and to pay more attention to them as Stage (2007) urged quantitative criticalists to do.

Limitations

Using a cross-sectional quantitative design is a limitation of this study. In doing so, the data only represents a slice in time and may not be accurate under all circumstances. For example – the findings may be different if they are taken at the beginning of the semester rather than at the end or if the findings are taken when there is less political turmoil in society and the students being asked to participate in the survey feel safer. Another limitation is that the findings may not be generalized due to the small sample size and the fact that the demographics and environment is different than many other institutions. However, this is one of the reasons why this study is so significant. It takes a deeper look at theories that are seen as universally true and questions their applicability to a context specific setting with a different population of students; as Carter and Hurtado (2007) suggested to be important when using quantitative data for critical purposes.

In addition to the above limitations, using any population group as a representative whole is problematic. There is much variety within groups and to expect that all Latinx students respond to hope, academic self-efficacy, and sense of belonging the same is unreasonable. However, since this study uses quantitative research with a CRT lens it can begin to unpack the intersectionality of students and may bring to the forefront some of their unique needs (Teranishi, 2007).

Delimitations

While there are some limitations that occur as a result of narrowing in on a specific population or a specific setting and for using particular research methods, the researcher must make intentional choices so the scope of the study has well defined boundaries. The delimitations - what was included and excluded intentionally - for this study focuses on the population and the variables used for analysis. Only undergraduate Latinx college students who completed the survey were included in the analysis. While there were many demographic questions in the survey, the analysis focused on questions that are often seen in college persistence literature. This was done to narrow the scope of the analysis. The population categories included for analysis covered: first generation status, gender identification, financial concern emphasis, transfer status, and the number of semesters enrolled. When considering financial concern, a choice was made to consider the perceived amount of concern rather than the actual income of the student or family because beliefs may impact behavior more than reality. Some of the other questions about student populations may want to be used in future research such as examining how hope, academic self-efficacy, and sense of belonging influence students who identify with different sexual orientations, but that analysis was beyond the scope of this study. In addition, this study did not take into consideration previous academic achievement which has been shown to influence persistence (DeAngelo, Franke, Hurtado, Pryor, & Tran, 2011) because the focus of this study was more concerned with the intersectional identities of the students rather than their previous experiences. Finally, the categories of age, marital status, number of children, first language, and citizenship status was

excluded from analysis as well to narrow the range of possibilities within the analysis. In addition, choosing some of these other categories would have been creating sample sizes of such small numbers that meaningful analysis could not take place. With these delimitations defined, it is now necessary to define some terminology and grammar choices that have been incorporated into this study.

Definitions of Key Terms

Latinx. It is important to take a moment and consider why Latinx was used in this study. Words matter and words have power, especially when one is discussing identity. Gracia (1999, as cited in Alcoff, 2005), shared that being viewed as something other than what one chooses for themselves is damaging to the concept of the self. Therefore, the reasons for deliberate choices around identity labels must be shared.

First, the research begins using Latino, as Alcoff (2005) did, to describe a group of people who have traditionally been colonized. Latino gives credence to people who were acted upon by the United States government at the end of the Spanish American War throughout what is now known as California to the various countries in Latin America. Alcoff (2005) also pointed out that using Latino as a name is giving some choice to the people it represents. In 1978, the United States took away the people's choice and decreed Hispanic to be the label that was going to be used. This term was recommended by the king of Spain and disregards the historical context of using Latino to signify a closer relationship with Latin America. Hence, the term Latino was initially chosen to return power and agency to a group of people.

Unfortunately for some, the term Latino can be viewed as problematic as well. Latino does not give a choice to the gender variations that exist. Often one will see Latino used for men and Latina used for women. If the term is to represent a mixed or uncertain group, sometimes one will write Latino/a(s). Again, this shows a power differential by putting the male representation first. Therefore, the letter x was chosen to represent the variety of gender identities that can be found among the Latinx population. Using the letter x may extend from the short story by Louis Gould (1972) about Baby X who was raised with no one knowing the gender and the challenges that the parents and the child faced. This story accentuated how gender is a social construction that society gives to the child rather than the child choosing their own identity and it is important for me to honor what the individual sees as their own identity, therefore Latinx will be the term used when describing this demographic as more scholars are beginning to do.

Use of pronouns. Similar to the reasoning behind using the x, they and their pronouns are used for both singular and plural if the gender is unknown. If the gender is known or a preferred pronoun has been chosen that will be used. It is believed that these choices in writing technique and labeling are consistent with research that uses Critical Race Theory because it places an emphasis on the intersecting identities one may have and emphasizes the need for change within the known paradigm (Carbado, Crenshaw, Mays, & Tomlinson, 2013).

Retention and persistence. Persistence is related to retention in that a student's persistence will be a continuation of their educational goals, but it does not necessarily mean that the student will stay at the same institution. Retention on the other hand, refers

to the student staying at the same higher education institution until completion. Both concepts are important – persistence is more important to the student and their ultimate life accomplishments and retention is more important to the institution for accountability measures. Since the attainment of a higher education degree is the ultimate goal persistence is the term used in this study.

Chapter 2

Literature Review

First Generation College Students

It has been found that “each year of parental education, father’s or mother’s, was worth one-tenth of a year of higher education for their child” (Sewell, 1971, p. 798). Hence, it is important to consider parents’ educational attainment level when considering how well students will do in higher education or if they will even make it to postsecondary education.

A great deal of research has been done with first generation college students. Petty (2014) provided two definitions based from prior research: the first in their family to attend college or what she deemed as the most used definition by citing six different articles as a student whose parents have not completed a college degree. Toutkoushian, Stollberg, and Slaton (2015) confirmed there is a wide variation in definitions of first generation college student. They examined eight different definitions and found that the percentage of the population ranged from 22% to 77% depending on the definition used. Toutkoushian et al. (2015) reviewed two parent households in their study. Perhaps the variation would be even larger if single parent households were included. These findings suggest that it is important for researchers to more clearly define first generation college students in their research and provide more options when studying the specifics related to their parents’ education (Toutkoushian et al., 2015). For the purpose of this particular study, a first generation student will be defined as a student whose parent(s) have not

completed either an associate's degree or a bachelor's degree. In the plethora of studies on first generation college students, there are some common characteristics that have been found. First generation college students tend to be from low-income backgrounds (Horn & Nuñez, 2000) and struggle with financial pressures (Choy, 2001). In addition, they are more likely to be Hispanic or Black (Horn & Nuñez, 2000). They are less likely to take algebra in 8th grade which places them at a disadvantage as completion of 8th grade algebra leads to taking advanced math courses in high school; advanced math courses in high school then lead to higher enrollment in a 4 year college (Horn & Nuñez, 2000). The reasons that first generation students may not take what are considered preparation courses is because they may not receive full information about the need to do so from their families as their families did not have this experience (Choy, 2001). It is also possible that their school districts do not offer these opportunities. If the students do make it to college, first generation students are more likely required to take remedial courses which do not earn credit toward graduation and often demonstrate lower graduation rates. In fact, the first generation students who take these courses are more likely to leave within their first year at college than their non-first generation counterparts (Cárdenas Elliot, 2014; Tierney & Sablan, 2014). Perhaps this is because they find the transition from high school to college more challenging than non-first generation students (Cárdenas Elliot, 2014) or because they are less likely to participate in extra-curricular activities (Choy, 2001) which keep them engaged in school. School engagement has been found to be a key to retention (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005). Another reason for leaving is that the first generation college student is not prepared with

the knowledge of the college system and the types of academic skills such as time management, goal setting, and self-advocacy that is required at the college level (Byrd & MacDonald, 2005).

Whatever definition is used for first generation college students or whatever their characteristics are - the findings are clear. First generation college students do not enroll in higher education nor graduate with baccalaureate degrees at the same rate as their continuing generation counterparts (Choy, 2001; Horn & Nuñez, 2000; Toutkoushian et al., 2015). One of the reasons this may occur is because first generation college students may not have the same background as non-first generation college students. First generation students may not get all the same information regarding college as their non-first generation college peers, may not receive as much support from their families, and may not be as well prepared academically (Strayhorn, 2006).

Latinx College Students

Latinx college students vary significantly in background and culture. There are many ethnic subgroups of Latinx within the United States including: Mexican, Puerto Rican, Cuban, El Salvadoran, Guatemalan, Colombian to name just a few. However, 64% of Latinx in the U.S. identify with being Mexican (Pew Research Center, 2016). This diversity also means that their experiences will vary significantly, yet there are some common characteristics that have been suggested in the literature. These do not apply to every Latinx student, nevertheless it is important to have a background understanding of various possible influences as these can impact the Latinx college student's experience.

Latinx college students begin college at the community college 51% of the time (Nuñez, Hoover, Pickett, Stuart-Carruthers, & Vazquez, 2013). These schools tend to have less financial burden, less selective admission criteria, and are closer to their families. Unfortunately, students who begin at community colleges are less likely to graduate with a bachelor's degree (Crisp, 2016). Other aspects beyond where Latinx college students begin their higher education careers effect their actual degree attainment (Reason, 2009). The 2013 ASHE Special Report on Latinos in higher education focused on five areas of influence: family, language, religion, immigration, and neighborhood composition (Nuñez et al., 2013) and Crisp, Taggart, and Nora (2015) found that gender, parental education, and socioeconomic status were related to Latinx college success.

Family is perhaps the largest influence because Latinx college students are greatly tied to their families for support and they have a sense of obligation to the family (Nuñez, Hoover, Pickett, Stuart-Carruthers, & Vazquez, 2013). While the family unit is the strongest supporter for the student, the sense of obligation can induce a financial stress to the Latinx college student. This is due to the fact that Latinx college students may come from families who have low incomes (Hernandez & Lopez, 2004-2005) and the students may worry how they will afford college. In fact, Longerbeam, Sedlacek, and Alatorre (2004) found that one of the main reasons Latinx college students thought they might have to leave college is due to lack of funding. Where family income influenced a Latinx college student's experience so did their parent's or parents' education level. Latinx students who had parents with higher levels of education were more likely to attain the college degree (Arbona & Nora, 2007). However, Latinx college students are

more likely to be the first in their families to go to college (McCoy, 2014) and almost 80% of FGLCS had not earned their bachelor's degree after eight years out of high school which is lower than any other race or ethnicity (McCarron & Inkelas, 2006).

Degree attainment has been found to vary between Latinos and Latinas which may be attributable to the family culture influences on gender role expectations. Latinas have consistently been found to have higher academic achievement than Latinos (Crisp, Taggart, & Nora, 2015), yet there are still stressors for Latinas such as the expectation to take care of siblings (Sy & Romero, 2008). Latinos have a different role in the family and may be expected to contribute more financially (Nuñez, Hoover, Pickett, Stuart-Carruthers, & Vazquez, 2013).

Language use is a skill learned in the family and in schools and its knowledge and use among Latinx college students, whether English only speaking or English-Spanish Dual Fluency, impacts the experience of Latinx college students. Language expression is often seen as a form of identity and can contribute to a sense of belonging within the community. Students who speak multiple languages often develop a sense of pride and confidence in their abilities (Yosso, 2005).

Citizenship status is another characteristic that can influence the experience of Latinx college students especially in the current anti-immigration policy era (Eusebio & Mendoza, n.d.). Some students may be experiencing extreme stress related to fears of deportation for themselves or for family members. Even if the student is a U.S. citizen, the question of teacher expectations and biases exist (Valenzuela, 1999). Additionally,

financial concerns contribute to the stress of non-citizen Latinx students because they cannot receive federal financial aid (O'Neal et al., 2016).

Financial concern is a running stressor through the literature on Latinx college students (Crisp et al., 2015; Hernandez & Lopez, 2004-2005; McCarron & Inkelas, 2006; Nuñez et al., 2013; O'Neal et al., 2016). These concerns create conditions where the students must work and be pulled away from their studies which increases their stress levels (O'Neal et al., 2016). The literature on retention and persistence that follows frequently demonstrates how a lack of time and effort dedicated to studies can have a negative impact on degree attainment.

Retention and Persistence Theory

Every year students fail to accomplish their educational goals of earning their degree. Institutional graduation rates have been consistent and have held at 50% for over 100 years (Swail, 2004). In the literature, a few scholars and their work around student retention and student success are quite well known: Tinto's Integration (1975), Bean's Institutional Fit (1985), Astin's Involvement (1984), and Kuh's Engagement (2005). Wolf-Wendel, Ward, and Kinzie (2009) examined integration, involvement, and engagement and discussed the necessity to untangle the meanings to get a more comprehensive and accurate understanding of college success persistence and Demetriou and Schmitz-Sciborski (2011) presented a historical overview of the retention theories. Taken together these articles provide a comprehensive backdrop for understanding student persistence.

Tinto's Integration theory focuses on how the student must integrate themselves into the college setting both academically and socially (Tinto, 1975). Many have critiqued this theory stating that Tinto was referring to assimilation and that his theory was not relevant for students of color or nontraditional students (Metz, 2004-2005; Wolf-Wendel et al., 2009). Tinto concedes that the theory has evolved over time and would now equate integration to a sense of belonging (Wolf-Wendel et al., 2009). Similar to Tinto, Barnett (2011) compared integration to sense of belonging in her examination of persistence among community college students.

Bean (1985) discussed the importance of the student feeling like the institution was a good fit for them (institutional fit), as well as the student feeling loyal to the institution (institutional commitment). Where Tinto's (1975) proposed model put the onus on the student for their integration, Bean (1985) suggested that the institution or environment may have a role in whether the student felt attached to the institution.

Where Tinto (1975) and Bean (1985) emphasized the importance of student perception about being a part of the institution, Astin (1984) posited that it was more important to consider "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518) or the involvement (or the time and effort) that the student gave to the academic endeavor. He suggested that the more involvement one had, the more likely the student would persist.

Kuh's (2001) concept of engagement is similar to Astin's (1984) Involvement Theory, but is deeper than the time and effort scenario. Where Astin's (1984) focus is on the student and what the student does, engagement focuses on both the student and the

institution; it matters what the college or university does to encourage student participation in what has become known as high-impact practices (Kuh, 2009). Shaun Harper suggests that engagement also has a component of quality; one can be involved and go through the behavior, but that does not necessarily mean the student is engaged (Wolf-Wendel et al., 2009). Like Astin's (1984) Involvement theory, the more engaged a student is the more likely they will persist to graduation.

While the persistence models of integration, institutional fit, involvement, and engagement have been around for decades (Astin, 1984; Bean, 1985; Kuh, 2001; Tinto, 1975), they are still lacking the explanation of why certain aspects such as involvement, integration, or engagement matter to students or how they are created. Bean and Eaton (2001-2002) expand upon Bean's (1985) earlier model and demonstrate the black box of psychological processes that are involved in retention. Specifically, they suggested that an individual's academic self-efficacy, coping behaviors, locus of control, and school attitudes contribute to the students academic and social integration which in turn determines whether there is an institutional fit and loyalty to the institution. If there is a fit and loyalty the student is likely to persist. Up to this time, most of the models have been developed through a sociological lens and not a psychological one, which is exactly what Bean and Eaton (2001-2002) are suggesting. It is fitting then that this study examines three psychological constructs that contribute to motivation.

Hope

The story of Pandora's Box, as told by Snyder, Lopez, and McKnight (2007), introduces hope and inserts the question as to whether hope is positive or negative. The

myth begins with the gods creating Pandora and eventually out of curiosity she opens a package and lets out into the world many evils. She quickly realizes this is happening and closes the package. Hope is the only thing to remain in the package and some say that hope remained to tease humans. The fact is that hope does not exist and cannot help anyone. Others say that hope remained to provide humans with a source of comfort against the misfortunes that were released. Today, many see hope as something positive in life and is, perhaps, one of the most studied constructs in positive psychology. Te Riele (2010) stated that hope was powerful and engaging and Giroux (2003) suggested that letting go of hope would be destructive. Furthermore, hope is used in politics, literature, and even in popular entertainment. Hope was added to the title of the first George Lucas' Star Wars movie in 1981 symbolizing the anticipation of a leader who could overcome evil. The Russian author, Dostoevsky, (n.d.) stated "to live without hope is to cease to live." President Obama called upon hope in his 2008 book, "The Audacity of Hope," that describes his view of how one must be optimistic to move forward. More recently, Hillary Clinton, in her concession speech after the 2016 presidential race, declared that her campaign was about "building an America that's hopeful" (CNN Politics, 2016).

Hope is all around us, but what does it mean and how does it impact student persistence? A simple definition of hope is "to want something to happen or be true and think that it could happen or be true" (Merriam-Webster, n.d.). Hope is also described as "an optimistic attitude of mind that is based on an expectation of positive outcomes related to events and circumstances in one's life or the world at large" (Wikipedia: The

Free Encyclopedia, 2016). These definitions are rather nebulous and people have their own interpretations of what hope means. With this in mind, Averill, Catlin, and Chon (1990) asked people how they define hope and their findings suggested that hope is an emotion and that it may rest upon how one defines it in a given context. Snyder (1995) suggested that viewing hope in this way was difficult to measure, therefore he has developed Hope Theory as a way to view and measure hope.

Hope Theory

Hope Theory is predicated upon Snyder's (2000) definition of hope; "Hope is the sum of perceived capabilities to produce routes to desired goals, along with the perceived motivation to use those routes" (p. 8). It is very important to see that hope begins with the idea that people are goal driven and goals form the building blocks to learning and coping. Hope is future oriented. To attain the future goals, one must have a path and the motivation to stay on that path. These two concepts became known as pathways thinking and agency thinking under Snyder's Hope Theory (Snyder et al., 1991).

Pathways thinking is the cognitive aspect of hope and allows people to plan multiple routes to achieving a goal – this is known as "the way" (Snyder et al., 1991). Agency thinking is "the will" from "where there is a will there is a way" (Snyder et al., 1991). Agency thinking is what gives a person the motivation and ability to sustain effort along the path and, ultimately, achieve the goal. People must perceive that they have some control over whether they reach their goal or not. Although Hope Theory has both a will and a way, one is not more powerful than the other. Neither agency thinking nor pathway thinking is sufficient alone to produce high hope (Snyder, 1995).

Hope Theory is not an emotion, but a cognitive, motivational theory (Snyder et al., 2002). However, thoughts can cause behaviors which turn into outcomes. Outcomes may cause emotions and these emotions give feedback to one's thinking processes (Snyder, 2000). Research on hope or Hope Theory has been done in numerous fields including education, medicine, and sociology.

Hope Theory is well known in the hope research literature. Indeed, Feldman and Kubota (2015) suggest that it may be “the most researched conceptualization of hope during the past two decades” (p. 210). There have been studies using Hope Theory – either to confirm or refute the theory - in the United States, Israel, United Kingdom, South Africa, Portugal, Tanzania, and Australia (Chemers, Hu, & Garcia, 2001; Davidson, Feldman, & Margalit, 2012; Day, Hanson, Maltby, Proctor, & Wood, 2010; Isaacs & Savahl, 2014; Marques, Pais-Ribeiro, & Lopez, 2011; Nalkur, 2009; Phan, 2016). A wide range of ages have been involved in the studies ranging from childhood through adulthood and into the later stages of life (Akos & Kurz, 2016; Cheavens & Gum, 2000; Gallagher, Marques, & Lopez, 2016; Snyder et al., 1997). Most studies have utilized White students at PWIs, yet a few studies have looked at the effects of hope with African Americans adolescents or Mexican American youth (Adelabu, 2008; Edwards, Ong, & Lopez, 2007).

High hope has been positively associated with academic achievement (Gilman, Dooley, & Florell, 2006) and even suggested to predict it (Day, Hanson, Maltby, Proctor, & Wood, 2010; Snyder et al., 2002). Hope has also been seen as a protective factor against psychological distress by reducing the severity of depression symptoms (Arnau,

Rosen, Finch, Rhudy, & Fortunato, 2007). Research has posited that hope has not only been useful in alleviating mental health challenges, but has been hypothesized to positively impact physical health by supporting behaviors of treatment adherence and encouraging healthy behaviors such as higher levels of exercise and less binge drinking and smoking (Marques, Lopez, Rose, & Robinson, 2014). Even athletes in sporting competitions are impacted by hope. Curry and Snyder (2000) shared a number of studies that related higher athletic achievement with higher hope.

There are many positive results for Hope Theory, yet there are some areas that could use future research and confirmation. Perhaps the one that is most prominent and a primary reason behind this study is the fact that much of the research has been exclusionary and little is known about the effect of hope on different races and ethnicities (Chang & Banks, 2007). Another critique is that the layperson's view of hope is different than the formal operationalized construct within Hope Theory (Tong, Fredrickson, Chang, & Lim, 2010). Sometimes this view can prevent people from acting and achieving their goals as hope provides a sense of magical or wishful thinking, forms of false hope (Duncan-Andrade, 2009). In fact, this type of hoping could be a "demoralizing waste of time and energy" (Shade, 2006, p. 196). In addition to these challenges, one sees little information in Hope Theory about the context or how relationships are involved with determining hope (Medvide, 2014; te Riele, 2010). Even worse, research involving Hope Theory talks about high hope people and low hope people (Chang, 1998; Feldman, Davidson, & Margalit, 2015); this view could form a deficit based approach to working with students and may begin to label or stereotype

certain individuals or groups of people (te Riele, 2010). Finally, many studies involving Hope Theory utilize a quantitative design and the Adult Dispositional Hope Scale (Snyder et al., 1991). Quantitative research methodology cannot get at the complex and nuanced understanding of what hope is and means to all college students.

Academic Self-Efficacy

Another cognitive motivational theory similar to, but different from Hope Theory is academic self-efficacy. Self-efficacy is the belief that an individual has the capacity to achieve a certain goal (Bandura, 1997). It is this belief that is the most important in achieving outcomes, for the cognitive aspects will influence the behavioral aspects. It is this belief that motivates one to act and to sustain efforts towards a goal (Bandura, 1977). With the term self-efficacy, one would think that this concept pertains only to the individual, however Bandura (1997) relays that self-efficacy is multifaceted. One's efficacy depends on the context as some situations will demand different skills and a person will determine whether those specific skills are held. Since this study is focused on college students and their intent to persist, the self-efficacy that is examined is academic self-efficacy which is related to the students' beliefs in their abilities to master academic subjects (Chemers, Hu, & Garcia, 2001). There is vast support for the positive contributions of academic self-efficacy on academic achievement (Honicke & Broadbent, 2016; Snyder, 1995). Numerous meta-analytical studies have shown that academic self-efficacy has moderately direct effect sizes on academic performance (Hattie, 2009; Richardson, Bond, & Abraham, 2012; Robbins, Lauver, Le, Davis, & Langley, 2004).

Academic Self-Efficacy and Hope Theory

When developing theory and measurement tools for specific constructs, it is important to differentiate the construct from others that are similar. One may observe the similarities between self-efficacy and Hope Theory. Snyder (1995), himself, suggested that efficacy is like the agency component of Hope Theory, where the pathway component is more similar to outcome expectancies. Later, Snyder (2002) emphasized the difference by saying that self-efficacy is the belief about whether a person *can* perform the given actions to reach the desired outcome where the agency pathway is that the person *will* activate and sustain the efforts to reach their goal. Snyder (2002) suggested that Bandura's (1977) self-efficacy thoughts were established prior to the action and he sees his agency and pathways thinking as being present both prior to and during the accomplishment. Accordingly, Snyder, Lopez, Shorey, Rand, and Feldman, (2003) have emphasized the importance of reciprocity between the pathways thinking and the agency thinking throughout the process of goal attainment. Bandura (1997) may take issue with these suggestions because he, too, suggested that there is reciprocity between the cognitive, affective, and biological events and that these events are influenced by the social setting. Bandura (1997) specifically states "to say that thought guides action is an abbreviated statement of convenience rather than a conferral of agency on thought" (p. 7).

Due to the similarity in constructs, self-efficacy and hope have often been studied together to determine both convergent and discriminant validity as well as to know which is more influential on academic achievement or overall general well-being (Davidson,

Feldman, & Margalit, 2012; Feldman & Kubota, 2015; Gallagher, Marques, & Lopez, 2016; Magaletta & Oliver, 1999; Phan, 2013).

Sense of Belonging

Hausmann, Schofield, and Woods (2007) defined sense of belonging as the “psychological sense that one is a valued member of the college community” (p. 804). Sense of belonging entered into higher education literature with Hurtado and Carter’s (1997) examination of the effects of college transition and racial climate on Latinos’ sense of belonging. Ironically, they were searching for something that could explain the psychological differences in integration for students who were minorities in their settings and turned to sense of belonging or cohesion for the answers. In their initial study, they focused on perceived cohesion which has two dimensions to the perceived cohesion: feelings of morale and sense of belonging (Bollen and Hoyle, 1990). Bollen and Hoyle’s (1990) work situated itself using Durkheim’s (1951; 1956) thoughts on social cohesion and suicide. These are the same works that Tinto (1975) referred to when developing his integration model and which Hurtado and Carter (1997) were critiquing.

Other scholars have picked up where Hurtado and Carter (1997) left off with sense of belonging (Hausmann et al., 2007; Johnson et al., 2007). Perhaps, Terrell Strayhorn has been the most prolific scholar around this topic with six articles in 2008 and a book in 2012. Strayhorn (2012) was the first to connect a college student’s sense of belonging with Maslow’s (1943) hierarchy of needs. While the need to reconsider Maslow’s hierarchy due to lack of evidence has been discussed, the idea has only found partial support (Wahba & Bridwell, 1976) as this concept is widely used and rarely questioned

(Kenrick, Griskevicius, Neuberg, & Schaller, 2010). King-Hill (2015) suggests that Maslow's Hierarchy of Needs Theory is useful in the classroom, however it must be considered critically to improve pedagogy. It is perhaps in this vein that Strayhorn (2012) pulled upon its comparison. Beyond the discussion of students having basic needs to feel safe and to learn, Strayhorn (2012) presented seven core elements to the concept of sense of belonging. He posits that sense of belonging: 1) is a basic human need; 2) can motivate human behavior; 3) can change its importance in an individual depending on the situation, the group of people and the times; 4) is closely related to whether one matters; 5) is impacted by one's social identity; 6) can enhance or encourage other positive outcomes; and 7) can change over time, but needs to be satisfied in order to stave off negative outcomes that can lead to self-hatred or even suicide and in the context of this study, leaving college (Strayhorn, 2012). Since sense of belonging may be viewed as a basic human need that can drive human behavior, it could be said that sense of belonging is a motivational theory. Sense of belonging recognizes that a student's sense of belonging can be more influential at certain times and in certain contexts. For example, a woman's sense of belonging might not matter so much in a teacher preparation class where most of the other classmates are women as well because her needs are being met, but if in an engineering class where most of the other classmates are men, she may have a higher need for a sense of belonging.

According to Strayhorn (2012), social identities intersect and influence one's sense of belonging. Since individuals usually embrace multiple identities, each identity may require a different sense of belonging. That is why sense of belonging is related to and

most likely a consequence of mattering. Mattering refers to the belief that an individual knows that they are important to someone else (Schlossberg, 1989). As a consequence of being important to someone else, the individual feels a sense of belonging. While mattering and sense of belonging are related, Tovar, Simon, and Lee (2009) demonstrated that they were different constructs through the development and validation of a college mattering inventory.

If one matters and has a sense of belonging, other positive outcomes will occur – as suggested in the sixth core element (Strayhorn, 2012). Other positive outcomes may be the fact that - a more heightened sense of belonging a student feels to a campus, the more likely the student will intend to remain at that campus (Hausmann et al., 2007) and the overall stress level may be lower because the student experiences a sense of belonging and being valued for who they are. The opposite is true. If a sense of belonging is lacking, there may be negative outcomes. Sense of belonging also impacts students' overall sense of well-being and like hope, a negative sense of belonging is related to students reports of feeling depressed, stressed, or upset (Stebbleton, Soria, & Huesman Jr., 2014).

Finally, Strayhorn (2012) suggests that because situations and settings change, a sense of belonging is fluid and must be addressed on an ongoing basis. If the setting or circumstances change, then the individual will have to find their sense of belonging again. In higher education, these changes often take place during transitional periods such as entering the university from high school or a community college.

There are a variety of factors that may influence sense of belonging. Stebleton et al., (2014) found that first generation students have a lower sense of belonging than continuing generation students. However, Velasquez (1999) suggested that the more bicultural a student was, the greater the sense of belonging. Others have found that a focus on curriculum highlighting diversity (Hurtado & Ponjuan, 2005) or strengths (Soria & Stubblefield, 2015) can enhance a sense of belonging.

Unlike Hope Theory and academic self-efficacy, sense of belonging has been mostly discussed in terms of students who have been marginalized at PWIs. In addition, it has not been rigorously compared to other psychological and motivational constructs.

Chapter 3

Methodology

This study explored the role of hope, academic self-efficacy, and sense of belonging on the intent to persist for first generation Latinx college students (FGLCS) at a large diverse urban public university. This question was operationalized into four specific sub-questions: 1) What are the effects of hope on the intent to persist for first generation Latinx college students?; 2) How can academic self-efficacy impact first generation Latinx college students' intent to persist?; 3) How can sense of belonging motivate first generation Latinx college students to persist?; and 4) What is the relationship between the three constructs of hope, academic self-efficacy, and sense of belonging for first generation Latinx college students?

In this study, hope, academic self-efficacy, and sense of belonging are exogenous variables that influence the endogenous variable, intent to persist. These factors may have effects on each other; therefore, they are endogenous variables as well. Other variables that may influence the three constructs and the intent to persist are the demographic characteristics of the students. Therefore, questions were asked to determine the specific characteristics of the students. Each student was asked about educational goals, transfer status, semesters enrolled in college, units taken per semester, hours worked per week, residential status, current college GPA, final high school GPA, college generation status, gender, racial/ethnic identity, sexual orientation identity,

financial challenges, first language, citizenship status, age, marital status, and how many children they have.

Site

The study takes place at a comprehensive, majority-minority, public university that is situated in an urban location in Northern California. During the semester when the study took place, the university had slightly over 32,000 students. Most of these students are undergraduates (82%) who come from California (89%) with 40% of the students originating from the local area; 10% of the students are international students and 1% identified as domestic non-resident. There are slightly more men (52%) than women (48%) students. See Figure 2 for the actual break down of students by ethnicity.

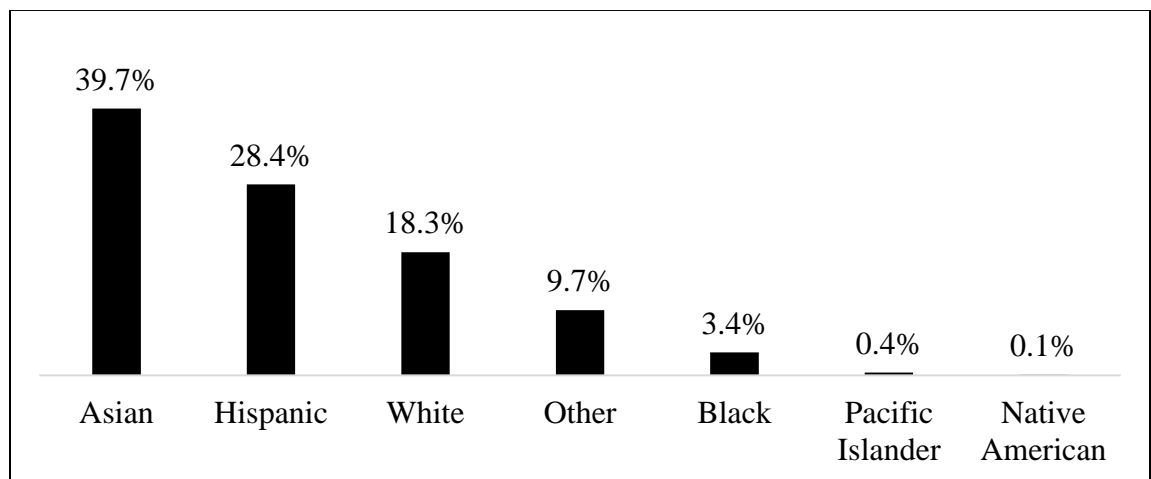


Figure 2. Fall 2016 enrollment headcount by race/ethnicity.

The most recent employee data available was from Fall 2012. Employees consist of faculty, staff, student employees, and administrators. While the student body is quite diverse, the employee body does not match this representation as shown in Figure 3.

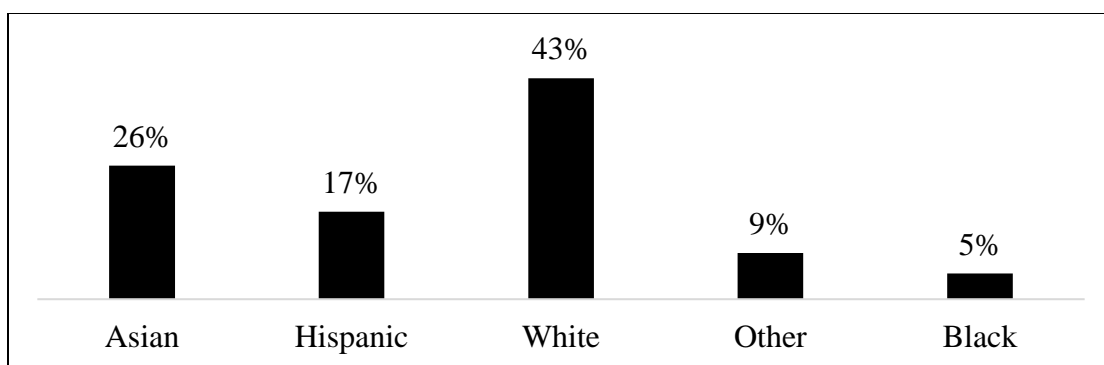


Figure 3. Fall 2012 employee headcount by race/ethnicity.

In this figure, employees categorized as others indicates that there was either no response, the person declined to state, or the response included two or more ethnicities/races. The ratios between men (45%) and women (55%) are similar to the student ratios. However, if one organizes the racial and ethnic identity information and compares representation for just administrators or faculty, there are larger gaps in ethnicity and race. For example: 63% of the administrators are White whereas less than 19% of the student body is White. This information and the representative differences between students and employees is important to consider and may impact students' perceptions of their sense of belonging, hope, and academic self-efficacy. Another aspect that may impact the students' perceptions is the demographic breakdown of the surrounding county. The county does not report using the same categories as the university, however some of the percentages were similar. In 2016, the county reported a population of 2% Black, 32% Asian/Pacific Islander, 27% Latinx, and 35% White. As shown, the Latinx population is slightly lower in the areas surrounding the university.

Procedures

Institutional review board approval. The first step of the study included

approaching the university's Institutional Research Board (IRB) for approval. In order to obtain approval, the purpose of the study, description, and procedures of the study were outlined. The approval process included sharing information describing the tentative participants and how they would be recruited. In addition, the process assured that confidentiality and ethics pertaining to research were being properly observed. The study received approval in late November 2016 and recruitment of participants began.

Recruitment of participants. An email was sent university wide to eligible students immediately before the end of the Fall 2016 term. All participating students who provided their name and email were entered into a drawing for \$10 to be used at the university bookstore or one of the campus dining facilities. Twenty gift cards distributed so some students may have participated in the study for the money incentive. While the incentive was nice, it was not enough to be coercive or to encourage students to participate depending upon their monetary needs. An unanticipated phenomenon took place while collecting the data. A few students contacted the researcher asking if the study was a part of the SONA system and if they could get credit for participating. SONA is a program that requires some university students enrolled in psychology or business classes to participate in a specified amount of research in order to satisfy class credit. During Fall 2016 when data collection took place, some students experienced difficulty completing their credit so an addendum was presented to the IRB and approved in order for students to receive SONA credit. Some students, therefore, received an additional incentive of class participation credit for completing the survey.

The survey. The survey consisted of four previously validated surveys, one question about intent to persist, and 21 demographic questions to determine the student characteristics (see Appendix: Intentions to Persist: A Survey for XXX College Students). These instruments were chosen due to their longevity in the field, the fact that they had been used in multiple studies, or for the reason that the instruments were deemed valid and reliable.

The Adult Dispositional Hope Scale. The Adult Dispositional Hope Scale (ADHS) (Snyder et al., 1991) consists of eight items related to hope and four fillers on a four point Likert response scale. When the scale was first validated it was given to university students at the University of Kansas and people seeking assistance with mental health challenges. The authors mentioned that the scores of men and women did not vary across samples so they did not report the scores separately and there was no mention of any other demographic inclusion. Internal consistency for these initial eight studies had a Cronbach's Alpha that ranged from .74-.84 (Snyder, et al., 1991). They reported the test-retest reliability over three to ten weeks .73-.85 in five different studies. They also looked at the convergent validity with other studies and found that the data suggested predictable relationships. They also compared it with other measurements and found that discriminant validity and discriminant utility were as expected. Since this scale measures one's overall hope or disposition, questions have been raised if hope changes depending on the area of life one is considering. Hence, this study included the Academic Subscale of the Domain Specific Hope Scale (DSHS) in order to see which measurement may produce stronger relationships with the other constructs.

The academic subscale of the Domain Specific Hope Scale. The Domain Specific Hope Scale (DSHS) (Simpson, 1999) was developed in 1999 and measures one's hope in six specific areas with eight items in each domain. The scale is an eight point Likert scale. The overall Cronbach's Alpha for the DSHS is .93 and the Cronbach's Alpha for Academic Hope was .90 (Simpson, 1999). Simpson (1999) was the first to find a difference in hope between men and women, but again, this study did not take into consideration any other demographic characteristic. The lack of specificity for student populations may lead to limitations in the overall study and will be addressed in that section. The Academic Subscale of DSHS has been revised (Snyder et al., 2005) and was used in at least two recent studies (Gallagher, Marques, & Lopez, 2016; Feldman & Kubota, 2015) and is the one utilized in this study. It has nine items and responses are given on an eight point Likert scale.

Academic self-efficacy inventory. Feldman and Kubota (2015) also examined academic self-efficacy in addition to hope. The instrument they used to assess Academic Self-Efficacy was an instrument developed to assess Academic Self-Efficacy and First-Year College Student Performance and Adjustment (Chemers, Hu, & Garcia, 2001). This instrument has eight items and uses a seven point Likert scale. The Cronbach Alpha for this instrument in the initial study was .81 and has since seen .83 (Feldman & Kubota, 2015) and .84 (Gallagher, Marques, & Lopez, 2016). These two studies provide a reason for choosing this particular instrument because it has been used in conjunction with the ADHS instrument so this study will be able to expand upon their findings especially in

the areas of racial and ethnic diversity. All three studies used predominantly White sample populations at Predominantly White Institutions.

Satisfaction and sense of belonging scale. The last instrument to be used in this study is the Satisfaction and Sense of Belonging Scale as developed by Inkelas et al. (2006) to study the outcomes of living-learning programs at colleges and universities. Their scale was adapted from the well-known work by Hurtado and Carter (1997). It included five items and a four point Likert scale, yet Inkelas recommended using a five point Likert scale (K. Inkelas, October 11, 2016, personal communication) which was done in this study. Inkelas et al. (2006) had a Cronbach's Alpha of .868. The population sample came from four different universities, yet once again, the sample was mostly White and the institutions were Predominantly White Institutions (PWIs). In addition, all four institutions were known as residential universities where a large number of students live on campus which is different than the population in the current study.

Insights from stakeholders. Prior to administration of the study, students were asked to provide feedback on the content; however, it was decided, after deliberation with other researchers, not to change any of the actual survey questions from previously used and validated surveys. The priority was to maintain the consistency of the instruments so that more accurate comparisons to other findings in the literature could be made. This replication is needed in educational research (Berliner, 2002) especially if one desires to use quantitative data to answer critical questions (Stage, 2007). However, it may be a limitation of this study because the instruments were not necessarily validated with the

students who were the main population of this study. Therefore, the factor analysis was added to create a more rigorous approach to the analysis

Data collection and analysis. A link to the Qualtrics software survey was distributed in December via email to all students enrolled in the Fall 2016 semester. Between December 9-30, 1229 undergraduates completed the survey. The data was imported to SPSS 24, a statistics software package for analysis. Using this software, responses were coded manually and sorted. The responses from Latinx students were separated for further analysis.

Pearson's correlation was utilized to demonstrate possible connections between the different constructs. Prior to running correlations, composite numbers were needed. To calculate these numbers, the responses were added together for questions that had similar groupings. This created six fields of analysis to be correlated with the intent to persist response. The six fields were pathways thinking, agency thinking, hope total, academic hope domain total, academic self-efficacy total, and sense of belonging total.

The ADHS (Snyder et al., 1991) consisted of four pathways thinking questions, four agency thinking questions and four filler questions. A filler question is an item that does not pertain to either pathways thinking or agency thinking and is used to see if the participant is randomly answering questions. To develop a total that could be used for analysis, the four pathways thinking questions were added together. The number ranged from four to sixteen. The same process occurred for the agency thinking questions. To get a composite hope total, the pathways total and the agency total were summed. This total ranged from eight to thirty-two. The academic subscale of the DSHS included nine

items on an eight point Likert scale and were added together which gave a total range of nine to seventy-two. The instrument used for academic self-efficacy had eight items on a seven point Likert scale and had a range from seven to fifty-six. Finally, the Satisfaction and Sense of Belonging Inventory had five items on a five point Likert scale and produced a total range of five to twenty-five. All composite numbers were charted and produced normal distribution curves. Linear regressions were utilized to go beyond correlation to see the effect sizes of hope, academic hope domain, academic self-efficacy, and sense of belonging on the intent to persist for particular subgroupings of Latinx students. To determine which constructs held more power, stepwise regression was utilized. Finally, exploratory factor analysis was utilized to discover if items from the original surveys were appropriate for this population and if the measurements had collinearity and should be simplified. Stepwise regression was repeated after exploratory factor analysis and varimax rotation to determine if certain constructs with the new factor loadings were more powerful than others given the specifics of the population. Since this study was a validity study for the use of hope, academic self-efficacy, and sense of belonging within this setting and with this population, exploratory factor analysis was appropriate because it evaluates “measurement integrity and guides further theory refinement” (Henson & Roberts, 2006).

Chapter 4

Results

Results from the analyses are presented in this chapter. Percentages are used and rounded to the nearest whole number; therefore, some percentages may equal more or less than 100%.

Participants' Demographics

Two hundred fifty-four Latinx students participated in this study. The majority (70%) of the Latinx students who answered the survey identified as women, 29% identified as men, and less than 1% identified as transgender or declined to answer this statement (Figure 4).

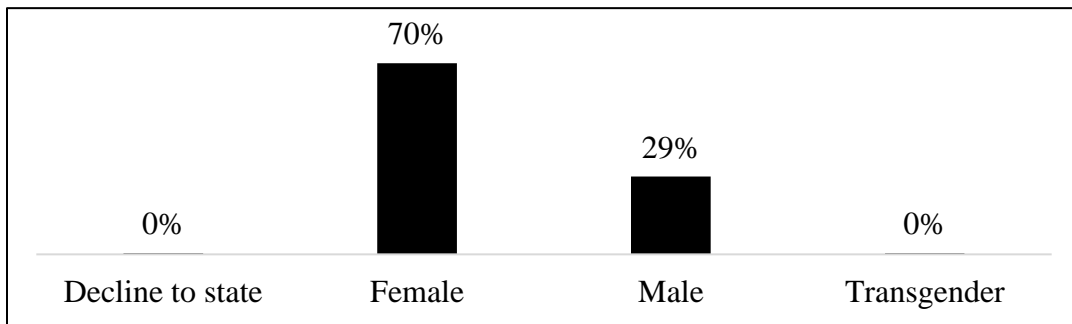


Figure 4. Participants' gender.

Figure 5 shows that a majority of the students (83%) were students under 25 years old (traditional college students age range), while 14% were between the ages of 25 and 34. Only 3% of the Latinx students surveyed were over 35 years of age. Most of the students were single (87%) and 85% had no children.

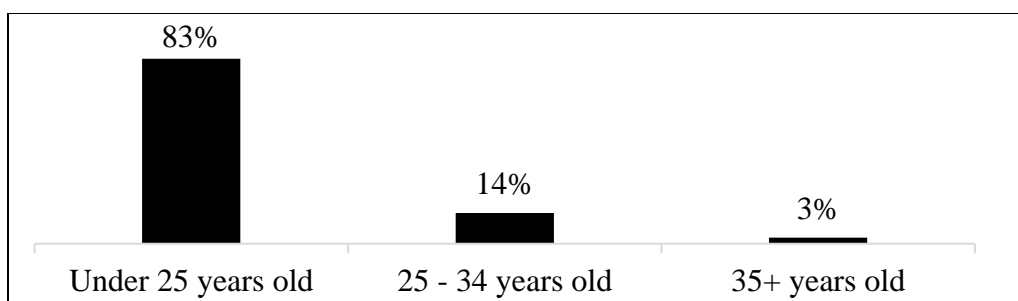


Figure 5. Participants' age.

The sexual orientation of students surveyed reported: 83% heterosexual, 4% asexual, 7% bisexual, 2% gay or lesbian, 2% “unsure about their sexual orientation,” and 3% declined to state their sexual orientation.

Figure 6 shows the percentage of the students who indicated that English was not their first language. Figure 7 represents how many students reported being U.S. citizens. Less than 1% of the student participants declined to state their citizenship status or were studying at this institution using an F-1 student visa and were omitted from Figure 7.

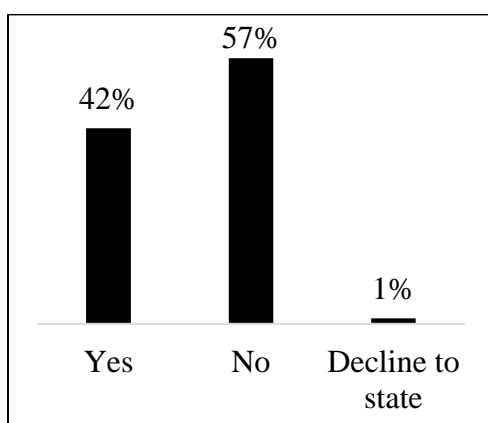


Figure 6. English as first language.

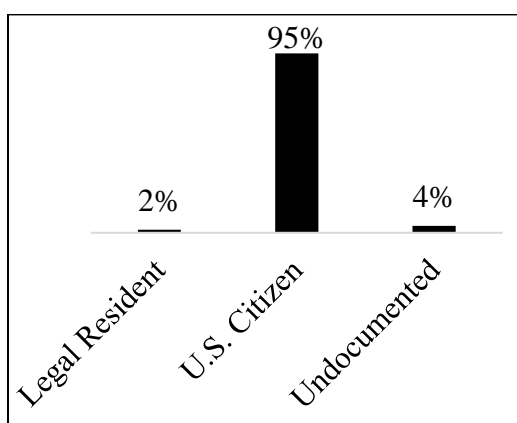


Figure 7. Citizenship status.

Only 2% were legal residents and 4% of the students identified as undocumented, which is higher than the overall university population of domestic nonresident students (1%).

Almost all (95%) the Latinx students who participated in this study were full-time students, with only 5% taking less than 12 units per semester on average (see Figure 8). A high percentage of the Latinx students who participated in this study (74%) worked at least a few hours a week, and 43% of the students averaged more than 18 hours of work a week as shown in Figure 9.

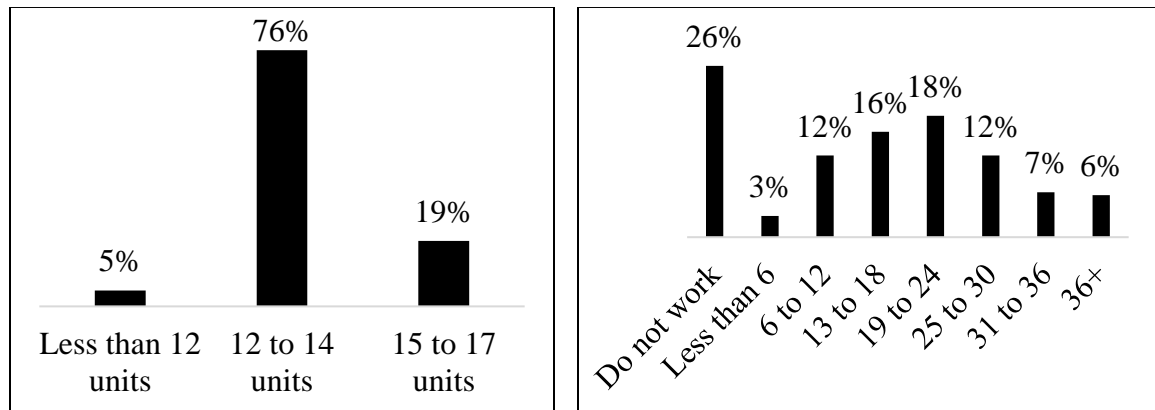


Figure 8. Average units per semester. Figure 9. Average hours worked per week.

The Latinx students at this university mostly lived with their parents (44%). Figure 10 illustrates where the students from the sample reside.

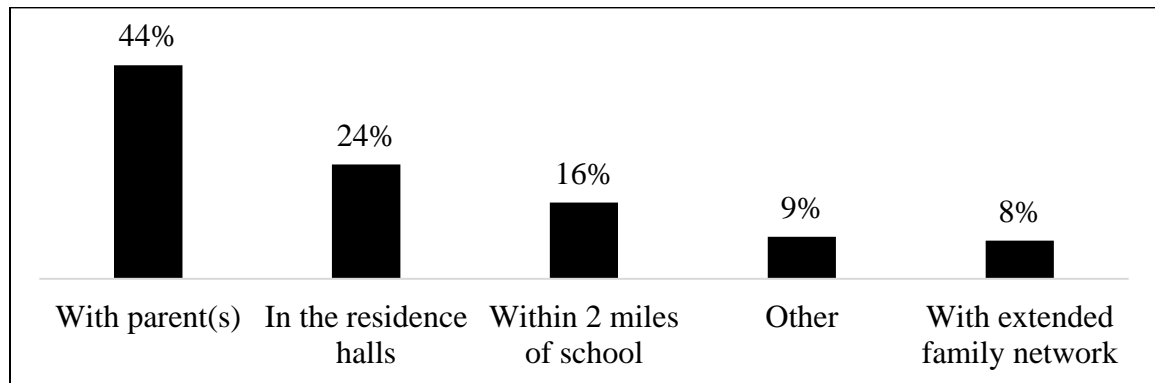


Figure 10. Residential status.

Living with family and working may signify the challenges that the students may be facing financially to afford the college education. Thirty-eight percent of the students stated they already had “a lot” or “a great deal” of difficulties paying for college (see Figure 11) and 57% admitted that they were either a lot or a great deal concerned about how to pay in the future, and while only 15% had little or no concern about how to pay for their education (see Figure 12).

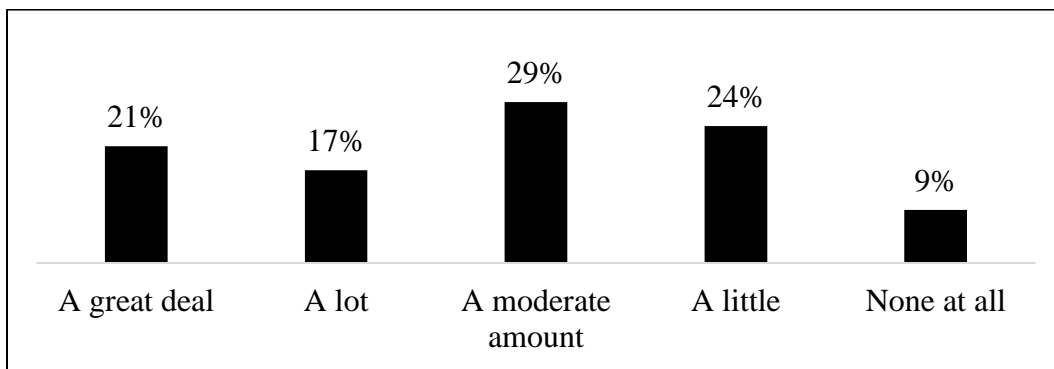


Figure 11. Current concern about financial costs.

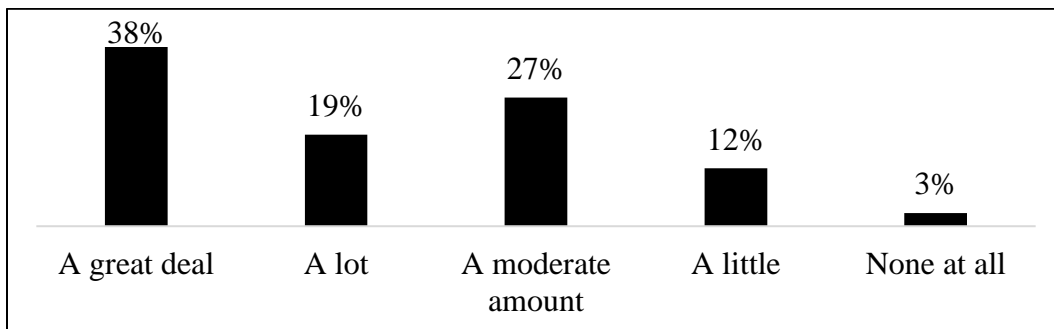


Figure 12. Future financial concerns.

Students with less financial security are more likely to begin their higher education career at the community colleges (Horn, Nevill, & Griffith, 2006) and 40% of the Latinx students who participated in this study did so, leaving 60% who began their college career at this 4-year institution as shown in Figure 13.

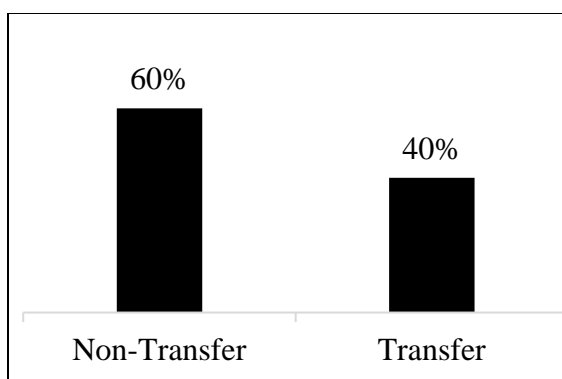


Figure 13. Transfer student status.

Students surveyed reported their high school GPA: 74% with 3.0 or higher, 42% with 3.5 or higher. This performance continued in college and 58% of the Latinx students were achieving a 3.0 or better.

Figure 14 shows the students came from the whole range of enrollment levels. Most of the students who responded (34%) were in their first year; 17% were in their second year; 12% in the third year; 16% in the fourth year; 9% in the fifth year; 5% in the sixth year; and 7% had been enrolled in more than 6 years or 13 semesters of college.

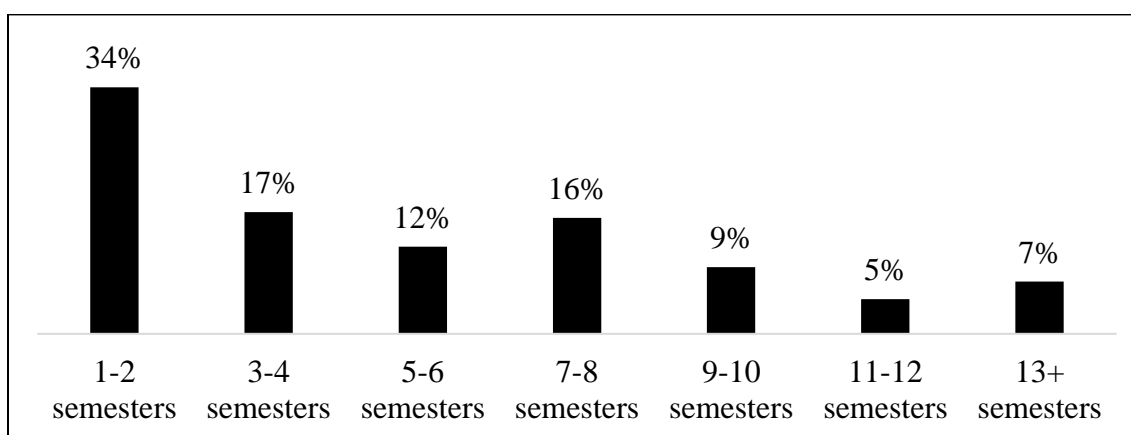


Figure 14. Number of semesters enrolled in college.

Educational goals differed for students surveyed; 59% of the participants wanted to obtain a Bachelor's degree and 23% wanted to get their Master's degree. Twelve percent desired to eventually go on and get their doctorate or professional degree and 5% were unsure of their educational goals (see Figure 15).

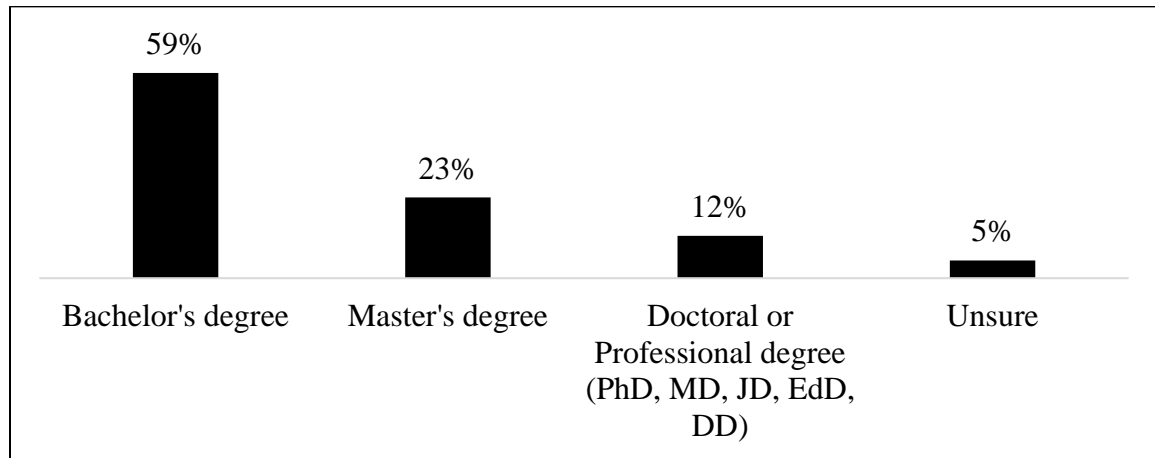


Figure 15. Participants' educational goals.

These educational goals looked very different than what the students' parents had obtained. Eighty-percent of the students' parents had not obtained any higher education degree making these students first generation college students by the definition used in this study. Nine percent of the students' parents had received an associate's degree and 7% obtained a bachelor's degree, 3% received their master's degree and 1% achieved the doctorate. Two percent of the students stated they did not know the highest level of

education their parent(s) had received (Figure 16).

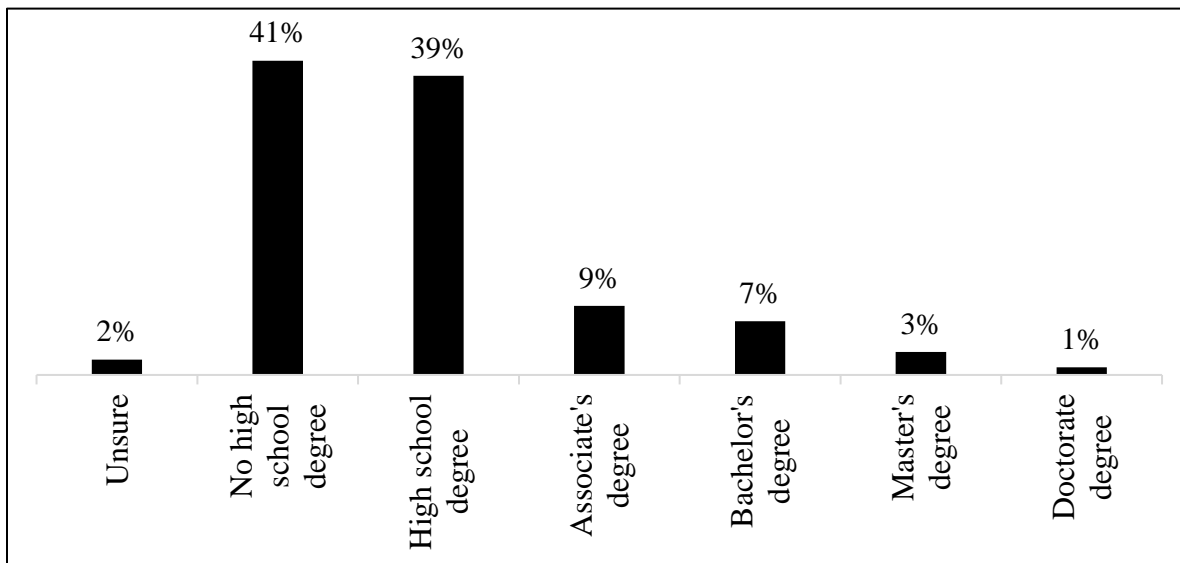


Figure 16. Highest level of parents' educational attainment.

The Latinx students surveyed overall agreed that they would obtain their bachelor's degree from this university; 66% stating they strongly agreed to the statement, 27% sharing they agreed to the statement, 1.2% disagreed with the statement, and no student strongly disagreed (See Figure 17).

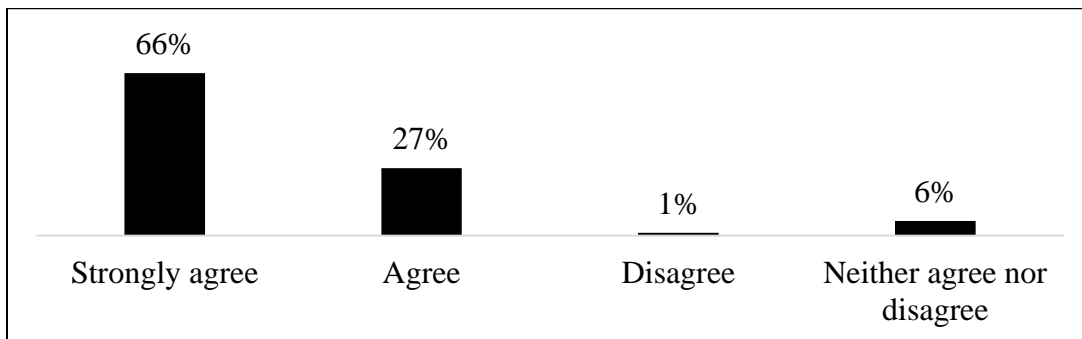


Figure 17. Student participants' intent to persist.

Correlation of Constructs

Data analysis using bivariate correlation was conducted to explore relationship among pathways thinking, agency thinking, hope total, hope academic domain, academic self-efficacy, and sense of belonging with intent to persist for Latinx students. Table 1 illustrates the significant direct linear correlations at a $p < .001$ level between all factors and the intent to persist. However, the strength of these relationships were weak with the strongest being academic self-efficacy at a Pearson's $r = .316$ ($n = 249$, $p \leq .000$). The weakest relationship was between pathways thinking and intent to persist demonstrating a Pearson's r of $.252$ ($n = 249$, $p \leq .000$). There was also a high correlation between pathways thinking ($r = .876$, $n = 250$, $p \leq .000$) and agency thinking ($r = .892$, $n = 250$, $p \leq .000$) with hope total, therefore some of the future analysis using stepwise regressions removed hope total from the equation to get a more nuanced understanding of the results. Other analysis considered only hope total and did not specify pathways thinking or agency thinking since the literature makes an argument for combining the two properties (Snyder et al., 1991).

Table 1. Construct Correlations for Latinx College Students

	Intent to Persist	Pathways Thinking	Agency Thinking	Hope Total	Academic Hope Domain	Academic Self-Efficacy	Sense of Belonging
Intent to Persist							
r	1	.252***	.278***	.300***	.285***	.316***	.308***
n	253	249	253	249	253	249	247
Pathways Thinking							
r	.252***	1	.564***	.876***	.396***	.281***	.303***
n	249	250	250	250	250	245	245
Agency Thinking							
r	.278***	.564***	1	.892***	.637***	.517***	.240***
n	253	250	254	250	254	249	247
Hope Total							
r	.300***	.876***	.892***	1	.590***	.453***	.308***
n	249	250	250	250	250	245	245
Academic Hope Domain							
r	.285***	.396***	.637***	.590***	1	.760***	.332***
n	253	250	254	250	254	249	247
Academic Self-Efficacy							
r	.316***	.281***	.517***	.453***	.760***	1	.303***
n	249	245	249	245	249	249	243
Sense of Belonging							
r	.308***	.303***	.240***	.308***	.332***	.303***	1
n	247	245	247	245	247	243	247

Note. *** Correlation is significant at the 0.001 level (2-tailed).

Comparisons were made between FGLCS and NFGLCS to see if there was a difference between their intent to persist based upon the constructs of hope, academic self-efficacy, and sense of belonging. In addition, information was further analyzed for some of the other demographic groupings. Since the participating number of Latinx students is only 254 students total and when categorizing by identity this number becomes even smaller, when reporting the results, Pearson's Correlation (r) and adjusted

r^2 were used so that the variance explained is taken from a cautious perspective. When the results from SPSS were unreported due to small values of the correlation coefficients, the information was omitted from the analysis as well.

Single Identity Groupings within Latinx Students

For all the single identity groupings, single linear regressions were utilized to analyze the data.

First generation. FGLCS were compared with NFGLCS. For NFGLCS, sense of belonging was not significant and had little effect size ($r=.105$, $n=47$, $p=.486$). While for the FGLCS, sense of belonging was moderately related to intent to persist and was the most powerful construct between hope total, academic hope domain, academic self-efficacy and sense of belonging ($r=.360$, $n=195$, $p\leq.000$). For FGLCS the hope total was correlated at .281 impacting 7.4% of the variance for the intent to persist, yet for NFGLCS hope total had the strongest correlation with intent to persist ($r=.375$, $n=47$, $p=.009$). This influenced the variance for intent to persist 12.2% of the time when for FGLCS it was sense of belonging that influenced the variance 12.5% of the time. As shown in Table 2, these constructs appear to have an inverse influence between FGLCS and NFGLCS.

Table 2. *Comparison of Construct Effect Sizes on the Intent to Persist Between First Generation and Non-First Generation Latinx College Students*

Construct	r	Adjusted r ²	Df	Sig. F Change
First Generation				
Hope	0.281	0.074	1,194	0.000
Academic Hope Domain	0.318	0.096	1,198	0.000
Academic Self-Efficacy	0.338	0.110	1,194	0.000
Sense of Belonging	0.360	0.125	1,194	0.000
Non-First Generation				
Hope	0.375	0.122	1,46	0.009
Academic Hope Domain	0.253	0.044	1,46	0.082
Academic Self-Efficacy	0.317	0.081	1,46	0.028
Sense of Belonging	0.105	-0.011	1,44	0.486

Gender. Hope, academic hope domain, academic self-efficacy, and sense of belonging in relation to gender and the intent to persist for Latinx students was explored to determine if gender influenced any of the constructs within FGLCS. Due to the low numbers of participants in this study, the responses from students who identified as transgendered or if they declined to state their gender were removed from the analyses. As shown in Table 3, the correlation for all four constructs for Latinas is stronger and more significant than the constructs are for Latinos. There is one exception and that is sense of belonging. Latinos surveyed had sense of belonging as the highest correlated construct to intent to persist at ($r=.330$, $n=71$, $p\leq.000$) where hope was not significantly correlated ($r=.121$, $n=71$, $p=.311$). Latinas, on the other hand, had statistically significant, but weak correlations for all constructs and hope had the strongest correlation ($r=.369$, $n=174$, $p\leq.000$). Sense of belonging was the weakest correlation for Latinas ($r=.303$, $n=172$, $p\leq.000$). Academic self-efficacy ($r=.317$, $n=174$, $p\leq.000$) and academic

hope domain ($r=.357$, $n=177$, $p\leq.000$) results fell in between hope and sense of belonging. Even though these constructs are statistically significant and moderately correlated for Latinas and their intent to persist, the effect size may not be practically significant with the highest Adjusted r^2 at .131 signifying 13.1% of the variance for intent to persist for Latinas being explained by hope.

Table 3. *Comparison of Construct Effect Sizes Between Genders for Latinx College Students*

Construct		r	Adjusted r^2	df	Sig. F Change
Male					
	Hope	0.121	0.001	1,70	0.311
	Academic Hope Domain	0.107	-0.003	1,71	0.369
	Academic Self-Efficacy	0.310	0.083	1,70	0.008
	Sense of Belonging	0.330	0.096	1,70	0.000
Female					
	Hope	0.369	0.131	1,173	0.000
	Academic Hope Domain	0.357	0.123	1,176	0.000
	Academic Self-Efficacy	0.317	0.095	1,173	0.000
	Sense of Belonging	0.303	0.087	1,171	0.000

Financial concern. The responses from the two questions in the survey pertaining to financial concerns were given numerical values and then added together to determine an overall financial concern. The students were separated into three groups. One group where there was a great deal of financial concern surrounding college expenses up to this point and in the future, another group where there was a moderate amount of concern, and then a third group where there was little concern for the financial needs of attending college. Correlations and regressions of hope, academic hope, academic self-efficacy, and sense of belonging were calculated to see how these constructs related to Intent to

Persist for Latinx students who had varying degrees of financial concern. The findings indicated differences in statistical significance and strength in correlation among students who were highly concerned about finances, students who were moderately concerned about finances, and students who had little concern for finances. Latinx students with little concern over finances had the strongest correlation coefficient for all four constructs and the intent to persist. These correlations were statistically significant. The Adjusted r^2 in Table 4, representing the amount of variance in the intent to persist for these constructs, ranged from 17.1% for academic self-efficacy to 33.5% for hope for Latinx students who had little financial concerns. For Latinx students who had moderate or a great deal of concern over finances, none of these constructs reached an effect size of more than 8.2%.

Table 4. *Comparison of Construct Effect Sizes on the Intent to Persist Between Latinx College Students with Varying Financial Concerns*

Construct	r	Adjusted r^2	df	Sig. F Change
A Great Deal				
Hope	0.262	0.060	1,103	0.007
Academic Hope Domain	0.249	0.053	1,105	0.010
Academic Self-Efficacy	0.302	0.082	1,103	0.002
Sense of Belonging	0.237	0.047	1,102	0.015
Moderate				
Hope	0.237	0.047	1,99	0.017
Academic Hope Domain	0.199	0.030	1,100	0.045
Academic Self-Efficacy	0.255	0.056	1,99	0.010
Sense of Belonging	0.273	0.065	1,99	0.006
Little				
Hope	0.593	0.335	1,39	0.000
Academic Hope Domain	0.574	0.313	1,40	0.000
Academic Self-Efficacy	0.438	0.171	1,39	0.004
Sense of Belonging	0.519	0.251	1,38	0.001

One of the challenges in quantitative research is that you must have high numbers of participants to generalize any information. When analyzing multiple identities and groupings within the 254 Latinx students, some of the groups become rather small. The Latinx students who had little concern over finances only represented approximately 15% of the Latinx total. Therefore, this information may be misleading and should be interpreted with caution.

Transfer status. For the comparison between transfer and non-transfer students, none of the linear regressions of the constructs showed an effect size as strong as the effect sizes for students who had little concern over finances, yet there were differences between transfer and non-transfer students. Table 5 illuminates how sense of belonging has the highest correlation strength for students who begin at the particular institution than those who transfer in ($r=.360$, $n=150$, $p\leq.000$) where academic hope domain has the strongest correlation for those who transfer ($r=.397$, $n=99$, $p\leq.000$) and hope right behind academic hope ($r=.351$, $n=97$, $p\leq.000$) while sense of belonging still significant at a $p<.05$ was the least powerful for students who transferred. While there are differences, all correlations remain in the weak direct range.

Table 5. *Comparison of Construct Effect Sizes on the Intent to Persist Between Transfer and Non-Transfer Latinx College Students*

Construct	R	Adjusted r ²	Df	Sig. F Change
Non-Transfer				
Hope	0.265	0.064	1,149	0.001
Academic Hope Domain	0.198	0.033	1,151	0.014
Academic Self-Efficacy	0.276	0.070	1,148	0.001
Sense of Belonging	0.360	0.124	1,149	0.000
Transfer				
Hope	0.351	0.114	1,96	0.000
Academic Hope Domain	0.397	0.149	1,98	0.000
Academic Self-Efficacy	0.310	0.087	1,97	0.002
Sense of Belonging	0.241	0.048	1,94	0.018

Number of semesters enrolled. Finally, universities may consider the different needs students have according to their longevity enrolled in higher education. This survey inquired about how many semesters the students were enrolled and had seven groupings. Table 6 lists all of the findings for each group. Sense of belonging explains 20% and 29.4% of the variance in the first year and second year respectively. It is not until a student's "senior" year when academic hope, hope in general, or academic self-efficacy begins to make a practical significant contribution to the intent to persist for Latinx students. During the Latinx student's seventh or eighth semester, academic hope domain explains 26.1% of the variance for the intent to persist with academic self-efficacy and hope following behind explaining 16.6% and 16.3% respectively.

Table 6. *Comparison of Construct Effect Sizes on the Intent to Persist Between Latinx College Students With Varying Semesters of Attendance*

Construct	R	Adjusted r ²	Df	Sig. F Change
1-2 Semesters				
Hope	0.234	0.043	1,81	0.034
Academic Hope Domain	0.233	0.043	1,82	0.033
Academic Self-Efficacy	0.364	0.122	1,80	0.001
Sense of Belonging	0.458	0.200	1,81	0.000
3-4 Semesters				
Hope	0.421	0.157	1,39	0.006
Academic Hope Domain	0.388	0.129	1,40	0.011
Academic Self-Efficacy	0.318	0.079	1,40	0.040
Sense of Belonging	0.558	0.294	1,40	0.000
5-6 Semesters				
Hope	0.279	0.045	1,28	0.136
Academic Hope Domain	0.135	-0.017	1,28	0.476
Academic Self-Efficacy	0.258	0.032	1,27	0.176
Sense of Belonging	0.242	0.025	1,28	0.198
7-8 Semesters				
Hope	0.430	0.163	1,37	0.006
Academic Hope Domain	0.529	0.261	1,38	0.000
Academic Self-Efficacy	0.434	0.166	1,37	0.006
Sense of Belonging	0.226	0.025	1,36	0.173
9-10 Semesters				
Hope	0.243	0.014	1,21	0.263
Academic Hope Domain	0.035	-0.046	1,21	0.875
Academic Self-Efficacy	-0.049	-0.045	1,21	0.825
Sense of Belonging	0.004	-0.050	1,20	0.987
11-12 Semesters				
Hope	0.089	-0.091	1,10	0.784
Academic Hope Domain	-0.237	-0.038	1,10	0.458
Academic Self-Efficacy	-0.008	-0.100	1,10	0.981
Sense of Belonging	0.121	-0.084	1,10	0.708
13+ Semesters				
Hope	0.296	0.027	1,15	0.249
Academic Hope Domain	0.077	-0.056	1,16	0.760
Academic Self-Efficacy	0.158	-0.036	1,16	0.531
Sense of Belonging	0.074	-0.061	1,15	0.779

Multiple Identities

When combining more than two identities, the number of participants often became too small for conducting statistical analyses, so comparisons for all populations could not be made. However, note in Table 7 that pathways thinking, agency thinking, academic hope domain, academic self-efficacy, and sense of belonging are statistically significant and have the strongest correlation for first generation Latinas who had little concern over finances with correlation strengths ranging from .588 to .746. These correlation strengths would be considered moderate to strong and were the only time strong correlation results were presented in this study.

Table 7. *Correlation of Constructs to Intent to Persist for First Generation Latina with Little Concern over Finances*

	Intent to Persist	Pathways Thinking	Agency Thinking	Hope Total	Academic Hope Domain	Academic Self-Efficacy	Sense of Belonging
r	1	.607**	.588**	.627**	.746***	.665***	.608**
Sig.		0.002	0.002	0.001	0.000	0.000	0.002
n	25	24	25	24	25	24	24

Another finding, shown in Table 8, considers multiple identities. Here, sense of belonging is moderately related for first generation Latinos ($r=.379$, $n=53$, $p=.005$). This correlation is strongest between any of the other constructs and the intent to persist for first generation Latinos. The next closest construct correlation strength for first generation Latinos was academic self-efficacy ($r=.295$, $n=52$, $p=.034$). No other construct showed a statistically significant correlation.

Table 8. *Correlation of Constructs to Intent to Persist for First Generation Latino*

	Intent to Persist	Pathways Thinking	Agency Thinking	Hope Total	Academic Hope Domain	Academic Self-Efficacy	Sense of Belonging
R	1	0.147	-0.036	0.064	0.043	.295*	.379**
Sig.		0.300	0.798	0.652	0.759	0.034	0.005
N	53	52	53	52	53	52	53

From Multiple Identities to Multiple Variables

To determine which constructs or variables played a more powerful role within the intent to persist for FGLCS, stepwise regression was utilized and included the composite scores of pathways thinking, agency thinking, academic hope domain, academic self-efficacy, and sense of belonging. Stepwise regression examined which factors contributed to the intent to persist and removed the factors that did not contribute. In addition, using stepwise regression presented the order of strength for the predictors. In doing so, stepwise regression built the best model using the given constructs for FGLCS.

Data analysis revealed that there was one appropriate model for both FGLCS and NFGLCS. However, these models differed slightly in order of predictors and in their effect size. The model developed for NFGLCS only described 8.9% of the variance for the intent to persist while the model for FGLCS explained 18.3%. While this may seem like a large difference, there is no significant statistical difference between the two correlation coefficients. The other finding to note from using the stepwise regression is the order of predictors. For NFGLCS sense of belonging, agency thinking, pathways

thinking, academic self-efficacy, and academic domain hope ended up being the order of strength. For FGLCS, pathways thinking and academic self-efficacy were reversed while all other constructs stood in the same order.

Factor analysis. SPSS 24 was used to run the factor analysis with the items from the four original assessments – ADHS, the academic subscale of the DSHS, the academic self-efficacy survey, and the questions pertaining to sense of belonging. This was done to explore whether there was overlap between the items and the domain specificity items from each construct. Eight factors were extracted from the initial analysis using Exploratory Factor Analysis (EFA) and Verimax rotation. Items that loaded on three or more factors were removed. These items included: “thinking about pursuing my goals in school fills me with energy,” “the educational goals I have set out for myself are clear and well defined,” and “I actively pursue my educational goals.” All three of these items originated from the academic subscale of the DSHS. See Table 9 for the original rotated loadings of each item.

Table 9. Original Factor Loadings for Exploratory Analysis With Verimax Rotation^a

Variable/item	Component							
	1	2	3	4	5	6	7	8
I usually do very well in school and at academic tasks.	0.83							
I am a very good student.	0.76							
I know how to study to perform well on tests.	0.72							
I know how to take notes.	0.71							
I can think of many ways to make good grades.	0.67					0.38		

I am good at research and writing papers.	0.66						
I can think of specific ways to do well in my classes.	0.65						
I am very capable of succeeding at the university.	0.65	0.32					
I find my university academic work interesting and absorbing.	0.60						
I am motivated to do well in school.	0.55			0.35			
I know how to schedule my time to accomplish my tasks.	0.54					0.45	
I know of many strategies I can use to succeed in my classes.	0.53			0.39			
I actively pursue my educational goals.	0.52	0.31		0.49			
I can think of many ways to get the things in life that are most important to me.		0.70					
Even when others get discouraged, I know I can find a way to solve the problem.		0.69					
My past experiences have prepared me well for my future.		0.67					
I've been pretty successful in life.		0.67					
I energetically pursue my goals.		0.58					
Thinking about pursuing my goals in school fills me with energy.	0.33	0.45		0.41			
The educational goals I have set for myself are clear and well defined.	0.37	0.43		0.40			0.32
I feel a sense of belonging to the campus community.			0.84				

I feel that I am a member of the campus community.		0.81					
XXX is supportive of me.		0.79					
I would choose XXX over again.		0.75					
I feel comfortable on campus.		0.72					
I take classes that are challenging to me.			0.71				
I have many academic goals.	0.35		0.65				
I usually find myself worrying about something.				0.75			
I feel tired most of the time.				0.63			
I worry about my health.				0.62		-0.48	
There are lots of ways around any problem.					0.70		
I can think of many ways to get out of a jam.	0.37				0.66		
I meet the goals that I set for myself.						0.68	
I am easily downed in an argument.							-0.73

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 14 iterations.

Again, EFA was used and the results were rotated to see if the factors were now unique. This rendition resulted in seven unique factors. Yet, items remained that were loaded onto more than one factor. Therefore, all the items that had two or more loadings were removed and this round of removal eliminated eight more items. Once more, it appeared that many of the removed items originated from the academic subscale of the DSHS.

After this removal, EFA with Varimax rotation was conducted and five factors were extracted. Factors with less than three variables were removed (Yong & Pearce, 2013). One variable did not load on any extracted factor and was also removed. These items included three items that were originally designated as distractor items from the ADHS and one more item from the academic subscale of the DSHS.

With multiple-loading and non-loading items removed, a final EFA with 5 rotations was conducted with the final 19 items which resulted in three factors. These three factors explained 54.4% of the variance. The original five items from the sense of belonging questions remained. There were three pathways thinking items and three agency thinking items that were related to hope. There were eight questions that were related to academics in some way. Seven of these questions originated from the original academic self-efficacy inventory and one came from the academic subscale of the DSHS. Since there appeared to be three constructs related to the original items, the factor names remained as sense of belonging, academic, and hope. Table 10 shows the final items in each factor with their loadings after rotation.

Table 10. *Final Factor Loadings for Exploratory Factor Analysis With Verimax Rotation^a*

Variable/item	Academic	Sense of Belonging	Hope
I usually do very well in school and at academic tasks.	0.83		
I am a very good student.	0.78		
I know how to study to perform well on tests.	0.75		
I know how to take notes.	0.72		
I am very capable of succeeding at the university.	0.68		
I am good at research and writing papers.	0.66		
I find my university academic work interesting and absorbing.	0.66		
I can think of specific ways to do well in my classes.	0.64		
I feel a sense of belonging to the campus community.		0.84	
XXX is supportive of me.		0.81	
I feel that I am a member of the campus community.		0.81	
I would choose XXX over again.		0.73	
I feel comfortable on campus.		0.72	
Even when others get discouraged, I know I can find a way to solve the problem.			0.75
I can think of many ways to get the things in life that are most important to me.			0.75
My past experiences have prepared me well for my future.			0.68
I've been pretty successful in life.			0.68
I energetically pursue my goals.			0.63
There are lots of ways around any problem.			0.44

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 5 iterations.

Using these revised factors, the stepwise regression process was used to calculate correlations between the modified factors and to see the best model fit for FGLCS and NFGLCS. The results appeared similar to the initial findings. For NFGLCS, the academic factor and hope factor have stronger correlations at .351 and .344 respectively with an $n=46$. Sense of belonging for this group of students did not change from the .105 as the same questions were used in the initial analysis. Like the initial analysis, the strongest correlation for FGLCS was sense of belonging ($r=.369$, $n=191$, $p=.000$).

The best fit models were expected to change as there were now only three factors. However, one factor, hope, was removed upon doing the stepwise regression and was found not to contribute significantly to either FGLCS or NFGLCS. In addition, sense of belonging was removed from the NFGLCS model leaving only the academic factor to explain 10.3% of the variance for NFGLCS students and their intent to persist. The model for FGLCS showed that sense of belonging was the strongest predictor, but that by including the academic factor with sense of belonging, this model could explain 19.6% of the variance. If one wanted to examine this further, they would see that the difference between the standardized coefficients of sense of belonging and the academic factor in this model was not large resulting in .293 and .271 respectively.

Relationship between factors. The relationship among the factors identified through the factor analyses in the previous section were explored.

The results of correlation coefficients between the factors were presented in Figure 18 (for FGLCS) and Figure 19 (for NFGLS).

Figure 18, the first generation model, illustrates how the correlation between all of the factors are statistically significant with a p-value less than .001. Sense of belonging and the academic factor are more strongly related to intent to persist than is hope. However, the correlation between hope and sense of belonging and hope and the academic factor is higher than the correlation between hope and the intent to persist. In this model, the correlation between sense of belonging and the academic factor is the weakest at .280.

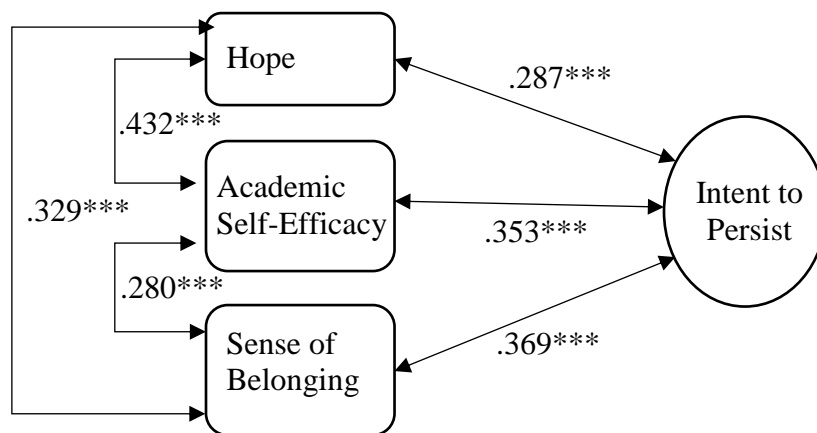


Figure 18. First generation Latinx students correlation model. *** $p < .001$

There are differences between the FGLCS and the NFGLCS models. While there are some statistically significant findings, not all of them are at the same strength and some of the correlations are even stronger for NFGLCS. For example, Figure 19 illustrates how sense of belonging is not statistically significant to the intent to persist, but it is statistically significant to the academic factor and has one of the strongest correlations in either of the models with an $r=.457$, $n=46$, $p<.001$.

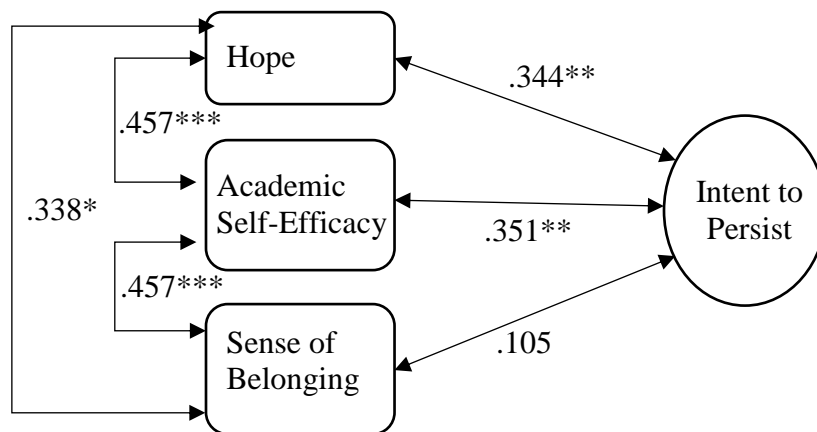


Figure 19. Non-first generation Latinx college student model.
 * $p < .05$, ** $p < .01$, *** $p < .001$

Chapter 5

Discussion and Conclusion

This quantitative exploratory study examined the role of hope, academic self-efficacy, and sense of belonging on the intent to persist for first generation Latinx college students. To more clearly see the role of these constructs on the intent to persist, there were four separate research questions and results were presented for each of these questions. The first question asked, does hope influence the intent to persist for first generation Latinx college students? It was determined that hope has a statistically significant but small effect on the intent to persist for first generation Latinx college students. The second question inquired whether academic self-efficacy impacts first generation Latinx college students' intent to persist? The answer - academic self-efficacy has a statistically significant and small impact on first generation Latinx college students' intent to persist. The third inquiry was if sense of belonging motivates first generation Latinx college students to persist in college? It was found that sense of belonging has a small influence over the motivation of first generation Latinx college students to persist. Finally, the fourth question sought to identify if there was a relationship between hope, academic self-efficacy, and sense of belonging for first generation Latinx college students. The findings showed that all constructs are statistically significant and related to each other, with hope more closely connected to academic self-efficacy than any other pairing. The weakest relationship is between sense of belonging and academic self-efficacy. Yet, the differences between the weakest and the strongest correlations in these relationships are

not practically significant - meaning one may not notice these differences when they are implemented in the “real world” setting.

Hope appears to be more important for NFGLCS and Latinx students who have little concern for money while attending college. Latinas also had a higher affinity towards hope than Latinos. While these statements suggest that hope may not be an important factor for retention and graduation, it is also possible that hope is an indirect factor to the intent to persist for FGLCS because it does correlate more strongly with sense of belonging and the academic factor which are more robustly connected to the intent to persist.

Academic self-efficacy or the academic factor remains consistent with all student identities examined in this study. The exception is that there is a slight change in the importance of the academic factor the longer a student is enrolled at the university. This might lead one to think that as students have more experience, the importance of their academic beliefs is not as essential to graduating. In fact, this is a good question overall to consider. Like academic self-efficacy, neither hope nor sense of belonging appeared to contribute to Latinx students’ intent to persist as they were enrolled in more than eight semesters of college, so what does make a difference to the more experienced student?

At a glance, sense of belonging seems to have the strongest correlation (.369) and the most powerful influence of the three constructs (hope, academic self-efficacy, and sense of belonging) studied according to the stepwise regression on the intent to persist for FGLCS. For other groups of Latinx students, sense of belonging is more important as well. For example, Latinx students who start at the university and who are in their first

two years at the university find sense of belonging more impactful than any other construct in this study in relation to their intent to persist. Latinos also rely on sense of belonging more than hope or academic self-efficacy. Often, FGLCS and Latinos are the students who higher education administrators are trying to reach because first generation students and male students of color currently have the lowest graduation rates (Chen & Carroll, 2005; Saenz & Ponjuan, 2011). Therefore, paying attention to students' sense of belonging may assist in the retention and graduation rates increasing for these students. While this is a suggestion, there is a note of caution due to the fact that these correlations were moderate at best and were not necessarily statistically significant from the other variables such as pathways thinking, agency thinking, academic hope domain, or academic self-efficacy. The difference between a correlation of .360 and .281 is minimal.

Implications

Looking at the results of this study may create some doubt as to whether this information is useful at all. While the numbers may not show great differences, there are statistically significant differences. A null hypothesis of these factors not impacting the intent to persist for FGLCS was proven false. In addition, by taking a comparison view between FGLCS and NFGLCS differences in importance of constructs emerged. Also, differences were found when examining factors and the intent to persist from an intersectional perspective.

Much of the research has argued that hope and academic self-efficacy are constructs that lead towards academic achievement without considering the complex factors of the

current students attending college. Students enrolling in institutions of higher education are no longer from similar backgrounds and researchers need to take this into consideration and cannot make overarching statements. The interpretation of the results in this study demonstrate that understanding persistence is much more complex than what simple models may offer and that there are a number of factors that must be considered. Leaders in higher education can take note of these findings and realize the importance of disaggregating data in order to understand the factors that contribute to student persistence. Not all students will respond in the same way to all retention efforts. While it may be more cost effective to promote a one style fits all emphasis, to encourage the ultimate goal of higher graduation rates without large achievement gaps, leaders would benefit from a more individualized approach - listening to and working with the students.

It was hoped that these constructs would play a substantial role in FGLCS' intent to persist so that faculty, staff, and administrators could then find ways to support hope, academic self-efficacy, and sense of belonging. The findings in this study do not support such a magnanimous role. Some researchers may argue that an effect size of 19.6% in social science is enough to suggest that this is an important model to consider, yet others could see this as saying that other factors make up more than 80% of the reasons FGLCS persist in higher education. The weak correlations support Medvide's (2014) findings that Snyder et al.'s (1991) Hope Theory may not be universal and that researchers and practitioners may want to reconsider how we measure and talk about hope according to group characteristics. This is congruent with Tovar's (2013) conclusion that student success models do differ by race and ethnicity and that we should not replicate models

without further factor analysis being done in accordance to the intersectional identities a student may have.

There is also a question about whether current assessments and quantitative studies or metrics can provide an accurate understanding to all students and what makes them persist. Taking time to understand the individuals and their experiences is essential. This research and practice cannot become automated. However, since individualizing the experience for every student is extremely difficult and may be cost prohibitive, it would benefit practitioners and policy makers to understand demographic groups have different needs and respond differently to interventions and environments. Therefore, there is a need for more staff and faculty who are interested in building relationships to understand how to create environments that will lead towards persistence. The constructs of hope, academic self-efficacy, and sense of belonging can be seen as very individual constructs and perhaps more research is needed on the structural and systemic barriers (Medvide, 2014) and practices that promote persistence (Wolf-Wendel, Ward, & Kinzie, 2009). Though the student and their characteristics are a part of the equation, they are not the whole or even the majority part. Shaun Harper suggested that faculty and administrators need to be taken more closely into consideration (Wolf-Wendel, Ward, & Kinzie, 2009). How do the way faculty, staff, and administrators feel hope or a sense of belonging impact their interactions with students? How do these interactions and relationships in turn impact student persistence?

Another area of research that must be drawn into the equation is the support from family and friends while a student is experiencing their educational journey. There is a

great deal of research that already suggests the importance of this support to academic achievement and the intent to persist for FGLCS (Cabrera, Nora, & Castaneda, 1993; Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005; Medvide, 2014; Torres, 2006), but in what ways does family and friend encouragement interact with hope, academic self-efficacy, and sense of belonging? Perhaps by adding the community support aspect of education to the model, higher education administrators can create an environment that is more conducive to persistence.

Limitations

This study has limitations and one is cautioned from using these findings definitively. The participants were all currently enrolled college students who self-selected to be in the study. This may present a sample bias. The assessments used in the survey were all self-report which may influence the findings. There was a small sample size and when comparing between groups the numbers were disproportionate. Additionally, the survey was a snapshot in time since it was only distributed once. Finally, the students who piloted the survey suggested that some of the language in the survey items were outdated or difficult to interpret; therefore, the instrument themselves may not be valid for this group of students.

It is important to take context into consideration as well. The university is a diverse comprehensive public institution and the findings for students in this setting may not be generalizable to other settings. The societal context is also important to note. The students took the survey only one month after the 2016 presidential election and feelings of apprehension were high. It is possible that hope and sense of belonging were not as

high as they might have been under different societal circumstances. This anxiety may have impacted the self-reports of citizenship status and other demographic factors. In addition, the survey took place at the time in the semester when students were preparing for or going through finals, therefore that may have impacted their academic self-efficacy and hope.

Future Research

To overcome some of these limitations, future research can be done longitudinally to see if their hope, academic self-efficacy, or sense of belonging change according to context. Longitudinal research would also present more accurate findings on persistence as one could determine if students remained through until graduation rather than just having an intent to persist.

It would be useful to get larger data samples with FGLCS at different universities and in different regions of the country. Larger sample sizes of FGLCS would also allow for larger sizes of the variation within the FGLCS group and will allow more careful analysis of the intersectional identities. If larger sample sizes are found, one would also want to consider using structural equation modelling to test the models presented in this study. If more variety was offered amongst the types and regions of institutions, researchers would be able to see how much these constructs were dependent on the environment.

This study suggests that none of these constructs - hope, academic-self-efficacy, and sense of belonging - matter if money is of concern; therefore, it would behoove researchers to explore the other factors that encourage college persistence for Latinx students who worry about money. This is perhaps one of the most important lessons to

be learned from this study considering the rise of college tuition around the nation. In addition, it may be useful to find FGLCS who left the university to determine how the means of hope, academic self-efficacy, and sense of belonging are different or the same as those students still in the university.

Finally, while it is important to consider intersectionality within the Latinx population, it may also be telling if this research was expanded and comparisons were made with other groups from similar university settings. For example, what is the role of these constructs for White students at minority majority institutions? Or is there a difference between Latinx first generation students and Asian American first generation students? Since the landscape of higher education is changing, there are many more students and issues that may impact these students. How does hope, academic self-efficacy, and sense of belonging influence lesbian, gay, bisexual, or transgender students? What about undocumented students - do these constructs make a difference in educational attainment when the climate within the United States suggests an unwelcoming environment and the students have persistent concerns about what is happening with their families? These are just some of the questions that may be asked in further research. In addition, when these studies are undertaken, it would be imperative to complete a factor analysis to determine which items are relevant for the particular characteristics of that set of students. Researchers cannot assume universality of constructs without further analysis.

The recommendations may overcome the immediate limitations of this research, however they do not resolve the challenges regarding asking the questions in the wrong

way. To fully understand the impact of hope, academic self-efficacy, and sense of belonging on FGLCS, more qualitative research needs to be done to determine how FGLCS define these constructs and how they believe these constructs assist in their persistence in college.

Conclusion

This study examined the role of hope, academic self-efficacy, and sense of belonging on the intent to persist for first generation Latinx college students. The findings reinforce the idea that many factors contribute to an environment where students thrive and persist. It is important to note that one's intersecting identities must be considered and that one-size-fits-all solutions to persistence will not work. Hope, academic self-efficacy, and sense of belonging all impact first generation Latinx college students' intent to persist on some level, but there are other factors that must be taken into consideration. Continued research and individual attention to students and their multiple identities will be the best ways to find future answers.

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Appendix: Intentions to Persist: A Survey for XXX College Students

Read each item carefully. Using the scale shown below, please select the option that best describes YOU. 1) Definitely false; 2) Mostly false; 3) Mostly true; 4) Definitely true

1. I can think of many ways to get out of a jam.
2. I energetically pursue my goals.
3. I feel tired most of the time.
4. There are lots of ways around any problem.
5. I am easily downed in an argument.
6. I can think of many ways to get the things in life that are most important to me.
7. I worry about my health.
8. Even when others get discouraged, I know I can find a way to solve the problem.
9. My past experiences have prepared me well for my future.
10. I've been pretty successful in life.
11. I usually find myself worrying about something.
12. I meet the goals that I set for myself.

Please take a moment to think about your schooling or education. Once you have this area of your life in mind, read each item and choose the statement that best fits you using the scale: 1) Definitely false; 2) Mostly false; 3) Somewhat false; 4) Slightly false; 5) Slightly true; 6) Somewhat true; 7) Mostly true; 8) Definitely true

13. I can think of many ways to make good grades.
14. I actively pursue my educational goals.
15. I have many academic goals.
16. I am motivated to do well in school.
17. I can think of specific ways to do well in my classes.
18. I take classes that are challenging to me.
19. I know of many strategies I can use to succeed in my classes.
20. Thinking about pursuing my goals in school fills me with energy.
21. The educational goals I have set for myself are clear and well defined.

Read each item carefully. Using the scale, please choose the option that best describes YOU. 1) Very untrue; 2) Mostly untrue; 3) Somewhat untrue; 4) Neither true nor untrue; 5) Somewhat true; 6) Mostly true; 7) Very true

- 22. I know how to schedule my time to accomplish my tasks.
- 23. I know how to take notes.
- 24. I know how to study to perform well on tests.
- 25. I am good at research and writing papers.
- 26. I am a very good student.
- 27. I usually do very well in school and at academic tasks.
- 28. I find my university academic work interesting and absorbing.
- 29. I am very capable of succeeding at the university.

Read each item carefully. Using the scale below, please choose the option which best describes your belief. 1) Strongly disagree; 2) Disagree; 3) Neither agree nor disagree; 4) Agree; 5) Strongly agree

- 30. I feel comfortable on campus
- 31. I feel that I am a member of the campus community
- 32. I feel a sense of belonging to the campus community
- 33. SJSU is supportive of me
- 34. I would choose SJSU over again
- 35. I will obtain a bachelor's degree from SJSU
- 36. What is your student status?
 - a. Undergraduate
 - b. Graduate
 - c. Continuing Education/Open University
- 37. What is your educational goal?
 - a. Bachelor's degree
 - b. Master's degree
 - c. Doctoral or Professional degree (PhD, MD, JD, EdD, DD)
 - d. Unsure
- 38. Did you begin your college career at XXX?
 - a. Yes
 - b. No
- 39. If no, how many other institutions have you attended?

40. What semester of college are you currently enrolled? Please include your semesters from any other institution if applicable.
- a. 1-2 semesters
 - b. 3-4 semesters
 - c. 5-6 semesters
 - d. 7-8 semesters
 - e. 9-10 semesters
 - f. 11-12 semesters
 - g. 13+ semesters
41. On average, how many units do you take per semester?
- a. Less than 12
 - b. 12-14
 - c. 15-17
 - d. 18+
42. On average, how many hours do you work per week?
- a. I don't work
 - b. Less than 6
 - c. 6-12
 - d. 13-18
 - e. 19-24
 - f. 25-30
 - g. 31-36
 - h. 36+
43. Where do you live?
- a. In the residence halls
 - b. Within 2 miles of school
 - c. With parent(s)
 - d. With other family member(s)/extended family network
 - e. Other
44. What is your current cumulative GPA?
- a. Under 2.0
 - b. 2.0-2.49
 - c. 2.5-2.99
 - d. 3.0-3.49
 - e. 3.5-4.0

45. What was your high school cumulative GPA?
- Under 2.0
 - 2.0-2.49
 - 2.5-2.99
 - 3.0-3.49
 - 3.5-4.0
46. What is the highest level of your parent(s)' education?
- Neither parent completed a high school degree
 - One or both parents completed a high school degree
 - One or both parents completed an Associate's degree
 - One or both parents completed a Bachelor's degree
 - One or both parents completed a Master's degree
 - One or both parents completed a doctorate or professional degree (PhD, MD, JD, EdD, DD)
 - Unsure
47. Gender
- Male
 - Female
 - Transgender
 - Decline to state
48. With which race or ethnicity do you identify? - Please choose all that apply.
- American Indian/Native American
 - Asian
 - Black/African American
 - Latina/o/x
 - Multiracial/Multiethnic
 - Pacific Islander
 - White
 - Other
 - Decline to state
49. With which sexual orientation do you identify?
- Asexual
 - Bisexual
 - Gay/Lesbian
 - Heterosexual
 - Polyamorous
 - Unsure
 - Decline to state

50. How much difficulty have you had so far paying your school expenses?
- A great deal
 - A lot
 - A moderate amount
 - A little
 - None at all
51. How much concern do you have about your future ability to finance your college education?
- A great deal
 - A lot
 - A moderate amount
 - A little
 - None at all
52. Is English your first language?
- Yes
 - No
 - Decline to state
53. What is your citizenship status?
- U.S. Citizen
 - Legal Resident (permanent, temporary, refugee)
 - F-1 Student Visa
 - Undocumented
 - Dual Citizen
 - Decline to state
54. How old are you?
55. What is your marital status?
- Single, never married
 - Married
 - Divorced
 - Separated
 - Widow/er
 - In a long-term relationship/domestic partnership
 - Decline to state
56. How many children do you have?

57. Would you be willing to have me contact you in the future for follow-up questions or future studies?

- a. Yes
- b. No