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HOW STUDENTS CHOOSE A COLLEGE: UNDERSTANDING THE ROLE OF INTERNET BASED RESOURCES IN THE COLLEGE CHOICE PROCESS

By

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A DISSERTATION

Presented to the Faculty of

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HOW STUDENTS CHOOSE A COLLEGE: UNDERSTANDING THE ROLE OF INTERNET BASED RESOURCES IN THE COLLEGE CHOICE PROCESS

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University of Nebraska, 2013

Advisor: James V. Griesen

The purpose of this study was to gain a better understanding of how current internet-based resources are affecting the college choice process. An explanatory mixed methods design was used, and the study involved collecting qualitative data after a quantitative phase to explain the quantitative data in greater depth. An additional study was completed two years later, which allowed for additional comparison between the two studies. Data were collected via surveys of students at the University of California, Irvine to identify the types of internet-based resources being used by students to investigate colleges and the impact of each on college choice. Frequency, t-test, and ANOVA tests revealed students used college search websites less in 2011 than in 2009 and use social media website more in 2011 than in 2009.

The second, qualitative phase of the study was conducted with students selected because of their answers in the quantitative phase. In this explanatory follow-up, the qualitative data was sought to explain the quantitative data by providing additional detail about the student experience of choosing a college. The qualitative research showed students find strongest influence in their college choice through traditional resources and external factors rather than internet resources.

The results of both the quantitative and qualitative phase were integrated and interpreted to complete the findings. Implications and future research possibilities are presented.

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Chapter One

Introduction

Competition for the best and the brightest students creates a need for colleges and universities to have a comprehensive understanding of the college choice process for students. Many factors are part of a student's decision-making process, including proximity to home, majors offered, costs, financial aid or scholarships offered, selectivity, environment, and parental influence, just to name a few (Kinzie et al., 2004, p. 36). Each factor carries a different priority for students in making their college choice. Additionally, students use a variety of sources to find out information about each institution that is of interest to them. High school counselors, admissions counselors, college brochures, institutional websites, other internet-based resources, friends, parents, and other family members can all influence the choice a student makes (p. 34). Institutions of higher education use a variety of avenues to exert influence on the choices of prospective students. High school visits, recruitment fairs, outreach activities, and particularly campus visits have been shown to significantly impact a student's decision-making process (p. 34). Gaining an understanding of how current students make their choices is important for institutions of higher education. Such knowledge could assist university administrators in understanding the population with the greatest interest in their institution, and may also provide them with possible marketing strategies to attract the most highly qualified students possible. Additionally, since perspectives change and cultural norms shift, this is an area of research that needs to be explored periodically to obtain current information.

Research Problem

Understanding how students choose a college is critical for colleges and universities. Students "are the lifeblood of colleges and universities, and student characteristics often define the distinctiveness of individual campuses" (Kinzie et al., 2004, p. 4). Competition for students is continually increasing, with "close to 50% of prospective students applying to five or more colleges" (p. 34). Additionally, "students of high academic ability are more likely to attend selective institutions as well as out-of-state institutions" (p. 37).

Research has been conducted on how students choose colleges from a variety of perspectives. Previous studies have focused on what students want from a college website (Christiansen, Davidson, Roper, Sprinkles, & Thomas, 2003), how students use institutional websites to inform their choice (Martin, 2006), the differences between the search and choice stages of the college selection process (Smith, 2006), and how historically-under-represented students use a variety of information sources available to them (Olsen, 2007).

Although all of these studies have provided some insight into the college choice process, few have looked at the college choice process from a qualitative perspective. Most researchers have gathered statistical information, as well as some short answers, but have not truly sought to understand college choice from the student's perspective. A mixed methods study combines both current statistical information and more detailed narrative information from students, which allows for understanding in both breadth and depth of the topic.

Purpose

The purpose of this study was to gain a better understanding of how current internet-based resources are affecting the college choice process. An explanatory mixed methods design was used, and the study involved collecting qualitative data after a quantitative phase to explain the quantitative data in greater depth. Due to a delay in completing the analysis because of a change in jobs for the researcher, an additional study was completed two years later. The duplication allowed for additional comparison between the two studies. In the quantitative phase of each study, a survey was administered to students at the University of California, Irvine (UC Irvine) to identify the types of internet-based resources being used by students to investigate colleges and the impact of each on college choice. The second, qualitative phase of each study was conducted with students selected because of their answers in the quantitative phase. In this explanatory follow-up, the effect of different internet-based resources on the college choice process was explored with a smaller subset of the original population. The reason for the explanatory follow-up was to provide more insight into the decision-making processes of these students.

Mixed Methods Theoretical Base - Philosophical Foundations

The philosophical foundations of mixed methods research have been questioned in the past by some researchers (e.g., Datta, 1994; Gage, 1989; Guba & Lincoln, 1994; House, 1994). Some have asserted that paradigms or worldviews cannot be mixed, and neither, consequently, can quantitative and qualitative research. However, this philosophy has changed over the past three decades, and mixed methods research is

becoming much more widely accepted. Creswell and Plano Clark (2007) stated that mixed methods research can provide a "better understanding of the problem than if either dataset had been used alone" (p. 7). The combination of quantitative and qualitative research can provide "a more complete picture by noting trends and generalizations as well as in-depth knowledge of participants' perspectives" (p. 33).

Tashakkori and Teddlie (1998) focused on the philosophical assumptions of mixed methods research. They asserted that "pragmatists consider the research question to be more important than either the method they use or the worldview that is supposed to underlie the method" (p. 21). Pragmatists see that each person has a unique perspective on their world, and each perspective is valuable. It is important to understand the perspectives of other people, rather than simply looking at a situation through your own lens.

The blending of methods fits with pragmatism (Tashakkori & Teddlie, 1998). Statistics provide a good foundation to begin to look at an issue, but they also may only tell part of the story. To truly understand an issue, gaining in-depth information from people is often helpful. This perspective helps in understanding their point of view and their reality, or it can help to guide the formation of questions to be used in obtaining data for statistical information. Both quantitative and qualitative research have strengths, and blending those two methods together offers the prospect of making a stronger study.

Finally, pragmatism is quite adaptable. This fluidity can be useful as "decisions regarding the use of either qualitative or quantitative methods (or both) depend upon the

research question as it is currently posed and the phase of the research method that is ongoing" (Tashakkori & Teddlie, 1998, p. 24).

Research Questions

The following research questions were designed to gather information regarding the influence of internet-based resources on the college choice process from both a quantitative and qualitative perspective. Quantitative research questions for this study included:

1. What were the various types of internet-based resources that students used as they gathered information about colleges and universities?
2. How did different types of internet-based resources impact the college choice process?
3. How did students rate the importance of internet-based resources compared to other factors that impacted their decision?

The central qualitative research question of this study was the following:

- How did students describe the primary factors that influenced their college choice?

Issue-oriented and process-oriented sub-questions were designed to further examine the central research question. Issue sub-questions included seeking answers to the following queries:

1. How did students describe what factors were most important to their college choice?

2. How did students get information about colleges to help them with their choice process?
3. How did students describe their use of internet-based resources that assisted with their choice process?
4. What themes emerged that were common among the students?

Process sub-questions include the following inquiries:

1. How did students describe their decision-making process?
2. How do themes that emerge relate to other theories of the college choice process reported in the professional literature?

A mixed methods research question combines both aspects of the study. The mixed methods questions addressed by this study will be:

1. In what ways does the information gathered from interviews with students regarding use of internet-based resources in their college choice process help to explain the quantitative results from the survey?

Research Site

The University of California, Irvine (UC Irvine) is part of the University of California system. The campus received 44,123 freshmen applications for the Fall 2009 admissions cycle (see Table 1). Of those applicants, 19,484 were admitted, and 4,136 accepted their admission invitation. The highest percentage of students (24.7%) were admitted as Biological Sciences majors, and the next highest major was Undecided/Undeclared with 18.1%. Those two majors were followed by Engineering (13.0%), Social Sciences (12.2%), Business (5.9%), and Humanities (5.8%). The

Table 1

Demographics

	2009	2011
Freshman Applications	44,123	49,287
Admitted	19,484	23,391
Accepted	4,136	5,115
Ethnicity		
Asian/Asian-American/Pacific Islander	52.7%	51.0%
Caucasian (non-Hispanic)	14.9%	15.2%
Chicano/Latino/Hispanic	14.9%	24.4%
African-American	2.1%	2.8%
American Indian/Alaska Native	1.0%	0.4%
International	---	4.8%
Other	1.2%	---
No Answer	2.9%	1.5%
Gender		
Male	42.7%	43.0%
Female	57.1%	56.9%
No Answer	0.1%	0.1%
First Generation College Student	15.7%	25.8%
Scores		
GPA	3.85	3.87
SAT Verbal/Math/Writing Total Score	1755	1749

Table 1 continues

	2009	2011
Majors of Incoming Freshmen		
Biological Sciences	24.7%	22.3%
Undecided/Undeclared	18.1%	19.4%
Engineering	13.0%	13.5%
Social Sciences	12.2%	11.9%
Business	5.9%	1.6%
Humanities	5.8%	4.6%
Physical Sciences	4.8%	6.3%
Social Ecology	3.3%	5.4%
Information & Computer Science	3.2%	4.9%
Pharmaceutical Sciences	---	4.8%
Arts	3.7%	3.2%
Public Health	1.3%	1.5%
Nursing Science	1.0%	0.5%
Interdisciplinary Studies	0.0%	0.0%
Originally From		
Los Angeles County	34.0%	35.4%
Orange County	21.6%	17.6%
San Francisco Bay Area	15.9%	13.9%
Riverside/San Bernardino Counties	9.7%	11.4%
San Diego/Imperial Counties	6.0%	5.7%
Other California Areas	10.6%	9.3%
Out of State/International	2.2%	6.7%

Table 1 continues

	2009	2011
Ethnicity of Undecided/Undeclared Majors		
Asian/Asian-American/Pacific Islander	53.2%	41.5%
Caucasian (non Hispanic)	22.3%	15.0%
Chicano/Latino/Hispanic	17.0%	27.4%
African-American	2.5%	3.9%
American Indian/Alaska Native	1.0%	0.4%
International	---	9.9%
Other	1.1%	---
No Answer	3.5%	1.8%
Scores of Undecided/Undeclared Majors		
GPA	3.78	3.80
SAT Verbal/Math/Writing Total Scores	1720	1679
Gender of Undecided/Undeclared Majors		
Male	41.4%	40.4%
Female	58.2%	59.4%
No Answer	0.4%	0.2%

majority of the freshmen class identified their ethnicity as Asian/Asian-American (52.7%), while 25.8% identified as Caucasian, 14.9% identified as Chicano/Latino, 2.1% were African-American, less than 1% were American Indian, 1.2% indicated their ethnicity as Other, and 2.9% declined to state. Almost 34% of the enrolling class came from Los Angeles county, 21.6% were from Orange County, 15.9% were from the San Francisco Bay Area, 9.7% were from Riverside/San Bernardino counties, 6.0% were from San Diego/Imperial counties, and the rest were from other California areas, with

only a small percentage (2.2%) being from out of state or international. The average GPA of the entering freshmen class was 3.85, with a SAT Verbal/Math/Writing total score of 1755. The percentage of females was 57.1%, males were 42.7%, and 0.1% were undeclared or unknown. Additionally, 15.7% of the incoming freshmen class indicated they were first generation college students (University of California Irvine, 2009).

The statistics for the freshmen Undecided/Undeclared population are quite similar to the overall freshmen population. The majority of the Undecided/Undeclared freshmen class identifies their ethnicity as Asian/Asian-American (53.2%), while 22.3% identify as Caucasian, 17% identify as Chicano/Latino, 2.5% are African-American, less than 1% are American Indian, 1.1% indicate their ethnicity as Other, and 3.5% decline to state. The average GPA of the entering freshmen class of Undecided/Undeclared students was 3.78, with a SAT Verbal/Math/Writing total score of 1720. The percentage of females was 58.2%, males were 41.4%, and 0.4% were undeclared or unknown (University of California Irvine, 2009).

For the 2011-12 admissions cycle, 49,287 students applied for admission to the freshmen class. Of those, 23,391 were admitted and 5,115 enrolled for the Fall 2011 quarter. Similarly with the Fall 2009 class, the highest percentage enrolled with a major of Biological Sciences (22.3%), followed by Undecided/Undeclared (19.4%). Those two majors were followed by Engineering (13.5%), Social Sciences (11.9%), Physical Sciences (6.3%), Social Ecology (5.4%), Information and Computer Science (4.9%), Pharmaceutical Sciences (4.8%) which was a new major in 2010, Humanities (4.6%),

Arts (3.2%), Business (1.6%), Public Health (1.5%), Nursing Science (0.5%), and Interdisciplinary Studies (0%).

The majority of the entering freshmen class identified their ethnicity as Asian/Pacific Islander (51%), followed by Hispanic (24.4%), White (15.2%), International (4.8%), Black (2.8%), and American Indian/Alaskan Native (0.4%). A small number (1.5%) were either unknown or they declined to state their ethnicity.

Females were the majority of the entering freshmen class (56.9%), while 43% were male, and 0.1% declined to state. The average GPA of enrolled students was 3.87. SAT Verbal/Math/Writing scores averaged 1749. The freshmen class consisted 25.8% of first-generation college students. The largest percentage of students (35.4%) was from Los Angeles County, followed by Orange County (17.6%), San Francisco/Bay Area (13.9%), Riverside/San Bernardino (11.4%), San Diego/Imperial County (5.7%), other areas of California (9.3%), and concluded with either out-of-state or international (6.7%).

Many statistics for Undecided/Undeclared students (now referred to as Undergraduate Education) were also similar to the overall population. In Fall 2011, 10,371 students applied in Undergraduate Education, 5,815 were admitted, and 994 enrolled. Females accounted for 59.4%, while 40.4% were male, and 2 (0.2%) declined to state their gender. Statistics for ethnicity were somewhat different than the overall entering class, with a lower percentage of Asian American/Pacific Islander (41.5%), slightly higher percentages of African American (3.9%) and Hispanic (27.4%) students, and a higher percentage of international students (9.9%). American Indian/Alaskan Native (0.4%), White non-Hispanic (15.0%), and those who declined to state their

ethnicity (1.8%) were more similar to the overall freshmen class. Their average SAT scores were 536 Verbal, 596 Math, and 547 Writing, for a total of 1679. The average GPA for Undergraduate Education students who enrolled in Fall 2011 was among the lowest, at 3.80 (University of California Irvine, 2012).

An important factor to note regarding UC Irvine overall student statistics was that entering students were not able to choose multiracial as an ethnicity. The researcher felt this was an important choice, so it was included in the survey.

Method

This study utilized two different convenience samples at the University of California, Irvine (UC Irvine). The Irvine campus is part of the University of California system, with a total population of 27,631 students. Of those, 22,122 are undergraduates, including the incoming freshmen class of 2009 with 3,950 students. In the first sample, an instructor allocated the final 10 minutes of a class period to administer the survey. The survey was developed specifically for this purpose to gather the quantitative results, and was administered during the first *University Studies 2* class for students in September 2009 at UC Irvine. The 456 students in the *University Studies 2* course are first-time college freshmen beginning their first quarter at UC Irvine. As first-time freshmen, these students graduated from high-school the previous academic year, and entered the university with 12 or fewer transferable units. All students are undecided/undeclared in their major. Students completed the survey during the class period and the researcher gathered completed surveys at the conclusion of class. Only six students chose not complete the survey. Students were encouraged to include their name and phone number

for follow-up questions, and were selected for qualitative research based on the results of the quantitative analysis. The qualitative portion was conducted with students whose answers were representative of the major findings of the quantitative survey. Qualitative research was conducted via individual phone calls with the student. This sequential, explanatory mixed methods design was intended to result in quantitative and qualitative data that complemented each other, but also strengthened the findings of each portion of the study. The second study was conducted in January 2012. A change of jobs prevented the researcher from writing up the results in a timely manner, so an additional study was conducted, allowing the comparison of the two groups approximately two years apart. A change in the requirements for undecided/undeclared students and the time of the year necessitated a different method of survey administration. In the second study, an internet survey was sent via email to 876 freshmen students whose major was also undecided/undeclared. Two-hundred twenty students (25.1%) responded to the survey, and 10 were interviewed via telephone interviews. The consistency of survey and telephone interviews allows a comparison between the two studies.

Definition of Terms

In this study, *internet-based resources* refers to well-known computer resources classified into the following four types:

- websites that rank colleges based on some kind of criteria such as "U.S. News & World Report," Forbes.com, or PrincetonReview.com

- websites specifically designed to compare colleges such as Petersons.com, CollegeBoard.com, the National Survey of Student Engagement (NSSE), and Unigo.com
- social networking sites such as Facebook and MySpace
- websites of specific colleges and universities

First-time freshmen refers to students who graduated from high school the previous academic year, are seeking a bachelor's degree, and have 12 or fewer transferable units from another institution.

Delimitations

Delimitations are factors that may prevent the researcher from asserting the research findings are true for all people in all situations (Bryant, 2004). There were a few delimitations for this study. The study only included students from the University of California, Irvine. In part because of the higher education structure in California, there could be differences between the choice process of these students and students not attending California universities. There may also be differences between students who ultimately chose UC Irvine and those who chose other California universities. The study also focused on students taking a particular class as freshmen. This class is required for undecided/undeclared students, although it is open to students of all majors if space is available. Additionally, there are several majors such as Engineering, Biological Sciences, and Information and Computer Science that are impacted, and the standards of being admitted into one of those majors are higher than other majors. Consequently, students who believe they are not in the top tier of students in their desired major often

enter the institution as undecided/undeclared with the intention of changing to their desired major after the first year, and would therefore be required to take this class. Nevertheless, the majority of students in the class are undecided/undeclared, so the results may be more applicable to undecided/undeclared freshmen than the entire freshmen class. However, no studies that examine the relationship between undecided/undeclared students and college choice were found. Finally, an examination of the SAT scores and GPAs showed lower scores for students who were undecided/undeclared, which may have impacted the applicability of findings across majors.

Limitations

Limitations are restrictions that arose based on the researchers choice of methodology (Bryant, 2004). Limitations may have arisen in trying to contact respondents through follow-up telephone calls. Since students may not have recognized the phone number from the call or may have changed their mind about their willingness to participate further in the study, they may not have answered the phone to respond to qualitative questions. Additionally, the first survey was conducted early in the fall quarter. Students were asked to recall their experiences and methods for activities that occurred five to eight months earlier. This length of time may have produced difficulty recalling their experiences or recalling situations accurately. In order to minimize this challenge, students were asked to share only those details and experiences they were confident they could remember accurately. The second study was conducted three months later in the academic cycle than the first study, which could have further limited

the memory of the students. Again, the students were asked to only share those details they could confidently remember.

Significance

Assumptions are made about what influences the college choice of students, and several studies in the past have focused on factors related to ethnicity, parental involvement, and even campus visits. Although a few studies (Griffith & Rask, 2007; Sanoff, Usher, Savino, & Clarke, 2007) have focused on the importance of college rankings by U.S. News & World Report or campus websites, they have focused on just that one type of resource. This study provided an opportunity to gather information regarding a wide variety of factors that influence the college choice process, with an emphasis on internet-based resources. Additionally, the growth of the internet as a viable source of information over the past ten years guides the need for a study with this focus.

The results of this study provide current information regarding how much students rely on internet-based resources in their college choice process, and also identify which resources seem to have the most influence. Additionally, the qualitative portion of the study allowed students to share their thoughts and feelings regarding the impact of different resources on their decision process in their own words.

College choice is a topic that may be of interest to any person in higher education, as well as high school counselors. The individuals who are most likely to be interested in the results are enrollment management staff and administrators in colleges and universities, as well as many student affairs professionals. In particular, those staff

working at selective colleges who are seeking to enhance their methods and maximize their resources for recruiting students may be interested in the results of this study.

The following chapter provides an overview of literature on the topic of college choice, including literature that addressed specific student characteristics, methods of searching, or factors that influence college choice for students.

Chapter Two

Literature Review

Understanding how students choose a college is critical for colleges and universities. Students "are the lifeblood of colleges and universities, and student characteristics often define the distinctiveness of individual campuses" (Kinzie et al., 2004, p. 4). Competition for students is continually increasing, with the majority of prospective students applying for five or more colleges (p. 34). Additionally, "students of high academic ability are more likely to attend selective institutions as well as out-of-state institutions" (p. 37).

Increase in Applications

One of the reasons for increased competition is the number of applications filed by each student. A quick internet search with the question "How many colleges should I apply to?" turns up a multitude of websites advising students to apply to a range from 3 to 12, but the vast majority urge students to apply to at least 6 schools. Some even encourage students to apply to 20 colleges. This has resulted in applications to Harvard University and other extremely competitive colleges increasing significantly over the previous year (Hoover, 2008).

The large amount of applications often leads to multiple acceptances, which adds to the competitive nature of admissions. Consequently, predicting who will choose to enroll out of those admitted has become more and more difficult. In spite of sophisticated models for predicting enrollment numbers, those models have become less accurate in recent years (Farrell, 2004). For example, 80% of first-year students were

admitted to their top-choice college in 2007 (Hoover, 2008). Only about 3% of four-year institutions accepted less than 25% of their applicants, while a large majority (82%) accepted more than half (p. A20). With the exception of the most selective colleges, most institutions still admit a large proportion of students who apply (p. A20). According to the National Association for College Admission Counseling (NACAC), "the average acceptance rate for applicants is close to 70%, a number that has changed little since the mid-1980s" (Hoover, 2008, p. A20). In previous decades, students applied to fewer institutions. In the 1970s, "50% of all college aspirants submitted just one application, and only 8% filled out 5 or more" (Kinzie et al., 2004, p. 34). By 1990, the number of prospective students who only filled out one college application had decreased to 33%, while 37% filled out at least 4" (p. 34).

General Models of College Choice

Although there is a variety of research investigating the college choice process for specific populations, there are a few more general models explaining the factors that influence choice. One of the earliest models of the college selection process was developed by Chapman (1981). His model is limited to students of traditional age, since the circumstances surrounding older students may be more diverse. He cited the external influences of significant persons (friends, parents, guidance counselors), institutional characteristics (cost/financial aid, location, availability of programs), and the institution's communication with prospective students (written information, campus visit, and recruiting/admissions) (Chapman, 1981, p. 492). Additionally, college choice is impacted by student characteristics, such as socioeconomic status (SES), aptitude, level of

educational aspiration, and high school performance (pp. 493-494). Both of the student characteristics and external influences lead to a general expectation of college life. Coupled with the student's choice of college(s) and the college's choice of students, Chapman asserted all of these factors combine to shape the students' college choice.

One of the studies most cited was done by Hossler and Gallagher (1987). The college choice process, according to Hossler and Gallagher (1987), is a three-stage process comprised of predisposition, search, and choice. The first stage of predisposition is deciding if education beyond high school is desired. This stage typically occurs between 7th and 10th grades (Hossler, Schmit, & Vesper, 1999), but can even begin earlier than 7th grade (Cabrera & La Nasa, 2000). Predisposition is strongly influenced by parental encouragement, socioeconomic status, peers, and high school curriculum (Muhammad, 2008). Once a student decides on attending college, the second stage is the search, or investigating institutions. The search stage generally occurs during 10th and 12th grades (Kinzie et al., 2004, p. 36). Additional research on this stage typically focuses on the type of information that students use and/or the number of institutions students consider or the number of applications they submit (Hossler et al., 1999). The final stage is choice, or deciding on a particular institution. The choice stage typically occurs during 11th and 12th grades (Hossler et al., 1999). Some of the aspects that are most important in the final stage are the students' perception and assessment of institutional quality, financial aid, academic programs, and the "institution's attempt to attract the student" (Hossler & Gallagher, 1987, p. 219).

College choice models have traditionally been classified in two different approaches (Hossler, Braxton, & Coopersmith, 1989). Sociological approaches identify factors such as educational aspirations, academic achievement of significant others, cultural capital (cultural resources typically derived from one's family), and social capital (relationships with peers, schools, and community) as most significant in influencing college choice (Cooper, 2008). Econometric approaches view economic factors such as cost, value, current labor market conditions, and non-monetary benefits as most important in the college choice process (Cooper, 2008). Although both approaches bring valuable insights into the process, neither approach alone addresses all the differences between groups of students.

Perna (2006) proposed a model that combined both approaches. Perna's (2006) proposed model shows college choice decisions are made in four contextual layers, including the individual's habitus, school and community context, the higher education context, and a broader social, economic, and policy context (p. 116). The individual's habitus reflects demographic characteristics such as gender, race/ethnicity, socioeconomic status, and cultural and social capital (p. 117). School and community context reflect how "social structures and resources facilitate or impede student college choice" (p. 117). The higher education context addresses the many different ways higher education institutions can influence the college choice process. This includes being a source of information, either passively via location and proximity to home, or actively, through marketing and recruiting. The higher education context also includes institutional characteristics and the institution's ability to select which students can enroll

(p. 118). The broader social, economic, and policy context includes factors such as demographic changes, unemployment rates, and public policies such as new financial aid programs (p. 119). Perna's model addresses the interrelatedness of all of these contexts, and acknowledges that some or all of these contexts may contribute to college choice. Because of this flexibility, Perna's model may do a better job of predicting the college enrollment decisions for students from particular racial/ethnic backgrounds than a traditional model alone (Cooper, 2008).

The concern about college choice is international. A study in Scotland examined the college choice process of 651 students from two different disciplines at two different universities (Briggs, 2006). His study supported the idea that the college choice decision is a difficult and complex task for students, and is based on many factors. The most important factors cited were academic reputation, distance from home, and location (p. 718).

Studies Based on Ethnicity and Age

Several researchers have investigated the college choice process for students of different ethnicities or specific characteristics. For example, Ceja (2006) found that Chicana/Latina students are most influenced by their parents and siblings. For those students whose parents have lower education levels, siblings were particularly important to the college choice process for Chicana/Latina students, primarily because parents lack the exposure to and understanding of higher education (Ceja, 2006). In spite of lack of understanding for some parents, they still exhibited a great deal of support for their daughter's educational aspirations, providing encouragement and motivation for their

daughters (Ceja, 2006). Educational aspirations are a critical aspect of educational attainments. If students do not see higher education as a possibility, their chances of exploring options and ensuring preparedness are minimal at best. Kimura-Walsh, Yamamura, Griffin, and Allen (2009) pointed to the importance of school resources for Latina/o students in college preparation, but also indicated that services available to these students differed based on their class ranking and perceived eligibility for selective colleges. Olivia (2004) also described the challenges Latino students face in navigating the road to college, citing many factors such as lack of knowledge, lack of financial resources, and limited adult guidance. She advocated for programs that bridge the gap by forming partnerships between K-12 and postsecondary education institutions that can help ease the transition for students. Other studies, such as Nunez, Hoover, Pickett, Stuart-Carruthers, and Vazquez (2013) have focused more on the transition and success of Chicano/Latino students in college, and highlighted the strategies for supporting success once students matriculate.

The college choice process for many African American students has been impacted by Historically Black Colleges and Universities (HBCUs) (McDonogh, Outcalt, & Tobolowsky, 2005). In fact, more than one-quarter of all African American students graduate from HBCUs (McDonogh et al., 2005). Interestingly, distance from home does not seem to be as big of a factor for African American students as it is for students of other ethnicities. Although only 12.4% of college freshmen travel more than 500 miles from home to attend an institution, approximately 20% of first-year students at HBCUs have traveled more than 500 miles away from home (McDonogh et al., 2005). Smith

(2009) emphasizes the importance of involving parents of low-socioeconomic status African American students very early, even as early as elementary school, in order to elicit their support for higher education for their children. In a study focused only on the factors that influence college choice in African American students, the campus visit was found to be the most influential factor, followed by personal attention given to students, academic reputation, available major, and average class size (Jones, 2002). Social atmosphere and advice from others were not found to be statistically significant factors (Jones, 2002). Other studies, such as Muhammad (2008), cited the importance of a supportive school counselor, particularly for African American men. In fact, Muhammad (2008) asserted a school counselor can have as much influence as a father in the college choices of a student by lending cultural support. Smith (2009) extolled the necessity of educating parents of African American students on the ways in which to get to college and successfully complete a degree, in order to provide support to students. Walpole, McDonough, Bauer, Gibson, Kanyi, and Toliver (2005) studied the college admissions exams of African American and Latino high school students, and found they encountered many challenges, including uninformed and unavailable high school counselors that hindered their preparation strategies. They assert college admissions tests are another form of cultural capital. Pitre (2006), in his study regarding ethnicity and college choice, found that African American students were as likely as White students to aspire to attend college. However, he also found that African American students had an overall lower level of academic achievement than their peers (Pitre, 2006).

Teranishi et al. (2004) explored the college choice process specific to Asian Pacific American students. This study is one of the few to focus on Asian American students, and also addresses the diversity within this population. The college choice process varied based on the ethnic background and socioeconomic status of students (Teranishi et al., 2004).

Adult (non-traditional) students have also been studied, and generally cited more practical concerns guiding their choice, such as availability of needed classes on given days/times, costs, and locations of courses (Broekemier, 2002).

The Impact of Socio-Economic Status

Other research has focused on disadvantaged students, often including low socioeconomic status, irrespective of specific ethnicity. Because student aid and family income have not kept up with rising postsecondary prices, college is becoming less affordable and accessible, especially for low- and middle-income families (Perna & Li, 2006). Low- and moderate-income students have been more sensitive to college costs than high-income students. Financial aid has had a significant positive impact on the enrollment and success rates of students from low-income families (Chen & DesJardins, 2008). College enrollments have increased over the past two decades for 18 to 24 year-old students, but there is still a significant gap for students in the lowest quartile for family income than for those students whose family income is in the highest quartile (Mortenson, 2001). Studies regarding the support and resources students receive in high school, particularly in disadvantaged communities, point to the importance of the positive influence high school counselors can have on students in encouraging them to explore

collegiate opportunities (Farmer-Hinton, 2008). Moses (2001) explored oppressive societal structures and the way in which those oppressive structures may limit a student's contexts of choice, which in turn limits the real choice. Plank and Jordan (2001) found that an increased amount of information, guidance, and preparatory actions students receive in high school positively impacts a student's enrollment in a four-year college or university. This finding also points to socioeconomic status as a major factor in impacting enrollment for students. Sokatch (2006) found that peer's plans were the single best predictor of 4-year college enrollment for urban students of low socioeconomic status. These findings apply specifically to this group, and are not predictors for the general population.

Reports since 1999 have discussed the increasing "economic stratification" of higher education, pointing to increasing numbers of students from upper-income families enrolling in private and public universities, and lower numbers of students from middle- and upper-class families enrolling in public two-year institutions (Perna & Titus, 2004). State public policies have been suggested as at least a partial reason for the economic stratification that has occurred (Kipp, Price, & Wohlford, 2002). States with higher availability of need-based financial aid have tended to have higher levels of enrollment at private four-year colleges and universities in a state (Perna & Titus, 2004). Private four-year institutions have appeared to be more likely to enroll students from the lowest quartile of socioeconomic status, primarily because there is more institutional financial aid available in the private sector.

Not all studies have focused in some way on disadvantaged students. Wilson's study (1997) followed 9 high school seniors from middle to high-socioeconomic backgrounds over a 14-month period to gain a better understanding of the process from their perspective. She found that each student experienced cognitive dissonance through this stressful time, primarily resulting from a lack of understanding of their own goals, not having enough information about their options, and not being able to choose one option that would satisfy all of their objectives. Consequently, some students procrastinated in the application process or the decision process, others made a quick decision specifically to avoid a drawn-out period of stressful indecision, and others avoided some anxiety by applying only to one school.

Perna and Thomas (2009) also examined the impact of tests on the levels of college enrollment for high school students. They focused on state-mandated high school tests, and found greater negative consequences for students at schools with lower socioeconomic status and academic achievement.

First-Generation Students

Merranko (2005) examined factors influencing the college choice process of first-generation college students. Through examining data collected by the Cooperative Institutional Research Program (CIRP), Merranko (2005) found the most important factor was academic reputation of a school. The second most important factor was the number of graduates of the school who found good jobs (Merranko, 2005). Other important factors included social reputation and low tuition (Merranko, 2005).

Parental Influence

Still other studies focused solely on factors that influence college choice, without specifying any ethnicity or disadvantage. One such study investigated a number of factors, including student skills and aspirations, parental characteristics and encouragement, and institutional information such as costs, availability of information, and qualifications, and found that all interact with each other and impact the college choice process for students (Cabrera & La Nasa, 2000).

Donovan and McKelfresh (2008) cited the importance of parents in helping their students choose a college. Parents expect to be involved in their student's experience. Their expectations result from a variety of factors, including "high cost of attendance, changing role of higher education in society, and their own regard for their students as children rather than adults" (Scott & Daniel, 2001, p. 84). A study of high-achieving high school students and their parents found financial factors were very important in their decision process, and found the parents were strongly involved in the process (Sztam, 2003).

Influence of School Counselors

Corwin, Venegas, Oliverez, and Colyar's (2004) work showed the importance of the influence of school counselors on the perception of a student's ability to attend college. Gonzalez, Stoner, and Jovel (2003) also described the importance of high school counselors and the overall high school environment in expanding both perceived and actual opportunities for college.

Institutional Influences

In a study that examined the difference in college choice between students who matriculate and those who choose not to matriculate to an institution, students who chose to matriculate cited academic reputation as the most important factor, while prominence of university athletic teams was cited as the least important (Washburn, 2002). Non-matriculating students were more influenced by cost, scholarships, and class size (Washburn, 2002).

Tinto's (1973) study on the effects of college proximity on rates of college attendance was an earlier study of college choice. His findings indicated that college proximity is important in the choice process, and he also advocated the increase in public junior colleges to provide additional access to lower socioeconomic status students.

Campus Tours, Campus Visits, & Recruitment Events

Most college choice models have neglected to factor in transaction costs, which are defined as the time and money needed to access and evaluate college information (Arellano, 2002). In a study analyzing regional or national college tour groups, students who participated in these groups had higher levels of applications to colleges, higher degree attainment than those students who did not participate in college tour groups, and participated in loan and work-study programs to aid in their successful degree completion (Arellano, 2002).

Washburn and Petroshius (2004) advocated for the importance of marketing through an institution's campus tour program, finding that the campus tour had an extremely important role in influencing the college choice of students.

Bowman (2005) explored student participation in a pre-enrollment event at a college campus as related to fit and patterns of college choice.

The concept of students choosing a college based on how they perceive they fit in with the institution was explored by Nora (2004). Psychosocial factors played a more significant role in the final stages of the college choice process (Nora, 2004). Consequently, Nora (2004) emphasized the importance of college tours in allowing students to match their psychosocial needs with a "campus where they feel welcomed, comfortable, capable, safe, supported, happy, and, most of all, accepted" (Nora, 2004, p. 203). This perspective fits with an older study by Hayes (1989), in which he found two distinct aspects of the college choice process. First, students look for colleges and universities that match their needs for academic attributes such as test scores and class rank with the requirements for admission to specific institutions. Then, students rely on "psychological and social reactions formed during a campus visit to make finer distinctions as to which college to attend" (Nora, 2004, p. 182).

Students who are primarily interested in women's colleges have been found to strongly value the intellect and in-person connections that are found during the recruitment process (Jennings, 2008). Personal interaction was paramount to printed material or online content (Jennings, 2008).

Newsmagazine Rankings

A few studies have focused specifically on the influence of newsmagazine rankings on college choice. Social capital, specifically contacts and resources, increases the likelihood of using newsmagazine rankings as an important factor in the college

choice process (Coles, 2007). Coles (2007) also found that low-income, minority, and first-generation students used newsmagazine rankings as a compensatory tool, while high income, Asian-American, and second generation students used them as an extension of their advantage. Finally, in this study newsmagazine rankings were found to be more important to the college choice process of students than the advice of guidance counselors or teachers (Coles, 2007).

Newsmagazine rankings have been particularly important for first-time, full-time freshmen, and were even more important for those students who are also investigating ranked, private institutions (Howard, 2002). Additionally, rankings were more likely to be used by students who are planning to live on-campus and will attend schools farther away from home (Howard, 2002).

The populations utilizing rankings the most are "high ability and second-generation students, and students from Asian backgrounds" (Hazelkorn, 2007). Women tend to be less influenced by rank than men (Griffith & Rask, 2007). Additionally, students who are able to pay full fees, who are less dependent on financial aid, "are more likely to attend higher ranked colleges (even by a few places) than grant-aided students who appear to be less responsive to rankings" (Hazelkorn, 2007). Although only 40% of students use newsmagazine rankings, 11% indicate that the rankings play an important role in their decision (Hazelkorn, 2007). This group of high achieving students has been in high demand by most colleges and universities. Clearly, rankings have had an impact of the number of applications received and the enrollment decisions of many students.

Traditional Marketing & Internet Sources

Researchers have found that prospective students utilize the internet to find out information about colleges with increasing frequency over the past several years (Poock, 2006). Other research has shown university web sites to be the primary source of information for students who are choosing a college (Martin, 2006). A university web site is often the first communication experience the majority of students have with a college or university (Martin, 2006).

Some recent studies have focused more on other aspects that may influence college choice. Hendricks' study (2006) looked at how the Internet was influencing the college choice process, but only from a quantitative perspective. His study began by looking at the study by Christiansen et al. (2003), which looked at the way the expanding influence of the Internet was changing the way college students searched for colleges. Overall, he found that faculty web pages had the most influence, virtual tours (but not those with streaming video) were important, and social networking sites did not influence their decisions (Hendricks, 2006).

Hossler (1999) asserted the Internet presents challenges for higher education. The highly interactive nature of the Internet means higher education institutions have less control over how and what students learn about the institution, and when they choose to learn information (Hossler, 1999). Traditional mail and direct mail allowed greater control over the timing and content presented to students (Hossler, 1999). Since students can now "browse, formulate impressions, and make decisions with no formal interaction

with the school," understanding the ways in which students use the internet in their college choice process is important for institutions of higher education (Hendricks, 2006).

LeFauve's (2001) study examined qualities of information and persuasion in traditional publications compared to traditional viewbooks. Her study found web sites were most often used early as an information source in the college choice process to narrow the options, or late in the process once a decision has already been made (LeFauve, 2001). Viewbooks were more likely to be persuasive tools that narrow the choices (LeFauve, 2001).

Smith (2006) explored how college and university websites compared to traditional college search resources in terms of usefulness. His findings indicated students found college/university websites most useful during the search stage, and found campus tours to be the most helpful resource during the choice stage.

Berge (1998) found scholarships offered to students regardless of their need increased the likelihood of enrollment, as did a campus visit. She also found that college type, a college visit to the high school, and the college state location were also important (Berge, 1998).

Donnellan (2002) examined whether university-controlled marketing was more influential to college choice than other environmental factors. His research found that although there were differences between males and females, in-state and out-of-state students, and white and non-white students, overall the non-marketing factors such as parents and friends were more influential than institutional marketing factors such as campus visits and information about specific majors (Donnellan, 2002).

Dennard (2000) examined how students made their college choice at three different four-year institutions. She found one of the strongest influences was a campus visit, since it helps students identify both personal and social fit (Dennard, 2000).

Dickinson's study (2003) found the preconceived notions prospective students had about a two-year institution in the southeast were the most important factor in students choosing that institution. Additionally, campus visits and printed material were found to be important, as were the influences of friends, graduates of the institution, and parents.

Summary

Each study cited provided some insight into the college choice process. The way in which students choose a college may be changing from traditional methods. For example, a recent article in *USA Today* indicated that more students are using Facebook as a way of communicating with university officials and taking care of business, according to admissions staff (Anderson, 2009). However, previous studies that have explored internet resources have looked at newsmagazine rankings or institutional websites, rather than examining the influence of a variety of internet-based resources. Additionally, they have gathered statistical information, as well as some short answers, but have not truly sought to understand college choice from the student's perspective. The mixed method nature of this study will provide statistical information, as well as student perspectives that will provide further insight into the statistical results.

The following chapter will address the research methodology of the study in greater detail, and will include more detailed information on data collection, analysis, verification, and ethical considerations.

Chapter Three

Research Methodology

Universities have a vested interest in learning how students choose a college. The choice process is multi-faceted and unique to each person, so understanding how individuals make that choice is complicated. As competition for students increases, knowing what aspects of an institution are most important for students, how they learn information about a school, and how they make their college choice is an important component to aiding recruitment and retention. The greater understanding resulting from this study can help colleges and universities increase the effectiveness of recruitment strategies.

Purpose of the Study

Previous research has focused on what students want in a college website (Christiansen et al., 2003), how students use institutional websites to inform their choice (Martin, 2006), the differences between the search and choice stages of the college selection process (Smith, 2006), and how historically-under-represented students use a variety of information sources available to them (Olsen, 2007).

All of the studies reviewed have provided some insight into the college choice process, but none has looked at the college choice process from a mixed methods perspective, and very little qualitative research has been conducted. Most of the studies have focused on collecting statistics relative to college choice, and a few have also gathered short answers from students. However, these studies have not explored college choice in depth from the student's perspective. A mixed methods study combining both

current statistical information and more detailed narrative information from students allowed for greater understanding in both breadth and depth of the topic.

The purpose of this study was to gain a better understanding of how current internet-based resources are affecting the college choice process. An explanatory mixed methods design was used, and the study involved collecting qualitative data after a quantitative phase to explain the quantitative data in greater depth. In the quantitative phase of the study, a survey was administered to students at the University of California, Irvine (UC Irvine) to identify the types of internet-based resources being used by students to investigate colleges and the impact of each on college choice. The second, qualitative phase of the study was conducted with students selected because of their answers in the quantitative phase. In this explanatory follow-up, the effects of different internet-based resources on the college choice process were explored with a smaller subset of the original population. The reason for the explanatory follow-up was to provide more insight into the decision-making processes of these students. Two studies were conducted, due to a delay in the writing of the results because of a change in jobs for the researcher. The comparison of the two studies allowed for an additional component of comparison for the research.

Research Questions

The following research questions were designed to gather information regarding the influence of internet-based resources on the college choice process from both a quantitative and qualitative perspective. Quantitative research questions for this study include:

1. What are the various types of internet-based resources that are currently being used by students to gather information about colleges and universities?
2. How do different types of internet-based resources impact the college choice process?
3. How do students rate the importance of internet-based resources compared to other factors that impact their decision?

The central qualitative research question of this study was the following:

- How do students describe the primary factors that influenced their college choice?

Issue-oriented and process-oriented sub-questions were designed to further examine the central research question. Issue sub-questions included seeking answers to the following queries:

1. How do students describe what factors were most important to their college choice?
2. How do students get information about colleges to help them with their choice process?
3. How do students describe their use of internet-based resources that assisted with their choice process?
4. What themes emerged that were common among the students?

Process sub-questions include the following inquiries:

1. How is the student's decision-making process described?
2. What themes emerged from gathering information about the cases?

3. How do these themes relate to other theories of the college choice process reported in the professional literature?

A mixed methods research question combines both aspects of the study. The mixed methods question addressed by this study will be:

1. In what ways does the information gathered from interviews with students regarding use of internet-based resources in their college choice process help to explain the quantitative results from the survey?

Research Paradigm

The philosophical foundations of mixed methods research have been questioned in the past by some researchers (e.g., Datta, 1994; Gage, 1989; Guba & Lincoln, 1994; House, 1994). Some have asserted that paradigms or worldviews cannot be mixed, and neither, consequently, can quantitative and qualitative research. However, this philosophy has changed over the past three decades, and mixed methods research is becoming much more widely accepted. Tashakkori and Teddlie (1998) asserted that "pragmatists consider the research question to be more important than either the method they use or the worldview that is supposed to underlie the method" (p. 21). Pragmatists have seen that each person has a unique perspective on their world, and each perspective is valuable. The importance lies in understanding the perspective of other people, rather than simply looking at a situation through your own lens.

The blending of methods fits with pragmatism (Tashakkori & Teddlie, 1998). Statistics provide a good foundation to begin to look at an issue, but they also may only tell part of the story. To truly understand an issue, gaining in-depth information from people is often helpful. This perspective aids in understanding the point of view of the

student and their reality, and it can help to guide the formation of questions to be used in obtaining data for statistical information. Both quantitative and qualitative research have strengths, and blending those two methods together offers the prospect of making a stronger study.

Finally, pragmatism is quite adaptable. This fluidity can be useful as "decisions regarding the use of either qualitative or quantitative methods (or both) depend upon the research question as it is currently posed and the phase of the research method that is ongoing" (Tashakkori & Teddlie, 1998, p. 24).

This sequential, explanatory mixed methods design was intended to result in quantitative and qualitative data that complemented each other, but also strengthened the findings of each portion of the study. Although the two methods approach research from different philosophical bases, combining the methods can yield stronger results. Quantitative research can be generalized to a population, while qualitative research is less likely to be generalized. Qualitative research can give an in-depth picture to a phenomenon, a case, or an ethnic group, for example, and can provide valuable insight into understanding the experiences of the research subjects. Mixed methods research is particularly useful when data from a large number of perspectives is needed (Sale, Lohfeld, & Brazil, 2008).

Much of the research conducted in social and behavioral science now is conducted utilizing mixed methods (Tashakkori & Teddlie, 1998). Fields in these areas are very receptive to the benefits of quantitative data gathered from a larger population, combined with the depth of understanding that can be gained through qualitative

research. In areas such as program evaluation, larger scale input combined with stories of participants provides a more complete picture of the benefits and drawbacks of the program.

This study utilized a mixed methods sequential explanatory design consisting of two distinct phases: quantitative followed by qualitative (Creswell, Plano Clark, et al., 2003). Utilizing this design, quantitative data were collected and analyzed first. Then qualitative data were collected and analyzed with the purpose of helping to explain or elaborate on the quantitative results from the first phase. This approach allowed the quantitative phase to provide a general understanding of how students utilize internet-based resources and the degree to which they relied upon these resources compared to more traditional resource. The qualitative data and analyses explain the statistical results by further exploring participants' views (Creswell, Plano Clark, et al., 2003). Although a greater emphasis is usually placed on the quantitative data in an explanatory design, this study used a participant selection model which places more emphasis on the qualitative data gathered. The explanatory design works best when qualitative data are needed to explain or build upon the quantitative results. Creswell and Plano Clark (2007) described the purpose of the design as one in which qualitative data helps to explain or strengthen quantitative results.

This inquiry was particularly well-suited to mixed methods research. Quantitative research gathered utilizing a survey provided some general information, and allowed the selection of students for qualitative interviews. The qualitative portion provided detailed answers that would not have been possible to gather via quantitative research. The depth

of the research was much greater using mixed methods than it would have been utilizing only one method.

Data Collection

Prior to data collection, Institutional Review Board (IRB) approval was sought from both the study institution of the researcher, as well as the institution where the research was conducted. To allow for potential changes in the qualitative questions after the quantitative survey, approval for each phase of the research was sought separately.

Quantitative Phase

This study utilized two convenience samples of students at UC Irvine. UC Irvine is part of the University of California system, with a total population of 27,631 students and an incoming freshmen class of 3,950. During the first study, the instructor of the *University Studies 2* class allocated the final 10 minutes of the first class period to administer the survey in September 2009 at the UC Irvine. The survey was developed specifically for the purpose of gathering the quantitative results. The 456 students in the *University Studies 2* course are first-time college freshmen beginning their first quarter at UC Irvine. The setting ensured that all participants were incoming first-time freshmen. Most students were undecided/undeclared in their major. No incentive was provided for participation in the study. Students were told that the survey would ask questions regarding their college choice process, but were not told the focus was on internet-based resources so their opinions were not subconsciously skewed. Participants were provided with an informed consent form, and were also orally informed they could choose not to participate in the study. The class instructor was not present during survey administration

so students would not feel intimidated one way or the other regarding their participation. Students completed the survey during the class period and the researcher gathered completed surveys at the conclusion of class. Of the 456 students in the class, there were only six who chose not to complete the survey. Students were asked to voluntarily include their name and phone number for follow-up questions, and were verbally encouraged to do so. The students who were selected for qualitative research based on the results of the quantitative analysis were chosen from these students who provided their contact information.

The second study was conducted in January 2012. A change of jobs prevented the researcher from writing up the results in a timely manner, so an additional study was conducted, allowing the comparison of the two groups approximately two years apart. In the two years since the first study, there was a change in the requirements for undecided/undeclared students, and the class that was utilized during the first study was no longer offered. This change and the time of the year necessitated a different method of survey administration. In the second study, an internet survey was sent via email to all 876 freshmen students whose major was undecided/undeclared. The questions were the same as the questions on the original survey. The students were told the survey was regarding their college choice process. They were told the survey was not mandatory, so students were not obligated to respond. Two-hundred twenty (25.1%) responded to the survey. As in the first survey, the last question asked for students who were willing to be interviewed via telephone. Twenty-three students provided their phone numbers and

email addresses, and 10 were selected for telephone interviews based on their survey responses.

Qualitative Phase

The qualitative portion for both studies was conducted with students who provided contact information on the initial survey, and whose answers were representative of the major finding(s) of the quantitative survey. Although gender and ethnicity were noted, neither of these was a determining factor in the selection of students for further qualitative questions. Previous studies have focused on the impact of gender (Jennings, 2008) or ethnicity (Ceja, 2004; Ceja, 2006; Jones, 2002; Muhammad, 2008; Smith, 2009) on the college choice process, but the purpose of this study was to examine the use of internet-based resources on the college choice process. Individual phone calls were made to students to gain answers to the qualitative questions. In those cases where only an email address was provided, students were initially contacted by email, and asked to arrange a phone appointment. Careful statistics were kept regarding the number of students who were emailed, the number who responded to the email, and the number who finally successfully completed the phone interview. At the beginning of the phone interviews, students were informed about the purpose of the study, oral informed consent was obtained, and students were able to opt out of the study if they chose. Interviews were tape recorded, and then transcribed within four days after the interview. Student names and critical identifying information for the students or their parents were changed to protect confidentiality. Interviews followed a semi-structured format with predetermined questions. Additional questions were asked for clarification when needed.

The following questions were asked of each participant involved in the qualitative process.

1. Please describe how you gathered information about colleges and universities.

2A. For students who indicated internet-based resources were utilized in their college choice process:

You indicated you utilized [*researcher will insert the internet-based resource(s) indicated on the student's survey and ask the following questions based on each resource the student said they utilized*]. Describe your use of each internet-based resource and how the resource influenced your college choice. At what point(s) during your choice process did you utilize each of these resources? How would you describe how you used each resource, including how much time you spent using each resource? Why did you choose these particular resources rather than other internet-based resources?

OR

2B. For students who indicated no internet-based resources were utilized in their college choice process:

You indicated you did not utilize any internet-based resources during your college choice process. Were there any particular reasons you did not utilize internet-based resources? Did you consult any print resources?

3. How many campuses did you visit between the time you began considering where to apply and prior to submitting your Statement of Intent to Register? When did you visit and how would you describe your visit(s)?
4. When thinking about the resources you utilized to help you with your decision-making process, please describe any differences in both the types and ways in which you utilized resources prior to being accepted to a school and those you utilized after you were accepted.
5. Please describe how you made your decision about which college to attend.
6. Please discuss anything that was particularly influential in your decision.
7. Name three qualities that you looked for when selecting a school and describe how the university you chose met these qualities.

Data Analysis

Quantitative phase. All data gathered from both surveys were cleaned, examined for outliers, and entered into SPSS for analyses. Data were initially tabulated for frequency distribution and central tendency measures where appropriate. Comparisons were made between groups initially through frequencies. Then data were recoded for questions with multiple parts and a scale of influence in order to establish a quantifiable usage level of comparison for influence among different groups surveyed based on gender, ethnicity, and parent education level. T-tests were conducted and analyzed for comparisons involving gender. ANOVA tests were conducted for comparisons involving ethnicity and parent education level (see Figure 1).

Qualitative phase. Interviews were carefully transcribed within one week of the time the interview was conducted. Once all interviews were completed and transcribed, each interview was analyzed individually by hand through open coding by sentence or paragraph (Hatch, 2002; Corbin & Strauss, 1990). This method allowed for flexibility in assigning and re-assigning codes to various categories as themes emerged and evolved from the data.

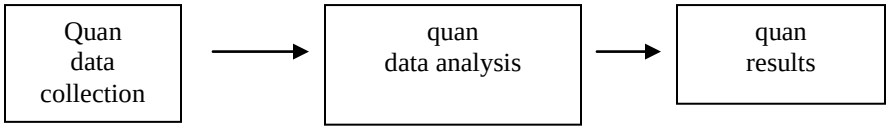
Cross-case analyses were conducted, and codes were reviewed for overlap, redundancy, and commonalities. Through this process, themes emerged and evolved. An example of this process was included in Appendix F.

Verification

The verification procedures utilized in this case study required that there was a fit between research questions, data collection procedures, and analysis techniques to ensure the data collection procedures and analytical procedures were employed properly. Verification was sought for descriptive validity, which ensured validity of facts and accounts from students, as well as interpretive validity, which looked at the meaning established through the participant's interviews.

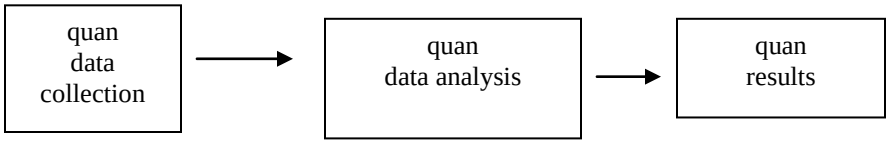
Figure 2 provides a visual illustration of the data collection and analysis for this research project. The data were analyzed sequentially, just as the data were gathered sequentially. The rationale for sequential analysis was that the data from the first study provided information that was useful to the second set of data. Quantitative data were analyzed and reviewed, decisions were made about whom to interview for the qualitative phase, and qualitative data were collected and analyzed. In order to enhance the validity

2009 Survey



Procedures In-person survey (n = 456)	**Procedures** Factor analysis Group comparisons t-test scores ANOVAs	**Procedures** Validation of findings Discuss differences
Products Numerical data	**Products** Comparison scores between gender, ethnicity, and parent education levels Frequency scores for level of use and influence	**Products** Description of results

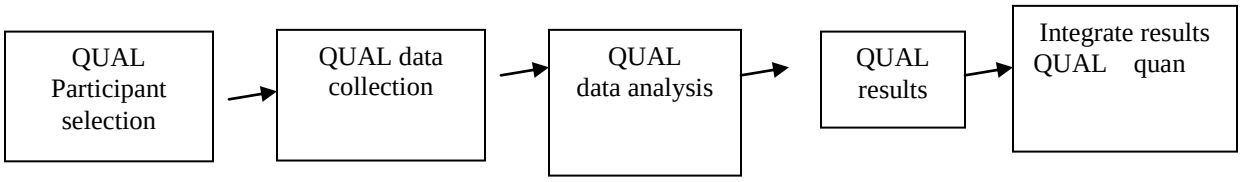
2011 Survey



Procedures Internet survey (n = 220)	**Procedures** Factor analysis Group comparisons t-test scores ANOVAs	**Procedures** Validation of findings Discuss differences
Products Numerical data	**Products** Comparison scores between gender, ethnicity, and parent education levels Frequency scores for level of use and influence	**Products** Description of results

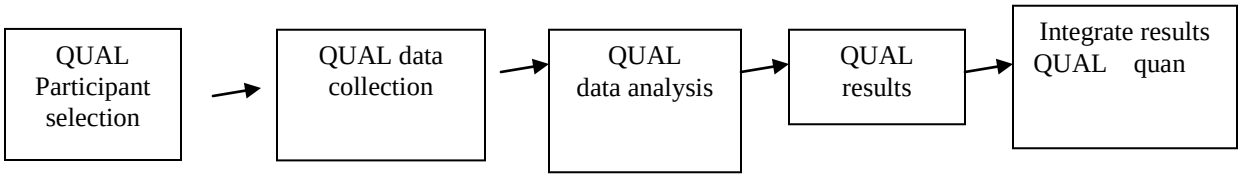
Figure 1. Quantitative research procedures for sequential explanatory design.

2009 Study



Procedures Identify differences Identify anomalous results	**Procedures** Interviews (n = 20)	**Procedures** Coding Thematic analysis	**Procedures** Validation of findings w/ member checking & peer debriefing Discuss differences	**Procedures** Explain quan differences w/ qualitative findings
Products Select cases for follow-up Specify new research questions	**Products** Notes and transcriptions	**Products** Stories for each case	**Products** Description of results	**Products** Discussion of findings Cross-case themes

2011 Study



Procedures Identify differences Identify anomalous results	**Procedures** Interviews (10 participants)	**Procedures** Coding Thematic analysis	**Procedures** Validation of findings w/ member checking peer debriefing Discuss differences	**Procedures** Explain quan differences with qualitative differences
Products Select cases for follow-up Specify new research questions	**Products** Notes and transcriptions	**Products** Stories for each case	**Products** Description of results	**Products** Discussion of findings Cross-case themes

Figure 2. Qualitative research procedures for sequential explanatory design.

of this mixed methods research, it was helpful to minimize the threats to validity. Although using different individuals for the quantitative and qualitative phases can be a threat, the researcher already took that into consideration, and drew the students for qualitative research out of the group that participated in the quantitative phase. The researcher also followed up on contradictory results, and attempted to reduce bias through data collection. In analyzing data, the researcher kept the data transformation (codes, themes) simple, and addressed issues of both quantitative validity and qualitative validity. Additionally, some of the same questions were asked in both the quantitative and qualitative portions of the study.

Member checking and peer debriefing were utilized for verification in this case. Twenty percent of the students in the qualitative process were provided with the transcription of their individual interview and asked to make sure their comments accurately reflected the interview. Each student was contacted by telephone and asked to indicate the degree of agreement with each theme based on a Likert scale. Students were also given the opportunity to provide additional feedback on the themes. Through the feedback obtained by the students, the themes were supported. Peer debriefing was conducted as well. Findings were shared with a research colleague who has experience conducting mixed methods research. The colleague independently reviewed transcripts and the themes discovered by the researcher, and concurred with the findings of the researcher. Between these two methods, verification was achieved.

Ethical Considerations

Hatch (2002) identified reciprocity as an important component of maintaining a high level of ethics throughout the research process. Consequently, the researcher was

clear with participants about the overall goal of the research, with the exception of being explicit regarding the focus on internet-based resources during the quantitative portion of the research. Participants were guaranteed confidentiality, and all surveys and transcriptions were stored in a locked cabinet in the researcher's office. Names and identifying information were altered to protect the anonymity of the students participating in the interviews (Creswell & Plano Clark, 2007). Quantitative research was presented in aggregate form. Approval was obtained by the Institutional Review Board of both the researcher's study university and the university of the research site.

The next chapter details the results of the current study's quantitative and qualitative research. Results of the quantitative phase and the qualitative phase are reported separately.

Chapter Four

Findings

This chapter reviews the purpose and the research questions, followed by analyses of the quantitative data. This included participant selection and demographics. Analyses were then provided of the qualitative data, including participant selection and demographics.

Introduction

The purpose of this study was to gain a better understanding of how current internet-based resources are affecting the college choice process. An explanatory mixed methods design was used, and the study involved collecting qualitative data after a quantitative phase to explain the quantitative data in greater depth. In the quantitative phase of the study, a survey was administered to students at the University of California, Irvine (UC Irvine) to identify the types of internet-based resources being used by students to investigate colleges and the impact of each on college choice. The second, qualitative phase of the study was conducted with students selected because of their answers in the quantitative phase. In this explanatory follow-up, the effect of different internet-based resources on the college choice process was explored with a smaller subset of the original population. The reason for the explanatory follow-up was to provide more insight into the decision-making processes of these students.

The following research questions were designed to gather information regarding the influence of internet-based resources on the college choice process from both a

quantitative and qualitative perspective. Quantitative research questions for this study included:

1. What were the various types of internet-based resources that students used as they gathered information about colleges and universities?
2. How did different types of internet-based resources impact the college choice process?
3. How did students rate the importance of internet-based resources compared to other factors that impacted their decision?

The central qualitative research question of this study was the following:

- How did students describe the primary factors that influenced their college choice?

Issue-oriented and process-oriented sub-questions were designed to further examine the central research question. Issue sub-questions included seeking answers to the following queries:

1. How did students describe what factors were most important to their college choice?
2. How did students get information about colleges to help them with their choice process?
3. How did students describe their use of internet-based resources that assisted with their choice process?
4. What themes emerged that were common among the students?

Process sub-questions include the following inquiries:

1. How did students describe their decision-making process?
2. How do themes that emerge relate to other theories of the college choice process reported in the professional literature?

A mixed methods research question combines both aspects of the study. The mixed methods questions addressed by this study will be:

1. In what ways does the information gathered from interviews with students regarding use of internet-based resources in their college choice process help to explain the quantitative results from the survey?

Two studies were completed due to delays in analysis as a result of the researcher adjusting to new employment after the first study was completed. Consequently, additional analysis was completed to compare the two populations and subsequent survey results.

Quantitative Phase

The participants. This first study utilized a convenience sample of students at the Irvine campus of the University of California Irvine (UC Irvine). The total enrollment at UC Irvine of 27,631 students in 2009, with an incoming freshmen class of 3,950. During the first study in September 2009, the instructor of the *University Studies 2* class allocated the final 10 minutes of the first class period to administer the survey. The survey had 13 items, several of which included multiple sub-questions. It was developed specifically for the purpose of gathering the quantitative results. The 450 students in the *University Studies 2* course were first-time college freshmen beginning their first quarter at UC Irvine. The setting ensured that all participants were incoming

first-time freshmen. Most students were undecided/undeclared in their major. No incentive was provided for participation in the study. Students were told that the survey would ask questions regarding their college choice process, but were not told the focus was on internet-based resources so their opinions were not subconsciously skewed. Participants were provided with an informed consent form (Appendix A), and were also orally informed they could choose not to participate in the study. The class instructor was not present during survey administration so students would not feel intimidated one way or the other regarding their participation. Students completed the survey during the class period and the researcher gathered completed surveys at the conclusion of class. A full version of the survey is included in Appendix B. Of the 450 students in the class, there were only six who chose not to complete the survey. Students were asked to voluntarily include their name and phone number for follow-up questions, and were orally encouraged to do so.

The second study with the freshmen class from 2011 was conducted in January 2012. A change of jobs prevented the researcher from writing up the results in a timely manner, so an additional study was conducted, allowing the comparison of the two groups approximately two years apart. A change in the requirements for undecided/undeclared students eliminated the class used in the previous study and the time of the year in which the study was conducted necessitated a different method of survey administration. In the second study, an internet survey was sent via email to 876 freshmen students whose major was also undecided/undeclared. The students were encouraged to participate in the survey but were told their participation was optional in

the initial email with the link to the survey. The wording of some questions was altered slightly to facilitate the on-line version, but content and information derived from the survey did not change. A full version of the 2011 freshmen survey is included in Appendix C. Two-hundred twenty students (25.1%) responded to the survey.

Tables 2-15 provide breakdown of the gender, ethnicity, age, and education level of both parents from both surveys, with the 2009 data presented first in each area.

In the 2009 study, male students accounted for 37.3% of the participants, while females accounted for 62.7% of the participants (see Table 2).

The percentage of male students in the 2011 study was slightly lower, accounting for 29% of the participants, while females accounted for 71% of the participants.

Table 2

Participant Demographic by Gender –Results

		2009 Freshmen		2011 Freshmen	
#	Gender	Response	%	Response	%
1	Male	168	37.3	64	29.0
2	Female	282	62.7	154	71.0
	Total	450	100.0	218	100.0

In the 2009 study, the majority of students, 80%, were 18 years old. The remaining students were 17 years old (16.7%) or 19 years old (2.7%). Only 0.7% chose not to provide their age (see Table 3).

Table 3

Participant Demographic by Age – 2009 Results

#	Age	Response	%
1	17	75	16.7
2	18	360	80.0
3	19	12	2.7
4	No answer	3	0.7
Total		450	100.0

In the 2011 entering class, the majority of students, 67.3%, were 18 years old. The next largest group was 19 years old (23.6%), followed by 20 years old (3.6%), 17 years old (0.9%), 21 years old (0.9%), and 23 (0.5%). Only 3.2% chose not to provide their age (see Table 4). The difference in age between the two surveys is most likely due to the difference in the timing of survey administration from September in the first study to January in the second study. At the time of entry in September 2011, the age distribution was likely much more comparable.

Table 4

Participant Demographic by Age – 2011 Results

#	Age	Response	%
1	17	2	0.9
2	18	148	67.3
3	19	52	23.6
4	20	8	3.6
5	21	2	0.9
6	23	1	0.5
7	No answer	7	3.2
Total		220	100.0

The ethnic breakdown of participants in the 2009 study is similar to the overall campus student population, although the Caucasian (non-Hispanic) group is slightly lower and the Chicano/Latino group is slightly lower as well. UC Irvine statistics did not delineate a multiracial category, so it is unknown where those students may have aligned themselves within the provided categories. Since only one Native American student completed the survey, the researcher made the decision to not include the results of that individual, since the results were not able to be representative of all Native American students. The same decision was made for students who indicated Other as their ethnicity (see Table 5).

Table 5

Participant Demographic by Ethnicity – 2009 Results

#	Ethnicity	Response	%	UCI 2009 Freshmen class	UCI 2009 Freshmen Undecided/ Undeclared
1	African-American	17	3.8	2.1%	2.6%
2	Asian-American/Pacific Islander	271	60.2	57.6%	59.1%
3	Caucasian (non-Hispanic)	65	14.4	19.6%	16.3%
4	Chicano/Latino	55	12.2	14.4%	16.6%
5	Native American	1	0.2	Less than 1%	Less than 0.1%
6	Multiracial	38	8.4	Included in Other	Included in Other
7	Other	3	0.7	5.9%	4.9%
	Total	450	100.0	100%	100%

Response rate for the 2011 study included a slightly lower percentage of Caucasian (non-Hispanic) students, a higher percentage of Chicano/Latino students, a higher percentage of students who identified as "Other," and a lower percentage of multiracial students than the overall freshmen class. However, the populations were more similar when comparing the Undecided/Undeclared portion of the freshmen class (see Table 6).

Table 6

Participant Demographic by Ethnicity – 2011 Results

#	Ethnicity	Response	%	UCI 2011 Freshmen class	UCI 2011 Freshmen Undecided/ Undeclared
1	African-American	7	3	1.8	3.9
2	Asian-American/Pacific Islander	96	44	46.7	41.2
3	Caucasian (non-Hispanic)	21	10	15.2	15
4	Chicano/Latino	71	33	24.3	27.4
5	Native American	0	0	Less than 0.1%	Less than 0.1%
6	Multiracial	23	11		5.2
9.9	Other	2	1	6.7	1.8
	Total	220	100	100.0	100.0

An important note is there were only seven African American students included in the 2011 study. Even though such a small number is not likely to be representative of the larger population, the researcher made the decision to include information obtained from these students to provide possible insight and comparison with the earlier study. The researcher also did not include further statistical analysis for students in this study who identified as "Other," since the results from two people were unlikely to be able to be generalized to the larger population. Since no Native American students completed the 2011 survey, that category was not included in further descriptions either.

Further analysis was conducted for parent education level to observe differences that may have existed between gender and between ethnicity. Parent education level was compared for mothers and fathers, and the profiles were similar based on the year (see Tables 7-10). There were more significant differences presented when parent education level was examined across ethnicities. The results are presented in Tables 11 and 12.

Table 7

Participant Demographic by Mother's Educational Level – 2009 Results

#	Highest Level of Education	Response	%
1	High School or Less	121	26.9
2	Some college	84	18.7
3	Associate's Degree	31	6.9
4	Bachelor's Degree	135	30.0
5	Graduate Degree	70	15.6
6	No answer	9	2.0
	Total	450	100.0

Table 8

Participant Demographic by Mother's Educational Level – 2011 Results

#	Highest Level of Education	Response	%
1	High School or Less	90	41
2	Some college	47	22
3	Associate's Degree	11	5
4	Bachelor's Degree	47	22
5	Graduate Degree	23	11
6	No answer	2	1
	Total	220	100

Table 9

Participant Demographic by Father's Educational Level – 2009 Results

#	Highest Level of Education	Response	%
1	High School or Less	106	23.6
2	Some college	73	16.2
3	Associate's Degree	13	2.9
4	Bachelor's Degree	110	24.4
5	Graduate Degree	133	29.6
6	No answer	15	3.3
	Total	450	100.0

Table 10

Participant Demographic by Father's Educational Level – 2011 Results

#	Highest Level of Education	Response	%
1	High School or Less	90	42
2	Some college	30	14
3	Associate's Degree	11	5
4	Bachelor's Degree	57	27
5	Graduate Degree	26	12
6	No answer	6	3
	Total	220	100

Table 11

Mother's Highest Level of Education/Ethnicity – 2009 Results

	High school diploma or less	Some college	Associate's degree	Bachelor's degree	Master's degree
African American	11.8	23.5	5.9	35.3	17.6
Asian American	25.8	19.6	7.4	31.7	13.3
Caucasian (non-Hispanic)	16.9	12.3	9.2	35.4	26.2
Chicano/ Latino	52.7	21.8	5.5	14.5	3.6
Multiracial	21.1	13.2	2.6	31.6	31.6

Table 12

Father's Highest Level of Education/Ethnicity – 2009 Results

	High school diploma or less	Some college	Associate's degree	Bachelor's degree	Master's degree
African American	11.8	17.6	0	29.4	35.3
Asian American	20.7	15.9	3.7	24.4	31.7
Caucasian (non-Hispanic)	20.0	7.7	1.5	29.2	41.5
Chicano/ Latino	54.5	21.8	0	12.7	5.5
Multiracial	10.5	26.3	2.6	31.6	28.9

Percentages were compared across ethnicities and educational level, and in the 2009 study, Caucasian students had parents with the highest education levels. Chicano/Latino students had parents with the lowest education levels, with over 50% having a high school diploma or less (see Tables 11 and 12).

The 2011 study showed some differences in parent education levels when compared with the 2009 study. The decline in the parent education levels from the first study to the second study for African American students could be a result of the individual students who returned surveys, rather than a representation of that ethnicity in the student population overall. One aspect to note from the data was the decline in education level for parents of Chicano/Latino students, noted both in the decline of Bachelor's and Master's degrees, but also in the increase of students reporting parent education levels of high school diploma or less.

From this point forward in the study, parent education level was recoded in order to determine the highest level of education by either parent for each student, in order to get a better understanding of the data for students who may be first generation college students. The parent education level for each student was assigned the value of the highest education level for either parent, so a student whose mother had attained a bachelor's degree and a father who had attained a high school diploma or less would be noted as having a parent with a bachelor's degree.

ANOVAs were conducted to analyze parent education level with several questions. Where applicable, those results are included following other measures of descriptive analysis.

Table 13

Mother's Highest Level of Education/Ethnicity – 2011 Results

	High school diploma or less	Some college	Associate's degree	Bachelor's degree	Master's degree
African American	14.3	57.1	14.3	0	0
Asian American	31.3	18.8	5.2	35.4	9.4
Caucasian (non-Hispanic)	14.3	33.3	9.5	19.0	23.8
Chicano/ Latino	74.6	18.3		4.2	2.8
Multiracial	8.7	21.7	13.0	26.1	30.4

Table 14

Father's Highest Level of Education/Ethnicity – 2011 Results

	High school diploma or less	Some college	Associate's degree	Bachelor's degree	Master's degree
African American	28.6	28.6	0	14.3	14.3
Asian American	26.0	16.7	5.2	36.5	14.6
Caucasian (non-Hispanic)	23.8	9.5	4.8	47.6	14.3
Chicano/ Latino	80.3	9.9	2.8	2.8	4.2
Multiracial	4.3	13.0	13.0	34.8	34.8

Descriptive analysis. The purpose of the survey was to gain insight into the factors that influenced the college choice process of this group of students. Thus questions were asked regarding their awareness of various internet-based resources, which websites they utilized in their college choice process and how influential those websites were, if and how they used social networking websites in their college choice process, what traditional resources they used, and how influential those resources were on their college choice process, and what external resources influenced their college choice process. Further frequencies were calculated to examine difference in answers based on gender, ethnicity, and parent education level. T-tests and ANOVAs were conducted where appropriate to determine significant differences in order to further understand the data gathered.

Question 1—Please indicate which of the following internet-based resources you are aware of, regardless of whether or not you utilized those resources in your

college search process. The websites listed were divided by those ranking colleges and universities, and those designed to compare colleges and universities. In the 2009 study, the internet-based resource that was most familiar to students was CollegeBoard.com, with 96% of students indicating an awareness of the website. CollegeBoard.com is a website that compares colleges and universities. College bound students must visit this website to register for Standard Achievement Tests (SATs), which are required by the majority of colleges and universities. The website also serves as a resource for information on colleges and universities throughout the United States. This was followed by PrincetonReview.com with 61.8%, U.S.News&WorldReport.com with 47.8%, and Forbes.com with 31.3%. Each of those websites was designed to rank colleges and universities. Other websites listed, including Petersons.com, the National Survey for Student Engagement (NSSE), and Unigo.com were recognized by less than 4% of the students surveyed. The one individual who indicated "Other" did not provide any further information regarding another website (see Table 15).

Frequencies were calculated for male and female respondents to examine any differences. Male students were most aware of CollegeBoard.com (94.6%), followed by PrincetonReview.com (56.3%), U.S. News & World Report (53.3%), and Forbes.com (42.5%). The National Survey for Student Engagement (3.6%), Petersons.com (3.0%), and Unigo.com (1.8%) were less familiar to students. Female students were most aware of CollegeBoard.com (96.8%), followed by PrincetonReview.com (65.2%), U.S. News & World Report (44.7%), and Forbes.com (24.5%). Petersons.com (3.5%), Unigo.com (2.5%), and the National Survey for Student Engagement (1.8%) were all less familiar.

Table 15

Internet Awareness - 2009 Results

Resource	Response	%
Forbes.com	141	31.3
PrincetonReview.com	278	61.8
U.S.News&WorldReport.com	215	47.8
Other	1	0.2
None	7	1.6
CollegeBoard.com	432	96.0
National Survey for Student Engagement (NSSE)	11	2.4
Petersons.com	15	3.3
Unigo.com	10	2.2

Frequencies broken down by ethnicity in the 2009 study are shown in the Table 16. There was only one student who identified as Native American/Alaskan Native. Since there was no way to determine if the one response was representative of other students, the researcher made the determination to not include those responses in this study from this point forward. Similarly, there were only three students who identified as Other. Because of the small number, the determination was made by the researcher not to include those results as well.

In the 2011 survey, College Board was still the most well-known internet resource, with 75.9% of the participants indicating familiarity of CollegeBoard.com. U.S.News&WorldReport.com was the next most familiar with 11%, followed by PrincetonReview.com with 8.2% of the participants indicating familiarity with the website.

Table 16

Internet Awareness/Ethnicity – 2009 Results

	African American	Asian American	Caucasian	Chicano/ Latino	Multiracial
Forbes.com	41.2%	32.8%	29.2%	29.1%	26.3%
Princeton Review.com	76.5%	64.2%	55.4%	52.7%	63.2%
U.S. News & World Report	41.2%	49.1%	40%	43.6%	57.9%
CollegeBoard.com	94.1%	96.7%	96.9%	96.4%	89.5%
National Survey for Student Engagement (NSSE)	0%	2.6%	0%	3.6%	5.3%
Petersons.com	11.8%	3.3%	1.5%	3.6%	2.6%
Unigo.com	0%	2%	0%	0%	5.3%

Table 17

Internet Awareness - 2011 Results

Resource	Response	%
Forbes.com	3	1.4
PrincetonReview.com	18	8.2
U.S.News&WorldReport.com	24	11.0
Other	167	75.9
None	1	0.5
CollegeBoard.com	2	1.0
National Survey for Student Engagement (NSSE)	0	0
Petersons.com	3	1.4
Unigo.com	2	1.0
Total	220	100.0

Male respondents in the 2011 study were most familiar with CollegeBoard.com (98.4%), followed by PrincetonReview.com (20.3%), and U.S. News & World Report (20.3%), while Petersons.com (6.3%), Forbes (4.7%), Unigo.com (3.1%), and National Survey for Student Engagement (1.6%) were only familiar to fewer than four of the respondents.

Female respondents were almost universally familiar with CollegeBoard.com (98.7%) with only 2 students who indicated they were not familiar with the website. Other websites were less familiar to this population, with U.S. News & World Report (15.6%) and PrincetonReview.com (13%) as the next most familiar, but Petersons.com (5.2%), Forbes.com (3.9%), NSSE (2.6%), and Unigo.com (1.3%) were familiar to fewer than 10 of the respondents.

Frequencies broken down by ethnicity for the 2011 study are shown in Table 18. There were no Native American/Alaskan Native respondents in the study, and no students chose the Other category. Therefore, these categories were not discussed in the rest of the findings.

When results from the two surveys were compared, students from both studies were most familiar with CollegeBoard.com. Although there were some differences in familiarity with other resources, students in the 2011 study were overall less familiar with other resources.

Question 2—Please indicate which websites you utilized in your college search process. For each of the websites you utilized, please indicate the relative degree of influence on your college choice. In the 2009 study, students utilized CollegeBoard.com

more than any other website, with 91% reporting using the website during their college search process. This was followed by PrincetonReview.com, with 50.9%, followed closely by U.S. News and World Report with 48.7%. Forbes.com was the next most

Table 18

Internet Awareness/Ethnicity – 2011 Results

	African American	Asian American	Caucasian	Chicano/ Latino	Multiracial
Forbes.com	0.0%	2.1%	0.0%	2.8%	21.7%
Princeton Review.com	0.0%	17.7%	4.8%	9.9%	34.8%
U.S. News & World Report	14.3%	14.6%	4.8%	16.9%	34.8%
CollegeBoard.com	100.0%	99.0%	100.0%	97.2%	100.0%
National Survey for Student Engagement (NSSE)	0.0%	1.0%	0.0%	2.8%	8.7%
Petersons.com	0.0%	5.2%	4.8%	5.6%	8.7%
Unigo.com	0.0%	1.0%	0.0%	1.4%	8.7%

utilized with 35.1%, followed by Petersons.com with 29.6%, the National Survey of Student Engagement (NSSE) with 28.9%, and Unigo.com with 28.4%. CollegeBoard.com was ranked as most influential, with 63.6% reporting either Very Influential or Somewhat Influential. This was followed by U.S. News and World Report with 25.5% reporting either Very Influential or Somewhat Influential, and PrincetonReview.com, with 22.9% indicating the website or printed material was either Very Influential or Somewhat Influential. Answers under "Other" included cappex.com,

collegeconfidential.com, theu.com, collegeprowler.com, wikipedia.com, and naviance.com. Of those, the websites ranked most influential included wikipedia.com and naviance.com. Collegeprowler.com was rated as somewhat influential, while cappex.com, collegeconfidential.com, and theu.com were rated as not at all influential. Most male students (99%) utilized CollegeBoard.com (see Table 19).

Table 19

Internet Utilization - 2009 Results

Website	Utilized	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
CollegeBoard.com	409 (91%)	106 (23.6%)	180 (40%)	87 (19.3%)	36 (8%)
Forbes.com	158 (35.1%)	4 (.9%)	23 (5.1%)	33 (7.3%)	98 (21.8%)
National Survey for Student Engagement (NSSE)	130 (28.9%)	0 (0%)	8 (1.8%)	9 (2.0%)	113 (25.1%)
Petersons.com	133 (29.6%)	1 (.2%)	15 (3.3%)	12 (2.7%)	105 (23.3%)
PrincetonReview.com	229 (50.9%)	35 (7.8%)	68 (15.1%)	56 (12.4%)	70 (15.6%)
Unigo.com	128 (28.4%)	4 (.9%)	8 (1.8%)	13 (2.9%)	103(22.9%)
U.S. News & World Report	219 (48.7%)	41 (9.1%)	74 (16.4%)	43 (9.6%)	61 (13.6%)

Male students in the 2009 study also found CollegeBoard.com most influential, since 21% said the website was very influential, and 38.3% ranked the website as somewhat influential. U.S. News & World Report had the next amount of influence on male students, as 9.6% said the report was very influential and 19.2 indicated it was somewhat influential. PrincetonReview.com followed, with a very influential ranking of

6.6% and a somewhat influential rating of 15.6%. The remaining internet resources were reported to be of less influence, with a combined influence percentage of less than 9% for each resource.

Female students also found CollegeBoard.com was the most influential internet resource, as 24.8% reported the website was very influential, and 41.1 reported it was somewhat influential. Female students found U.S. News & World Report (8.9% very influential, 14.9% somewhat influential) and PrincetonReview.com (8.5% very influential, 14.9% somewhat influential) to be of similar influence. As with the male students, the remaining internet resources were found to be less influence, with a combined influence of less than 10% for each resource.

An independent t-test was conducted to compare utilization and influence of internet resources in males and females in the 2009 study. The result showed there was not a significant difference in utilization based on gender for males ($M = 3.3713$, $SD = 2.54239$) and females ($M = 2.9645$, $SD = 2.37847$); [$t(330.257) = 1.678$, $p = .094$]. These results suggest males and females used internet resources with the same frequency during their college choice process.

Analyzing responses of degree of influence by ethnicity for the 2009 study, CollegeBoard.com and U.S. News & World Report were generally the most influential for students. With few exceptions (as noted below), fewer than 10% of any particular ethnic group found any of the other websites to be influential in their college search process. African American students indicated CollegeBoard.com was very influential (29.4%) or somewhat influential (47.1%). U.S. News & World Report was the ranked

very influential by 5.9%, and somewhat influential by 23.5%. Asian American students reported CollegeBoard.com was very influential (25.1%) or somewhat influential (39.5%), while U.S. News & World Report was very influential (10.7%) or somewhat influential (14.4%) for a smaller number, as was PrincetonReview.com, which was very influential for 9.6%, and somewhat influential for 16.6%. Caucasian students had a broader distribution of influence from resources. They found CollegeBoard.com to be very influential (16.9%) or somewhat influential (35.4%) to a smaller degree than most other groups, but found other resources to be influential as well. PrincetonReview.com was very influential for 4.6% and somewhat influential for 18.5%. U.S. News & World Report was very influential for 10.8% and somewhat influential for 16.9%.

Chicano/Latino students were also influenced most by CollegeBoard.com (21.8% very influential, 41.8% somewhat influential), followed by U.S. News & World Report (3.6% very influential, 18.2% somewhat influential) and PrincetonReview.com (3.6% very influential, 9.1% somewhat influential).

A one-way between subjects ANOVA was conducted to compare ethnicity with the influence of internet resources in the college choice process in the 2009 study. There was not a significant effect of ethnicity on the influence of internet resources at the $p < .05$ level for the different ethnicities [$F(6, 443) = .683$, $p = .663$]. These results suggest that each ethnic group ranked the importance of internet resources similarly and utilized them in a similar manner.

A one-way between subjects ANOVA was conducted to compare parent education levels with student's utilization of internet resources for the 2009 study. There

was not a significant difference between students with parents of different education levels and the student's utilization of various internet resources at the $p < .05$ level for the four conditions [$F(3, 446) = 1.312$, $p = .270$]. These results suggest that parent education level did not impact which internet resources students used in the college choice process.

Students who were freshmen in 2011 still used CollegeBoard.com more than any other website (96%), followed by Princeton Review with 41% of the respondents using the website, then by U.S. News & World Report with 36.8%, Forbes.com with 19.1%, Petersons.com with 11.4%, and the National Survey of Student Engagement with 9.5%. CollegeBoard.com was also chosen as the most influential, with 63.7% indicating the site was either very influential or somewhat influential in their college choice (see Table 20). U.S. News & World Report was the next most influential with 21.8% rating either very influential or somewhat influential, followed closely by PrincetonReview.com with 20.8% ranking the site as either very influential or somewhat influential. Following those three websites were Forbes.com (7.3%), Unigo.com (3.3%), and the National Survey for Student Engagement (2.7%).

Male students in the 2011 study found CollegeBoard.com to be the most influential, with 28.1% who ranked it as very influential, and 39.1% who ranked it as somewhat influential. Princeton Review was ranked very influential (9.4%) or somewhat influential (20.3%), U.S. News & World Report ranked very influential (17.2%) or somewhat influential (15.6%).

Female students also found CollegeBoard.com to be very influential (28.6%) or somewhat influential (33.8%), with U.S. News & World Report (7.1% very influential

and 10.4% somewhat influential) and PrincetonReview.com (9.1% very influential and 8.4% somewhat influential) ranked equally influential overall.

Table 20

Internet Utilization - 2011 Participants

Website	Utilized	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
CollegeBoard.com	212 (96%)	62 (28.2%)	78 (35.5%)	44 (20%)	28 (12.7%
Forbes.com	42 (19.1%)	4 91.8%)	12 (5.5%)	18 (8.2%)	8 (3.6%)
National Survey for Student Engagement (NSSE)	21 (9.5%)	0 (0%)	6 (2.7%)	6 (2.7%)	9 (4.1%)
Petersons.com	25 (11.4%)	2 (1%)	4 (1.8%)	10 (4.5%)	9 (4.1%)
PrincetonReview.com	90 (41%)	20 (9.1%)	26 (11.8%)	28 (12.7%)	16 (7.3%)
Unigo.com	22 (0.1%)	2 (1%)	5 (2.3%)	5 (2.3%)	10 (4.5%)
U.S. News & World Report	81 (36.8%)	22 (10%)	26 (11.8%)	23 (10.5%)	10 (4.5%)

An independent t-test was conducted to compare utilization and influence of internet resources in males and females for the 2011 study. The result showed there was a significant difference in utilization based on gender for males ($M = 2.8125$, $SD = 2.00693$) and females ($M = 2.0261$, $SD = 1.52586$); [$t(215) = 2.142$, $p = .002$]. These results suggest males used internet resources more than females during their college choice process.

There was a small number of African American students (n = 7) in the 2011 study, so percentages for this population were not likely to represent the larger population.

Asian American students found CollegeBoard.com to be very influential (26%) or somewhat influential (38.5%), U.S. News & World Report very influential (10.4%) or somewhat influential (16.7%), and PrincetonReview.com very influential (9.4%) or somewhat influential (12.5%).

Caucasian students found CollegeBoard.com to be the most influential with 33.3% ranking the website as very influential and 23.8% saying it was somewhat influential. CollegeBoard.com was followed by PrincetonReview.com (4.8% very influential and 23.8% somewhat influential), and Forbes.com (4.8 somewhat influential), but all of the rest of the websites were unused by this group.

Chicano/Latino students were most influenced by CollegeBoard.com, where 36.6% said the website was very influential and 31% said it was somewhat influential. PrincetonReview.com was the next most influential, with 11.3% ranked as very influential and 8.5% ranked as somewhat influential, followed by U.S. News & World Report with an equal ranking of 8.5% who marked it very influential and somewhat influential.

Students identified as Multiracial found CollegeBoard.com to be very influential (4.3%) and somewhat influential (52.2%), U.S. News & World Report next with 17.4% who found it very influential and 8.7 who found it somewhat influential, followed by

Forbes.com with 4.3% who identified the website as very influential and a larger 13% who found it somewhat influential.

A one-way between subjects ANOVA was conducted to compare ethnicity with the utilization of internet resources in the college choice process for the 2011 study. There was not a significant effect of ethnicity on the utilization of internet resources at the $p < .05$ level for the different ethnicities [$F(4, 212) = .278$, $p = .892$]. These results suggest that each ethnic group utilized internet resources in a similar manner.

A one-way between subjects ANOVA was conducted to compare parent education levels with student's utilization of internet resources in the 2011 study. There was not a significant difference between students with parents of different education levels and the student's utilization of various internet resources at the $p < .05$ level for the four conditions [$F(3, 215) = .125$, $p = .945$]. These results suggest that parent education level did not impact which internet resources students used in the college choice process.

When the two studies were compared, there was no significant difference in utilization and influence of internet resources between males and females in the 2009 study, but males used internet resources more than women in the 2011 study. There were no significant differences based on ethnicity in either study, and both studies showed parent education level did not significantly impact internet resource utilization.

Question 3—In your college search/selection process, did you use any of the following social networking websites? The majority of students surveyed used some sort of social networking website as they searched or selected colleges. In the 2009 study, the greatest percentage (41.6%) used Facebook, while 15.6% used blogs, 9.1% used Twitter,

and 4.0% used MySpace. The totals do not equal 100% because some students reported utilizing more than one social networking website (see Table 21).

Table 21

Social Networking Use – 2009 Results

Social Networking Website	Response	%
Facebook	187	41.6
MySpace	18	4.0
Twitter	41	9.1
Blogs	70	15.6
Did not use	205	45.6

In the 2009 study, males used Facebook most frequently (49.1%), followed by MySpace (15%), Twitter (8.4%), and Blogs (3.6%). Facebook was also the most used social networking resource by females, as reported by 57.4%, followed by MySpace (16%), Blogs (9.6%), and Twitter (4.3%).

All ethnicities reported the highest use of Facebook, with the most by African American students (58.8%), followed by Asian American students (56.8%), Multiracial students (56.2%), Caucasian students (49.2%), and Chicano/Latino students (49.1%). Students reporting the highest use of MySpace identified as Chicano/Latino (25.5%), Multiracial (18.4%), Asian American (14.4%), Caucasian (12.3%), and African American (11.8%). The highest Blog users were African American (11.8%), Asian American (9.6%), Multiracial (7.9%), Caucasian (7.7%), and Chicano/Latino students (7.3%). Those students who used Twitter most were Multiracial (7.9%), Asian American

(4.8%), and Chicano/Latino (3.6%). Caucasian and African American students did not report using Twitter at all.

In the 2011 study, Facebook was utilized by 57.8% of all participants. Blogs were the next most utilized form of social networking, with 12.7% of participants using blogs, followed by Twitter at 6.4%, and MySpace at 2.3%. The totals do not equal 100% because students could indicate more than one answer if it was appropriate (see Table 22).

Table 22

Social Networking Use - 2011 Results

Social Networking Website	Response	%
Facebook	127	57.8
MySpace	5	2.3
Twitter	14	6.4
Blogs	28	12.7
Did not use	93	42.3

Male students in the 2011 study reported using Facebook the most (60.9%), followed by Blogs (10.9%), Twitter (9.4%), and MySpace (1.6%). Female students also used Facebook the most (57.8%), followed by Blogs (13.6%), Twitter (5.2%), and MySpace (2.6%).

All ethnicities reported the highest percentage use of Facebook, with the most by Asian American students (65.6%), followed by Chicano/Latino students (56.3%), Caucasian students (52.4%), Multiracial students (52.2%), and African American

students (42.9%). Students reporting the highest use of MySpace identified as Caucasian (4.8%), Asian American (3.1%), and Chicano/Latino (1.4%), while Multiracial and African American students did not use MySpace. The highest Blog users were Caucasian (19%), Asian American (15.6%), African American (14.3%), Chicano/Latino students (9.9%), and Multiracial students (4.3%). Those students who used Twitter most were Chicano/Latino (8.5%), Asian American (7.3%), and Caucasian (4.8%). Multiracial students and African American students did not report using Twitter at all.

When the two studies were compared, the overall percentages of social networking use decreased, but Facebook use increased.

Question 4—In what ways did you use social networking websites? When queried regarding the ways in which they used social networking websites, 50.7% of the respondents in the 2009 study corresponded with current students, 42% became a fan or friend of a campus, 15.3% followed updates from the admissions office, and 6.7% corresponded with faculty and/or staff. One individual used social networking websites in a different way, but did not state in which way other websites were used. The totals do not equal 100% since students could indicate multiple ways of using social networking websites (see Table 23).

The most common way for male respondents to use social networking websites in the 2009 study was to correspond with current students (46.1%), become a fan/friend of the campus (39.5%), followed by updates from admissions staff (15.6%), and correspond with faculty/staff (6.6%).

Female students used social networking most frequently to correspond with current students (53.2%), become a fan/friend of the campus (43.3%), follow updates from the Admissions office (15.2%), and to correspond with faculty/staff (6.7%).

Table 23

Social Networking Ways of Use - 2009 Results

Use	Response	%
Became a fan/friend of the campus	189	42.0
Corresponded with current students	228	50.7
Followed updates from admissions office	69	15.3
Corresponded with faculty/staff	30	6.7
Other	1	0.2

Students of all ethnicities spent most of their time on social networking websites to correspond with current students, with African American students using them the most (58.8%), followed by Multiracial students (52.6%), Asian American students (51.3%), Caucasian students (49.2%), and Chicano/Latino students (45.5%). African American students became a fan/friend of the campus most frequently (47.1%), followed by Asian American students (43.9%), Chicano/Latino students (43.6%), Caucasian students (36.9%), and Multiracial students (28.9%). The highest percentage of students following updates from Admissions was Chicano/Latino (20%), Asian American students (16.2%), Multiracial students (15.8%), African American students (11.8%), and Caucasian students (6.2%).

Most participants became a fan or friend of a campus (41.8%), although 36.8% used social media to correspond with current students. Additionally, 19.1% used social networking to follow updates from admissions offices, while 5% corresponded with faculty or staff (see Table 24).

Table 24

Social Networking Ways of Use - 2011 Participants

Use	Response	%
Became a fan/friend of the campus	81	36.8
Corresponded with current students	92	41.8
Followed updates from admissions office	42	19.1
Corresponded with faculty/staff	11	5
Other	0	0

In the 2011 study, male participants used social networking most frequently to correspond with current students (46.9%), followed by becoming a fan/friend of the campus (39.1%), following updates from the admissions office (20.3%), and corresponding with faculty/staff (3.1%). Females used social networking websites differently, and became a fan/friend of the campus most (42.9%), followed by corresponded with current students (33.1%), followed updates from admissions office (18.8%), and corresponded with faculty/staff (5.2%).

In the 2011 study, students of all ethnicities spent most of their time on social networking websites to correspond with current students, with Asian American students using them the most (44.8%), followed by Multiracial students (34.8%), Chicano/Latino

students (31%), and African American students (28.6%) and Caucasian students (28.6%). Caucasian students became a fan/friend of the campus most frequently (52.4%), followed by Chicano/Latino students (46.5%), Asian American students (39.6%), Multiracial students (34.8%), and African American students (28.6%). The highest percentage of students following updates from Admissions was African American students (28.6%), while all other ethnicities followed with similar percentages including Chicano/Latino (19.7%), Caucasian students (19%), Asian American students (18.8%), and Multiracial students (17.4%). Less than 8% of each group reported they used social networking to correspond with faculty/staff, and three groups did not use social networking to correspond with faculty/staff at all.

The two studies showed similar results, and the primary use of social networking in each study was to correspond with current students.

Question 5. How influential were social networking websites on your college choice? Results of how influential social networking websites were on college choice in the 2009 study were mixed, with 9.6% reporting the websites were very influential, 25.8% reporting they were somewhat influential, 25.3% reporting they were slightly influential, 32.2% reporting the websites were not at all influential, and 7.1% not answering the question (see Table 25).

Female students ranked social networking websites as slightly more influential overall, with 9.9% ranked as very influential and 29.8% ranked as somewhat influential. Social networking was ranked as very influential for 9% of male students, while 19.2% reported social networking as somewhat influential to their college choice.

Table 25

Social Networking Influence - 2009 Results

Level of Influence	Response	%
Very Influential	43	9.6
Somewhat Influential	116	25.8
Slightly Influential	114	25.3
Not at all Influential	145	32.2
No Answer	32	7.1

Overall, Chicano/Latino students found social networking to be more influential than other ethnicities. Very influential was reported by 14.5%, while 23.6% ranked social networking as somewhat influential. The other groups differed by less than 2 percentage points, although there were slightly larger differences in those who ranked social networking as very influential or somewhat influential.

In the 2011 study social networking websites were reported as very influential by 10% of the participants, somewhat influential by 25.5% of the participants, slightly influential by 23.6% of the participants, and not at all influential by 38.2% of the participants. No answer was provided by 2.7% of the participants (see Table 26).

Again, females reported social networking as slightly more influential overall on their college choice than male students did. Although more males indicated social networking was very influential (15.6% compared to 7.8% for females), females showed a higher percentage for somewhat influential (27.3% compared to 18.8% for males).

Table 26

Social Networking Influence - 2011 Results

Level of Influence	Response	%
Very Influential	22	10.0
Somewhat Influential	56	25.5
Slightly Influential	52	23.6
Not at all Influential	84	38.2
No Answer	6	2.7

Asian American students reported higher levels of influence for social networking (10.4% very influential and 26% somewhat influential), followed by Chicano/Latino students, 15.5% of whom said social networking was very influential and 19.7% said it was somewhat influential. Neither Caucasian students nor African American students said social networking was very influential, but 28.6% of both groups agreed social networking was somewhat influential on their college choice.

When the two studies were compared, social networking websites were ranked more influential by females in both studies, with the highest use by Chicano/Latino students in the 2009 study and Asian American students in the 2011 study.

Question 6—Approximately how many specific college/university websites did you visit (i.e., www.uci.edu, www.ucla.edu, www.stanford.edu, etc.)? Students in the 2009 study reported visiting a variety of college and university websites during their college search and selection process. Over 74% of the students surveyed said they had visited between 3 and 10 college and university websites, while 11.6% visited fewer than

3 college and university websites, and 2.4% indicating they did not visit any specific college or university website during the search and selection process. The remaining 12.9% visited between 11 and 30 websites, with 5 individuals (1.1%) not answering the question (see Table 27).

Table 27

College Websites - 2009 Results

# of websites	Response	%
0	11	2.4
1	25	5.6
2	16	3.6
3	59	13.1
4	49	10.9
5	77	17.1
6	43	9.5
7	25	5.6
8	26	5.8
9	11	2.4
10	45	10.0
11	1	0.2
12	6	1.3
13	1	0.2
14	1	0.2
15	20	4.4
17	1	0.2
18	1	0.2
20	18	4.0
22	1	0.2
25	5	1.1
29	1	0.2
30	2	0.4
No answer	5	1.1

Male students in the 2009 study visited an average of 6.87 college and university websites during their search and selection process with a range from zero to thirty, while female students visited an average of 8.49 websites, with a range from 0 to 30 as well.

Comparing websites visited by different ethnic groups for the 2009 study, Caucasian students visited the most with an average of 8.8 websites, followed closely by African American students with an average of 7.59, Asian American students with 7.56, and Chicano/Latino students with an average of 7.24. Both Asian American and Caucasian students ranged from 0 to 30 websites. African American students ranged from 0 to 25, and Chicano/Latino students ranged from 1 to 17.

Students participating in the 2011 study reported visiting a variety of different school websites, with the slightly largest percentage (11.8%) visiting 10 websites, followed closely by 4 or 5 websites (11.4%). Overall, 49.1% visited 5 or fewer school websites, 28.6 visited between 6 and 10 school websites, 15.8% visited between 11 and 20 school websites, with the remaining visiting a larger number or choosing not to answer the question (see Table 28).

Male students in the 2011 study visited an average of 6.87 college and university websites during their search and selection process with a range from 0 to 30, while female students visited an average of 8.49 websites, with a range from 0 to 30 as well.

The number of websites visited by different ethnic groups was compared, and Caucasian students visited the most with an average of 13.9 websites, followed by Chicano/Latino students with an average of 7.19, Asian American students with 7.09, and Multiracial students with 6.05. The results of African American students were skewed

Table 28

College Websites - 2011 Results

# of websites	Response	%
0	8	3.6%
1	12	5.5%
2	19	8.6%
3	19	8.6%
4	25	11.4%
5	25	11.4%
6	9	4.1%
7	9	4.1%
8	15	6.8%
9	4	1.8%
10	26	11.8%
11	1	0.5%
12	5	2.3%
13	2	1.0%
14	1	0.5%
15	12	5.5%
16	1	0.5%
17	0	0%
18	0	0%
19	0	0%
20	12	5.5%
25	1	0.5%
30	4	1.8%
40	2	1.0%
50	1	0.5%
No answer	12	5.5%

due to the small sample size and wide range of websites visited (5 students visiting from 1 to 50 websites). Asian American students ranged from 0 to 40 websites and Caucasian

students ranged from 1 to 40 websites. Chicano/Latino students ranged from 0 to 20, and Multiracial students ranged from 1 to 15.

When the two studies were compared, there were many similarities between the number of college websites visited, and percentages based on gender were the same. There were also similarities based on ethnicity, although the number of websites visited by Caucasian students increased from 2009 to 2011.

Question 7—How influential were those specific websites on your college choice? In the 2009 study, most students found the specific college and university websites they visited to be influential to some degree, with only7.3% rating them as not at all influential and just less than 1% not answering the question (see Table 29).

Table 29

College Website Influence - 2009 Results

Level of Influence	Response	%
Very Influential	123	27.3
Somewhat Influential	189	42.0
Slightly Influential	101	22.4
Not at all Influential	33	7.3
No Answer	4	0.9

College and university websites were deemed more influential by females than males in the 2009 study. Females ranked them as very influential (31.9%) compared to

19.8% of males, and 45.5% of females said college and university websites were somewhat influential, compared to 36.5% of males.

Over 65% of all ethnicities said college and university websites were influential to their college choice process. When very influential and somewhat influential rankings were combined, Chicano/Latino students ranked college and university websites as the most influential (81.8%), followed by African American students (70.6%), Caucasian students (67.7%), and Asian American students (66.1%).

The majority of the students (70%) in the 2011 study reported specific college and university websites were at least somewhat influential, with 8.2% stating the websites were not at all influential. The question was not answered by 3.2% of the students (see Table 30).

Table 30

College Website Influence - 2011 Results

Level of Influence	Response	%
Very Influential	52	23.6
Somewhat Influential	102	46.4
Slightly Influential	41	18.6
Not at all Influential	18	8.2
No Answer	7	3.2

As was the case in the first study, more female students ranked college and university websites as very influential (27.3%) or somewhat influential (49.4%) than

male students (very influential = 15.6%; somewhat influential = 40.6%) in the 2011 study.

With the exception of Asian American students, whose combined total of very influential and somewhat influential was 66.7%, and Multiracial students, whose combined total was 65.2%), the other ethnic groups in this study ranked college and university websites influential by over 70%, led by Chicano/Latino students (76%), followed by African American students (71.5%), and Caucasian students (71.4%).

When the two studies were compared, students in both studies reported college websites were similarity influential in their choice process, although there were some small differences based on ethnicity.

Question 8—Please indicate which traditional resources you utilized in your college search process. For those traditional resources you utilized, please indicate the relative degree of influence on your college choice. The most utilized traditional resource reported by the students surveyed in the 2009 study was the campus tour, with 82% of students attending a campus tour during their search process (see Table 31). High school guidance counselors (76.9%), college admissions counselors who visited high schools (72%) and informal campus visits (68.7%) were also utilized by a strong percentage of students. Overnight stays on campus were utilized by 48.9% of students as well. Campus tours were not only the most utilized resource, but were also the most influential. One hundred sixty-nine students (37.6%) ranked their campus tours as very influential, 24.7% ranked them as somewhat influential, and 13.1% ranked tours as slightly influential, while only 6.4% ranked them as not at all influential. The next most

influential resource was informal campus visits, with 22% ranking them as very influential, 25.6% as somewhat influential, 12.4% as slightly influential, and 8.2 as not at all influential. Following formal campus tours and informal campus visits as influential are high school guidance counselors, with 22.7% ranking their counselors as very influential, 27.1% as somewhat influential, 15.6% as slightly influential, and 11.3% as not at all influential. Visits to their high school by a college counselor were not quite as influential, with 17.1% ranking them as very influential, 22% ranking the visits as somewhat influential, 16.4% as slightly influential, and 16.9% as not at all influential.

Table 31

Traditional Resources - 2009 Results

	Utilized	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
College admission counselor visit(s) to your high school	324 (72%)	77 (17.1%)	99 (22.0%)	74 (16.4%)	72 (16.9%)
Campus tour(s)	369 (82%)	169 (37.6%)	111 (24.7%)	59 (13.1%)	29 (6.4%)
High school guidance counselor	346 (76.9%)	102 (22.7%)	122 (27.1%)	70 (15.6%)	51 (11.3%)
Informal campus visit(s)	309 (68.7%)	99 (22.0%)	115 (25.6%)	56 (12.4%)	37 (8.2%)
Overnight stay(s) on campus	220 (48.9%)	82 (37.8%)	45 (10.0%)	36 (8.0%)	55 (12.2%)

Overnight visits to campus were ranked by 37.8% to be very influential, as somewhat influential by 10%, slightly influential by 8%, and not at all influential by 12.2%. Those individuals answering “Other” as an important factor cited private college counselor,

recruitment trips, and AVID (Advancement Via Individual Determination) as resource utilized during their search process. AVID was determined to be very influential for the one student, while recruitment trips (somewhat influential) and private college counselor (not at all influential) had less of an influence for those students who reported using those resources.

In the 2009 study, campus tours were ranked as very influential for 26.9% of male students and 44% of female students, while they were somewhat influential for 29.3% of male students and 22% of female students. High school guidance counselors and informal campus visits were the next most influential for both genders, although females ranked each of the traditional resources as more influential to their college choice process than males did.

An independent t-test was conducted for the 2009 study to compare utilization of traditional resources during their college search process such as campus tours, college admission counselor visits to their high schools, high school guidance counselors, informal campus visits, and overnight stays on campus. The result showed there was no significant difference in utilization based on gender for males ($M = 3.34639$, $SD = 1.49194$) and females ($M = 3.4786$, $SD = 1.45650$); [$t(444) = -.102$, $p = .919$]. These results suggest males and females used traditional resources in their college choice process in about the same amount.

When groups were divided by ethnicity and compared by how they ranked the influence of traditional resources in the 2009 study, campus tours were ranked as the most influential for every group except African American students, who ranked the high

school guidance counselor as more influential. African American students ranked their influences differently from other groups in the following order: high school guidance counselor (64.7%), campus tours (58.8%), college admission counselor visit to your high school (52.9%), informal campus visits (41.2%), and overnight stays on campus (23.6%). Caucasian students ranked those traditional resources of greatest influence as campus tours (73.8%), high school guidance counselor (55.4%), informal campus visits (53.8%), college admission counselor visit to your high school (38.4%), and overnight stay on campus (32.3%). Chicano/Latino students ranked campus tours highest (60%), followed by informal campus visits (54.6%), high school guidance counselor (47.3%), college admission counselor visit to your high school (45.5%), and overnight stay on campus (18.2%). Asian American students also ranked campus tours highest (60.2%), followed by high school guidance counselor (48.4%), informal campus visits (45%), college admission counselor visit to your high school (37.3%), and overnight stay on campus (30.6%).

A one-way between subjects ANOVA was conducted to compare ethnicity with the utilization of traditional resources in the college choice process for the 2009 study. There was not a significant effect of ethnicity on the utilization of traditional resources at the $p < .05$ level for the different ethnicities [$F(4, 153) = .674$, $p = .611$]. These results suggest that each ethnic group used traditional resources similarly.

A one-way between subjects ANOVA was conducted to compare parent education levels with the utilization of traditional resources on student's decision-making process for the 2009 study. There was not a significant difference between students with

parents of different education levels and the utilization of traditional resources had on students at the $p < .05$ level for the four conditions [$F(3, 443) = .369$, $p = .776$]. These results suggest that parent education level did not impact which traditional resources were most influential in the college choice process for students.

Participants in the 2011 study reported their high school guidance counselor was the most frequently utilized traditional resource (85%), followed by a campus tour (75%), a college admission counselor visit to their high school (70%), an informal campus visit (66.4%), and an overnight stay on campus (41%). Campus tours were reported as the most influential traditional resource, with 63.2% reporting tours as very influential or somewhat influential to their college choice, followed by their high school guidance

Table 32

Traditional Resources - 2011 Results

	Utilized	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
College admission counselor visit(s) to your high school	153 (70%)	52 (23.6%)	43 (19.5%)	37 (16.8%)	21 (9.5%)
Campus tour(s)	164 (75%)	90 (40.9%)	49 (22.3%)	19 (8.6%)	6 (2.7%)
High school guidance counselor	187 (85%)	63 (28.6%)	47 (21.4%)	49 (22.5%)	28 (12.7%)
Informal campus visit(s)	146 (66.4%)	51 (23.2%)	52 (23.6%)	35 (15.9%)	8 (3.6%)
Overnight stay(s) on campus	90 (41%)	41 (18.6%)	17 (7.7%)	18 (8.2%)	14 (6.4%)

counselor (50%), informal campus visits (46.8%), a college admission counselor visit to their high school (43.1%), and overnight stays on campus (26.3%) (see Table 32).

Both male (57.8%) and female (66.2%) students in this study said campus tours were the most influential traditional resource in their college choice process. Male students then ranked informal campus tours (46.9%), college admissions counselor visits to your high school (42.2%) and high school guidance counselor (42.2%), and overnight stay on campus (23.5%). The order was different for female students. High school guidance counselor (53.9%) followed campus tours, and was followed by informal campus visits (47.4%), college admission counselor visits to your school (44.2%), and overnight stay on campus (27.9%).

An independent t-test was conducted to compare utilization of traditional resources during their college search (campus tours, college admission counselor visits to their high schools, high school guidance counselors, informal campus visits, and overnight stays on campus) for participants in the 2011 study. The result showed there was not a significant difference in utilization based on gender for males ($M = 3.2344$, $SD = 1.62072$) and females ($M = 3.4610$, $SD = 1.29924$); [$t(98.258) = -.994$, $p = .323$]. These results suggest males did not use more traditional resources in their college choice process than females.

Campus tours were scored as the most influential traditional resource that influenced college choice for all ethnicities in the 2011 study. Caucasian students scored campus tours the highest (80.9%), followed by informal campus visit (51.7%), high school guidance counselor (47.6%), college admission counselor visit to your high school

(38%), and overnight stay on campus (14.3%). Chicano/Latino students were the next group who found campus tours the most influential (73.2%), followed by high school guidance counselor (70.5%), informal campus visits (54.9%), college admission counselor visit to your high school (53.5%), and overnight stay on campus (33.8%). African American students ranked the influence of traditional resources as campus tours (57.1%), a tie between college admission counselor visits to your high school (42.9%), high school guidance counselor (42.9%), and informal campus tours (42.9%), followed by overnight campus visits (14.3%). Multiracial students ranked campus tours (56.5%), informal campus visits (47.8%), a tie for high school guidance counselor (26%), college admission counselor visit to your high school (26%), and overnight stay on campus (26%). Asian American students, while still ranking campus tours the highest (55.2%), were the lowest percentage of the other ethnic groups. Campus tours were followed by high school guidance counselor (42.8%), college admission counselor visit to your high school (41.6%), informal campus visit (39.6%), and overnight stay on campus (25%).

A one-way between subjects ANOVA was conducted to compare ethnicity with the utilization of traditional resources in the college choice process for the 2011 study. There was not a significant effect of ethnicity on the utilization of traditional resources at the $p < .05$ level for the different ethnicities [$F(4, 213) = 1.748$, $p = .141$]. These results suggest that each ethnic group used traditional resources similarly.

A one-way between subjects ANOVA was conducted to compare parent education levels with the utilization of traditional resources on student's decision-making process in the 2011 study. There was a significant difference between students with

parents of different education levels and the utilization of traditional resources had on students at the $p < .05$ level for the four conditions [$F(3, 216) = 3.046$, $p = .030$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for first generation college students ($M = 10.8553$, 95% CI [9.595, 12.1156]) was significantly different than the scores for students whose parents had completed an Associate's degree ($M = 10.8367$, 95% CI [9.3764, 12.2971], a Bachelor's degree ($M = 95556$, 95% CI [8.2251, 10.8860], or a Graduate degree ($M = 8.1220$, 95% CI, [6.5356, 9.7083]. These results suggest that parent education level did impact which traditional resources were used most in the college choice process for students.

When the two studies were compared, there was no significant difference in either study when utilization of traditional resources was compared. There was also no significant difference in either study when ethnicity was compared with utilization of traditional resources. Finally, parent education level did not have a significant effect on utilization of traditional resources in the 2009 study, but parent education level was found to impact which traditional resources were utilized most by students in the 2011 study.

Question 9—Please indicate the relative degree of influence of the following factors on your college choice. Overall, academic reputation was the most influential factor on college choice for those surveyed in the 2009 study, with 56% who indicated reputation was very influential, 35.6% ranking it as somewhat influential, slightly influential receiving a ranking of 6.2%, 1.6% stated it was not at all influential, and .7% did not rank academic reputation at all (see Table 33). Opinions of parents and distance from home were the next most influential factors, and were ranked closely overall,

although distance from home was marginally more influential. Those ranking distance from home as very influential were 37.3%, somewhat influential were 39.3%, slightly influential were 15.1%, not influential were 7.1%, and only 1.1% did not respond. Similarly, 35.6% ranked parental opinions as very influential, 36.9% as somewhat influential, 19.8% as slightly influential, 6.7% as not at all influential, and 1.1% did not respond. Cost of attendance was also influential, with 38.4% who ranked it as very influential, 34.0% as somewhat influential, 17.6% at slightly influential, 8.4% as not at all influential, and 1.6% who did not respond. Financial aid and scholarships or grants offered were the next most influential factors, with 33.8 who ranked financial aid awards or loans as very influential, 23.3% as somewhat influential, 15.6% as slightly influential,

Table 33

External Factors - 2009 Results

	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential	No Answer
Parents opinions	160 (35.6%)	166 (36.9%)	89 (19.8%)	30 (6.7%)	5 (1.1%)
Siblings opinions	98 (21.8%)	95 (21.1%)	78 (17.3%)	152 (22.8%)	27 (6.0%)
Distance from home	168 (37.3%)	177 (39.3%)	68 (15.1%)	32 (7.1%)	5 (1.1%)
Academic reputation	252 (56.0%)	160 (35.6%)	28 (6.2%)	7 (1.6%)	3 (0.7%)
Cost of attendance	173 (38.4%)	153 (34.0%)	79 (17.6%)	38 (8.4%)	7 (1.6%)
Financial aid award/ loan(s)	152 (33.8%)	105 (23.3%)	70 (15.6%)	100 (22.2%)	23 (5.1%)
Scholarship(s)/ Grant(s)	147 (32.7%)	101 (22.4%)	64 (14.2%)	113 (25.1%)	25 (5.6%)
Friends opinions	70 (15.6%)	125 (27.8%)	150 (33.3%)	85 (18.9%)	20 (4.4%)

22.2% as not at all influential, and 5.1% who provided no answer. Scholarships and grants were ranked very influential by 32.7% of those surveyed, somewhat influential by 22.4%, slightly influential by 14.2%, not at all influential by 25.1%, and not answered by 5.6%. Siblings opinions were very influential to 21.8%, somewhat influential to 21.1%, slightly influential by 17.3%, not at all influential by 22.8%, and not answered by 6.0%. Finally, although friends' opinions were not the most influential factor, they were still influential to some degree to approximately 80% of the respondents, with 15.6% who indicated they were very influential, 27.8% ranked them as somewhat influential, 33.3% as slightly influential, 18.9% as not at all influential, and 4.4% who did not answer the question. Other answers by one person each included safety (somewhat influential) and majors available (very influential).

Table 34

External Factor/Gender – 2009 Results

	Male	Female
Parents opinions	65.8%	76.3%
Siblings opinions	39%	45.4%
Distance from home	70%	80.5%
Academic reputation	82.6%	95.1%
Cost of attendance	62.8%	78%
Financial Aid award/loan(s)	43.2%	65.2%
Scholarship(s)/grant(s)	41.4%	63.5%
Friends opinions	47.9%	40.4%

Table 34 presents the combined percentages of students who ranked various external factors either as very influential or somewhat influential by gender in the 2009 study.

For both genders, academic reputation was the most influential factor, followed by distance from home and cost of attendance. Next, females were influenced by financial aid award/loans, while friends' opinions were the next highest influence for male students. Friends' opinions were the lowest influence for females, while males ranked siblings' opinions as the lowest.

An independent t-test was conducted to compare the influence of external factors during their college search process such as parents' opinions, siblings' opinions, distance from home, academic reputation, cost of attendance, financial aid award/loan, scholarship/grant, and friends' opinions with gender in the 2009 study. The results showed there was not a significant difference in utilization based on gender for males ($M = 7.6946$, $SD = 1.07945$) and females ($M = 7.7730$, $SD = .71952$); [$t(254.440) = -.836$, $p = .404$]. These results suggest males and females were utilized by external factors at similar levels.

Table 35 presents the combined percentages of students from different ethnicities in the 2009 study who ranked various external factors either as very influential or somewhat influential.

Every ethnicity in the 2009 study was most influenced by the academic reputation of the institution. Distance from home, parents' opinions, and cost of attendance of

Table 35

External Factors/Ethnicity – 2009 Results

	African American	Asian American	Caucasian	Chicano/ Latino	Multiracial
Parents' opinions	70.5%	74.9%	64.6%	65.4%	81.6%
Siblings' opinions	52.9%	46.1%	36.9%	32.7%	39.5%
Distance from home	76.5%	75.3%	76.9%	83.7%	73.7%
Academic reputation	100.0%	91.1%	92.1%	94.6%	86.8%
Cost of attendance	58.8%	71.6%	67.7%	85.5%	76.3%
Financial aid award/ loan(s)	64.7%	56.1%	44.6%	72.7%	60.5%
Scholarship(s)/ Grant(s)	52.9%	55.0%	44.6%	67.3%	57.8%
Friends' opinions	52.9%	46.5%	38.4%	32.7%	39.5%

financial aid award were the next most important, although the position they took varied between ethnicities. Siblings' opinions and friends' opinions consistently garnered the lowest percentages.

A one-way, between subjects, ANOVA was conducted to compare ethnicity with the utilization of external factors in the college choice process for the 2009 study. There was not a significant difference between different ethnic groups regarding the utilization of traditional factors at the $p < .05$ level for the different ethnicities [$F(4, 445) = 2.051$, $p = .086$]. These results suggest that each ethnic group utilized the described external factors in similar proportions.

A one-way, between subjects, ANOVA was conducted to compare parent education levels with the utilization of external factors on students' decision-making

process for the 2009 study. There was not a significant difference between students with parents of different education levels and the utilization of external factors on students' college choice at the $p < .05$ level for the four conditions [$F(3, 445) = .141$, $p = .936$]. These results suggest that parent education level did not impact which external factors were used most in the college choice process for students.

In the 2011 study, academic reputation was cited as the most influential factor in participants' college choice, with 63.6% indicating reputation was very influential, and 27.3 ranking it as somewhat influential (see Table 36). The next most influential factor was cost of attendance. Although a smaller percentage (50.5%) found cost to be very

Table 36

External Factors - 2011 Results

	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential	No Answer
Parents' opinions	81 (36.8%)	70 (31.8%)	36 (16.4%)	32 (14.5%)	1 (0.5%)
Siblings' opinions	43 (19.5%)	46 (20.9%)	41 (18.6%)	88 (40.0%)	2 (1.0%)
Distance from home	96 (43.6%)	71 (32.3%)	30 (13.65)	22 (10.0%)	1 (0.5%)
Academic reputation	140 (63.6%)	60 (27.3%)	14 (6.4%)	4 (1.8%)	2 (1.0%)
Cost of attendance	111 (50.5%)	68 (30.9%)	30 (13.6%)	9 (4.1%)	2 (1.0%)
Financial aid award/ loan(s)	135 (61.4%)	42 (19.1%)	15 (6.8%)	26 (11.8%)	2 (1.0%)
Scholarship(s)/ Grant(s)	131 (59.5%)	41 (18.6%)	18 (8.2%)	29 (13.2%)	1 (0.5%)
Friends' opinions	26 (11.8%)	59 (26.8%)	71 (32.3%)	62 (28.2%)	2 (1.0%)

influential, the additional 30.9% who found cost somewhat influential makes cost an important factor in college choice. Similarly, financial aid award/loan was a significant factor, with 61.4% stating financial aid was very influential, and 19.1% finding it somewhat influential, followed closely by scholarships/grants, which ranked as either very or somewhat influential with 78.1% of the students. Distance from home was the next most significant factor, with 75.9% reporting the proximity of their home to their college of choice was at least somewhat influential. Parental opinions were listed as the next most important factor with 68.6% indicating the opinions of their parents were influential, followed by siblings' opinions (40.4%) and friends' opinions (38.6%).

Table 37

External Factors/Gender – 2011

	Male	Female
Parents' opinions	61.0%	72.8%
Siblings' opinions	42.2%	40.3%
Distance from home	71.9%	78.6%
Academic reputation	85.9%	93.5%
Cost of attendance	82.8%	81.1%
Financial Aid award/loan(s)	78.2%	81.8%
Scholarship(s)/grant(s)	73.4%	80.5%
Friends' opinions	43.8%	37.0%

Table 37 presents the combined percentages of students in the 2011 study who ranked various external factors either as very influential or somewhat influential, separated by gender.

Although percentages are different, both males and females indicated academic reputation was the most important factor among external factors in their college choice process. Cost of attendance, financial aid awards, and scholarships/grants were the next most important, although in slightly different order. Parents' opinions were more important to females than males. Siblings' opinions and friends opinions were both deemed to be the least influential, but males gave more credence to friends' opinions, while females were more influenced by siblings' opinions.

An independent t-test was conducted to compare utilization of external factors during their college search (parents' opinions, siblings' opinions, distance from home, academic reputation, cost of attendance, financial aid award/loan, scholarships/grants, friends opinions) in the 2011 study. The result showed there was not a significant difference in utilization based on gender for males ($M = 23.125$, $SD = 5.25991$) and females ($M = 26.0724$, $SD = 18.12616$); [$t(214) = -1.277$, $p = .069$]. These results suggested males did not rely on external factors in their college choice process more than females.

Table 38 presents the combined percentages of students in the 2011 study from different ethnicities who ranked various external factors either as very influential or somewhat influential.

Table 38

External Factors/Ethnicity – 2011 Results

	African American	Asian American	Caucasian	Chicano/ Latino	Multracial
Parents' opinions	42.9%	76.1%	66.7%	62.0%	73.9%
Siblings' opinions	28.6%	43.8%	28.6%	40.8%	43.4%
Distance from home	85.7%	73.0%	66.6%	84.5%	73.9%
Academic reputation	100%	90.7%	80.9%	93.0%	95.7%
Cost of attendance	100%	82.3%	81.0%	81.7%	73.9%
Financial aid award/ loan(s)	100%	79.2%	71.4%	93.0%	56.5%
Scholarship(s)/ Grant(s)	85.7%	77.1%	61.9%	90.2%	65.2%
Friends' opinions	28.6%	44.8%	42.9%	29.6%	43.4%

An important note with the 2011 sample was that there were only seven African American respondents, so their answers may not be representative of the African American population as a whole. However, the researcher thought they should be included since there was comparative data for the 2009 study. All ethnicities except Caucasian ranked academic reputation as the most influential in their choice, although Chicano/Latino and African American students rated academic reputation and financial aid award/loan as equally influential when combining "very influential" and "somewhat influential" rankings. African American students also rated cost of attendance as equally important. Caucasian students gave slightly more weight to cost of attendance than to academic reputation. Siblings' opinions and friends' opinions were chosen as the least influential consistently among all ethnicities. Cost of attendance was ranked as more

influential by all ethnicities except Chicano/Latino, although the data shows financial aid awards and scholarships were given more weight than other ethnicities.

A one-way between subjects ANOVA was conducted to compare ethnicity with the utilization of external factors in the college choice process for the 2011 study. There was not a significant difference between different ethnic groups regarding the utilization of traditional factors at the $p < .05$ level for the different ethnicities [$F(4, 445) = 2.051$, $p = .086$]. These results suggested that each ethnic group utilized the described external factors in similar proportions.

A one-way, between subjects, ANOVA was conducted for the 2011 study to compare parent education levels with the utilization of external factors on students' decision-making process. There was not a significant difference between students with parents of different education levels and the utilization of external factors on a student's college choice at the $p < .05$ level for the four conditions [$F(3, 214) = 1.285$, $p = .280$]. These results suggested that parent education level did not impact which external factors were most frequently used in the college choice process for students.

When results of the two studies were compared, there was no significant difference in the utilization of external resources based on gender for either the 2009 or the 2011 study. There was also no significant difference based on ethnicity in either of the two studies, nor was there a significant difference in the impact of parent education level on the utilization of external resources in either study.

Comparison of 2009 and 2011 studies. In addition to the analysis conducted for each question, analysis for each question based on gender, analysis for each question

based on ethnicity, and analysis for each question based on parent education level, the researcher determined additional insight may be provided by conducting analyses that compared data gathered in the first study with data gathered in the second study.

In order to compare the two groups, the two databases were merged and a new column was added so the datasets were coded as either the first study or the second study. This created two samples, which allowed t-tests to be performed to compare specific questions by study. Utilization of internet resources, utilization of traditional resources, and utilization of external factors were chosen for further analysis and the results were presented below.

The first independent t-test was conducted to compare utilization of internet resources (CollegeBoard.com, Forbes.com, National Survey for Student Engagement [NSSE], Petersons.com, PrincetonReview.com, Unigo.com, and U.S. News & World Report) between the first study and the second study. The result showed there was a significant difference in utilization for members of the first study ($M = 3.1292$, $SD = 2.45063$) and the second study ($M = 2.2420$, $SD = 1.71632$); [$t(585.429) = 5.417$, $p = .000$]. These results suggest there was a significant change, with members of the first study using internet resources more during their college choice process than members of the second study.

The next independent t-test was conducted to compare utilization of traditional resources during their college search (campus tours, college admission counselor visits to their high schools, high school guidance counselors, informal campus visits, and overnight stays on campus) between the two different studies. The result showed there

was not a significant difference in utilization between the first study (M = 3.4798, SD = 1.46825) and the second study (M = 3.3636, SD = 1.43172); [t(664) = .968, p = .333]. These results suggested that students used the same traditional resources at similar rates in both studies.

The final independent t-test was conducted to compare utilization of external factors between the first and second study during their college search (parents opinions, siblings opinions, distance from home, academic reputation, cost of attendance, financial aid award/loan, scholarships/grants, friends opinions). The result showed there was a significant difference in utilization for members of the first study (M = 7.7595, SD = .81012) and members of the second study (M = 8.000, SD = .0000); [t(448) = -6.291, p = .000]. These results suggested external factors were used more by students in their college choice process during the second study than members of the first study.

Summary of quantitative findings.

Evaluation research question 1. The first research question in the evaluation was: What were the various types of internet-based resources that students used as they gathered information about colleges and universities? This question was answered by Question 1 and Question 2 of the surveys for both studies for college search internet resources, Questions 3 and 4 for social media websites, and Questions 6 for specific college/university websites.

The most frequently used and influential college search resource was CollegeBoard.com, regardless of gender, ethnicity, or parent education level. Other internet resources were utilized, but to a far lesser degree than CollegeBoard.com. Based

on t-tests for gender, the only significant difference was with the 2011 study where male students were found to use internet resources at a higher rate than female students ($t(215) = 2.142$, $p = .002$). Based on ANOVA tests for ethnicity (results presented in the answers to Question 2 on page 72), there were no significant differences between ethnicities and utilization rates for internet resources for either study. Based on ANOVA tests for parent education level (results presented in the answers to Question 2 on page 72), there were no significant differences between parent education levels and the utilization rates for internet resources for either study. Based on a t-test conducted to compare utilization of college search internet resources between the two studies, there was a significant difference between the two studies ($t(585.429) = 5.417$, $p = .000$). Students in the first study used more internet resources than students in the second study. This test result could be expected due to the visible differences between percentages of students who used other college search internet resources during the first study (beginning at 50.9% for PrincetonReview.com as the next most used) and percentages of students from the second study who used other college search internet resources (beginning at 41% for PrincetonReview.com as the next most used).

Social media websites were also used by students in both studies, with a total increase in use of 8.6% from the first study to the second study. Facebook was the most popular social media platform for use, followed by blogs. The ways in which students used social media in the college choice process were similar between the two studies.

Specific college and university websites were also used by almost all students, with less than 3.6% in each study who did not visit any specific college or university

websites. The average number of websites visited by students decreased from the 2009 study to the 2011 study, except for Caucasian students, who experienced an increase from an average of 8.8 website visits to 13.9 websites.

Evaluation research question 2. The second research question posed the following: How did different types of internet-based resources impact the college choice process? This question was answered by Question 2 of the surveys for both studies for college search internet resources, Questions 4 for social media websites, and Question 7 for specific college/university websites.

Based on comparing frequencies for Question 2, CollegeBoard.com, U.S. News & World Report, and PrincetonReview.com were the three resources that were most frequently ranked as very influential, with 23.6% who said CollegeBoard.com was very influential in 2009, and 28.2% who said the website was very influential in 2011.

Social media influence was compared as well, with 9.6% who said social media was very influential to their college choice in 2009 and 25.8% who said social media was somewhat influential. Those percentages did not change significantly in 2011, when 10% said social media was very influential and 25.5% said social media was somewhat influential.

Specific college and university websites were ranked as very influential by more people than college search websites or social media websites. In the 2009 study, 27.3% said college or university websites were very influential, and 42% said they were somewhat influential. Students in the 2011 survey found them slightly less influential,

but 23.6% still rated college and university websites as very influential, while 46.4% said they were somewhat influential.

Evaluation research question 3. The third quantitative research question was: How did students rate the importance of internet-based resources compared to other factors that impacted their decision? This question was answered by the information contained in the answers for Research Question 2 (Question 2 of the surveys for both studies for college search internet resources, Questions 4 for social media websites, and Question 7 for specific college/university websites), as well as Question 8 and Question 9 in the surveys. Since the details for Research Question 2 were presented above, details for Question 8 and Question 9 are provided and compared to Research Question 2.

Compared to internet-based resources, traditional resources were more frequently ranked as very influential. Campus tours were said to be very influential for 37.6% in 2009 and 40.9% in 2011. College admission counselor visits (17.1%) were given the lowest marks for very influential between the two studies, but that number is still higher than many for internet-based resources.

External factors also garnered higher percentages of students who said they were very influential when compared to internet-based resources. This was particularly true for 2011, where over 60% said academic reputation and financial aid awards were very influential, and over 50% said scholarships/grants and cost of attendance were very influential. Although the percentages were lower in 2009, still over 50% were very influenced by academic reputation.

Based on a comparison of frequency distributions for resources or factors that were very influential, the data point to traditional resources and external factors being of greater influence to a student's college choice process than internet based resources.

Qualitative Phase

The participants. The second phase of each study was focused on the experiences of students as they chose which college to attend, in order to answer the research question, *How did students describe the primary factors that influenced their college choice?* The qualitative portion was conducted with students who provided contact information on the initial survey, and whose answers were representative of the major finding(s) of the quantitative survey. Although gender and ethnicity were noted, neither of these was a determining factor in the selection of students for further qualitative questions. Previous studies have focused on the impact of gender (Jennings, 2008) or ethnicity (Ceja, 2004, 2006; Jones, 2002; Muhammad, 2008; Smith, 2009) on the college choice process, but the purpose of this study was to examine the use of internet-based resources on the college choice process. In both studies, individual phone calls were made to students to gain answers to the qualitative questions. In those cases where only an email address was provided, students were initially contacted by email, and asked to arrange a phone appointment. Careful statistics were kept regarding the number of students who were emailed, the number who responded to the email, and the number who finally successfully completed the phone interview. At the beginning of the phone interviews, students were informed about the purpose of the study, oral informed consent was obtained, and students were able to opt out of the study if they chose.

Students were informed that their names would be changed if names were used and any critical identifying information would be changed to protect confidentiality. Interviews were audio recorded, and then transcribed within one week after the interview. Interviews followed a semi-structured format with predetermined questions. Additional questions were asked for clarification when needed.

The following questions were asked of each participant involved in the qualitative process.

1. Please describe how you gathered information about colleges and universities.

2A. For students who indicated internet-based resources were utilized in their college choice process:

You indicated you utilized [*researcher will insert the internet-based resource(s) indicated on the student's survey and ask the following questions based on each resource the student said they utilized*]. Describe your use of each internet-based resource and how the resource influenced your college choice. At what point(s) during your choice process did you utilize each of these resources? How would you describe how you used each resource, including how much time you spent using each resource? Why did you choose these particular resources rather than other internet-based resources?

OR

2B. For students who indicated no internet-based resources were utilized in their college choice process:

You indicated you did not utilize any internet-based resources during your college choice process. Were there any particular reasons you did not utilize internet-based resources? Did you consult any print resources?

3. How many campuses did you visit between the time you began considering where to apply and prior to submitting your Statement of Intent to Register? When did you visit and how would you describe your visit(s)?
4. When thinking about the resources you utilized to help you with your decision-making process, please describe any differences in both the types and ways in which you utilized resources prior to being accepted to a school and those you utilized after you were accepted.
5. Please describe how you made your decision about which college to attend.
6. Please discuss anything that was particularly influential in your decision.
7. Name three qualities that you looked for when selecting a school and describe how the university you chose met these qualities.

Analysis of qualitative interview responses. Interviews were carefully transcribed within one week of the time the interview was conducted. Once all interviews were completed and transcribed, each interview was analyzed individually by hand through open coding by sentence or paragraph (Hatch, 2002; Corbin & Strauss,

1990). This method allowed for flexibility in assigning and re-assigning codes to various categories as themes emerged and evolved from the data.

Information derived from each question is presented and delineated into information from the first study and information from the second study. Within each study, cross-case analyses were conducted, and each code was reviewed for overlap, redundancy, and commonalities. Through this process, overall themes emerged and evolved. Themes that developed in each study were then compared as well. The themes for both studies were the same, and are included after the discussion of each question. Questions are listed below, followed by a discussion of responses. Direct quotations were provided frequently to support the data analysis.

Question #1. Please describe how you gathered information about colleges and universities. The first question was designed to be broad, so students would be able to provide as much or as little information as they determined was relevant based on their experiences. Consequently, some individuals provided brief answers stating resources they utilized, while others provided answers with greater detail and more information regarding why they gathered information in a specific way.

In the first study, even those who provided brief answers had gathered information from at least two sources. Reputation, whether gathered from friends, family, or ranking of some sort played an important role. Visits to the campus were also critical for most of those interviewed, although the timing of those visits varied from sophomore year to shortly before students had to make decisions on which school they would attend. One student shared:

> I knew I wanted to go to a UC school, so we took a couple of trips during my junior and senior year to visit a few of the UCs that I didn't know as well. We visited UC Davis and UC Santa Cruz and UC Berkeley one year, and then did UC Santa Barbara, UCLA, UC Irvine, and UC San Diego the next year. Some of the schools, like Santa Barbara and Irvine, I just got a good sense of right away. Others were not as high on my list. I guess it was the people I met. Some of them just seemed more like people I would like. The staff I met at Santa Barbara and Irvine were just nicer, too. They answered my questions without trying to pressure me. One of the schools, I can't remember which, just didn't seem to be really helpful at all, like they didn't have time to answer basic questions. That was a big turn-off to me.

There was a difference in how some students perceived their decision, with a few of the students stating they "always knew" they would go to a UC school, so their decision was more of a narrowing down of choices rather than an exploration of choices. One student stated:

> I always knew I'd go to a UC school. I knew about the ones I wanted to apply to already, based on what I've heard from friends and parents. My parents have always wanted me to go to a UC school. I wanted to go to either UCLA or Berkeley, but I ended up not getting into either one of those.
> Other students were unsure of a direction until they started visiting more schools.

Brochures received by one student were cited as important in broadening her scope of choices:

> I learned about different colleges from my older sister and her friends after their first year. I also learned about other colleges because I started getting brochures and stuff in the mail. Those things made me look at options a little differently because they were mostly from out of state schools, but in the end I still decided I wanted to stay in California. I looked around on the College Board website a little, but mostly you just know about the different schools from living in California already.

Students interviewed during the second phase of the study cited similar ways of gathering information, but often provided more details about their information sources. This group of students also generally used at least two sources to gather information, and

cited material resources such as guide books, websites, rankings, and CollegeBoard.com. They also utilized the college or counseling center in their high school, as well as coaches or teachers as important influences to their choice process. As with the first group of interviews, this second group also had some students who said they "always knew" they would go to a good school.

One student discussed the challenges of being a first-generation college student as limiting his knowledge about exploring his college options. He explained his challenges with the following information:

> Well, I was not one of the best prospects honestly, because I did not start until I would say about two months before, like actually looking at colleges. But I knew I wanted to go to a good school, because of how my grades were, so I started looking at UCs, and a few privates but more UCs and Cal State's. I knew I wanted to go to a 4-year university, so what I did was kind of look at websites and rankings and go to my school's college center and I was actually trying to get as much help as I could, because I was really unfamiliar with how going to college worked because nobody in my family actually ever went, so I didn't know anybody really who knew anything about it.

Another first-generation college student obtained a little bit of help from her cross-country coach, but still explained the challenges of having to learn about college options without the help of experienced family members:

> Oh, well my counselor, he was my coach when I was in cross country, he helped me to look into online, to look into different colleges, but I didn't really start looking into college until my senior year. So, like I didn't really have much resources because I didn't really know what college was about because I didn't really have anyone to really tell me.

In contrast, another student articulated the influence her family had on her decision:

> Well, initially my mother had gone to college, and she never graduated because she got pregnant with my older sister, but she ingrained in my mind that I had to

> go to college. So growing up throughout my adolescent years, I had to go to college. Maybe I could work in between, but college would be best for me. And really, my mind was set at UCLA because that is where my sister went. I didn't really think much of any other schools, but I did put some thought into some other schools, and I knew that the UC system was probably the best that I could do and it was also reputable, and that is another reason I chose the UC system. And I just looked at the rankings of all the UC schools, and I made my 5 choices, and UC Irvine was one of the 5 that I chose. Out of the applications, and that's basically how I got my data about colleges. I knew about some of the big ones, like Harvard and Stanford, but I knew if I set my sights on that I wouldn't be able to achieve it. So that's how I did that.

Because the question allowed for as much or as little information as the students wanted to share, there were frequently responses that covered multiple areas. This was indicative of the spread of responses in the quantitative portion of the study, and is discussed more in Chapter 5.

Question #2A. For students who indicated internet-based resources were utilized in their college choice process: You indicated you utilized [researcher will insert the internet-based resource(s) indicated on the student's survey and ask the following questions based on each resource the student said they utilized]. Describe your use of each internet-based resource and how the resource influenced your college choice. At what point(s) during your choice process did you utilize each of these resources? How would you describe how you used each resource, including how much time you spent using each resource? Why did you choose these particular resources rather than other internet-based resources? The College Board website was a tool that almost all students referenced at some point during their quest to find the right institution. Whether they were seriously studying different options or just browsing to see what other

institutions might look interesting, the College Board website was almost always the first internet tool utilized by the students who were interviewed in both studies.

During the first phase of the study, one student described using College Board to look at a variety of options, and said the information provided helped him eliminate some schools and include others he might not have know about prior to his search.

After utilizing College Board, students frequently visited websites of specific colleges and universities to gain more information. One student described this process by stating:

> I found a little about the schools on College Board, and then looked into the ones that sounded the most interesting from there. I looked at their websites, "googled" them to see what was out there on the internet about them, and narrowed down which schools I looked at that way. In the process of searching online for more information, I'm not sure what other websites I visited. I know there are a few out there with more factual information, as well as some that has more student input and comments. I looked at both. I liked getting a sense of the school based on facts, pictures, and stuff like that, and then really getting a better sense of what the school was like based on comments from students.

Another student discussed her financial challenges and the desire to make the right choice as her impetus for spending a great deal of time on her search process. She described her experience in the following way:

> I really wanted to make sure I made the right choice. You know, it is so expensive to apply to colleges, and I knew lots of people who applied to 15 or 20 colleges. At around $100 per application, that is a ton of money that my parents just didn't have to be able to spend. So, I really searched, tried to find out as much as I could about each school, and narrowed down my list. We figured I could apply to 5 schools, so between my internet searching and campus visits, I was able to get it down to 5. College Board was really helpful in giving me information about a school. However, I looked at it as the stuff that the university wants you to know. I wanted to know what students thought, too, so I looked at websites like College Prowler and Unigo, where you get a much better idea of what students like and don't like about their school. I probably spent over a hundred hours searching between my 10th grade year and the time I applied. I just

> really wanted to make sure I made the best choice for me. I looked a few times at the specific college/university website, but only when I had narrowed it down from other websites.

Another student described her use of social networking in order to find out more about an institution. Once she was admitted to UCI, she said, "I went through Facebook, and just started messaging random UCI students, and asked them questions. Then it isn't biased, because I didn't know them. So they might have been weirded out, but that's okay because I didn't know them."

One student explained a very methodical approach to determining her choices during the application process and selection process:

> Okay, so at first I would use them [websites] to just to see the school, like if I would like it, like the campus, and see pictures, and get general information about what was the general SAT scores and GPA. Afterwards, when I started applying, I narrowed it down to the schools I liked the most, based on that and my major, and I would do more in depth research. Once I got accepted into a school, I really, really looked into the website to make sure all the information I needed was there. Other than that, just general business and just looking online like other websites that have student's comments on the school itself and the atmosphere of the school. That also helped a lot.

Students from the second study almost all cited the College Board website as very influential. One student explained the popularity of the website by stating, "College Board is very accessible, and you learn about it when you take your SAT's in college, so I that's how I knew about that one and decided it was a trustworthy source."

Other students expressed the helpfulness of individual school websites, such as one student who said, "definitely just going to the schools' websites was the best, because you really get to see what's going on on the campus. Not just so much the outsider's perspective of the campus."

Still others liked the information they were able to get through social media. This perspective was shared by a student who said:

> I realized that the actual school websites would have basic facts and information, which every school does. Like you would just see the stuff that they're good at and certain facts. With the social stuff, I thought I would get more insight from actual students, or from actual teachers or clubs, because they have their comments and point of view. So it just did help out.

Question #2B. For students who indicated no internet-based resources were utilized in their college choice process: You indicated you did not utilize any internet-based resources during your college choice process. Were there any particular reasons you did not utilize internet-based resources? Did you consult any print resources? In the first study, very few students said they did not use the internet at all in their college search or decision-making process. The students who did not use any internet-based resources all indicated their choices were limited, either by themselves or by their family, so they didn't need to seek out additional information on other institutions. One student's comments exemplified this situation by stating,

> I didn't really have a choice, so there wasn't a need to research. My parents wanted me to go to UC Irvine or UCLA, so I applied to both. I used the UCI website after I was admitted to get things done, but not before I was admitted.

Another student described his search experience as limited, and indicated, "I didn't really consider anything else besides a UC school, so I didn't feel like I needed to use the internet until I was accepted and had to do stuff for UCI."

The second study was similar, with only one student expressing no need in investigating information regarding her college choice. She summed up her experience in the following manner:

> I applied to Cal State Long Beach, Cal State Fullerton, UCI, of course, and UC San Diego, and all of the local community colleges in case I wanted to change my mind. How I found out about them? Well, I took a few classes at a local community college. Growing up, I knew my local community colleges, and when I reached high school, I would hear about all these upperclassmen applying to colleges close by, and all these colleges that my teachers have graduated from, and I think that's how I became familiar. And my mom, too.

Question #3. How many campuses did you visit between the time you began considering where to apply and prior to submitting your Statement of Intent to Register? When did you visit and how would you describe your visit(s)? The students interviewed during the first study described visiting a range of campuses from just a few to approximately twenty. Many of the students began their college visits during their junior year, but a few began as early as their sophomore year in high school. One student affirmed:

> I probably visited about 15 campuses. We started when I was a sophomore when we went on vacations. We'd always combine visiting a couple of campuses wherever we went. My junior year it was a little more strategic, and we visited schools I thought I might really want to go to. After I got accepted to UCI, UC Santa Cruz, and Lewis & Clark, my parents took me on one more visit to each one to help me decide. I really tried to get a good feeling for where I would fit best, and ultimately decided that it would be UCI.

Tours were just as helpful in eliminating choices as they were in enticing students. One of the students who experienced this explained:

> I visited a few campuses, five or six, mostly during my senior year. I knew Davis because I was from Nor Cal, but we came down and did a tour of Santa Barbara, Irvine, Pepperdine, Pomona, and San Diego. Overall they were good. I didn't like the tour guide at Pomona, and Pepperdine was a little more uptight than I wanted. At least I found that out by going on the tour, though.

Another described, "I went on a spring break trip with my dad, and we went around to different campuses during my junior year. We went to 5 campuses that week,

and then another two that were closer to home during the summer." As each student discussed the impact of their college visits, they focused on their "fit" with the campus. The students they met, particularly their tour guides, often played an important role in their decision. One student explained the impact college visits had on his college choice in this way:

> I thought I wanted to go to Berkeley, but then when I visited the campus, I knew it wasn't for me. It was too urban, and I just didn't fit in. The tour guide was nice and everything, but I just didn't see what I thought I'd see when I went there. I also didn't like Davis. It seemed like everyone was focused on agricultural stuff. At least my tour guide was, so I wasn't thinking that was the best fit for me, either. I really liked Cal Poly San Louis Obispo. The people there were really nice, the campus was pretty, and the classes sound interesting.

One of the students summed up the responses of several other students in her assessment of the value of tours by stating:

> I thought tours were the most helpful thing. You know, you look up stuff online, and you read as much as you can, but nothing replaces standing on the campus, meeting the students, and walking through the places they hang out every day. You just can't get as much of a sense of what a school is like by reading as you can by being there. Most of the tour guides were nice, but there were some who I really "clicked" with. Those tended to be the schools that I ended up liking the best.

Students during the second study discussed similar experiences, with many finding the campus tours helpful in opening their mind to other options or eliminating some choices that they initially considered. Some of the students in the second group discussed the impact of the physical aspects of the university as important. The physical atmosphere of some schools was delineated in the following way:

> Some of the schools seemed older, the buildings look gray, and sad, and there didn't seem to be a lot of students walking around campus, just like doing things, but once you get to schools like Irvine and Fullerton, you get to see students

> walking around more. The actual classrooms seem a little bit more modern, and that's what made it seem like it was more interesting.

Another student described the overall atmosphere, including student interactions, as an influence in her choice because it provided a positive impression of the campus. She shared the following experience:

> I think I based most of my opinion based on how I felt, how the school looked, how I saw people interacting while I was there. Because it wasn't like, some of them were tours and some of them weren't tours. For example, this school, I came for a tour with my class, and I liked the campus a lot. I liked how there were students that were interacting with me, even though I wasn't a student and I was involved in some of the activities that were going on around the quad area. I think initially my view on it. I was already thinking about this campus anyway, but I think that because when I came here it was a good tour, it wasn't boring, it was more interactive than anything, and all the others were just kind of information about the school, the schools were too big, the tours would take too long, and I felt like this one was good for me.

"Fit" was still an important consideration for students, and a factor that was conveyed multiple times in students descriptions of how campus visits and tours impacted their college choice. As with the first group, students portrayed their experiences in descriptive ways as well as just describing an overall feeling, as exemplified by the following student:

> My number one school was Fullerton, and I decided to take my placement exams for my math and writing English there, went back, and it didn't feel like it was the right place for me anymore. And then they had the UCI Discover day here, at UCI, came with my dad, took a tour of campus, saw the dorms, and they just felt a little bit like this was it. I just knew.

Other students had not made any effort to visit different institutions, and had a more nonchalant approach to college selection. Often this was due to direction from a parent or family member, but occasionally the student was unable to articulate the reason

behind their nonchalant approach. One student explained his experience and subsequent regret in the following way:

> I actually didn't visit any schools. I'd only been to UCSD, but that was, that wasn't in between the time where I got accepted to my SIR. I don't know because I was pretty much, I pretty much had my mind set on UCI by the time I got my acceptance letter. I didn't put much thought into it…my main problem, which I regret somewhat, well I didn't actually visit any campuses before I applied, which was a bad thing on my part, but yeah, I didn't actually go visit. I mostly saw the websites, and I asked people if they knew things about the campus and stuff. I didn't actually go visit.

Question #4. When thinking about the resources you utilized to help you with your decision-making process, please describe any differences in both the types and ways in which you utilized resources prior to being accepted to a school and those you utilized after you were accepted. Most students in the first study used a variety of resources prior to being accepted, and some described using a variety of resources after they were accepted as well. The overarching difference was the type or depth of information they were seeking after being admitted. One student explained the difference in simple terms, and said:

> I looked online at the schools more after I was accepted. Once I knew where I could go, then I wanted to make sure that I really understood what the school was like, what the students were like, and whether I'd fit in. Before I was accepted, it was more about the majors that were offered, and did I think the school looked okay. After, though, I looked at the school websites in a whole different way.

Another student described the shift in attitude that was echoed by some of the students interviewed as well, particularly those who did not get into the school that was initially their first choice. He said:

> I went on tours of schools both before I was accepted, and then after I was accepted, I went back to those that were my top choices. It was important for me to do that, because I didn't get into the school that was my first choice. So when I

> was looking at schools the first time, I kind of went in thinking I knew where I wanted to go, and thinking that I'd get in. When I didn't, it was really difficult, and I had to go back to see what the other schools were really like, and pick the best one. Before I applied, I think I had an attitude about everything else (but don't tell my parents I said that). My parents kept telling me to look at things with an open mind, but I know I didn't really do that. I narrowed down the other schools a little, but I didn't look at them with an "Oh, would this be a good place for me to go, and do I really like it" kind of frame of mind. It was more like, "yeah, this is okay, but I know where I'm going." When I went back and took a couple of tours after I got acceptance and rejection letters, I was really looking at it differently, you know? I walked around the campus and tried to get a sense of what it would be like to be a student there. In the end, I picked UCI. At first, I was okay with my choice, but after I went to SPOP (orientation) in the summer, then I knew I'd picked the right place.

Social networking was discussed more often as influential after students were accepted. One student explained her experience in the following way:

> After I was accepted, I "friended" each school on Facebook, which I hadn't done before. I figured it would be another way to get to know a little more about each school. I really wanted to get into Berkeley, but when I didn't, I had to pay more attention to the schools I did get into and try to pick the best one for me. I looked up some info on-line on websites that students use, like collegeprowler.com. I also attended the open houses for UCI and UCSD. Those were both really helpful, because I met some students and got a better sense of what it would be like to be a student at each school.

Still another student was more nonchalant about his search and decision process, as reflected in both the length and depth of his comments in the following:

> Well, I looked at brochures that were sent and stuff before I was accepted, but after I was accepted, I really tried to find out more about each school. We took some tours since we didn't really do that before, and I tried to talk to friends of friends who were at those schools so I could get a better picture of each school. Overall, I didn't stress too much about it, though.

His comment was more unusual, as more students discussed some level of stress in trying to make the right decision for themselves.

Students in the second study depicted similar experiences, with more concern and research initially on the prospects of being admitted to an institution, and then utilizing resources to get a real sense of the school and students after they were admitted in order to narrow down choices or to derive comfort from their options. This experience was described by one student below:

> I think that after I got admitted, after I researched, like after I visited campuses, I think I just used them differently, like I knew what they were talking about. Before, I was just like researching, but I didn't really know like everything. I didn't really grasp some whole concepts, but after I visited, it was better because they were sending me more information, so it was more helpful.

Another student related the influence of social media in providing her with insight into the school environment after she was admitted. She reported:

> I liked the fact that I, well I wasn't constantly on Facebook, but when I would see upcoming events, I'd look at the events from the school and see how students were interacting and just events that would help students would come together and just pretty much see how the school environment was from those updates that they would put on Facebook, and also pictures.

Each student in the both phases of the study shared aspects of their search that were most influential, but the type of information and the amount of work put into picking the right choice for them varied from student to student.

Question #5. Please describe how you made your decision about which college to attend. Visiting the campus was a key factor for almost all of the students interviewed during the first study. Many students had visited various campuses twice. Typically, one visit was conducted at some point prior to submitting the application, and another visit was conducted after the student was admitted but before he or she made the decision to

attend UCI. One student even began her visits as a freshman in high school, going on a college tour. She said:

> It was one of the tours that our school provides, and I actually did not want to go to UCI. I came on a day that was overcast and kind of cold, and everyone just didn't look happy. I made up my mind then that I didn't want to go there. However, I didn't get into the other schools I wanted to get into, and so I knew I needed to go back to the schools I did get into so I could decide where I wanted to go. I'm really happy I visited again before I made my decision, because I got a totally different impression the second time I saw the campus.

Another student described a completely positive experience after spending some time on campus. She related:

> I had a sense of where I thought I'd like to go, but the thing that helped me decide the most was my campus tour. I really liked what I'd heard about the school, and thought it might be a good fit for me. Then when I visited the campus, I just felt right at home. We kind of got lost trying to find where to go, and everyone was so nice. I guess we looked lost, because someone came up to us to find out where we needed to go, and then they walked us there! I liked how personal it felt, without being so small that everyone knew everyone else's business. After spending some time walking around and taking a tour, I knew this was the right place for me. In fact, I went to the bookstore and bought a sweatshirt before I left the campus. I'm glad I was admitted, because I'm not sure what I would have done otherwise!

Once again, "fit" or a general feeling about a campus helped solidify the decision for many students, even if it was not what they initially expected. Jennifer shared her surprise as she discovered how much she liked UC Irvine:

> And then I visited UC San Diego, and it was nice, but it was just so big, and it didn't seem to be a nice homey place that I would like to call my school. Even though UC San Diego is known to be a better school that UC Irvine, I think in many ways UC Irvine has stronger points. It was so funny, because even though UC Irvine is the last place I wanted to be, I was surprised to find that when it really came down to it, UCI was the best place to be.

The feeling each student got from visiting the campus helped solidify the decision to attend UC Irvine. The people and the environment were both mentioned as important.

Sam related her thoughts about the people and services at UC Irvine versus the feeling she got from Berkeley:

> The academic counseling was really nice to me. I had been to see them because I had a semester art class in Colorado that I thought would count, and it didn't. I spent a lot of time talking to admissions and academic counselors trying to figure that out, and they were all just so nice, that I felt that I would like the people here and have a good experience here. There was a good support system here. Berkeley wasn't like that. Maybe I just caught the lady on a bad day, but it just didn't seem like she was going to be helpful.

For some students, their choice for college had to do with staying more in their comfort zone, whether that meant a familiar environment or aspects of an environment that felt safe. Often, when a student shared information about a safe environment, he/she compared schools with very different environments to illustrate the point. One student said:

> When I came here to visit, it was really just like, 'cuz my parents wanted me to come here because of the scholarship and stuff, and I came here and I just really loved it, and I really felt comfortable here. It was sort of a, maybe it is just because it is really close to my house, but I was just really comfortable. And when I went up to Berkeley, even though I'd been there a couple of times, even though I had the mindset that I might go there, when I visited, it was like, whoa, this is really different, and I just decided I wanted to stay in my comfort zone.

Another student had similar comments about how important the environment was to his choice. He said:

> The area of Berkeley was really culture shock. There were people that were homeless sleeping on the benches there. And that was really different than Irvine, which is one of the safest cities in America, and the environment was just better. The area, the air, the location, it was all just better. So when I put in all those factors, I realized the only thing that was holding me to Berkeley was just the name. I didn't really like the area, I didn't like the people, the music program wasn't as good as I wanted it to be. When I analyzed everything, it was just the name that was holding me there. I wanted someplace safe, appealing, I really liked the area. It was really safe, really nice.

Students in the second phase of the study had similar experiences with campus tours, with many expressing the importance tours had in providing valuable insight to their choice process. With this group, however, there were also a variety of other factors cited as important to their choice process. Several students spoke about the importance of proximity to home and of their parent's opinions. Some students wove several factors that influenced their decision into their answer, as exemplified by the following student:

> Okay, well originally I wanted to go to UCSD because my cousins went there and it would have been, it would be a lot easier. But unfortunately I didn't get in, so like my next decision was pretty much Irvine, mostly because of the proximity to home. I think that's the biggest one. And also because, um, I don't know, my parents wanted me to go here, because like there are good programs, it's pretty high up in rankings. All stuff like that. And I wasn't allowed to go to privates because it is too much.

Another student appreciated the size and diversity of the campus:

> I visited UC Irvine, and I loved the fact that it was a diverse campus. That was a big thing in my decision. The fact of going to a research-based school is another plus. And I just really wanted a school where it wasn't a small school, because I went to community college first in high school, so I wanted a bigger campus, I guess you could say. You know, everybody doesn't know everybody, but you get to always meet new people.

Several students spoke of the importance of academics in their decision. Some of those mentioned rankings, while others discussed the importance of fitting in academically. One student exemplified this by stating, "UCI in general, I know that academically, I fit in here. Like there isn't anyone that is too much above my range or too much below my range."

Again, in both studies most students expounded on multiple factors to explain how they made their decision. Although there were one or two students in both studies

who seemed to have an easier time choosing, or made their decision based on one or two factors, most students provided multifaceted reasons for their choice.

Question #6. Please discuss anything that was particularly influential in your decision. Students in the first group cited several factors as being influential in their decision-making process. External factors included rankings, financial aid and scholarships, and opinions of family and friends. One student was particularly concerned about rankings of various institutions. She stated:

> If I didn't know what I wanted to do with my life, I would probably have gone to UC San Diego. Only because they are ranked higher. And that is what a lot of students do and a lot of students think about. Like a lot of my friends, I tell them UC Irvine is better, and they're like, yeah, but UC San Diego is better, like they are ranked higher, and probably better educationally. I think Irvine has a lot to offer too, but that ranking really hurts Irvine. Because being in Irvine, I know how great it is, but I think people who aren't in Irvine underestimate it.

Opinions of family and friends were very influential for many students. Some described their parents as "knowing what is best for me" or looking out for their best interests. One student explained her rationale of the importance of experience and knowledge from family and friends below:

> There is a huge chunk of kids from my high school that go to UCI, so there were a bunch of friends that I asked about it, including some family friends. A lot of the family friends that went here, they were just telling me about all the research opportunities. And that was a really big thing because the academics were really important, and I wanted to decide where I wanted to go based on the academics. All the high school friends told me more about the social aspects. They're film majors, so they don't really take the same classes I'd take and stuff. They just talked about the little things I could do that I wouldn't know about on my own.

Another student put all his trust in the opinions of his parents, as they did the research for him. He described his experience as the following:

> My brother is going to be a 4th year, so that is how I got a lot of my information. I wasn't really even considering it until he went here, and he had a lot of positive things to say about that. He had a lot of information, and my parents had done a lot of research when he applied. My family is from the Bay area, so a lot of my family had done research on Berkeley for me, so I got a lot of information from them. My family knew I was really stressed out in high school. I was taking a lot of AP classes, so my family knows I didn't really have time to do the research myself, so they did a lot for me. So, I kind of mostly went of their opinions.

Proximity to home was a critical factor for some students, but the definition of "proximity to home" was different. One student shared, "I didn't want to go out of California," while another related her struggle with choosing between UC Berkeley and UC Irvine, and stated, "And then I started thinking about how I wanted to drive home on the weekends. I wanted to be away from them, but I didn't want to be 'Berkeley' away from them. I wanted to be able to go home on the weekends when I wanted to." She added that part of her comfort level with UC Irvine was the distance from home. She said, "It was far enough away but close enough that I could go home any time if I wanted to."

Students in the second group were also influenced by the input of their parents. Some students discussed their parent's perception of the different choices and the impact on their choice, while others simply cited the influence of their parents on going to college at all. One student shared how his parent's perceptions determined his choice:

> SB (University of California, Santa Barbara) my parents really don't like the reputation that they have I guess. I don't know. They think it is like a party school or something. So I guess they wanted me to go, I don't know, I think they're scared I'd start partying, so they wanted me to go to the more serious school, Irvine.

Another student explained how her father's effort to really challenge her was the deciding factor for her choice. She explained:

> I think it would have had to be my dad. He really wanted me to come to a UC. I was settled for a Cal State, but he didn't think that I would be Cal State material. He thought I could do great, better things at a UC. And he talked me into it at some point, and I think after seeing him come to the school and visit it and fall in love the campus and seeing my mom come and also fall in love with the campus, it just made me say well if they like it, they know what's right for me so it must be here.

Other students mentioned financial aid or costs as being the most important factor in their choice, while still others described interaction with AVID and the AVID advisors as being critical to the early part of their exploration of college choices.

Question #7. Name three qualities that you looked for when selecting a school and describe how the university you chose met these qualities. Most students in both studies were able to easily identify three qualities that helped them choose to attend UC Irvine. The answers to this question provided a different level of insight into the decision-making process for students, since most of them mentioned things they hadn't brought up before in the interview. Although the combination was different for each student, overall they provided answers that typically fell into five different themes: parental influence; academics/rankings; proximity to home; atmosphere; and AVID (for those students who participated in the program). Since the answers given between the two studies were similar, the answers to this question were combined into themes by the researcher rather than separated by the two different studies. Examples from the interviews are delineated in the following section.

Parental influence. Parents influence was highlighted multiple times by students. For some students, the support they received from their parents in attending college was

critical. One student said she never questioned whether she would go to college, and illustrated her experience below:

> I think about this all the time pretty much, the reason why I came here, I thank my parents a lot because they supported me, they said they were expecting me to bring back good grades during high school. They would tell me when you go to college. There wouldn't be a question about whether I'd go to college, it would be expected of me to go college.

For others, their experience was either relying on their parents for direction or their parents influenced where they applied or where they decided to attend. Only one student stated she had chosen to go to a different university than her parents thought she should, although her parents had not tried to strongly influence her choice and were supportive of her decision.

Academics/rankings. Academics and/or rankings were important to students. Although rankings and academics are not always congruent, comments by students indicated their perceptions of academics and university rankings were closely aligned or even that university rankings were completely indicative of the education one would get as a student at those universities. Consequently the researcher collapsed these two areas into one. The following comment from one student exemplifies the equivalence of these two areas from his perspective, "Academics would be the first one – how it is ranked among the other schools. UCI happens to be one of the higher ones in California."

Other students discussed the importance of their major either simply being offered at the school they chose, or having a good reputation. One student who wanted to major in Criminology explained the importance as, "the last one was my major. I was

determined to go into Criminology, and the Criminology program here was really good. I tried it out and I really like it, so I'm so glad I'm here."

Another student took the concept of "fit" and applied it to academics. Her choice was based on her academic achievements compared to those of others who were accepted to UC Irvine. She explained her first reason she chose UCI, and said:

> Well first off academically where they fit. No one wants to go to a school with relatively low rankings, and when I saw UCI, I thought of the norm of students, their scores ranked far above mine, and for me to be accepted just kind of seemed so surreal.

Although there was a mixture of students who were excited about the academics of the school and others who had different schools as a first choice, many discussed the academic reputation as a reason why they picked UCI.

Proximity to home. Proximity to home was discussed by several students as one of the primary factors in their decisions. One student described her impression of the delicate balance of being close enough to home but not too close:

> I guess kind of like how close to home it was, but at the same time it was far enough for me to leave. So, I live like an hour away, so it was far enough away for me to leave, but still be able to go home if I wanted to, so it helped me gain my independence.

Another student liked, "that it was not so far away from home. It was a good distance so I could go back home if something happened." This sentiment was echoed by several other students during the interview process. Some students spoke about their desire to travel home frequently, as this student expressed:

> I think the first quality was distance away from my house. I felt like Irvine is not that far from Riverside except for the fact that there is a lot of traffic, so I felt like it was perfectly not close to home, but not too far away. I go home every weekend, so it helps me out to see my parents every weekend as well.

Although this was not always the most important reason in a student's college choice, distance from home was mentioned by many of those surveyed in both studies.

Atmosphere. Students discussed many aspects of atmosphere to describe their reasons for choosing the college they chose. The physical atmosphere was important to some. One identified the proximity to the beach as being an advantage. Others discussed the landscape and architecture. One of the students described, "I guess like the beauty of the campus. It is really green here, and it just has more aesthetic appeal than some of the other campuses." Similarly, another student stated:

> Another quality, I think was just the way the school looks. I think that helped me out a lot, because I feel it is not too big of a school, I feel like I don't get lost. I feel like it is really pretty, like the park is really pretty, I feel like I'm walking around at Disneyland every day because it is really nice here.

Other aspects of atmosphere marked as important included the people and the atmosphere created by them. One student described:

> Diversity would be one. Like getting to meet new people and getting to experience new things, and actually getting to connect to your professors rather than just going to a school, just going to class and leaving right after, you can go to their office hours and talk to them and whatnot.

Another student explained what drew her to the campus in the first place was the people and the atmosphere they created:

> Before I got accepted a quality that made me really just go for it was the interactions with students, because during the tour, the tour guide was really helpful. He would just give out little information about the school, try to make it interesting. We had a lunch break, and there was a student from the UCI Extension Center who came up to me and my friends, and we told her we weren't students, but we helped her do an assignment for one of her classes. I feel like that was another important thing that people just aren't awkward with each other, and there just aren't rude people around. Like you can go up to someone and ask them

> a question, and they will just gladly help you, so I think that was another thing that helped me out.

As students described what was important to them about the atmosphere, the researcher realized this was an important aspect to "fit" discussed by some students. Consequently, this aspect was returned to in Chapter 5 for additional discussion.

AVID. Some of the students who were interviewed for the study had participated in AVID (Advancement Via Individual Determination), a program existing in most states to focus on students who may need additional assistance, support, and education to attend college. In California, students involved in AVID are often first-generation college students. Many students who had participated in AVID discussed the program as being pivotal in providing encouragement to attend college and education to provide the "nuts and bolts" of how to apply and how to obtain financial aid. One student described AVID as expanding his options, and stated:

> And I think it was a lot of support from my AVID teachers as well, you know, everyone wanted to just go to community college, or UCR because it is in Riverside, so everyone was just trying to stay really local and I just wanted to do something different. A lot of people were telling me UCI doesn't have a lot of Latinos or there's a lot of Asians there, and it would be more competitive. But regardless of those comments, I liked the campus, I liked the environment when I came here for a tour, and after that day, I knew that I wanted to come here.

Another student credited AVID with explaining the process of applying for college and presenting options for college choices. She described:

> I think the AVID program at my high school is the reason that I am here, because I know that if I didn't have them, telling me okay FAFSA is due this date, and what FAFSA is, and the application processes for all of these colleges, and going to visit all of these colleges, this is what all these colleges look like, and going on field trips, like all of those things helped me think about, like actually imagine myself at a university. If I was just at high school, and my parents would tell me you're going to go to college, I probably would have ended up either at

> community college, or taking a break one year, getting a job, doing something different. Just the fact that I knew that every time I would go into AVID, it would just be like, okay you can go straight to a 4-year university after your senior year of high school, that was just a thought that helped me out. Aside form that, they were just really helpful in just the process of applying to colleges. I think that was the most important thing, just the process of teaching us how to do financial aid, how to do applying for the colleges, helping us out with the essays we had to do with applications. Also, all the information that was provided during AVID class, just during the timeframe of an AVID class. I took it ever since I was a freshman, and got out of it senior year, so I was in AVID 4 years. I felt like it helped me out a lot.

One student, who also participated in AVID, summed up the decision process in a way that can apply for all students:

> I remember coming to Irvine and I thought that this was a moment for me because this was a very big step up for me from where my background comes from and everything. But even though there are so many stereotypes about this school and all the UCs, that they're so competitive and so high and everything, and so as long as you have the capability and you want to work towards something, there is a chance for you to grow here.

Summary of qualitative findings. Each student interviewed provided a story of their path to choosing a college. Interviews were coded by line and grouped by question, reviewed for duplications and similarities, then recoded again. Regardless of the focus of the question, similar topics and areas of influence were repeated multiple times throughout the questions, and were established through the codes. Themes were then identified through those codes. A summary of the codes is presented in Table 39. The second column lists the refined codes determined after coding and recoding by question. Codes are listed by prevalence within each question. The third column identifies themes that were identified after additional analysis of the coding.

The qualitative research for both studies was analyzed, coded, and themes were established prior to the detailed analysis of the quantitative data. Although there are

Table 39

Qualitative Coded Themes

	Refined Codes	Overall Themes
Question 1	College fair Parental influence Academic reputation/rankings Uncertainty about how to find and apply to college/No one to help Teachers/Counselors AVID Campus tours College representatives Sibling influence Internet research	Influence of Internet Resources • College search engines • School websites • Rankings • Social media Influence of Traditional Resources • College fairs • Campus Tours • Teachers/Counselors • AVID
Question 2	Family obligations/parent influence Reputation/Rankings School website offers more insight to the campus Campus tour Teaches/Counselors Proximity to home Ethnic background of students Atmosphere Social media provided more insight to student and school culture	Influence of External Factors • Parental Influence/ Opinion/Family • Proximity to home • Academic Reputation • Majors Offered • Financial Aid/Cost
Question 3	Proximity to home Parental influence Major Campus visit was pivotal Atmosphere of the campus Student culture /diversity Gut feeling Perception of safety Learning community	Influence of Student Perception of "Fit" • Atmosphere • Student Culture • Gut Feeling
Question 4	Proximity to home Parent influence/Family Good programs Academic reputation/rankings Cost Financial Aid Student culture/Diversity Research based/Resources available Atmosphere/environment/Size Teachers Gut instinct	

Table 39 continues

	Refined Codes	Overall Themes
Question 4 (cont'd)	Campus Tour Resources Family Online resources Visits helped make the websites more meaningful Social media provided insight into college environment	
Question 5	Proximity to home Parents approval/family Rankings/academic reputation Proximity to home Financial package Diversity Research-based Size Gut instinct Campus tour Environment, location, reputation Gut instinct Academically appropriate Financial aid External environment	
Question 6	Proximity to home Reputation Financial Aid/Cost Academics/Majors offered Environment AVID Parental opinions/Family pressures Atmosphere/Environment	
Question 7	Proximity to home Academics/Majors offered/rankings Parent opinions Financial Aid/cost Eligibility Campus culture/Diversity Atmosphere/Campus beauty Academic fit	

many similarities in the findings of the quantitative data and the qualitative data, which are further discussed in Chapter Five, findings in the quantitative data did not influence findings in the qualitative data.

The following chapter integrates data from both the quantitative and the qualitative research, taking into account both studies. Findings from the study compared with previous literature on college choice are also discussed. Implications and future research studies are also examined.

Chapter Five

Discussion

The purpose of this mixed methods study was to examine the college choice process to gain a greater understanding of how students learn about a college and make the choice to attend a specific institution. Chapter Five integrates the results from both the quantitative and qualitative phases, as well as the studies from 2009 and 2011 in order to answer the final research question: *In what ways does the information gathered from interviews with students regarding use of internet-based resources in their college choice process help to explain the quantitative results from the survey?* Chapter Five concludes with a discussion of implications and possible future studies.

Overview

The purpose of this study was to gain a better understanding of how current internet-based resources are affecting the college choice process. An explanatory mixed methods design was used, and the study involved collecting qualitative data after a quantitative phase to explain the quantitative data in greater depth. In the quantitative phase of the study, a survey was administered to students at the University of California, Irvine (UC Irvine) to identify the types of internet-based resources being used by students to investigate colleges and the impact of each on college choice. The second, qualitative phase of the study was conducted with students selected because of their answers in the quantitative phase. In the explanatory follow-up, the effect of different internet-based resources on the college choice process was explored with a smaller subset of the original

population. The reason for the explanatory follow-up was to provide more insight into the decision-making processes of these students.

The following research questions were designed to gather information regarding the influence of internet-based resources on the college choice process from both a quantitative and qualitative perspective. Quantitative research questions for this study included:

1. What were the various types of internet-based resources that students used as they gathered information about colleges and universities?
2. How did different types of internet-based resources impact the college choice process?
3. How did students rate the importance of internet-based resources compared to other factors that impacted their decision?

The central qualitative research question of this study was the following:

- How did students describe the primary factors that influenced their college choice?

Issue-oriented and process-oriented sub-questions were designed to further examine the central research question. Issue sub-questions included seeking answers to the following queries:

1. How did students describe what factors were most important to their college choice?
2. How did students get information about colleges to help them with their choice process?

3. How did students describe their use of internet-based resources that assisted with their choice process?
4. What themes emerged that were common among the students?

Process sub-questions include the following inquiries:

1. How did students describe their decision-making process?
2. How do themes that emerge relate to other theories of the college choice process reported in the professional literature?

A mixed methods research question combines both aspects of the study. The mixed methods questions addressed by this study will be:

1. In what ways does the information gathered from interviews with students regarding use of internet-based resources in their college choice process help to explain the quantitative results from the survey?

Two studies were completed due to delays in analysis as a result of the researcher adjusting to new employment after the first study was completed. Consequently, additional analysis was completed to compare the two populations and subsequent survey results.

Interpreting the Quantitative and Qualitative Results

This section integrates the findings from the quantitative and qualitative portions of the study in order to answer the final question, *In what ways does the information gathered from interviews with students regarding use of internet-based resources in their college choice process help to explain the quantitative results from the survey?* Data results from the quantitative research questions are presented first. Then, data results

from the qualitative research are presented and shown to support and explain the quantitative results. Through this integrated approach, the data for both phases of the research are more strongly supported. Then, comparisons are made with applicable literature on the topic of college choice.

Finding #1: Students do not use a broad variety of internet-based resources in their college choice process, but use is not stagnant. Students in both studies were aware of many of the college search websites listed in the survey, but frequently used just a few. Almost all students in both studies (91% in 2009 and 96% in 2011) used CollegeBoard.com, but less than half used another college search website, and the percentage of students using other websites dropped significantly from 2009 to 2011 ($t(585.429) = 5.417$, $p = .00$) with the exception of male students, whose internet use increased (but not necessarily the variety of internet-based resources) ($t(215) = 2.142$, $p = .002$). These findings were true regardless of gender, ethnicity, or parent education levels with the one exception of male students. This finding contradicts Poock's (2006) study, which found that prospective students had utilized the internet to find out information about colleges with increasing frequency over the past several years (Poock, 2006).

Social media use in the current study was not diverse, with most students using Facebook if they used social media. Social media use increased, with a total increase in use of 8.6% from the first study to the second study. Facebook was the most popular social media platform for use, followed by blogs. The ways in which students used social media in the college choice process did not change between the two studies, and the

degree of influence social media had on college choice did also not change significantly between the two studies.

Students used varying amounts of specific college and university websites ranging from 0 to 50, but the majority of either study visited fewer than 10 websites. Specific college and university websites were used by almost all students at some point in their search process, with less than 3.6% in each study who did not visit any specific college or university websites. Nevertheless, the average number of websites visited by students decreased from the 2009 study to the 2011 study, except for Caucasian students, who experienced an increase from an average of 8.8 website visits to 13.9 websites. However, specific college and university websites were ranked as very influential by more people than college search websites or social media websites. In the 2009 study, 27.3% said college or university websites were very influential, and 42% said they were somewhat influential. Students in the 2011 survey found them slightly less influential, but 23.6% still rated college and university websites as very influential, while 46.4% said they were somewhat influential.

Related qualitative findings support the quantitative findings for the study. Students spoke about the influence of CollegeBoard.com as their first introduction to exploring colleges, but there were not a variety of other college search websites discussed. Specific college and university websites were very influential for some students, and others said they never used them until they needed to do something that required them to visit the school website. Research regarding school websites include Hendricks' study (2006), which began by looking at the study by Christiansen et al.

(2003), which examined the way the expanding influence of the internet was changing the way college students searched for colleges. Overall, he found that faculty web pages had the most influence, virtual tours (but not those with streaming video) were important, and social networking sites did not influence their decisions (Hendricks, 2006). This also was not supported by the study, as interacting with faculty was not shown to be influential, and social networking had increased in use and influence from 2009 to 2011.

Finding #2: Students found traditional resources and external factors more influential than internet-based resources. Compared to internet-based resources, traditional resources were more frequently ranked as very influential. Campus tours were said to be very influential for 37.6% in 2009 and 40.9% in 2011. College admission counselor visits (17.1%) were given the lowest marks for very influential between the two studies, but that number is still higher than many for internet-based resources.

External factors also garnered higher percentages of students who said they were very influential than internet-based resources. This was particularly true for 2011, where over 60% said academic reputation and financial aid awards were very influential, and over 50% said scholarships/grants and cost of attendance were very influential. Although the percentages were lower in 2009, still over 50% were very influenced by academic reputation.

In the qualitative research, one question focused specifically on internet resources. Even in the answer to that question, a variety of other factors arose for many students. They included family influence, teacher or counselor influence, or shared general information or impressions they had already formed. A few students discussed internet

resources when they were asked to describe any differences in both the types and ways in which the utilized resources prior to being accepted to a school and those they utilized after they were accepted, but many students described other influences such as campus tours and parents. During two open-ended questions, students were asked to describe how they made their decision and to discuss anything that was particularly influential in their decision. No one, in all of the responses, discussed internet resources as something that helped them make their decision or as something that was particularly influential in their decision making process. They pointed to a wide array of factors, ranging from traditional resources such as campus tours, counselors/teachers, AVID programs, and college fairs. They also discussed a variety of external factors including parental approval or influence, family opinions or influences, proximity to home, academic reputation, majors offered, or financial aid and cost.

Previous research frequently focused on a specific set of students based on ethnicity, socioeconomic status, or another particular characteristic. Another focus was often a particular resource or factor that may influence college choice. The research was reviewed again to determine areas of support or contrast found by the current study. The findings are presented below.

One study by Ceja (2006) focused on Chicano/Latino students and found Chicana students are most influenced by their parents and siblings. These findings were not supported by this study, as Chicano/Latino students in 2009 ranked next to the lowest in the influence parents had on their college choice process, and they also ranked sibling opinion the lowest of the five ethnicities included in the study.

McDonogh et al. (2005) asserted distance from home does not seem to be as big of a factor for African American students as it is for students of other ethnicities, primarily because of the influence of Historically Black Colleges and Universities (HBCUs). This finding does not seem to be supported by the results of the study, as African American students were about in the middle with how influential they ranked distance from home.

Merranko (2005) found the most important factor for first-generation students was academic reputation of a school. Levels of influence for first-generation students were not calculated in this study, but since academic reputation was almost exclusively found to be the most influential external factor regardless of gender or ethnicity, Merranko's findings would likely have been supported by the findings of this study.

Donovan and McKelfresh (2008) cited the importance of parents in helping their students choose a college. Parents expect to be involved in their student's experience for a variety of reasons, including "high cost of attendance, changing role of higher education in society, and their own regard for their students as children rather than adults" (Scott & Daniel, 2001, p. 84). Although this perspective wasn't investigated in this study, parental influence played a strong role with most of the students interviewed.

Corwin et al.'s (2004) work showed the importance of the influence of school counselors on the perception of a student's ability to attend college. Gonzalez et al. (2003) also described the importance of high school counselors and the overall high school environment in expanding both perceived and actual opportunities for college. These perspectives were most visible in students who spoke during the qualitative

interviews about their experience with AVID. They frequently expressed the importance of their AVID class, their teachers, and their counselors being extremely influential in encouraging college attendance.

Washburn and Petroshius (2004) found the campus tour had an extremely important role in influencing the college choice of students. Similarly, Dennard (2000) examined how students made their college choice at three different four-year institutions. She found one of the strongest influences was a campus visit, since it helps students identify both personal and social fit (Dennard, 2000). The study supported these results. Both quantitative and qualitative data showed the important influence of a visit to the campus, often changing a student's perception and ultimate decision about a campus.

Based on the analysis of frequency responses for resources or factors that were very influential, as well as the support of the qualitative interviews, the data point to traditional resources and external factors being of greater influence to a student's college choice process than internet based resources.

Finding #3: The path to determining the right college is different for each person. With the exception of CollegeBoard.com, the quantitative data showed very few resources or factors that were overwhelmingly utilized or overwhelmingly influential for most students. Taken alone, assigning meaning to this is difficult. However, qualitative data provided additional meaning in the stories of how the students sought information and made their college choice. During the qualitative interviews, students were allowed to answer questions with as much or as little information as they felt was necessary to answer the question. For most students, this provided an opportunity for them to share

detail and descriptions to give the researcher a better picture of how they made their college choice. In doing so, no story was the same. Some students had a great deal of family support and influence. Others were the first in the family to attend college, and had to figure everything out on their own or with the help of their AVID teacher. One student relied on her parents to visit a few schools for her and tell her if she would like them. Another student made her choice because of a financial aid package. One student lamented that she didn't attend a campus tour, because she probably would not have chosen to attend the school if she had taken the time in advance. In addition, many students spoke about "fit" or a "gut instinct" that made them choose their school. Each story was unique.

Literature on college choice touches themes around the difficulty of making a college choice. Nora (2004) explored college choice by the way students perceive they fit in with the institution. Consequently, Nora (2004) emphasized the importance of college tours in allowing students to match their psychosocial needs with a "campus where they feel welcomed, comfortable, capable, safe, supported, happy, and, most of all, accepted" (Nora, 2004, p. 203). This perspective fits with an older study by Hayes (1989), in which he found two distinct aspects of the college choice process. First, students look for colleges and universities that match their needs for academic attributes such as test scores and class rank with the requirements for admission to specific institutions. Then, students rely on "psychological and social reactions formed during a campus visit to make finer distinctions as to which college to attend" (Nora, 2004, p. 182). This research supports the concept of "fit" that arose during the qualitative

interviews. Students were often not able to articulate exactly what made them comfortable about their choice, but the feeling often was describe as "just knowing" it was the right place.

Perna (2006) proposed a model that combined sociological approaches to college choice and econometric approaches to college choice. Perna's (2006) proposed model shows college choice decisions are multifaceted, including demographic characteristics, school and community context, the different ways higher education can influence the college choice process, and current social and political contexts.

Wilson's study (1997) examined the stress many students can experience through the college choice process, resulting from a lack of understanding of their own goals, not having enough information about their options, and not being able to choose one option that would satisfy all of their objectives. Consequently, some students procrastinated in the application process or the decision process, others made a quick decision specifically to avoid a drawn-out period of stressful indecision, and others avoided some anxiety by applying only to one school. In revisiting this literature and the descriptions of the students described by Wilson, the stress, procrastination, and a student who only applied to one school were all represented in the qualitative research.

Implications

The purpose of the study was to gain a better understanding of how students use internet-based resources to inform their college choice process. Although the study explored their use of internet-based resources and students do use them in a variety of ways, the quantitative and qualitative data show the things that were most influential to

their college choice process were either traditional resources, external factors, or how they fit into an institution.

This finding has implications for colleges and universities. Universities have a vested interest in learning how students choose a college. The quantitative and qualitative data have shown the college choice process is multi-faceted and unique to each person, so understanding how individuals make that choice is complicated. As competition for students increases, knowing what aspects of an institution are most important for students, how they learn information about a school, and how they make their college choice is an important component to aiding recruitment and retention. The greater understanding resulting from this study can help colleges and universities increase the effectiveness of recruitment strategies.

Based on the results of this study, colleges and universities will benefit from employing multiple techniques to attract students. There is not one foolproof way to attract a student, so an institution will benefit from utilizing a variety of methods to reach students, and engage them in the campus. There are two key aspects that present as most pressing. First, campus tours presented a turning point for many students in their college search process. Campus administrators would be prudent to ensure their campus provides a tour that allows a student to see the campus culture and be able to envision himself/herself as a student on the campus. The second aspect is to provide an accurate, engaging, and multifaceted internet presence. Hossler (1999) asserted the internet presents challenges for higher education. The highly interactive nature of the internet means higher education institutions have less control over how and what students learn

about the institution, and when they choose to learn information (Hossler, 1999). Since students can now "browse, formulate impressions, and make decisions with no formal interaction with the school," understanding the ways in which students use the internet in their college choice process is important for institutions of higher education (Hendricks, 2006).

Although internet use may have dropped in this study, 96% still visited at least one website (CollegeBoard.com) in their search for the higher education. Both college search websites and specific campus websites should be maintained and refreshed regularly, so students and their parents who visit (and have a good deal of influence in their student's college choice) will build a positive perception of the campus. Social media is another aspect of a multifaceted internet presence. While MySpace use in general has declined, students are using other social networking platforms in addition to Facebook including Twitter, Pinterest, LinkedIn, and GooglePlus+. Higher education institutions that could be in step with building a social networking presence on the latest platform may provide an advantage in attracting students.

Future Research

The current study provided some important insight into how students choose a college. Since this study only included students from the University of California, Irvine, there could be differences between the choice process of the students in this study and students not attending California universities. As more then one student shared, some of them "just knew" about UC Irvine, so their research may not have been as comprehensive as someone who was searching unfamiliar institutions. There may also be differences

between students who ultimately chose UC Irvine and those who chose other California universities. A study focusing on other areas of the country or expanded to multiple institutions could provide additional insight.

The study also focused on students who were undecided/undeclared in their major. The results may be more applicable to undecided/undeclared freshmen than the entire freshmen class. Expanding a future study to students in a variety of majors where available major may be more of a deciding factor would be beneficial. Additionally, no studies that examine the relationship between undecided/undeclared students and college choice were found. A future study could focus on undecided/undeclared students, but with a broader base of locations could provide greater depth to the literature on college choice.

Students had a difficult time explaining what "fit" meant in relation to their college choice. While the researcher ascertained that "fit" was likely made up of a variety of factors including academic match with a student's skills, the physical atmosphere of a school as a match to student's needs, and a student culture match, which could include everything from demographics to friendliness to activities. This area is in need of further exploration.

Proximity to home was an important factor for many students. The meaning was individual for each student. For some, it meant close to home. For others, distance to home may have meant far enough away that going home every weekend was not possible. A future study exploring what prompts students to look beyond "proximity to

home" would be beneficial for institutions wanting to reach students beyond their typical pool of applicants.

Finally, there were two points of consideration for future research using a similar survey as the one constructed for this study. First, social media options should be expanded to include new or popular social media platforms such as Instagram, Pintrest, or Tumblr. Alternatively, an "Other" category allowing a student to write in a response if their choice was not shown would allow for other options not considered by the researcher. Second, two additional categories should be considered as options for parent education level, including an option breaking out the first category and allowing a student to indicate if a parent has less than a high school education. The second additional category to be considered is "unknown" as an option. Since there were up to 12 people who did not respond to this question, this would provide an option if students did not know the education level of one of their parents.

The studies suggested above and other future studies could add additional depth and insight into the college choice process for prospective students.

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Appendix A

Informed Consent Forms

Project Title:
How Students Choose A College: Understanding The College Choice Process

Purpose of the Research:
This research project will determine factors that influenced students' decisions to enroll in the University of California Irvine. Students selected for this study are those who were admitted as freshmen for Fall Quarter, 2008. Students under the age of 19 must have parental consent, and must also complete a Youth Assenter form.

Procedures:
Participation in this study will involve completing a brief survey that will take approximately 10 minutes to complete. Completion of this survey has no bearing on admission status, course enrollment, or course grades. Most questions ask for opinions and experiences related to college choice and activities that may have been part of the college choice process. It is important that responses to survey questions are accurate.

Risks and/or Discomforts:
There are no known risks or discomforts associated with this research.

Benefits:
Students many find the reflection upon the reasons behind their choice beneficial or enjoyable. The information gained from this study may help colleges and universities improve recruitment processes for future students.

Confidentiality:
Any information obtained during this study which could identify a student will be kept strictly confidential. Data will be stored in a locked cabinet in the investigator's office and will only be seen by the investigator during the study and for three years after the study is complete. The information obtained in this study may be presented at meetings or conferences, or published in scientific journals but the data will be reported as aggregated data.

Compensation:
There is no compensation for participating in this research.

Opportunity to Ask Questions:
You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Or you may call the investigator at any time, at (949) 824-7248. If you have questions concerning your rights as a research subject that have not been answered by the investigator or to report any concerns about the study, you many contact the University of Nebraska-Lincoln Institutional Review Board, telephone (402) 472-6965.

Freedom to Withdraw:
Students are free to decide not to participate in this study or to withdraw at any time without adversely affecting their relationship with the investigators or the University of California, Irvine. This decision will not result in any loss or benefits to which the student is otherwise entitled.

Consent, Right to Receive a Copy:
You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you agree to participate having read and understood the information presented. To receive a copy of this consent form, please contact the Principal Investigator at (949) 824-7248.

Signature of Participant:

_____ _____

Signature of Research Participant *Date*

Name and Phone number of investigators

Kimberli Burdett, Principal Investigator Office: (949) 824-7248
Dr. James Griesen., Secondary Investigator Office (402) 472-3725

Qualitative Informed Consent

Project Title:

How Students Choose A College: Understanding The College Choice Process

Purpose of the Research:

This research project will determine factors that influenced students' decisions to enroll in the University of California Irvine. Students selected for this study are those who were admitted as freshmen for Fall Quarter, 2008.

Procedures:

Participation in this study will involve answering questions in a telephone interview that will take approximately 10-15 minutes to complete. Completion of this survey has no bearing on admission status, course enrollment, or course grades. Most questions ask for opinions and experiences related to college choice and activities that may have been part of the college choice process. It is important that responses to interview questions are accurate.

Risks and/or Discomforts:

There are no known risks or discomforts associated with this research.

Benefits:

Students many find the reflection upon the reasons behind their choice beneficial or enjoyable. The information gained from this study may help colleges and universities improve recruitment processes for future students.

Confidentiality:

Any information obtained during this study which could identify a student will be kept strictly confidential. Data will be stored in a locked cabinet in the investigator's office and will only be seen by the investigator during the study and for three years after the study is complete. The information obtained in this study may be presented at meetings or conferences, or published in scientific journals but the data will be reported as aggregated data. Any names will be changed to protect confidentiality.

Compensation:

There is no compensation for participating in this research.

Opportunity to Ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Or you may call the investigator at any time, at (949) 824-7248. If you have questions concerning your rights as a research subject that have not been answered by the investigator or to report any concerns about the study, you many contact the University of Nebraska-Lincoln Institutional Review Board, telephone (402) 472-6965.

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Consent, Right to Receive a Copy:

You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you agree to participate having read and understood the information presented. To receive a copy of this consent form, please contact the Principal Investigator at (949) 824-7248.

Signature of Participant:

_____ _____

Signature of Research Participant *Date*

Name and Phone number of investigators

Kimberli Burdett, Principal Investigator *Office: (949) 824-7248*

Dr. James Griesen., Secondary Investigator *Office (402) 472-3725*

Appendix B

Survey 1

HOW STUDENTS CHOOSE A COLLEGE: UNDERSTANDING THE COLLEGE CHOICE PROCESS

1. Please indicate which of the following internet-based resources you are ***aware of***, regardless of whether or not you utilized those resources in your college search process.

Websites ranking colleges/universities

Forbes.com ❑
PrincetonReview.com ❑
U.S. News & World Report ❑
Other *(please specify)* ❑
_____

Websites designed to compare colleges/universities

CollegeBoard.com ❑
National Survey for Student Engagement (NSSE) ❑
Petersons.com ❑
Unigo.com ❑
Other *(please specify)* ❑
_____

2. Please indicate which websites you ***utilized*** in your college search process. For each of the websites you utilized, please indicate the relative degree of influence on your college choice.

	Utilized	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
CollegeBoard.com	❑	❑	❑	❑	❑
Forbes.com	❑	❑	❑	❑	❑
National Survey for Student Engagement (NSSE)	❑	❑	❑	❑	❑
Petersons.com	❑	❑	❑	❑	❑
PrincetonReview.com	❑	❑	❑	❑	❑
Unigo.com	❑	❑	❑	❑	❑
U.S. News & World Report	❑	❑	❑	❑	❑
Other *(please specify)* _____	❑	❑	❑	❑	❑
Other *(please specify)* _____	❑	❑	❑	❑	❑

3. In your college search/selection process, did you use any of the following social networking websites?

Yes ❑ (please indicate below)
- Facebook ❑
- MySpace ❑
- Twitter ❑
- Blogs ❑

No ❑ (please skip to question 5)

4. In what ways did you use social networking websites?

- ❑ Became a fan/friend of the campus
- ❑ Corresponded with current students
- ❑ Followed updates from admissions office
- ❑ Corresponded with faculty/staff
- ❑ Other _____
- ❑ Other _____

5. How influential were social networking websites on your college choice?

Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
❑	❑	❑	❑

6. Approximately how many specific college/university websites did you visit (i.e. www.uci.edu, www.ucla.edu, www.stanford.edu, etc.)?

_____

7. How influential were those specific websites on your college choice?

Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
❑	❑	❑	❑

8. Please indicate which traditional resources you utilized in your college search process. For those traditional resources you utilized, please indicate the relative degree of influence on your college choice.

	Utilized	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
College admission counselor visit(s) to your high school	❑	❑	❑	❑	❑
Campus tour(s)	❑	❑	❑	❑	❑
High school guidance counselor	❑	❑	❑	❑	❑
Informal campus visit(s)	❑	❑	❑	❑	❑
Overnight stay(s) on campus	❑	❑	❑	❑	❑
Other *(please describe)* _____	❑	❑	❑	❑	❑
Other *(please describe)* _____	❑	❑	❑	❑	❑

9. Please indicate the relative degree of influence of the following factors on your college choice.

	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
Parents opinions	❑	❑	❑	❑
Siblings opinions	❑	❑	❑	❑
Distance from home	❑	❑	❑	❑
Academic reputation	❑	❑	❑	❑
Cost of attendance	❑	❑	❑	❑
Financial Aid award/loan(s)	❑	❑	❑	❑
Scholarship(s)/grant(s)	❑	❑	❑	❑
Friends opinions	❑	❑	❑	❑
Other *(please describe)* _____	❑	❑	❑	❑
Other *(please describe)* _____	❑	❑	❑	❑

10. Please indicate the highest level of education for each of your parents.

	Mother	Father
High school diploma or less	❑	❑
Some college	❑	❑
Associate's degree	❑	❑
Bachelor's degree	❑	❑
Graduate degree	❑	❑

11. Please indicate your gender.

Male ❑
Female ❑
Transgender ❑

12. Please indicate your ethnicity.

African-American ❑
Asian-American/Pacific Islander ❑
Caucasian ❑
Chicano/Latino ❑
Native American/Alaskan Native ❑
Multiracial ❑
Other _____ ❑

13. Please indicate your current age. _____

If you are willing to be contacted for a brief follow-up conversation regarding your college search and choice process, please provide your name, email address, and cell phone number. All information obtained will be kept strictly confidential. Only aggregate data will be reported, and all responses will remain anonymous in the final report.

Name _____
Phone Number _____
Email Address _____

Thank you!

Appendix C

Survey 2

Choosing UCI: Your College Choice Process

Help Contact Info

Displays survey help/contact information provided at publish

Introduction

Thank you for taking the time to complete this survey. Your responses will help us gain better understanding for why students choose UCI.

Instructions

Please answer each question below.

1.

1. Please indicate which of the following internet-based resources you are aware of, regardless of whether or not you utilized those resources in your college search process.

- Forbes.com
- PrincetonReview.com
- U.S. News & World Report
- CollegeBoard.com
- National Survey for Student Engagement (NSSE)
- Petersons.com
- Unigo.com
- Other (please specify)

2.

For each of the websites listed below, please indicate the relative degree of influence on your college choice. If you did not utilize a website, please select "Did Not Use."

	Very Influential	Somewhat Influential	Slightly Influential	Not at all Inflential	Did Not Use
CollegeBoard.com					
Forbes.com					
National Survey for Student Engagement (NSSE)					
Petersons.com					

PrincetonReview.com					
Unigo.com					
U.S. News & World Report					

3.
In your college search/selection process, did you use any of the following social networking websites?

- Facebook
- MySpace
- Twitter
- Blogs
- Did not use (please skip to Question 5)

4.
In what ways did you use social networking websites?

- Became a fan/friend of the campus
- Corresponded with current students
- Followed updates from admissions office
- Corresponded with faculty/staff

5.
How influential were social networking websites on your college choice?

- Very Influential
- Somewhat Influential
- Slightly Influential
- Not at all Influential

6.
Approximately how many specific college/university websites did you visit (i.e. www.uci.edu, www.ucla.edu, www.stanford.edu, etc.)?

7.
How influential were those specific websites on your college choice?

- Very Influential
- Somewhat Influential
- Slightly Influential
- Not at all Influential

8.
For those traditional resources you utilized as you were searching for colleges, please indicate the relative degree of influence of each on your college choice. If you did not utilize a resource, please mark "Did Not Use."

	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential	Did Not Use
College admission counselor visit(s) to your high school	○	○	○	○	○
Campus tour(s)	○	○	○	○	○
High school guidance counselor	○	○	○	○	○
Informal campus visit(s)	○	○	○	○	○
Overnight stay(s) on campus	○	○	○	○	○

9.
Please indicate the relative degree of influence of the following factors on your college choice.

	Very Influential	Somewhat Influential	Slightly Influential	Not at all Influential
Parents opinions	○	○	○	○
Siblings opinions	○	○	○	○
Distance from home	○	○	○	○
Academic reputation	○	○	○	○
Cost of attendance	○	○	○	○
Financial Aid award/loan(s)	○	○	○	○
Scholarship(s)/grant(s)	○	○	○	○
Friends opinions	○	○	○	○

10.
Please indicate the highest level of education for each of your parents.

	High school diploma or less	Some college	Associate's degree	Bachelor's degree	Graduate degree

Mother	○	○	○	○	○
Father	○	○	○	○	○

11.
Please indicate your gender.

- ○ Male
- ○ Female
- ○ Transgender

12.
Please indicate your ethnicity.

- ○ African-American
- ○ Asian-American/Pacific Islander
- ○ Caucasian
- ○ Chicano/Latino
- ○ Native American/Alaskan Native
- ○ Multiracial

13.
Please indicate your current age.

14.
If you are willing to be contacted for a brief follow-up conversation regarding your college search and choice process, please provide your name, email address, and cell phone number. All information obtained will be kept strictly confidential. Only aggregate data will be reported, and all responses will remain anonymous in the final report.

Closing Text

Thank you for completing this survey. I appreciate your input! If you have not already, please consider including your name and contact information so I may contact you for a few brief follow-up questions. All responses will remain anonymous.

Appendix D

Qualitative Research Questions

QUALITATIVE RESEARCH QUESTIONS
How do students describe the primary factors that influenced their college choice?

Time of Interview:
Date:
Place:
Interviewer:
Interviewee:

Thank you for your willingness to participate in this interview. I am seeking to gain a better understanding of the primary factors that influence college choice. Your honest input will be helpful in providing insight. All information obtained will be kept strictly confidential, and all individual responses quoted in the final report will remain anonymous.

Questions:

1. Please describe how you gathered information about colleges and universities.

2A. For students who indicated internet-based resources were utilized in their college choice process:
You indicated you utilized [*researcher will insert the internet-based resource(s) indicated on the student's survey and ask the following questions based on each resource the student said they utilized*]. Describe your use of each internet-based resource and how the resource influenced your college choice. At what point(s) during your choice process did you utilize each of these resources? How would you describe how you used each resource, including how much time you spent using each resource? Why did you choose these particular resources rather than other internet-based resources?

OR

2B. For students who indicated no internet-based resources were utilized in their college choice process:
You indicated you did not utilize any internet-based resources during your college choice process. Were there any particular reasons you did not utilize internet-based resources? Did you consult any print resources?

3. How many campuses did you visit between the time you began considering where to apply and prior to submitting your Statement of Intent to Register? When did you visit and how would you describe your visit(s)?

4. When thinking about the resources you utilized to help you with your decision-making process, please describe any differences in both the types and ways in which you utilized resources prior to being accepted to a school and those you utilized after you were accepted.

5. Please describe how you made your decision about which college to attend.

6. Please discuss anything that was particularly influential in your decision.

7. Name three qualities that you looked for when selecting a school and describe how the university you chose met these qualities.
[*Additional questions and/or probes may be included as the quantitative data is analyzed and subjects are identified.*]

Thank you for participating in this interview. All information obtained will be kept strictly confidential. If additional information is needed, would it be okay to contact you?

Appendix E

Telephone Script

Telephone Script

Hi, my name is Kim Burdett. At the beginning of school this year, you completed a survey in your orientation as an undecided/undeclared major and indicated that you would be willing to participate in follow-up questions and provided your phone number. Would you still be willing to answer some follow-up questions? If so, do you have a few minutes right now, or would you rather set up a time for me to call you back?

Thank you for your willingness to participate in this interview. I am seeking to gain a better understanding of the primary factors that influence college choice. Your honest input will be helpful in providing insight. All information obtained will be kept strictly confidential, and all individual responses quoted in the final report will remain anonymous. If at any time you wish to stop answering questions, please let me know. If you have any questions at any time, please feel free to ask. Your participation in this follow-up interview will have no bearing on your academic status at the university. Do you have any questions before we begin?

Questions:

1. Please describe how you gathered information about colleges and universities.

2A. For students who indicated internet-based resources were utilized in their college choice process:
You indicated you utilized [*researcher will insert the internet-based resource(s) indicated on the student's survey and ask the following questions based on each resource the student said they utilized*]. Describe your use of each internet-based resource and how the resource influenced your college choice. At what point(s) during your choice process did you utilize each of these resources? How would you describe how you used each resource, including how much time you spent using each resource? Why did you choose these particular resources rather than other internet-based resources?

OR

2B. For students who indicated no internet-based resources were utilized in their college choice process:
You indicated you did not utilize any internet-based resources during your college choice process. Were there any particular reasons you did not utilize internet-based resources? Did you consult any print resources?

3. How many campuses did you visit between the time you began considering where to apply and prior to submitting your Statement of Intent to Register? When did you visit and how would you describe your visit(s)?

4. When thinking about the resources you utilized to help you with your decision-making process, please describe any differences in both the types and ways in which you utilized resources prior to being accepted to a school and those you utilized after you were accepted.

5. Please describe how you made your decision about which college to attend.

6. Please discuss anything that was particularly influential in your decision.

7. Name three qualities that you looked for when selecting a school and describe how the university you chose met these qualities.

Thank you for participating in this interview. All information obtained will be kept strictly confidential. If additional information is needed, would it be okay to contact you? If you have any questions, you can reach me at (949) 824-7492. If you have questions concerning your rights as

a research subject that have not been answered by me or to report any concerns about the study, you many contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965. Thank you again!

Appendix F

Coding and Cross-Case Analysis Example

Coding and Cross-Case Analysis Example for Question 1

Transcript	Initial Coding	Cross-Case Analysis	Refined Codes
1. *Describe how you gathered information your about colleges and universities.* Oh, okay. I just used one of those guides that talks about what colleges there are, and I also went to like a college convention that had a bunch of colleges and I was highly influenced by what my parents wanted, too. *So the college convention that you went to, was it like at your high school or something like that?* Um, it was at a convention center, but my school highly recommended to us that we go, so I just went. It was somewhere near my school. *Okay, so it was one of those college fairs where there are a whole bunch of schools that are there.* Yeah. *And I'm sorry, I missed the very first thing you said. You used some website or a guide?* Oh, I went to Fisk's Guide. Yeah. --- Okay, um, well I was not one of the best prospects honestly, because I did not start until like I would say about 2 months before, like actually looking at colleges. But I knew I wanted to go to a good school, because of how my grades were, so I started looking at UCs, and a few privates but more UCs and Cal State's. I knew I wanted to go to a 4-year university, so what I did was kind of look at websites and rankings and go to my school's college center and I was actually trying to get as much help as I could, because I was really unfamiliar with how going to college worked because nobody in my family actually ever went, so I didn't	Guide College fair Parental influence Went because I was supposed to go Late start in looking Desired a good school Website rankings College center at school Uncertainty about how to find and apply to college No one to help	Computer/Internet Research Self-directed Class or teacher directed College fairs Academic reputation/ rankings Campus Visits Personal interactions Teachers Parents Friends Expectations from parents or siblings	College fair Parental influence Academic reputation/ rankings Uncertainty about how to find and apply to college/ No one to help Teachers/Counselors AVID Campus tours College representatives Sibling influence Internet research

know anybody really who knew anything about it. --- Um, I started off by just doing research on-line, and I was very direct. I knew I wanted to go into aerospace engineering, so I was just looking for schools online that had that major. So I did that, and I also looked at the Princeton Review book on colleges. *Did you look at Princeton Review online as well?* Yes. And then College Board was another one.	Online research Specific approach/knew exactly what he wanted		
Well, starting in middle school, my teachers would usually talk about it and then they would take us on field trips and stuff and they would talk about the importance of testing – the SAT and the ACT and stuff. Actually, when I was in elementary school, I was taking the PSATs, which are like preparation exams for the SATs. When I got to high school, I was enrolled in AVID, which is to help students get into college, and our teacher actually helped us fill out applications, and stayed with us through the process. The school would offer programs like EOP and ETS to help us get around.	Teachers and classes AVID Progression over time		
Well, I usually…they had a college fair at my high school and I learned about UCI there. And then I started to get emails after I applied to the UCs, I just started to go on campus tours to see what schools I liked. *So how did you decide where to start looking in the first place?* Oh, well my counselor, he was my coach when I was in cross country, he helped me to look into online, to look into different colleges, but I didn't really start	College fair Campus tours Help from teacher		

looking into college until my senior year. So, like I didn't really have much resources because I didn't really know what college was about because I didn't really have anyone to really tell me.	Uncertainty		
Well, I came to my counselor's office a lot, and the higher ed center would always hold meetings for people who were interested in applying to colleges and universities. So that's basically how I found my information. They gave me information to look over, but the workshops helped a lot. *Okay, did you, what kinds of resources did you utilize?* We had a lot of speakers that represented colleges, and they'd stay there at least once a week in the counselor's office, so I'd really talk to them about how to apply for college, financial aid, clubs and organizations, and all the things I can join. So I think they were my main information.	Counselor College representatives		
An online database. *Which online database?* It was given to me through my high school. *Do you remember the name of it?* No. *Okay. Was it like College Board, or was it maybe something more like they put together?* It was just like some kind of software that they purchased. Like you just go on there and it gives you like different bar graphs, like where you fit it, at what school, and like, majors and stuff.	Some online database		
Um, I gathered information when I started school. The information that I gathered was mainly from my AVID class at school. They would just give us information by			

having us do little projects like gather information about different universities and how to get in and stuff. And we got that information ever since I was in high school. *So did they give it to you in hard copy forms, or did they direct you to computer programs or websites?* They gave it to us in, well, I think it varied through the years. It started off that they'd give it to us in worksheets with just information about different colleges, and we would have to go do research by ourselves for those projects they'd have us do, you know they would give us websites to go online, or we would just go to the university thing and find out information from there. It was a little bit of both.	AVID classes Online websites		
Um, colleges and universities? Well mine was during my AVID class in high school, for sure, and my counselors and teachers when I first started. I just got all this information from the brochures and the class assignments we had to do for matching yourself to certain colleges. I'd have to say AVID for ninth, tenth, eleventh, and twelfth. *What kind of information did they give you? Was it print material, was it directing you to websites?* Yeah, it was more directing towards websites, because each student was different so they would just have you see where you, and your current position, and the school where you want to go or that you could go to possibly and we would look it up ourselves. So it was more directing us. The counselors, we would just tell them what we want, and then they would tell us where to go.	Research through classes over years College fairs AVID class Online websites Received guidance		

Well, initially my mother had gone to college, and she never graduated because she got pregnant with my older sister, but she ingrained in my mind that I had to go to college. So growing up throughout my adolescent years, I had to go to college. Maybe I could work in between, but college would be best for me. And really, my mind was set at UCLA because that I where my sister went. I didn't really think much of any other schools, but I did put some thought into some other schools, and I knew that the UC system was probably the best that I could do and it was also reputable, and that is another reason I chose the UC system. And I just looked at the rankings of all the UC schools, and I made my 5 choices, and UC Irvine was one of the 5 that I chose. Out of the applications, and that's basically how I got my data about colleges. I knew about some of the big ones, like Harvard and Stanford, but I knew if I set my sights on that I wouldn't be able to achieve it. So that's how I did that. *Okay. You mentioned you looked at rankings. Did you look at like U.S. News & World Report, or another type of ranking system?* Yeah, it was exactly like that. Mainly I got the information off Wikipedia, since I didn't know too much about any other schools, so just went to hyperlinks from Wikipedia or other links from those sites that I found in Wikipedia, or any articles I found through Google or anything like that.	Parental influence Sibling influence Rankings Internet research		

Appendix G

Attestation

External Audit Attestation

Sharon L. Stead, Ph.D.

Audit Attestation

Kimberli Burdett requested I complete an methodological audit of her qualitative case study thesis entitled "How Students Choose a College: Understanding the Role of Internet Based Resources in the College Choice Process." The audit was conducted in June of 2013. The audit was to determine the extent to which the results of the study are trustworthy.

The audit was based materials Kimberli provided for review. These materials provided the evidence for the research prcess and were the basis for determining the extent to which the thesis findings were supported by the data. The following materials were provided primarily via e-mail:

- IRB Documents for the University of California, Irvine and the University of Nebraska, Lincoln
    - Informed Consent Forms
    - UC Irvine IRB Modification Request
- Interview Transcripts of all ten interviews
- Qualitative Coded Themes for all seven questions asked during the interviews
- Final Dissertation Draft with chapters one through five
- Three Audio Tapes with the Raw Data for all ten participant interviews

Audit Procedure

The audit consisted of the following steps:

1. Meeting to discuss audit and audit role.
2. Receipt of requested files.
3. Review of IRB protocol submission.
4. Review of random sample of transcripts.
5. Listen to sample segments of audiotapes to ascertain accuracy reflected in transcripts.
6. Review final draft of dissertation with special attention to the consistency in purpose, questions and methods stated in the IRB documents.
7. Write and submit the signed attestation to the researcher.

Meeting to Discuss Audit and Role

Kimberli was a Director in Student Housing at UC Irvine for over a decade when I arrived in a peer role in May of 2011. We had several discussions about the product of her doctoral work over the next two years. As her dissertation neared completion, I agreed to conduct the audit.

Review of IRB Protocol

The IRB protocol documents was reviewed to learn more about the approach and methodology utilized in the study prior to reviewing the interview transcripts and listening to the tapes. The research was conducted as described in the protocol submission, with the exception of the statistical method utilized, which is detailed in the dissertation draft.

Raw Data

Transcripts: The auditor reviewed the provided transcripts of the ten interviews in which the dialogue between the interviewer and the study participant was documented. The auditor selected five of the interview transcripts and compared them with the audiotapes. They were accurately transcribed.

Review of Final Draft of Dissertation

The purpose of the study was clearly noted in the final draft of the dissertation and the methodology and data reporting was consistent with the IRB protocol and the raw data provided.

Conclusion

After reviewing the materials provided by the researcher for this audit, I am submitting the following conclusions about the research process:

- The auditor believes the process of the study was consistent with the approved research protocols approved. The data obtained remained true to the focus of the study.
- The auditor believes the materials provided for review establish the trustworthiness of the study and the conclusions drawn as a result of the research.

Attested to by Sharon L. Stead this 4th day of June 2013.

Sharon L. Stead, Ph.D.
Director, Middle Earth Housing
University of California, Irvine