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## **Factors affecting Institutional Choice of Minority Students admitted to Institutions in the Council for Christian Colleges and Universities**

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FACTORS AFFECTING INSTITUTIONAL CHOICE OF MINORITY STUDENTS  
ADMITTED TO INSTITUTIONS IN THE COUNCIL FOR CHRISTIAN COLLEGES  
AND UNIVERSITIES

FACTORS AFFECTING INSTITUTIONAL CHOICE OF MINORITY STUDENTS  
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AND UNIVERSITIES

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Education in Higher Education

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## **ABSTRACT**

The study examined the factors that affected minority students' choice to enroll at private faith-based 4-year institutions in the Council of Christian Colleges and Universities (CCCU) in the United States. These factors included: minority students' demographic and background characteristics, financial factors, perceived institutional characteristics, and institutional marketing strategies. The theoretical framework for this study focused on Maguire and Lay's (1981) college choice model as well as Hossler and Gallagher's (1987) three phase college choice theory. This study also drew on the Critical Race Theory as a lens through which to examine minority student college choice.

The study utilized the data from College Board's ASQ PLUS survey. The final sample included 283 admitted minority students from eight CCCU member institutions, which participated in the ASQ PLUS survey between 2005 and 2010 years. The researcher used descriptive statistics, Chi-Square, *t*-Tests, and Logistic Regression to examine the data. The results from Chi-Square and *t*-Tests revealed that race, parents' income, high school GPA, institution's distance from home, financial aid awards (i.e., grants and loans), institutional recruitment strategies (i.e., campus interaction, electronic communication, and web site), and perceived institutional characteristics (i.e., extracurricular activities, recreational facilities, academic facilities, availability of majors, and academic reputation) all significantly related to minority students' decision to enroll at a CCCU member institution. However, in the final logistic regression, only high school GPA, campus interaction, and promotional materials remained significant. The findings of this study have important implications for policy and practice that can potentially aid CCCU member institutions to better recruit and serve minority student populations.

This dissertation is approved for  
Recommendation to the  
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## **DEDICATION**

I would like to dedicate this research first of all to my family because of their support and dedication to my entire educational process. It is because of my parent's dedication to break the cycle of poverty through education that I have been given the opportunity to become the first person in my family to earn a doctorate. I also dedicate this dissertation to my wife Michelle. It is because of her unfailing love for me and her support through the late nights and weekends that I have been able to complete this part of my educational journey. Thank you also to my daughter Caroline for her patience with dad. I hope that when you grow up, you too will appreciate the academic process.

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# I. INTRODUCTION

## Context of the Problem

People of all nations are heading into a future that is more globally focused than ever before in our history. As this global economy continues to develop, it demands that its leaders have a background in which they have been exposed to a wide variety of experiences and training. This future economy will consist of speed, complexity, risk, change and few geographic boundaries (Canton, 2006; Freeman, 2006). One of the key training experiences for tomorrow's leaders is found in the system of higher education. The experiences that students receive on their institution's campus or even online will shape the way that they engage with the world. One of those key educational experiences comes through engaging with a diverse group of students. The next generation of successful leaders in the global marketplace will be those who are exposed to, and interact with, diversity at the collegiate level (Bollinger, 2007). Diversity can encompass many definitions including racial diversity, international diversity, sexual diversity, religious diversity, or economic diversity. While many higher education institutions have found ways to increase many of these forms of diversity on their campuses, including international diversity, the ability to increase racial diversity still eludes many institutions. One way that institutions have addressed the lack of racial diversity on their campuses has been through the admissions process (Munce, 2005). This study intends to inform higher education institutions how to better attract, recruit, and serve minority student populations by examining the factors that influence their college choice process.

Diversity in higher education was greatly influenced by the Civil Rights Act of 1964 and then by the Higher Education Act of 1965 in which the legal system of the U.S. determined that minority students should have the right to a postsecondary education.

Even as late as 2003, the University of Michigan took their race conscious admissions practice to the Supreme Court while defending that having a diverse student body was paramount to providing a comprehensive education (Paredes-Collins, 2009). Even after a half century of reforms in the admissions processes of postsecondary institutions, diversity still remains an issue. In the U.S. higher education system in 1979, only 15% of the students were minorities compared with 32% in 2007 and 33% in 2008 at public 4-year institutions (NCES, 2010). While the numbers of enrolled minority students have continued to increase, they have not paralleled the population growth of minorities in the U.S. By 2050, the U.S. Census (2008) projected that half of the U.S. population will be made up of racial minorities and one third of that number will be Latino/a. Hence, institutions of higher education must increase the percentage of minority students admitted to their institutions if they are going to keep pace with the projected growth in diversity within the U.S. over the next forty years. Another outcome of obtaining a degree was the projected income level of those graduates. Income data indicated that people with bachelor's degrees earned substantially more than those without them (Schmidt, 2008). If the current admissions trend for minority students continued, a greater proportion of the U.S. citizenry would not have an advanced education, and the White American population would continue to comprise the privileged elite in the society.

Another disparity was found in the type of institutions that minorities chose to attend. In 2008, 17% of the Hispanic and 14% of the African American population were enrolled in public 2-year institutions where only 10% of the Hispanic and 11% of the African American students were enrolled in public 4-year institutions (NCES, 2010). This trend indicated that even the smaller number of minorities who received some form

of postsecondary education, did so at the 2-year institutional level. This choice negatively affected their future income level and their ability to move up the socioeconomic and civic ladder (Hurtado, 2007). The benefits of higher education were not limited to only financial benefits, but also included greater job satisfaction, better quality of life, increased voting participation, and volunteerism among college graduates (Baum, Ma, & Payea, 2010).

While the picture of diversity in the public sector was cause for concern, the racial profile of private faith-based, 4-year institutions in the Council of Christian Colleges and Universities (CCCCU) depicted an even more troubling situation. The diversity of students in the CCCCU has been a longstanding problem to which much energy and effort on the national level has been devoted. In 1999, the former Council President Robert Andringa identified diversity as a key issue and challenge for member institutions. In 2005, only 15% of the students enrolled in the CCCCU were minority compared with a national average of 27.4% (Noel-Levitz, 2010). In a 2009 study, the CCCCU member institutions had only risen to a minority student enrollment level of 19% while the national average had risen to 33% (Institute for College Access and Success, 2008; NCES, 2010; Noel-Levitz, 2010). Ethnic and racial diversity for CCCCU institutions continued to be a struggle. Many of these institutions, like their secular counterparts, found a moderate number of international students to diversify their student body, but racial diversity growth in the form of U.S. citizens remained a slow process. The findings suggested that while students at CCCCUs are receiving more exposure to multiculturalism from the international students, their educational experience has been inhibited from lack of interaction with diverse U.S. citizens (Noel-Leviz, 2010). A marketing research study of the CCCCU member institutions in 2010, conducted by Noel-

Levitz, found that many alumni were disappointed in the diversity of the student body that they actually encountered at their institutions and that many were “less than satisfied with their ability to relate well to people from other backgrounds” (p. 19). These findings indicated that even the alumni from these institutions understood the importance of interacting with diverse students in an educational environment.

Many researchers have highlighted the importance of diversity in the classroom. The findings indicated that having diversity in the classroom had a significant positive effect on the learning experience. Having a racially diverse learning environment increased problem solving and group skills, created openness to diversity, fostered cognitive development, reinforced self-confidence, and encouraged individual development (Bollinger, 2007; Chang, 1999; Gurin, 2004; Lising, Chang, Hakuta, Kenny, Levin & Milem, 2004; Paredes-Collins, 2009; Schmidt, 2010; Tierney, 1993; Umbach & Kuh, 2006). These are the skills needed by the next generation of leaders in a global marketplace. These are the skills that enable leaders to quickly adapt to diverse perspectives as they interact in the global economy. These are the skills that will need to be acquired in the learning laboratory of the collegiate experience. This diversity of experiences can only happen if institutions of higher education begin to enroll a more diverse student body. One small step toward increasing diversity across CCCU institutions is to examine and address the barriers in the admission process for U.S. minority students.

### **Statement of the Purpose**

The purpose of this study was to examine what factors affected minority students' choice to enroll at a private faith-based 4-year institution in the United States. Private faith-based 4-year institutions in this study were members of the Council of Christian

Colleges and Universities (CCCU). The CCCU is an association of 110 Christian Higher Education member institutions nationwide that were committed to “advancing the cause of Christ-centered higher education and to help our institutions transform lives by faithfully relating scholarship and service to biblical truth” (CCCU, 2010, para 3). They are fully-accredited, U.S. based institutions that distinctly hire Christians for all full-time faculty and staff positions. This study focused on Maguire and Lay’s (1981) development of the college choice model which identified specific factors affecting the actual choice process of the student. This study also utilized Hossler and Gallagher’s (1987) college choice theory. This theory was a three phase theory beginning with a predisposition phase, followed by a search phase and concluding with a choice phase. The scope of the present study was limited to only the third phase or choice phase of the model. This study also drew on the Critical Race Theory (Evans et al., 2010; Soloranzo et al., 2005) as a lens through which to examine minority student college choice.

### **Statement of Research Questions**

The study considered five research questions to examine the enrollment decision and college choice of minority students who had been admitted into CCCU member institutions. The questions that guided the study were:

1) What was the profile of minority students admitted to private faith-based 4-year CCCU member institutions in the U.S.?

2) How did admitted minority students’ demographic and background characteristics affect their decision to enroll in a private faith-based 4-year institution in the U.S.?

3) How did perceptions of institutional characteristics affect minority students’ decision to enroll at a private faith-based 4-year institution in the U.S.?



4) What financial factors affected minority students' decision to enroll at a private faith-based 4-year institution in the U.S.?

5) How did perceptions of institutional marketing strategies affect minority students' decision to enroll at private faith-based 4-year institutions in the U.S.?

### **Definitions**

**Admitted Student**—An admitted student was a student who had met the required academic and admissions requirements of an institution and had been granted a formal invitation by the institution to attend but has not yet officially enrolled (Hossler & Gallagher, 1987).

**ASQ PLUS**—Also called the Admitted Student Questionnaire PLUS (ASQ PLUS), was a 70 question instrument administered by College Board and was designed to gather student's perceptions about the institution's academic programs, academic image, academic reputation, marketing strategies, financial aid package, facilities and the cost of attendance (ASQ PLUS User's Manual, 2010).

**CCCU**—The Council of Christian Colleges and Universities consisted of 110 member institutions in the U.S. that distinctively hired full-time Christian faculty and staff and were committed to advancing the cause of Christ-centered higher education. The council was also committed to transforming lives by faithfully relating scholarship and service to biblical truth (CCCU, 2010).

**College Board**—The organization was founded in 1900 and was dedicated to connecting students to college success and opportunity. The College Board focused its services on college readiness, college admissions, guidance, assessment, financial aid, enrollment, teaching, and learning (The College Board, 2010).

College Choice—The term referred to the actual matriculation process of a student when making a final decision to attend an institution. Specifically, the term College Choice referred to the third phase of a three phase college choice process beginning with a predisposition phase, moving to a search phase and concluding with an actual college choice or decision to enroll. This phase was also the turning point from being considered an admitted student at many institutions, to being enrolled at one specific institution (Maguire & Robert, 1981).

Diversity—The term can include the diversity of religions, gender, physical abilities, race, place of birth, etc. For the purpose of this study, diversity was limited to racial diversity. The value of racial diversity was affirmed in the 2003 Grutter v. Bollinger Supreme Court decision which upheld the use of race as a qualifying factor in the admissions process to increase the diversity of an institution's enrollment (Mounce, 2005).

Enrolled Student—An enrolled student was a student who had been officially admitted to an institution and had made a decisive commitment to enroll at one particular institution (Hossler & Gallagher, 1987).

Ethnicity/Race—The term *Ethnicity/Race* referred to a large group of people who shared a common background such as nationality, language or race. While race is descriptive of the biological differences of each group, ethnicity covers a much broader cultural context for these background factors. For the purpose of this study, race and ethnicity were used interchangeably and referred to a common group with a shared background (Hattam, 2005).

Financial Factors—Financial factors were key funding factors that directly affected a student's college choice. These factors included the availability of financial

aid, family socioeconomic status and the total costs associated with attending a higher education institution (Perna & Titus, 2000).

**Institutional Characteristics**—Institutional characteristics were unique institutional traits perceived by the student to be influential in his/her college choice decision-making process (Hamrick & Hossler, 1996).

**Institutional Marketing Strategies**—These strategies included marketing materials crafted and distributed by the institution to assist in the admittance and enrollment process, including print, audio, video and web-based materials (McDonough et al., 1997).

**Minority Student**—A minority student referred to any individual who was not Caucasian. Minority students in this study consisted of: American Indian or Alaskan Native; Asian, Asian American, Pacific Islander; Mexican American or Chicano; Puerto Rican; Latin American, South American, Central American, or other Hispanic; Black or African American; and Other (Kane & Lawrence, 1994).

### **Limitations and Delimitations**

One of the delimitations of this study was that the sample of institutions used was limited to CCCU institutions who participated in the ASQ PLUS survey between 2005 and 2010 years. There were many types of institutions who participated in the ASQ PLUS, but the focus of this study was delimited to only those institutions who had administered the ASQ PLUS between 2005 and 2010, and those who were members of the CCCU. This delimited the number of institutions to only eight institutions who met the criteria of being CCCU institutions and having administered the ASQ PLUS sometime between 2005 and 2010 years.

The other delimitation of this study was that the data collected by the ASQ PLUS were limited to only minority respondents from six ethnic groups. The racial/ethnic categories in the ASQ PLUS survey included: American Indian or Alaskan Native; Asian, Asian American, Pacific Islander; Mexican American or Chicano; Puerto Rican; Latin American, South American, Central American, or other Hispanic; Black or African American; White; and Other. This study was delimited to only the minority ethnic groups, including “other,” because the purpose of this study was to examine the factors related to college choice for minority students admitted to CCCU institutions.

This study had several limitations. First, the use of a secondary data set restricted the researcher's choice of variables. The measures that were used in this study as factors affecting students' college choice were limited to only those variables that were included in the ASQ PLUS survey. On the other hand, since the purpose of the ASQ PLUS survey was to understand the factors that influence admitted students' decision to enroll at specific institutions, the data set included most of the variables that were considered as important factors in the college choice process (Hossler & Gallagher 1987; Maguire & Robert, 1981). The general categories for these factors were college characteristics, financial factors, institutional strategies, and students' background factors, all of which were included in the ASQ PLUS survey.

Another limitation of this study was related to the sampling of CCCU institutions. Only those eight CCCU institutions that had administered the ASQ PLUS survey on their campuses from 2005 to 2010 and had usable data were included in the sample. Since a random selection of CCCU institutions was not a possibility in this study, the sample may not be representative of the entire CCCU population; nevertheless these eight selected CCCU institutions were located in different parts of the U.S., which can provide a

comprehensive national profile of minority students' perceptions from geographically diverse CCCU institutions in the U.S.

One more limitation for this study was an institution's geographic location. Whether an institution was located in an urban or rural location could have an effect on minority student enrollment. Minority students might be drawn more to institutions that are located in urban metropolitan areas because these communities tend to have higher representation of racial and ethnic minority groups. Indeed, CCCU institutions in this study that were located in urban settings had a larger number of minority applicants who responded to the survey than did institutions located in rural locations.

In addition to the geographic location, denominational affiliation might also affect minority student representation at different CCCU institutions. Prospective students might choose an institution that aligned with their faith traditions and backgrounds. While all eight participating CCCU institutions in this study have a policy to admit students from a variety of Judeo Christian backgrounds, many students might limit their search of institutions based on those that align with their particular faith perspective.

A final limitation was that the data in this study were self-reported by students. The questions in the ASQ PLUS survey asked admitted students to report their perceptions about the institution to which they were admitted. The responses to survey questions were based on students' judgments and perceptions that might not accurately describe the objective reality about the characteristics of these institutions. Conversely, this limitation should be considered minor because the purpose of the study was to understand what factors, as perceived by students, affected their choice for college enrollment. Even though the students' perceptions about the institution might not be

based on objective reality, the institutions must take these perceptions into consideration, because ultimately, students make enrollment decisions based on these perceptions.

### **Significance of the Study**

This study was the first attempt to examine the college choice process of minority students admitted to CCCU institutions at the national level using a survey administered by The College Board. Other studies had utilized data from the National Center for Education Statistics (NCES) to examine the college choice theories but no study up to this point had utilized the ASQ PLUS data for this purpose on a national level. The college choice theories developed by Maguire and Lay (1981) and Hossler and Gallagher (1987) have also not been tested with minority students attending CCCU institutions. Furthermore, no previous research had investigated what factors affected minority students' decision to enroll at 4-year faith-based institutions for a national sample of CCCU schools. To date, the studies that have been conducted with CCCU schools have examined only a few institutions with convenience sampling or have used a qualitative methodology. Finally, the use of a nationally developed and normed survey instrument administered by The College Board added credibility to the findings of this study.

The study also had a number of implications for policy and practice. The findings of this study have the potential to guide the policies that institutions set in place by encouraging and fostering a more diverse student body. Administrators could use the recommendations from this study to guide the admissions practices at their respective institution to influence the final enrollment decisions of admitted minority students. This could be accomplished by identifying the potential barriers in the admissions process that minority students encountered. These barriers might be real or perceived, but both could have an effect on a student's ultimate matriculation decision. The findings could then be

used by administrators to make policy adjustments that would help to eliminate the barriers that may exist in the enrollment process for minority students.

In addition, results from this study have the potential to enable more CCCU institutions to be entered into the initial search phase of the college choice process. The more CCCU institutions included in the search phase of the college choice process, the greater the likelihood that one of these institutions would make it into the final choice process. If the institutions could identify specific factors related to minority student college choice and adjust their marketing efforts to address these factors, there is a greater chance that these institutions would be considered by minority students who traditionally would not have considered them in the search phase.

As students enter a fast paced work environment that requires flexibility and speed, there is a need for them to have a solid foundational knowledge of working with diverse populations. It is important that the students' education prepares them to be academically grounded in their content area, but it also must prepare them with cultural knowledge and sensitivity when interacting and making decisions on diverse teams. The results of this study have the potential to increase the ethnic diversity of the student body and prepare students for their working lives by giving them an opportunity to work with a diversity of thought and culture within their coursework. With the minority student populations on the rise in the U.S., it is imperative for the graduates to have had experiences at the collegiate level with ethnically diverse student populations.

Finally, this study has the potential to influence the diversity of students within CCCU member schools. If the factors that inhibit or negatively influence student diversity can be addressed from the findings of this study, the diversity of students in the CCCU as well as in the nation's 4-year institutions could be dramatically influenced.

The findings also have the potential of changing the type of institutions to which students enroll. Currently, the majority of the Latino and African American students choose to attend 2-year institutions instead of beginning at or continuing on to a 4-year institution (Conklin & Dailey, 1981; NCES, 2010). If the barriers to admissions are minimized, many more of these minority students may elect to enroll in a 4-year institution, which has the potential to increase the education levels of the U.S. population for decades to come.

### **Summary**

This chapter outlined the statement of the research problem including the purpose and research questions guiding the present study. It examined the definitions, limitations and delimitations of the study, and highlighted the implications of the findings for policy, practice, and research. The findings of this study have the potential to add to the literature on student choice theory, affect the policies of CCCU institutions, modify perceptions of minority students who are considering enrollment at CCCU institutions and encourage greater diversity at higher education institutions. All of these changes have the potential to positively shape the education of future U.S. leaders and enable them to maintain a competitive edge in the global marketplace.



## **II. LITERATURE REVIEW**

### **Introduction**

As the economic landscape in the U.S. continues to shift, many institutions of higher education are trying to find ways to increase enrollment while trying to contain their costs. The enrollment process for high school students is a four-year process. The student's ultimate choice is affected by several key factors that are directly related to the college choice theory and include financial factors, socioeconomic factors, parental and social factors, high school background factors, fixed institutional factors and institutional marketing strategies. While the literature about the college choice process is fairly well developed, the choice process for private 4-year faith-based institutions as it relates directly to minority students is not well established. The following chapter first reviews college choice theories and Critical Race Theory to provide the theoretical framework for this study, and then examines the existing body of literature about the minority student college choice process.

The literature in this section came from the search of multiple research databases including: Proquest, Ebsco Host, JSTOR, the database of Dissertations and Theses, World Cat and the University of Arkansas Library Catalogue. Search terms included: racial diversity and higher education, barriers to admittance and higher education and diversity, barriers to admittance and higher education, access barriers and higher education, diversity barriers and higher education, access and higher education, college choice and higher education, college choice and higher education and HBCU, college choice and higher education and predominantly White, college admissions and enrollment and higher education, college admissions and enrollment, college choice research, Council of Christian Colleges and Universities and choice, private and higher

education and choice, and religious and higher education and choice. In addition to searching by key terms, the reference sections of the articles were also consulted to locate additional references on college choice.

The chapter begins with an overview of college choice theories. The section on the theoretical framework is followed by a review of the literature organized around the five main factors related to students' college choice process. The factors include financial factors, socioeconomic factors, parental and social factors, high school background, fixed institutional factors, and institutional marketing strategies.

### **Theoretical Framework**

The theory of the college choice process has evolved over time. Many attempts have been made to refine this theory and develop a model that encompassed the nuances of the college choice process. The theory of habitus was one of the early attempts to create a theory around the human decision making process followed by more formal developments of the college choice process. More specifically, the college choice theory began with Bourdieu's (1977) concept of habitus, which transitioned into Chapman's (1981) internal and external factors of college choice, followed by Maguire and Lay's (1981) theory about the factors specifically related to college choice, concluding with Hossler and Gallagher (1987) who developed a three-stage model of college choice.

There is a long history of habitus, and its origins can be traced back to Aristotle. It was not until 1977 when Pierre Bourdieu developed and began to formalize the concept of habitus to demonstrate the ways that the body and mind interacted with the social world. This interaction included how one stands, speaks, walks, feels, and even thinks. Bourdieu (1977) found that habitus allowed individuals to make their own decisions, but because of habitus, individuals were predisposed to certain ways of behaving. The

behaviors and choices were shaped by one's social capital, external constraints, socio-economic status, race, gender and the knowledge of the individual (Dumais, 2002). In other words, while there was free choice associated with habitus, these choices were predisposed because of external influences placed on one's environment.

Bourdieu recognized that groups of people who had similar backgrounds, often made decisions and choices that were very similar. He observed that if the habitus between two groups was the same, then the responses or actions from those two groups would be similar in their outcome. These results were produced without any outside guidance. The findings suggested that without the presence of external stimuli, two groups of individuals were predisposed to the same response (Bourdieu, 1977). This essentially meant that if a person belonged to a group of people with like backgrounds, individuals faced with the same set of choices and circumstances would have the natural propensity to make the same choice because of their collective background.

Bourdieu theorized that the concept of habitus could also be extended to entire socio-economic classes of individuals. The theory suggested that everyone in the lower socio-economic class, when faced with a similar choice set would make similar decisions especially when compared with someone from the middle socio-economic class (Bourdieu, 1977; Dumais, 2002).

Bourdieu further identified three distinct forms of social capital: objectified cultural capital or objects that required special cultural sensitivity to fully understand; institutionalized cultural capital or educational credentials; and embodied cultural capital or the disposition to appreciate and understand cultural goods (Dumais, 2002). Dumais (2002) also identified that students' decisions to pursue college admittance and work hard during high school were factors attributed to their social class. People from a certain

social class were found to be limited in their overall success as a group. The research suggested that students from the lower socio-economic class would often choose not to pursue a college education or select a community college based on their views of what people from their class were able to achieve. This ultimately affected their college choice process. It also meant that students from the lower socio-economic class might not apply to highly ranked colleges not because they were academically ill prepared to attend, but simply because they did not see others from their socio-economic class attending highly ranked institutions.

Reay (2004) further defined the role of habitus. She identified that habitus could be used in research to identify natural tendencies and common characteristics for individuals as well as entire groups of people. She also observed that habitus was unique because it operated on an unconscious level unless the individual consciously engaged in the decision making process and went through the self-questioning process.

Reay (2004) also acknowledged that the theory of habitus had been met with criticism in the academic community. Scholars had criticized that habitus was too predetermined and that individuals who made the decision were not confined by their habitus but ultimately had the power of free choice (Archer, 2003; Crossley, 2000; Farnell, 2000). Critics of the theory of habitus argued that individuals would make the choice that was best for their own circumstance apart from the group. Reay (2004) on the other hand pushed back by pointing out that the criticism did not take into account that habitus actually allowed for an individual's unique choice and circumstance. Even with this criticism, the theory could still be utilized in an educational setting when individuals made decisions based on their social class and their unique situations.

While the theory of habitus laid the foundational research for the theory of college choice, David Chapman in 1981 advanced that theory by examining the theoretical construct of college choice and the factors that correlated with a student's enrollment at an institution. His student choice model was limited to 18-21 year-old perspective students because there are "special pressures and influences in older adults that are not reflected in the model" (Chapman, 1981, p. 492). This theory stated that a student's choice was guided by external influences and student characteristics. The external influences were broken up into three general categories. The first was defined as the influence of significant persons, including parents, friends, teachers, and college admissions counselors. Among these significant influences, parents were the most influential with college admissions counselors having the least perceived impact on a student's college choice. Friends also played an important role in selecting a college because friends influenced their peers to enroll where they had already decided to enroll.

The second general category in Chapman's (1981) theory included the fixed characteristics of the institution such as the institution's cost, availability of financial aid, its location, and the programs of study. These characteristics were determined to be factors that did not change in the short term and often took much time and energy to effectively change; therefore, they were viewed as fixed. Cost and financial aid went together hand in hand because as financial aid increased, the cost of the institution became more affordable to the student. The cost of the education was one of the determining factors for many students in the college choice process, and financial aid was a factor that could transform an otherwise unattainable choice into a manageable one for the student. Location was another significant factor in the college choice process. Students who had a high financial need and little or no ability to travel to college often

attended institutions that were close to home. Lastly, students took into consideration the course of study an institution offered which was also considered a fixed institutional factor. Students were concerned about their future plans and how their classes would prepare them for that future. They wanted to know that the course of study and the reputation of the institution would either get them into a favorable graduate school or good job when they were finished.

The third and final external influence on college choice in Chapman's (1981) theory was the institution's own efforts to effectively communicate with their prospective students. These efforts included such strategies as written information and publications distributed to students, the student's campus visit, and the extent to which the institution engaged the student in the admissions and recruitment process such as visits to a student's high school. All of these interactions had the ability to effectively communicate with prospective students and engage them in the choice process.

The other broad category in Chapman's (1981) theory included the student characteristics which were broken down into four categories: socio-economic status, aptitude, educational aspirations, and high school performance. The first category had to do with the socioeconomic status (SES) of the student. Students tended to distribute themselves across institutional types based on their SES. For instance, it was found that students who came from higher SES homes tended to attend four-year institutions while those with a lower SES tended to attend community colleges (Chapman, 1981). A family's SES was generally determined by the family income, which in turn affected the kind of institution a student was able to attend. As a result, students from lower SES families found institutions that they viewed as "affordable" or "within" their means.

Aptitude was the second category of the student characteristics (Chapman, 1981). Aptitude was most commonly measured by college entrance exams and tended to directly influence students' attendance decisions by limiting their institutional set to those that they believed they would be admitted to. Therefore, those students with lower aptitudes self-selected institutions that tended to accept applicants with similar aptitudes and were less selective while those with higher aptitudes self-selected institutions that were much more selective in their admissions process.

Educational aspirations and high school performance were the third and fourth categories of student characteristics that were significantly related to the college choice process (Chapman, 1981). The level of educational aspiration was measured by the educational degree the students believed that they would attain at a future point in time. One of the most significant factors related to the level of aspiration was determined to be a student's academic performance in high school which was measured by GPA. This affected a student's aspiration because it could trigger a chain of external responses that enhanced the student's choice process. For instance, if a student succeeded academically, there would often be more support from teachers, parents, counselors, and friends to encourage the student to continue on with his/her education and even to apply for scholarships that would in turn affect the final choice of where the student decided to enroll.

Hossler and Gallagher (1987) continued to refine the college choice theory by developing a three-phase college choice theoretical model, which became the most widely cited college choice model to date. The three phases in this model included a predisposition phase, a search phase, and a choice phase. The first phase or the predisposition phase was part of the developmental process where the students

determined whether they would pursue an education beyond their high school level.

During the predisposition phase the students gathered information about the institutions of interest and what they offered the student. It was also during this phase that the students narrowed down their options into a “choice set” which was the group of institutions to which the students actually applied.

The predisposition phase included several background characteristics (Hossler & Gallagher, 1987). The first background characteristic that directly affected the students' college choice was their socioeconomic status (SES). The SES was not only important in the college choice process but it also played an important role in the K-12 experience. SES represented a background factor that the student did not have control over, yet it influenced what colleges a student chose to explore as well as those to which he/she ultimately enrolled. Related to the SES of a student, ability was found to be positively correlated with college choice and ultimately his/her enrollment at an institution. Ability was most commonly measured by the student's high school GPA and college entrance exams. Another major influence in the predisposition phase was the influence of others which included the opinions of parents and peers. Parents played a significant role by introducing the idea of going to college to their students. This encouragement had an effect on the college choice process for their students. Along with parental support, peers also played a major role by reinforcing the choices of the student in the decision making process.

In the predisposition phase, not all of the characteristics were related to the student's background but some variables were controlled by the high school and higher education institution (Hossler & Gallagher, 1987). One of these variables was the number of co-curricular and extra-curricular activities that students were engaged in



during their high school experience. The more students were involved in these activities, the more often they were exposed to the possibilities of higher education. These activities also tended to encourage the student to apply to more selective institutions as well. Along with involvement, there was a strong relationship between the quality of students' high school education and the institution that they ultimately selected. If the high school curriculum was high quality and emphasized college preparatory classes, the student was more likely to apply not only to college but to more selective colleges. Another factor related to the organizational characteristics was the proximity of the college or university to the student's hometown. Students were more likely to attend those institutions that were close to home. Furthermore, students in urban and sub-urban schools were more likely to attend a college than those in rural locations.

The second phase of Hossler and Gallagher's (1987) college choice model was the search phase. This phase identified two specific directions of the flow of information: potential students seeking out information from colleges and vice versa. This interaction between the college and the student allowed the student to gain a wider perspective about the institutions as well as helped adjust the student's perceptions about the institution. Many times, a student's perceptions about the institution were unrealistic. Even when given accurate information; it was often ignored in this process.

Ultimately in this phase, the students began to narrow down the possibilities of institutions to a defined "choice set" (Hossler & Gallagher, 1987) During this phase, students began to get more information and gained a better understanding of these institutions in their choice set so that they could make a final matriculation decision. Unfortunately, many students in this phase of the choice process did not receive accurate information about important factors such as the total net cost of attending these

institutions. The cost of an institution was an important factor in the matriculation decision, yet students rarely received accurate information about what it would cost them to attend the institution after financial aid was applied.

The third and final phase identified in Hossler and Gallagher's (1987) college choice model was the choice phase. In this phase, students actually made an enrollment decision. It was during this phase of the college choice process that students began to develop a narrowed list of specific institutions in which to enroll. Their choices were narrowed down to the top one or two institutions based on their individual preferences, the key attributes of the institution, and the courtship procedures between the student and the institution which included factors such as financial aid awards and intentional communication strategies. The communication strategies that were most personal and individualized seemed to have the greatest impact on a student's choice to attend that institution. While this third phase encompassed the actual choice of the student, it was also the point at which most institutions had the least input in the choice process. Hossler and Gallagher (1987) indicated that during this phase, the courting of these students was critical to enrollment, yet their choice was often too narrow for multiple institutions to participate in the courting process and much of this final decision was related to the perceived quality of the institution.

John Maguire and Robert Lay (1981) developed one of the most detailed models for the factors affecting college choice. While Maguire and Lay's (1981) contributions to the college choice theory occurred before Hossler and Gallagher's (1987) three-phase model, Maguire and Lay essentially focused on broader examination of the factors related to the third phase or choice phase of Hossler and Gallagher's model. When a student came to the decision point of selecting a college, the images of each institution were

broken down by the student into the distinguishing attributes of each institution. These attributes were the ones of most importance to the applicant. The image-making and decision-making phases of the choice process therefore were not sequential, but rather concurrently active in the choice process.

Maguire and Lay (1981) identified that if an institution was going to be effective in courting a student in the choice phase, there were three major factors that needed to be addressed. First, the student needed to understand the social expectations of the institution which included influences by parents, peers, high school counselors, and college admissions counselors. The second major factor was for the institution to identify the market segment of applicants and to understand the expectations and perceptions of these applicants. It enabled the institution to address specific needs and concerns by subgroups rather than with the aggregate whole. The final factor occurred at the end of the process and was defined as the actual choice of the student for enrollment into an institution. For this final factor, the student chose whether or not to enroll, and it was found that the institution's facilitation of this process was critical to the student's final choice. When the student had narrowed his/her choice to a select set of institutions, it was important for each of the institutions to be involved in the courting process until the final decision was rendered by the student.

Another theoretical perspective that was relevant to the study of minority student's college choice was Critical Race Theory (CRT). CRT was important to consider because it helped to identify and analyze the racial barriers that had been erected for people of color (Solorzano, Villalpando & Oseguera, 2005). Soloranzo et al. (2005) listed five defining elements of the CRT. The first element was the centrality of race and racism in higher education which identified the structures, practices and discourses that

were characteristic within American higher education. The second element was the challenge to dominant ideology. This element utilized CRT to challenge the traditional claims of objectivity, meritocracy, color blindness, race neutrality and equal opportunity in higher education. The third element was a commitment to social justice and praxis. This element was intended to flow throughout all segments of the academy and served to eliminate all forms of racial, gender, language, generation status, and class subordination. The fourth element was the importance of experiential knowledge. CRT highlighted that the experiences of people of color was a critical component of racial subordination. It was critical that institutions of higher education took into account and legitimized all experiences of students of color. The fifth element of CRT was the historical context and interdisciplinary perspective. This application of the CRT was used in interdisciplinary methods to analyze race and racism through both a historical and contemporary lens that could be applied directly to a higher education setting.

Another view of CRT came from Evans, Forney, Guido, Patton, and Renn (2010) in which they identified four major themes that helped to define CRT. The first theme was that racism provided a common thread that was woven through all life in America. The second theme noted the importance of the voices that emerged from communities of color. These voices were important and should be taken into consideration when they criticized the privilege of White people. The third theme was that the voices of color would only be acted upon if the dominant culture derived some sort of benefit from their suggestions. The fourth and final theme was that the belief in color blindness and race neutrality must be challenged because it rendered people of color as invisible. CRT served as a lens to understand the barriers minority students faced in their college choice process.

In summary, as illustrated in this section, the college choice theory evolved from the initial concept of habitus to Maguire and Lay's (1981), Chapman's (1981), and Hossler and Gallagher's (1987) college choice theories. This study focused on Maguire and Lay's (1981) factors of college choice which were later refined by Hossler and Gallagher (1987) and defined as the choice phase of the student choice model. This choice phase covered four major factors that included: financial aid factors, socio-economic factors, parental and social input factors, high school background factors, fixed institutional factors, and marketing strategies related to college choice. The literature on each of these factors is reviewed further in the following sections.

### **Financial Aid Factors Related to College Choice**

Financial factors for potential students were related to the choice process for college students. In Maguire and Lay's (1981) theory of choice, financial factors were found to play a significant role in the matriculation of a student. Unfortunately, the cost of higher education in the U.S. continues to rise without any sign of slowing down in the near future, which has a dramatic impact on the matriculation of perspective students. Over half of the undergraduates attending four year institutions in the U.S. in 2009 paid less than \$9,000 per year in tuition and fees (College Board, 2009). However, in 2009, private four-year liberal arts institutions charged an average of \$35,000 in tuition and fees with an average loan amount of \$10,000 (College Board, 2009). Even with these premium prices for private four-year liberal arts institutions, some have tried to adjust by continuing to increase their discount rate and financial aid packages to lower the final price, but many minority students were still not able to make up the gap. Students chose not to enroll in certain institutions, based on several financially related factors. Studies revealed that price sensitivity, type of aid offered, amount of aid, expectation of aid,

ability to apply for aid, and institutional funding, all affected the type of institution the student chose to attend (e.g. Carter, 1999; Cuyjet, 1997; Freeman & Gail, 2002; McDonough, Antonio & Trent, 1997; O'Connor, 2009; Perna, 2000; Roderick, Nagaoka, Coca & Moeller, 2008; Weiler, 1996).

One of the significant overarching factors related to a student's finances was the individual student's sensitivity to price. Perna and Titus (2005) in a quantitative study observed that students of color were more sensitive to the cost of higher education than White students. The price sensitivity was linked to their parents' education which was indirectly linked to their income. The parents who did not attend college made less, and therefore, the cost of higher education for their children negatively impacted the student's decision to attend. The issue of price sensitivity was a unifying thread throughout all of the literature and had an effect on all of the financial factors related to college choice. For example, Paulsen and St. John's (2002) quantitative study utilized the National Postsecondary Student Aid Survey of 1987 and found African American students to be more cost sensitive than White students when selecting a college.

When considering the price sensitivity of minority students, it was also important to consider the role of financial aid in the decision making process. In a foundational study, St. John and Noell (1989) utilized the National Longitudinal Study and the High School and Beyond data sets and found that while the enrollment of minority students continued to decline from 1972 to 1982, the percentage of students who received grants/scholarships and loans included in their financial aid packages increased. During this time, all types of aid were found to have a strong positive impact on the decision of applicants to actually enroll in the institutions who offered the aid. It was inconclusive from this study whether one type of aid was more effective over another; conversely, aid

packages that included multiple forms of aid had a slightly stronger impact on institutional choice for all ethnicities.

In another study related to financial aid, Kane and Spizman (1994) conducted a quantitative study with 6,332 high school seniors that took part in the National Longitudinal Study of the High School Class of 1972. The study revealed that black males and females, with all background variables held constant, were more likely to attend college than their White counterparts. Black students also received more financial aid than their White counterparts. In addition, this study found that Hispanic females received significantly larger grant awards than did White females. Another related finding was that Asian students were found to have similar financial aid awards when compared to White students but they were much more likely to attend college than their White counterparts. With the background variables held constant, minority students were much more likely to enroll in college than White students, yet when the background variables of parental income, education, and geographical patterns were factored into the analysis, African American students had a lower college attendance than White students while the Asian students were still more likely to enroll.

In 1987, there was a shift in the way the federal government awarded financial aid packages to students (Perna & Titus, 2000). The amount of federal and state funding continued to decrease, placing the burden back on students and their parents. Also during this time, institutions shifted away from using grants and issued more loans as the primary source for funding the pursuit of higher education (Perna & Titus, 2000). This shift had an adverse effect on minority students, especially African Americans. St. John and Noell (1989) determined that most forms of financial aid had a significant positive impact on the enrollment decisions, specifically for African American students; however

loans were determined to have less of a positive impact than grants and scholarships. St. John, Paulsen and Carter (2005) found that some students were forced to actually delay their enrollment in a college so that they could address other more pressing short-term financial needs. This finding was in contrast to the White students in the study who would take out additional loans for living expenses to ensure that they did not delay their educational attainment. In contrast, a study by Perna and Titus (2000) found that Latinos tended to enroll at institutions with lower overall costs, and they too were more loan adverse than other ethnic groups.

Another facet of the choice process was that African Americans and Latinos who received two or more types of aid were more likely to make positive enrollment decisions. Whites, Blacks and Hispanics chose to attend college at a higher rate when scholarships and grants were the only source of aid in the enrollment decision (St. John & Noell, 1989). Another significant factor related to the types of financial aid available to minorities was the expectation that minorities attach to their financial aid packages. In a quantitative study by Kim, DesJardins, and McCall (2009), 86,133 students' ACT scores were reviewed by the University of Iowa for admissions consideration between 1997 and 1998. The study found that student choice was significantly affected by the gap in the difference between the amount of financial aid students expected to receive and what they actually received. If the amount received was much lower than what was expected, the students were much less likely to enroll in that institution, but if the amount was significantly greater than what they expected, they would often enroll in that institution. The study found that African American and Hispanic students tended to enroll to a lesser extent than Whites or Asians when they received more financial aid than they expected.



It was also found that African American and Hispanic students enrolled at a lower rate when the financial aid provided was less than the amount expected.

In addition to the general expectations of financial aid, Hossler (1999) found that the amount of financial aid in many cases played a significant role in the selection process. Small amounts of financial aid, under \$1,000, had only a small influence on the student's choice to attend where anything over \$1,000 had a strong influence on college enrollment. The financial aid was viewed as a way for institutions to communicate "we want you to be part of our community" (p. 93). It was important for ethnic/racial minorities to have a feeling of value that was attached to the financial aid award, and it needed to be substantial enough to send a clear message that they were wanted.

In another study, Kim (2004) examined the effect race had on the choice of institutions that students selected by paying particular attention to how each race made decisions to attend or not attend their first choice institution. Kim's (2004) quantitative study examined 5,136 students who were entering 4-year institutions in 1994. In this study, 3,931 of the students did in fact attend their first choice college, and 1,183 of the students who participated in the study did not attend their first choice institution. The ethnic distribution of the sample included 85% White students, 6% African American students, 5% Asian American students, and 3% Latino students. Some kind of financial aid was received by 75% of these students. All types of financial aid including only loans, only grants or a combination of both were evaluated on their ability to affect the selection of students' first choice institutions. Having only loans or having a combination of grants and loans had a positive impact on students attending their first choice institution regardless of their race. This study also found that Asian Americans were the most determined to enroll in their first choice institution. They were willing to take out

loans more than any other ethnicity, including White students, to ensure that they were able to attend the institution that represented their first choice. This was very different from the perspective of African American students who were opposed to taking out loans to fund their education. In contrast, none of the three options for financial aid packages had an effect on the probability for African Americans or Latino students to attend their first choice institutions. It was found that several background factors including family income, academic achievement, location, or size of school were more significant factors for African American and Latino students than financial aid (Kim, 2004).

Financial need was also found to correlate with academic performance. Engberg and Wolniak (2009) in a quantitative study examined eight different 4-year private colleges in the Northeast, Southeast, and Midwest regions of the U.S. drawing from a 2006 sample of 16,207 matriculating freshmen. It was observed that Black students had the highest financial need and yet had the lowest academic profile scores. In contrast, Asian students had the lowest average financial need but the highest academic profile when compared with White students. The data suggested that the Asian students were more likely to receive merit financial aid in the form of grants and scholarships than were the Black students, even though the Black students were in greater need of the financial assistance.

One of the most significant factors affecting the students who received financial aid was observed in the assistance students received in applying for aid. John (2006) in a qualitative study of 113 high school students found that high school counselors and teachers were the most influential people in helping students obtain financial aid awards. There was a relationship with the type of institution selected based on affordability and the type of high school the student attended.

The disparity for the type and amount of financial aid awarded to students from less fortunate backgrounds continues to widen, especially at private institutions. Perna (2002) examined the financial aid process as it applied to students from low-socioeconomic families trying to attend private selective liberal arts institutions. These private institutions continued to struggle to control their costs. Perna (2002) discovered that the rise in tuition costs was not always directly related to an increase in operating expenses, but rather there were not enough internal and external incentives for private institutions to make regulatory changes upon themselves to control those costs. She found that private institutions awarded financial aid based upon a student's full financial need but there was not enough funding at the institution to do this for all the students that presented a need. This was amplified by the fact that private institutions were privately funded. This meant that for the need-based aid to increase, more endowment dollars would need to be raised. There was simply not enough funding available at private institutions to provide financial aid based on both access and need.

Perna and Titus (2004) also found that as students selected their institutions, the state-based financial aid that could be applied to any institution type positively affected their decision to attend an in-state private 4-year institution in comparison with all other institutional types. Those states that offered a need-based financial aid program with relatively large rewards were found to promote enrollment in private in-state 4-year institutions in comparison with all other institutional types.

Hu and Hossler (2000) studied 482 high school students and their parents ten times between the years 1983 and 1987 to examine their process of college choice between their freshmen and senior years of high school. In the second step of a logistic regression, GPA was found to be a significant and positive predictor in determining a

student's decision to attend a private institution. The study also revealed that students who were price sensitive and decided that the cost of attending an institution was the most important subjective factor were less likely to choose a private institution, while those who thought that financial aid was the most critical factor tended to prefer private colleges. Private colleges on average awarded more financial aid than public institutions and as noted earlier, when students received more than \$1000 in financial aid, they perceived that the institution was interested in them personally. The study also found that after controlling for the cost of tuition and financial aid availability, minority students were more likely to attend a private institution.

In a similar study, Hossler, Schmit, and Vesper (1999) conducted a quantitative longitudinal examination that began in 1986 with a large group of Indiana ninth grade students to investigate specific factors related to college choice. Their research found that parents would encourage their students at a moderate level to attend an institution that provided financial aid between \$500 and \$1,000 but if the aid was between \$1,001 and \$3,000, the parents strongly encouraged their students to attend. The findings indicated that if the price of a private institution could decrease and the financial aid packages, that did not rely heavily on loans, could increase, minority students would likely choose a private institution over a public institution.

Price sensitivity for minority students played a key role in their ability to attend private liberal arts type institutions. This section highlighted that it was not for lack of desire or choice that many African American and Latino students did not attend these institutions, but rather it was the price gap and the increased reliance on student loans that defined the available options for these students. While students wished to attend their first choice institutions, especially private institutions, financial aid packages played a

significant role in their ability to matriculate. Financial factors were also influenced by the student's socioeconomic status. The next section examines the effects of socioeconomic factors on a student's college choice.

### **Socioeconomic Factors Related to College Choice**

The socio-economic status of minority students and their families played a significant role in the college choice process. Factors that were attributed to one's socioeconomic status (SES) included the financial status of the student and his/her family, choices made through habitus, type of institution selected, and the selectivity of the institution selected.

Cabrera and LaNasa (2000) conducted a quantitative study based on the National Educational Longitudinal Study of 1988 and found that 71% of the lowest SES students were not able to obtain the necessary academic qualifications to enroll in college. Conversely, 80% of those who did qualify actually enrolled in a four-year institution. In a similar quantitative study, Kim et al. (2009) found that in every ethnic group, high SES students had the greatest probability of enrolling while those students who were from low SES backgrounds exhibited the lowest application probabilities. The findings indicated that those from the lowest SES were the most likely not to enroll, and therefore, faced the greatest barrier to enrollment.

For many families this barrier was due to family income. In another quantitative study with similar results, St. John (1999) utilized the High School and Beyond Sophomore Cohort of the high school class of 1982 which consisted of a sample of 7,568 students. This study found that family income was significantly and positively correlated with college attendance. The study nevertheless found that both students from high income families and students from low-income families had high postsecondary

aspirations to attend college. The difference was that even though they both had high aspirations, students from the high income families had a greater probability of actually attending college.

Income was found to be a factor for the SES of the student as well as his/her collegiate aspirations. When examining the effects of SES on low income students, Cabrera and LaNasa (2000) found that all students were tuition sensitive but this especially applied to low-income students. Low income students were most affected by the change in tuition because as the price gap between what they received in financial aid and the institutional costs increased, the low income students had a much more difficult time making up the difference.

Students who came from the lower SES brackets were not always minority students. For instance, Kahlenberg (2004) in a quantitative study utilized the National Longitudinal Study of 1988 and found that “poor” White students made up the majority of families in the second lowest quartile while African Americans and Hispanic students were overrepresented in the lowest SES quartile. In a separate quantitative study, St. John et al. (2005) utilized a nexus model and logistic regression to analyze the National Postsecondary Student Aid Survey of 1987. The sample of African American students studied was found to be diverse in its socio-economic make-up with a quarter being in the upper-middle or upper income brackets. The study found that African Americans were concerned about the finances of college when they made their selection, and their decisions were heavily influenced by the availability and amount of financial aid as well as the cost of tuition. It was also found that African American students had greater financial aid packages and lower tuition as compared with their White counterparts. Even when low tuition institutions were chosen, there was still a greater financial need

for the African American students when compared with White students. African American students in the study attended institutions with lower costs, for both tuition as well as room and board.

Perna and Titus (2005) in their review of the literature also approached the socio-economic status factor with a nexus approach to examine the student enrollment behaviors based on college choice and persistence. This approach also took into account the role of habitus as it restrained and helped to predetermine the choice process for individual social classes. The study found that the low-income subpopulation had a larger percentage of minorities than the other groups. The low-income and lower-middle income students were predominantly African American females. For these low-income students, cost played an important factor in college choice which included the presence of low tuition, student aid, or both. They also chose their institutions based on locations that were close to their work and home to reduce living costs while attending college. A majority of these low-income students attended public or two year institutions and were less likely to attend private colleges or attend full-time because the cost was too great. They also received larger than average grants and loans at these low-tuition institutions. As a result, the findings suggested that these students were able to narrow the cost gap and had to pay fewer out-of-pocket expenses than if they had attended more expensive institutions.

The study by Perna and Titus (2005) also found that the low-middle income students had many of the same characteristics of the low-income bracket, but their grants were less and their loans were just as high. The cost of their institution was also higher, which suggests that they had a greater financial need gap than the low-income bracket. This also meant that many of these students had to pay out-of-pocket to make up for the

financial need gap. Finally, Perna and Titus (2005) found that Latinos in middle-class families were observed to persist across all steps of the logistic regression due to the fact that their families placed a great value on attaining a higher education degree. African Americans were also more likely to persist, but this was in part due to the fact that they received higher financial aid packages than students in other ethnic groups.

Hearn (1984) in a quantitative study utilized the 11<sup>th</sup>-12<sup>th</sup> Grade Freshman Longitudinal File for 5,211 freshmen students in 1975 to examine the factors related to college choice. High school academic factors combined with socioeconomic factors contributed to explaining why there was a 67-89% predictive power for the choice model which examined the destinations of college students in their choice process. Socioeconomic characteristics alone could only account for 26-50% of the model. This study also confirmed that students from certain SES backgrounds were more likely to remain in their SES bracket because they did not attend college.

Another study reinforced the idea that by attending college, graduates had the ability to enter into another SES quartile. Perna (2005), in a quantitative study, utilized the National Educational Longitudinal Study that began in 1990 with a total sample of 9,773 high school students. It was observed that income levels for all groups were 19% higher for those graduates who had gone on to attain a bachelor's degree than for those graduates who did not go on for further education. Also, women who completed their degrees had salaries that were 55% higher than those who did not pursue a degree after their high school graduation. The data indicated that by obtaining a college degree, students were able to change their own socioeconomic status based on their projected salaries. Hearn's study (1984) also found that African Americans, women, and lower-SES students were less likely to attend more selective, higher resource, and higher cost



institutions. In a later quantitative study with similar findings, Hearn (1991) utilized the annual Higher Educational General Information Survey from 1980. It was observed that African American students and students from lower SES backgrounds were less likely to attend highly selective institutions. Also, lower SES students were less likely to attend high cost institutions but African American and Hispanic students did not seem to prefer one type of institution over the other. One of the reasons for this result was that SES was a significant barrier for students desiring to attend higher-cost institutions.

In a quantitative study by Perna and Titus (2004), using the National Educational Longitudinal Study of 1992-1994, it was found that almost half of all high school graduates in the lowest SES quartile did not enroll in any type of college or university the fall after their graduation. Those who did enroll from the lowest SES quartile tended to select in-state public 2-year institutions rather than in-state public 4-year institutions; yet these students were also more likely to enroll in private 4-year institutions than public 4-year institutions. In contrast, the highest SES quartile reported that only 7% of their high school students did not enroll in college. Students from the highest SES quartile were also more likely to enroll in an in-state private 4-year institution than in an in-state public 4-year institution. Another finding for this demographic was that they were 2.20 times more likely to enroll in a private 4-year institution than the students who made up the middle two quartiles of SES.

This section observed that while students from the low-income SES bracket often had high aspirations for college attendance, many times the financial status of these students did not allow them to attend their first choice college. Also, while minority students were associated with the lower-SES brackets, the reality was that White students made up the majority of the second to the lowest bracket. Many minorities in this lowest

bracket tended to receive better financial aid packages than their White counterparts; still they were less likely to attend college. The literature also suggested that habitus played a regulating role in the college choice process as it related to a student's SES by predicting that students in the same social class would make similar college choice decisions with all other factors held constant. Even though there was a cyclical effect according to a student's SES bracket, education was found to have a positive effect on helping students break the cycle. Finally, the literature identified that students from the lowest SES bracket tended to enroll in public-2 year institutions, yet they preferred a private 4-year institution over a public institution. It was also observed that state-based financial aid also encouraged students from all SES brackets to attend a private 4-year institution. The SES of a minority student was also a significant factor in his/her college selection process.

### **Parental and Social Input Factors Related to College Choice**

A number of studies have examined how parental income, involvement, educational level, and peer groups influenced an individual's decision to enroll in college (e.g. Arnold, 1993; Cameron & Heckman, 2001; Cuyjet, 1997; Freeman, 1999, 2005; McDonough et al., 1997; McDonough & Freeman, 1998; Moore, 1991; Perna, 2000; Sevier, 1992; Teranishi, Ceja & Antonio, 2004; Torantzky, Lee, Mejia, & Tarant, 2003). For example, Conklin and Dailey (1981) found that parental encouragement was linked with college choice. They observed 1,686 New York State freshmen in 1967 that were surveyed during their spring semesters of high school before their graduation. This study examined the factors related to socioeconomic status and parental encouragement. It was found that while socioeconomic status was a positive predictor of college enrollment, it was not as strong as the amount of support provided by the student's parents. The study

concluded that parental support played a key role in the determination of college attendance.

In three other studies (Flint, 1993; Hossler & Stage, 1992; Perna & Titus, 2005), family income was also observed to be an important factor in one's decision to enroll in college. This factor was always combined with the educational attainment of the parents and linked to parental encouragement. Parents who had obtained a postsecondary degree were more likely to encourage their students to also pursue a postsecondary education.

Conklin and Dailey (1981) observed that the consistency of parental encouragement was positively associated with the final choice of a student to attend a postsecondary institution. If students had received consistent, positive encouragement from their parents, they were likely to attend a 4-year institution. On the other hand, if students received mixed support from their parents, they were still likely to attend a postsecondary institution, but more often it was a 2-year institution. Finally, only 1% of the sample did not receive parental support for college, and the majority of those students did not attend a postsecondary institution but those who did attend, selected 2-year institutions.

The level of parents' education was directly linked with the probability of their student's college attendance. In a quantitative study conducted by Stage and Hossler (1989), families of ninth grade students and parents in 1987 were mailed two survey instruments, one for the parents and one for the students to which 3,834 responses were collected. In this study, parents' expectations and support of their student obtaining a postsecondary degree were found to have the strongest positive influence on a student's desire to attend college. The study also found that parents' education had significant

positive effects on the educational attainment of their students, with a father's education having the strongest influence (Flint, 1993; Stage & Hossler, 1989).

In a contrasting quantitative study by Hu and Hossler (2000), it was the mother's education level and not the father's that significantly predicted a student's preference for a private institution. While a father's education level may be critical in all postsecondary education aspirations, a mother's level of postsecondary education was significant when a student aspired to attend a private institution. Also, according to the National Center for Education Statistics, "only 14.7 percent of students who enrolled in private four-year institutions had parents who did not attend a postsecondary institution themselves" (Bergerson, 2009, p.13). Therefore, there was a greater likelihood for students who selected a private 4-year institution to have parents who also attended a postsecondary institution, and an even a better chance when the student's mother had attended college.

Parental education was determined to be a significant factor in the subsequent enrollment of students. Stage and Hossler (1989) found that parents' combined educational level and the student's gender significantly influenced a parent's expectation, the student's GPA, the activities a student was involved in, and the student's aspirations to attend a postsecondary institution. The parent's education not only affected the school type the student chose, but also many other factors associated with a student's probability of attending college.

Parental involvement was another factor that was highly related to college enrollment. The study by Perna and Titus (2005) found that parental involvement which included conversations with their student about education-related topics, volunteering at the school, and initiating contact with the school about academic topics, increased the propensity for the student to enroll in college. In contrast, a student's propensity to enroll

in college decreased when the parent's involvement and contact with the school was initiated because of the student's behavioral issues. This implied that the interaction needed to be a positive, voluntary action, rather than the action that was more punitive in nature. Another study also found that when parents of African American students engaged with the school about positive academic issues related to 4-year college enrollment, they were more likely than other racial/ethnic groups to actually enroll in college (Smith, 2008).

Not only was the combined education of the parents important in the aspiration of obtaining a postsecondary education, but it was also important in influencing the types of institutions that were included in the choice sets of the student. In a quantitative study by Thomas Flint (1993), the data from a sample of 931 Illinois eight-grade students in 1986 were collected to examine the effects of parental influences on their students' choice set. The study found that background characteristics, a father's education and family income had the strongest impact on higher levels of education attainment for the students. It was also observed that families who had parents with previous higher education experience tended to push out the borders of the types of institutions in their students' selection set. The parents championed the idea that applying to more institutions was better, and that everything from the selectivity of the institution to the distance from home should all be broadened in the search process. It was also observed that the parents helped to define the student's choice set and worked hard to ensure that their top selections were also included in the student's choice set. The ultimate enrollment decision was actually left up to the student. Hossler et al. (1999) and Flint (1993) observed that students, in their junior year of high school, increased the number of institutions in their choice set but by their senior year, they began to narrow down the

choice list; parents who had some postsecondary education would influence the student in this process. On the other hand, Hossler et al. (1999) contend that parents actually played a lesser role in helping a student determine where he/she would matriculate. Instead, they found that information from peers, teachers, and counselors had a much stronger impact on the matriculation decision of high school seniors. These studies also acknowledged the need for education about the possibilities and benefits of higher education for parents of students who did not attend college.

Along with the parental support of minorities, Michael Smith (2008) in a review of the literature examined the Assimilationist Framework that is used by American Higher Education Admissions Departments in working with students to get them enrolled in their respective institutions. It was found that many admissions offices viewed African American parents to be involved in abnormal engagement compared with the parents of White students. Many of the African American and Latino parents were thought to be absent from the college planning process because they did not value a college education or devalued the future benefits that it would provide for their students. This limited view of African American and Latino parents spurred on a shift in admissions and outreach programs that shifted the focus from primarily working with the parent to working only with the student. The theory postulated that if the parents did not value the education, institutions might have a chance to enroll the student if they focused their efforts on the student instead of the parent. The problem with this model is that it was not a correct cultural assumption. In fact, the African American and Latino parents of low-SES students actually had a desire to see their students attend college, but the issue was that they did not have any information about college, or encountered a language barrier when the information was translated through the student to the parent. Another barrier for

many of these parents was the fact that they themselves did not have a college background and therefore, did not know about the application process or how to best guide their student (Smith, 2008).

The findings from Smith's (2008) review were reinforced by the work of Tornatzky, Cutler, and Lee (2002) who conducted a quantitative study of 1,054 Latino parents in Chicago, New York, and Los Angeles in conjunction with detailed case-study interviews of 41 Latino parents in those cities. Of the total respondents for this study, 96% indicated that they had an expectation that their students would attend college. When surveyed about basic key steps in the admissions process of transitioning from high school to college, 65.7% of the parents surveyed missed half of the basic college knowledge questions and 19.7% missed all or all but one of the items on the survey. It was also found that the lower the socioeconomic bracket, the lower they scored on the survey of college knowledge, and the higher the socioeconomic bracket, the higher they scored on the survey. The findings indicated that while the parents had an expectation for their students to attend college, there was a great lack of knowledge for how to assist their student in the enrollment process.

Another comparison was made in a study by Torantzky et al. (2002) who examined the trend in college attendance between the immigration generations to which the parents belonged. Those who were first generation immigrant parents lacked the most college information and those who were third generation parents were more knowledgeable, but still lacked about half of the college going information. The study also found that the Latino parents' source for college knowledge was most heavily dependent on school counselors and teachers, followed by other family members and finally by their own student or their student's friends. It was also noted that knowledge

about college characteristics, testing requirements, or financial aid was facilitated by the college representatives or admissions staff. While interaction with these college representative was important to obtain important college information, it was found that many parents from the low-SES bracket generally did not engage with these representatives at events like college night or campus visits, because of the language barrier.

Another finding of Torantzky et al.'s study (2002) was that many Latino parents were unable to voice or understand the benefits of a college education. They were, as a whole, unaware that in an age of information a college education was not only important to get ahead, but critical to job opportunities and careers of the future. The findings indicate that for the Latino parents, not only was there a lack of general college-going information but also a lack of understanding about the strategic and generational effects that come with a college education.

Another topic related to the social inputs in the college choice equation was the effect that peer groups had on students and their final selection and subsequent enrollment. Perna and Titus (2005) found that when parents could structure a student's friend or peer group, it had an effect on the student's enrollment decisions. Students who had friends who held aspirations to attend a 2-year institution were more likely themselves to attend a 2-year institution than a 4-year institution. In the same manner, when a student associated with friends who aspired to a 4-year institution, the student was also persuaded to attend a 4-year rather than a 2-year institution. The volume of social connections that the students had in each of these two groups had a significant effect on what type of institution they would select regardless of the intentions or actions of their personal social circle. For instance, if the majority of the students in the school



aspired to attend a 4-year institution, but a student's close circle of friends aspired to attend a 2-year institution, the student would most likely be swayed by the aspirations of the larger social network.

In another quantitative study surrounding college choice and the influence of friends, Choy, Horn, Nunez, and Chen (2000) utilized the data from the National Educational Longitudinal Study of 1988 and found that having friends who had college plans was the strongest predictor of college enrollment. Furthermore, positive parental involvement was found to have a positive effect on predicting college enrollment.

In sum, the social factors that were involved in the college choice model had significant influence in the final institutional selection by the student. The review of the literature indicated that parental encouragement played a sizable role in the college choice process. Also, the likelihood of a student going to college greatly increased when both parents had some kind of postsecondary education. Furthermore, while a father's education seemed to be a key factor in the enrollment into college, a mother's education had a direct link to a student choosing a private 4-year institution. Finally, in the college selection process, students' friends seemed to be the strongest predictor for aspirations to obtain a postsecondary education as well as the kind of institution to which they would apply.

### **High School Background Factors Related to College Choice**

High school background factors had a direct influence on a student's college choice. These background factors included students' academic preparation such as high school grade point average (GPA), their college entrance test scores, and participation in college preparatory classes. The background factors also consisted of the people that

surrounded the students in their high school experience such as guidance counselors and teachers.

The academic background of students had a direct impact on a student's college aspiration. St. John (1999) observed that black students who had a strong aspiration to attain a postsecondary degree also experienced positive college enrollment but the positive aspirations could not mitigate their poor academic preparation. The findings indicated that students often would not enroll in college if they lacked adequate academic preparation.

Kahlenberg (2004) found that many minority high school students exceeded the minimum SAT qualifications for college enrollment at most institutions. Furthermore, 30% of these African American and 50% of these Hispanic students came from families in the low income bracket or from less privileged high schools. Conversely, the study found that only 1 in 4 of these qualifying minority students would actually enroll in a postsecondary institution. These students were academically well-prepared, and yet they still did not attend college. These students represent a group of minority students that could have chosen to make a final decision of attending a higher education institution but for whatever reason, did not take those steps.

One of the factors that related to students' college preparation and ultimate institution choice was the type of high school that they had attended. O'Connor, Hammack, and Scott (2008) in their quantitative study utilized the 1988-2000 data set of the National Educational Longitudinal Study and found that Latinos on average had a lower GPA than any other racial group in the study. One of the trends observed was that many students who had lower GPAs came from rural school districts. In a later quantitative study that used the same data set, O'Connor (2009) found that the average

GPA's for not only Hispanics but also for Blacks were lower than those of White students. Similar findings were also observed in another study by McDonough et al. (1997) who found that access to limited information about higher education options adversely affected Hispanic students' educational expectations and ultimately their educational choices. The information about colleges was limited for these students; therefore, the students did not know what their options were. As a consequence, they had less of a desire to pursue college or chose to enroll in a less selective institution.

A final finding from McDonough et al.'s study (1997) was that many Latino students who had high academic preparation had a lower propensity to enroll at a private institution. This may be attributed to a theory of chain migration developed by Person and Rosenbaum (2006) in which they found that students, even with higher academic achievement, often settled for a lower ranked school that other students in their ethnic group had chosen to attend such as a 2-year institution. Other research also indicated that a much higher percentage of Latino students attended 2-year institutions (Conklin & Dailey, 1981; NCES, 2010; Perna & Titus, 2005). In addition, Latino students tended to not enroll in private 4-year institutions even though academically they qualified to attend one of these institutions.

Another high school background factor related to institutional enrollment was the role that high school employees played in the college choice process. Roderick, Nagaoka, Coca, and Moeller (2008) in a quantitative study of 105 Chicago Public High School students in three schools, found that the majority of the students were Latino, low-income, and first-generation college-bound students. These students also graduated on average with low GPA's and ACT scores. Because of these factors, only 75% of the students even qualified to attend a somewhat selective institution. For these students, the

most influential factor in their aspirations to attend these selective colleges were the teachers and guidance counselors who took the steps to get students prepared academically for college and then to encourage them to attend. This study indicated that Latino students were more reliant on their teachers and guidance counselors for direction and information about colleges than any other ethnic group.

Hearn (1991) observed that the students who attended highly selective institutions were found to also have high academic qualifications, high academic aspirations, above average high school grades, pursued a pre-college academic track, and even participated in high school extracurricular activities. In a similar study, Teranishi et al., (2004), based on the analysis of data from 18,106 first time freshmen through the Cooperative Institute Program, found that high school GPA and test scores had a high correlation with choosing a more selective institution. This finding indicated that the higher the students' grades and the more involved they were in their high school experience, the more selective the institution they tended to select.

Participation in college preparatory exams was another factor from a student's high school background that had an impact on the type and selectivity of the institution that the student chose to attend. In a quantitative study that utilized the NELS 1988-1992 data set with approximately 14,283 students, Hurtado, Inkelas, Briggs, and Rhee (1997) found that almost 40% of the African American and 32% of Latino students had delayed taking the SAT until after graduation which for most would result in a delayed entry into college or exclusion from this opportunity all-together. McDonough et al. (1997) also found that taking community college courses, seeking the advice from high school guidance counselors, and obtaining high grades were actions that predisposed African American students to enroll at a predominantly White postsecondary institution.

In another study that examined factors related to choosing a Historically Black College or University (HBCU), Kim and Conrad (2006) utilized the Cooperative Institutional Research Program of 1985-1994 data and studied 941 African American freshmen. The study found that SAT scores for African Americans attending Predominantly White Institutions (PWIs) was about 200 points higher than students who attended HBCUs. The study also found that African American students in predominately White high schools were more academically prepared for college which was evidenced by their high GPAs and SAT scores. Their scores were significantly higher for those students who were enrolled in predominantly Black high schools.

Several distinct trends were also observed in the type of high school African American students attended and the type of institution that they would select for a postsecondary education. First, Perna (2000), in a quantitative study of the 1992 NELS database found that African American students, who attended all Black high schools, were more likely to enroll in a 4-year college. Secondly, Freeman (1999, 2005) found that African American students who attended predominantly White high schools were more likely to choose an HBCU. They also found that African American students who attended predominantly Black high schools tended to select predominantly White institutions. The reason for African American students who attended a predominantly White high school to choose an HBCU was that many wanted to “get back to their roots” or wanted to study the African American culture because their predominantly White high schools did not provide this type of education (Freeman, 2005, p.94). This would indicate that admissions counselors who desired to attract a larger number of African Americans to their institution might look at predominantly African American high schools for potential students.

In an effort to help explain the choices of African American students in their postsecondary choice, Tatum (1997), in a qualitative study of African American college students raised in predominantly White communities found that anger and resentment occurred in African American adolescents as a response to their growing awareness of the systematic exclusion of African American people in the U.S. society. The study even found that there was a separation in the degrees of blackness within the African American culture. In order to reclaim and to increase one's blackness, some African American high school students from predominantly White high schools made a conscious choice to attend a predominantly Black or minority institution so that they could begin that process. Many of these campuses also offered courses of study that enabled these students to learn more about their heritage and past.

A final background factor in the college choice process of high school students was found in the interpersonal interactions with authority figures in their high school. Bergerson (2009), Freeman (1997), Freeman (1998), and Sevier (1992) all found that African American students heavily relied on high school teachers, guidance counselors, coaches and support staff to not only encourage them to attend college, but also to help them create their college choice set and ultimately to help them determine where they would attend college. These students were highly connected with these authority figures and in some instances, were more influenced by them than by their parents when making the final selection of college. McDonough (1997) found that school guidance counselors also played a significant role in the college search and ultimately, the choice process for high school students. One way that they did this was by helping students to limit their college choices from an infinite number into a number of institutions that were manageable. The schools that were recommended to students were the ones that aligned

with the worldview of the parents, the community at large, the school, and the student. These possible institutions also were seen as those into which the student could make a smooth academic transition from his/her high school experience. The guidance counselors were also able to steer many students that would have defaulted to a less selective institution that their peers had selected to institutions that were more selective. The time that each counselor was able to spend with each student was also limited by the number of students that the counselor was responsible for serving. Those high schools with many students still only had one guidance counselor which meant that the time spent per individual student was limited.

The high school background factors of a student had direct implications on the choice process and ultimate matriculation of all students and especially minority students. Students who had a high GPA, high test scores, and who had prepared for college by taking college preparatory classes were much more likely to not only enroll in college but enroll in a more selective and even a private institution. It was also observed that African American students who attended a predominantly White high school tended to select an HBCU for their postsecondary education and those that attended a predominantly Black high school tended to expand their experiences by attending a predominantly White 4-year institution. Finally, the most influential background factor for students in high school was their interaction with teachers, coaches, administrators and especially their high school guidance counselors. In many ways these individuals set the trajectory not only for the academic experience of these students but also the selection of postsecondary educational institutions. The next section examines the various fixed institutional factors that are associated with the college choice.

## **Fixed Institutional Factors Related to College Choice**

A variety of fixed institutional factors were found to effect a student's college selection. These factors were characteristics of the institution that were not easily changed by the institution or things that could be changed but would have taken a great amount of effort by the university or college to do so. These factors also directly affected the student's individual decision to enroll in the institution and included institutional characteristics, such as the location of the institution, its reputation, athletic programs, academic programs, and even the diversity of the student body.

The reputation of the institution was a factor continually highlighted in the literature. Sevier (1992) conducted a quantitative study of 1,127 college bound African American high school juniors. The study found that the reputation and availability of a specific major were the most important factors in the African American students' college choice. Similarly, McDonough et al. (1997) also found that the reputation of the institution was important in the final enrollment decisions made by students. Another study that highlighted the role of institutional reputation was a quantitative study by Teranishi et al. (2004) who found that students were concerned about the reputation as well the location of the institution. More than half of the students who were surveyed indicated that the institution's academic reputation was important in their consideration of college choice. The reputation was of most concern for those students who attended more selective colleges.

Along with the factor of reputation, the location of the institution in proximity to the high school or home town of the student was another important consideration in the college choice process. Most institutions do not have the ability to change the location of their main campus and yet for many students, this was one of the factors that played into



their decision-making. Using the data from the Cooperative Institutional Research Program's 1993 Freshman Survey, McDonough et al. (1997) examined the sample of 147,470 African American students and 49,842 African American students who attended Historically Black Colleges and Universities. The study found that African American students were more likely than other students to attend a college more than 500 miles away. This may be due to the fact that the HBCUs were located in towns other than where many African American students grew up and in order to attend an HBCU, the students would have to become mobile. The only other group who was more mobile was the group of students who attended highly selective colleges.

Teranishi et al. (2004) found that the selectivity of the college and its location had a direct impact on college choice. The study found that 32.1% of the Filipinos and 23.6% of the Southeast Asians wanted to live near home more than their Japanese and Korean counterparts. Students who were from the lowest income bracket were also the most likely to choose a school that was close to home as well. The study also found that students who chose less selective institutions were also more likely to choose an institution that was located close to home.

Another quantitative study that examined first choice institutions and their location was conducted by Carter (1999) and utilized the Beginning Postsecondary Students Longitudinal Study of 1990-1992 which sampled 4,067 students. Carter (1999) found that African American students attended their first choice institutions when they were within an hour of their home; yet they attended their first choice institution less often than White students. If their first choice institution was located further than an hour away, African American students tended to turn down their first choice for an institution that was more centrally located.

There are several reasons associated with why many students tend to not venture away from their home town for their postsecondary experience. Smith (2007) in a qualitative study using semi-structured interviews at two secondary schools found that most of the students desired to attend a college that was close to their high school. The biggest reason they selected these intuitions was that they wanted to attend a college in a location that they were familiar with. To leave their hometown would mean leaving their friends and a familiar setting, and many students felt that this type of a change was not worth the benefits. Bergerson (2009) also found that many students chose an institution that was close to home not because of its fit but rather because its location was a factor of utility for the student. Many of these students were also price sensitive in selecting their institution, and as a result of choosing a college close to home, many could actually live at home and commute, therefore saving the money in the long run. Bergerson (2009) also found that Latino students tended to select institutions that were geographically close to their high schools and by default, many of these institutions were community colleges. These findings suggested that many African American and Latino students arrived at community colleges primarily because their high school location was relatively close to these institutions.

Another factor that influenced the college choice of students was the diversity of the student body. The diversity of an institution was directly linked to the final selection of minority students. Engberg and Wolniak (2009) found that students of color, when admitted to a school that demonstrated a greater racial structural diversity within its student body, were significantly more likely to actually enroll in that institution. It was important for students of color to find a student body that represented their racial profile and to ensure that they could see themselves fitting into the student body.

A final factor that particularly affected African American students' enrollment at an institution was the athletic facilities and the reputation of the athletic program. Cuyjet (1997) in a quantitative study examined the data from the College Student Experiences Questionnaire between the years of 1990 and 1996 which included 50,188 student responses from 66 college campuses. The study found that the athletic and recreation facilities of an institution were associated with African American college choice. In this study, an institution that had adequate facilities tended to positively influence African American males' selection of that particular institution.

This finding was confirmed by Braddock and Hus (2006) in their quantitative study that utilized the NELS 1988 data set. This study found that while the college athletic reputation was clearly not a top factor in a student's college choice, it was a consideration for many African American high school students. The study found that the athletic reputation was only a consideration for those students who were considering public 4-year institutions. Those who were considering private 4-year institutions did not consider this factor in their final choice.

While institutions can change many aspects about themselves to attract minority students to their institutions, there are certain factors that are not easily changed or cannot be changed at all, but still affect a student's enrollment choice. Factors such as the reputation of the institution, its location, the diversity of the student body and the athletic program all had a significant effect on the enrollment decisions of minority students. While many institutions have fixed factors that cannot easily be changed, institutions do have full control over enrollment and marketing techniques that an institution uses to influence the final selection process for students. The final section focuses on factors that an institution has control over in the enrollment process.

## **Institutional Marketing Strategies Related to College Choice**

One of the college choice factors that emerged from both the theory and the literature was the importance of the role of the institution in marketing themselves to prospective students. While the student ultimately had the final decision in the choice process, the institution still played a significant role not only in what types of colleges students would include in their choice set, but also on their ultimate decision to enroll at an institution. The institutional marketing factors that affected enrollment consisted of the role of the admissions representatives, the actual college visit, the relationships with feeder schools, and the marketing materials that an institution used.

One of the influences in the college choice process that institutions had control over was the art of conducting campus visits. For many students, just visiting the campus was a determining factor in their selection of that particular institution. If the campus visit went well, the students were likely to select that institution, but if it went poorly, a student would often select another institution. Litten (1982), in a qualitative study of six Pittsburgh high schools and 127 interviews, found that African American students started their college selection process later than White students, conducted it for a longer period of time, completed it considerably later and tended to consider more schools in this process. Campus visits and visits by college admissions counselors were ranked as the sources of greatest information for African American students. The African American students also consulted a greater number of information sources as compared with their White counterparts.

Sevier in a 1992 study found that current college students and admissions representatives were influential in the choice process. Of the African American students surveyed, 65% also indicated that a campus visit was very important in their

matriculation decision. This finding indicated that while the admissions representatives were important in the choice process, the actual visit to campus was a significant deciding factor for a majority of the students.

In a later quantitative study by Hamrick and Hossler (1996), in coordination with the Indiana College Placement and Assessment Center, it was determined that highly diverse information-gathering was found to be highly related to the pool of colleges to which students chose to apply, certainty of their academic major, and subsequent satisfaction with their decision and with the institution. The more information that admissions counselors sent out to perspective students, the more students considered them in their choice set.

Smith (2007), in a qualitative study using semi-structured interviews at two secondary schools, also found that students who participated in campus visits and had an opportunity to see how they fit in that environment were more likely to select the institution. The campus visit for several of the students interviewed was a defining event in the choice process. After the students visited the campus, their decision process came to a close because the institution either provided them with a good perceived fit or not. Students also indicated that a lack of familiarity with an institution was a negative factor that influenced their choice for enrollment. This effect was also attributed to habitus and students' ability to feel like their background matched well with the institution and others in attendance at that institution. This feeling of a good fit ultimately led to their enrollment at the institution.

Another institutional enrollment factor was the student's consideration of multiple institutions. Many admissions counselors worked to persuade students to enroll in their institution and to make it into their final choice set for further consideration. Hurtado et

al. (1997) found that when students applied to fewer colleges, the odds of attending their first choice institution increased for them. They also found that African American, Latino, and Asian students were significantly less likely to attend their first choice college. Thus, if a student had a small choice set and an admissions counselor could persuade a student to add his/her institution to the student's short list, there was a greater chance that the student would ultimately select them for enrollment.

In another quantitative study, Teranishi et al. (2004) found that the more institutions Asian Pacific Americans applied to, the more likely they were to enroll in a more selective college. The study also found that Chinese and Korean Americans were more likely to apply to five or more campuses. Engberg and Wolniak (2007) found that the more schools that students indicated on their FASFA form, the less likely one could predict their final destination. The study also found that there was a strong connection between college enrollment and the historic number of students from that high school who had elected to attend a particular college. In other words, when a feeder school relationship had been established by a consistent number of students choosing a particular institution, there was a greater likelihood that other students would also select that institution. A final finding of this study was that students with lower academic profiles were the most affected by the feeder school relationship in their college choice. Those students who had lower academic profiles were more likely to attend a college where other students from their high school attended.

Another study that also examined the role of the admissions counselor and the concept of a feeder school was Niu and Tienda's (2008) quantitative study of 13,803 students from 96 high Texas high schools that were guaranteed admission into an institution. Academic achievement and type of high school attended were used as the

criteria for defining college choice sets. In this study, guidance counselors were strongly correlated with students applying to certain schools because the students did not have all of the information that they needed to make an informed choice. The study also showed that graduates from affluent and feeder high schools selected a disproportionately higher share of highly selective colleges. In contrast, students who designated a 2-year college as their top choice came mostly from the poorly resourced high schools in Texas.

Another unique finding was that only 18% of the seniors from poorly resourced schools applied to one of the flagship institutions as compared to 44% of the seniors from affluent feeder schools.

In a recent quantitative study by Engberg and Wolniak (2009), it was observed that White students generally came from feeder schools that had developed relationships with certain private colleges. In contrast, other racial groups attended high schools that did not have those kinds of relationships already established. As a result, this study found that Asian, African American, and Latino students were significantly less likely to attend one of these private institutions because a feeder school relationship did not exist.

Another factor in the enrollment process of students was the amount and source of the marketing tools utilized by the institution. Marketing tools included everything from brochures to television commercials to the institutional website. Hossler et al. (1999) found that college marketing materials positively influenced a student's decision making process, but it was most effective when it came in the student's junior year of high school as the student was exploring the college options. They found that by the time the student was a senior in high school and had narrowed his/her choices, it was almost impossible for an institution that was not in his/her final choice set to gain entrance to this set.

While there are many forms of marketing that an institution can utilize, the institution's website has become one of the main channels of information for prospective students. Simões and Soares (2010) in a quantitative study of 1,641 students at a Portugal school indicated that 85% of their students were satisfied about the quantity and quality of information that they received during the enrollment process. While this school is located in Portugal, it was the only instance of research found that communicated about the use of the internet for marketing to students in the admissions process. Among the communication tools that the university had control over, the university web site was the most used source to gather information about the institution. Eighty-one percent cited the internet as one of the three most significant sources followed by printed materials such as brochures and leaflets, followed by university official guides and finally campus visits. Only 4% of the students identified their campus visit as the most used source of information in their choice process. While the final perceived fit of the institution may have been the campus visit, the way that students collected their information to make their choices relied most heavily on the internet presence of the institution.

The college choice process was greatly influenced by the marketing and recruitment efforts of an institution. The visit to campus, the number of colleges in a student's choice set, the feeder schools and the marketing materials on the web site all had an effect on the choice process for a student. Each of these was found to impact not only the number of institutions considered but ultimately the perceived goodness of fit for the student at an institution. Even the feeder schools that had been established at many high schools formed a "goodness of fit" relationship with the institution that influenced the student's final choice. It was also determined that the internet was a key resource for



prospective students to not only learn about an institution, but to also begin to determine whether they would fit into a college's overall environment.

### **Summary**

The literature review has covered college choice theories as well as major factors that affected the college choice process of students and were directly related to the theoretical constructs. Maguire and Lay's (1981) framework and Hossler and Gallagher's (1987) three-phase college choice theory provided the theoretical basis of this study. Maguire and Lay (1981) outlined several major factors that contributed to the actual college choice of prospective students and their matriculation decisions which included financial factors, socioeconomic status, the role of parents and other social inputs, fixed institutional factors, and institutional marketing strategies. Critical Race theory was also examined to provide a lens through which to better understand minority student college choice (Evans et al., 2010; Soloranzo et al., 2005).

The review of the existing research provided a comprehensive overview of the factors that specifically related to the college choice process or the third phase in Hossler and Gallagher's (1987) theory. The studies in many ways reinforced each other; nevertheless, a gap in the literature still existed in describing what factors influenced the choice of private faith-based institutions by admitted students. The literature was especially lacking in how minority students who were admitted to a variety of institutions finalized their decision to enroll in a private faith-based institution rather than the other types of institutions. The next chapter examines the methods of this present study that attempted to fill in some of these gaps in the existing research.

### **III. METHODS**

#### **Introduction**

The purpose of this study was to examine what factors affected minority students' choice to enroll at a private faith-based 4-year institution in the United States. Private faith-based 4-year institutions in this study were members of the Council of Christian Colleges and Universities (CCCU). The Council is comprised of 110 member institutions that maintain a Christ-Centered focus and hire only full-time faculty and staff with a personal commitment to Christ. These institutions have traditionally had a difficult time increasing their ethnic diversity despite their continuous commitment to the issue (Kratt, 2004).

This study considered five research questions to examine the enrollment decision and college choice of minority students who had been admitted into CCCU member institutions. The questions considered were:

- 1) What was the profile of minority students admitted to private faith-based 4-year CCCU member institutions in the U.S.?
- 2) How did admitted minority students' demographic and background characteristics affect their decision to enroll in a private faith-based 4-year institution in the U.S.?
- 3) How did perceptions of institutional characteristics affect minority students' decision to enroll at a private faith-based 4-year institution in the U.S.?
- 4) What financial factors affected minority students' decision to enroll at a private faith-based 4-year institution in the U.S.?
- 5) How did perceptions of institutional marketing strategies affect minority students' decision to enroll at private faith-based 4-year institutions in the U.S.?

## **Research Design**

This study utilized the combination of two quantitative research designs: correlational design and survey design. The correlational design allowed the investigator to “describe and measure the degree of association between two or more variables or sets of scores” (Creswell, 2008, p. 356). A correlational design also allowed the researcher to predict an outcome based on a set of predictor variables. The specific type of correlational design used in this study was prediction correlational research. Prediction research design was used to “identify variables that will predict an outcome or criterion” (Creswell, 2008, p.359). This study examined whether a defined set of variables (e.g. student background variables, perceptions of institutional characteristics, financial factors, and perceptions of institutional marketing strategies) could predict if an admitted minority student would choose to enroll at a particular institution.

This quantitative study also utilized a survey design. A survey design is used when “investigators administer a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviors, or characteristics of the population” (Creswell, 2008, p. 388). The data for this survey were collected using a national ASQ PLUS survey at one point in time rather than over a period of time, therefore, the design was more specifically classified as a cross sectional survey (Salant & Dillman, 1994). The survey used in this study was nationally developed and normed, which ensured the reliability and validity of the instrument (Creswell, 2008). Creswell (2008) noted that when analyzing an existing data set, there was also less room for researcher bias because the data were collected independently of the researcher.

## Sample

The population for this study consisted of all admitted minority students at CCCU institutions. Admitted students were individuals who had officially been admitted to the institution but may or may not have chosen to enroll (Hossler & Gallagher, 1987). The sample for this study included only admitted minority students from CCCU institutions who participated in the ASQ PLUS survey between 2005 and 2010. The time frame of the last five years was selected to provide the most current data available. Of all admitted students surveyed at these nine CCCU institutions between 2005 and 2010, a total of 3,199 admitted students responded to the ASQ PLUS survey and of those, 504 were minority students. Of the sample of 504 admitted minority students, the researcher eliminated any cases where the student did not indicate where they intended to enroll in the next 12 months. The sample was further refined by omitting those cases where the admitted student identified that they would enroll at a CCCU institution other than the one surveying them. This process narrowed the sample and the number of institutions in this study to include 283 admitted minority students who were admitted to eight CCCU member institutions. Table 1 indicated the number of admitted minority students from each surveying CCCU institution who were included in the final sample in this study. The number of responses ranged from a minimum of 1 student at one institution to a maximum of 81 students at another institution. Table 1 also provided the characteristics of all eight CCCU institutions included in the final sample. The eight institutions were all members of the CCCU and were all classified by Carnegie as private, not-for-profit, and Baccalaureate—Diverse institutions (Carnegie Classification, 2010). The institutions were located in the north east, east coast, mid-west, north-west and west coast. The denominations of these institutions included Catholic Dominican, Brethren in Christ

Church, Church of God, Church of the Nazarene, Evangelical Covenant Church, Interdenominational, and Presbyterian Church USA. The enrollment of these institutions ranged from 1,550 students to 2,800 students and their representation of enrolled minority students ranged from 7.5% to 40%.

Table 1

*Characteristics of CCCU Institutions Participating in ASQ PLUS Between 2005 and 2010*

| <b>Institution</b> | <b>Institution Type</b> | <b>Religious Affiliation</b> | <b>Size of Student Body</b> | <b>Non-White Student Ratio (%)</b> | <b>Sample of Minority Student Respondents</b> | <b>Urban / Suburban Institution Location</b> |
|--------------------|-------------------------|------------------------------|-----------------------------|------------------------------------|---|--|
| Institution #1     | Private not-for-profit  | Catholic Dominican           | 3,816                       | 23.2                               | 81  | Urban  |
| Institution #2     | Private not-for-profit  | Church of the Nazarene       | 2,390                       | 40                                 | 2   | Urban  |
| Institution #3     | Private not-for-profit  | Presbyterian Church USA      | 2,700                       | 17.9                               | 67  | Urban  |
| Institution #4     | Private not-for-profit  | Evangelical Covenant Church  | 1,852                       | 34                                 | 77  | Urban  |
| Institution #5     | Private not-for-profit  | Church of God                | 1,550                       | 15                                 | 1   | Urban  |
| Institution #6     | Private not-for-profit  | Presbyterian Church USA      | 2,500                       | 7.5                                | 6   | Rural  |
| Institution #7     | Private not-for-profit  | Brethren in Christ Church    | 2,800                       | 9                                  | 8   | Rural  |
| Institution #8     | Private not-for-profit  | Interdenominational          | 1,920                       | 11                                 | 41  | Rural  |

## **Instrument**

As indicated earlier, the data for this study came from the ASQ PLUS survey developed by the College Board. “The College Board is a not-for-profit membership association whose mission is to connect students to college success and opportunities. Founded in 1900, the College Board is composed of more than 5,700 schools, colleges, universities and other educational organizations” (ASQ PLUS User’s Manual, 2010, p. 2). The ASQ PLUS was administered yearly by institutional admissions offices. Each admissions office was supplied inventories by the College Board in either a paper or an online format, and they were then distributed via email or U.S. Postal Service to all admitted students at their institution. The College Board recommended that the institution send out an initial request for students to complete the survey but to then follow up with another email reminder seven to ten days after the initial survey and with a third round of emails or phone calls if no response had been collected a week after that. This method of data collection was the recommended procedure identified by Babbie (1990). The College Board also provided sample cover letters and follow-up messages for institutions to use so that communication with admitted students across institutions remained consistent. After the data collection was complete, each institution provided the data back to the College Board, who then conducted the data analysis for each institution.

The survey was designed to measure respondents' perceptions about the academic image and reputation of the institution, effectiveness of the recruitment process, interaction with admissions personnel, the institutional facilities, and cost of attendance. Each of these characteristics had been associated with the factors identified by the literature as having a direct effect on student college choice (e.g. Antonio & Trent, 1997;

Arnold, 1993; Carter, 1999; Coca & Moeller, 2008; Cuyjet, 1997; Freeman & Gail, 2002; Hammack & Scott, 2008; McDonough et al., 1997; O'Connor, 2009; O'Connor et al., 2008; Perna, 2000; Weiler, 1993).

The instrument consisted of 70 questions that varied in their focus and type. The survey consisted of personal, attitudinal, and behavioral questions, all of which were considered important components of a well developed survey (Creswell, 2008). Fowler (1988) also indicated that a good survey should include questions with different scales of measurement, which was another characteristic of the ASQ PLUS survey. The first 16 questions of the ASQ PLUS survey (The College Board, 2011) examined the college characteristics (e.g. academic reputation, personal attention to students, attractiveness of campus, etc.). Questions 17-20 asked the respondents to provide information about the colleges to which they had applied (i.e., How many institutions did you apply?; Do you plan to enroll in a college in the next 12 months?; Where will you enroll?; and What institutions were you admitted to?). Questions 21-39 examined students' ratings of the surveying college characteristics in comparison with the characteristics of two other top institutions to which students were admitted (e.g. quality of facilities, cost to family, availability of majors, etc.). Questions 40-53 allowed admitted students to rate the institutional marketing strategies and interactions with the admissions departments (e.g. college web site, campus visit, contact with faculty, etc.). Questions 54-61 were yes/no questions that related to the financial considerations of the admitted students (e.g. Did you apply for need-based financial aid? or Did your financial package include grants or scholarships?). Finally, questions 62-70 consisted of semi-closed ended and categorical choice questions that examined the demographic characteristics of the student who

responded to the survey (e.g. gender, proximity of the college from home, zip code of the home address, etc.) (ASQ PLUS Sample Questionnaire, 2010).

The 2008 ASQ PLUS had a response rate of 80% across all institutions. It was also observed that 54% of enrolling students and 21% of non-enrolling students completed the survey (ASQ PLUS User's Manual, 2010). According to Fowler (1988), a response rate of 50% or better is considered a good response rate for the data analysis. Although the response rate of non-enrolled students was lower when compared to the response rate of enrolled students, a 20% -25% response rate is considered a norm in many survey-based research studies (Dey, 1997).

## **Variables**

### **Outcome Variable**

The outcome variable in this study was a dichotomous, categorical variable, indicating whether the student chose to enroll or not at the respective CCCU institution to which he/she had been admitted. In question 19 of the ASQ PLUS survey, respondents were asked to report if they planned to enroll in college in the next 12 months. Students who chose to enroll were coded as 1 and those who chose not to enroll were coded as 0. The second part of question 19 asked those respondents who reported that they were going to attend college in the next 12 months to indicate where they were going to attend. The researcher identified if the institution's name provided by the student matched the name of the respective CCCU institution. If the answers matched, the respondents were coded as 1 indicating that they chose to enroll at the respective CCCU institution. If the answers did not match, the respondents were coded as 0 indicating that they chose to enroll at another institution and not at the respective CCCU member institution.



## **Predictor Variables**

The predictor variables consisted of four different sets of factors: demographic and background characteristics; financial factors; institutional marketing strategies; and institutional characteristics as perceived by admitted students. Appendix A provides the detailed information about each of the measures used in the study.

*Student Demographic and Background Characteristics.* The following demographic and background characteristics were examined in this study: gender; ethnicity/race; parents' income; proximity of the institution from home; high school GPA; and high school type. The variable of gender was a dichotomous, categorical variable, coded as 0 = male and 1 = female. The variable of ethnicity/race was represented by 4 categories: 1 = American Indian and Other (i.e., individuals of any other race/ethnicity); 2 = Black or African American; 3 = Asian, Asian American, or Pacific Islander; 4 = Hispanic.

Another background variable was the parent's income which represented the SES of the student. The data for parents' income were derived from the ASQ PLUS question #68, which asked the respondents to report the total amount of income before taxes from all parents or guardians. The responses were coded as: 1 = less than \$30,000; 2 = \$30,000-\$39,999; 3 = \$40,000-\$59,999; 4 = \$60,000-79,999; 5 = \$80,000-\$99,999 6 = \$100,000-\$149,999; 7 = \$150,000-\$199,999; and 8 = \$200,000 or more.

Another variable examined in this study was the distance of the institution from the student's home. Question #66 in the ASQ PLUS survey asked admitted students to report how far the surveying college was from their home. The responses were coded as: 1 = less than 50 miles; 2 = 51-100 miles; 3 = 101-300 miles; 4 = 301-500 miles; and 5 = more than 500 miles.

The background variable of high school type was also examined in this study. Question #67 in the ASQ PLUS survey asked admitted students to select the type of high school they attended. The responses for this variable were collapsed into a dichotomy: 1 = attended independent, religiously affiliated high school and 0 = attended any other high school (i.e., public or independent, not religiously affiliated).

Another background variable that was examined in the study was high school GPA. Question #62 in the ASQ PLUS survey asked the admitted students to report which of the following categories best represented their average grades in high school: D or below (69 or below), C (70-79), B (80-89), and A (90-100). Their responses were re-coded and condensed into two categories: 1 = "A" average GPA and 0 = GPA below an "A" average.

***Financial Factors.*** Consistent with the existing research, financial factors included the following two variables: student loans and grants or scholarships. In the ASQ PLUS survey, question #58b asked the admitted students to report whether their financial aid included one or more student loans. The ASQ PLUS question #58c asked the admitted students whether their financial aid included grants or scholarships. On both of these questions, respondents were provided the following response options coded as: 1 = yes and 0 = no.

***Students' Perceptions of Institutional Marketing Strategies.*** Institutional marketing strategies were another factor highlighted by the literature as having an effect on minority student college choice. Consistent with the existing research, the following five variables were examined as institutional marketing strategies: campus interaction, electronic communication, web site, promotional materials, and college-sponsored visits. Campus interaction was computed by averaging admitted students' responses on three

ASQ PLUS questions: Q53 contact with current students, Q50 contact with faculty and the Q47 campus visit. Promotional materials were computed by calculating the mean of admitted students' responses on two questions: Q43 college videos, CD-ROMs and Q42 college publications. The variable of College Sponsored Visits was computed by averaging the responses on two ASQ PLUS questions: Q41 college-sponsored meetings and Q40 admissions staff visits to high school. Electronic communication with the college and the website were derived from two ASQ PLUS questions: Q46 electronic communication with the college and Q44 the web site, respectively. Admitted students' ratings of institutional marketing strategies on each original ASQ PLUS question were coded as: 1 = not used, 2 = poor/fair; 3 = good; 4 = very good; and 5 = excellent.

*Students' Perceptions of Institutional Characteristics.* Finally, the variables that were also examined in this study as predictors of college choice were the institutional characteristics as perceived by minority students admitted at 4-year faith-based institutions. These institutional characteristics were represented by the following five variables: opportunities for extracurricular activities; recreational facilities; academic facilities; availability of majors; and academic reputation. For all institutional characteristics, students were asked to rate the institution's recreational facilities, academic facilities, reputation, and availability of majors using a four-point Likert scale: 1 = poor/fair; 2 = good; 3 = very good; and 4 = excellent.

### **Data Analysis**

The data preparation was the first step after obtaining the ASQ PLUS data set from The College Board for the participating institutions. The data set was carefully cleaned and entries with missing data were omitted from the study. The variables were re-coded to ensure that a positive response for each question signified a higher number in

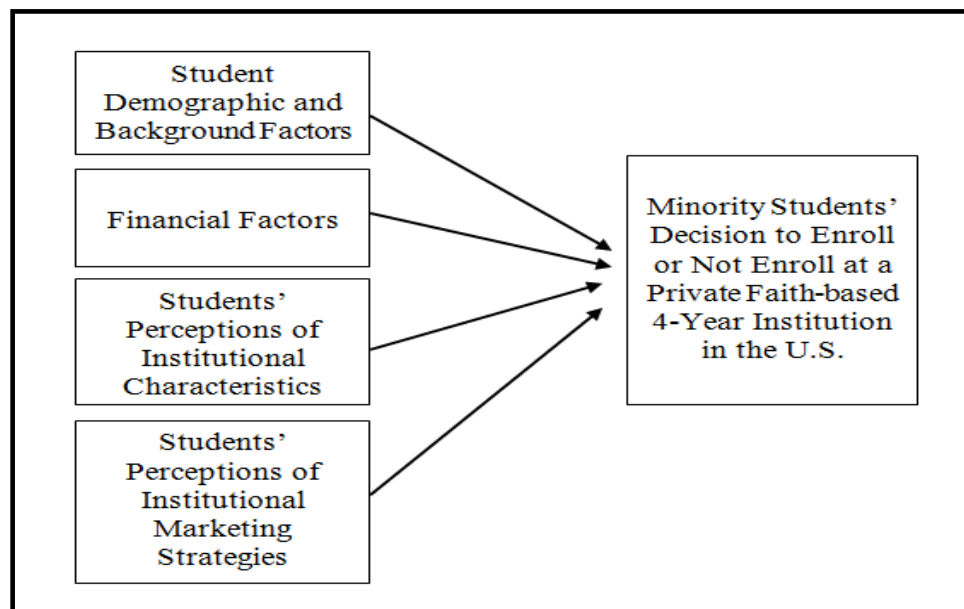
the data set. This ensured that the scales were all coordinated in the same direction so that the higher the number, the more positive the response. After the data preparation was complete, descriptive statistics were examined to respond to the first research question and provide a profile of the sample. Creswell (2008) indicated that descriptive statistics included measures such as percentages, means, medians and modes used to describe the data. Frequencies and percentages were examined for categorical variables, such as gender, ethnicity, high school type, and financial factors. Means and standard deviations were examined for continuous variables in the study, such as admitted students' perceptions of institutional characteristics and students' ratings of institutional marketing strategies. Chi-Square and *t*-Tests were used to observe whether or not the differences between enrolling and non-enrolling students on all the variables used in the study were significant. SPSS statistical package (2007, Version 15) was used for all data analysis procedures.

Logistic regression analysis was the primary data analysis technique used in the study to respond to questions 2 through 5. According to Tabachnick and Fidell (2007), logistic regression is an appropriate statistical technique when the outcome variable is a dichotomy. The outcome variable in this study indicated whether admitted minority students chose to enroll or not at a respective CCCU institution. Logistic regression is used when “the model is designed to describe a probability, which is always some number between 0 and 1” (Kleinbaum & Klein, 2002, p. 6). The results of the logistic regression yielded the probability that a minority student would choose to enroll or not to enroll in a faith-based college based on a combination of predictor variables. These predictor variables could be a mix of continuous, discrete, and dichotomous variables (Tabachnick & Fidell, 2007). In addition, according to Tabachnick and Fidell (2007),

"the predictors do not have to be normally distributed, linearly related, or of equal variance within each group" (p. 437). This enabled the researcher to examine many combinations of predictor variables for statistical significance, such as demographic and background characteristics, financial factors, institutional marketing strategies, and college characteristics as perceived by students. Figure 1 provided the final conceptual model of this study.

Figure 1

*Conceptual Model*



Before conducting the logistic analysis, the data were checked for collinearity and outliers in order to check the assumptions for logistic regression. A chi-square test was used to evaluate the model fit and observe if a significant relationship existed between the outcome and the combination of independent variables. The researcher examined the Wald Statistic Tests to observe the contribution of each independent predictor to the outcome. A significant Wald statistic indicated that "the predictor is making a significant contribution to the prediction of the outcome" (Field, 2005, p. 239). The odds ratios were

reported to examine the likelihood of the admitted student enrolling or not at a private faith-based four-year institution with every one unit increase in the predictor value (Field, 2005; Tabachnick & Fidell, 2007). According to Field (2005), if the  $\text{Exp}(\beta)$  value "is greater than 1 then it indicates that as the predictor increases, the odds of the outcome occurring increase. Conversely, a value less than 1 indicates that as the predictor increases, the odds of the outcome occurring decrease" (p. 241).

### **Summary**

This section provided the description of the methods and procedures used in this study to examine what factors affected minority students' decision to enroll at a faith-based institution, including sampling, instrument, measures, and data analysis techniques. The final sample in this study consisted of admitted minority students from eight CCCU institutions that administered the ASQ PLUS between 2005 and 2010. The ASQ PLUS was designed and administered by The College Board to obtain feedback from admitted students about their interactions and perceptions about the institution to which they were admitted. College choice theories and the literature on minority student's college choice guided the selection of variables in this study. Finally, descriptive statistics, chi-square tests, *t*-Tests, and logistic regression analysis were used to determine what factors affected minority students' decision to enroll at a 4-year faith-based institution.

## **IV. RESULTS**

### **Introduction**

The number of minority students graduating from high schools across the United States has continued to increase over the last several years and is projected to continue to increase. However, the concern is that the ratio of minority students who choose to enroll in college has not kept pace with the national trend of minority students graduating from high school (NCES, 2010). Institutions in the Council of Christian Colleges and Universities (CCCU) have had an even smaller percentage of minority students choose to enroll at their institutions (Noel-Levitz, 2010). Creating a racially diverse student body is an important strategic imperative for these institutions, because exposure to diversity promotes the holistic development of students of all ethnic backgrounds involved in the educational process.

The purpose of this study was to examine the factors that affected minority students' choice to enroll at a private faith-based 4-year institution in the United States. Private faith-based 4-year institutions in this study were members of the CCCU. The final sample in this study included only admitted minority students from eight CCCU member institutions who participated in the ASQ PLUS survey between 2005 and 2010. These institutions were located in the north-east, east, mid-west, north-west, and western regions of the United States, and represented a variety of faith traditions.

This chapter first provides a summary of the study and reviews the survey collection results. These sections are then followed by the results of the descriptive statistics to answer question one about the demographic and background characteristics of the sample. Subsequently, the chapter describes the results from the logistic regression to address questions two through five and examine the effects of

demographic/background characteristics, financial factors, students' perceptions of institutional marketing strategies and institutional characteristics on admitted minority students' decision to enroll or not at a respective CCCU institution. The chapter concludes with a summary of the results.

### **Summary of the Study**

The purpose of this study was to examine the factors that affected minority students' choice to enroll at private faith-based 4-year CCCU member institutions in the United States. This study focused on Maguire and Lay's (1981) development of the college choice model which identified specific factors affecting the actual choice process of the student. This study also utilized Hossler and Gallagher's (1987) college choice theory. This theory was a three-phase theory beginning with a predisposition phase, followed by a search phase and concluded with a choice phase. The scope of the present study was limited to only the third phase or choice phase of the model. This study also drew on the Critical Race Theory (Evans et al., 2010; Soloranzo et al., 2005) as a lens through which to examine minority student college choice.

The literature review examined several factors that contributed to the college choice process for students as they considered enrollment into college. The overarching characteristics affecting the choice process of minority students that were analyzed in this study included demographic and background characteristics, financial factors, students' perceptions of institutional marketing strategies and students' perceptions of institutional characteristics.

The study utilized the combination of two quantitative research designs: correlational and survey designs. The data for this survey were collected at one point in time using the nationally-normed, ASQ PLUS survey. The survey was developed by the



College Board. The study included the data from eight CCCU schools who administered the ASQ PLUS late July and early August between 2005 and 2010. Descriptive statistics, Chi-Square, *t*-Tests, and Logistic Regression were utilized to analyze the data in this study. These analyses allowed the researcher to examine to what extent students' demographic/background characteristics, financial factors, perceptions of institutional marketing strategies and institutional characteristics affected admitted minority students' decision to enroll at a respective CCCU institution.

### **Survey Collection Results**

A total of 3,199 students responded to the ASQ PLUS survey administered by eight CCCU institutions between the years of 2005 and 2010. Of the total respondents, 504 were minority students. Of these minority students, the researcher eliminated any cases where the students did not indicate where they were enrolling within the next 12 months. The sample was further refined by omitting those individuals who intended to enroll at a CCCU institution other than the one surveying them. Therefore, the final usable sample consisted of 283 individuals from eight CCCU institutions and included only those admitted minority students who indicated their intention to enroll at either a surveying CCCU member institution or any other non-CCCU member institution. SPSS 17.0 was used for all the data analysis procedures in this study.

### **Results from Descriptive Statistics**

#### **Student Demographic and Background Characteristics**

Descriptive statistics were conducted to examine the profile of minority students admitted to private faith-based 4-year institutions in the U.S. The first group of variables that were analyzed consisted of the demographic and background characteristics of the sample of admitted minority students in the study. Table 1 provides frequencies and

percentages for the demographic variables (i.e., gender, race/ethnicity, and parents' income), for the total sample in the aggregate as well as separately for enrolling and non-enrolling students. As illustrated in Table 1, of the total sample, there were 89(31.4%) males and 193(68%) females. Females were in the majority in both enrolling and non-enrolling student groups. Specifically, among enrolling students, 64.8% were female and 35.2% were male. Of the non-enrolling student sample, 70.3% were female and 29.3% were male.

Of the total sample of surveyed students, 87(30%) indicated that they were of Hispanic origin, 50(17.7%) were African American/Black, 97(34.3%) were Asian American/Pacific Islander and 49(17.3%) were American Indian or Other. Of the racial groups identified, the Asian American/Pacific Islander was the largest subpopulation, with Hispanics representing the next largest group followed by African American/Black admitted students. Of those students who intended to enroll at the surveying institution, African American/Black students (33.3%) had the highest representation.

The results from the Chi-Square test demonstrated that there was a significant association between admitted students' race and their likelihood to enroll or not at a CCCU member institution,  $\chi^2(3) = 33.122, p < .001$ . The examination of frequencies and percentages indicated that African-Americans were more likely to enroll. On the other hand, Asian American/Pacific Islanders (42.3%) were the least likely to enroll.

Table 1

*Student Demographic Characteristics*

| Variables                            | Total<br>N = 283 | Enrolling<br>n = 108 | Not Enrolling<br>n = 175 | Chi-<br>Square |
|--------------------------------------|------------------|----------------------|--------------------------|----------------|
| Frequencies (%)                      |                  |                      |                          |                |
| <b>Gender</b>                        |                  |                      |                          |                |
| Males                                | 89(31.4)         | 38(35.2)             | 51(29.3)                 | 1.065          |
| Females                              | 193(68.2)        | 70(64.8)             | 123(70.3)                |                |
| <b>Race</b>                          |                  |                      |                          |                |
| Hispanics                            | 87(30.7)         | 31(28.7)             | 56(32.0)                 | 33.122***      |
| African American / Black             | 50(17.7)         | 36(33.3)             | 14(8.0)                  |                |
| Asian American / Pacific<br>Islander | 97(34.3)         | 23(21.3)             | 74(42.3)                 |                |
| American Indian / Other              | 49(17.3)         | 18(16.7)             | 31(17.7)                 |                |
| <b>Parents' Income</b>               |                  |                      |                          |                |
| Below \$30,000                       | 45(15.9)         | 23(21.3)             | 22(12.6)                 | 29.573***      |
| \$30,000-\$39,999                    | 25(8.8)          | 13(12.0)             | 12(6.9)                  |                |
| \$40,000-\$59,999                    | 32(11.3)         | 19(17.6)             | 13(7.4)                  |                |
| \$60,000-\$79,999                    | 36(12.7)         | 11(10.2)             | 25(14.3)                 |                |
| \$80,000-\$99,999                    | 27(9.5)          | 6(5.6)               | 21(12.0)                 |                |
| \$100,000-\$149,999                  | 38(13.4)         | 9(8.3)               | 29(16.6)                 |                |
| \$150,000-\$199,999                  | 14(4.9)          | 5(4.6)               | 9(5.1)                   |                |
| \$200,000 & Over                     | 27(9.5)          | 2(1.9)               | 25(14.3)                 |                |

*Note.* Totals may not add up to 100% due to missing data. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Parents' income was the next variable examined in this study. Of the total sample, 45(15.9%) reported an income below \$30,000 and 36(12.7%) reported an income of \$60,000-\$79,999. Of those who intended to enroll at their surveying institution, the largest group included 23(21.3%) individuals who reported an income below \$30,000. The results from the Chi-Square test demonstrated that there was a significant association between the parents' income of admitted students and their likelihood to enroll or not at a CCCU member institution,  $\chi^2 (7) = 29.573, p < .001$ . The examination of frequencies and percentages indicated that students whose parents had an income below \$30,000 were more likely to enroll. Among students who did not intend to enroll, the largest group consisted of 29 (16.6%) students who reported their parents had an income of \$100,000-\$149,999.

Table 2 provides descriptive statistics results for three background variables examined in the study: high school type, distance from home to college, and high school GPA. As illustrated in Table 2, a greater percentage of students from private faith based high schools were considered enrolling (15.7%) compared with those that were non-enrolling (9.7%) at a CCCU member institution.

The two most frequently reported distances that students had to travel to their respective surveying institution were 101-300 miles (27.9%) and more than 500 miles (25.4%). Of those who intended to enroll at their surveying institution, a distance of under 50 miles (34.3%) was most often reported. The results from the Chi-Square test demonstrated that there was a significant association between the distance to an institution from an admitted student's home and their likelihood to enroll or not at a CCCU member institution,  $\chi^2 (4) = 17.010, p < .01$ . The examination of frequencies and percentages indicated that students traveling a distance under 50 miles to attend college

were more likely to enroll. On the other hand, the most frequently reported distance among students who did not intend on enrolling was more than 500 miles (28.6%).

Table 2

*Student Background Characteristics*

| Variables                              | Total           | Enrolling | Not<br>Enrolling | Chi-<br>Square |
|--|-----------------|-----------|------------------|----------------|
|  | N = 283         | n = 108   | n = 175          |                |
|  | Frequencies (%) |           |                  |                |
| <b>High School Type</b>                |                 |           |                  |                |
| Attended Private Religious High School | 34(12.0)        | 17(15.7)  | 157(89.7)        | 2.332          |
| Attended Any Other Type of High School | 247(87.3)       | 90(83.3)  | 17(9.7)          |                |
| <b>Distance From Home to College</b>   |                 |           |                  |                |
| Under 50 Miles                         | 64(22.6)        | 37(34.3)  | 27(15.4)         | 17.010**       |
| 51 to 100 Miles                        | 35(12.4)        | 15(13.9)  | 20(11.4)         |                |
| 101 to 300 Miles                       | 79(27.9)        | 22(20.4)  | 57(32.6)         |                |
| 301 to 500 Miles                       | 24(8.5)         | 7(6.5)    | 17(9.7)          |                |
| More Than 500 Miles                    | 72(25.4)        | 22(20.4)  | 50(28.6)         |                |
| <b>High School GPA</b>                 |                 |           |                  |                |
| Average GPA of "A"                     | 171(60.4)       | 38(35.2)  | 133(76.0)        | 46.637***      |
| Average GPA below "A"                  | 108(38.2)       | 68(63.0)  | 40(22.9)         |                |

*Note.* Totals may not add up to 100% due to missing data. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

The final background characteristic that was examined was the minority students' high school GPA. Of those surveyed, 171(60.4%) minority students had an average GPA of "A." Among students who intended to enroll, only 38 (35.2%) had the average GPA of "A". However, a majority of non-enrolling students reported an average GPA of "A" (76.0%). The results from the Chi-Square test demonstrated that there was a significant association between admitted students' high school GPA and their likelihood to enroll or not at a CCCU member institution,  $\chi^2 (1) = 46.637, p < .001$ . The examination of frequencies and percentages indicated that admitted students with an average high school GPA of "A" were less likely to enroll at a CCCU member institution.

### **Financial Factors**

The second set of variables examined in the study was related to financial factors. Financial factors included two variables that indicated whether admitted students were awarded any type of financial aid, specifically student loans and grants/scholarships. As illustrated in Table 3, of the total sample, 150(53%) were awarded financial aid in the form of a student loan. Of those who were considered non-enrolling at the surveying institution, 79(45.1%) received some financial aid in the form of loans, and of those who were enrolling, 71(65.7%) received some type of a loan to pay for college. The results from the Chi-Square test demonstrated that there was a significant association between student loans being awarded and a student's likelihood to enroll or not at a CCCU member institution,  $\chi^2 (1) = 12.842, p < .001$ . The examination of frequencies and percentages indicated when student loans were awarded, admitted minority students were more likely to enroll.

Table 3 also presents frequencies and percentages for the variable indicating the awards of grants/scholarships. Of the total sample, 82(29%) respondents were awarded

grants and/or scholarships. Of those who considered not enrolling at the surveying institution, 42 (24.0%) were awarded grants and/or scholarships and of those who intended to enroll, 40(37.0%) received some type of grants and/or scholarships to pay for college. The results from the Chi-Square test demonstrated that there was a significant association between admitted students receiving grants and/or scholarships and their likelihood to enroll or not at a CCCU member institution,  $\chi^2 (1) = 6.079, p < .05$ . The examination of frequencies and percentages indicated that students who received grants and/or scholarships were more likely to enroll.

Table 3

*Financial Factors*

| Variables                         | Total           | Enrolled | Not Enrolled | Chi-Square |
|-----------------------------------|-----------------|----------|--------------|------------|
|                                   | N = 283         | n = 108  | n = 175      |            |
|                                   | Frequencies (%) |          |              |            |
| <hr/>                             |                 |          |              |            |
| <b>Loans</b>                      |                 |          |              |            |
| Awarded Student Loans             | 150(53.0)       | 71(65.7) | 79(45.1)     | 12.842***  |
| Not Awarded Student Loans         | 113(39.9)       | 29(26)   | 84(48.0)     |            |
| <b>Grants and/or Scholarships</b> |                 |          |              |            |
| Awarded Grants                    | 82(29.0)        | 40(37.0) | 42(24.0)     | 6.079*     |
| Not Awarded Grants                | 174(61.5)       | 57(52.8) | 117(66.9)    |            |

*Note.* Totals may not add up to 100% due to missing data. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Students' Perceptions of Institutional Marketing Strategies**

The next factor examined in the study included admitted students' perceptions of the surveying institution's marketing strategies. The variables used to examine this factor

consisted of students' perceptions of campus interaction, electronic communication, institutional web site, promotional materials used by the institution, and college sponsored visits to the students' high school and their home town. As illustrated in Table 4, admitted students rated the institution's web-site the highest among the marketing strategies (Mean = 3.70; SD = 1.15) followed by electronic communication (Mean = 3.53; SD = 1.36). The results from the *t*-Tests revealed that there was a significant difference between enrolling and non-enrolling students' satisfaction with the institution's web site and the institution's electronic communication used as marketing strategies, with  $t(268) = 2.199, p < .05$  and  $t(267) = 3.330, p < .01$  respectively. Enrolling students rated the institution's web site higher than non-enrolling students (Mean = 3.90; SD = 1.08 and Mean = 3.59; SD = 1.17, respectively). Also, enrolling students rated the institution's electronic communication higher than non-enrolling students (Mean = 3.88; SD = 1.22 and Mean = 3.32; SD = 1.40, respectively). The results from the *t*-Tests also revealed that there was a significant difference between enrolling and non-enrolling students' ratings of campus interaction,  $t(263) = 8.391, p < .001$ . Enrolling students were more satisfied with campus interaction used as a recruitment tool by the institution than non-enrolling students (Mean = 3.53; SD = 1.11 and Mean = 2.29; SD = 1.19, respectively).

According to admitted students, the least effective recruitment strategy was the use of college sponsored visits (Mean = 1.90; SD = 1.12). Similar findings emerged when students' perceptions of institutional marketing strategies were examined separately for enrolling and non-enrolling students. Both students who were enrolling and students who were not enrolling at the surveying institution rated college sponsored visits the lowest (Mean = 1.91; SD = 1.15 and Mean = 1.90; SD = 1.10, respectively) and



institutional websites the highest among the marketing strategies (Mean = 3.90; SD 1.08 and Mean 3.59; SD = 1.17, respectively). It should also be noted that the ratings on all five marketing strategies were higher for enrolling students than non-enrolling students.

Table 4  
*Students' Perceptions of Institutional Marketing Strategies*

| Variables                | Total      | Enrolling  | Not        | <i>t</i> -Test |
|--------------------------|------------|------------|------------|----------------|
|                          | N = 283    | n = 108    | n = 175    |                |
|                          | Means (SD) |            |            |                |
| Campus Interaction       | 2.76(1.31) | 3.53(1.11) | 2.29(1.19) | 8.391***       |
| Electronic Communication | 3.53(1.36) | 3.88(1.22) | 3.32(1.40) | 3.330**        |
| Web Site                 | 3.70(1.15) | 3.90(1.08) | 3.59(1.17) | 2.199*         |
| Promotional Materials    | 2.65(0.98) | 2.66(0.99) | 2.65(0.98) | -.064          |
| College Sponsored Visits | 1.90(1.12) | 1.91(1.15) | 1.90(1.10) | .012           |

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### **Students' Perceptions of Institutional Characteristics**

The final set of variables examined students' perceptions of institutional characteristics: extracurricular activities, recreational facilities, academic facilities, availability of majors, and academic reputation. As illustrated in Table 5, admitted students overall rated extracurricular activities the highest among institutional characteristics (Mean = 3.34; SD = .73) and the availability of majors the lowest (Mean = 3.15; SD = .85). Similar findings were observed when admitted students' perceptions of institutional characteristics were examined separately for enrolling and non-enrolling students. The results from the *t*-Tests revealed that there was a significant difference

between enrolling and non-enrolling students' satisfaction of extracurricular activities,  $t(231) = 2.353, p < .05$ . The examination of the means and standard deviations indicated the ratings of extracurricular activities were higher for enrolling students when compared with non-enrolling students (Mean = 3.47, SD = .74 and Mean = 3.25, SD = .71 respectively). Enrolling admitted students also rated recreational facilities higher than those who were non-enrolling (Mean = 3.41, SD = .72 and 3.07, SD = .76 respectively). The results from the  $t$ -Tests revealed that there was a significant difference between enrolling and non-enrolling students' satisfaction with recreational facilities,  $t(227) = 2.353, p < .05$ . The results from the  $t$ -Tests also revealed that there was a significant difference between enrolling and non-enrolling students' satisfaction with academic facilities,  $t(232) = 3.194, p < .01$ . Enrolling students were more satisfied with academic facilities than non-enrolling students (Mean = 3.41, SD = .69 and Mean = 3.09, SD = .80, respectively). The results from the  $t$ -Tests revealed that there was a significant difference between enrolling and non-enrolling students' satisfaction with the availability of majors,  $t(266) = 4.483, p < .001$ . Enrolling students were more satisfied with the availability of majors than non-enrolling students (Mean = 3.44, SD = .75 and Mean = 2.98, SD = .87, respectively). Finally, the  $t$ -Tests revealed that there was a significant difference between enrolling and non-enrolling students' satisfaction with the institution's academic reputation,  $t(257) = 3.085, p < .01$ . Enrolling students were more satisfied with the institution's academic reputation than non-enrolling students (Mean = 3.37, SD = .70 and Mean = 3.06, SD = .85, respectively).

Overall, each of the students' perceptions of institutional characteristics was rated higher by those students who were enrolling than those who were not enrolling at the surveying institution. The lowest rated institutional characteristic by those students who

were not enrolling at their surveying institution was the availability of majors (Mean = 2.98; SD = .87), which was different from the lowest ranked category (i.e., academic reputation) for students who intended to enroll (Mean = 3.37; SD = .70).

Table 5

*Students' Perceptions of Institutional Characteristics*

| Variables                  | Total      | Enrolling  | Not Enrolling | <i>t</i> -Test |
|----------------------------|------------|------------|---------------|----------------|
|                            | N = 283    | n = 108    | n = 175       |                |
| Means (SD)                 |            |            |               |                |
| Extracurricular Activities | 3.34(0.73) | 3.47(0.74) | 3.25(0.71)    | 2.353*         |
| Recreational Facilities    | 3.21(0.76) | 3.41(0.72) | 3.07(0.76)    | 3.445**        |
| Academic Facilities        | 3.22(0.77) | 3.41(0.69) | 3.09(0.80)    | 3.194**        |
| Availability of Majors     | 3.15(0.85) | 3.44(0.75) | 2.98(0.87)    | 4.483***       |
| Academic Reputation        | 3.17(0.81) | 3.37(0.70) | 3.06(0.85)    | 3.085**        |

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Results from Logistic Regression Analysis**

Finally, logistic regression analysis was conducted to examine what specific factors influenced the enrollment choice of admitted students, when all other predictors were held constant in the model. Logistic regression allowed the researcher “to predict a discrete outcome such as group membership from a set of variables that may be continuous, discrete, dichotomous or a mix” (Tabachnick & Fidell, 2007, p.437). The researcher conducted a logistic regression to determine how each individual predictor affected the outcome of enrollment when all other factors were held constant.

First, the data were all checked for multicollinearity and outliers to make sure that the assumptions for the logistic regression were met. The model correctly classified 88.6% of those students who were not enrolling and 75.4% of those who were enrolling. Overall, the model correctly classified 83.4% of the total sample. Cox & Snell and Nagelkerke R Square statistics equaled .422 and .572, respectively; however, these statistics should be interpreted with great caution, since they are not directly equivalent to the R-squared in OLS regression. The Hosmer and Lemeshow Test resulted in a non-significant Chi-Square ( $\chi^2(8) = 3.329, p = .912$ ), which indicated that the model fit the data well (Field, 2005). A non-significant chi-square value was desirable because it meant that the observed data and predicted values were not significantly different, which indicated that the model “is predicting the real-world data fairly well” (Field, 2005, P.254).

The assumptions for the logistic model were also met. The correlations between each of the independent variables were checked and they were all below .5 which indicated that the observed independent variables were not highly correlated. The assumption of multi-collinearity was also checked by examining Tolerance and VIF values. The lowest tolerance value was 0.426 and the highest VIF was 2.533, which indicated that multi-collinearity was not detected.

After evaluating the overall fit of the logistic model, coefficient estimates for predictor variables were examined to identify the contribution of each individual predictor, while controlling for all other variables in the model. Table 6 provides a summary of the Wald Statistic tests, which measure the contribution of each independent variable in predicting the college choice of minority students. A significant Wald statistic would indicate that “the predictor is making significant contribution to the prediction of

the outcome” (Field, 2005, p.239).  $\text{Exp}(\beta)$  in the last column of Table 6 is the odds ratio, which is interpreted as the change in the odds of a student enrolling with every one unit increase in the predictor variable. According to Field (2005), “if the value is greater than 1 then it indicates that as the predictor increases, the odds of the outcome occurring increase. Conversely, a value less than 1 indicates that as the predictor increases, the odds of the outcome occurring decrease” (p. 241).

Table 6

*Results of Logistic Regression for Admitted Students Enrolling on Selected Demographics, Students’ Perceptions of Institutional Marketing Strategies, and Students’ Perceptions of Institutional Characteristics*

| Variables                          | B      | S.E. | Wald   | df | Sig. | Exp(B) |
|------------------------------------|--------|------|--------|----|------|--------|
| Females                            | -.459  | .552 | .690   | 1  | .406 | .632   |
| Race/Ethnicity                     |        |      |        |    |      |        |
| Hispanic                           | 1.780  | .998 | 3.982  | 3  | .263 | 5.931  |
| Asian                              | .401   | .818 | 3.180  | 1  | .075 | 1.494  |
| Other                              | .365   | .833 | .241   | 1  | .624 | 1.441  |
| Parent’s Income                    | -.187  | .126 | .192   | 1  | .661 | .829   |
| Private Religious High School      | .153   | .753 | 2.205  | 1  | .138 | 1.166  |
| High School GPA of “A” ***         | -2.160 | .566 | .042   | 1  | .839 | .115   |
| Loans Awarded                      | .585   | .593 | 14.581 | 1  | .000 | 1.795  |
| Grants and/or Scholarships Awarded | -.368  | .621 | .974   | 1  | .324 | .692   |
| Campus Interaction ***             | 1.188  | .312 | .351   | 1  | .553 | 3.279  |
| Electronic Communication           | .339   | .263 | 14.510 | 1  | .000 | 1.404  |
| Web Site                           | -.334  | .318 | 1.664  | 1  | .197 | .716   |
| Promotional Materials**            | -.984  | .353 | 1.100  | 1  | .294 | .374   |

|                            |       |       |       |   |      |       |
|----------------------------|-------|-------|-------|---|------|-------|
| College Sponsored Visits   | -.039 | .248  | 7.783 | 1 | .005 | .962  |
| Extracurricular Activities | -.477 | .458  | .025  | 1 | .875 | .621  |
| Recreational Facilities    | -.186 | .476  | 1.085 | 1 | .298 | .830  |
| Academic Facilities        | .530  | .421  | .153  | 1 | .695 | 1.699 |
| Availability of Majors     | .347  | .400  | 1.585 | 1 | .208 | 1.414 |
| Academic Reputation        | .034  | .478  | .752  | 1 | .386 | 1.034 |
| Constant                   | -.444 | 1.985 | .005  | 1 | .944 | .642  |

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Logistic regression analysis revealed several significant predictors of college enrollment by admitted minority students. As illustrated in Table 6, three variables were significantly related to college enrollment intentions: high school GPA, campus interaction, and promotional materials. Of these three predictors, campus interaction was positively related to the choice of enrollment. On the other hand, grades and promotional materials negatively affected the outcome. More specifically, for every one unit increase in the rating of campus interaction, the odds of a minority student enrolling in a respective CCCU institution increased by a factor of 3.279, with all other predictors held constant. On the other hand, as previously indicated, grades and promotional materials did not have similar effects on college enrollment. The likelihood that an admitted minority student who had an average high school GPA of “A” would enroll at a CCCU member institution decreased by a factor of .115. In a similar way, with every one unit increase in the rating of promotional materials, the odds of an admitted minority student enrolling at a CCCU member institution decreased by a factor of .374. None of the other predictors held significant in the final model.

## Chapter Summary

This chapter examined the results of descriptive statistics and logistic regression to observe which specific factors affected admitted minority students' decision to enroll or not at a surveying CCCU member institution. In terms of demographic and background characteristics of minority admitted students, the examination of frequencies and percentages and Chi-Square tests revealed that African American/Black students, students who reported that their parents' income was below \$30,000, and students who reported that the institution to which they were enrolling was less than 50 miles from home seemed more likely to enroll at a CCCU member institution. It was also observed that those students who had an average high school GPA of "A" were less likely to enroll at a CCCU member institution. In terms of financial factors, results from descriptive statistics and Chi-Square tests indicated that students who received financial aid both in the form of loans and scholarships/grants seemed more likely to enroll at a surveying CCCU institution.

Descriptive statistics, including *t*-Tests revealed that among institutional marketing strategies, the web site was rated the highest by both enrolling and non-enrolling admitted minority students. It was also observed that enrolling students rated campus interaction, electronic communication, and the institutions' web sites significantly higher than non-enrolling students. Furthermore, *t*-Tests also indicated that enrolling students were significantly more satisfied than their non-enrolling peers with extracurricular activities, recreational facilities, academic facilities, availability of majors, and academic reputation of the CCCU member institutions to which they were admitted.

Finally, the results from the logistic regression indicated when controlling for all the predictors, only three variables held significant in the final model. Of all the variables

in the model, campus interaction was the only factor that significantly and positively related to the choice of enrollment. In contrast, institutional promotional materials significantly and negatively influenced students' enrollment decision. Furthermore, students with a high school GPA of “A” were less likely to enroll at a CCCU member institution. The following chapter examines conclusions and recommendations based on these findings.



## **CHAPTER V**

### **CONCLUSIONS AND RECOMENDATIONS**

#### **Introduction**

Improving racial diversity continues to be a challenge for institutions associated with the Council of Christian Colleges and Universities (CCCU). They have typically had a strong representation of international students; however, the number of U.S. minority students choosing to attend these institutions has lagged behind the national average. Leaders of the CCCU have recognized this issue and encouraged institutions to address this need (Andringa, 1999). Previous research suggests that having a racially diverse learning community increases students' problem solving and collaborative skills, promotes tolerance to diversity, fosters cognitive development, reinforces self-confidence, and encourages individual development (e.g., Bollinger, 2007; Chang, 1999; Gurin, 2004; Schmidt, 2010; Tierney, 1993). Colleges and universities, including CCCU member institutions, are responsible for creating a diverse learning environment that fosters the development of these skills in their students and graduates. In order to achieve this goal, CCCU member institutions need to better understand what factors influence minority students' decisions to enroll in these institutions. The current study attempted to shed some light on this issue by examining the factors that affected the enrollment decisions of minority students at CCCU member institutions. This chapter provides a summary of the study, discusses the findings and the conclusions that can be drawn from the study, and presents the recommendations for future research and practice.

## Summary of the Study

The purpose of this study was to examine the factors that affected minority students' choice to enroll at private faith-based 4-year CCCU member institutions in the United States. This study focused on Maguire and Lay's (1981) college choice model which identified specific factors affecting the actual choice process of the student. This study also utilized Hossler and Gallagher's (1987) college choice theory which was a three phase theory which began with a predisposition phase, followed by a search phase and concluded with a choice phase. The scope of the present study was limited to only the third phase or choice phase of the model. This study also drew on the Critical Race Theory (Evans et al., 2010; Soloranzo et al., 2005) as a lens through which to examine minority student college choice.

The data for this study were collected using the nationally-normed, ASQ PLUS survey. The survey was developed by the College Board. The data were collected by eight CCCU schools who administered the ASQ PLUS to their admitted students in late July and early August between 2005 and 2010. The final sample consisted of 283 individuals from eight CCCU institutions and included only those admitted minority students who considered enrolling or non-enrolling at the surveying CCCU member institution. Data analysis procedures used for this study included Chi-Square, *t*-Tests, and Logistic Regression. These analyses allowed the researcher to examine to what extent students' demographic/background characteristics, perceptions of institutional characteristics, financial factors, and perceptions of institutional marketing strategies affected admitted minority students' decision to enroll at a respective CCCU institution. What follows is the summary of the results by each research question:

1) What was the profile of minority students admitted to private faith-based 4-year institutions in the U.S.?

This sample consisted of 283 minority students of which two thirds were females and one third were males. The sample was comprised of 87 (30.7%) Hispanics, 50 (17.7%) African Americans, 97 (34.3%) Asian American/Pacific Islanders and 49 (17.3%) American Indians or Others. Forty-five (15.9%) students in the sample reported the lowest income category for their parents (i.e., below \$30,000). On the other hand, 27 (9.5%) students' parents were in the highest income category (i.e., \$200,000 and over).

2) How did admitted minority students' demographic and background characteristics affect their decision to enroll in a private faith-based 4-year institution in the U.S.?

Of those students surveyed, females comprised the majority of enrolling students. It was also observed that African American/Black students, students who traveled less than 50 miles, and students whose parents' income was less than \$30,000 were more likely to enroll at a CCCU member institution. Furthermore, both chi-square tests and logistic regression revealed that students who had a high school GPA of less than an "A" average were more likely to enroll at a CCCU member institution.

3) How did perceptions of institutional characteristics affect minority students' decision to enroll at private faith-based 4-year institutions in the U.S.?

The *t*-Tests revealed that differences in the perceptions of institutional characteristics between enrolling and non-enrolling students were significant. All institutional characteristics examined in the study (i.e., extracurricular activities, recreational facilities, academic facilities, availability of majors and academic reputation) were rated higher by enrolling than non-enrolling students.

4) What financial factors affected minority students' decision to enroll at private faith-based 4-year institutions in the U.S.?

Results from chi-square tests showed that minority students who received loans were more likely to enroll at a CCCU member institution. Similarly, students who received grants and/or scholarships were more likely to enroll at a CCCU member institution.

5) How did perceptions of institutional marketing strategies affect minority students' decision to enroll at private faith-based 4-year institutions in the U.S.?

Results from *t*-Tests showed that of the institutional marketing strategies examined in this study, enrolling students rated campus interaction, electronic communication, and the website significantly higher than non-enrolling students. However, campus interaction was the only factor in the final logistic regression that positively affected students' likelihood to enroll at the respective CCCU member institution. On the other hand, the more highly the institution's promotional materials were rated by the students, the less likely they were to enroll at that institution.

### **Discussion and Conclusions**

Several important conclusions can be drawn from the results of this study. The examination of the demographic and background profile of the respondents revealed that admitted minority students to the CCCU were predominantly female. Females made up the majority of the total sample as well as the majority of those who intended on enrolling. The racial majority of the total sample was comprised of Asian American/Pacific Islanders while African Americans made up the largest group of those intending to enroll followed by Hispanics, Asian American/Pacific Islanders, and American Indian or Other. The findings also suggested that African American students,

when admitted to a CCCU member institution, were most likely to enroll at that institution when compared with other ethnicities. On the other hand, Asian American/Pacific Islanders were least likely to enroll at a CCCU member institution relative to other minority student groups in the sample. Previous research indicated that Asian American students were the most determined of the ethnic groups to attend their first choice institution (Kim, 2004). Earlier research also highlighted that when Asian American/Pacific Islanders applied to multiple institutions, they were likely to enroll in a more selective college (Teranishi et al., 2004). Since many CCCU institutions are not considered highly competitive, many Asian American/Pacific Islanders may not have considered them to be their first choice.

Not only was the race of the student significant in a student's enrollment decision, but also the Socio Economic Status (SES) of the student's family. The data indicated that admitted minority students who came from a family whose reported income was below \$30,000 were more likely to enroll at a CCCU member institution. The data also revealed that those students who were from a family where the parents' income was \$100,000 to \$149,999 were less likely to enroll at a CCCU member institution. These findings suggest that minority students who came from a lower SES tended to enroll in CCCU institutions while those who came from a higher SES may have been afforded the flexibility to enroll elsewhere.

This study not only indicated a relationship between parents' income and students' choice to enroll, but it also supported the research that minority students came from each of the SES brackets (St. John et al., 2005). While students came from each SES bracket, as noted earlier, minority students from the lowest SES bracket were actually more likely to enroll at a CCCU member institution when compared with the

other brackets. This finding contradicted the literature which indicated that lower-SES students were less likely to attend higher cost institutions (Hearn, 1984; Perna & Titus, 2004). This finding might have partially been attributed to the high discount rate of many of the CCCU member institutions, which would make it more affordable for students in the lowest SES bracket to attend.

Distance from students' homes to the surveying institutions was another background factor that influenced the college choice of admitted minority students. The study found that students were more likely to enroll when the surveying institution was less than 50 miles from the home of the admitted student. The study also revealed that students were less likely to enroll at the surveying institution when it was more than 500 miles from their home. These findings were consistent with previous research that indicated that minority students who had to travel less than 50 miles to college were the most likely to enroll at that institution (Carter, 1999; Bergerson, 2009; Smith, 2007; Teranishi et al., 2004). This finding suggests that minority students are more likely to enroll at an institution where the surroundings are familiar to them. The decision to stay closer to home may be driven by the need for the student to support the family, maintain a job while attending college, or even reduce living expenses by living at home (Bergerson, 2009; Smith, 2007).

It should be noted that among admitted students' demographic/background characteristics, high school GPA was the only variable that remained significant in the final logistic regression analysis. The results indicated that with all other factors held constant in the logistic model, admitted minority students with a high school GPA of "A" were less likely to enroll at member CCCU institutions. In contrast, previous research revealed that minority students' high school GPA was found to be a significant and

positive predictor in determining their decision to attend a private institution (Hu & Hossler, 2000). The difference might be attributed to the fact that the sample of private institutions in earlier studies may have included a broader range of private, highly selective institutions compared to those in this sample, which was limited to only CCCU member institutions.

In addition to students' background and demographic characteristics, the study also examined how admitted minority students' perceptions of the institution affected their choice to enroll at a private faith-based 4-year CCCU member institution. The results of the *t*-Tests found that an institution's extracurricular activities, recreational facilities, academic facilities, the availability of majors and the academic reputation were positively related to admitted students' enrollment decision. Existing research also found that the students' perceptions about the institution and its extracurricular activities, recreational facilities, academic facilities, the availability of majors and the academic reputation mattered when they made their enrollment decisions (Braddock & Hus, 2006; Cuyjet, 1997; Sevier, 1992; Teranishi et al., 2004). These findings emphasize the importance for an institution to highlight its extracurricular activities, recreational facilities, academic facilities, availability of majors, and academic reputation when communicating with all admitted students to ensure that they have an accurate and favorable impression of the institution.

The current study also examined how financial factors were related to admitted minority students' decision to enroll at a CCCU institution. As noted earlier, students were more likely to enroll when they came from a family who had an annual income of less than \$30,000. With an income that low, many of these students would have qualified for need-based financial aid, which often consists of significant federal grants and

subsidized student loans. Earlier studies indicated that all types of financial aid had a strong, positive impact on the decision of minority students to enroll in college. These studies also suggested that private institutions tended to award more financial aid than public institutions (Hu & Hossler, 2000; Kim, 2004; St. John & Noell 1989). Previous research also revealed that states who offered some form of need-based financial aid actually encouraged students to enroll in private in-state 4-year institutions (Perna & Titus, 2004). The results from Chi-Square tests in this study supported the findings from earlier research that loans as well as grants and scholarships were positively related to the choice of a student to enroll at a CCCU member institution.

More specifically, this study revealed that minority students who received grants and/or scholarships were more likely to enroll at a CCCU member institution than those who did not receive this type of financial aid. Previous research also indicated that many minority students chose to enroll at an institution when they were given a grant or a scholarship that was greater than \$1,000 or if the amount awarded was more than they were anticipating (Hossler, 1999; Hossler et al., 1999; Kim et al., 2009). However, it was not possible to determine the amount of grants and scholarships that students received in this study, but the amounts offered may have been enough to make this a significant factor in persuading them to enroll at the surveying institution.

Furthermore, the results from this study also indicated that minority students who were awarded loans were more likely to enroll at the surveying institution. This finding, however, differed from the previous research which found that loans had less of a positive impact than grants and scholarships for African American students (St. John et al., 2005). This study did not determine the impact of grants and scholarships as



compared with loans. Rather it only determined that those students who were awarded a loan were more likely to enroll at the surveying institution.

This study also considered students' perceptions of an institution's marketing strategies in the college choice process of admitted minority students. It was observed that each of the marketing strategies (i.e., campus interaction, electronic communication, web site, promotional materials, and college sponsored visits) was rated higher by enrolling than non-enrolling minority students. Existing research confirmed that these marketing tools when used in a student's junior year of high school positively influenced the student's decision making process (Hossler et al., 1999). Of the marketing strategies utilized, enrolling students in this study rated the institution's website the highest. Prior research indicated that as of 2010, one of the main channels of information for prospective students was the use of the institution's web site (Simones & Soares, 2010). Another finding related to the website in this study was that electronic communication was another effective way to encourage minority student enrollment. These findings suggested that the use of email, instant messenger, cell phone and video conferencing could be used as electronic communication tools for effectively recruiting minority students.

It should be noted that campus interaction was the only variable among perceptions of institutional marketing strategies that remained significant in the final logistic regression model. Forms of campus interaction included campus visits, contacts with current students and contacts with the faculty. Prior research also confirmed that the campus visit and the experiences associated with a campus visit were highly influential in a student's decision to enroll at that institution (Sevier, 1992; Smith, 2007). In order for students to make informed enrollment decisions, it was important for them to have all of

the information they needed; much of this information was acquired through their interactions during the campus visits. Previous studies have suggested that students would likely choose the institution where they had the most positive experience during their campus visit or the one that they perceived to be the best fit for them (Litten, 1982; Smith, 2007).

The final logistic regression also indicated that promotional materials negatively influenced admitted minority students' enrollment. The institution's promotional materials consisted of marketing items such as college videos, CD-ROMs, and other college publications such as catalogues, brochures, etc. It is difficult to determine the possible reasons for this negative relationship. However, this finding does suggest that even if admitted students are satisfied with the institution's efforts to produce high quality promotional materials, they are not likely to choose the institution. This is an indication that an institution's promotional materials might not be an effective recruitment strategy when trying to encourage admitted minority students to enroll at an institution.

A final, notable factor, regarding the marketing strategies of an institution was that a college sponsored visit to the admitted student's home town or high school was rated the lowest of all the recruiting strategies for both enrolling and non-enrolling admitted students. This may have been a result of the timing of the ASQ-PLUS survey. Since an admitted student generally would not interact in a hometown visit the way that a prospective student would, this strategy may have been rated lower. This finding also highlighted that a college sponsored visit might not be an effective recruitment strategy for already admitted students while they are making their final enrollment decisions.

## **Recommendations for Practice**

The findings of this study had several implications for policy and practice that could potentially aid CCCU institutions in their recruitment of minority students. This section highlights these implications and offers recommendations for practice. The recommendations are based on the findings that emerged from this study as well as the review of the literature.

As previously indicated, a significant number of minority students in this study came from homes that were within a 50 mile radius of the institution. These students should be targeted for admission because they are more likely to enroll at a CCCU institution. These students are also often more familiar with the campus, have friends and family nearby and may already have employment in the local community to help pay for their education. Also, it may cost the institutions less to recruit these students when considering the cost of travel and the greater number of enrolling students located near the institution.

Another recommendation for practice was that institutions should develop relationships with feeder schools. Previous research indicated that many CCCU institutions utilized feeder schools to recruit their students (Engberg & Wolniak, 2009). The majority of the students who decided to enroll at a CCCU school in this study actually came from a non-religious high school located near the institution. It is advisable that CCCU institutions engage more effectively with nearby public high schools to expand their potential applicant pool. Furthermore, as noted earlier, African American was the largest racial group among the enrolling students in this study. Previous research suggested that African American students who came from predominantly black high schools were more likely to attend predominantly white institutions which comprise

many CCCU institutions (Freeman, 1999; 2005). In light of these findings, enrollment programs should focus on recruiting students from predominantly African American high schools, especially if they are within a 50 mile radius of the institution. Schools may also consider offering concurrent courses for local high schools that have large minority populations or even a special visit day for feeder schools within this radius. As previously mentioned, many minority students chose a school in close proximity to their home because there is already a level of comfort with the community (Carter, 1999; McDonough et al., 1997; Smith, 2007). By offering concurrent classes for local high schools, the institution provides one more point of contact for prospective students to become comfortable with the institution before enrolling.

Another recommendation that emerged from this study was that CCCU institutions should not discredit the power of financial aid awarded to minority students. Both the previous research, as well as the current study, indicated that by providing financial aid in the form of grants, scholarships, and student loans, minority students were more likely to enroll. Several states in the last few years have also initiated state-run lottery scholarships including Arkansas, New York and New Mexico (Katers, 2010). Research identified that state based financial aid positively affected students' choice to enroll at private institutions in these states (Perna & Titus, 2004). Admissions counselors need to take advantage of this aid by encouraging minority students to apply for these opportunities. However, one of the major challenges for an institution is to help minority students realize what financial aid options are available to them and help them meet the deadlines for those opportunities (John, 2006).

Not only is it important for minority students to apply for available financial aid, but it is also important to help minority students and their parents understand the net cost

of attending the institution. This challenge is especially magnified with students who do not have parents who can speak English fluently and therefore, encounter a barrier in supporting their student through the application process. To respond to the needs of the growing Hispanic population, one suggestion would be to have a bi-lingual admissions counselor on staff that can walk the entire family through the admissions process.

Related to the language barrier, another recommendation focused on the institution's web site. According to the findings of this study, the highest rated recruitment strategy by admitted students was the web site, yet most of the web sites of the institutions included in this study were only published in English. With the Hispanic population growing rapidly in the U.S., it is important for CCCU institutions to have a bilingual option available for their web site. Earlier studies indicated that many of the Hispanic parents wanted to be involved in the admissions process with their students, but many found a significant language barrier as they interacted with the institutions (Smith, 2008; Tornatzky et al., 2002). It would be helpful if CCCU institutions could provide either a Spanish version of their web site or a portal on their web site dedicated to Spanish speaking students/families. One of the most basic ways that this could be implemented would be to have Google Translator available on the home page.

While having the ability to read and understand the web site is critical, it is also important to have relevant financial aid information posted online for prospective minority students. One further suggestion would be to have a list of scholarship deadlines posted on the web site. Since financial aid is an important consideration for minority students, and many of them would qualify for need-based aid, it is important for institutions to find and highlight scholarship opportunities available to these students. These opportunities need to include both internal and external sources of financial aid.

Finally, the web site needs to have up-to-date and accurate information about the institution. The findings of this study indicated that students' satisfaction with the institution's web site was positively related to their decision to enroll at that institution. The website should therefore include the contact information for admissions representatives, especially those who are bilingual. It should also include information related to institutional extracurricular activities, recreational facilities, academic facilities, the availability of majors, and the academic reputation of the institution. Some of this information, especially as it relates to the academic reputation of the institution may also be helpful for increasing the number of Asian American/Pacific Islanders who choose to enroll at the institution. The web site is one area where the cost of making the changes would be insignificant compared with the potential benefits that may be realized.

Similar to the importance of the institution's web site, campus interaction (i.e., contact with faculty and students, and campus visits) was another factor that was related to the likelihood of a student enrolling at an institution. This finding suggests that after having a positive campus visit, students were much more likely to enroll at that institution. Other studies have also highlighted the importance of the campus visit (Litten, 1982; Sevier, 1992; Smith, 2007). One important aspect of the campus visit is to help perspective students identify how they fit into the campus culture. For Hispanic students, identifying a Hispanic representative from the institution that could speak to them and for them was an important factor during a campus visit (Smith, 2007). Also, for students of color, it was important to highlight faculty, administrators, students and even student organizations that could help the admitted minority students understand how they fit into the fabric of the institution (Engberg & Wolniak 2009; Smith, 2007).

While the campus interaction may seem like a series of one-way communications about the institution to the student, it is critical to understand that it must also become a source of two-way interaction if the shift in enrollment trends for minority students is going to change. Every institution must be willing to hear the voices and experiences of the visiting minority students as well as be willing to take specific actions when concerns are voiced. This becomes especially critical when one examines this recommendation through the lens of Critical Race Theory (CRT).

Critical Race Theory (CRT) identified several major tenants which can help sensitize an observer to the undercurrents of racial issues still present in higher education today. One of the major tenants is to challenge the concept of colorblindness because it renders the minority group invisible (Evans et al., 2010). Each race has its own set of unique identifying characteristics that need to be recognized and embraced by the dominant race. If one ignores these unique differences and claims that everyone is the same, the racism is only perpetuated. In CCCU institutions where the dominant race is Caucasian, this tenant can be easily overlooked if the dominant race tries to address themes of racism by attempting to treat everyone the same and ignore the differences. This action only emphasizes the lack of sensitivity to individual differences and denies one's ability to work through one's racially prejudiced tendencies. One recommendation based on this finding is for the admissions staff to visit a predominantly black campus on a visit day in an effort to seek to understand the racial differences that need to be identified and celebrated.

Another element of CRT is to challenge the dominant ideology by recognizing the importance of hearing and acting upon the voices of the minority especially when it contradicts the assumptions of the dominant race (Evans et al., 2010; Soloranzo et al.,

2005). It is important that when minority students are brought to campus, they are given an opportunity to speak about their experience as they exit the campus. This exit interview could take many forms, but the feelings, suggestions and perceptions of minority students should be noted and held with high regard as changes are implemented on campus to make it more inviting for students of color.

It is also critical for institutional leaders to identify any violations of social justice during the campus visit. The experiential knowledge of minority students must not be discounted. In fact, CRT recognizes that the dominant culture often will dismiss these voices until some benefit exists for the dominant culture to make a change (Evans et al., 2010). It can be easy to dismiss these voices as uninformed or narrow minded, however these voices represent the real experiences of these students and they must be heard. Faculty, student affairs officers, student groups, and admissions officers must listen and take appropriate actions based on minority students' voices even when no benefit or significant cost to the dominant race may be realized.

One way to facilitate minority student feedback might be to host a minority student visit day so that the minority students visiting would have time to meet other students from similar cultural and racial backgrounds who are considering the institution and experiencing the institution in many of the same ways. A focus group feedback session after the visit day should also be considered as it could provide vital information about how minority students experienced the campus. The findings of this study as well as previous research (e.g., Litten, 1982; Smith, 2007) confirm that positive perceptions of the campus interaction, including the campus visit, contact with current students and contact with faculty, increased the likelihood of students enrolling at these institutions.



## **Recommendations for Future Research**

This section presents the recommendations for future research in light of the limitations of the current study. As noted earlier, the sample in this study was restricted to only eight CCCU member institutions who had participated in the ASQ PLUS between 2005 and 2010. Given this limitation, future research should utilize the data from a larger sample of institutions to provide a more representative profile of minority enrollment trends at CCCU member institutions. Future research needs to also ensure that both urban and rural institutions are equally well represented in the sample.

Another limitation of this current study was related to the small number of admitted minority students who completed the ASQ PLUS survey at these eight participating CCCU institutions. Due to the small sample size, the researcher was not able to disaggregate the analysis by different racial groups. Future research is needed to examine what factors influence the college choice of each racial minority group separately. This analysis might reveal that different factors predict the enrollment for various ethnic and racial minority groups at CCCU institutions. The small sample size also did not allow the researcher to conduct the analysis separately for each CCCU institution in this study. Future research is needed to examine the role of minority students' perceptions of institutional characteristics and marketing strategies in the college choice process within the individual institutional context.

Religious affiliations of CCCU institutions might differentially affect minority students' decision to enroll at these institutions; however, the present study did not take religious affiliations of its sample institutions into consideration. While each of the institutions surveyed were Judeo Christian in their background, each of them represented a different denominational affiliation. For certain minority students this may have posed

a barrier for enrollment. Future research is needed to examine in what ways denominational affiliation of a CCCU institution might affect minority students' perceptions of the institution, and ultimately their college choice process..

In addition, the use of the secondary data from the ASQ PLUS restricted the researcher in the choice of variables used for this study. For example, important variables such as the role of parents or admissions counselors were not included in the analysis since these variables did not exist in the original ASQ PLUS survey. Also, the ASQ PLUS only examined currently admitted students. This is a very small fraction of the number of minority students who are graduating from high schools across the United States each year and are not applying to CCCU institutions. The findings for students who were not admitted or who had not even applied to one of these CCCU institutions may be very different from those who were actually admitted. Future studies need to take these limitations into consideration and examine a more comprehensive list of variables as predictors of minority students' college choice as well as an expanded sample of students.

There is also a need for a follow-up qualitative study that would provide a more thorough exploration of the barriers to minority student enrollment at CCCU institutions. While many of the barriers have been explored for other types of institutions, there is a need to explore for the college choice decision-making process of minority students admitted to CCCU institutions. For example, the qualitative study could begin to explore the finer nuances of how minority students use the internet to make their college choice and even identify the availability of the internet for these minority students. A follow-up qualitative study could also better understand the choice process for minority students when they are awarded loans versus grants and scholarships.

## Chapter Summary

The purpose of this study was to examine the factors affecting minority student enrollment at private faith-based 4-year CCCU member institutions in the U.S. The study found that several factors were related to minority students' decision to enroll at a CCCU member institution. Among these factors were: demographic and background characteristics of minority students, perceived institutional characteristics, financial factors, and institutional marketing factors. This study indicated that CCCU institutions must become strategic in how they recruit minority students and how they work with them throughout the admissions process. It was recommended that the web site become a primary method of communication. The web site should be targeted at providing minority students with the information that they need to make an informed enrollment decision. Better communication was also needed concerning financial aid from both institutional and external sources. Campus interaction, including campus visit and contacts with faculty and students, was identified as another critical experience for minority students as they considered enrolling. This experience needs to be supported and facilitated by the entire campus, and changes must be made as needed based on the visit day feedback.

The enrollment of minority students at CCCU member institutions is critical not only to better serve minority student populations, but also to create the holistic educational experience for the entire student body. Leaders in higher education have a significant role to play by continually examining ways to eliminate entry barriers for minority students and to actively seek alternative strategies that increase the enrollment of these students. Together, institutional leaders must begin to create change that celebrates minority student enrollment. This change will not only set CCCU member

institutions on a better trajectory, but propel them onto the leading edge of the next century. These changes will not only have a dramatic impact on the local community, but also on each state, the nation, and the world.

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**Appendix A**  
**ASQ PLUS Variables Included in the Study**

**Outcome Variable**

| <b>Variable name</b>                | <b>ASQ PLUS Q#</b> | <b>Survey Question</b>   | <b>Coding</b>  |
|-------------------------------------|--------------------|--|--|
| Enrollment at surveying institution | Q19<br>Q19b        | Do you plan to enroll in college within the next 12 months? If “yes,” where? Name and Location | 0 = Admitted student is not enrolling at the respective surveying CCCU institution within the next 12 months<br>1 = Admitted student is not enrolling at the respective surveying CCCU institution within the next 12 months |

**Predictor Variables**

**Student Demographic Characteristics**

| <b>Variable name</b> | <b>ASQ PLUS Q#</b> | <b>Survey Question</b>   | <b>Coding</b>  |
|----------------------|--------------------|--|--|
| Gender               | Q70                | What is your gender?   | 0 = Males<br>1 = Females   |
| Race/<br>Ethnicity   | Q64                | How do you describe yourself?  | 1 = American Indian and Other<br>2 = Black or African American<br>3 = Asian, Asian American or Pacific Islander<br>4 = Hispanic  |
| Parent’s<br>Income   | Q68                | What was the approximate income of your parents or guardians before taxes last year? | 1= Less than \$30,000<br>2 = \$30,000-\$39,999<br>3 = \$40,000-\$59,999<br>4 = \$60,000-\$79,999<br>5 = 80,000-\$99,999<br>6 = \$100,000-\$149,999<br>7 = \$150,000-\$199,999<br>8 = \$200,000 or higher |

### Student Background Characteristics

|                               |     |   |  |
|-------------------------------|-----|---|--|
| High School Type              | Q67 | Which of the following best describes the type of high school you attended?           | 1 = Attended independent, religiously affiliated high school<br>0 = Attended any other high school type                  |
| Distance from Home to College | Q66 | How far is our college from your home?  | 1 = Less than 50 miles<br>2 = 51 to 100 miles<br>3 = 101 to 300 miles<br>4 = 301 to 500 miles<br>5 = More than 500 miles |
| High School GPA               | Q62 | Which of the following categories best represents your average grades in high school? | 0 = GPA below an A average (below 90)<br>1 = A average GPA (90-100)  |

### Financial Factors

|                        |      |   |                   |
|------------------------|------|---|-------------------|
| Student Loans          | Q58b | Did your financial aid include one or more student loans? | 0 = No<br>1 = Yes |
| Grants or Scholarships | Q58c | Did your financial aid include grants or scholarships?    | 0 = No<br>1 = Yes |

### Students' Perceptions of Institutional Marketing Strategies

|                          |   |   |   |
|--------------------------|---|---|---|
| Campus Interaction       | Computed using the following variables:<br>Q53<br>Q 50<br>Q47 | Contact with students who attended the college<br>Contact with faculty form the college<br>Campus Visit | 1 = Not Used<br>2 = Poor/Fair<br>3 = Good<br>4 = Very Good<br>5 = Excellent |
| Electronic Communication | Q46   | Electronic communication with the college   | 1 = Not Used<br>2 = Poor/Fair<br>3 = Good<br>4 = Very Good<br>5 = Excellent |

|                          |   |  |  |
|--------------------------|---|--|--|
| Web Site                 | Q44   | College Web Site   | 1 = Not Used<br>2= Poor/Fair<br>3 = Good<br>4 = Very Good<br>5 = Excellent |
| Promotional Materials    | Computed using the following variables:<br>Q43<br><br>Q42 | College videos or CD-ROMs<br><br>College publications (catalogues, brochures, etc.)                | 1 = Not Used<br>2= Poor/Fair<br>3 = Good<br>4 = Very Good<br>5 = Excellent |
| College Sponsored Visits | Computed using the following variables:<br>Q41<br><br>Q40 | College-sponsored meetings in your home area<br><br>Visits by admissions staff at your high school | 1 = Not Used<br>2= Poor/Fair<br>3 = Good<br>4 = Very Good<br>5 = Excellent |

**Students' Perceptions of Institutional Characteristics**

|                            |     |  |   |
|----------------------------|-----|--|---|
| Extracurricular Activities | Q33 | Opportunities to participate in extracurricular activities   | 1 = Poor/Fair<br>2 = Good<br>3 = Very Good<br>4 = Excellent |
| Recreational Facilities    | Q26 | Availability of recreational facilities on campus            | 1 = Poor/Fair<br>2 = Good<br>3 = Very Good<br>4 = Excellent |
| Academic Facilities        | Q25 | Quality of academic facilities (library, laboratories, etc.) | 1 = Poor/Fair<br>2 = Good<br>3 = Very Good<br>4 = Excellent |

|                        |     |   |   |
|------------------------|-----|---|---|
| Availability of Majors | Q22 | Availability of majors of interest to you | 1 = Poor/Fair<br>2 = Good<br>3 = Very Good<br>4 = Excellent |
| Academic Reputation    | Q21 | Academic reputation                       | 1 = Poor/Fair<br>2 = Good<br>3 = Very Good<br>4 = Excellent |