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The Effects of Cultural and Social Capital on College Choice: An Examination of the Differences Between Latino Students and Their Racial/Ethnic Peers

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**THE EFFECTS OF CULTURAL AND SOCIAL CAPITAL ON COLLEGE CHOICE: AN
EXAMINATION OF THE DIFFERENCES BETWEEN LATINO STUDENTS AND
THEIR RACIAL/ETHNIC PEERS**

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**Submitted in Partial Fulfillment
of the Requirements for the Degree
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APPROVAL FOR SUCCESSFUL DEFENSE

Doctoral Candidate, Evelyn Garcia, has successfully defended and made the required modifications to the text of the doctoral dissertation for the Ed.D. during this Spring Semester 2014.

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Abstract

THE EFFECTS OF CULTURAL AND SOCIAL CAPITAL ON COLLEGE CHOICE: AN EXAMINATION OF THE DIFFERENCES BETWEEN LATINO STUDENTS AND THEIR RACIAL/ETHNIC PEERS

Latino college students are the fastest growing minority segment in the United States. College choice has been the focus of many research studies; however the Latino student is different. They are different with respect to their college going behaviors and ultimately baccalaureate degree attainment. They enroll at two year institutions at higher rates and they also have lower rates of baccalaureate degree attainment as compared to their Asians, African American and White counterparts. In order to inform policy in a changing environment, the research community must examine the Latino student and determine which behaviors are associated with attendance at a four year institution. This study used Perna's (2000) framework in conjunction with data from Educational Longitudinal Study of 2002 in order to identify factors associated with college choice for Latino students. The inclusion of cultural and social capital variables as proxies for college choice sheds light on the importance of these two forms of capital for Latino students. Students from higher income levels; that expected to earn beyond a bachelor's degree; with mothers that expected the student to earn a bachelor's degree; had taken an SAT/ACT prep course, and had parents that earned a bachelor's degree had increased odds of attending a four year institution upon graduation from high school. Additionally, students receiving information from college representatives, had conversations with their parents regarding school activities and things studied in class increased their odds of attending a four

year institution. Lastly, having received information from a school teacher and having conversations with their parents regarding school was negatively associated with attendance at a four year institution.

DEDICATION

This manuscript is dedicated to my mother, the late Mercedes Berrios, my daughter Bianca, and my son Jordan, it was through my love for them that I learned the importance of resilience.

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Table of Contents

Abstract.....	iii
Dedication.....	v
Acknowledgements.....	vi
List of Tables.....	ix
CHAPTER I: INTRODUCTION.....	1
Statement of the Problem.....	3
Purpose Statement.....	7
Research Question.....	9
Significance of the Research.....	11
CHAPTER II: LITERATURE REVIEW.....	13
Models of College Choice.....	14
<i>Traditional Models</i>	15
<i>Economic Theories</i>	18
<i>Psychological Theories</i>	19
<i>Sociological Theories</i>	21
Factors Influencing College Choice.....	23
<i>Student Background</i>	24
<i>Financial Factors</i>	29
<i>Cultural Capital</i>	31
<i>Social Capital</i>	31
Limitations of Prior Research.....	40
<i>Lack of Research on 2 vs 4 year Decision</i>	40
<i>Lack of Research Which Considers Latinos</i>	41
Theoretical Framework.....	41
<i>Outcome Variable</i>	41
<i>Independent Variables</i>	42
CHAPTER III: RESEARCH DESIGN.....	45
Research Model.....	46
Data Source.....	46
Instrumentation.....	48
Sample.....	48
Research Variables.....	49
Statistical Model.....	51
Data Analysis.....	52
Limitations.....	53

CHAPTER IV: RESULTS.....	55
Planned Analysis.....	55
Descriptive Analysis.....	56
Inferential Analysis.....	68
Interaction Effects.....	70
CHAPTER V: CONCLUSIONS AND IMPLICATIONS.....	71
Implications for Policy and Practice.....	78
Implications for Future Research.....	81
References.....	85
Appendix A: Variables and Their Construction.....	91

List of Tables

Table 1	Descriptive Statistics for Sample Population.....	56
Table 2	Cross tabs of Categorical variables and college choice.....	60
Table 3	Cross tabs of Categorical Variables and Race/Ethnicity.....	61
Table 4	Logistic Regression Main Effects Model.....	86

CHAPTER I INTRODUCTION

The unemployment rate in the United States during 2010 was at a record high of 9.625%. In 2012, it was 8.1% (U.S. Department of Labor Statistics, 2013a). Although there was a decrease in unemployment rates, this most recent figure is above normal levels. These facts can be considered overwhelming, however when you examine unemployment rates by industry you will see that some sectors experience unemployment rates at lower levels than others. For instance, the unemployment rate for Education and Health Services Industry was 3.9% in 2012 compared to the unemployment rate of 9.7% for the Agriculture Industry during the same time period. Although our nation's economic stability is at stake, future generations of the work - force can prepare themselves for the industries that hold the most promise in terms of providing such economic stability.

Today's knowledge- based economy is characterized by global business systems, new advances in transportation systems and telecommunications (Organization of Economic Development, 2012). Markets and products are increasingly sophisticated and have high technology content. Most importantly, there is a demand for workers with advanced skills who are formally educated. The vitality of the U.S. workforce and economy increasingly depends on educational progress of its citizenry.

In terms of assessing the educational progress of our citizenry as a whole, the national high school dropout rate was 8.3 % in 2011. In 2012, the graduation rate at Title IV Institutions (where the students started as full-time, first time students) was 55.7%. Although the dropout rate is not immediately worrisome, the graduation rates are. Slightly more than 50 % of

American students graduate from college (NCES, 2013a). Simply stated, the well-being of the American workforce is questionable, and to complicate matters the viability of the American economy relies heavily upon the educational progress of the Latino population

Latinos are the fastest growing minority segment in the United States. In 2010, there were 50.5 million Latinos in the United States, comprising 16 percent of the total population. Since 2000, the Latino population has grown by 43 percent. By 2050 the Latino population will constitute 30 percent of the entire population (U.S. Census Bureau 2010). This means that nearly 1 in every 3 U.S. residents will be of Latino origin. Similarly, working age Latinos are expected to increase by 18 million. These facts are important because in the future Latinos will constitute a significant portion of the American workforce.

Latinos can either participate in the higher paying, opportunity rich jobs of the knowledge economy, or lose out on economic opportunity and/or equality. If the former, it is essential that they acquire some level of postsecondary education experience and credentials. If they opt for the latter, either by design or default, there is a good chance of being locked into dead-end jobs, with limited economic opportunities to support their families and participate in the American dream. Conversely, if Latinos avail themselves of college opportunities, then they will benefit from the well documented effects (Adelman, 1999). This is not to say that the fate of the American economy is the sole responsibility of Latino community. One of the many roles and responsibilities of higher education is to provide opportunities through education, progress through research, and cultural enrichment. In order for institutions of higher education to be effective, they need to be responsive to changes in the population and their needs as well (Duderstadt, Vomack, 2003). Therefore, the challenge for American higher education is to maximize the percentage of young people who obtain a bachelor's degree. The purpose of this

research study is to understand why Latinos are not earning baccalaureate degrees, and as part of that process, particular attention will be given to the factors that influence their choice of college.

Problem Statement

In 2006, there were 96.3 thousand Latino students enrolled in some form of post-secondary education. Their enrollment constitutes an 11.4 percentage distribution of U.S. residents. Of those Latino students enrolled during that period 42.8 percent or 41,109 were enrolled at a four year institution. The remaining students were recorded as being enrolled in either a two year or less than two year institution. (NCES, 2013b) In 2012, 51.9 percent, or 21,533 Latino students obtained a bachelor's degree (NCES, 2103c). Latino students' college going behaviors are problematic on several accounts, namely, in terms of their representation in higher education; disproportionate representation at community colleges; and degree attainment.

The low level of Latino baccalaureate attainment can be attributed in part to the fact that many Latinos begin their academic careers at community colleges. In 2005, Adelman noted that where a student begins their academic career can impact baccalaureate degree attainment. More specifically, he noted that 37 percent of students that graduated from high school in 1992 and began their academic careers at a community college transferred to a four year college. However, he also notes that doing so reduced the likelihood of baccalaureate degree attainment. In 2009, Kurlander and Long compared the graduation rates of students that began their academic careers at community colleges to those that had entered a four year college in the semester immediately following their high school graduation. They found that of those who started at a two year institution and had an intention of obtaining a bachelor's degree, only 26 percent obtained it within nine years of starting. Meanwhile nearly two and three times as many

students that attended a non-selective university (53%) and 73 percent of those students attending a selective university did so.

Researchers have suggested that the completion rates of those attending two year institutions might reflect their academic preparation. However, both two and four year entrants with similar high school background and college entrance exam scores have considerably distinct completion rates (Velez, 1985, Adelman 2000; Bailey et. al, 2004; Adelman 2005; Alfonso, 2005; and Kurleander and Long 2009). Despite the large number of Latino students attending two-year institutions, little attention has been given to the decision-making processes undertaken by these students

This being the case, students who potentially could obtain a four year degree are setting themselves up for failure by beginning their postsecondary education at a two year institution. There are factors attributable to the characteristics of the two year institution that are found to negatively influence baccalaureate degree attainment. In 1985, Velez conducted a multivariate analysis to determine the odds that high school seniors will complete a bachelor's degree. He found that living on campus promotes positive effects on baccalaureate degree attainment. Students living on campus were 43 percent more likely to finish college than were students that did not. He also found that students who participated in a work study program had a 23 percent higher probability of finishing college. Many two year institutions do not have the resources to provide on campus housing and work study jobs. Moreover, Long and Kurleander 2009, suggested that community colleges do not seem to constitute a straight forward path to baccalaureate degree attainment. If these types of institutions are less likely to promote baccalaureate degree attainment, then it is important to examine the factors associated with college choice that influence Latino students to choose them. Understand that baccalaureate

degree attainment is not just an issue for the Latino community; it is an issue that relates to inequities in educational access for other minority groups as well. The existing college choice literature is filled with research that examines the college enrolment decisions of students attending four year institutions. In 2000, Perna explored the differences in the decision to attend college amongst African American, Latino, and White students, utilizing an econometric model that included measures of cultural and social capital to reflect differences for expectations, preferences, tastes and certainty about higher educational investment decisions. Based on the findings, both forms of capital were found to be important contributors to the four-year college enrollment decision for all three groups.

The concepts of cultural and social capital have been used to study inequality in higher education research (DiMaggio & Mohr, 1985; Horvat, 1997; Perna, 2000; Nora, 2004; Perna & Titus, 2007; Perez & McDonough 2008). Namely, they were used to illustrate how economics and schooling create unequal social stratification. Cultural capital refers to the tastes, references, or norms of the dominant class used to preserve their social rank. These factors are passed on by parents to their children (Bourdieu & Passeron, 1977), and are less tangible or not as obvious when examining inequalities in class based socialization. (Winkler- Wagner, 2008)

Social capital refers to the investment in social relations with expected returns of some benefit or profit to the individual. (Winkler- Wagner, 2008) Social capital may take the form of supportive ties or relationships with individuals that are in a position to impart information regarding valuable resources, privileges, and the support necessary to advance economic and political positions within society (Stanton - Salazaar, 1997). Social networks are important to individual survival. Those that are part of a resource rich network are at a relative advantage to those in a resource deficient network (Lin, 2000)

Cultural and social capital can be used in the production of other goods. In 1998, Coleman theorized that cultural and social capital improved individual productiveness. Bourdieu and Passeron (1997) found that cultural and social capital improved an individuals' worth. Other researchers found that it facilitated upward mobility (Dimaggio & Mohr, 1985; Lamont and Lareau, 1988), affected institutional choice (Horvat, 1997; Perna, 2000; Nora, 2004; Kurleander, 2006,). In 2007, Perna and Titus found that social capital is related to the odds of enrolling at a two versus four year university relative to not enrolling

Up to this point there has been a heavy reliance on research that focused on the factors that influence students' decisions to attend four-year postsecondary institutions solely to provide insight. Recently, researchers have examined the college choice process from a two year versus four year perspective (Admon 2009; Kurleander, 2006; Perna & Titus 2007). Given the current state of Latino educational attainment and their importance to the future of America as we know it, more examinations of their college choice going behaviors are needed.

Social and cultural capital may hold the key to understanding the college choice process of academically prepared students. Cultural and social capital does not simply measure characteristics of the student; it also provides an opportunity to discover whether structural barriers exist. Parents are responsible for developing educational aspirations; however, school personnel (teachers, counselors, coaches, administrators) play an important role as well. Educators are in a position to either enhance educational aspirations or provide disadvantaged students with a second opportunity. This study may provide empirical evidence on how social and cultural capital may improve the educational progress for students.

Purpose of This Study

The purpose of this study was to determine how social and cultural are related to the college choice process of four- year college qualified Latino students. In particular, the intent was to explore such relationships by comparing the Latino group with other racial/ethnic groups. This growing cohort of Latino students needs to be understood in order to help them obtain the support needed with their college choice decisions. Is there a relationship between cultural and social capital for Latino students that mirror relationships found for other racial/ ethnic groups. Is this relationship so fundamental to college choice that it continues to have a strong association with choosing to attend a four year institution regardless of race/ethnicity? Which of the cultural and social capital factors do these students experience in their college choice process are more likely to be associated with choosing a four year institution?

Much of the college choice literature examines relationships between cultural and social capital and educational outcomes based on examinations of racial/ ethnic differences of students choosing to attend four year institutions. In these examinations they found that Latinos, when compared to other race/ethnicities; submitted fewer applications during the college choice process, (Hurtado, Inkelas, Briggs, Shik-Ree, 1997). In 2000, Perna found that after adding proxies for cultural and social capital, Latinos were as likely as Whites to enroll in a four year institution when sex, costs, benefits, financial resources, and academic ability were taken into account. Perez and McDonough (2008) found that Latinos rely heavily on family and friends as well as high school staff for college information. The existing literature identifies Latino college choice as problematic with respect to college choice. There are several causes of concern regarding the college choice of Latinos. Latino representation in higher education is not commensurate with the number of Latinos in the United States, and overall baccalaureate degree

attainment is low. There have been many studies that offer explanations of the factors that influence college choice. In discussing the evolution of the student college choice literature it is evident that early studies examined the perspective of White students attending four year universities. During the early 1990s studies emerged that examined student college choice by examining the inter-group differences. Explanations offered range from familial influences, socio-economic status, race, and social networks. The college choice literature has included investigations of the college choice process of Latino students in comparison to other racial/ethnic groups (McDonough, 2004; Perez & McDonough 2008). More recently, we have seen college choice studies that examine college choice of Latinos exclusively (Kurleander , 2006; Nora, 2004; O'Connor, 2007), and from the two versus four year institution perspective (Baker & Velez, 1996).

It has been documented that Latinos attend community colleges at higher rates than any other race/ ethnic group (Kurleander, 2006; Nora, 2004; O'Connor, 2007). Although this information is useful in understanding that there is a cause for concern , it does not help to understand the reasons why some Latino student choose two year institutions when they have a choice to attend a four year institution. A comparison of Latino students' decisions to attend either a two vs. a four institution and the same decision made by students from other race/ethnicities is warranted. It is important for developing policies and practices to improve the educational outcomes of this particular group beginning with a review of the college choice process. The goal of this dissertation was to test a Latino model of college choice by comparing them with other racial/ethnic groups.

If important cultural and social capital factors for Latino students as compared with other racial/ethnic groups can be identified; providers of critical information to students and those who

determine policy can know where their efforts will have the greatest impact on the college choice decisions of this population.

Research Question

The primary research question for the study was: How does cultural and social capital influence a students' decision to attend either two year or four year institution. The focal interest is to compare the effects cultural and social capital across Latino students and students from other racial/ethnic groups.

The following additional research questions were asked:

1. How are cultural and social capital distributed by Latino students vs. other race/ethnicity groups?
2. Are there differences in college choice between Latino students and students from other different racial/ethnic backgrounds?
3. How does cultural capital and social capital affect college choice? Do the effects vary across Latino students and students from other racial ethnic backgrounds?

This study focused on the decision to enroll in either a two year vs. four year institution. Earlier college choice studies primarily focused on the decision to enroll at a four year institutions, ignoring the possibility of a choice between two vs. four year institution. Researchers, (Perna, 2000; Heller, 1998; Leslie & Brinkman, 1998; Pascarella & Terenzini, 1991), felt that students that intend to enroll at a two year institution when compared to those intending to enroll at a four year do so for different reasons. Namely, that they consider different criteria, and apply different weights to these criteria, in their decision making process. Many, not all of the students that attend a two year institution did so because they did not possess the

academic qualifications to gain admittance to a four year institution. However, Kurleander (2006), examined the college choice of Latinos students in terms of their attendance at either a two year versus a four institution and found that students that did possess the academic qualifications to gain admittance to a four year institution enrolled at community colleges at higher rates than any other racial/ ethnic group. With the increasing numbers of Latino students, students that could gain admittance to a four year institution (four -year college qualified), yet enroll at two year colleges; the opportunity exists to focus on their decision making processes.

Utilizing a cultural and social capital framework, the purpose of the current investigation was to understand which resources and or networks played an important role in the college choice process of Latino student. The conceptual framework that guided the current research was based on the work of Laura Perna (2000). Perna (2000) developed a model of college choice that included measures of cultural and social capital as proxies. Unlike the Perna's (2000) study, which focused primarily on students attending four year institutions and the differences amongst various racial/ethnic groups , the current research examined Latino student college choice between two or four year institutions by comparing them to other racial/ethnic groups. The sample consisted of four -year, college qualified students (which will be explained shortly) that could obtain admission to a four year institution in terms of their academic preparation. In examining college choice from the two vs. four year perspective, there exists the possibility that some students attend a two year institution by default. Namely, they do not possess the academic credentials to gain admittance into a four year institution. Therefore, academic preparation was a factor that had been identified in the literature as significantly affecting college choice and was used to filter the sample. For the purpose of this study, a sample was created out of the Educational Longitudinal Study ELS: 2002 dataset. Included were individuals from five ethnic

groups who attended college during the Fall of 2004, immediately upon graduation from high school, and were considered four –year college qualified. A college qualification index was created in order to determine which students could qualify for admissions for a four year institution. Non- qualified applicants were excluded from the analysis, since this study focused on the decisions made by students who possess the academic credentials to gain admission to a four year institution. Students that are not college qualified would not have the option. Data from the second (2004) and third (2006) follow-up to the ELS:2002 (ELS:2002) was used to examine the research questions. The ELS: 2002 contains data for a cohort of students in the 10th grade (2002), when they were high school seniors (2004), two years after high school graduation (2006). ELS:2002 continues to follow the student into the labor market, and is the most recent nationally representative study.

Significance of the Study

This study is significant from both policy/practice and research perspectives. From the policy/practice perspective, this study can serve to inform individuals on many levels. This information can be beneficial at the personal level, namely, parents can understand that participation in certain activities with their child can increase the likelihood that he/she will attend a four year institution. This information can also be beneficial to school personnel, and other individuals that are in a position to engage the student in these activities. Additionally, the information can be useful for college and university admissions personnel in recruiting students in this group.

From the research perspective, this study uncovers only a small fraction of the broader Latino experience with the U.S higher education system. This study can serve to inform

researchers that there is a need to examine the practices through which members of the Latino community obtain information about higher education, and whether these practices differ between high and low income families. A better understanding of the Latino community can shed some light on college choice beyond that which has been discussed in this paper.

CHAPTER II

LITERATURE REVIEW

The college choice literature spans more than thirty years of empirical research. The literature has provided theoretical frameworks and models of college choice that explain the process that a student participates in, and factors that are related to their decision to enroll at institutions of higher education. In the studies of college choice, constructs were developed from various perspectives; particularly, economic, psychological, and sociological.

In this chapter, I examine the theoretical frameworks for college choice studies. I also examine the existing models of college choice, relative to their advantages and limitations. Finally, I provide a comprehensive theoretical framework and methodological approach to researching the overrepresentation of Latinos at two year institutions of higher education. Because in the current study I examine the differential effects of cultural and social capital on college choice of four- year, college qualified Latino students as compared to students from other racial/ethnic groups, this review focuses primarily on studies that examine the role of social and cultural capital on college choice. This literature review is designed to provide context for the research purpose of this dissertation. It consists of five sections: (1) college choice models, (2) college choice theoretical frameworks (3) factors that influence college choice, with an emphasis on social and cultural capital because of the significance each has on the college choice process; (4) methodological approaches utilized in college choice research; (4) strengths and weaknesses of prior theoretical frameworks, methodology, and research on college choice; and (5) the implications for studies that examine the educational gap of Latino students; Throughout each section I discuss the gaps in the existing literature and the areas that require more

investigation. At the end of each section, I also discuss the relevance of the literature to the research question.

College Choice Models

The purpose of this section is to provide background information as to how students make decisions regarding their choice of college. By reviewing the college choice models from both a historical and analytical perspective, I am able to present the contributions and shortcomings that exist within the current literature. Additionally, I present an argument as to the importance of cultural and social capital and their effects on the college choice of Latino students.

College choice, generally speaking, refers to a decision to either enroll in postsecondary institutions of higher education or not (Hossler, 1987). If the decision is to enroll; there are several options to choose from. A student can decide to enroll at either a two year institution or a four year college/university. If the decision is to attend a four year institution, the student can choose from an array of institutions based on selectivity, type (public vs. private) price, and mission (Hurtado, et.al, 1997). From a research perspective, college choice is examined in terms of the time in which a decision to enroll is made. There are students that enroll at a post - secondary institution in the fall immediately after high school graduation, while others may delay entry. Those that enroll immediately after high school are generally considered to be a traditional age student, which is defined as being between the ages of 19-25. Students that are older than the traditional age student are considered to be non-traditional. It is important to distinguish between traditional and non-traditional students because their reasons for enrollment can differ, these differences are attributable to age and responsibilities associated with various age groups, i.e.

non-traditional students may have familial responsibilities that influence their college going. There are many types of individuals that enroll at post- secondary institutions, and various options to choose from, making it necessary to be specific when analyzing college choice. Being specific in defining college choice helps with generalizations, namely, once the research has been conducted and conclusions drawn, knowing the specific type of individuals studied and the outcomes allows the researcher to make generalizations to similar populations (Babbie, 2007).

The focus of the current research was to examine the college choice behaviors of four-year college qualified students that enroll at institutions in the fall immediately after high school graduation. Based on research, it is these students (if they enroll at four year institutions) that have the greatest chance of baccalaureate degree attainment (Fry, 2002). However, Latinos (regardless of college qualifications) enroll at two year institutions at higher rates than any other race/ethnicity (Kurleander, 2006). Therefore, the research focused on the college going behaviors of four - year college qualified students who enroll in postsecondary education in the fall immediately after high school graduation to discern whether differences exist between those that attended two year institutions vs. four year colleges and universities. In particular, this study compares Latino group with other racial/ethnic groups in the examination of college choice.

Traditional Models

The most widely used college choice model identifies three general stages: predisposition, search and choice (Hossler& Gallagher, 1987). This model has helped to think about the college decision making process as a lengthy and complicated process of potential postsecondary opportunities that is informed and influenced by an assortment of sources. This

model is useful in considering the sequencing of factors that impact the decision-making process for students and the role of external resources. Although this is the most widely-used college choice model there were other researchers that paved the way for this particular model. Twenty years prior to the establishment of the Hossler & Gallagher's (1987) college choice model sociologist Sewell (1967) examined the influence socio economic status and intelligence on the various stages in higher education. Higher education as a process included the planning phase, actual attendance, and graduation. In essence college choice was initially examined from a sociological perspective. Namely, it was examined in the context of a larger process of social mobility and educational attainment. In 1982, Litten conducted a meta- analysis of various studies that examined the college choice process. It was his contention that a previous model developed by Chapman (1981) provided a general model of college choice and what was needed was an examination that focused specifically on how the process differed (or was similar) for the various types of students. Students were examined according to their family income, the attributes of the school that they attended in terms of its size, quality of the school, resources that were available at the school. Additionally they were grouped by their career or major college objectives, and religion. These models, although not as widely used as the Hossler & Gallagher (1987), once held considerable promise for understanding college choice in its various applications.

The model developed by Hossler & Gallagher (1987) included three stages. During the first stage (predisposition), students determine whether they will continue their formal education after high school. This process generally occurs in grades seven through nine, when the student begins to accumulate resources that affect the choices made during later stages. Factors associated with the predisposition stage are parental involvement and support, parents' savings

for college, socioeconomic status, parental collegiate experiences, student academic ability, and available college going information that the family has acquired (Hossler & Gallagher, 1987).

The second (search) stage of the process generally occurs when the student is in the 10th through 12th grades. It is during this phase that students begin to seek information on colleges and universities. The factors that seem to significantly influence decisions during this phase continue to be student ability, parental involvement and support, student academic ability, career aspirations, and socio-economic status. Additional factors that influence the choice process are introduced during this stage. It is during this stage that peers become more influential than parents. What results from stage two is a tentative listing of institutions, the narrowing of the list, and the securing of information regarding institutions remaining on the list (Hossler & Gallagher, 1987)

During the final (choice) stage, which generally begins during the student's last year at high school, new factors that influence the process are introduced. These new factors coupled with previous factors are said to influence the student decision-making process. The new factors include institutional attributes, and the perceived ability to pay. This final stage is the stage at which the student formulates a choice set and decides which institute to attend.

During each of the stages of the model, student characteristics are examined to determine which factors accurately predict college enrollment. College choice research generally focuses on a specific stage. A student's college enrollment decision is examined in terms of the amount of capital he/she possesses. Models of college choice have been developed based on various forms of capital. The three types of capital used to examine college choice are: economic, human, and social capital.

Various theories guide college choice studies. They are represented by psychological, economic and, and sociological theory. I am presenting each of these theories to highlight their contributions as well as their shortcomings in regards to college choice models. Economic theorists focus on the monetary resources that can be used to purchase goods and services and their effects on college choice (Becker, 1962). Psychological theorists suggest that the skills and capabilities that individuals have to learn and adapt to their environments affects college choice (Hofferth et al. 1998). Sociological theorists focus on the system of factors derived from one's parents, that defines an individual's class status and how this affects college choice (Bourdieu & Passeron, 1977), and are concerned with the relationships between (1) parents and their children and (2) parents and other individuals and institutions that affect children and how these relationships significantly affect the college choice process (Coleman, 1988; Lin 2000; and Portes,1998).

Economic Models

Economic theorists posit that individuals compare the cost and benefits of all possible alternatives and then select the one alternative which holds the greatest benefit, while simultaneously meeting the individuals' preferences (Hossler, Braxton & Coopersmith, 1989; Manski & Wise, 1983). A college choice model whose theoretical underpinnings were economically based would include measures of family income, perceived importance of costs & aid, perceived importance of living expenses etc. to reflect differences in expectations, taste, preferences, and certainty regarding college choice enrollment decisions.

Economic theory aids in the understanding of the college choice process. Although the overall question raised by student college choice may not be economic in nature, at some point is

would be useful to understand at least theoretical, how markets work, how they value commodities, services and assets, and how individuals interact in their economic roles may become critical in deciding their ultimate college choice. Economic theory helps focus discussions by comparing alternatives available for trying to achieve the given objectives. (Klevorick, 1975).

The economic approach to college choice research suggests that human capital theory (Becker, 1962), and supply and demand theory are the basis by which college enrollment decisions are made. Human capital refers to the quality of individual competences, knowledge and personality attributes possessed which enables one to perform labor so as to produce economic value. They are the attributes gained by a worker through education and experience. The theory of human capital has created a way by which to examine the return on education.

Human capital and supply and demand theory provide the theoretical framework by which economic theories are applied in college choice studies. Human capital theory suggests that individuals decide whether to invest their time, effort and money into expenditures that will be rewarded by higher future earnings. Becker (1962) theorized that education is an investment in human capital. College choice theorists support an economic model, suggesting that an individual would utilize an economic model when selecting a college. The individual would compare the cost and benefits of all possible alternatives and then select the one alternative which holds the greatest benefit, while at the same time meet the individuals' preferences (Hossler, Braxton & Coopersmith, 1989; Manski & Wise, 1983). Additionally, human capital theorists posit that a student's academic achievement and preparation reflects the differences in expectations, tastes, preferences, and certainty regarding college enrollment decisions (DesJardins, Ahlburg, & McCall, 2006; Manski & Wise, 1983) Research using this approach

suggests that as the students level of academic preparation increases the likelihood of enrolling at a four year institution increases. This model has been used to examine college enrollment decisions among various racial/ethnic groups. It was concluded that high achieving Latino students' (when compared to blacks, and whites) were just as likely to enroll at two year institutions as they were at four institutions (Kurlander 2006). Higher levels of academic achievement did not translate into four year college enrollment for Latino students. Although the human capital model helps in understanding college enrollment decisions in general terms, other forms of capital could provide a clearer understanding.

Supply and demand theory provides a theoretical framework for understanding how a student decides which institutional type to attend. According to supply and demand theory, the demand for higher education is related to price. The individual weighs the costs and benefits of investing economic resources in addition to taking into consideration their ability to finance their higher education. The traditional econometric perspective predicts that the decision to invest in higher education is influenced by expected costs and benefits, financial resources, academic ability, current and expected labor market opportunities, personal preferences and tastes, and uncertainty (Becker, 1962). Although economic theories are useful in helping one to understand the student college choice process they are limited to financial considerations. An individual's decision to enroll at a particular institution can be influenced by other factors as well, particularly those that are psychological and sociological in nature.

Psychological Models

Much of what is known about student college choice is rooted in psychological theory. Psychological theorists attribute human thought and behavior to individual attributes reflecting

an individual's psychological characteristics (Bandura, 1989). Albert Bandura's theory of self – efficacy has important implications with regard to motivation. Self-efficacy is the belief that one has the power to produce that effect by completing a given task or activity related to that competency. Self-efficacy relates to a person's perception of their ability to reach a goal, students with more self- efficacy beliefs are more confident in their capacity to execute a behavior. Bandura's basic principle is that people are likely to engage in activities to the extent that they perceive themselves to be competent at those activities. With regard to college choice, this means that students will be more likely to choose and be successful at institutions when they have a sense of efficacy. Self- efficacy is based on the individuals' assessment of their own capabilities. A shortcoming to psychological theories is that it is limited in the sense that they inform regarding the level of self- efficacy however they do not identify sources of such efficacy. In order to determine the sources that promote self- efficacy one would have to turn to sociological theory.

Sociological Models

Sociology is a science which attempts to explain courses of action and their effects in terms of social action. (Weber, 1946). Sociological theorists would argue that a students' college choice is related to attributes that an individual possesses. The attributes possessed can dictate the type of postsecondary institution an individual attends (Hearn, 1991). Attributes associated with student college choice are more often than not socio-economic status (St. John, 1991), and race/ethnicity (Perna, 2000, Perna & Titus, 2005). Bourdieu (1977) theorized that education leads to social reproduction and social stratification in a way that benefits the elite classes. Students that possess high levels of cultural capital are rewarded with higher levels of academic achievement. As a result, when they enter the workforce they are able to obtain higher paying job

and powerful positions in society. By default those students who are members of the working class are not rewarded for their cultural capital and are groomed for working class jobs.

Sociological theorists would also assert that the culturally valued tastes and consumptions pattern that one inherits dictates educational outcomes. Many abstract as well as concrete proxies for cultural capital would include; inherited items, such as art, education, and language. Other cultural capital theorists believe that consumption patterns include the widely shared, high status cultural signals (attitudes, preferences, formal knowledge, behaviors, goods and credentials) are used for social and cultural exclusion. (Bourdieu and Passeron, 1977).

Sociological theorists also believe that student college choice is affected by relations between and among actors (Stanton and Salazaar 1997,). The obligations, expectations and trustworthiness of social structures constitute useful capital resources for individuals (Lin, 2000). Another important form of social capital is the potential for information that is considered a part of social relations. One means by which information can be acquired is by the use of social relations that are maintained for other purposes (Coleman, 1988). The importance of examining the influence of social capital on educational outcomes is highlighted by the fact that individuals especially college bound students are influenced by those found in their immediate surroundings.

Social capital, like cultural capital is inherent in the structures of the relations between and among actors. Such involvement and participation in groups can have both positive and negative consequences for the individual and the community, and is a concept that dated back to sociologists Durkheim (1956). Various disciplines, when attempting to explain the causes for particular behaviors rely on sociological theories as a basis for their work. Major perspectives of criminology focus on ecological and socialization forces which suggest that

crime is a function of neighborhood conditions, cultural forces, norm conflict, upbringing, learning, and control. Peers, parents, and teachers are said to influence behavior. In educational research, these very same sociological elements have been integrated as well. Educational researchers focus on sociological and ecological forces and their effects on educational outcomes. Social capital stands for the ability of students to secure educational outcomes by virtue of membership in social networks or other social structures (Bourdieu 1980), Coleman (1998), Baker (1996). In 1997, Salazaar provided a social capital framework for understanding the socialization of racial minority and youth in the status attainment process. In this framework, hardships minority students might encounter in accessing social capital are described. It was theorized that there are two types of social networks that have the greatest impact in terms of transmitting information to students. They are teachers or counselors from the school environment and the other group consists of family or community members. Students access information regarding higher education via these social networks. Social capital as well as the other forms of capital previously mentioned is a resource that students draw upon in varying degrees. A students' ability to draw upon resources plays an important factor.

Factors Associated with College Choice

In the previous section the theories and models which guide student college choice research has been presented. The foundation has been laid to provide a better understanding of college choice. In this section the factors that are said to influence student college choice will be reviewed and summarized. The empirical evidence supporting such claims will be reviewed and summarized in order to develop a college choice model for four- year college qualified Latino students. Researchers have offered various perspectives on student college choice which range from the psychological, sociological and economic. Based on a comprehensive review of the

college choice literature there emerges several factors that predict college choice, they can be grouped into five sets of variables that reflect student background characteristics, educational aspirations, academic preparation, cultural capital, and social capital.

Student Background Characteristics

Race/Ethnicity

Race/ethnicity is an important factor to consider because the empirical evidence suggests that in terms of the educational attainment process which includes college choice, persistence, and graduation; rates vary by race/ethnic group. Focusing on the college choice phase, in 2010, Knapp, Kelly-Reid, & Ginder reported on the differences in college enrollment by race/ethnicity. They reported that Latino's enrolled at two year institutions at higher rates (5.2) than they did at four year institutions (3.6). In comparison to Asians, Blacks, and Whites, they were the only group that experienced this type of an enrollment trend. These findings are consistent with previous college choice research (Perna & Titus, 2007; Kurleander, 2006). Additionally, Kurleander, 2006, concluded that Latino students regardless of socioeconomic status, enroll at two year institutions at higher rates than any of the other groups. Race/ethnicity is included in the conceptual framework to identify participants.

Gender

Empirical evidence exists which suggests that educational outcomes vary by gender. McDonough et al. (2004) concluded based on their quantitative examination of the Latina and Latino college choice process: "Gender, in addition to race, is indeed a critical factor mediating the college choice process for Latinos and Latinas and merits further attention" (p. 35). Ceja (2001) and Talavera-Bustillos (1998) have examined in-depth the role of gender within the

college choice process for first generation Chicanas. However, we do not have research which provides us with similar accounts of their counterparts.

Socioeconomic Status

Socioeconomic status (SES) is a variable that should be considered in the conceptual model since it has been found to significantly affect among other things, student college choice. Historically, there are two types of variables that have been used to reflect a student's socioeconomic status: one is a composite measure in which the household earners income, education, occupation, and wealth are combined, and the other contains two separate measures representing family income and parental income. There has been a substantial amount of research on the effects of social class origins on educational attainment. Traditionally the term SES includes father's occupational prestige, fathers' education and family income (Hearn 1991). More recently, SES variable includes mothers' education and wealth as well, as a more accurate measure of family SES. SES as a composite measure was found to have an impact on college enrollment. The differences in enrollment are shaped by SES. It is said that each of the various socio-economic status groups have different parenting styles and expectations. They send their children to school that vary in structure, resulting in different experiences and expectations, additionally the effects of college costs and financial aid availability vary by ses. (Astin, 1993; McDonough, 1997; Paulsen & St. John, 2002).

Laureau (1987) found that parental expectations and definitions of success vary with social status and has an effect on student aspirations. Additionally, low SES parents are more likely to view lower levels of education as the norm, when compared to parents from higher SES. Hearn, 1991; and McDonough, 1997 found that low SES parents were more likely to define

success as securing a full time job immediately upon graduating from high school. Higher SES parents define success in longer terms. Their definitions include attending a four year institution and obtaining a bachelor's degree. This is not always the case for the SES student. There are low SES students who attend college after graduating from high school, and their enrollment in postsecondary education represents them overcoming many obstacles. (Bowen & Bok, 2000). However, students from low SES backgrounds often enroll in institutions that are less competitive (Bowen& Bok,1998, Hearn,1984). In 2006, Kurleander examined the differences amongst the various racial/ ethnic groups in terms of the students' decision to enroll at a two year vs. four year institution. After controlling for socio-economic status, it was found that Latino students of both high and low SES backgrounds enrolled at two year institutions at higher rates than their African Americans and White counterparts. In the case of the Latino student, college choice is affected by racial/ethnic differences and not solely, socio economic status. It is common for researchers to use a composite measure of SES; which includes among other variables, parent's level of education (a form of cultural capital). In instances where the effects of cultural capital on student college choice are examined, researchers have relied on the two separate measures indicating family income and parent's educational level rather than a composite measure. Therefore, in seeking to address how SES effects the college choice decisions of the four- year college qualified Latinos student, the conceptual model will use family income and parental education variables to reflect socioeconomic status .

Educational Aspirations

Educational aspiration is an important factor to be considered in the conceptual model, after all, it is the first step toward postsecondary education. A student with an aspiration is one step closer to his/her goal. In the context of baccalaureate degree attainment, those individuals

that aspire to a four year degree are more likely to attend a four year institution. If a students' aspiration is less than baccalaureate degree attainment; chances are they will attend either a two year institution or technical school. There have been examinations of a students' decision to enroll in either a two vs. four year institution based on a baccalaureate degree aspiring population (Admon, 2006), others (Perna & Titus, 2005; Kurleander 2006) did not take degree aspiration into consideration. According to Swail, Cabrera and Lee, 2004, seventy three percent of Latinos aspired to some form of postsecondary education, but only 55 percent, compared to the national average of 85 percent aspired to a BA.

Academic Preparation

Academic preparation is said to be associated with college access and persistence (Adelman, 1999). Taking the appropriate coursework in high school is an important step in preparing for college. Students must meet admissions standards set forth by the institution. Generally speaking, admissions criteria to four-year colleges and universities are based on student grade point average, standardized scores on college entrance exams, and level of academic coursework. Academic preparedness has a direct effect on the way high school graduates conduct themselves when applying for post- secondary enrollment and on their chances of being admitted to more selective schools. In the present research, the sample consists of individuals that are four- year college qualified thereby their academic preparedness has been partially accounted for. Prior research consistently shows that individuals with greater ability, generally measured by test scores, are more likely to invest in higher education (Hossler, Braxton, & Coopersmith, 1989; Jackson, 1990; St. John, 1991; St. John & Noell, 1989). College enrollment rates have also been shown to be higher for students who participate in academic or college preparatory curricular tracks in high school.

In the current research, since the examination is of students attending either a two or four year institution, academic ability has to be controlled for because the lack of academic preparation is not a barrier to entry to community colleges, however it is for four year institution. The student with a weak academic background can be denied admittance at a four year institution. Therefore only students that are prepared to take on the rigors of four year course work or that could gain admittance to a four year institution should be considered in the examination. In order to determine a students' academic preparation, a college qualification index was created.

College Qualification Index

College admission is not solely based on GPA. Decisions are based several criteria. To that end, in assessing an applicant's qualifications; Berkner and Chavez (1997) developed a college qualification index which approximates the four year college admissions process. The index consisted of six categories of academic qualifications. In order to be considered four -year college qualified, students had to have graduated from an academic program and meet the pre-determined criteria. Berkner and Chavez (1997) defined college qualified as being able to meet at least one of the following minimal values (H.S. GPA=2.7, SAT=820, Aptitude test=56, ACT=19). For the current research, the college qualification index developed by Berkner and Chavez for the NELS 88 study was modeled after in order to identify what constitutes "college qualified" amongst the participants of the ELS 2002:2004 population.,

The initial classification of the graduating seniors consisted of five different categories which demarcated the various levels of being qualified. In the current research the college qualification index was determined specifically for the participants of the 2002:2004 ELS

Survey. Utilizing Berkner and Chavez's (1997) formula, the minimal criteria for college qualification was established: High School Grade Point Average 2.62, SAT Score=880, and ACT=21. A student was defined as four-year college qualified if they were able to meet at least one of the minimal values. The college qualification index was used in the conceptual model to identify students that were qualified to take on the rigors of four year work. In examining the decision of students to enroll in a two vs. a four year institution it was necessary to control for academic preparedness. Students that are not qualified were not considered in the model. High school GPA (grade point average) is the only academic performance variable considered in the analysis because it is a strong predictor of future academic success.

Financial Factors

There are several barriers to college access; and college costs are especially troublesome for minority and low income students. For the 2012-13 academic school year, the average published cost of tuition for public two year institution was \$3,131, for in-state students attending public four-year colleges and universities was \$8,655, the price increases to \$17,860 when you include room and board. Concerns about affordability are even greater at private four-year colleges and universities, which charge an average tuition of \$39, 158 with room and board (College Board, 2013). With tuition costs soaring well beyond the median family income, family concerns regarding affordability, and the disparity between the costs of attending a two vs. four year institution, attendance at a four year institution is not a viable option unless the student is able to receive some sort of financial assistance. Financial factors have been researched in higher education for its effects on both college choice and persistence.

Research suggests that students from low income families are more cost conscious in their decision making than upper-income students, African American and Latino students are more cost conscious than white students, and community college students are more cost conscious than students attending other types of institutions (Heller, 1997; Leslie & Brinkman, 1988). In 1996, St. John et al found that the context in which the traditional aged students navigate through the college choice process greatly differs. Some students chose their colleges because of the availability of high aid or low tuition (e.g., Jackson, 1990; Manski & Wise, 1983). Others chose their colleges so they could cut costs and expenses, or so they could continue to work while attending college.

In 2000, Perna developed a model of the decision to enroll in a four year college or university and found that financial aid does in fact increase college access, however, she also found that when combined with other forms of capital, namely social and cultural the likelihood of college access increases. Latino students, when compared to White and African American counterparts are less likely to use loans to finance their higher education, leading them to choose two year institutions because of lower costs. It has been found that students' from lower family income levels are less likely to take out loans than their higher income counterparts (Perna, 2004).

Cultural Capital

Cultural capital has been linked to college choice. Research has revealed that the various types of cultural capital and the individuals resourcefulness to convert this form of capital into an educational realization differs by race/ethnicity (Perna, 2000; Perna & Titus, 2005), as well as by socioeconomic status (Kurlander, 2006). One indicator of the value of obtaining a college

degree is parental encouragement, which is measured by mother's expectations for the child's education (Jackson 1990). Parent's educational attainment may reflect parental encouragement for the students' educational attainment as well as the availability of information about how to acquire a college education (Hossler, Braxton & Coopersmith 1989). Additionally, the use of admissions test prep material has been used as an indicator of cultural capital, and found to be a predictor of enrollment at four year institutions. (Perna, 2000).

One of the important ways in which cultural capital influences college choice is through the provision of knowledge and information about college (Dimaggio & Mohr 1985; McDonough 1997, O'Connor, 2009). When measured as a proxy for cultural activities, attitudes and knowledge, cultural capital has been shown to increase the frequency of interactions about postsecondary plans and requirements (Tornatzky, Cutler and Lee, 2002) between high school students and "high status" individuals such as teachers, and school counselors (Dimaggio & Mohr, 1985). DiMaggio (1982) found that cultural capital not only mediates the relationship between family background and school outcomes, but it also may have its greatest impact on educational attainment through affecting the quality of the college attended. Cultural capital is an important form of capital that is often used by individuals to transform their aspirations into educational credentials. Therefore, it was included in the conceptual model.

Cultural Capital Model

French sociologist Bourdieu (1977) introduced the concept of cultural capital as a way to explain the existence and maintenance of social inequality. The primary focus was on the ways in which both economics and schooling support social inequalities that existed. Following a conflict theorist approach (which would suggest that in society there exists a constant class

struggle), he asserted that the upper classes are able to maintain their current position in the social structure by exerting power over the masses. This symbolic power that oftentimes goes unrecognized is referred to as cultural capital. Cultural capital as an indicator of class position consists of cultural and traditional norms, things that one owns, and the recognition of particular tastes or norms within institutions. Bourdieu (1977) also asserted that the individual who is able to obtain cultural capital that is recognized by individuals of higher status will be more privileged in society. Additionally, the individual who has acquired the cultural capital from their family will be rewarded by school personnel more readily than a student that is not in possession of this desired form of capital. These three types of capital have been widely used as a theoretical framework for the study of social inequality in educational processes and outcomes (Dimaggio, 1982; McDonough, 1997; Nora, 2004; Perna, 2000; Perna & Titus 2005).

Cultural capital focus on how the possession of it influences educational choice. What is noted is that college choice becomes problematic particularly for students that are not in possess of the most highly valued forms (Kurleander, 2007; Admon, 2007; Perna, 2000; Perna & Titus 2005). In 2000, Perna presented research, which was the first of its kind that explored the differences amongst African Americans, Hispanics, and White students' and their decision to attend colleges by including measures of cultural and social (to be discussed later) capital as proxies for expectations, preferences, tastes in an econometric model of four year college enrollment.

Social Capital

Social capital is an asset, embedded in social relations, which can be used to improve one's life outcomes. It includes norms and information channels available through relationships

with others, referred to as social networks (Coleman, 1998; Lin, 2000). The relationships with others in one's networks impose norms and expectations and serve as conduits of needed information and resources. (Coleman 1998; Lin 2000; Portes, 1998). Information channels reflect the ability of network members to access other members' resources and expertise, to which they would not ordinarily have access, if not for the social relations within their networks (Lin, 2000).

For analytical clarity, social capital refers to the instrumental or supportive relationships with two types of "agents". Institutional agents refer to those individuals who are in a position to secure institutional resources and opportunities. Resources can include information regarding academics as well as decision-making and college admissions. Included in the list of institutional are school teachers and counselors, social service workers, clergy, community leaders, college going youth in the community. School peers are also included in the list of institutional agents (Stanton-Salazaar, 1997). Protective agents refer to the relations embodied in family and community based networks (e.g., parents, grandparents, other relatives, caring neighbors, and pro-social peers). Although peers are listed as both institutional and protective agents, the distinction is that a peer as the institutional agent, the individual is of the middle class and is considered a potential transmitter of informational resources (Stanton- Salazar, 1997).

Through relationships with institutional agents, individuals are able to gain access to resources, privileges, and support necessary to advance and maintain their economic position in society. The college choice literature highlights the role of school counselors as institutional agents and their impact on postsecondary opportunities for students. Regarding college access, McDonough (1997) found that effective guidance counselors share pertinent norms and resources concerning college access including setting the college going culture for the school, indicating the appropriate courses that are required for college admissions, and providing early

access and advice on making the transition to college. The impact of counselor access on student's educational endeavors has been further documented. Gonzales et. al (2003) used a life history approach to assess how differences in school based capital led to different college opportunities among minority students who were matriculating in either four year universities or two year community colleges. Students in four year universities had access to high school counselors, either guidance counselors, or academic counselors associated with academic supplemental programs; students in community college had minimal access to their counselors. The university students also used their relationships with counselors to make sure that they took the right classes and were able to visit with college representatives. Ceja (2000) noted that a high student-counselor ratio prohibited minority students from accessing information about college in their high school. In line with other scholars in the college choice literature potential agents of social capital has been identified as parents, siblings, and extended family members within the family, and teachers, counselors, peers and specialized honors programs within the school (McDonough, 1997; McDonough et. al.,1997; and Perna 2000). More recently, the college choice literature has provided empirical evidence of the disadvantage that Latino students are faced with in terms of the quality of their networks. Latinos rely heavily on family and friends, as well as high school staff for college information (Ceja, 2000; Gandara,1994). In a mixed methods investigation by Pearson and Rosenbaum (2006), it was found that most (7 out of 10) Latino' (a)s were much more likely (in comparison to non-Latinos) to note family members and friends as their main reason for enrolling in a particular institution. According to Pearson and Rosenbaum (2006), these friends and family members served as primary social contacts that provided information about the institution and application process, as well as provided support upon arriving at the institution. Perna and Titus (2005) found that the odds of enrolling in either a

two or four year institution relative to the odds of not enrolling at all increased with the frequency at which the parent discussed education related topics with the students, and the frequency at which the school contacted the parent regarding the students' academics. They also found that the share of a student's friends who plan to attend two year institution is positively associated with the likelihood of attending a two year institution and negatively related to the likelihood of enrolling in a four year institution. The share of a student's friends who plan to attend a four year institution is positively related to enrollment in both a two year and a four year institution. They also found that African -Americans and Hispanics not only possess fewer of the types of capital that promote college enrollment but also attend schools with fewer of the resources that promote college enrollment.

The greatest concern regarding social capital lies in the quality of actors. Scholars (Ceja, 2006; Perna, 2000; Stanton Salazaar, 1997) have studied minority students and the role social capital plays in their educational outcomes. They found that minority students are limited by the quality of social networks that they have access to, suggesting that the provision of college going opportunities is thereby limited. Scholars (Portes and Landholt, 1996) have warned about the negative effects of social capital. Lin (2000) suggested that the inequality of social capital occurs when a certain group clusters at relatively disadvantaged socioeconomic positions, and the general tendency is for individuals to associate with those of similar group or socioeconomic characteristics. Researchers have found have suggested that when compared to their Black and White counterparts, Latinos are at a relative disadvantage in terms of the quality of this resource, and their ability to convert this form of capital (Perna, 2000; Tornatzky, Cutler and Lee, 2002 ; Perna and Titus,2005).

Lin (2000), argues that differences in the composition of the networks foster inequality in access to social capital. The author notes that one's access to resource rich networks varies. Networks are considered resource rich if they are composed of diverse members of social advantages who interact in order to share their advantages such as quality resources, expertise, and social connections. Lin also notes that historical and structural processes have fostered unequal opportunities among racial, class and gendered groups. There are groups in which there is a lack of diversity of members with the expertise, connections, resources and information that advantaged groups possess. Lin (2000) further states that the unequal distribution of social capital is attributed to the fact that disadvantaged groups cluster with other groups that are at a disadvantage. With regard to social capital, scholars (Ceja, 2000; Perna, 2000; Stanton-Salazar, 1997; Valenzuela, 1999) have argued that underrepresented students do not adequately possess or have access to quality networks that may provide college opportunities. For example, Ceja (2000), in his exploratory study of 20 Chicana high school seniors, found that their social networks of support within the schools were insufficient in helping them to navigate the college decision-making and planning process. The effects of social capital on Mexican students are mixed. In 1994, Gandara found that high achieving Mexican American students were exposed to and associated with White middle class achieving peers which attributed to their own academic success. Conversely, Matute & Bianchi (1991) found that students that maintained a strong sense of their Mexicano heritage, performed better than peers that assimilated into the White culture.

In 2005, Yosso studied Latino/a students and found that they cited parents, school counselors, siblings, other school staff, relatives, and peers the most with regard to who students spoke with about college planning. This is not unique given previous research. However, what was unexpected was the degree to which Latina/o students relied on individuals who were

extended family members for college information. In addition, close friends provided trusted college information for this Latino student. Yosso (2005) addressed the importance of the quality of the network. Namely, that the richer the social resource network, the greater the possibility of a positive outcome. Using social capital variables allowed for an investigation of the impact of both institutional and protective agents as sources of college-related information in a community where protective agents are the main and only sometimes only source of information. If the kind of information is not accurate and members do not look beyond their community for information regarding higher education, these practices can affect their educational outcomes.

Methodology

The college choice literature has evolved not only in terms of theoretical approaches, it has evolved in the populations being examined and the statistical methods employed. The purpose of this section is to illustrate how college choice research has evolved in terms of statistical approaches. In the next section such innovations are examined.

Statistical Methods

Early college choice studies were descriptive in nature and used variables such as socio economic status, and student academic ability to predict student college choice (Fuller, Manski, & Wise, 1982; Manski & Wise, 1983; Schwartz, 1985) More recent studies have used linear regression to develop models of college choice. Linear regression is the preferred method of analysis when conducting studies that involve the examination of one institutional type, however, when conducting research that involves dichotomous outcome variables; more advanced statistical analysis are required. Logistic regression is the most appropriate analytical method due

to the categorical nature of the outcome variable (Theilbar et al., 2000). Logistic regression is a quantitative descriptive design that serves to model the probabilities that various predictor variables will have an influence on the outcome variable. Unlike linear regression, these relationships are not assumed to be linear, the dependent variable and the error term are not assumed to have a normal distribution, and homogeneity of variance is not assumed (Menard, 2006). Because of these differences in the distribution of the data, logistic regression uses the maximum likelihood method to estimate the regression coefficients rather than ordinary least squares (Cizek & Fitzgerald, 1999).

Summary and Critique of the Literature

The literature review has thus far provided the theoretical frameworks, models, and methodologies most commonly used in the student college choice literature. The focus will now be on the strengths and weaknesses each. A summary and critique of the work that has been conducted in the area of student college choice will be provided in order to understand the approach that would be most appropriate for studying Latino student college choice.

Theoretical Framework

Psychological theorists generally posit that a student's choice of college reflects their academic ability. Students that are presumed to have lower levels of academic ability choose to attend two-year institutions at higher rates than those that possess higher levels of academic ability (Kurleander, 2006). Moreover, students that do not gain acceptance into four-year institutions enroll at two-year institutions because of this fact. This theory holds true as evidenced in college choice models. However, in the more recent studies of college choice the theory does not explain why Latino students that are four-year college qualified choose to attend

two year institutions of higher education at higher rates than any other race/ ethnicity. Because of the focus on the individual's characteristics it does not account for other factors that might influence Latino student college choice. Economic theory helps focus discussions at the level of a comparative analysis- a comparison of alternatives available for trying to achieve the given objectives (Klevorick, 1975). The strength in the economic perspective on student college choice lies in the fact that understanding how direct costs such as tuition, financial aid; labor market opportunities in the form of a states' unemployment rate; future benefits in the form of expected future income; and financial resources effect the decision making process of student considering which institution to attend (Perna, 2000). Early student college choice studies focused on students' ability and family income as predictors of institutional selectivity. Hossler, Braxton, and Coopersmith (1989) called for further development of econometric models, because they failed to link concepts among variables. Namely, econometric models did not take into consideration external factors that might affect student college choice.

Sociological theory helps us understand how individual expectations, preferences, and tastes affect the college choice process (Perna, 2000). Social and cultural capital are resources that may be used for profit (Bourdieu & Passeron, 1977), increase productivity (Coleman, 1988), and facilitate upward mobility (DiMaggio & Mohr, 1985; Lamont & Lareau, 1988). An expanded college investment model for examining student college choice has provided a more comprehensive for examining student college choice.

Limitations of Prior Literature

The student college choice literature reviewed thus far has evolved in terms of the various approaches used and populations examined. These examinations have provided a clearer

understanding of the student college choice process from various perspectives. In spite of the progress made there are several limitations noted in addressing the decision making process of the Latino student: 1) the limited attention to enrollment as a decision to attend either a two vs. four year decision; 2) the lack of research that considers Latinos in comparison to African Americans, Asians and Whites.

Lack of Research Which Considers the Two vs. Four Year Model

The college choice literature is filled with studies that examine a students' decision to attend a four year institution. Hurtado and her colleagues (1997) examined differences among various race/ethnicities and the number of college applications submitted to postsecondary institutions with regard to attendance of first choice institution. St. John and Noell (1989) and Jackson (1990) explored the effects of financial aid in the college choice process among various race and ethnicities. Laura Perna (2000) used Pierre Bourdieu's concept of habitus to improve the explanatory power of traditional college choice models. These types of research are needed to identify the most appropriate practices and policies for raising the representation of Latino students. However these studies are limited in the sense that each used students attending four year institutions as the unit under examination. McDonough (2006) developed a Latino model of college choice which examined college choice behaviors of Latino students attending four year institutions. She reported that students choosing to attend a two year institution were not included because they have different reasons for choosing a two year institution. The main reason offered was that students choose to attend two year institutions because they are not academically prepared. They basically enroll at a two year institution because based on prior academic achievement could not gain acceptance to a four year institution. In the evolution of college choice research, there currently exists a group of Latino students that can be examined to

uncover some of the explanations for their decision to attend a two year rather than a four year institution. Kurleander (2006) and Admon (2006) examined the college going behaviors of the Latino student. They each specifically focused on Latino students and their decision to attend either a two versus four year institution. What is needed is an examination of the college choice of this particular group as compared to the various race and ethnicities.

Lack of Research Which Considers Latinos

As mentioned earlier in the literature review, more recent college choice literature examined differential effects among various racial/ ethnic groups and their decision to attend a four year institution (Perna, 2000; Perna and Titus, 2007, Kurleander, 2006, O'Conner 2009). Both Kurleander (2006) and O'Connor (2009) examined factors associated exclusively with the Latino students college choice. Kurleander (2006) reported that after controlling for family income, Latino students from higher income levels when compared to African American and White students continued to be disproportionately represented at community colleges. O'Connor, (2009) found that Latinos were overrepresented at community colleges because of a lack of adequate information regarding financial aid and college entrance information.

One of the strengths of this study is that it seeks to identify more precisely the manner in which Latino students obtain information about higher education, and what can be done to improve access for Latino students and parents to that highly desired information.

Theoretical Framework

This research uses an expanded traditional economic approach to college enrollment which includes measure of social and cultural capital as proxies for differences in expectations, preferences, and tastes for investing in higher education. It is my recommendation that a model

which focuses exclusively on the Latino student would help increase their enrollment at four year institutions. The model included seven variables that have been identified in the literature as predictors of college choice. The variables included were: background characteristics, and social and cultural capital. The next section will describe the variables in detail.

Variables

Outcome Variable

The outcome variable is a dichotomous variable indicating whether a student has enrolled in either a two or four year institution in the Fall of October 2004, the fall after graduating from high school. The focus of the study is on students who have the academic qualifications to attend a four year institution. The number of four- year college qualified students that do not go on to postsecondary does not warrant an examination at this point in time for several reasons: many of the students that do not go on to college are not college qualified. Secondly, since in the current study I am examining a students' decision to attend a two year versus a four year institution, those that do not go on to postsecondary education are not making such a choice. These students have decided not attend postsecondary education at all, thereby including them would change the focus of the research.

Independent variables

Background Characteristics.

Background characteristics represent demographic information such as race/ethnicity, gender, and family income of the participants. The variables of academic preparation (college

qualification) were used as filters in the selection of the participants, as the study of college choice will be limited to students that are four -year college qualified.

Educational Aspiration

To assess the impact of psychological and sociological factors on a students' choice of college, variables designed to reflect students' educational aspirations in terms of highest degree intended was included in the model.

Cultural Capital

According to the literature, cultural capital, in the form of parent's education, parental encouragement for a students' education, taking college admissions exams, and use of tools to prepare for college admissions exams influence college choice, as such, these variables were included in the proposed college choice model.

Social Capital

The final set of variables in the theoretical model included proxies of social capital that have been proven to influence student college choice. They include having contact with institutional agents and protective agents that can be potential sources of college information. Additionally, participation in a college prep program was included because such participation gives the student access to important college information, and strong emotional support which promotes academic success.

Conclusions

In summary, the intent of the literature review was to accomplish several objectives. To review the theoretical frameworks that have been used to examine student college choice;

examine studies that have been conducted utilizing these frameworks; and identify factors that are said to influence college choice. The strengths and weaknesses of the existing models were examined to determine their propriety. The factors that have been found to influence student college choice include a student's background, and the amount of cultural and social capital an individual has and their ability to convert this capital. The studies presented provided empirical evidence that social and cultural capital accounts for differences in college choice amongst various racial/ethnic groups attending four year institutions. Additionally, the empirical evidence provided tells us that Latinos enroll at two year institutions at higher rates when compared to other groups and provide reasons for such differences. However, there is a void in the literature in terms of explanations of what accounts for the differences in the students' decision to enroll at a two year vs. four year institution. In the past student college choice studies focused on students at four year institutions because students entering four year institutions were more likely to use different criteria and apply different weights to this criteria (Perna, 2000). However, because so many Latinos that are four year college qualified are overrepresented at two year institutions and underrepresented in terms of baccalaureate degree attainment, an examination of the two vs four year dichotomy is warranted. This type of a methodological approach help understand this phenomena and aid in the development of policies and practices aimed at increasing enrollment at four year institutions.

Chapter III

Research Design

As stated in chapter one, the purpose of the present study was to investigate predictors (cultural and social capital) that might influence a students' decision to attend either a two-year or four year institution among college-qualified students. The theoretical perspective for this study came from College Choice Theory (Hossler, Braxton and Gallagher ,1987) , Cultural Capital Theory (Bourdieu, 1977), and Social Capital Theory (Perna 2000). Thus, the predictor variables were related to cultural and social capital factors. An examination was conducted to determine how types and amounts of social and cultural capital are differentially related to college choice. The literature review in chapter two helped to identify the foundation for the present work and also how this dissertation will contribute to filling a gap in current understanding. This chapter describes the data source, instruments used, methodology, and the plan for data analysis.

Research Model

The conceptual model for the proposed research is based on existing theoretical frameworks for examining the differential effects of cultural, and social capital on four year college-qualified students' college choice by comparing Latinos with various race/ethnicities. The constructs for this model (as illustrated in Appendix A) are:

- Student background (gender, race/ethnicity, family income)
- Educational aspiration

- Cultural capital factors (parent's education, parental encouragement, participation in college entrance exams, use of test prep tools).
- Social capital factors (peer encouragement, encouragement from others, help with college entrance activities).

Research Questions

Given the research purpose, the following research questions are examined:

1. How are cultural and social capital distributed by Latino students vs. other race/ethnicity groups?
2. Are there differences in college choice between Latino students and students from other different racial/ethnic backgrounds?
3. How does cultural and social capital affect college choice? Do the effects vary across Latino students and students from other racial ethnic backgrounds?

Data Source

For this study, I used a national database maintained by the United States Department of Education to investigate why some four- year college qualified Latino students attend a two year institution and yet others choose a four year institution. These questions were answered based on a series of independent variables using a logistic regression analysis. The ELS:2002 is a longitudinal study that measures students tested achievement, obtains information about their attitudes and experiences regarding the transition to postsecondary education. This particular data set was chosen because of the richness of the information contained therein. The data contained demographic information that allowed for the identification of a population by

race/ethnicity, socioeconomic status, as well as college qualifications. More importantly, there were survey items that were used to construct proxies of variables vital to the research; namely, social and cultural capital. Because of the aforementioned reasons, the ELS:2002 was the most logical choice in terms of available datasets. What follows is a description of the procedures used by the NCES in identifying participants for the survey (Ingels et al., 2004) For the initial collection of data, schools across the 50 states and the District of Colombia that had a 10th grade population were identified. Once identified, 1221 schools were sampled. 26 students from each of the schools were selected to participate in the survey. Students had to meet certain eligibility requirements. In a previous version of the ELS 2002 (NELS:88), students that indicated that a foreign language as their native language, and students that possessed disabilities that required remediation were not able to participate. However, in an effort to make the ELS:2002 available to more students, students fitting into the previously mentioned categories were not excluded. The schools were asked to review on a case by case basis. Generally speaking, students were allowed to participate and their data were collected regardless of their ability to complete the questionnaire. This fact will be addressed in the limitations section.

The first follow-up dataset which was released to the public in the Spring of 2004 had over 14,000 participants. This sample included both eligible students who had participated in the 10th grade data collection and some new students who had entered the school after the initial data collection. The majority of students were in their senior year of high school during the first follow-up, but not all. Some of the students that were initially surveyed in the base year survey (while in the 10th grade) did not achieve senior status by the time of the second wave of the surveys. The second follow-up dataset included students that had participated in the previous

wave. This will not affect the interpretation of the results of the current research in anyway because of the way in which respondents were selected for participation. In order to be eligible for the current study, respondents had to have participated in each of the three waves mentioned.

Instrumentation

In the ELS: 2002 database, individual surveys included a student questionnaire, a questionnaire from a parent and a teacher regarding the student, a questionnaire from the principal and a librarian regarding the school, and a facilities checklist. The student questionnaire was the source for the majority of the variables in the present study. The model of college enrollment investment decisions used in this research included measures of cultural and social capital. The decision to enroll in a two year vs. a four year institution is expected to be a function of gender, racial/ethnic origin, generation of immigration, socioeconomic status, and type of high school attended. Note that students were similar in terms of age.

Sample

In the current research the decision of the Latino student to attend either a two vs. a four year institution was examined. Not all college bound students were considered. Only students that were found to be four year college qualified were considered. The purpose of creating a college qualification index was to exclude the participation of those that would not be able to gain admission to a four year institution if they had applied based on their academic scores. In order to be considered four - year college qualified, students had to meet the pre- determined criteria. Berkner and Chavez (1997) defined college qualified as being able to meet at least one of the following minimal values (H.S. GPA=2.7, SAT=820, Aptitude test=56, ACT=19). The

college qualification index developed by Berkner and Chavez for the NELS 88 study was modeled after in order to identify what constitutes “four -year college qualified” amongst the participants of the ELS 2002:2004 population. The initial classification of the graduating seniors was determined using six categories which ranged from very highly qualified to marginally or not qualified. In the current research the college qualification index was determined specifically for the participants of the 2002:2004. All of the categories used in Berkner and Chavez’s 1997 research were not used. In the current research, a student was considered four- year college qualified if their scores on each of the qualifying areas were among the top 75%. Utilizing Berkner and Chavez’s (1997) formula, the minimal criteria for college qualification was established: High School Grade Point Average 2.62, SAT Score=880, ACT=21.

Research Variables

Outcome Variable

The outcome variable indicated the type of institution the individual enrolled in. In the current research the outcome variable was that the student enrolled in either a two year or four year institution.

Independent Variables

The following are the independent variables used in the analyses. (See Appendix A. for the original coding).

Students’ background characteristics:

- Race/ethnicity (A categorical variable indicating students’ ethnicity in which Latinos are considered the reference group).

- Gender (A categorical variable indicating student gender). In the current study it was recoded into a dichotomous variable where 0= male, and 1= female.
- Income (A categorical variable indicating family income). In the current study it was recoded into three dichotomous variables (high income = \$ 75,000 and above, medium income = \$25,000- 74,999, and low income<= \$24,999) where 0= no, and 1= yes.
- Educational aspiration refers to the highest level of education the student expects to complete. It is a categorical variable that was recoded as a dichotomous variable. A bachelor's degree was coded as 0, and above a bachelor's was coded as 1.
- Parent's education- Less than a bachelor's degree was coded as 0, and equal to or above a bachelor's degree was coded as 1.
- Parental encouragement. Parent expects respondent to attain less than a bachelors' degree = 0, and parent expects respondent to attain at least a bachelor's degree and above =1.
- College entrance exams- Dichotomous variable indicating whether student has taken or plans to take the SAT or ACT (1=Yes, 0 = No).
- Preparation for college admissions- Dichotomous variable indicating whether student used one (1=yes) or more than one (1=yes) of the following: classes offered by the school, private classes, books, Videos, computer programs and tutors. Using no test preparation is the reference category.
- Parental Encouragement- Categorical variable recoded as a dichotomous variable indicating the frequency at which they engaged in each type of conversation; 0= Often, and 1= Not often.

- Help from school personnel with college information- Dichotomous variable indicating whether student used either institutional or protective agents as sources of college going information. Students were asked where they have gone for information about the entrance requirements about various colleges. The student was to respond by checking off those that were applicable from a list provided. In this study, guidance counselor, teacher, and coach represent institutional agents, and parent, siblings, other relatives and friends represent protective agents. The variables were recoded, with 1 representing yes, and 0=No). Most of the independent variables are binary variables which required a yes or no by the respondent. Because they are categorical in nature (I.e. race, ethnicity, educational aspiration), it was necessary to create dummy variables.

Statistical Model

Variables were selected by consulting the literature to determine what factors may be relevant to the college choice process for students, and also by reviewing variables present in the database that could be used as indices of the various factors. The database included questions that could be used to represent both cultural and social capital proxies, which are of focal interest in this study. Demographic items were selected to describe some aspects of the student's individual characteristics, and family characteristics. A chart of all variables used in this study, along with the range of values they could assume, is provided in Appendix A. Dummy coding was used to create a reference level and comparison levels for the categorical variables. Ordinal variables (e.g., Likert scale items) will be treated as continuous and do not need dummy coding. Interval variables (e.g., family income) will also be treated as continuous. Variables (including dummy levels) were entered into the logistic regression analysis as predictors with the binary outcome variable (intended level of college enrollment). The analysis used a logistic regression,

due to the categorical nature of the outcome variable (Theilbar et al., 2000). Logistic regression is a quantitative descriptive design that serves to model the probabilities that various predictor variables will have an influence on the outcome variable. Unlike linear regression, these relationships are not assumed to be linear, and the dependent variable does not have a normal distribution (Menard, 1995).

Other important statistical assumptions of logistic regression is that, samples should be large enough to support the number of variables being included in the analysis, and that there is limited multicollinearity (or correlation) among the independent variables (Allison 1999).

Data Analysis

The data from ELS: 2002, 2004, and 2006 datasets were initially analyzed to determine which of the questions would be best suited to represent the independent variables. Missing data was removed from the analysis based on listwise deletion. In terms of collinearity among predicting variables, In 2005, Vaughan and Berry suggested that if collinearity existed, probably the variance, standard error, and parameter estimates are all inflated. A viable remedy for the detection of the existence of multicollinearity is using a Variance Inflation Test (VIF). By examining the size of the VIF for each of the variables, the researcher can then decide which of the independent variables are considered to be redundant and should be dropped from the study. (Miles & Shevlin, 2001). The closer the VIF value is to 10, the less collinearity there would be (Foster, et al., 2006).

This study used a logistic regression method to determine how predictor variables are related to college choice based on the conceptual framework developed for this study. Descriptive statistics were presented as a first step in the analysis. Data was analyzed by

racial/ethnic group to examine the distribution of and cultural and social capital along racial/ethnic lines. Frequencies, means, and cross tabulations were employed for each of the groups. Logistic regression was then conducted. The coefficients can be interpreted either as log odds, odds, or probabilities that the outcome will change with alterations in a given predictor variable (Menard 1995; Pampel, 2000). The Wald statistic or the likelihood ratio was used to evaluate the overall fit of the model to the data. The Wald test evaluates the fit of the variables in the logistic regression model compared to a model with only a constant term. Goodness-of-fit statistics such as the likelihood ratio show how effective the fitted model is in describing the research data. The percent of correct predictions of the outcome by the model, as compared to how the outcome is distributed in the observed data was evaluated. Once the logistic regression (main effects model) analysis was completed, interaction terms were included. Including interaction terms when you have two or more explanatory variables is necessary because variables may actually interact with each other to effect the outcome, so the outcome is dependent not just on each variable on its' own (Menard, 1995).

Limitations

Although there are several advantages to conducting this research, limitations also exist. The research is limited by the availability of the data. One of the many questions that guides the research is “Who have you gone to for college entrance information”? Although this information is helpful, it doesn't help to understand the kinds of information they received regarding the college choice process. This would be an area for future research particularly because of the differences between two and four year institutions in terms of baccalaureate degree attainment.

The second limitation to this research is that in developing a proxy for family income the researcher had to rely on parents' self-reported income. Self-reporting presents methodological issues. Verification on the behalf of the school administration needs to take place. School lunch program applications which are mandatory for each child that attends public could be examined to address this concern.

The third limitation of this study is that although the ELS:2002 does include students with learning disabilities and those that have limited proficiency in English, their inability to complete the survey does exist. Additionally, another concern is that the Parent Survey was conducted in English. Students whose parents' do not have a command of the English language or were not able to obtain help in preparing the survey would not be included in the survey, therefore limiting generalizability. Future research could consider developing survey instruments in other languages, particularly Spanish so that we can gain a more complete understanding of Latinos. Additionally support should be available for students with learning disabilities so that they can fully participate.

CHAPTER IV

RESULTS

The objective of this study was to examine factors related to the college choice decisions of academically prepared Latino students vs. other racial/ethnic groups. Particularly, the study focused on their decision to attend either a two or four year institution. As such, factors which the college choice literature identified as being associated with college choice were included. These factors included gender, family income, cultural capital, and social capital. The results in this chapter are presented in three sections which coincide with the steps used in the analysis. The first section presents descriptive statistics which lists all of the variables included in the study using a cross-tabular frequency distribution, which serves as the baseline for the analysis. This will help to understand the effects of the variables in general. These results provide useful information as to whether the associations between college choice and the various independent variables are different for students based on race and ethnicity. A summary of key findings and an examination of interaction effects by race and ethnicity are presented in this chapter to provide a better understanding of critical factors associated with college choice of Latino students vs. other racial/ethnic groups.

Planned Analysis

Variables

Initially, multicollinearity diagnostics were run for all independent variables in the regression. Multicollinearity was measured by examining the Variance Inflation Factor (VIF) for each of the regressions. VIF indicates the degree to which the standard errors are inflated due to levels of collinearity. A VIF of 10 or greater is an indication of problematic collinearity. After

reviewing the multicollinearity diagnostics, it was concluded that none of the regressions had a VIF that was greater than 10. As such, all of the variables initially discussed were featured in the model. The dependent variable contained in the dataset measured whether the student had indicated that they attended either a two or four year institution. Table 1 illustrates the frequency of distribution of the dependent variable.

Descriptive Statistics

The sample, which consisted of 4,739 respondents, was more likely attend a four year institution (82%) rather than a two year institution. This is much higher than rate of attendance at a four year for the overall ELS:2002 population (58.7%) which can be attributed to the variables used to filter this population for study. Sample used for this research consisted of students that were considered to be four year college qualified only, and attended either a two or four year institution in the fall following immediately following their graduation from high school.

The sample is predominately White (62.1%), with Asians comprising of (7.8%), African Americans (11.9%) Latinos (12.1%), and Other (6%). Females were represented at higher rates than males (56.2% to 43.8%). In terms of income, which is reported as high, medium and low, 41.8% of the respondents were from high income families, 47.5% were from middle income, and only 10.7% were from the lowest income group. The variable representing family income was recoded as income from 0-24,999 indicated low income, 25,000 – 74,999 represented medium income; and reported income of 75,000 and above was recoded as high income. In terms of academic expectations, 42.21% of the respondents expected to obtain at least a bachelors' degree, and 57.8% expected to obtain an advanced degree.

With regard to the cultural capital variables, 58.2% of the respondents reported having parents that earned at least a bachelor's degree. Respondents were also less likely to have taken an SAT/ACT prep course (76.8%). In terms of academic expectations for the respondents, mothers reported that they expected at least a bachelors' degree or an academic credential above that threshold (90.7 %).

Finally, descriptives for social capital variables suggest that 86.1% of the respondents had gone to a counselor for college entrance information, 46.1% had gone to a teacher, and 70.9% had gone to a college representative. In terms of the remaining variables which measured social capital, specifically how often the respondent had conversations regarding various school related topics, it was found that 86.9% often discussed school courses, 88.7% discussed school activities , 87.5% discussed things studied in class, 96.8% discussed grades, 80.4% discussed SAT/ACT , and 99.4% discussed going to college with parents. The last variable will be removed from the study as it has a small category. Only .6% of the students reported not having discussed going to college with their parents.

Table 1
Descriptive Statistics for the Sample Population Categorical Variables

	<u>%</u>	<u># of Students (4739)</u>
<u>Enrolled at 2 year institution</u>	18	852
<u>Enrolled at 4 year institution</u>	82	3887
<u>BACKGROUND CHARACTERISTICS</u>		
<u>Race /ethnicity:</u>		
<u>African American</u>	11.9	566
<u>Asian</u>	7.8	369
<u>Latino</u>	12.1	573
<u>Other</u>	6.0	286
<u>White</u>	62.1	2945
<u>Gender:</u>		
<u>Male</u>	43.8	2077
<u>Female</u>	56.2	2662

Table 1
Descriptive Statistics for the Sample Population Categorical Variables

	%	# of Students (4739)
<u>Student academic aspirations:</u>		
At least a bachelor's degree	42.2	2001
Beyond a bachelor's degree	57.8	2738
<u>Family income level:</u> Low		10.7
Medium	47.5	2251
High	41.8	1979
<u>CULTURAL CAPITAL</u>		
<u>Parents' highest level of education:</u>		
Less than a bachelor degree	41.8	1979
At least a bachelor's degree	58.2	2760
<u>Took or plans to take SAT Prep Course:</u>		
Yes	76.8	3638
No	23.2	1101
<u>Mother's academic aspiration for child:</u>		
Less than a bachelors'	9.3	440
At least a bachelor's	90.7	4299
<u>SOCIAL CAPITAL:</u>		
<u>Has gone to counselor for college entrance information (CEI)</u>		
Yes	86.1	4078
No	13.9	661
<u>Has gone to teacher for (CEI).</u>		
Yes	46.1	2185
No	53.9	2554
<u>Has gone to college representative for (CEI).</u>		
Yes	70.9	3359
No	29.1	1380
<u>How often discussed school with parents?</u>		
Often	86.9	4119
Not often	13.1	620
<u>How often discussed school activities with parents?</u>		
Often	88.7	4203
Not often	11.3	536
<u>How often discussed things studied in class with parents?</u>		
Often	87.5	4146
Not often	12.5	593

Table 1
Descriptive Statistics for the Sample Population Categorical Variables

	<u>%</u>	<u># of Students</u>
<u>How often discussed grades with parents?</u>		
Often	96.8	4585
Not often	3.2	154
<u>How often discussed test prep for SAT/ACT with parents?</u>		
Often	80.4	3808
Not often	19.6	931
<u>How often discussed going to college with parents?</u>		
Often	99.4	4712
Not often	.6	26

Descriptive statistics provides a preliminary understanding of the sample and as such crosstabs were run for the categorical variables and institutional type (Table 2). Overall, 82% of the students were enrolled at a four year institution. The inferential statistics will verify the associations and identify whether the associations are distinct for the students attending a four year versus that of a student attending a two year. In terms of demographic variables, 77.5% of Asian students, 81.4% African American, 80.1% Latinos, 80.1% other and 83.3% of White students were enrolled at four year institutions. These results are not consistent with what is found in the college choice literature. In terms of college enrollment, Asian Americans are less likely to enroll at two year institutions than four year institution; when compared to Latinos and African Americans.(Museus, 2009).

In terms of gender, 82.9% of the male students were enrolled in a four year institution and 81.3% of the female students were enrolled at four year institutions. 74% of the students that expected at least a bachelor's degree were enrolled at four year institutions, 87.9% of the students that had expected to beyond a bachelors' degree enrolled at four year institutions. In

terms of income levels, 88.5% of the high income students, 78.7% of the middle income students, and 71.5% of the low income level students enrolled at four year institutions. In terms of the focal variables, 73.7% of the students enrolled in a four year institution had parents' whose highest educational level was less than a bachelor's degree whereas 88% of the students had parents who had at least a bachelor's degree or above were enrolled at a four year institution. 80.5 % of the students that took an SAT/ACT prep course were enrolled at a four year institution. 83.2% of the respondents whose mother had academic aspirations of at least a bachelor's degree or above for their children were enrolled at a four year institution, whereas only 70.7% of the respondents whose mother's had academic aspirations of less than a bachelors' degree were enrolled in a four year institution.

Variables to be discussed represent proxies for social capital. Social capital variables represent the networks used for college entrance information. With regard to these variables; 82.3% of the sample attending four year institutions had gone to a counselor for information on college entrance information whereas 80.2% of those students that did not. 81.4% of the students that had gone to a teacher for college entrance information attended a four institution as compared with 82.6% that did not. 84.9% of the respondents that had gone to college representatives for college entrance information attended a four institution as compared to 75.1% that did not.

Lastly, the focal variables that represent social capital ask how often a student had various school related discussions with their parents. 81.9% of the respondents that often discussed school courses with parents attended a four year institution versus the 83% that did not. 82.8% of the students that often discussed school activities with their parents attended at a four year institution as compared to the 76.3% that did not. 81.9% of the respondents reported

discussing things studied in class with parents attended a four year institution as compared to the 83% that did not. 82.1% of the respondents that reported discussing grades often with parents attended a four year institution as compared to the 79.2% that did not. 82.6% of the respondents that reported discussing test preparation for SAT/Act examinations attended a four year institution as compared to the 79.8% that did not.

Table 2

Cross Tabs: N= 4739

	2 year%	4 year%
BACKGROUND CHARACTERISTICS		
<u>Race /ethnicity:</u>		
African American	18.6	81.4
Asian	22.5	77.5
Latino	19.9	80.1
Other	19.9	80.1
White	16.7	83.3
<u>Gender:</u>		
Male	17.1	82.9
Female	18.7	81.3
At least a bachelor's degree	26	74.0
Beyond a bachelor's degree	12.1	87.9
<u>Family income level:</u>		
Low	11.5	88.5
Medium	21.3	78.7
High	28.5	71.5
CULTURAL CAPITAL		
<u>Parents highest level of education:</u>		
Less than a bachelor degree	26.3	73.7
At least a bachelor's degree	12	88.0
<u>Took or plans to take SAT Prep Course:</u>		
Yes	19.5	80.5
No	12.8	87.2
<u>Mother's academic aspiration for child:</u>		
Less than a bachelors'	29.3	70.7
At least a bachelor's	16.8	83.2
<u>SOCIAL CAPITAL:</u>		
<u>Has gone to counselor for college entrance information (CEI)</u>		
Yes	17.7	82.3
No	19.8	80.2

Table 2:

<i>Cross Tabs: N= 4739</i>	<i>2 year%</i>	<i>4 year%</i>
<u>Has gone to teacher for CEI</u>		
Yes	18.6	81.4
No	17.4	82.6
<u>Has gone to college representative for CEI</u>		
Yes	15.1	84.9
No	24.9	75.1
<u>How often discussed school courses with parents?</u>		
Often	18.1	81.9
Not often	16.9	83.1
<u>How often discussed school activities with parents?</u>		
Often	17.2	82.8
Not often	23.7	76.3
<u>How often discussed things studied in class</u>		
Often	18.1	81.9
Not often	17	83
<u>How often discussed grades with parents?</u>		
Often	17.9	82.1
Not often	20.8	79.2
<u>How often discussed test prep for SAT/ACT with parents?</u>		
Often	17.4	82.6
Not often	20.2	79.8

In order to gain a sense of each of the distribution of social and cultural capital across sub racial/ethnic populations, cross tabs were examined. Table 3 represents the differences in the various subpopulations. Since the focus of this study is Latino students, the table will be reported referencing this particular group.

Table 3

Cross Tabs of Variables with Race/Ethnicity

N= 4739

Institutional Type	%Blacks	%Asians	%Latinos	%Other	%White
Enrolled at 2 year institution	18.6	22.6	19.9	19.9	16.7
Enrolled at 4 year institution	81.4	77.4	80.1	80.1	83.3
BACKGROUND CHARACTERISTICS					
<u>Gender:</u>					
Male	39.6	38.5	45.2	45.8	44.9
Female	60.4	61.5	54.8	54.2	62.1

Table 3
Cross Tabs of Variables with Race/Ethnicity

	<u>%Blacks</u>	<u>%Asians</u>	<u>%Latinos</u>	<u>%Other</u>	<u>%White</u>
<u>Student academic aspirations:</u>					
At least a bachelor's degree	40.5	42.8	42.6	44.1	42.2
Beyond a bachelor's degree	59.5	57.2	57.4	55.9	44.1
<u>Family income level:</u>					
Low	9.7	14.6	12.2	13.6	9.9
Medium	50.2	46.6	47.8	44.8	47.3
High	40.1	38.8	40	41.6	42.8
<u>CULTURAL CAPITAL</u>					
<u>Parents highest level of education:</u>					
Less than a bachelor degree	44.9	44.2	42.6	41.6	40.7
At least a bachelor's degree	55.1	55.8	57.4	58.4	59.3
<u>Took or plans to take SAT</u>					
<u>Prep Course:</u>					
Yes	23.7	24.9	24.3	20.6	23
No	76.3	75.1	75.7	79.4	77
<u>Mother's academic aspiration for child:</u>					
Less than a bachelors'	10.4	14.6	7.7	7	8.9
At least a bachelor's	89.6	85.4	92.3	93	91.1
<u>SOCIAL CAPITAL:</u>					
<u>Has gone to counselor for college entrance information (CEI)</u>					
Yes	84.8	86.7	83.4	85.7	86.8
No	15.2	13.3	16.6	14.3	13.2
<u>Has gone to teacher for CEI.</u>					
Yes	50.4	43.9	47.8	44.4	45.4
No	49.6	56.1	52.2	55.6	54.6
<u>Has gone to college representative for CEI.</u>					
Yes	71.6	70.5	71.6	71.3	70.7
No	28.4	29.5	28.4	28.7	29.3
<u>How often discussed school courses with parents?</u>					
Often	87.6	85.6	85.2	84.3	87.5
Not often	12.4	14.4	14.8	15.7	12.5
<u>How often discussed school activities with parents?</u>					
Often	87.1	86.7	86	89.2	89.7
Not often	12.9	13.3	14	10.8	10.3

Table 3:
Cross Tabs of Variables with Race/Ethnicity
N= 4739

	%Blacks	%Asians	%Latinos	%Other	%White
<u>How often discussed things</u>					
<u>Studied in class?</u>					
Often	88.2	85.6	86.6	85.7	87.0
Not often	11.8	14.4	13.4	14.3	12.1
<u>How often discussed grades</u>					
<u>with parents?</u>					
Often	97.3	96.7	95.5	94.4	97.1
Not often	9.7	3.3	4.5	5.6	2.9
<u>How often discussed test prep for</u>					
<u>SAT/ACT with parents?</u>					
Often	80.9	77.2	81.2	80.8	80.4
Not often	19.1	22.8	18.8	19.2	19.6

Upon examining Table 3, there are subtle differences in regards to the focal variables for Latino students as compared to their Asian, African American, Other, and White counterparts. In regards to the cultural capital variables, Latino students reported having 57.4% of their parents had at least a bachelor's degree and above. These percentages are similar to those of Asian students (57.2%), African American students (59.5%), Other (55.9%), and White students (59.3%). 24.3% of the Latino students took or planned to take a SAT/ACT course, at similar rates when compared to their Asian (24.9%), African American (23.7%), Other (20.6%), and White (23%) counterparts. In terms of parents' academic aspirations for the student, Mothers' of the Latino students hoped that the student would obtain at least a bachelors' degree at a slightly higher rate (92.3%) than most of their counterparts. Mothers of Asian students reported hoping that the student obtained at least a bachelors' degree at a rate (85.4%). African American students (89.6%), Other (93%) and White students (88.3%).

Latino students were less likely (85.2%) to have discussions with their parents often regarding school courses than their Asians 85.6%, African Americans 87.6%, and Whites

87.5%) counter-parts. However, they were more likely to have discussions with their parents regarding school courses than those students identified as “other” (84.3%) 86% of Latino students reported having discussions regarding school activities with their parents, at a rate which is slightly lower than their Asian (86.7%), African Americans (87.1%), Other (89.2%) and White (89.7%) counterparts. Latino students were more likely to discuss things studied in class (86.6 %) than were their Asian (85.6 %), and “other” (85.7%) counter-parts, However, they fared slightly lower than their African American (88.2%), and White (87.9%) counterparts. Latino students were more likely to have discussions with their parents regarding grades at a slightly higher rate (95.5%) than the “Other” counterparts (94.4%). However, they fared slightly lower than their Asian (96.7%), African American (97.3%), and White (97.1%) counterparts. Latino students were more likely (81.2%) to have had discussions with their parents regarding SAT/ACT test preparation when compared to their Asian (77.2%), African American (80.9%), other (80.8%), and White students (80.4%).

With regard to social capital variables, Latino students were less likely (83.4%) than their Asian (86.7%), African American (84.8%), Other (85.7%), and White (86.8%) counterparts to have gone to a counselor for college entrance information. The Latino student was more likely (47.8%) to have gone to a teacher for college entrance information as compared to Asian (43.9%), other (44.4%), and White (45.4%) students. However, they were less likely to have approached a teacher regarding college entrance information as compared to African American (50.4%) students. Latino students were more likely (71.6%) to go to a college representative for college entrance information as compared to Asian (70.5%), other (71.3%) and White students (70.7%). However, when compared to their African American counterparts, they report having gone to a college representative for college entrance information at the same rate.

Inferential Statistics

This study focused on the cultural and social capital variables of students that were four - year college qualified that attended either a two or four year institution and the impact of these factors on college choice. Social and cultural capital variables of interest are parents' level of education, whether the student took college entrance examinations and exam prep courses. Parents academic aspirations for the child, how often parents discussed academics and academic related topics and whether the student had gone to a particular source in their social network for college going information. Proxies for social and cultural capital were developed by Perna (2000)

The logistic regression provides the odds ratio, which demonstrates the odds of a students' college choice given the effects of the independent variables. In the current research, the odds ratio can be interpreted as the odds of a student choosing to attend a four year vs. a two year institution given the effects of the independent variables. The binary logistic regression was run in order to test the hypotheses that students who possess certain forms of cultural and social capital are more likely to attend a four year vs. a two institution. Of the demographic variables (Asian, Black, Latino, Other, and White), Latino was considered the reference group.

Table 4
Logistic Regression Results- Main Effects model

Variable	B	S.E.	EXP (B)	SIG
Asian	-.128	.172	.880	
Black	.120	.158	1.127	
Other	-.017	.190	.983	
White	.211	.122	1.235	
Medium Income	-.404	.095	.668	***
Low Income	-.640	.134	.527	***
Gender	-.100	.081	.905	
Student Academic Expectations	.790	.081	2.203	***
Parents Educational Level	.644	.087	1.904	***

Table 4
Logistic Regression Results- Main Effects model

Variable	B	S.E.	EXP (B)	SIG
Took SAT/ ACT course	.421	.104	1.524	***
Mother academic expectations				
For student	.359	.120	1.432	**
Has Gone to:				
Counselor for				
College Entrance Information (CEI)	.066	.115	1.068	
Teacher for CEI	-.206	.083	.814	**
College Representative				
for CEI	.567	.085	1.763	***
The frequency at Which Respondent had				
Discussion with parents:				
Often discussed school courses	-.416	.134	.660	**
Often discussed school activities	.321	.130	1.378	**
Often discussed things studied				
In class	-.309	.137	.734	**
Often discussed grades	.236	.229	1.266	
Often discussed SAT ACT	.088	.103	1.092	

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

4,739 participants were eligible for the study, and were considered in this particular regression. Of the variables that measured race, none were considered statistically significant. The reference group for this variable was the Latino students, since the focus of the research was to the college choice of Latino students in comparison to students from various race/ethnic groups. Asian (p=.456), Black (p=.450), Other (p=.927), and White (p=.083) were found not to be statistically significant suggesting that when compared to Latino students the decision to attend a 4 year institution does not differ by race. For the variable that measured income, high income was considered the reference group. Parent income level was significant. The variable representing medium income students was significant (p<.000) and strongly negatively associated with college choice (odds ratio= .668). The odds of a student from a medium income attending a four year institution were just 67% of the odds of high income peers of attending a

four year institution. Additionally, the variable representing low income students was significant ($p < .000$) and strongly negatively associated with college choice (odds ratio = .527). The odds of a student from a low income attending a four year institution were just 53% of the odds of a student from high income peers of attending a four year institution. This suggests that there is a greater advantage for students from the highest income level of attending a four year institution.

Students gender was not significant ($p < .220$; odds ratio = .905). Students having high academic expectations (above a bachelors' degree) was significant ($p < .000$) and positively correlated to college choice (odds ratio = 2.203). Students that expected to obtain academic credentials above a bachelors' degree represented an increase in the odds ratio by a factor of 2.203.

Each of the three cultural capital variables was considered significant. Parents educational level was significant ($p < .000$) and positively related to college choice (odds ratio = 1.904). Having a parent who possessed at least a bachelor's degree represented an increase in the odds ratio by a factor of 1.904. The variable representing students taking a SAT/ACT course was significant ($p < .000$) and positively related to college choice (odds ratio = 1.524). Taking a SAT/ACT course represented an increase in the odds ratio by a factor of 1.524. The variable representing mothers academic expectation for student was significant ($p < .05$) and positively correlated to college choice (odds ratio = 1.432). Having a mother that expected them to obtain a bachelor's degree represented an increase in the odds ratio by a factor of 1.432. There were eight variables that represented social capital. Of the eight three variables that represent the source of college entrance information for students, two were considered significant. Students that received college entrance information from their teacher was significant ($p < .05$), and

negatively correlated to college choice (odds ratio=.814). In other words, for students that received college entrance information from a teacher, the odds of going to a four year institution are 81% of the odds for those that did not receive college entrance information from their teacher. Students that received college entrance information from a college representative was significant ($p<.000$) and positively correlated to college choice (odds ratio=1.763). The student receiving college entrance information from a college representative represented an increase in the odds ratio by a factor of 1.763. Lastly, students that received their college entrance information from a school counselor was not significant ($p<.57$).

The remaining social capital variables represent the frequency at which the student engaged in conversations with their parent. Of these five variables, three were considered significant. Students that often had conversations with their parent regarding school courses was significant ($p<.001$), and negatively correlated to college choice (odds ratio=.660). The odds of a student that discussed school courses with their parents of attending a four year institution were 66% the odds for those students that did not have such discussions with their parents. Students that often had conversations with their parents regarding school activities was significant ($p<.05$) and positively related to college choice (odds ratio=1.378). The student that often discussed school activities with their parents represented an increase of the odds by a factor of 1.378. The variable representing students that often discussed things studied in class with their parents was significant ($p<.05$), and negatively associated with college (odds ratio=.734). For students that often had conversations with their parents regarding things studied in class, the odds of attending a four year institution is 73% of the odds for students that did not discuss things studied in class with their parents. The student having discussions with their parents regarding grades, and SAT exams, was not considered significant ($p<.302$), and ($p<.397$), respectively.

Interaction Effects

In this section results from the interaction tests which included interactions between the social and cultural capital variables and race/ ethnicity are presented. There were three cultural capital variables. The cultural capital variables included parents' educational level, whether the student took an SAT/Act prep course, and mother's academic expectation for student. These variables were tested for interactions by race /ethnicity. The interaction test was run after the logistic regression. Interactions tests were run to include the social capital variables and race/ethnicity. Interaction tests for social capital included whether the student had gone to a counselor, teacher, or a college representative for college entrance information and race/ethnicity. Lastly, interaction tests included the remaining social capital variables that measure how often the student discussed school courses, school activities, things studied in class, grades, SAT, and college with their parents with race/ethnicity. To measure the significance of these interaction effects, Wald tests were conducted to assess the fit of the model. The main purpose of this step of the analysis was to test the hypotheses that the effects of cultural and social capital vary by race/ethnicity. The interaction tests examined the variation of social and cultural capital effects by race/ethnicity, which aids in the understanding of whether social and cultural capital diminishes the effects of race/ethnicity on college choice. As presented earlier, the baseline model demonstrates that cultural and social capital did matter in students' college choice decisions.

Full Model With Interaction Effects

The objective was to interpret the differential effects of cultural and social capital on

college choice by student race/ethnicity. In order to facilitate the interpretation of the interaction effects, the full model was fitted with interaction terms (Asians, African American, Latinos, Other, and Whites). In the current research, Latinos were considered the reference group. The interaction of race was included to determine whether it improves the accuracy of the model. The interaction test examined the variation of cultural and social capital effects by race/ethnicity, which facilitates an understanding of whether race/ethnicity diminishes the effect of social and cultural capital on college choice. Instead of examining each of the variables in isolation, the interaction term of race is added. Instead, the two variables are examined to see how they interact with each other to affect the outcome. So college choice is not dependent on each variable on its own but how those two variables operate together. Among the capital by race/ethnicity interaction terms, none were considered statistically significant, suggesting that the inclusion of these interaction terms did not make a statistically significant contribution to the model. The interaction terms represents how both cultural and social capital vary for each ethnic group relative to the size of the cultural and social capital effect among Latino students.

CHAPTER V

CONCLUSION AND IMPLICATIONS

Over the past thirty years, there has been a vast array of research on student college choice. This literature has focused on the college choice of students attending four year colleges or universities. The research initially used econometric models as a guide, evolving to models that incorporated cultural and social capital. Earlier studies focused on all students. Later research examined the differences in college choice based on racial/ethnic groups. More recently, models that examine student college choice as a decision to attend either a two year versus a four year institution have surfaced. The current research contributes to the existing body of college choice literature by examining student college choice as a decision to attend a two year versus four year institution along racial/ethnic lines. The main goal of this study was to examine the relationship between cultural and social capital and student college choice. By examining data from the ELS 2004, this research has illustrated that it is a viable tool by which to understand the most effective recruitment practices and help to develop outreach programs. Although the ELS 2004 was designed to help researchers and policy makers understand factors which contribute to a students' academic success, it can be used by administrators, parents, and teachers utilizing specific questions related to college choice

The primary research questions that guided the analysis in this research included:

1. How are cultural and social capital distributed by Latino students vs. other race/ethnicity groups?
2. Are there differences in college choice between Latino students and students from other different racial/ethnic backgrounds?

3. How capital and social capital affect college choice? Do the effects vary across Latino students and students from other racial ethnic backgrounds?

The conceptual framework for this research was based upon Perna's (2000) research which considered cultural and social capital when examining the variation in the college enrollment behavior of students of various race/ethnicities. The variation examined was based on selectivity of four year institutions. Included was a population of students that were four- year college qualified and chose to attend either a two or four year institution thereby allowing for the examination of the effects of cultural and social capital on institutional choice.

The main source of data for this research was the Educational Longitudinal Study of 2002 (ELS: 2002). The dataset was obtained from the Institute of Education Sciences, National Center for Education Statistics. The survey which was longitudinal and multi-leveled; collected from students, parents, teachers, and school administrators, from public and private institutions, contained information related to student achievement, aspirations, experiences, influences, and what happens to them later (IES, 2002). The final sample used in this study was 4,739 four- year college qualified students from various race/ethnicities.

Based on the proposed theoretical framework, the data were first analyzed by using cross tabulations to identify patterns and trends between the dependent, independent and control variables. The second step was to conduct a logistic regression to determine how predictor variables are related to college choice. The final step was to optimize the effects of student race on college enrollment patterns through the examination of interaction effects.

This chapter presents the final discussions of the findings of this study, implications for policy and practice, and finally implications for future research.

Summary of Findings

In general, this study found that cultural and social capital were indeed factors associated with enrollment patterns. If a student had been exposed to and engaged in certain behaviors that represent cultural and social capital, they were more likely to attend a four year college or university. There are several key findings that have been identified as a result of the both the descriptive analysis that have identified trends in college enrollment patterns and the logistic regression analysis that determined which factors were associated more with enrolling at a four year institution and which factors may be more likely to describe students that enroll at two year institutions.

The first research question examined how the different types of capital (cultural and social) were distributed by Latino students vs. other race/ ethnicity. When comparing Latino students to Asians, Blacks, Others, and Whites, the results confirmed the following: Blacks and Asians had a lower percentage of parents that held at least a bachelor's degree. Asian – Americans were the only group that held a higher percentage of students that had taken an SAT/ACT prep course when compared to Latinos. Asians and Blacks had a lower percentage of students whose mother expected them to obtain at least a bachelor's degree when compared to Latino students. Latino students had the lowest percentage of students that had gone to a counselor for college entrance information. Blacks were the only group that had a lower percentage of students that had gone to teacher for college entrance information than Latinos. Blacks and Latino students had the highest percentage of students that had gone to a college representative for college entrance information. These findings were consistent with the previous research that Latino students possess less cultural capital than their White counterparts (Perna, 2000). Previous research that examined variations in college choice by race/ethnicity generally

included a comparison amongst Black, Whites and Hispanic students (Perna, 2000; Admon, 2007) This study drew conclusions from a much broader audience by including Asian Americans and “Other” as part the sample. Students in the “Other” category identified themselves as being either Native Hawaiian/Pacific Islander or American Indian/ Alaska Native.

In terms of patterns of parents responsibility (social capital), students that were categorized as “other” had the lowest percentage of students that discussed school courses with their parents (as compared to Latinos). Latino students had the lowest percentage of students that discussed school activities with their parents. Latinos had a higher percentage of students that discussed things studied in class with their parents than Asian and “other” students. Students categorized as “Other” was the only group of students that had a lower percentage of students that discussed grades with their parents than Latinos. Lastly, when compared to other race /ethnicities, Latino had the highest percentage of students that discussed SAT/ ACT test prep with their parents. The pattern that emerges regarding the distribution of cultural and social capital is evidenced in the fact that Latinos rely more on receiving college entrance information from institutional agents than those in the comparison group. Latino students obtain information from college representatives at higher rates than any of the other groups (with the exception of Blacks who received college entrance information from college representatives at similar rates). This is good for this group of students because as we have seen in the logistic regression that the variable “having gone to a college representative for college entrance information” was statistical significant ($p < .000$) and positively correlated (odds ratio = 1.73) to attendance at a four year institution. Latino students also rely on school teachers for college entrance information. This reliance can be problematic as evidenced in the results. The variable “having gone to a school teacher for college entrance information” was statistically significant and negatively correlated

with attendance at a four year institution. For students that received college entrance information from a teacher, the odds of going to a four year institution are 81% of the odds for those that did not receive college entrance information from their teachers.

Additional patterns emerged regarding the distribution of social and cultural capital between Latinos and the other ethnic groups. Namely, Latinos have discussions regarding SAT/Act exams and things studied in class with their parents at higher rates than any other group. This variable was found to be statistically significant and negatively correlated to attendance at a four year institution. The odds of a student that had conversations with their parents regarding this studied in class were 73% of the odds of a student that did not have such conversations. This finding is consistent with Perna and Titus's (2005) research where it was observed that students that had conversation regarding things studied in class with their parents was negatively correlated with attendance at a four year institution. They also established that the nature of such conversations were related to discipline problems.

Although the descriptive analysis revealed that each of the race/ethnicities differed in the amounts of cultural and social capital possessed, the logistic regression analysis revealed that race of the student was not significant, which is inconsistent with other research findings (Perna, 2000; Kurleander 2006; Hurtado, et. al 1997). This could be because in the current research Latinos were used as the reference category. In the previously mentioned literature (Perna, 2000; Kurleander 2006; Hurtado, et. al 1997) Whites were considered the reference category. So when compared to Latinos in regards to their college going behaviors; the race of the student was not considered a significant predictor of educational outcomes. Yet another explanation as to why race of the student was not significant in the amounts of cultural and social capital possessed is that in the current study income was not controlled for. In this particular sample, a mere 10% of

the students were from lower income groups, whereas 90% of were from middle and higher income groups. Meaning that income was not controlled for and the results could be a function of income as opposed to race of the student.

The second research question attempted to link college choice with race/ ethnicity. In terms of whether the decision to attend a four vs. a two year institution was associated with race, this study found that when comparing Latino students to their Asian, Black White and “Other” counterparts they enrolled at four year institutions at lower rates than their White and Black counterparts. They enrolled at four year institutions at similar rates as their “Other” counterparts. However, they enrolled at four year institutions at higher rates than their Asian counterparts. This finding is inconsistent with the college choice literature. In terms of college enrollment, Asian Americans are less likely to enroll at two year institutions than four year institution; when compared to Latinos and African Americans. There are two plausible explanations for this difference. Perna, Steele, Woda, and Hibbert (2005) found that low SES high school graduates who enroll in postsecondary education are more likely to enroll in an in state two year public institution than they would a four year college or university. In the current research, the sample of Asian Americans consisted of more lower income students (14.6%), when compared to the 9.6% of low income African Americans and the 12.2% of Latino low income Latino students. The fact that there was a higher percentage of low income Asian Americans in the sample could account for their lowest rates of attendance at a four year university. A second plausible explanation for Asians having the lowest rate of enrollment at a four year university could lie in the fact that in the sample Asian students were aggregated. Museus (2009), asserted that Asians are a group that achieves academic success, however, it was also asserted that upon closer examination by the various ethnic groups, some groups are not as successful as others. Teranishi,

Ceja, Anthony; Allen and McDonough (2004) examined the college choice process among Asians in terms of selectivity. They found that there were differences in college choice among Japanese, Chinese, Korean, and Filipino Americans. Although the unit under study was four year institutions, it highlights the fact that there are differences amongst the groups. In the current research, Asians in the sample were aggregated so it is not clear whether the participants were from groups that would be more likely to choose a two year institution. The race variable included in the analysis was not considered statistically significant.

Lastly, the third research question examined the effects of cultural and social capital on college choice and the possible variation in the effects by race/ethnicity. How does cultural capital and social capital affect college choice? In an examination of the variation of social and cultural capital effects by race/ethnicity; the effects of social and cultural capital on college choice were found to be the same across different racial/ethnic groups.

Implications for Policy and Practice

The findings of this study provide important implications for policy makers, administrators, student affairs professionals, teachers, and parents in understanding college choice. Using the ELS 2004 dataset provides a reliable and valid instrument that can be used in innovative ways to improve college choice and baccalaureate degree attainment. This research has identified several factors that are associated with college choice. Many of the following recommendations are consistent with the findings of Perna (2000) in her study of college choice amongst students of various races /ethnicity, and their decision to attend a four year institution,

One conclusion that can be drawn from the current research is that the variables that were found to be statistically significant need to be further examined to determine best practices to enhance enrollment of students at four year institutions.

Academic Expectations. The current research reveals that a student's academic expectation impacts their college choice. Specifically, it was found that students that expected to obtain an advanced degree were more likely to enroll at a four institution. This information can be used to develop leadership academies at the high school and middle school level so that students develop these types of academic expectations early on.

SAT/ACT Prep Course. In the current research it was found that students that had taken an SAT/ACT prep course were more likely to enroll at a four year institution. This information can be used by high school administrators to perhaps reexamine their current curriculum and offer an SAT/ACT prep course as a requirement for graduation. By making it a required course, all students could benefit by increasing their likelihood to attend four year institutions.

Parental Involvement. Consistent with previous literature (Perna and Titus, 2005), is the finding that parents that were involved with their children's academic careers were more likely to attend a four year institution. Specifically, the current research found that students whose mother expected them to obtain at least a bachelors' degree were more likely to attend a four year institution. Additionally, in terms of parental involvement, it was found that students' that had conversations with their parents regarding school activities were more likely to attend a four year institution. This author suggests that in light of this information, school boards, student advocacy groups, and school administrators should take a more proactive stance on informing parents how their involvement is a much needed resource for successful student outcomes. Programs could be

developed to place the responsibility for the students' educational outcomes on the parents. Provide parents with college entrance information so that they will not have such a heavy reliance on the schools for doing so. If need be offer the instruction in the parents first language so that they can be of assistance. It was found that parents do in fact have high expectations for their students; by providing them with the necessary ,tools educational outcomes can be improved

Teacher Involvement

Another variable that was found to be statistically significant and requires further examination would be in the case of teacher involvement as a proxy for social capital. The logistic regression analysis revealed that students that had gone to a teacher for college entrance information were less likely to attend a four year institution. One possible explanation is that there exists a self – selection issue. Namely, students that had received college going information from the teacher might tend to have more problems. A qualitative study examining the types of students who often receive information from teachers, and the extent and quality of the college entrance information being imparted is necessary. Through this type of research, the kinds of college entrance information they are receiving from teachers can be identified and can be addressed appropriately.

In summary, college enrollment at four year institutions can be increased by developing policies and practices that support students that are four -year college qualified and do not have access, nor the ability to convert this capital. This study has shown that it is important to find ways to encourage four -year college qualified students to attend a four year institution.

Implications for Future Research

This study focused on the relationship between cultural and social capital variables and the decision of four- year college qualified students to enroll in a two year versus a four year institution. While the intent of this research was to enhance the existing literature by examining the college choice of Latino students by comparing them to various race/ethnicities, there are still other avenues to explore in terms of research in this particular area. It is the intent of this researcher to inspire others to conduct research on this timely issue.

First, this study should be replicated using disaggregated data on Latino students. In this research Latinos were aggregated. According to Education Statistics (2013) , baccalaureate degree attainment varies amongst Latino students. Although the current research is designed to examine college choice and not persistence, research suggests that students that enroll at four year institutions are more likely to earn a bachelors' degree when compared to those that do not. With that being said, if there are variations in the rate at which the Latinos obtain a baccalaureate degree, then perhaps future higher education research should examine the variation by which they enroll at four year institution. This research would help to understand that enrollment at four year institutions is not problematic for all Latinos, however, some more than others. The ELS:2002 database contains subgroup composite information on each race/ ethnicity. In this particular database information for the variable Hispanic provides information about the Hispanic subgroup membership. The various categories listed for the variable are: Mexican, Cuban, Dominican, Puerto Rican, Central American, and South American.

Secondly, future research should examine the college choice of four year college qualified Latinos by income level. The descriptive analysis revealed that students from the

lowest income group enrolled at four year institutions at a higher rate than those from both the middle and high income group. Additional qualitative research can aid in the understanding of college enrollment patterns.

Third, future research should utilize a sample that includes four- year college qualified students that did not express that they expected to obtain a bachelors' degree. Although research has indicated that students who intend to obtain a bachelors' degree are more likely to choose a four year institution. A qualitative study on four- year college qualified students that do not expect to obtain a four year degree in order to determine why they don't hold such expectations for themselves would aid in identifying such obstacles. If these students are four -year college qualified then they are at the very least able to take on the academic rigors of four year college attendance and half of their battle is accounted for. Identifying such obstacles as to why this particular group of students do not hold such expectations might be useful in increasing their enrollment at four year institutions.

Fourth, Given the fact that students that receive college entrance information from their teachers are more likely to attend a two year institution, qualitative research is needed which closely examines students and teacher's perspectives on the college going process in order to examine where the disconnect exists. This would be useful in the identification of policy and practices to assist them.

Fifth, in terms of migration patterns, Latinos are often concentrated in specific areas such as California, Florida, Massachusetts, New York, New Jersey and Texas. To that end, state level analyses would aid in understanding Latino student college choice.

Since there are other variables that perhaps can be included as cultural and social capital, perhaps future research can pair ELS:2002 with other predictor variables not included in this study. Researchers can link the data with other data sources. Specifically, the National Center for Education Statistics collects data on Crime and Safety from primary and secondary schools across the nation. The Crime and Safety Survey examines the school environment. They question students regarding the availability of drugs and alcohol, other behaviors that are of concern are bullying and fighting at school, hate related behaviors, gun and weapon carrying, and lastly whether there are gangs at the school. Examining the school environment can provide additional insight on how the quality of the school can predict educational outcomes.

Lastly, since ELS 2002 contains so many data and is the second part of a longitudinal study, research can be conducted utilizing data contained in the third wave to examine degree attainment 8 years after graduating from high school. The third wave contains information pertaining to degree attainment and the pathways to degree attainment used by students. A study of this nature could potentially reveal whether a new model of college choice exists for students.

Concluding Remarks

As a result of the research, several factors were identified as having an effect on college choice not only for Latino students, but for students of all races. Factors such as the disparity in the amounts and quality of the resources is a concern for college admissions officers. Particularly in the case of the Latino student, where this fast growing population is at disadvantage in terms of having access to these various forms of capital. The growing concern has influenced many admission discussions. Who is more likely to go to a four year and why? The literature about Latino students clearly demonstrates that they are different from their peers in terms of life

experiences, resource allocation, and responsibilities with regard to family. The purpose of this study was to determine if these students were also different in regards to the amounts of resources available in the form of cultural and social capital, and how this affects their choice of college. There is little research about how these factors are associated with the college choice of this growing population; particularly, in respect to the decision to attend a two year institution versus a four year institution. During the college admissions process, all students are treated the same, and if populations of students are different, then the academy should reconsider how they reach and recruit this population. College choice research was designed specifically to help more students go to college, and in general terms foster more positive student outcomes. Most of this research has focused on White students and their attendance at a four year institution. The current research focused on Latino students. As this population continues to grow, it is imperative that parents, teachers, and administrators understand the factors that help students choose a four year institution. This study was specifically designed to determine whether cultural and social capital variables related to college choice were distinct for Latino students as compared to Asian, Black, White, and Other students. I hope that the empirical evidence as well as the recommendations provided in this dissertation can assist policy makers, practitioners at baccalaureate degree granting institutions, high school teachers and administrators, parents and students themselves understand the factors that are positively associated with attendance at a four year institution. Those that understand the obstacles associated with Latinos attending a four year institution are in a better position to develop programs and strategies that can eliminate such barriers.

References

- Adelman, C. (1999). *Answers in the Toolbox: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*. Washington D.C.: Office of Educational Research and Improvement, U.S. Department of Education.
- Allison, P. (2001). *Missing data*. California: Sage Publications.
- Astin, A. (1993). *What matters in college: four critical years revisited*. San Francisco: Jossey-Bass.
- Babbie, E. (2007). *Basics of social research*. Cengage Learning.
- Baker, T., & Velez, W. (1996). Access and opportunity in postsecondary education in the United States: A review. *Sociology of Education*, 82-101.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologists*, 44 (9): 1175-1184.
- Becker, G. (1962). Investment in humancapital: A theoretical analysis. *Journal of Political Economy*, 70:5, 9-49.
- Berner, L. a. (1997). *Access to postsecondary education for the 1992 Graduate*. Washington D.C.: National Center for Education Statistics, U.S. Department of Education.
- Board, C. (2013). *Trends in college pricing*. NJ: College Board.
- Bourdieu, P. (1977). *Cultural reproduction and social reproduction: Power and ideology in education*. New York: Oxford University Press.
- Bourdieu, P., & Passeron, J. (1977). *Reproduction in education, society, and culture*. Beverly Hills California: Sage.
- Bowen, W., & Bok, D. (2000). *The shape of the river: long term consequences of considering race in college and university admissions*. Princeton, New Jersey: Princeton University Press.
- Burt, R. (1992). *Structural holes, the social structure of competetion*. Ma: Harvard University Press.
- Cabrera, A., & LaNasa, S. (200). Understanding the college choice process. *New Directions for Institutional Research*, 107: 5-23.

- Cabrera, A., & LaNasa, S. (2000). Overcoming the tasks on the path to college for America's disadvantaged. In A. Cabrera, *Understanding the college choice process of disadvantaged students* (pp. 31-44). San Francisco: Josey Bass.
- Ceja, M. (2006). Understanding the role of parents and siblings as information sources in the college choice process of chicana students. *Journal of College Student Development*, 47 (1): 87-104.
- Chapman, D.W. A model of student college choice. *Journal of Higher Education*, 52 (September, October, 1981), 490-505
- Cizek, G. F. (1999). An introduction to logistic regression. *Measurement and Evaluation in Counseling and Development*, 3:4 223-244.
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of*.
- DesJardines, S. D. (2006). An integrated model of application, admission, enrollment, and financial aid. *Journal of Higher Education*, 381-429.
- DiMaggio, P. (1982). Cultural capital and school success: The impact of status culture participation on the grades of US high school students. *American Sociological Review*, 189-201.
- DiMaggio, P., & and Mohr, J. (1985). Cultural capital, educational attainment, and marital selection. *American Journal of Sociology*, 90 (6) 1231-1261.
- Duderstadt, J. J., and F. W. Womack. 2003. Beyond the crossroads: *The future of the public university in America*. Baltimore, MD: The Johns Hopkins University Press.
- Durkeim, E. (1956). *Education and sociology*. Free Press.
- Gandara, P. (1994). Choosing higher education: Educationally ambitious chicanos and the path to social mobility. *Education Policy Analysis Archives*, 2:8.
- Gonzales, K. S., & and Jovell, J. (2003). Examining the role of social capital in access to college for Latinas: Towards a college opportunity framework. *Journal of Hispanic Higher Education*, 2:146-170.
- Hearn, J. (1991). Academic and non academic influences on the college destinations of 1980 high school graduates. *Sociology of Education*, 64 (3): 158-171.
- Heller, D. (1998). Student price response in higher education: An update to Leslie and Brinkman. *Journal of Higher Education*, 68: 624-659.

- Hofferth, S., & Boisjoly, J. G. (1998). Parents' extrafamilial resources and children's school attainment. *Sociology of Education*, 71: 246-268.
- Horvat, E. (2001). Understanding equity and access in higher education: The potential contribution of Pierre Bourdieu. *Higher Education: Handbook of Theory and Research*, 16:195-238.
- Hurtado, S., Inkelas, K., Briggs, C., & Rhee, B. (1997). Difference in college access choice among racial/ethnic Groups: Identifying continuing barriers. *Research in Higher Education*, 38 (1) 43-75.
- Hussan, S., William, K., Bianco, G., Frolich, K., Kemp, P., & Tahan, K. (2011). *The Condition of Education Statistics*. Washington D.C.: NATinal CEnter of Education Statistics.
- Ingels, S., Burns, L., Chen, X., Forreswst, E., Cataldi, & Charleston, S. (2005). *A profile of the American high school sophomore in 2002: Initial Results From the Base Year of the Education Longitudinal Study 2002*. Washington D.C.: US Department of Education, National Center for Education Statistics.
- Jackson, G. (1990). Financial aid, college entry, and affirmative action. *American Journal of Higher Education*, 98 (4) 523-550.
- Kim, D. (2004). The effect of financial aid on students' college choice: Differences by racial groups. *Research in Higher Education*, 45 (1) 43-70.
- Klevorick, A. (1975). Law and Economic Theory: An Economists View. *American Economic Review*, 65: 237-243.
- Kurleander, M. (2006). Choosing community college: Factors affecting college choice. *New Directions for Community College*, 133, 7-16.
- Lamont, M., & Lareau, A. (1988). Cultural capital: allusions, gaps, and glissandos in recent theoretical developments. *Sociological Theory*, 6 , 153-168.
- Laureau, A. (1987). Social class differences in family-school relationships: The importance of cultural capital. *Sociology of Education*, 60: 73-85.
- Leslie, L., & Brinkman, P. (1988). The economic value of higher education. *American Council on Education*. New York : Macmillian.
- Lin, N. (2000). Inequality in social capital. *Contemporary Sociology*, 29:6, 785-795.
- Litten, L. (1982). Different strokes in the applicant pool: Some refinements in a model of student college choice. *Journal of Higher Education*, 53 (4), 383-401.

- Manski, C., & Wise, D. (1983). *College choice in America*. Cambridge, MA: Harvard University Press.
- Matute, B. (1991). Situational ethnicities and patterns of school performance among immigrant and non-immigrant Mexican descent students. In M. Gibson, & J. Ogbu, *Minority Status and Schooling*. New York: Garland Publications.
- McDonough, P. (1997) *Choosing colleges: How social class and structure opportunity*. Albany State University of New York.
- McDonough, P. (1998). Understanding Latino and Latina college choice a social capital and chain migration analysis. *Journal of Hispanic Higher Education*, 7:3, 249-265.
- McDonough, P. (2004). *The school to college transition: Challenges and prospects*. Washington DC: American Council To Colleges.
- McDonough, P. C., & Soloranzo, D. (2004). Building models of Latino/a's college choice. *American Educational Research Association*. San Jose California.
- McDonough, P., Antonio, A., & Horvat, E. (1998). College choice as capital conversion and investment: A New Model. *Review of Higher Education*, V 21:2 202-212.
- Menard. (1995). *Applied logistic regression analysis*. Thousand Oaks, Ca: Sage.
- Miles, J., & Gilbert, P. (2005). *A handbook of research methods for clinical and health psychology*. New York: Oxford University Press.
- Museum, S. (2009). Critical analysis of the invisibility of Southeast Asian American students in higher education research and discourse.
Journal of Student College Development 49 (6) 568-586
- O'Connor, N. (2009). Hispanic origin, socio-economic status, and community college enrollment. *The Journal of Higher Education*, 80(2), 121-145.
- O'Brien, R. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality and Quantity*, 41 (5), 673-690.
- Organization of Economic Development (2012). *What are the returns on higher education for individuals and countries?* Education in Focus.
- Pampel, F. (2000). *Logistic regression: A primer*. Thousand Oaks, California: Sage.

- Pascarella, E., & Terenzini, P. (1991). *Insights from twenty years of research*. San Francisco, Josey Bass.
- Paulsen, M., & St. John, E. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. *Journal of Higher Education*, 73 (2) 189-236.
- Pena, L. (2007). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *The Journal of Higher Education*, 133, 51-66.
- Perna, L. (2000). Differences in the decision to attend college among African Americans, Hispanics, and Whites. *Journal of Higher Education*, 71 (2) 117-141.
- Perna, L., & Titus, M. (2007). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ ethnic group differences. *The Journal of Higher Education*, 76 (5).
- Person, A., & Rosenbaum, a. (2006). Chain enrollment and college enclaves: Benefits and drawbacks of Latino college student's enrollment decisions. *New Directions for Community Colleges*, 133: 51-60.
- Portes, A. (1998). Social capital: Its origins and applications on modern Sociology. *Annual Review of Sociology*, 22, 1-24.
- Portes, A., & Landolt, P. (1996). The downside of cultural capital. *The American Prospect*, 18-21.
- Putnam, R. (1993). The prosperous community: Social capital and public life. *The American Prospect*, Spring 35-42.
- Sewell, W., & Shah, V.; Socioeconomic Status, Intelligence, and the Attainment of Higher Education of *Education, Sociology*, Vol. 40, No. 1 (Winter, 1967) pp. 1-23.
- St. John, E., & Noell, J. (1989). The effects of student financial aid on access to higher education: An analysis of progress with special consideration of minority enrollments. *Research in Higher Education*, 30 (6), 563-581.
- St. John, E. (1991). What really influences minority attendance? Sequential analysis of the high school and beyond cohort. *Research in Higher Education*, 32 (2) 141-158.
- St. John, E., Paulsen, M., & Starkey, J. (1996). The nexus between college choice and persistence. *Research in Higher Education*, 37, 175-220.

- Stanton- Salazar, R. (1997). A social capital framework for understanding the socialization of racial minority children and youths. *Harvard Educational Review*, 67 (1) 1-40.
- Swail, W., Cabrera, A., & Lee, C. (2004). *Latino youth and the pathway to college*. Washington, D.C.: American Higher Education Report.
- Talavera-Bustillos, V. (1998). Chicana college access: An analysis of first generation Chicana student experiences. *American Educational Research Association*. Chicago, Illinois.
- Theilbar, M. C., Michael, M., Palette, J., & Marovich, P. (2000). *Statistics I*. SAS Institute.
- Tinto, V. (1987). *Leaving college: rethinking the causes and cures of student attrition*. Chicago, Illinois: University of Chicago Press.
- Tornatzky, L., Cutler, R., & Lee, J. (2002). *College knowledge: What Latino parents need to know and why they don't know it*. CA: The Tomas Rivera Policy Institute.
- US Census Bureau (2001). The Hispanic population: Census Bureau 2010 brief. US Bureau of The Census.
- Valenzuela. (1999). *Subtractive schooling: U.S. Mexican youth and the politics of caring*. Albany, New York: State University of New York Press.
- Vaughan, T. a. (2005). Using Monte Carlo techniques to demonstrate the meaning and implications of multicollinearity. *Journal of Education Statistics*, 13 (1).
- Weber, M. (1946). Class status, and poverty. In M. Wright, *From Max Weber*. New York : Oxford University.
- Yosso, T. (2005). Whose culture has capital? A critical race theory discussion of community cultural ealth. *Race, Ethnicity, and Education*, 8 (1) 69-91.

Appendix A Variables and their Construction

Institutional Type

The focus of the current research was to determine factors associated with college choice at a two vs. a four year institution, values of students enrolled at four year institutions was grouped and coded as 1, and those that attended a two year institution was coded as 0. The ELS question that serves as a dependent variable is taken from two variables. The question asks the student for the month and year they first began attending a postsecondary institution. Only those students indicating a start date of Sept 2004 will be considered for the sample because the study is designed to reflect responses of those students attending college immediately (the first fall after) high school graduation.

Independent Variables

As noted in the methodology section, the variables of interest focused on cultural and social capital in addition to background characteristics.

Race/ethnicity . A categorical variable indicating students' ethnicity, where Latino is the reference. The ELS 2002 indicator for race is BYRACE which lists several possible race/ethnic backgrounds. This variable was transformed into dummy coded variable were "other" was coded as 1, Asian Americans were coded as 2, African Americans were recoded as 3 , White was recoded as 4, and Latino students were coded as 5.

Gender. A categorical variable indicating student gender. In the current study it was recoded into a dichotomous variable where 0= male, and 1= female.

Income . A categorical variable indicating family income. In the current study it was recoded into three dichotomous variables : high income = \$ 75,000 and above, medium

income = \$25,000- 74,999 , and low income= \$24,999) where 0= no, and 1= yes.

Educational aspiration. Refers to the highest level of education the student expects to complete. It is a categorical variable that was recoded as a dichotomous variable. A bachelors' degree was coded as 0, and above a bachelor's was coded as 1. Parent's education recoded as a dichotomous variable . Less than a bachelor's degree was coded as 0 , and equal to or above a bachelor's degree was coded as 1.

Parental encouragement. recoded as a dichotomous variable . Parent expects respondent to attain less than a bachelors' degree = 0, and parent expected respondent to attain at least a bachelor's degree and above =1.

College entrance exams. Dichotomous variable indicating whether student has taken or plans to take the SAT or ACT (1=Yes, 0 = No).

Preparation for college admissions. Dichotomous variable indicating whether student used one (1=yes) or more than one (1=yes) of the following: classes offered by the school, private classes, books, Videos, computer programs and tutors. Using no test preparation is the reference category

Parental Encouragement. Categorical indicator representing how often a student had discussions regarding academics and future plans. The student indicated how often they engaged in conversations regarding: selecting courses or programs at school, things you've studied in class, your grades, plans and preparation for SAT tests, and going to college. The responses were "never", "sometimes", and "often". Categorical variable collapsed to two categories; Often and not often, the respondents for never were included in the not often

category. Categorical variable recoded as a dichotomous variable indicating the frequency at which they engaged in each type of conversation; 0= Often, and 1= Not often.

Help from school personnel with college information. Dichotomous variable indicating whether student used either institutional or protective agents as sources of college going information. Students indicated the source for college entrance information. The student was to responded by identifying the applicable source from a list provided. In this study, guidance counselor, teacher, and coach represent institutional agents, and parent, siblings, other relatives and friends represent protective agents. The variables were recoded, with 1 represented yes, and 0 represented no.