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Perceived Barriers to Higher Education Among First-Generation and Non-First-Generation Latino Male High School Students

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UNIVERSITY OF MIAMI

PERCEIVED BARRIERS TO HIGHER EDUCATION AMONG
FIRST-GENERATION AND NON-FIRST-GENERATION
LATINO MALE HIGH SCHOOL STUDENTS

By

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Perceived Barriers to Higher Education   (May 2015)
Among First-Generation and Non-First
Generation Latino Male High School Students

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First-generation Latino male students face several unique challenges related to

enrollment in colleges and universities. The purpose of this study was to present a

comparison of the intent to pursue a bachelor's degree between first-generation Latino

male high school students (FG) and non-first-generation Latino male high school students

(NFG). Secondary data obtained from the National Center for Education Statistics High

School Longitudinal Study first follow-up in 2012 was analyzed to determine whether

there were differences between FG and NFG students in terms of their social and cultural

capital: family perceptions of the importance of college, knowledge of financial aid,

academic and social involvement, and academic preparation. A chi-square analysis and

four independent samples t-tests were used to determine whether there were differences

in the social and cultural capital of FG and NFG Latino male high school students that

hinder their intent to pursue a bachelor's degree. The results showed that there was a

significant difference in the family perceptions between FG and NFG students, with more

FGs' perceiving their families as thinking working is more important than going to

college. The results also indicated that there was a significant difference in academic

preparation, with FG Latino males reporting lower academic preparation. No significant

differences were found between FG and NFG Latino males in financial aid and academic and social experiences. A multiple regression analysis was used to determine whether there were relationships between the perceived social and cultural barriers and students' intent to pursue a Bachelor degree. All of the independent variables were found to be significant in predicting student's intent to enroll. No significant interaction was found between each of the independent variables and generation status on students' intent to pursue a Bachelor degree which indicates that no differential relationship between each independent variable and student's intent to enroll exists depending on the first generation status. A holistic approach needs to be implemented in order to help more FG Latino male high school students enroll in and successfully complete college. Higher education institutions, high schools, faculty members, teachers, counselors, parents, and families need to work together to collectively support and encourage Latino male high school students to pursue their bachelor's degree. Future research should focus on specific gender differences between Latino males and females in the pursuit of a college degree as well as studies on the specific role of peer and social influences and socioeconomic status and their role in Latino male students' intent to pursue a bachelor's degree.

DEDICATION

I would like to dedicate this dissertation to my loving parents, Parsu and Ranga Parasuraman, who are the biggest inspirations in my life. Their unconditional love and support has made me who I am. They have always instilled the importance of education in my life and I would not be where I am today without them. Words cannot express my sincere gratitude and appreciation for their continuous love, support, and guidance throughout my life. Thank you from the bottom of my heart; I will eternally be grateful for you both.

I would also like to dedicate this dissertation to my late aunt, Dr. Saraswati Swamy. I miss you dearly.

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Chapter 1: Introduction

As the demographics of the United States continue to change, colleges and universities are encouraged to create new programs to serve diverse student populations in an effort to increase their retention and success in college (Horwedel, 2008). One such population that is growing at a fast pace is Latino students. Even though Latinos are the largest and fastest-growing racial group in the United States, they still remain the "least well-educated" population (Villalpando, 2004). According to McCallister, Evans, and Illich (2010), Latinos' college enrollments rates are relatively low compared to other racial groups. Less than 43% of Latino high school students meet the necessary requirements for admission to enroll in 4-year institutions and the Latino population on college campuses is much lower than other racial groups (Liu, 2011; Saunders & Serna, 2004). It is clear that this population of students face several unique challenges related to enrollment in colleges and universities.

Many programs have been created at the high school level, such as Talent Search and Upward Bound, which are geared specifically towards helping disadvantaged and low-income students pursue their postsecondary education (Campbell, 2004). These programs, along with many others, aim to teach high school students the academic and cultural skills necessary to be successful in college (Campbell, 2004). Additionally, these programs attempt to help students make connections with other Latino students and professionals who can guide them towards making a decision about attending college. However, despite these attempts, Latinos continue to enroll in colleges and universities at lower rates than do other ethnic populations.

A plausible explanation for the low enrollment patterns among Latinos in higher education institutions is that many Latinos drop out of high school, making them ineligible to enroll in a college or university. A sizable difference has been found in the high school dropout rates of Latinos in comparison to other major ethnic populations. For instance, according to the Pew Latino Center, the Latino high school dropout rate was 17% in 2009, while the dropout rates for Whites and African Americans were 6% and 9%, respectively (Reyes, 2010).

In addition to dropping out of high school, family influences may negatively affect Latinos' educational pursuits. Previous research by De La Luz Reynoso and Tidwell (1996) showed Latino parents' attitudes towards education are positive, with 99% of respondents believing that education is the key to the future. Although most Latino parents encourage their children to go to college, the discrepancy between the parents' positive views about education and the actual enrollment rates seems to lie in the perception by Latino culture that the school makes the best decisions for their children regarding education, while the parents teach good values and manners at home. However, although many Latino parents expect their children, specifically males, to go to college, often times they have conflicting expectations because of the traditional role of the Latino male. In Latino culture, it is very common for a Latino male to complete high school and then return home to assist the family financially, especially in low-income families. Often times, with increasing pressure to attend college, Latino men can become conflicted between his family obligations and societal expectations to attend college.

As a result, the Latino population is one group where there is a significant and growing enrollment gap between genders as reported by the American Council on

Education (Hecimovich, 2010). According to the Pew Research Center, in 1994 about half of Hispanic male and female students who completed high school enrolled in college. However, by 2012, only 62% of Hispanic males enrolled in college, compared to 76% of females (Gonzalez-Barrera & Lopez, 2014). This gender gap is consistent among major races, but particularly for Latino students as many Latino males have low high school completion rates and are therefore not eligible to enroll in college (Jaschik, 2010). Moreover, many Latino male high school students may have not understood the importance of pursuing a college degree because they have been able to graduate from high school and obtain a job that pays reasonable wages (Hecimovich, 2010).

Moreover, a substantial number of Latino students are first-generation students from families where neither parent has more than a high-school education (Pascarella, Pierson, Wolniak, & Terenzini, 2004). Compared to their non-first-generation counterparts, first-generation students tend to be disadvantaged in terms of their basic knowledge about college, their levels of family income and support, their educational expectations and future plans, and their academic preparation in high school. Likewise, the "first-generation" and economically disadvantaged Latino male students are less likely to have access to college compared to other counterparts.

Purpose of the Study

There are several barriers that prevent Latino students from pursing a bachelor's degree in the United States. Many of the key factors, including linguistic acculturation, generational status, academic achievement, and socioeconomic status, can collectively play a role in low rates of college enrollment among Latino students (Becerra, 2010). As shown in Figure 1, the high school dropout rates for Latino students are the highest

among the major population groups, making a significant portion of them ineligible to enroll in college (Barkan, 2012).

Even if they are academically qualified, many Latino students do not pursue a bachelor's degree for various reasons, including a lack of financial resources, family obligations, and other personal reasons. The Latino male can also become confused about what the best decision is for their future because they often struggle in balancing family obligations and the desire to attend college. As of 2012, while 76 percent of Hispanic females were enrolled in college, only 62 percent of Hispanic male students were enrolled (Lopez & Gonzalez-Barrera, 2014).

In particular, first-generation Latino males, whose parents did not complete college, and thus possess less knowledge about the college-going process, are one of the most marginalized populations in terms of their access to college (Zhu, n.d.). Although research has been conducted on Latino students and their plans after high school, few studies have focused specifically on first-generation Latino male students and their intent to enroll in college. It is imperative that more research is conducted to understand the specific experiences of Latino males in high school that might hinder their access to college.

This study used data from a longitudinal study of a nationally representative sample, the High School Longitudinal Study of 2009 first follow up survey in 2012, to present a comparison of the intent to pursue a bachelor's degree between first-generation Latino male high school students and non-first-generation Latino male high school students, identifying factors that influence their intent to enroll in college. Of several barriers, family influences, academic preparation, academic and social experiences

outside the classroom, and knowledge of financial aid were the focus of this research because they have been found in the literature to impact Latino students.

In particular, the study first compared two groups on their family perceptions about the importance of college, knowledge about financial aid for college, academic and social experiences outside of the classroom (involvement) and their academic preparedness for college. Then, the study further examined whether any of these factors relate to the intent to pursue a bachelor's degree differently between the two groups. Information from this study will help researchers and administrators understand why first-generation Latino male students enroll in college in lower numbers than other major population groups. It will provide insight into what can be done to enroll more of these students in college. In addition, the use of a nationally representative sample allows findings to be generalizable to a large population of Latino male students in the United States.

Research Questions

The main objective of this research was addressed by answering the following two sets of research questions:

PART 1: Are there differences in the social and cultural capital of first-generation and non-first-generation Latino male high school students that hinder their intent to pursue a bachelor's degree?

1.1 Is there a difference between first-generation and non-first-generation Latino male high school students in terms of family perceptions of the importance of college?

1.2 Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their knowledge about financial aid for college?

1.3 Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their academic and social experiences outside the classroom?

1.4 Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their academic preparedness for college?

PART 2: Are there differential effects of the perceived social and cultural barriers on students' intent to pursue a bachelor's degree between first-generation and non-first generation Latino male high school students?

2.1 Is there a difference between the two groups in how family perceptions of the importance of college affect their intent to enroll in college after controlling for other social and cultural capital variables?

2.2 Is there a difference between the two groups in how knowledge of financial aid affects their intent to enroll in college after controlling for other social and cultural capital variables?

2.3 Is there a difference between the two groups in how academic and social involvement outside the classroom affects their intent to enroll in college after controlling for other social and cultural capital variables?

2.4 Is there difference between the two groups in how academic preparedness affects their intent to enroll in college after controlling for other social and cultural capital variables?

Significance of the Study

As a whole, Latino male students are greatly underrepresented on college campuses. If significant differences are found between first-generation and non-first-generation Latino males in (a) the amount of social and cultural capital and (b) its effect on students' intent to pursue a bachelor's degree, this study will provide new insight into what aspects of social and cultural capital should be focused on when assisting first-generation students pursue a bachelor's degree. For example, higher education administrators can use the findings from this study to create more in-depth high school recruitment processes that aim to educate the whole family on the importance of college and provide opportunities to obtain information on financial aid, the application process, and what to expect in college. Colleges can also use this information to create programming initiatives on their campuses to directly engage first-generation Latino students.

Information from this study can also be beneficial to high school counselors working with Latino male first-generation students in terms of walking them through how to apply to college and also meeting with parents to explain why college is important for their child. Moreover, it can provide insights pertaining to effectively communicating the importance of being involved socially and academically outside the classroom and how this can have a significant impact on going to college. Specific focus groups can be created to engage first-generation students and their families in understanding the importance of a college education and also to provide opportunities to network and meet other families with shared experiences. Mentoring programs which match first-generation high-school students with first-generation college students can provide

important opportunities for students to learn the benefits of going to college, as well as

the challenges and how to overcome them.

Definition of Terms

Latino/Hispanic:	According to the 2010 U.S. Census Bureau, refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.
First-Generation:	An individual both of whose parents did not complete a baccalaureate degree; or in the case of any individual who regularly resided with and received support from only one parent, an individual whose only such parent did not complete a baccalaureate degree (Zhu, n.d.).
Higher Education/Post Secondary Institution:	An educational program beyond a secondary education for which the institution awards a bachelor's degree (Cornell University Law School, n.d.).
High school student:	A student enrolled in a school as an upperclassman, intending to receive their high school diploma.

Definition of Variables

Family Perceptions of the Importance of College	Students response to whether they perceived their families as thinking *working* or *college* was more important after high school
Knowledge of Financial Aid	Students responses to questions asking about financial aid qualifications, eligibility, and affordability
Academic and Social Experiences Outside of the Classroom	Students responses to questions asking about involvement in academic and social clubs and programs outside the classroom
Academic Preparation	Students responses to questions asking about activities to prepare for life after high school, hours spent doing homework and studying, and the number of times they have taken college preparation and credit classes

Chapter 2: Literature Review

History of Latinos in Higher Education

The evolution of higher education has been a long and complicated process for Latinos in the United States. In 1958, Latinos made up fewer than 6 percent of first-year college students in the Southwest, where a large population of Latino immigrants resided (MacDonald, Botti, & Clark, 2007). Beginning with the Higher Education Act of 1965 and continuing through today, Latinos have fought hard to gain equal access and opportunity to colleges and universities. In the 1960s, the civil rights movement encouraged Latinos to seek recognition and attention from politicians (MacDonald et al., 2007). According to MacDonald et al. (2007), during the Great Society of the Lyndon B. Johnson era, programs such as those by the Rockefeller Foundation were implemented to address the access needs of Latinos, but the government's attempt to reach out to Latinos did not work effectively because they were dissatisfied with the discrepancy between what they were promised and the lack of attention given to them. However, the passing of the Serviceman's Readjustment Act (GI Bill) provided new opportunities for Latinos who served in World War II to attend college (MacDonald et al., 2007).

During the 1960s and 1970s, Latinos participated in different movements in order to gain access to higher education. The Chicano and Puerto Rican youth movements called for curricula that accounted for the increasingly diversified student demographics, faculty members who could serve as role models to students, Latino cultural and research centers, and the financial means to obtain their educational goals. Moreover, some philanthropic foundations, including the Ford, Carnegie, and Rockefeller foundations, were eager to assist Latinos (MacDonald et al., 2007). The creation of Federal TRIO

programs, such as Upward Bound, by the government also helped to increase educational opportunities for Latinos with low socioeconomic status by providing attention to individuals from disadvantaged backgrounds. As a result, a generation of first-time college students began entering the fields of social work, law, and other academic disciplines (MacDonald et al., 2007). By the 1980s, the Latino population regained their optimism and college attendance rates skyrocketed, while high school dropout rates decreased.

Nevertheless, during the 1980s, Latino access in higher education reached a plateau, partly caused by changes in financial aid policies and allocations under the Reagan era that disproportionally affected lower income Latino students (MacDonald et al., 2007). In 1986, the Hispanic Association of Colleges and Universities (HACU) was created and Latinos began establishing their own organizations, accommodating to power structures, and finding ways to bring in additional resources. A mass of professional, financially secure and politically engaged Latinos began to form enabling Latinos to lobby for and create higher education reforms. Through these groups, scholarships and internships were provided for Latino students (MacDonald et al., 2007). In 1992, with the reauthorization of the Higher Education Act, Latino-serving institutions were given their own designation, but by 1997, there was concern and resentment over how Historically Black Colleges and Universities were favored during the allocation-of-funds process (MacDonald et al., 2007). In 1998, the Higher Education Act placed Hispanic Serving Institutions (HSIs) in a separate title, which would focus attention on their specific and unique interests. Since the 1960s, Latinos have fought hard to gain equal opportunities and access to higher education and although they have made substantial

gains towards obtaining equal rights and will continue to strive and move forward, they may need additional assistance to increase their enrollment on college campuses.

Latino Students in Higher Education

According to Forster (2006), the U.S. Census Bureau reported in 2002 that there were slightly more than 4 million young people who were the right age to be starting college for the first time, with 1.4 million of those students entering four-year colleges for the first time that year. In particular, Forster (2006) reported that as of 2001, 37% of the white population enrolled in four-year institutions while only 15% of the Latino population of students enrolled. In 2005, the National Center for Education Statistics reported that 28.1% of all Latino males between the ages of 18 and 35 were enrolled in or had finished their postsecondary education (Saenz & Pojuan, 2008, p. 64). In contrast, 35.4% of Latina females in the same age group were enrolled in or had finished college. Saenz and Ponjuan (2008) also reported that Latino males between 16 and 24 years old were four times more likely than their White male counterparts to drop out of high school. Despite valiant attempts to increase the enrollment of Latino males in colleges and universities, enrollment rates still stagger behind those for other groups.

Latino males face unique challenges in enrolling in postsecondary institutions, including lower family income levels and parental education, poor academic preparation, high school dropout issues (26.4% for Latino males compared to 18.1% for Latina females) and lack of access to information about the college-going process (Saenz & Ponjuan, 2008). Despite the need for change in the enrollment patterns of these students, "the extant research literature is almost silent on Latino males and their educational pathways into higher education" (Saenz & Ponjuan, 2008). Additionally, Latino males

and females are disproportionately over-enrolling in community colleges and underrepresented in four-year institutions (Arbona & Nora, 2007). Finally, approximately 50 percent of Latino undergraduates are first-generation, meaning neither of their parents have enrolled and/or completed college (Choy, 2001). There are clear challenges that Latino males face more profoundly than other groups and it is vital to study the specific challenges of this group and what can be done to promote their success in four-year institutions.

Background Characteristics of Latino Males

According to Hecimovich (2010), a report by the American Council on Education states that the Latino population is one group where there is a significant enrollment gap between genders and it continues to grow. For males 24 years old and younger, the percentages of students pursuing a college degree have dropped since 1995. According to the Pew Research Center, in 1994 about half of Hispanic male and female students who completed high school enrolled in college. However, by 2012, only 62% of males enrolled in college, compared to 76% of females (Gonzalez-Barrera & Lopez, 2014). Moreover, many Latino males have not understood the importance of pursuing a college degree because they have been able to graduate from high school and get a job that pays reasonable wages (Hecimovich, 2010).

Socioeconomic status and ethnicity. Latino students are more likely to be financially disadvantaged than their white peers (Kurlaender, 2006). According to Nora (1990), the ability to finance a college education remains a major barrier for many Latino students (as cited in Hernandez & Lopez, 2004). For example, in 2011 the annual median earnings of Hispanics in the state of Florida was $20,900 compared to $30,000 for Non-

Hispanic Whites (Pew Hispanic Statistics, 2011). Moreover, 31% of Hispanics age 17 and younger were within the poverty rate while only 15% of Non-Hispanic whites were within the poverty rate. Latino students also report higher levels of stress associated with finances (Hernandez & Lopez, 2004). Because of their financial situation, these students tended to work, work longer hours, and drop out of school for financial reasons more than non-Latinos. As shown by this data, low socioeconomic status can lead to issues with finances, thereby hindering the pursuit of a bachelor's degree for low-income Latino males.

According to the 2010 U.S. Census Bureau, Latino refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race. In researching Latino males, it is imperative to understand the ethnic differences between the subgroups that form the Latino ethnicity. Ethnicity can play an important role in the educational attainment and previous research tends to lump together all students who identify as Hispanic or Latino in terms of their academic achievement rather than looking at individual differences between the ethnic subgroups (Lutz, 2007). In the United States, 50.6% of Mexicans, 66.8% of Puerto Ricans, 70.8% of Cubans, 64.7% of Central and South Americans, and 74% of other Hispanics had completed high school, showing significant differences in educational outcomes between subgroups (Lutz, 2007).

According to Lutz (2007), while ethnic subgroup differences are important to study, family socioeconomic status has the largest impact on high-school completion. Individuals from low socioeconomic status have a persistent problem of high-school non-completion in the United States, especially for Mexicans (Lutz, 2007). As quoted by

Velez and Saenz (2001), "failure to invest in the education of Latino youth – and all youth from poor socioeconomic backgrounds – will come back to haunt the country in the future" (as cited in Lutz, 2007, p. 336). This makes it important to conduct additional research to understand how being a first-generation student and coming from a low socioeconomic status may complicate access for Latino students, one of the fastest and largest growing population groups in the United States.

Gender (traditional role of Latino males). According to National Center for Education Statistics (2005), in 2004, 28.4% of Latino males 16 to 24 years of age dropped out of high school, compared with 18.5% of Latino females (Saenz & Ponjuan, 2009). In the 18 to 24 age group, 1.9 million Latino males were enrolled in or finished college, representing a mere 28.1% of all Latino males within this age group; Latina females who were enrolled in or had finished college represented 35.4% of the same population groups. One factor affecting some Latino males is the idea of rejecting academic excellence because they perceive it as "acting White" (Saenz & Ponjuan, 2009). Instead, these males tend to join the workforce after high school in order to provide financial and emotional support for their family because of their strong identification and attachment to each other. In Latino culture, males often take on the role of "machismo." In this role, the Latino male is expected to work hard and provide financially for the family, but also protect the family and be the lead decision maker (Galanti, 2003). A man who exhibits "machismo" is dedicated to his family and is said to be a good provider with a strong work ethic. The Latino male is often raised with the expectation that they should be family-oriented, strong, brave, hardworking and family contributors (Saenz & Ponjuan, 2009). Studying the role gender plays in college access

is particularly important for this population group because Latino males enroll in college at significantly lower rates than Latina females.

Theoretical Framework

    Social and cultural capital. Social capital theory can help explain the access issues faced by first-generation Latino male students in comparison to their non-first-generation counterparts. According to Bourdieu (1986), social capital is measured by the amount of resources that are available to a group of people (Saunders & Serna, 2004). Social capital includes the instrumental, productive relationships or networks that provide access and opportunities (Strayhorn, 2010). Related to education, this theory is based on the idea that students with limited capital benefit from the development of relationships with caring and educated adults. Moreover, these students benefit from the social connections they establish with teachers, counselors, and other school officials (Saunders & Serna, 2004).

    Cultural capital is defined as high-status linguistic and cultural competencies that students inherit from their parents, siblings, peers, and teachers (Strayhorn, 2010). Participating in and out-of-classroom experiences such as clubs can provide important social and educational experiences that may also help students acquire cultural capital. These support systems can help first-generation Latino students overcome barriers that may have otherwise prevented them from pursuing a bachelor's degree. Essentially, the adults act as a "bridge" and help students make social connections, participate in activities, and help them develop into roles that allow them to set attainable goals for themselves (Saunders & Serna, 2004). Strayhorn (2007) found that several measures of a student's cultural and social capital such as socioeconomic status, discussions with

parents and involvement served as significant predictors of future GPA. Without the proper support systems, many first-generation Latino males fall between the cracks and are never given a fair chance to obtain the necessary knowledge to apply for college.

Perez and McDonough (2008) investigated to identify which factors played a critical role in the Latino college choice process in terms of the networks of people and community resources available to them. Results from their study showed that students spoke to their parents about the college-planning process, however their parents did not provide them with what to expect. Rather, the students informed their parents about college and sought college information from other individuals, such as extended families and acquaintances, to find out information about the college-going process (Perez & McDonough, 2008). This implies that without having the proper support networks and institutional agents in place, first-generation Latino male students may feel isolated and confused about college.

Segmented assimilation theory – the notion that the outcomes of immigrants will not necessarily improve across generations, especially in disadvantaged contexts, and that maintaining familial and ethnic ties can have a protective effect on immigrant students – is also important in understanding the experiences of first-generation, low-income Latino male students. According to this theory, groups that have fewer resources and lower levels of capital at the time of immigration may not experience upward mobility and often assimilate into the "underclass" (Kalogrides, 2009). Although some people may experience rapid economic advancement, they may still remain within their cohesive cultural community. Low chances of mobility create pessimism among disadvantaged inner-city youth who may not feel they have the same opportunities as middle and upper

class students. Additionally, segmented assimilation theory states that because public school attendance in the United States is based on place of residence, students in low-income, urban areas may not value the education system or have access to the same resources as those from middle and upper class families. When residence in poor environments puts these students at risk of downward assimilation, segmented assimilation theory asserts that maintaining the culture of the origin can have a protective effect for these students (Kalogrides, 2009).

Segmented assimilation theory is important in studying Latino students' access towards college because it helps develop the idea that these students are often not presented with the same opportunities, programs, and educational support systems as the more advantaged. Moreover, given the strong sense of community and cohesiveness among many Latino families, the lack of emphasis on college within these families may hinder a first-generation, low-income Latino male student from understanding the benefits and importance of attending college. Because of their place of residence, these students may also feel discriminated against and struggle with barriers that keep them from achieving upward mobility. Accordingly, social capital theory helps to emphasize the importance and necessity for guidance and mentoring for these students in order for them to be able to apply to and succeed in college. Both segmented assimilation theory and social and cultural capital theory pay a significant role in explaining the experiences of first-generation Latino male students.

Teachers and counselors. A study conducted by Hopkins, Martinez-Wenzl, Aldana, and Gandara (2013) found that teachers and counselors created conditions that fostered social and cultural capital for Latino students through bilingual instruction and

providing information to students about high school graduation and postsecondary education. This allowed students to feel a sense of belonging. Additionally, the students in the study were enrolled in college preparatory courses, which were taught by their teachers in both English and Spanish (Hopkins et al., 2013). Teachers and counselors developed a positive rapport with students and allowed students to feel comfortable asking questions, while still maintaining high standards and challenging the students. These students were also given student leadership opportunities and engaged in activities to expand their networks beyond the classroom, which all positively influenced their access to college (Hopkins et al., 2013).

Peer support. Students who lack the social and cultural capital from their parents can benefit greatly from peer relationships. According to Hopkins et al. (2013), peer social capital refers to adolescents' relationships with peers, which leads them to gain access to information and resources that support achievement. Specifically, interactions with White middle-class peers can lead to positive outcomes by providing opportunities to discuss the college-going process. Additionally, Hopkins et al. (2013) found that Latino students benefited from supportive peer networks through peer tutoring and participating in sports activities. Not only did this help these Latino students expand their peer networks, but it also provided them with the opportunity to develop their identity and take advantage of opportunities presented to them. Through their peer interactions, these students developed a sense of belonging and promoted their academic identities (Hopkins et al., 2013).

Factors that Hinder Latinos Access to Higher Education

There are several barriers that prevent Latino high school students from pursuing a college degree in the United States. Many of the key factors, including linguistic acculturation, generational status, academic achievement, and socioeconomic status, can collectively play a role in low rates of college enrollment among Latino students. According to Valdes (2001), "the experience of many young immigrant children, who speak a language other than English and attend schools in the United States, is often painful and confusing" (Alcayaga, 2003, p. 15). Many immigrant Spanish-speaking students have difficulty conversing in English and understanding English text. In social situations, it can be uncomfortable for Spanish-speaking students to communicate with their peers. Moreover, students who do not understand the English language fully have difficulty grasping academic curricula presented in English.

In addition to language barriers, Alcayaga (2003) also discussed the history of academic segregation that Latinos have experienced in the United States. In many highly Latino-populated areas, American schools are not provided with the same resources and books as those in higher/upper class neighborhoods. Another barrier that may prevent Latino students from pursuing their bachelor's degree is the use of standardized tests as admissions requirements for many colleges and universities. According to Alcayaga (2003), standardized tests are designed to fit a cultural, socioeconomic, and linguistic norm into which many Latinos do not fit. Therefore, these measures of their academic performance and achievement may not reflect their true abilities. For instance, at the University of Miami, Pearson (1993) studied the validity of the Scholastic Aptitude Test (SAT) as a determinant of college performance. The results indicated that although

Cuban Americans underperformed on the SAT, scoring an average of 45 points lower than non-Hispanic Whites, the SAT scores did not predict Cuban American's academic success in college (Alcayaga, 2003). Pearson argued that the low test scores may be due to cognitive process differences due to these Cuban students being bilingual and not based on their academic ability. In fact, when their grade point average (GPA) was collected after two years of college, Cuban American students had an average GPA of 2.92 while non-Hispanic Whites had an average GPA of 2.90 (Alcayaga, 2003).

Social and Cultural Capital Affecting Latino Males' Access to Higher Education

According to McCallister, Evans, and Illich (2010), although the Latino population is growing at a much faster rate than other populations, college enrollments rates are relatively low compared to other racial groups. An explanation for the low enrollment patterns may be that Latinos have a large high school dropout rate which makes these students ineligible to enroll in college. Although the proportion of Latinos enrolling in college has increased over the years, the rate is still relatively low compared to other racial groups (McCallister et al., 2010). Family influences, financial situations, academic and social experiences, and academic preparation can be important factors that need to be addressed by high schools and colleges working with Latino male first-generation students. The focus of this study will be on these four factors as they have consistently been found in literature to influence Latino males.

Familial influences. Previous research by De La Luz Reynoso and Tidwell (1996) has shown that Latino parents' attitudes towards education are positive, with 99% of respondents believing that education is the key to the future. The discrepancy seems to lie in the perception by Latino culture that the school makes the best decisions for their

children regarding education, while the parents teach good values and manners at home. This particular study focused on differences in attitudes towards education between regular-education families and special-education families and results showed that many regular-education Latino families surveyed lacked the proper transportation to be more involved in their child's education, participated less in educational activities at home, attended less parent meetings, had lower parent-parent contact, and had less involvement with school administration, factors that can directly impact Latino male student's knowledge about college.

A study by Ceballo (2004) showed that although Latino parents believed "an American education was the best and only route for their children to escape poverty (p. 176)", the parents were not heavily involved with their child's schooling and rarely helped with projects, homework, or extracurricular activities. However, parents did provide nonverbal support to their children, such as excusing them from chores to focus on schoolwork (McCallister et al., 2010). Because Latino culture places a strong emphasis on family, many first-generation and immigrant students and their families may be unaware of the American educational system and the opportunities available to them. Similarly, although Latino youth report high aspirations for careers, they do not know the academic prerequisites for the jobs they desire to hold (McCallister et al., 2010).

McCallister et al. (2010) surveyed parents of Latino children in grades 4-8 in an urban school district in Texas about their perceptions pertaining to higher education. Results showed that nearly 100 percent of parents were very supportive of higher education and wanted their children to attend college. However, "only 26% of respondents indicated that they were saving money for their child(ren) to attend college

and 14% indicated that they would be able to afford to send their child(ren) to college"
(McCallister et al., 2010, p. 270). Moreover, although Latino parents placed great
importance on college, they did not have a good understanding of the available programs
designed to provide assistance to students. Over two-thirds of those who responded
indicated that their children would likely receive an academic scholarship, and nearly
one-half of the respondents indicated that their children would more than likely receive
financial assistance because of their low household income (McCallister et al., 2010).
The authors of this study attributed the discrepancy between the value placed on higher
education and the inability to afford college as one explanation as to why parents are
unaware of the financial assistance available to their children.

McCallister et al. (2010) found that parents of Latino children were actively
involved in helping with children with school-related activities. Ninety percent of the
respondents indicated that they regularly reviewed their children's homework and
approximately 60% regularly attended school activities. The authors concluded that
colleges can help parents prepare to send their children to college by educating them
about scholarships and financial assistance, as they often lack the necessary knowledge
about financial assistance programs for college. Although many Latino parents expect
their children, specifically males, to go to college, often times they have conflicting
expectations because of the traditional role of the Latino male. In Latino culture, it is
very common for a Latino male to complete high school and then return home to assist
the family financially, especially in low-income families. Accordingly, the Latino male
student understands the meaning and importance of helping his family out (Hecimovich,
2010). Often times, with increasing pressure to attend college, the Latino male can

become conflicted between his family obligations and societal expectations to attend a college or university. Alcayaga (2003) also reviewed parental involvement and its role as a barrier to college for their children, noting that Latino parents often encounter an environment that they are unfamiliar with, which may prevent them from participating fully in their child's education. A study by Heyman and Earle (2000) found that "low-income parents were less likely than middle and upper class parents to have paid leave or flexibility at work that they needed to address the academic and behavioral problems that their children encountered" (Alcayaga, 2003, p. 24). Even though parents wished they could help their children more, they sometimes lack the necessary resources to do so.

Financial constraints. In 2008, MiraCosta College district distributed a survey to students enrolled in high schools in the area regarding their perceptions about college and their likelihood of attending college after graduation, as well as what they perceived as barriers preventing them from going to college (School Relations & Diversity Outreach Office, 2008). Of the sample surveyed, 34% of the students were of a Hispanic or Latino background. Fifty-eight percent of the students reported that they would be going to work after high school; 76% reported that they would attend a community college, and 11% of the students reported their intent to enroll in a four-year institution. In terms of their perceived barriers, cost was the highest reported barrier to attending college (66%) (School Relations & Diversity Outreach Office, 2008). Related to this category, the next highest perceived barrier was financial obligations (41%) and not having good enough grades (33%). These barriers are particularly relevant for Latino male students as many come from low-income, first-generation families.

Social and academic experiences. Lindsey, Hartford, and Gable (2013) found that Black, Hispanic, and biracial students report lower levels of participation in college preparation programs (22%) and low rates of visits to college campuses (39%). Peer networks that foster involvement are particularly important for Latino males as they provide social and cultural capital to broaden social and academic networks (Strayhorn, 2010). Involvement in peer networks also fostered a sense of belonging and promoted the academic identities of Latino male high school students. Schools and programs need to challenge Latino students academically by setting high expectations and by providing opportunities for these students to access college preparatory programs (Calaff, 2008). Additionally, Calaff (2008) determined that programs need to be implemented that foster Latinos' sociocultural development outside the classroom by providing activities that develop positive peer networks. In particular, it was found that these students needed help from community resources to complete their school work and meet their academic needs, especially in low-income families.

College readiness and lack of knowledge. College readiness, which can be defined as the completion of "college admission coursework requirements and possessing high-order study strategies required to be academically successful in a university setting," (Castaneda-Flores, 2013, p. 13) can be challenging for many first-generation Latino males. The Castaneda-Flores (2013) study found that students often lacked sufficient strategies to successfully navigate the academic rigor of the curriculum. Specifically, there seemed to be a disconnect between high schools and colleges in terms of their communication (Castaneda-Flores, 2013). More importantly, some of the students in this

study reported that they did not have anyone that talked to them about their own college experiences.

According to Bryan et al. (2009), a lack of college knowledge was the primary reason why low-income students do not apply to college (as cited in Lindsey & Gable, 2012). Lindsey and Gable (2012) found that students lacked knowledge of financial aid processes and turned to several sources to help them (i.e., counselors, teachers, relatives, and friends). Results showed that "familiarity with financial aid processes and terminology appeared to have had a negative influence on students' ability to search for additional financial information" (Lindsey & Gable, 2012, p. 157). Sixty one percent of participants reported being responsible for a family member after school, not seeking out help with college information, having only moderate knowledge of the college-application process, and never visiting a college campus (Lindsey & Gable, 2012).

Results from a study by Clark, Ponjuan, Orrock, Wilson, and Flores (2013) showed that increased communication among public schools, state and community colleges, and universities was essential in increasing access to higher education. Students, especially Latino males, can benefit from obtaining knowledge from counselors and administrations about college programs and services (Clark, Ponjuan, & Orrock (2013). Strayhorn (2007) found that academic preparation was the most significant predictor of achievement in college for Latino males. However, without the proper knowledge about college in high school, these students are already at a disadvantage in terms of their academic achievement because they seem to be lacking a connection with someone who can guide them through the college-going process. Lack of sufficient knowledge about the college-going process can particularly hinder first-generation Latino

males from understanding the benefits, importance, and feasibility of pursuing their post-secondary education and it is therefore important to study why these students are not provided with the same experiences as their non-first-generation peers.

First-Generation Students' Access to Higher Education

A first-generation student is an individual who comes from a family where neither parent nor guardian graduated from college (Mehta, Newbold, & O'Rouke, 2011). Previous research has shown that one of the most important predictors of students gaining access to college is their parents' educational level (Choy, 2001; National Center for Education Statistics, 2001). The National Center for Education Statistics (2001) showed that compared with their peers whose parents held bachelors or advanced degrees, these graduates were more likely to be Black or Hispanic and come from the lowest income quartile (Prospero, Russell, &Vohra-Gupta, 2012). Moreover, first-generation students who did have access to college were more likely to enroll in post-secondary education as part-time students and to attend 2-year institutions than their non-first-generation counterparts (NCES, 1998). These students tend to be older, have lower incomes, be married, and have dependents (NCES, 1998). Previous research has shown that first-generation students are less exposed to the support systems to navigate through college than non-first-generation students (Mehta et al., 2011).

According to Mehta et al. (2011), parents and family members of first-generation students may not understand the time and energy that must be invested in college in order to be successful and therefore may expect their children to contribute to the family after high school. Finances, parental support, academic preparedness, and campus-involvement can also contribute to first-generation students' college access. In their

study, Mehta et al. (2011) examined the experiences of first-generation students in comparison to continuing-generation students. Findings from their study showed that first-generation students come from families with lower incomes, work more hours, and rely on student loans and grants to pay for their education (Mehta et al., 2011). Additionally, these students were found to be less involved on campus because of financial struggles that force many of them to work more hours and live-off campus. In turn, this hinders their participation in campus events and can lead them to feel withdrawn or disconnected, all factors that negatively influence retention. Mehta et al. (2011) concluded that first-generation students have different stress make-ups, feel less satisfied with their college experience, and earn lower grades than their non-first-generation counterparts. The researchers proposed four initiatives to help these students transition into college: participating in living-learning programs, first-generation student programs, transfer student programs, and increased academic peer interactions, all geared towards the ultimate goal of increasing academic and social interactions on campus, which can help improve student retention.

First-generation students differ significantly from their non-first-generation peers in terms of their academic preparation, racial demographics, socioeconomic status, and family involvement in the college going process (McCarron & Inkelas, 2006). According to the Education Resources Institute and the Institute for Higher Education Policy (1997), first-generation students may lack support from family and friends and are less academically prepared for college (Lee, Sax, Kim, & Hagedorn, 2004). These students not only have to confront all the "anxieties, dislocations, and difficulties" of any student aspiring to go to college, but their experiences also involve social and academic

transitions (Pascarella, Pierson, Wolniak, & Terenzini, 2004, p. 250). Although many studies have been conducted to describe the differences in experiences of first-generation students and their non-first-generation counterparts, few studies have focused on specific background characteristics of these students and how their lack of social and cultural capital hinders their access to college. Although Latinos are the largest growing minority group in the nation, they have the lowest college educational attainment of any population, with only "19 percent having a college degree, compared to 42 percent of Whites and 26 percent of African-American adults" (Liu, 2011, p. 7). Particularly, almost 50 percent of Latino undergraduate student's parents have never enrolled in or completed college (Liu, 2011). However, very few studies focus specifically on Latino male first-generation students. According to the U.S. Census Bureau, by 2020, about one in four college-age students will be Latino (Liu, 2011). Given the exponential growth of the Latino population, it is imperative to examine the barriers and more importantly, figure out what can be done to bridge the gap between high school and postsecondary aspirations of first-generation Latino males.

Likewise, as addressed above, the first-generation Latino male students are the most at-risk population due to several barriers that are unique to such population. However, little research exists on this specific population, which clearly calls attention to empirical research that would help us understand why these students remain disadvantaged despite multiple attempts to acclimate them to college.

Current College Preparation Program for Latino High School Students

According to Campbell (2004), as of 2000, less than 10 percent of Latinos aged 25-29 had earned a four-year degree. Latinos are consistently under-represented as high

school graduates, college graduates, and in advanced degree attainment. Many people believe that in order to increase college enrollment among Latino students, high school students need to be more adequately prepared for college. Currently, there are different programs such as mentoring, outreach, and educational initiatives throughout the United States that are aimed at educating Latino students about college and preparing them for the transition. College mentoring programs can be used to teach students the academic and cultural skills necessary to be successful in high school and college. These programs are aimed at increasing students' access to colleges and universities. Latino students who are not adequately prepared for college can obtain greater educational opportunities with the use of a mentoring program.

One such program was created by Rolando Moreno, a former trainer in the University of California-San Diego, who began Mentores Latinos de America (Cooper, 2012). The purpose of this program was to create connections between Latino professionals and Latino students to guide them in career choices and career placement. In Mentores Latinos de America, Latino mentors schedule conferences with students on a week-to-week or month-to-month basis (Cooper, 2012). Cooper (2012) also discussed the Big Brothers Big Sisters Latino Mentoring program that incorporates Latino families into the mentoring process to lend further support to each individual student. Another organization, Future Leaders of America, provides mentoring services in response to low academic achievement, lack of parent involvement, and limited civic engagement (Cooper, 2012). The goals of this program are to 1) motivate students to excel academically and access college admission and financial aid resources in order to earn a bachelor's degree, 2) help underprivileged youth become leaders, effective

communicators, and positive role models for other youth, and 3) instill an ethic of civic responsibility and the confidence to actively participate in the democratic process. Project MALES (Mentoring to Achieve Latino Educational Success), another program discussed by Cooper (2012), is a program where student mentors work with high school students to educate them about the college-going process, as they have the lowest rate of high school graduation rates as well as the lowest college enrollment completion rates of any subgroups.

Campbell (2004) also mentioned two important mentoring programs that are aimed at helping Latinos gain greater access to college. ASPIRA, a nonprofit organization based in Philadelphia, PA, focuses on high schools in an attempt to reduce the Latino dropout rate and promote economic development through education and youth leadership. Of students who participated in the ASPIRA program, 95 percent graduated from high school and 90 percent enrolled in college, supporting evidence that these mentoring programs are effective (Campbell, 2004). Another program called the College Summit works with low-income students and their teachers, educating them about the college application process and financial aid options. Teachers receive specific training on how to deal with students and assist them in the application process. College Summit also offers four-day summer workshops for students, focusing on developing writing skills needed for college applications. Since 1993, College Summit has served more than 4,000 students and has obtained more than $28 million in college scholarships (Campbell, 2004).

Need for Helping High School First-Generation Latino Males

Although current programs are geared towards helping Latinos succeed in college, no programs were identified that directly address the specific needs of first-generation Latino male high school students. Because this population of students is increasing in great numbers in the United States, it is important to implement programs that focus on increasing the social and cultural capital of first-generation Latino male high school students. Focusing on improving college enrollment and completion is currently the goal of many national and state policies, especially since, by 2018, 63% of new jobs will require a postsecondary degree (Liu, 2011). Because Latinos are the fastest growing and largest minority group in the United States, with approximately 50 percent of Latino undergraduates' parents not having a college degree, it becomes imperative to concentrate on helping this group to gain the necessary skills to succeed in college.

Chapter 3: Methods

Target Population and Sample

The target population for this study was high school Hispanic male students in the United States. The sample for this study were students who participated in the High School Longitudinal Study of 2009 (HSLS: 09) conducted by the National Center for Education Statistics (NCES) and responded in the first follow-up in 2012. The HSLS: 09 is a nationally-representative longitudinal study of over 23,000 students enrolled in the 9th grade from 944 different public and private schools in 2009 (NCES, 2014). Surveys were administered to students, parents, teachers, administrators, and counselors and followed students from their freshman year through their graduation.

Research Design

The research design that was used in this study was a quantitative analysis of secondary data (HSLS:09) obtained by NCES in 2012 using a follow-up questionnaire given to 11th grade students in the spring semester of their junior year of high school. The base year survey of HSLS:09 was administered in 2009 followed by a first follow-up in 2012, a 2013 update, high school transcripts from 2013-2014, and a second follow-up planned for 2016. The purpose of the High School Longitudinal Study of 2009 (HSLS:09) was to examine students' trajectories from the beginning of high school through postsecondary education and beyond. In particular, the HSLS:09 focused on what majors and careers students decide to pursue and how they choose science, technology, engineering, and math courses, majors, and careers.

In the HSLS:09, the survey instruments were administered to students, parents, math and science teachers, school administrators, and school counselors. The parent

questionnaire included items on family structure, family origin and language, parental education and occupation, the previous educational experiences of their child, their involvement in their child's education, and their child's future. The school counselor questionnaire included sections on staffing and practices, programs and support, math and science placement, and an analysis of the school and any feedback they had. The school administrator questionnaire included sections on school characteristics, programs, policies, statistics, teachers, and opinions and background of the administrator. The student questionnaire included items about high school attendance, demographics and family background, plans and preparations for the future, high school courses, attitudes, and activities and family. It also examined what majors and careers students decided to pursue and when, why, and how.

For purposes of this research study, data from student survey questionnaires gathered at the first follow-up of HSLS:09 in 2012 was used. Specifically, this study focused on questions relating to four social and cultural capital variables that were answered by students: family support, knowledge about financial aid for college, academic and social involvement outside the classroom, and academic preparedness. All survey items that were included in the study are located in Appendix A.

Variables and Measures

Dependent variable. The dependent variable for this study was the students' intent to pursue a bachelor's degree. This variable was measured by a one-item survey questionnaire taken from HSLS: 09, which asked participants how sure they are that they will pursue a bachelor's degree (i.e., "how sure are you that you will pursue a bachelor's degree?"). Student's response to this item were gathered on a four-point Likert scale

including (1) very sure you will, (2) you probably will, (3) you probably won't, and (4) very sure you won't and then it was reverse coded. Thus, the higher the score was the higher a student's intent to pursue a bachelor's degree.

First-generation status. This variable was used to determine whether there were differences between the two groups on their parental perceptions about the importance of college, their knowledge of financial aid, their academic and social involvement outside the classroom, and their academic preparedness for college. Students' responses on two items from the questionnaire were jointly used to determine whether a student was categorized as a first-generation or non-first-generation student.

First, students in the HSLS: 09 survey were asked to choose the parent or guardian they live with most of time and answer what their relationship is to the student. Options included 1 = biological mother; 2 = biological father; 3 = adoptive mother; 4 = adoptive father; 5 = stepmother; 6 = stepfather; 7 = foster mother; 8 = foster father; 9 = female partner of your parent or guardian; 10 = male partner of your parent or guardian; 11 = grandmother; 12 = grandfather; 13 = other female relative; 14 = other male relative; 15 = other female guardian; 16 = other male guardian.

Next, students in the HSLS: 09 survey were asked what the highest level of education of the parent or guardian from the following options: 1 = less than high school completion; 2 = completed a high school diploma, GED or alternative high school credential; 3 = completed a certificate or diploma from a school that provides occupational training; 4 = completed an associate's degree; 5 = completed a bachelor's degree; 6 = completed a master's degree; 7 = completed a Ph.D., M.D., law degree, or other high level professional degree; 8=don't know. Students were asked the same two

questions for their second parent or guardian if they lived with a second parent or guardian.

A first-generation student was defined as a student for whom both parents/guardians did not complete a bachelor's degree. If they only lived with one parent/guardian, only the one parent/guardian's level of education was used to determine whether they are first-generation. Then, a dummy variable was created to represent whether a student was first-generation or not (1 = First-generation student, 0 = Non-first-generation student).

Independent variables. Four sets of independent variables were used in the analysis: (1) family perceptions of the importance of college, (2) knowledge about financial aid for college, (3) social and academic involvement outside the classroom, and (4) academic preparedness. Each of the independent variables was measured using specific questions taken from HSLS:09 asking students various questions related to the variable.

Family perceptions of the importance of college. This construct was used to determine what the student's family thought was the most important thing to do after high school, working or going to college. One survey item was used to determine the family's perception of the importance of college. Students selected from five answer choices about what their parents thought was most important: continuing your education after high school, working, serving in the military, starting a family or taking care of children, or attending high school or a GED completion course. For purposes of this study, the last answer choice was removed. The other four answer choices were coded into one of two categories: 1 = college is most important or 2 = working is most important. Then, a

dummy variable was created as follows, with 1 = working is the most important and 0 = college is most important.

__Knowledge about financial aid for college.__ This construct was used to determine whether students are knowledgeable about financial aid for college. In particular, it asked students about financial aid qualifications, eligibility, and affordability. Two survey items were used to answer this question. The first survey-item asked students "why do you think you will/would not qualify for any financial aid? " and consisted of five sub-questions, but for purposes of this study, only two sub-questions (i.e. "you have concerns about a credit score"; "your family's income is too high") were used. Students answered yes or no to each of the sub-questions, which were coded as 1 = yes and 0 = no. The responses were reverse-coded when needed.

The second survey-item asked students to answer yes or no to six sub questions under the question "what the reasons you will/may/would/might not apply for financial aid for college"). While this item consisted of six sub-questions, only five sub-questions (i.e., "you or your family think you may be ineligible or may not qualify; "you or your family can afford school or college without financial aid"; "you or your family do not know how to apply for financial aid"; "you or your family do not want to take on debt"; "you or your family think the application forms are too difficult") were used. Each of the questions was answered as yes or no, which was coded as 1 = yes and 0 = no and was based on their qualifications and knowledge of financial aid. The responses on some items were reverse-coded when needed. Then, a composite score was computed based on the summing of the students' responses to the two items, with a range from 0 to 7, with a higher score indicating more knowledge about financial aid for college.

Social and academic involvement. The social and academic involvement construct was used to determine whether students were involved in school activities outside of the classroom. In particular, students answered questions about their involvement in academic and social clubs and programs. Three survey items were used to ask about academic, extracurricular, and college preparation activities the students participated in outside of class. The first survey item focused on academic activities and included twelve sub-questions that were answered as yes or no. The second survey item focused on extracurricular activities and contained seven sub-questions that were answered as yes or no. The third item focused on college preparation and had five sub questions with three answer choices: yes/no/you don't know what that is.

Each of the questions was answered as yes or no, which was coded as 1 = yes and 0 = no and was based on their social and academic experiences outside of the classroom. Then, a composite score was computed by summing students' responses on the sub questions, which ranged from 0 to 24, indicating that the higher the score was participation in more social and academic activities outside the classroom.

Academic preparedness. This construct was used to determine whether there were differences in the academic preparedness of the two comparison groups. In particular, students were asked about activities to prepare for life after high school, hours spent doing homework and studying, and the number of times they have taken college preparation and credit classes. Three survey items were used to determine students' academic preparation. The first survey item contained nine sub-questions and identified whether students had done any activities to prepare for life after high school (either career-wise or academically). The second survey item contained three questions about

how much time was spent doing homework and studying. Students selected from seven different answer choices, but for purposes of this study, the answer choices were be categorized into four options: 1) one hour or less; 2) two-three hours; 3) four-nine hours; 4) more than nine hours. The third survey item asked students about how many times they had taken the PSAT or PLAN, SAT or ACT, Advanced Placement Tests, and any International Baccalaureate tests and they were asked to select from five options: 0) never; 1) once; 2) twice; 3) Three or more times; 4) You don't know what this is. Responses on some items were reserve coded when needed. Then, a composite score was computed by taking the average of students' responses to the questions, which ranged from 0 to 4, indicating that the higher the score was being more academically prepared.

Validity and Reliability

The validity and reliability of items included in the original High School Longitudinal Study (2009) items were established through field testing (NCES, 2011). Particularly, for the questionnaires, field test analyses included the evaluation of item nonresponse, test-retest reliabilities, calculation of scale reliabilities, and the examination of correlations between theoretically related measures (NCES, 2011). In addition, various analyses to ensure psychometric properties were performed to test item difficulty and discrimination.

Data Collection

Data for this study was a part of the National Center for Educational Statistics High School Longitudinal Study of 2009 (HSLS: 09). The publicly available data was retrieved from the National Center for Educational Statistics website, http://nces.ed.gov/surveys/hsls09/hsls09_data.asp, using the Education Data Analysis

Tool (EDAT) as secondary data (NCES, 2014). Particularly, the dataset only included

data from the first-follow up in 2012 exclusively through the student survey.

Data Analysis

Research questions for part I were answered using a chi-square analysis for the

relationship between family perceptions about the importance of college and first-

generation status and three sets of independent samples t-tests comparing first-generation

and non-first-generation Hispanic male high school students on each variable (i.e.

knowledge about financial aid for college, academic and social experiences outside the

classroom, and academic preparedness for college). Three underlying assumptions for

independent samples t-test (i.e., normality, homogeneity, and equal sample size) were

first evaluated. When violated, the necessary adjustments were made before data

analysis.

Research questions for part II were answered by running a simultaneous multiple

regression model. In particular, a simultaneous regression model was conducted to

predict one's intent to pursue a bachelor's degree using (1) a dummy variable

representing first-generation student, 1 = first-generation student, 0 = non-first-generation

student (2) three independent variables (family perceptions about the importance of

college—which is a dummy variable representing students who endorse working is most

important with students who endorse that college is most important as being reference the

group, academic and social experiences outside the classroom, and academic

preparedness for college), and (3) two-way interactions between the dummy variable

regarding first-generation status and each of the three independent variables.

The financial aid variable was removed from the multiple regression analysis because of low response rate, with only 28 non-first-generation students and 394 first-generation students responding. Three underlying assumptions for a regression model (i.e., normality, homogeneity, and independence of errors) were tested. When violated, the necessary adjustments were made before data analysis. The overall regression model was first evaluated based on the significance of the F-statistics, R-squared value, and multiple correlation coefficient (R). Then, the effect of each individual variable on the intent to pursue a Bachelor degree was addressed by testing the significance of t-statistics associated with the individual slope.

Power Analysis

For this study, two *a priori* power analyses were completed through G*Power software (Erdfelder, Faul, & Buchner, 1996) to ensure whether data obtained from NCES was sufficient enough to find the significant difference on the effect of independent variables on the outcome variable between first-generation and non-first-generation Latino male high school students. Because the research questions were addressed primarily using multiple regression analysis, a priori power analysis was conducted for (1) the significance of overall regression model and (2) the significance of an individual regression slope.

First, when the significance level was preset at .05, the estimated required sample size was 602 in order to find the small but significant overall regression model at the desired statistical power of .80. In addition, the estimated required sample size was 74 to find the small but significant individual slope related to mean difference between first-generation and non-first-generation Hispanic male students in the regression model at the

desired statistical power of .80 with an alpha level of .05. Likewise, the minimum sample size that was required for answering the research questions was between 74 and 602.

Chapter 4: Results

Data Preparation

During the base-year of the High School Longitudinal study, 25,206 students were determined to be eligible as a nationally representative sample from 944 public and private schools in the United States that provided instruction in both 9th and 11th grade (NCES, 2014). Stratified random sampling and school recruitment methods were used to identify all eligible schools (NCES Handbook of Survey Methods, 2012). With the first follow-up in 2012, responses from a total of 23,415 students were available in a dataset downloaded from http://nces.ed.gov/EDAT/ for data analysis.

Of these 23,415 students, a total of 3,828 students were identified as Hispanic, which was filtered by the '*x2Hispanic*' (1 = Hispanic, 0 = Other) variable from the dataset. In particular, the '*x2race*' variable was used to identify their racial background, which was composed of 3,603 Hispanic with race identified and 225 Hispanic with no race specified. Of the 3,828 Hispanics, 1918 were identified as males that were filtered by the '*x2sex* (1 = Male, 0 = Female)' variable. As a result, a total of 1918 Hispanic males were identified for the current study.

The first-generation status variable was created by two survey items asking for the parental education of each individual parent, using two variables '*x2par1edu*' (1 = less than high school completion, 2 = completed a high school diploma, GED, or alternative high school credential, 3 = completed a certificate or diploma from a school that provides occupational training, 4 = completed an Associate's degree, 5 = completed a Bachelor's degree, 6 = completed a Master's degree, 7 = Completed a Ph.D., M.D, law degree, or other high level professional degree, 8 = don't know) and '*x2par2edu*' (1 = less than high

school completion, 2 = completed a high school diploma, GED, or alternative high school credential, 3 = completed a certificate or diploma from a school that provides occupational training, 4 = completed an Associate's degree, 5 = completed a Bachelor's degree, 6 = completed a Master's degree, 7 = Completed a Ph.D., M.D, law degree, or other high level professional degree, 8 = don't know).

These variables were jointly used to determine whether a student was first-generation or not. Students for whom both parents and/or guardians did not complete a bachelor's degree (1 = less than high school completion, 2 = completed a high school diploma, GED, or alternative high school credential, 3 = completed a certificate or diploma from a school that provides occupational training, 4 = completed an Associate's degree) were coded as first-generation students. If students only lived with one parent or guardian, meaning they answered the question "do you have another parent or guardian in the same household as you" as 1 = yes or 0 = no, only that parent/guardian's level of education was used to determine whether the student was first-generation. After filtering out non-responses (n = 343) on parental level of education (answer choice 8 or left blank in '*x2par1edu*' and '*x2par2edu*'), a sample size of 1575 out of 1918 Hispanic males was selected for this study. Of 1575 Hispanic male students, 108 (6.9%) were identified as non-first-generation male students (coded as 1) and 1467 (93.1%) were identified as first-generation male students (coded as 0).

The dependent variable for this study was student's intent to pursue a bachelor's degree. This variable was measured by one item taken from a survey questionnaire from the first 2012 follow-up of High School Longitudinal study of 2009 (HSLS:09), which asked participants how sure they are that they will pursue a bachelor's degree (i.e., "how

sure are you that you will pursue a bachelor's degree?"). Student's response to this item

was gathered on a four-points Likert scale including (1) very sure you will, (2) you

probably will, (3) you probably won't, and (4) very sure you won't. Student's responses

on this variable were reverse coded; therefore higher scores meant a higher intent to

pursue a bachelor's degree.

Four independent variables were selected as factors that may influence a Latino

male high school student's intent to pursue a bachelor's degree. Variable 1, family

perceptions of the importance of college [family perceptions], was used to determine

what a student's family thought was the most important thing to do after high school,

work or attend college. A dummy variable was created to represent "working is most

important" which was coded as 1, with a reference group representing "college is most

important" being coded as 0. Variable 2, knowledge about financial aid for college

[financial aid], was used to determine whether students were knowledgeable about

financial aid options for college. Two survey questions, with seven sub-questions were

used to determine whether the students thought they would qualify for any financial aid

and reasons why they may or may not apply for financial aid. Responses on these seven

items were either 1 = yes or 0 = no. Then, a composite score was computed by summing

students' responses on seven items, ranging from 0 to 7, with a higher score indicating

more knowledge about financial aid for college.

Variable 3, social and academic involvement [involvement], was used to

determine whether students were involved in school activities outside the classroom.

Each of the three survey items included was coded as 1 = yes and 0 = no. Then, a

composite score was computed by summing students' responses on each of the sub

questions, ranging from 0 to 24, with a higher score indicating more participation in academic and social activities outside of the classroom. Variable 4, academic preparedness [academic prep] was used to determine whether there were differences in the academic preparation of first-generation and non-first-generation Latino male high school students. Three questions, with 13 sub questions, were used to determine a student's academic preparation. Nine of the survey items were yes or no questions and four items were multiple choice. The necessary items were reverse coded and then a composite score was computed by taking the averages of the students' responses, ranging from 0 to 4, with higher scores indicating a student was more academically prepared. In total, four composite variables were used to compare between non-first-generation and first-generation Latino male high school students.

Finally, the proportional weight variable was created by multiplying the original weight variable '*w2student*' (first follow-up student analytic weight) included in the dataset by the total number of cases ($n = 1575$) and dividing it by the sum of the original weight variable across all the cases included in the dataset. Then, this proportional weight variable was used in the subsequent statistical analyses below so that the inferences can be generalized to the targeted population in the first 2012 follow-up of High School Longitudinal study of 2009 (HSLS:09) after accounting for sample representativeness.

Descriptive Statistics of Variables by First-generation Status

As shown in Table 2, regarding Variable 1 [family perceptions], of 108 non-first generation students, 101 (93.5%) endorsed that their family perceived college as more important, while of 1467 first generation students, 1289 (87.3%) endorsed that their

family perceived college as more important. Table 3 summarizes the descriptive statistics of independent and dependent variables by first-generation status - financial aid, involvement, academic preparation, and intent to pursue a Bachelor's degree. Variable 2, financial aid, had a mean of 1.53 ($SD = 1.30$) for non-first-generation students ($n = 33$) and a mean of 1.19 ($SD = 0.77$) for first-generation students ($n = 464$). Variable 3, academic and social involvement had a mean of 2.50 ($SD = 2.17$) for non-first-generation students ($n = 107$) and a mean of 2.12 ($SD = 2.55$) for first-generation students ($n = 1517$). Variable 4, academic preparation had a mean of 5.00 ($SD = 2.63$) for non-first-generation students ($n = 112$) and a mean of 4.10 ($SD = 2.43$) for first-generation students ($n = 1538$).

Preliminary Analysis

A set of preliminary analysis was performed in order to examine whether there were significant differences between the first-generation and non-first-generation Latino male high school students in four independent variables related to social and cultural capital. These included (1) family perceptions of the importance of college [family perceptions], (2) knowledge of financial aid for college [financial aid], (3) academic and social experiences outside the classroom [involvement], and (4) academic preparation [academic prep].

Family perception of the importance of college was a binary variable, with one category representing college is most important (coded as 0) and the other category representing that working is most important (coded as 1). The other three variables, financial aid for college, academic and social experiences outside the classroom, and academic preparation, were continuous variables with scale scores ranging from 0 to 7 for

knowledge of financial aid for college, 0 to 24 for academic and social experiences outside the classroom, and 0 to 4 for academic preparation. Therefore, either a chi-squared analysis or an independent samples t-test was used.

Comparison between the first-generation and non-first-generation Latino male high school students was examined using a chi-square analysis for the binary variable, family perceptions of the importance of college (*Research Question* [*RQ*] 1.1). An independent samples t-test was used to compare means between the first-generation and non-first-generation Latino male high school students on the following three variables: (1) knowledge of financial aid for college (*Research Question* [*RQ*] 1.2), (2) academic and social experiences outside the classroom (*Research Question* [*RQ*] 1.3), and (3) academic preparation (*Research Question* [*RQ*] 1.4).

First, a chi-square analysis was performed to see whether a binary variable, family perceptions on the importance of college, was related to students' first-generation status. This analysis answered *RQ* 1.1 that looked at whether there was a difference between first-generation and non-first-generation Latino male high school students in terms of family perceptions of the importance of college. Results from a chi-square analysis indicated that there was a significant relationship between family perception of the importance of college and students' first-generation status, $\chi^2(1) = 10.64, p = .01$. An effect size measure, a phi-coefficient (ϕ) of .08, indicates that the relationship between the two variables is small.

Specifically, as shown in a 2 (Family perception of the importance of college, 1 = Working is important and 0 = College is important) by 2 (first-generation status, 1 = first-generation, 0 = non-first generation) frequency table (Table 2), more first-generation-

students responded that they perceived that their families thought working was more important than going to college (19%). Of 108 non-first-generation students, 93.5% of students ($n = 101$) perceived their families thought that going to college was most important, while 6.5% of students ($n = 7$) perceived their families as thinking that working after high school was most important. Among the 1467 first-generation students, 81% ($n = 1188$) perceived their families as thinking that going to college was most important while 19% of students ($n = 279$) perceived that their families thought that working after high school was most important. This indicates that first-generation students outweigh working after high school more than non-first-generation students.

Second, a series of independent samples t-tests were used to answer *RQ 1.2. - 1.4*, which compares means on their knowledge of financial aid (*RQ 1.2*), their academic and social experiences outside the classroom (*RQ 1.3*), and their academic preparation (*RQ 1.4*) between first-generation and non-first-generation Latino male high school students. Of the three variables, one of the underlying assumptions for an independent samples t-test regarding the equal variances on the outcome between two groups was violated for one variable, students' knowledge of financial aid ($F = 23.34$, $p < .01$). Therefore, a degree of freedom was corrected for examining the significance of t-statistics for comparing means on students' knowledge of financial aid. This assumption was met for the other two variables, students' academic and social experiences outside the classroom ($F = 0.02$, $p = .88$), and their academic preparation ($F = 1.56$, $p = .21$).

As shown in Table 4, results from an independent samples t-test for financial aid showed that there was no significant mean difference between first-generation ($M = 1.19$, $SD = 0.77$, $n = 464$) and non-first-generation Latino males ($M = 1.53$, $SD = 1.30$, $n = 33$),

t (33.24) = 1.46, p = .15, M_{diff} = 0.34, 95% CI: [-0.13, 0.81]. This indicated that first-generation students were as knowledgeable on financial aid as non-first-generation students.

For research question 1.3, no significant difference was found on the academic and social experiences between first-generation (M = 2.11, SD = 2.55, n = 1517) and non-first-generation (M = 2.50, SD = 2.17, n = 107) Latino male high school students, t (1622) = 1.50, p = .13, M_{diff} = - 0.38, 95% CI: [0.12, 0.87]. This indicated that first-generation students had similar level of academic and social experiences outside the classroom as non-first-generation Latino male high school students do. For research question 1.4, a significant mean difference in academic preparation was found between first-generation (M = 4.10, SD = 2.43, n = 1538) and non-first generation (M = 5.00, SD = 2.63, n = 112) Latino male high school students, t (1648) = 3.75, p < .01, M_{diff} = - 0.24, 95% CI [-1.37, 0.43]. This indicated that first-generation students showed a significantly lower mean on academic prep when compared to non-first-generation students.

Correlation Analysis

A correlation analysis was conducted to see whether there was a significant correlation between intent to pursue a bachelor's degree and each of independent variables including first-generation status, family perceptions of the importance of college, academic and social involvement, and academic preparation. As shown in Table 5, all of the correlation coefficients relating each of the independent variables and the outcome were found to be statistically significant, indicating that these independent variables were each correlated with intent to pursue a bachelor's degree. Additionally,

family perceptions of the importance of college and academic preparation were both found to be correlated with first-generation status, which was also statistically significant.

Multiple Regression Analysis

A simultaneous multiple linear regression model was performed in order to determine whether there were significant relationships among the first-generation status, the perceived social and cultural barriers, including family perceptions, academic and social involvement, and academic preparation, and students' intent to pursue a bachelor's degree (Table 5). The financial aid variable was not included in the simultaneous multiple regression model due to high non-response rates (only 28 non-first-generation and 394 first-generation students responded to the financial aid questions), leading to only a quarter of the entire sample remaining in the analysis after listwise deletion.

In addition, the moderating effects of the first-generation status in the relationship between the perceived social and cultural barriers and students' intent to pursue a bachelor's degree were first modeled. None of interaction terms in the regression model were found to be significant, indicating that the relationship between each of the independent variables and intent to pursue a bachelor's degree were not significantly different depending on first-generation status. That is, the effect of each independent variable, family perceptions of the importance of college, academic and social involvement outside the classroom, and academic preparation on intent to pursue a bachelor's degree, is the same for both first-generation and non-first-generation Latino male high school seniors. Therefore, a model without interaction terms was retained as the final model. Below, results from the final model are summarized.

As shown in Table 6, the overall regression model predicting intent to enroll based on family perceptions of the importance of college, academic and social involvement, and academic preparation was found to be statistically significant, indicating at least one of the slopes included in the regression was found to be statistically significant, $F(4, 1287) = 58.33, p < .01$. The adjusted R-squared value was .15, suggesting that 15% of the total variance in the intent to pursue a bachelor's degree was explained by all of the independent variables. A multiple regression coefficient of .64 indicated a medium relationship between all the independent variables and the dependent variable. Overall, the regression model explained a medium amount of variation in the dependent variable.

All of the independent variables tested were found to be significant in predicting the intent to pursue a Bachelor's degree. First, a significant mean difference on the intent to pursue a bachelor's degree was found between first-generation students and non-first-generation students ($b = -0.43, SE = 0.09, t = -4.76, p < .01,$ 95% CI: [4.07, 4.42]), after controlling for other variables. This indicates that first-generation students had a significantly lower mean difference in intent to pursue a bachelor's degree than non-first-generation students, after controlling for all other variables. Family perceptions of the importance of college ($b = -0.44, SE = 0.06, t = -7.64, p < .01,$ 95% CI: [-0.60, -0.25]) was found to be significant. This indicates that on the intent to pursue a Bachelor's degree, students who reported working as being more important had a significantly lower mean on the intent to pursue a college degree when compared to those who reported college as being more important, after controlling for all other variables.

Other independent variables including involvement (b = 0.04, SE = 0.01, t = 4.00, p < .01, 95% CI: [0.02, 0.06]), and academic preparation (b = 0.81, SE = 0.01, t = 8.21, p < .01, 95% CI: [0.06, 0.10]), were also found to be significant, meaning academic preparation and academic and social involvement were significant indicators of intent to pursue a bachelor's degree. In particular, the expected increase in intent to pursue a college degree is 0.04 for each additional unit increase in students' involvement, when holding generation status, family perceptions of the importance of college, and academic preparation constant. Also, the expected increase in intent to pursue a college degree is 0.81 for each additional unit increase in academic preparation, after holding all other variables constant.

Chapter 5: Discussion

While Latinos are the largest and fastest-growing racial group in the United States, their college enrollment rates remain underrepresented. In 2012, only 19% of Hispanic students of the age 18 - 24 were enrolled in college (Krogstad & Fry, 2014). Particularly, Latino students lag behind other groups in earning a bachelor's degree, with only 14.5% of Latinos ages 25 and older earning a bachelor's degree (Lopez & Fry, 2013). Contrarily, "51% of Asians, 34.5% of whites and 21.2% of blacks had earned a bachelor's degree" (Lopez & Fry, 2013, p. 4). Additionally, Latino students are less likely to enroll in four-year colleges, enroll on a full-time basis, and attend selective colleges. Although many programs have been created to help Latino students pursue their postsecondary education, Latinos continue to have low enrollments in colleges as well as low college completion rates.

There are several barriers Latino students face in the pursuit of their higher education. For one, many Latino students, 17% in 2009, drop out of high school (Reyes, 2010). As shown in Figure 1, more Latino students – compared to African Americans, Asians, Native Americans, and Whites – have not completed a high school degree, making them ineligible to enroll in college. Particularly for Latino male students, they can often become conflicted between the traditional role of the Latino male to complete high school and find a job to support their family financially and societal expectations to attend college. Many Latino male students have also not understood the importance of a college education because they have been able to find jobs after high school paying reasonable wages (Hecimovich, 2010). Additionally, many Latino students are first-generation students who come from families where neither parent has college degree

(Pascarella, Pierson, Wolniak, & Terenzini, 2004). As such, these students may be disadvantaged in regards to their knowledge about college, their family income levels, their academic preparation and their educational expectations.

The purpose of this study was to present a comparison between first-generation Latino male high school students and non-first-generation Latino male high school students on the intent to pursue a bachelor's degree and its relation to social and cultural capital. In particular, the study used the secondary data from a longitudinal study of a nationally representative sample, the first follow-up in 2012 of High School Longitudinal Study of 2009, to identify factors that may influence Latino male high school students' intent to enroll in college. First, the current study compared the two groups on their family perceptions of the importance college, their knowledge about financial aid for college, their academic and social experiences outside of the classroom, and their academic preparedness for college. Next, the current study examined whether family perceptions of the importance of college, academic and social experiences outside of the classroom, and academic preparation for college affected the intent to pursue a bachelor's degree differently between first-generation and non-first-generation Latino students. The financial aid variable was not included in the second part of the analysis because of a low-response rate from participants.

The following four research questions were used to determine whether there was a significant difference in the social and cultural capital between these two groups and whether these differences affected a students' intent to pursue their bachelor's degree: (*Research Question* 1.1) Is there a difference between first-generation and non-first-generation Latino male high school students in terms of family perceptions of the

importance of college?; (*Research Question* 1.2) Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their knowledge about financial aid for college?; (*Research Question* 1.3) Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their academic and social experiences outside the classroom?; (*Research Question* 1.4) Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their academic preparedness for college?. *Research question* 1.1 was answered using a chi-square analysis and *Research questions* 1.2-1.4 were analyzed using a series of independent samples *t*-test.

Part II Research Questions were used to determine whether there were differential effects on the relationships by the first-generation status between perceived social and cultural barriers, including family perceptions of the importance of college, academic and social involvement, and academic preparation, and students' intent to pursue a bachelor's degree. (*Research Question* 2.1) Is there a difference between the two groups in how family perceptions of the importance of college affect their intent to enroll in college?; (*Research Question* 2.2) Is there a difference between the two groups in how knowledge of financial aid affects their intent to enroll in college?; (*Research Question* 2.3) Is there a difference between the two groups in how academic and social involvement outside the classroom affects their intent to enroll in college?; (*Research Question* 2.4) Is there difference between the two groups in how academic preparedness affects their intent to enroll in college? For *research questions* 2.1-2.4, a multiple regression analysis was conducted to determine whether there was a significant relationship among first-

generation status, the perceived social and cultural barriers, and students' intent to pursue a bachelor's degree.

Summary of Study Findings

Part I of the current study focused on determining whether there were significant differences between first-generation and non-first-generation Latino male high school students in terms of their social and cultural capital. Results showed that there was a significant difference between first-generation and non-first-generation Latino male high school students on two variables: family perceptions of the importance of college and academic preparedness for college. No significant differences were found between the two groups in terms of their knowledge of financial aid and academic and social involvement.

First, more first-generation Latino male high school students perceived that their families thought working was more important than going to college. While 93.5% of non-first-generation Latino male high school students perceived their families as thinking going to college was more important, only 81% of first-generation Latino male high school students perceived their families as thinking going to college was more important than working. These findings are consistent with previous literature which found that non-first-generation students received more encouragement from their families about attending college than first-generation students (Teran, 2007). Second, the first-generation Latino male students reported lower levels of academic preparation when compared to non-first-generation Latino male students. Similarly to family perceptions, these findings were consistent with Teran's (2007) study which found that first-

generation students take less college preparation courses in high school and rate themselves lower on their academic preparation than non-first generation students.

Third, it was found that first-generation and non-first-generation students do not have significantly different knowledge of financial aid. As reported in Teran (2007), financial barriers are the biggest obstacle in students' pursuit of a college education; therefore, financial aid knowledge was found to be an important factor for all students, regardless of generation status. However, while Teran (2007) found that finances played a larger role in deciding whether to go to college for first-generation students versus non-first-generation students, the same results were not found in the current study. Lastly, in terms of academic and social experiences outside of the classroom, no significant differences were found between first-generation and non-first-generation Latino male high school students. This indicates that both first-generation and non-first-generation students report similar academic and social experiences outside of the classroom.

Part II of this research study focused on whether there were significant relationships among first-generation status, the perceived social and cultural barriers, including family perceptions, academic and social involvement, and academic preparation, and students' intent to pursue a bachelor's degree. As there were not significant interactions between each of the variables and students' generational status on the intent to pursue, the final model without interaction effect was retained as a final model. Results showed that all of the independent variables were found to be significant in predicting intent to enroll in college. First, there was a significant mean difference between first-generation and non-first-generation students on their intent to pursue. However, regardless of generation status, the effects of family perceptions of the

importance of college, academic and social involvement, and academic preparation on a student's intent to enroll in college are all significant and all the independent variables thus are important factors for administrators to address at the high school and college level when dealing with Latino male students. Consistent with the literature, Latino males as a whole lag behind Latina females in terms of their college enrollment. Latino males are more likely to leave high school and work after high school instead of attending college than other student populations (Saenz & Ponjuan, 2009). As such, it is imperative to identify influential factors on their decision to attend college and address these needs early-on in their academic career, before it's too late.

It is important to note that in the simultaneous multiple regression analysis, knowledge of financial aid was removed as a variable because there was a low response rate from both first-generation and non-first-generation students, with only 28 non-first-generation Latino male students answering the financial aid questions and only 394 first-generation Latino male students answering the financial aid questions. Reasons for low response rates are unknown, but could potentially be related to not understanding the questions or not being interested in financial aid. However, the response rate was low for all Latino male students, regardless of generation status, indicating that may have had questions or problems surrounding the financial aid questions. All results from this research study are summarized in Table 7 and Figure 2.

Implications

A holistic approach needs to be implemented in order to help Latino male high school students enroll in and successfully complete college, particularly for more first-generation students who are found to be significantly lower in their intent to pursue a

Bachelor degree when compared to non-first generation students. It is the responsibility of higher education institutions, high schools, administrators, faculty members, teachers, counselors, parents, and families to collectively support and encourage Latino male high school students to pursue their bachelor's degree. Enrollment rate gaps between male and female Latino/a students are seen as early as early childhood education, with 44.4 percent of Latina girls enrolled in school full or part-time under the age of five and only 39.4 percent of Latino boys of the same age enrolled in 2009 (Saenz & Ponjuan, 2012). As such, it is imperative that the education of Latino male students takes precedence with families, educators, researchers, policy makers, and the general public. Below, the implications of the current study for Latino male students are first discussed. Then, the specific implications for assisting the first-generation Latino male students who were found to be less likely to pursue a college degree are provided.

Implications for Latino male students. Family perceptions of the importance of college, academic and social involvement, and academic preparation were all found to be significant predictors of intent to enroll in college for both first-generation and non-first-generation students. Therefore, it is the responsibility of high schools and universities to collaborate with one another in order to adequately educate Latino male students about the benefits of obtaining a bachelor's degree, regardless of their generation status. Financial aid seems to be a major barrier for all Latino male students. Whether it is a lack of knowledge, understanding, or confusion about how to apply, it is imperative that more is done across the board to educate Latino students about how to apply for financial aid for college. Financial aid education and guidance through the application process should be more readily available to all students, regardless of their generation status. An

extended support system, beginning in the freshman year of high school can help all Latino male students in developing their academic skills, understanding the importance of college, navigating the college-going process, and finally applying, beginning, and completing their bachelor's degree. College savings programs should be introduced to Latino families early on in their child's high school education.

Policymakers must also become invested in the future of Latino male education. While much attention has been given to equaling the educational opportunities of female students, it is now time to focus on first-generation Latino males (Saenz & Ponjuan, 2012). Funding should be made available to high schools and higher education institutions to promote the educational needs of Latino male students. Because the Latino population is consistently growing in the United States, it becomes imperative for decision makers to focus their efforts on ensuring Latino males are provided with the same educational opportunities as other student populations.

Several programs such as *Fathers Active in Communities and Education, Project MALES, and Encuentros Leadership* (Saenz & Ponjuan, 2012) have been created to address the needs of Latino students and their families through early intervention, education, and support. In particular, the Balfour Scholars Program at Indiana University provides high school students with the opportunity to gain knowledge and understanding of college choice and college fit with the ultimate goal of increasing higher education access and success. In this experience, high school students participate in a five-day residential pre-college academy for free during which they attend classes, receive information about financial aid, and have the opportunity to live on campus and get involved in student activities and organizations (Center for P-16 Research and

Collaboration Indiana University, 2015). More programs, similar to the Balfour Scholars program need to be created and geared towards low-income, Latino male high school students. However, without adequate funding and support programs such as these cannot reach their full potential or cater to the needs of underrepresented populations.

Opportunities to become academically involved also need to be presented to Latino male students early on in their educational schooling. Beginning in the primary grade levels, Latino males students need to be provided with academic opportunities to help them gain knowledge and understanding of the importance of being successful in school. Emphasis should be placed on homework and learning, with opportunities to explore and engage Latino students through hands-on activities and experimental learning. Specifically, these students should be rewarded and encouraged for their academic achievements. Fostering a mentoring relationship at the K-12 level can help Latino male students appreciate and value the importance of education in their futures. Although programs have been implemented at the high school level to support this diverse population, more needs to be done to enhance the opportunities available to high-achieving Latino male students (Saenz & Ponjuan, 2012).

Implications specifically for first-generation Latino male students. In addition to general implications discussed above, the current study suggests that special attention should be paid to first-generation Latino males who were significantly lower in their intent to enroll in college when compared to non-first-generation students. This is important because, while Latino male students face many challenges in regards to their pursuit of higher education, first-generation Latino male students face unique challenges that may hinder their intent to enroll in college. Specifically, because these students may

be the first in their family to consider college, they may be disadvantaged in terms of their basic knowledge about college, their levels of family income and support, their expectations and future plans, and their academic preparation in high school. Additionally, first-generation students often lack the social and cultural capital to successfully navigate their education. In terms of social capital, which is measured by the amount of resources available, first-generation Latino male students may lack connections with teachers, counselors, and other school officials (Saunders & Serna, 2004). In regards to cultural capital, first-generation Latino male students may lack the linguistic and cultural competencies which are inherited from parents, siblings, peers, and teachers (Strayhorn, 2010). Therefore, they need to be provided with opportunities to make social connections, participate in activities outside the classroom, and directed into setting attainable goals for themselves (Saunders & Serna, 2004).

Approximately 50 percent of Latino undergraduates are first-generation, and because their parents have not completed college, families may be unaware about all aspects of college (Choy, 2001). Additionally, many families are Spanish-speaking and may have difficulty communicating in English and understanding English text (Alcayaga, 2003). Therefore, particular attention needs to be given to address the concerns of first-generation Latino male students' and their families. Parents and families need to be included as a part of the college-going process, especially when dealing with first-generation Latino male students whose family may not have first-hand knowledge about what it means to go college. Training and workshops should be provided by high schools and colleges to educate parents and families about what to expect when their child goes to college, in both English and Spanish.

Specifically, on a cultural level, many Latino male students may try to remain within their cohesive community and thus may not experience upward mobility (Kalogrides, 2009). Therefore, Latino male figures should serve as role models and mentors, educating families about why college is important and the benefits of obtaining a degree. Getting to the root of the issue and breaking down cultural stereotypes about Latino males being responsible for supporting the family should be central in educating students. Helping families understand the long-term benefits of a college education and the potential for greater income earnings should be included in workshops.

Family socioeconomic status has a large impact on high-school completion (Lutz, 2007). Since the traditional role of the Latino male is to work after high school to support the family, parents and families should be presented with information about salaries, careers, and job opportunities that are available after completing a bachelor's degree, especially because students who perceived their families as thinking working was more important were less likely to pursue a bachelor's degree. This can help families visualize the job potential available with a bachelor's degree. Colleges should make sure to educate students and families about job opportunities on campus during college, as well as financial aid and scholarships that can not only help pay for their education, but also help alleviate some of the financial strain on the family.

Campus tours give first-generation students and their families the opportunity to visualize what it feels like to go to college and understand what resources are available to help them be successful while in school. High school outreach programs can also send admissions counselors into high schools with a large population of first-generation Latino male high school students to educate them about the financial aid process, scholarships

and funding, academic opportunities, and social engagement opportunities. High school guidance counselors can also work one on one with students to help them with the college application process. Additionally, peer mentoring programs can pair first-generation Latino male high school students with similar students that are already enrolled in college to help them navigate the college-going process. Faculty members and teachers can serve as role models and mentors for first-generation Latino male students as well. They can facilitate conversations with Latino male high school students to determine what their plans are following high school. They can also be paired up with college faculty members with similar interests to assist them in understanding what educational and career opportunities are available to them after going to college. Programs, such as *Puente Project,* which focuses on providing an academic, counseling, and mentoring model to increase the number of underserved students who complete college and serve their communities as leaders, need to be given more attention (Saenz & Ponjuan, 2012). Because many Latino male students often avoid asking for help or taking advantage of educational programs available to them, they must be able to feel a connection with individuals like themselves in order to understand that it is possible to be successful academically and still support their families.

Higher education institutions and high schools jointly play a major role in recruiting and encouraging capable Latino students to apply colleges and universities. Specifically, institutions can implement campus tours, high school outreach programs, and peer mentoring programs to help educate Latino male high school students about college. Partnerships between high schools and colleges can be implemented to allow Latino high school students to spend time on local college campuses, immersing

themselves in college culture. They can be paired with a peer mentor whom which they attend class with and even live with for a short period of time in order to experience what it really feels like to be in college. Additionally, because family is central in Latino culture, parents and families should also be invited to college campuses to become more familiar with what college is about and why it is so important. Programming should be available to these families in both English and Spanish, since a language barrier often exists. As shown in previous research, Latino families tend to be very supportive of their children pursuing their education; however, the disconnect seems to arise because of financial concerns and the importance of working after high school for the Latino male (Saenz & Ponjuan, 2012).

Academic preparation is another barrier for first-generation Latino male students. It would be particularly important for high schools to provide opportunities for first-generation Latino male students to gain more academic training. Unlike their non-first-generation counterparts, first-generation Latino males often lack the knowledge or support systems to help them understand academic opportunities available to them. Since neither of their parents/guardians have graduated from college, these students may not understand the importance of being academically prepared early on in their schooling. Many first-generation students are unaware of opportunities to advance themselves in high school through honors and advanced placement classes; therefore, special advising should be available for these students to help them understand not only what options are available to them, but also how participating in academic activities can benefit them.

For instance, offering Scholastic Aptitude Test (SAT) preparation classes through the school or setting up peer tutoring programs for advanced classes at the high school

level can provide first-generation students with the opportunity to get ahead and prepare more adequately for the academic rigor of college. Additionally, strengthening Latino males academic lives can be done through research opportunities, apprenticeship programs, and career-academic advising at the high school level (Saenz & Ponjuan, 2012). High school advisors and teachers must push Latino males to become involved academically and invest in their education. High school teachers can serve as a support system for first-generation Latino male students, providing additional academic assistance after class and creating special projects to showcase students' academic skills.

While non-first-generation and first-generation Latino males face challenges related to pursuing their college degrees, first-generation Latino male students face unique issues when it comes to education. Because these students are often the first in their families to attend college, they often have unique characteristics that can hinder their ability to navigate the college-going process. In general, first-generation students have lower educational aspirations, less encouragement and support to attend college, less knowledge about the college application process, and fewer resources to pay for college than non-first-generation students (Engle, Bermeo, & O'Brien, 2006). These students may come from lower socioeconomic backgrounds and therefore may have work and family obligations that get in the way of their educational pursuits. Additionally, because their parents did not attend college, first-generation students may have difficulty understanding the importance of college because they may not have anyone to explain the benefits of obtaining a college degree. Although many first-generation parents want their children to go to college, they may not know where to begin in helping their child apply.

Therefore, it is the responsibility of secondary and post-secondary institutions to provide opportunities for higher educational attainment for these students.

Limitations

One limitation of this study is that it used secondary data to answer the research questions. Secondary data refers to data that is collected for a purpose other than the research situation at hand (Parasuraman, Grewal, & Krishnan, 2006). Though using secondary data can have advantages, such as savings on cost, time, and availability, it also poses some disadvantages. One such disadvantage has to do with relevance. Data sometimes may not match the needs of the given project (Parasuraman, Grewal, & Krishnan, 2006). Additionally, secondary data may not always be reliable and accurate. The researcher using the secondary data has to assume that the person who collected the data originally did so in an unbiased manner and for the right reasons. Also, by using secondary data, this study did not focus exclusively on Latino male high school students; rather, data for this study was extracted from a survey that may have had a different emphasis than what was studied in this research. On this note, it is important to note that only 464 students responded to questions about financial aid out of the sample of 1575 students and the financial aid variable was not included in the multiple regression analysis, so it is hard to generalize the results from that particular category because of the missing values.

Another limitation of this study is that the data was collected through self-report surveys. Although one advantage of self-report methods is that is allows a person to give their own perspective, individuals responding to the questionnaire may not respond truthfully. A third limitation of this study is that the original questionnaire focused on

students' trajectories from the beginning of high school and into postsecondary education, the workforce, and beyond. Specifically, the questionnaire intended to look at what majors and careers students decide to pursue and when, why and how (NCES, 2014). By pulling out certain survey items for this study, the researcher must assume that the question was meant to represent the construct that the original survey instrument intended to measure.

For the purposes of this study, the dependent variable, intent to pursue a bachelor's degree, was only identified by one questionnaire item from the survey. Additionally, social and peer support as factors that influence the decision to pursue a bachelor's degree were not researched in this study. Particularly for Latino male students family responsibilities, encouragement, and income are important factors affecting a students' intent to enroll in college. Additionally, encouragement from teachers, influence from friends, and quality of high school teachers can all be important factors in the decision to pursue a bachelor's degree. However, these factors were not included in the current study. Because this research study used data from an existing survey that was already collected, no psychometric properties were tested. Therefore, there is no way to determine that the survey items selected for this study were intended to measure what was interpreted from them.

Finally, no differences were found between first-generation and non-first-generation Latino male high school students in terms of the effect of the social and cultural barriers in the pursuit of a bachelor's degree; however, no comparisons were done between Latino students and other major population groups such as White, African American, and Asian students.

Future Research

While there are many research studies on Latino males, more research needs to be conducted on the specific experiences of first-generation Latino male students. Future research should concentrate on interviews, questionnaires, and focus groups directly related to first-generation Latino males in high school and their families in order to get a clearer picture of what their individual experiences are in terms of family perceptions of the importance of college, knowledge of financial aid, social and academic involvement, and their academic preparedness and how this may directly affect their intent to pursue a Bachelor's degree. Other additional factors, such as family encouragement, income, family responsibilities, role of teachers, and influence of friends, should also be included in future research as factors that may influence a students' decision to enroll in college. Understanding their specific experiences with the college-going process would help higher education institutions and high schools alike to implement more programming geared towards specifically meeting first-generation Latino males' needs.

Additionally, future research can focus on specific gender differences between Latino males and females to determine why females enroll in college in higher numbers than males. Specific studies should focus on the traditional role of the Latino male and how to break the stereotype of these students being responsible for working after high school. While programs currently exist to serve the needs of Latino male students, more research is needed to determine the effectiveness of these programs and which are the most successful approaches when working with first-generation Latino male students. The role of mentoring and guidance seems to be a promising approach to addressing the needs of Latino male students; more research is needed identify the types of mentoring

programs that would be most beneficial to them. Finally, future research should focus on the specific role of peer and social influences or socioeconomic status and its potential effect on intent to pursue a bachelor's degree in order to determine whether these are significant indicators of college enrollment.

Conclusion

According to the U.S. Census Bureau, by 2020, about one in four college-age students will be Latino (Liu, 2011). Moreover, by 2018, it is estimated that 63% of new jobs will require a postsecondary degree. First-generation and non-first-generation Latino male students face many issues in terms of their educational pursuits as shown in the current study. While many attempts have been made to increase their college enrollment, it is clear that the gap between Latino male students and their educational counterparts continues to be an issue in the United States. Because Latinos are one of the largest and fastest-growing populations in the country, it is everyone's responsibility to invest in them. High schools, colleges, parents, administrators, and peers are all important influences on the aspirations of this population. Findings from this study show that as a society we need to do more for these students and their families, not only in terms of educating them about the importance of college, but also in preparing them academically and encouraging them to invest in their education. We must teach them about financial aid, provide them with opportunities to be challenged in the classroom, and mentor them through the process of applying and graduating from college.

While first-generation and non-first-generation Latino male students face many challenges in terms of access to higher education, first-generation Latino male students encounter unique barriers when it comes to their intent to enroll in college. Because

these students and their families may be unaware of the American educational system and the opportunities available to them and may not understand the academic prerequisites for the jobs they desire to hold, high schools and colleges need to do more to educate them on the process of applying to college and why it is important (McCallister et al, 2010). In terms of financial aid, education on the cost of attendance and the financial aid programs available to first-generation Latino male students, who may come from low-income backgrounds, needs to be emphasized. While no differences were found in the social and academic experiences of first-generation and non-first-generation Latino male students, it is particularly important to involve first-generation Latino male students in on-campus activities to surround them with positive peer influences, who may assist them in promoting college-going attitudes and behaviors. Finally, in relation to academic preparation, first-generation Latino male students need to be challenged in the classroom and provided with opportunities to excel academically. Free or reduced-cost academic programs can help stimulate interest in college among this group of students as well.

First-generation Latino male students are fully capable of being successful and excelling in college, but we must address the root of the issue, which begins early on in their schooling. Each influential person in the Latino male student's life should serve as an advocate for their education and push them to strive to reach their full educational potential. Given the exponential growth of the Latino population, we as a society should be full-heartedly invested in the proper training and education of Latino male students. In the end, if Latino male students succeed in college and become well-educated members of society, everyone wins.

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Table 1

Barriers for Latino Male High School Students

Barriers	Familial	Financial	Social	Academic
	Encouragement	*Family Income*	*Encouragement from Teachers*	*Quality of High School Teachers*
	Family Responsibilities	**Financial Aid Knowledge***	*Influence from Friends*	***General Academic Preparedness****
	Importance of Work*		***Participation in Clubs/Organizations****	
	Importance of College*			

Note. * = Barrier included in current research study.

Table 2

Relationship between First-Generation Status and Family Perceptions of the Importance of College

First-Generation Status		Family Perceptions of Importance		
		College is important	Working is important	Total
	NFGS	101	7	108
	FGS	1188	279	1467
Total		1289	286	1575

Note. NFGS = Non-First-Generation Student Status; FGS = First-Generation Student Status.

Table 3

Descriptive Statistics of Variables by First-generation Status

First-Generation Status		n	M	SD
Financial Aid	NFGS	33	1.53	1.30
	FGS	464	1.19	0.77
Academic and Social Involvement	NFGS	107	2.50	2.17
	FGS	1517	2.12	2.55
Academic Preparation	NFGS	112	5.00	2.63
	FGS	1538	4.10	2.43
Intent to Pursue a Bachelor's Degree	NFGS	109	3.55	0.69
	FGS	1510	2.96	0.88

Note. NFGS = Non-First-Generation Student Status; FGS = First-Generation Student Status.

Table 4

Results from Independent Samples t-Test

Variables	FG M (SD)	n	NFG M (SD)	n	t	df	p	M_{diff}	SE (M_{diff})	95% CI LL	UL
Financial Aid	1.19 (0.77)	464	1.53 (1.30)	33	1.5	33.2	0.15	0.34	0.23	-0.13	0.81
Academic and Social Experiences	2.12 (2.55)	1517	2.50 (2.17)	107	1.5	1622	0.13	0.38	0.25	-0.12	0.87
Academic Preparation	4.10 (2.43)	1538	5.00 (2.63)	112	3.8	1648	<.01	0.90	0.24	0.43	1.4

Note. FG = First-Generation Status NFG = Non-First-Generation Status; *LL:* Lower Level; *UL:* Upper Level.

Table 5

Correlation between Variables

	Intent	FGS	FP	ASI
Intent to Pursue Degree (Intent)				
First-Generation Status (FGS)	-.16**			
Family Perceptions (FP)	-.22**	.08**		
Acad/Soc Involvement (ASI)	.20**	-.03	-.02	
Academic Preparation (AP)	.29**	-.09**	-.07**	.38**

Note. Intent to pursue a bachelor's degree = intent; First-Generation Status = FGS; Family Perceptions = FP; Academic and Social Involvement = ASI; Academic Preparation = AP; * $p < .05$, ** $p < .01$.

Table 6

Results from Multiple Regression Analysis

Variable	b	SE(b)	β	t	p	95% CI	
						LL	UL
Intercept	4.24	0.09		46.88	0.00	4.07	4.42
First generation status	-4.25	0.09	-0.12	-4.76	0.00	-0.60	-0.25
Family Perceptions of Importance	0.44	0.58	0.20	-7.64	0.00	-0.56	-0.33
Academic and Social Involvement	0.04	0.01	0.11	4.00	0.00	0.06	0.10
Academic Preparation	0.08	0.01	0.23	8.21	0.00	0.02	0.06
F	58.33**						
df1	4						
df2	1287						
R	0.39						
R^2	0.15						
adjusted R^2	0.15						

Note. ** $p < .01$; dummy variable was created to represent "working is most important" which was coded as 1, with a reference group representing "college is most important" being coded as 0; *LL*: Lower Level; *UL*: Upper Level.

Table 7

Findings from Part I Research Questions

| Variable	Definition	Results
Family Perceptions of the Importance of College	Students response to whether they perceived their families as thinking *working* or *college* was more important after high school	There was a **significant difference** between first-generation and non-first-generation Latino male high school students; significantly more first-generation students perceived their families as thinking working is most important after high school
Financial Aid	Students responses to questions asking about financial aid qualifications, eligibility, and affordability	There was **no significant difference** between first-generation and non-first-generation Latino male high school students; they had similar knowledge of financial aid for college
Academic and Social Involvement	Students responses to questions asking about involvement in academic and social clubs and programs outside the classroom	There was **no significant difference** between first-generation and non-first-generation Latino male high school students; they had similar academic and social involvement experiences
Academic Preparation	Students responses to questions asking about activities to prepare for life after high school, hours spent doing homework and studying, and the number of times they have taken college preparation and credit classes	There was a **significant difference** between first-generation and non-first-generation Latino male high school students; significantly more first-generation students reported lower academic preparation for college
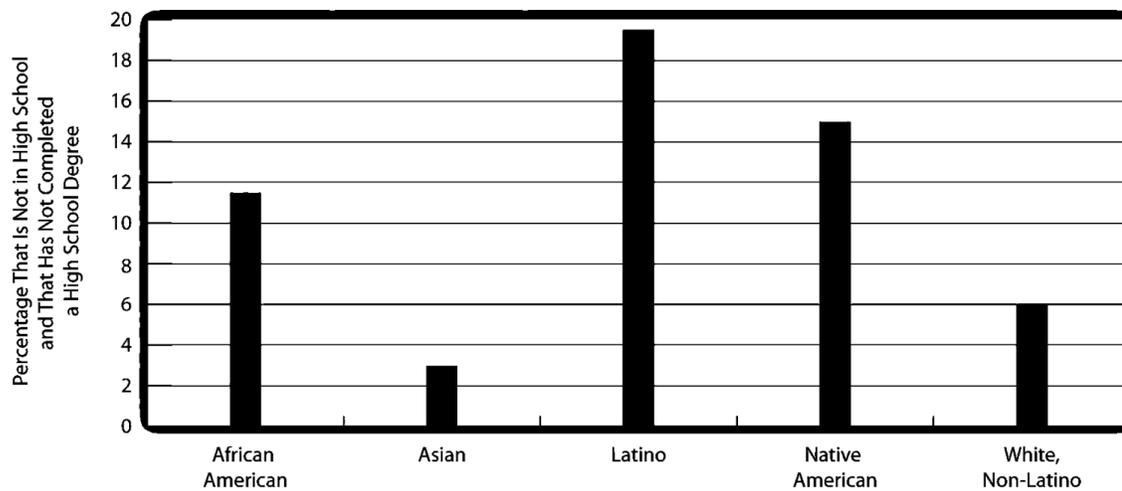
Figure 1. High School dropout rates by race from 2007. Reprinted from *Sociology: Comprehensive Edition* (p. 663), by S.E. Barkon Copyright 2012 by Creative Commons.

Results

No significant interactions between variable and generation status

Significant predictor of intent to enroll in college

Variables

- Family Perceptions of the Importance of College
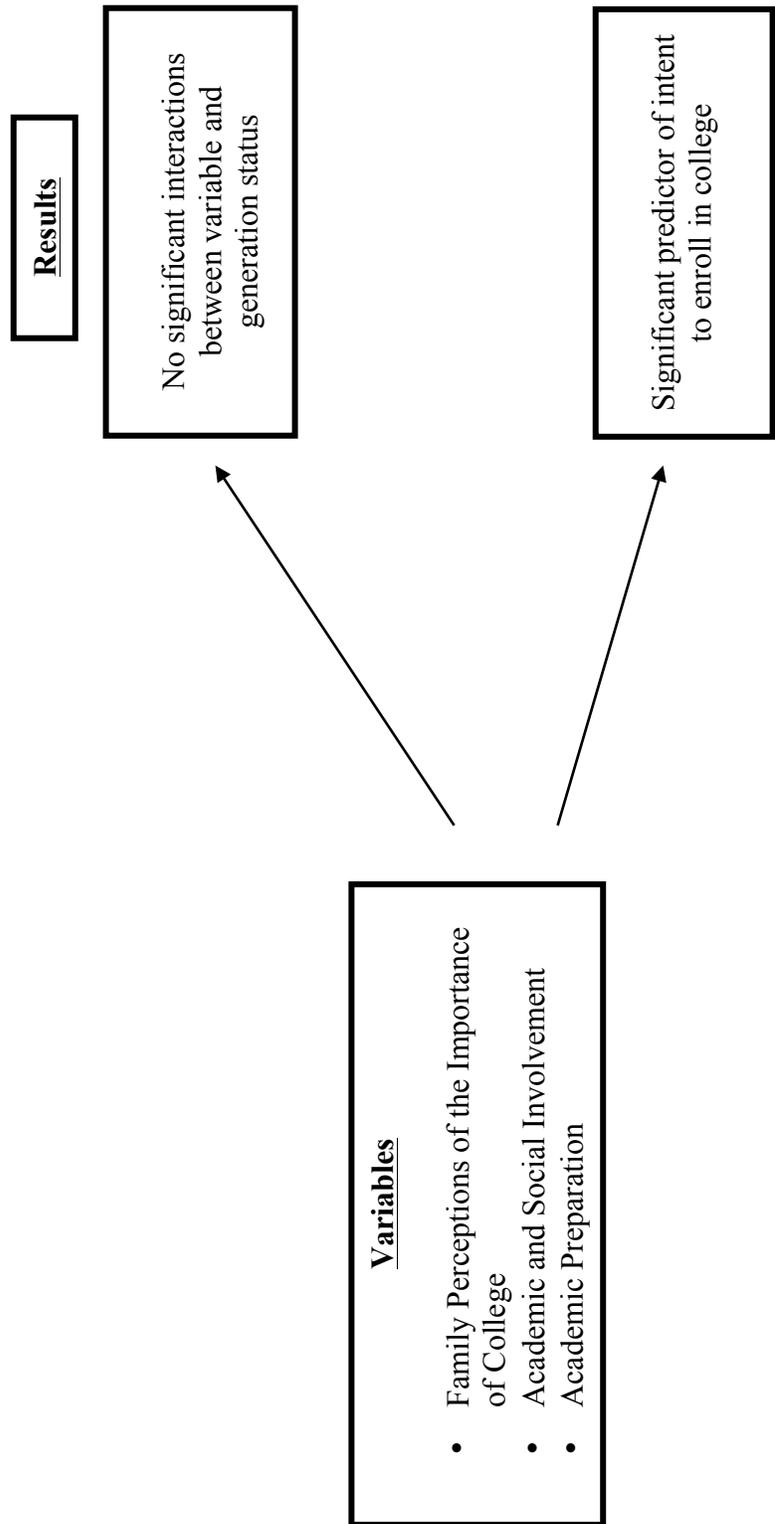- Academic and Social Involvement
- Academic Preparation

Figure 2 Findings from Part II Research Questions

Appendix A: Survey Items (adapted from HSLS: 09 First-Year Follow-Up 2012 Questionnaire with Students)

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PART 1: Are there differences in the social and cultural capital of first-generation and non-first generation Latino male high school students that hinder their intent to pursue a bachelor's degree?

</div>

1. How sure are you that you will pursue a Bachelor's degree?
    1) Very sure you will
    2) You probably will
    3) You probably won't
    4) Very sure you won't

<div style="border:1px solid black">

1.1 Is there a difference between first-generation and non-first-generation Latino male high school students in terms of family perceptions of the importance of college?

</div>

1. Which of these activities do your parents think is most important for you to do in the fall of 2013?
    1) CATEGORY 1: College is most important
        i. Continuing your education after high school
    2) CATEGORY 2: Working is most important
        i. Working
        ii. Serving in the Military

<div style="border:1px solid black">

1.2 Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their knowledge about financial aid for college?

</div>

1. Why do you think you will/would not qualify for any kind of financial aid? Is it because…

    1) You have concerns about a credit score? YES/NO

    2) Your family's income is too high? YES/NO

2. What are the reasons you will/may/would/might not apply for financial aid?

    1) You or your family think you may be ineligible or may not qualify. YES/NO

2) You or your family can afford school or college without financial aid. YES/NO

3) You or your family do not know how to apply for financial aid. YES/NO

4) You or your family do not want to take on debt. YES/NO

5) You or your family think the application forms are too difficult. YES/NO

1.3 Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their academic and social experiences outside the classroom?

1. Since the fall of 2009, which of the following activities have you participated in?….

   1) Math club YES/NO

   2) Math competition YES/NO

   3) Math summer program YES/NO

   4) Math study group YES/NO

   5) Program where you were tutored in math YES/NO

   6) Science club YES/NO

   7) Science competition YES/NO

   8) Science summer program YES/NO

   9) Science study group YES/NO

   10) Program where you were tutored in science YES/NO

   11) Future Farmers of America (FFA) YES/NO

   12) Health Occupations Students of American (HOSA) YES/NO

2. Since the fall of 2009, have you participated in any of the following activities outside of school?

1) Music or dance YES/NO
2) Art YES/NO
3) Theater or drama YES/NO
4) Organized sports supervised by an adult YES/NO
5) Scouting or another group or club activity YES/NO
6) Academic instruction outside of school such as from a Saturday Academic, Learning Center, Personal tutor or summer school program YES/NO
7) A college preparation camp YES/NO

3. Have you ever participated in any of the following programs?
   1) Talent Search YES/NO/YOU DON'T KNOW WHAT THIS IS
   2) Upward Bound YES/NO/YOU DON'T KNOW WHAT THIS IS
   3) GEAR UP YES/NO/YOU DON'T KNOW WHAT THIS IS
   4) AVID (Advancement in Individual Determination) YES/NO/YOU DON'T KNOW WHAT THIS IS
   5) MESA (Mathematics, Engineering, Science Achievement) YES/NO/YOU DON'T KNOW WHAT THIS IS

1.4 Is there a difference between first-generation and non-first-generation Latino male high school students in terms of their academic preparedness for college?

1. Have you ever done any of the following activities (to prepare for life after high school)?
   1) Attended a career day or job fair YES/NO
   2) Attended a program at, or taken a tour of a college campus YES/NO
   3) Sat in on or taken a college class YES/NO
   4) Participated in an internship or apprenticeship related to your career goals YES/NO
   5) Worked or volunteered in a job related to your career goals YES/NO
   6) Searched the internet for college options or read college guides YES/NO
   7) Talked with a high school counselor about your options for life after high school YES/NO
   8) Talked about your options with a counselor hired by your family to help you prepare for college admission YES/NO
   9) Took a course to prepare for a college admission exam such as SAT or ACT YES/NO

2. During a typical school week (during the spring term 2012/when you were last enrolled in high school), how many hours do/did you spend…
   1) Working on math homework and studying for math class?

2) Working on science homework and studying for science class?

3) Working on homework and studying for the rest of your classes?

    i. Answer choices:

      1. Category 1: 1 hour or less

        0=No Time

        1=Less than ½ hour

        2=1/2 to 1 hour

      2. Category 2: 2-3 hours

        3=1 to 2 hours

        4=2 to 3 hours

      3. Category 3: 4-9 hours

        5=4 to 6 hours

        6=7 to 9 hours

      4. Category 4: More than 9 hours

        7=More than 9 hours

3. How many times, if any, have you taken the following tests?

    PSAT or PLAN

    SAT OR ACT

    Any Advanced Placement Test (AP)

    Any International Baccalaureate (IB) Test

0) Never

1) Once

2) Twice

3) 3 or more times

4) You don't know what this is

Background Variable Questions:

-Are you male or female?

    1) Male

    2) Female

-Are you Hispanic or Latino?

    1) Yes

    2) No

-Are you: 1) Mexican, 2) Cuban, 3) Dominican, 4) Puerto Rican, 5) Central American, 6) South American, or 7) Other Hispanic or Latino?

-What is your birth date?

    Month:

    Day:

    Year:

0)	1990 or earlier
1)	1991
2)	1992
3)	1993
4)	1994
5)	1995
6)	1996
7)	1997 or later

-What was the first language you learned to speak when you were a child?

    1) English

    2) Spanish

    3) Another language

    4) English and Spanish equally or

    5) English and another language equally

-What is the highest level of education of your parents? (each parent separately)

    1) Less than high school completion

    2) Completed a high school diploma, GED or alternative high school credential

    3) Completed a certificate or diploma from a school that provides occupation
training

    4) Completed an Associate's degree

    5) Completed a Bachelor's degree

    6) Completed a Master's degree

    7) Completed a Ph.D., M.D., law degree, or other high professional degree

    8) Don't know