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ABSTRACT

This study used information from the College Board's Admitted Student Questionnaire (ASQ) to investigate how enrolling students rate college choice factors in general and how they rate the colleges in which they have chosen to enroll. The sample included 68,428 admitted freshmen student responses to the ASQ, representing 122 institutions. Findings show that there was little variance in the institutional ratings that enrolling students assigned to their selected campuses based on college choice factors. Results also reflect a "disconnect" between what enrolling students report as important in general when they select a college campus and the factors that are implicitly important based on their enrollment behavior. Students did not rate the institutions they chose to attend "best" within their choice set, but they did rate these institutions "better than most" on all college choice factors assessed. Having committed themselves to a college, students may have rated that institution high in a need to justify their choice. The mean ratings of enrolling students on college choice factors in general suggest that on average, they consider issues related to Academics, Service, and Cost to be the most important in their college decision making. Students, however, tend to rate institutions they choose to attend highest on Academics, Location, and Service. The importance ratings they assign to college choice factors generally do not match the institutional ratings they assign to their selected college campuses on these same factors. The paper discusses the implications of this "disconnect." (Contains 12 tables and 97 references.) (SLD)

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Exploring College Decision-making: A Disconnect in Student Ratings
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Perspectives

There has been a considerable amount of attention focused in the past few decades on the issue of college choice and how student enrollments impact the overall fiscal health of a campus. During this time, more campuses have devoted resources to the management of enrollments in order to stabilize institutional revenues. For some campuses, this issue has been critical in that declining enrollments have led to the threat of faculty layoffs, program elimination or campus closure (Dennis, 1998). The causes for this continuing concern over student enrollment levels are complex and include the following economic and policy trends.

First, in the past decade there has been a decline in legislative support for higher education. Between 1990 and 1994, the share of state budgets appropriated for higher education dropped nationally from 27% to 23% of institutional revenues (Breneman & Finney, 1997). To mitigate the impact of this shortfall, many public institutions have attempted to meet expenses in part by relying on dramatic tuition increases as well as larger undergraduate student enrollments (Breneman & Finney, 1997). Although institutional efforts to increase student enrollments have been mixed, increases in tuition and fees have been steady and widespread (Breneman & Finney, 1997). In 1990-91, tuition and fees collected for all higher educational institutions nationally totaled \$37.4 billion. By 1993-94, this figure had grown to \$46.6 billion (Breneman & Finney, 1997).

Secondly, many state legislatures have become more interested in institutional effectiveness and are devising outcomes-dependent budgeting models (Burke, Modarresi, & Serban, 1999). According to a 1999 Rockefeller Institute Survey, at least 30 states have either considered or have already adopted performance measures to be used in their

fiscal decision-making for higher educational institutions (Burke et al. 1999). These budgeting processes have tied institutional funding to external accountability measures and improvements in institutional performance (Burke et al., 1999). In response to these and other policy pressures, many institutions are increasing their efforts to recruit academically talented students. A growing number of institutions in both the public and private sector are using merit-based aid to entice high achieving students whose enrollment would enhance the prestige of the campus (McPherson & Shapiro, 1998). This tactic is aimed in part at attracting more students whose expected performance would improve the overall achievement outcomes of undergraduate students.

Adding to these institutional challenges is the evidence that students today are more selective in their choice of a college than they were 30 years ago. Prospective students report submitting more applications as a group than in the past (Astin, Parrott, Korn, & Sax, 1997) and are increasingly inclined to consider for-profit higher education alternatives. This trend is particularly evident among the growing market of students who are willing to pay higher tuition in exchange for better service, more flexible academic calendars and a quicker time to completion (Swensen, 1998; Winston, 1999).

Such trends have focused attention on the decision-making behavior of college bound students. In particular, institutions of higher education, as well as many researchers in education and marketing, are keenly interested in what factors matter most in the college decision-making process. To inform this area of research, many scholars have relied on student self report data regarding their decision-making behavior. The assumption of these researchers and others is that students are willing and able to accurately report the relative importance of various college choice factors. The research

questions explored in this study address whether student's espoused values in college choice match their enrollment behavior by comparing student responses to the College Board's Admitted Student Questionnaire.

The following sections provide a brief overview of the theoretical framework of college choice as proposed by Hossler and Gallagher (1987). Various institutional factors that have been found to influence this decision-making process and the difficulties inherent in self-report data are also presented. The results are discussed in the context of related decision-making theory.

The College Choice Process

There has been considerable interest in the topic of college choice over the past three decades. Scholarly inquiry began with sociological studies related to status attainment and social mobility, as well as studies within the field of economics exploring student demand for higher education and related public policy issues (Hossler et al., 1989; Litten, 1982). This study will incorporate the Hossler and Gallagher model (1987) of college choice as a framework for conceptualizing this decision-making process.

The Hossler and Gallagher (1987) model of college choice builds upon the work of R. Chapman (1984), Jackson (1982), and Litten (1982) and incorporates the findings of other major scholarly studies within this area of research. This model proposes that college choice is a developmental process that occurs within three phases. These phases are labeled predisposition, search and choice. According to this model, it is within these three phases that students form their early impressions of college, make the decision whether to further their formal education, collect and assimilate information regarding

their college options, establish a choice set and ultimately decide upon a college campus in which to matriculate.

Predisposition to Attend College

There has been a great deal of interest in the literature regarding the predisposition to attend college. Hossler and Gallagher (1987) purport that a student's predisposition to attend college is affected by three general factors. They are: (a) the attitudes and influences of significant others, (b) the educational activities of students, and (c) school/college characteristics. The outcome of this phase is for the student to either move into the college search process or decide upon an alternative course. Factors that have been explored to assess their relative influence on the predisposition of students to attend college include a student's academic ability (Bishop, 1977; Carpenter & Fleishman, 1987; Hause, 1969; Hossler et al., 1989; Jackson, 1978; Manski & Wise, 1983; Mare, 1980; Peters, 1977), career plans and aspirations (Chapman, 1981), the opinions of peers (Tillery, 1973; Jackson, 1986) socioeconomic status (Bishop, 1977; Hossler & Gallagher, 1987; Kohn et al., 1976; Miller, 1976; and Peters, 1977), race/ethnicity (Baker & Velez, 1996; Hossler et al., 1989; Mow & Nettles, 1990), gender (Hossler et al., 1989, Hossler & Stage, 1992; Stage & Hossler, 1989), location of the family residence (Anderson et al, 1972; Hossler & Gallagher, 1987; Willingham, 1970), parental influence (Chapman, 1981; Conklin & Dailey, 1981; Hossler & Gallagher, 1987; Litten et al., 1983; Murphy, 1981; Pennsylvania Association of Colleges and Universities, 1984), school quality (Hearn, 1984; Hossler & Gallagher, 1987; Kolstad, 1979; Peters, 1977), financial aid opportunities (Baker & Velez, 1996; Manski & Wise, 1983), and the rate of return of a college education (Manski & Wise, 1983).

Although many factors have been found to correlate positively with a student's predisposition to attend college, the process of acquiring this predisposition is not well understood. Factors that have been found to influence predisposition are broad and include a wide range of individual student characteristics, parental influences and various school/college characteristics. The Hossler and Gallagher model (1987) purports that students first consider going to college early in their educational experience and those who have a predisposition to attend enter the search phase of the college selection process early in high school.

College Search

Hossler and Gallagher (1987) depict the college search phase as an iterative process whereby students are influenced by several factors. Among these are the student's initial values as shaped by their parents, peers and other social influencer groups. Students are also influenced by their own college search activities and the marketing activities of colleges and universities. Other factors that influence the search stage as supported by the literature include a student's academic ability (Chapman, 1981; Gallotti & Mark, 1994; Ganderton, 1991; Manski & Wise, 1983; Nolfi, 1978), socioeconomic status (Hearn, 1984; Hearn, 1991; Heller, 1997; Tierney, 1984; Weiler, 1994), institutional cost and financial aid (Benjamin, 1998; Bouse & Hossler, 1991; Breneman & Finney, 1997; Flint, 1993; Hearn, 1991) race/ethnicity (Hurtado, Kurotsuchi Inkelas, Briggs, & Rhee, 1997; Maxey, Lee, & McLure, 1995; Lewis and Morrison, 1975), gender (Gallotti & Mark, 1994; Lewis & Morrison, 1975), information sources (Chapman, O'Brien, & De Masi, 1987; Braxton, 1990; Kealy & Rockel, 1987), parental attitudes (Carnegie, 1986; Gallotti & Mark, 1994; Moore & Elmer, 1992; Pain, 1986),

location of a campus (Anderson et al., 1972; Gilmour et al., 1978; Pain, 1986; Riggs & Lewis, 1980; Willingham, 1970), student life opportunities (Kealy & Rockel, 1978; Litten, 1982; Riggs & Lewis, 1980), athletics (Toma & Cross, 1998), academic quality (Canale et al., 1996; Johnson et al., 1991; Litten, 1982; Moore & Elmer, 1992, Pain, 1986), job placement opportunities (Moore & Elmer, 1992; Sanders, 1990; Swensen, 1998; Winston, 1999) college marketing (Erdmann, 1983; Kealy & Rockel, 1987), and the student's expectation for service (Swensen, 1998; Winston, 1999).

Although the factors that have been found to impact the search stage are not fully understood, they include items related to the individual student, parent, and institution. In general, students complete the search stage during their junior and senior years in high school. At the end of this stage, students decide on a set of colleges to which they will apply. After students have submitted applications to various colleges and universities, they must choose a specific college campus from one or more campuses to which they have been accepted. The dynamics of this final decision-making process are depicted in the choice phase of the college selection process.

The Choice Phase

Hossler and Gallagher (1987) describe the choice phase of the college decision-making process as being influenced by two general categories of factors. These general categories are the recruitment activities of the campuses to which students apply and those college choice factors that were salient during the search process. The literature in this area has explored the relative influence of various factors on the choice phase. Included are the student's academic ability (Dahl, 1982; Hearn, 1984; Hossler & Gallagher, 1987; Jackson, 1978), socioeconomic status (Leslie et al., 1977; Hearn, 1991;

Tierney, 1980; Tierney, 1980b), race/ethnicity (Hearn, 1984; Hurtado et al., 1997; Maxey & McLure, 1995), parental attitudes (Conklin & Dailey, 1981; Hearn, 1984; Keller & McKewon, 1984; Litten et al., 1983), academic quality (Chapman, 1977; Chapman & Jackson, 1987; Church & Gillingham, 1985; Erdmann, 1983), institutional cost and financial aid (Chapman, 1981; Ihlanfeldt, 1980; Moore, Studenmund, & Slobko, 1991; St. John, 1993), campus location (Chapman & Jackson, 1987; Church & Gillingham, 1985; Erdmann, 1983; Martin, 1996), and college marketing efforts (Freeman, 1984; Geller, 1982; Kealy & Rockel, 1987).

Thus, according to the Hossler and Gallagher (1987) model students emerge from these three phases having decided first, whether or not to pursue a higher education, then finally, what institution they will attend. This process is beset by outside influences throughout and students are viewed as weighing these influences in their decision-making process. Much of the research in this area has focused on the relative weight of various factors, in particular those that are related to institutional characteristics. From a practical perspective, institutions are interested in marketing themselves by highlighting those factors that students consider most important in this decision-making process.

Student Self-Report Research

Much of the college choice literature that has accumulated thus far has relied on student self-report data to determine the relative importance of college choice decision-making factors (Gallotti & Mark, 1994; Kealy & Rockel, 1987; Lewis & Morrison, 1975; Matthay, 1989; Murphy, 1981). The findings of these studies have been used by researchers and practitioners to advance our understanding of college choice behavior and various institutional interventions that are effective in influencing this behavior. One

major assumption in this work is that students are willing and able to accurately report the relative importance of the college choice factors they considered in their selection process. There is, however, some evidence in the literature that students are unable to report accurately on this complex decision-making process (Brown, 1999; Chapman, 1992; Smith, 1994). The research questions explored in this study address whether a student's espoused values in college choice match their enrollment behavior.

Variables

The college choice literature discussed above provides evidence that specific institutional variables impact college choice. This study will focus on college choice factors that involve institutional characteristics using data from the College Board's Admitted Student Questionnaire. Included are survey items related to academics, service expectation, athletics, cost, student life, and location. These variables are supported by the college choice literature to have some impact on this decision-making process.

Objectives

This study uses information obtained from the College Board's Admitted Student Questionnaire (ASQ) to test the following research questions:

1. How do enrolling students rate college choice factors in general, and are their differences between the ratings of these factors?
2. How do these students rate the college in which they chose to enroll with respect to these college choice factors, and are there differences between the ratings of these factors?

3. What are the relationships between how these students rated college choice factors in general and their ratings of the institution in which they chose to enroll based on these factors?

These questions are important in that much of the college choice literature and many institutional inquiries into college choice decision-making presume that student motivations are easily discernable through self-report survey research. The findings of this study will provide evidence as to whether students are able to discern between college choice factors in general as well as in their ratings of institutions on these factors. This study will also test whether student enrollment behavior matches their institutional ratings. The findings of this study are an important contribution to the literature given the unusually large sample size of 68,428 student surveys.

Methods

Survey Instrument

The College Board's Admitted Student Questionnaire (ASQ) includes a wide range of questions related to college choice factors that are noted in the literature to have a bearing on college decision-making. Twenty individual items included on the ASQ are used to inform this study. These twenty items include the importance ratings that students assign to general institutionally related college choice influencers, as well as student ratings of the surveying institution on these influencers compared to other institutions the student considered. Specifically, these student ratings include: (a) the importance of various college choice factors in general (1=Very Important, 2=Somewhat Important, 3=Not Important); and (b) how the surveying college compares on these

factors to other campuses in the student's choice set (1=Best, 2=Better than Most, 3=About the Same, 4=Poorer than Most, 5=Worst, 0=Can't Compare).

Description of Study Variables

For the purposes of this study, these 20 individual college choice items are grouped into six conceptually-derived factors as supported by the college choice literature. These factors include Academics (4 items, $\alpha = .79$), Service Expectation (3 items, $\alpha = .67$), Athletics (2 items, $\alpha = .74$), Cost (1 item), Student Life (5 items, $\alpha = .72$) and Location (5 items = .67). While the individual items included on the ASQ survey do not provide an exhaustive listing of items that could potentially be included in these conceptually-derived college choice factors, it is contended that they are a valid representation of the concepts which students would generally consider.

Sample

The sample examined in this study includes 68,428 admitted freshmen student responses to the ASQ. Included are unduplicated responses from 122 participating institutions in the years 1996 through 1999. The sample is unduplicated in that each participating college is represented only once in this data set for the most recent year of their participation. Descriptive data regarding the data set are provided on the following tables.

[Please insert tables 1 and 2]

The composition of this data set is not particularly representative of all college going students nationally. Specifically, there is a larger proportion of students in this data set who are applying to private, four-year colleges than is the case nationally. None of the students in this data set are applying to 2-year campus, nor are transfer students

represented. This data set is not particularly diverse with respect to ethnicity and race. Less than twenty percent of the students in this data set self-report that they are students of color. The students in this data set self-report relatively high academic achievement levels: 57.9% self-report that they are “A” students and more than half report earning a score of over 1200 on the SAT. In addition, 65.1% of this sample report a family income of more than \$40,000 per year. While the demographics of this data set do not fairly represent college going students overall, the consistency of their responses on the College Board’s Admitted Student Questionnaire are still of considerable interest. Irrespective of differences in the weighing of college choice factors that may emerge due to differences in race/ethnicity, academic achievement level and socio economic status, the link between student ratings and their subsequent enrollment behavior is still of interest. One critical purpose of survey instruments like the Admitted Student Questionnaire is to determine what factors matter most in college decision-making. If student importance ratings in general do not match their enrollment behavior then the results of self-report surveys for this purpose are not particularly revealing.

Data Collection

The ASQ survey procedures include a standard method for collecting data as recommended by the College Board. Participating institutions mail survey instruments pre-printed with their institutional logo along with an accompanying cover letter to selected students some time between May and June. Most participating institutions prescribe to a May 1 reply date for admissions and are aware of students who will be enrolling/non-enrolling for the upcoming fall term. Thus, student respondents are surveyed in the spring of their senior year of high school – after they have been notified

of admission and financial aid, after they have made their college choice decision and while the decision-making process is still fresh in their minds.

The vast majority (85%) of participating campuses send the survey to all admitted students. The remaining campuses select a representative sample from both enrolling and non-enrolling groups. Students who complete the survey are instructed to return it in a sealed envelope to a campus representative. More than one-half of the participating campuses conduct a follow-up mailing to improve the response rate.

Analyses

Analysis of Internal Consistency

The 20 college choice items included on the survey were grouped into six conceptual factors including Academics, Service Expectation, Athletics, Cost, Student life and Location. These factors were examined and compared to the college choice literature to establish face validity. The factors were then tested for internal reliability using Cronbach's Alphas. The factor Cost was not included in the analysis in that it includes only one item. The alpha values yielded for the five conceptual factors using the institutional ratings of enrolling students are as follows: Academics .79, Service Expectation .67, Athletics .74, Student Life .72, and Location of Campus .67.

[Insert Table 3 here]

Data Analyses

Paired sample t tests ($p \leq .01$) were used to determine whether there are significant differences between the importance ratings that enrolling students assign to college choice factors in general. Paired sample t tests ($p \leq .01$) were again used to

determine whether there are significant differences between the institutional ratings that students assign to these six conceptually-derived factors. Finally, bivariate correlations were calculated on the means from both importance and institutional ratings. These analyses were used to determine what the relationships are between the importance ratings that students assign to the six college choice factors in general and their institutional ratings of the campus in which they chose to enroll on these same factors.

Results

The mean importance of college choice decision-making factors revealed that students rated Academics ($\underline{M}=1.24$), Service Expectation ($\underline{M}=1.38$) and Cost ($\underline{M}=1.42$) to be the three most important college choice decision-making factors respectively (1=Very Important, 2=Somewhat Important, 3=Not Important). These students rated Location ($\underline{M}=1.67$), Student Life ($\underline{M}=1.81$) and Athletics ($\underline{M}=2.21$) relatively less important in the college decision-making process. The paired-samples t tests indicate that all of these factors were rated significantly different by students. Most of the paired comparisons yielded medium to large effect sizes. Thus, although the overall mean ratings demonstrate that enrolling students considered most of these factors at least somewhat important in their selection of a college campus, there were significant differences in the importance ratings with most comparisons (10 out of 15) reflecting moderate to large effect sizes.

[Place tables 4]

Enrolling students also rated the surveying campus on how that institution compared to other institutions the student considered on the six college choice decision-making factors. Students rated the surveying campus using the following rating scale:

1=Best, 2=Better than Most, 3=About the Same, 4= Poorer than Most, 5=Worst, 0=Can't Compare. Student responses of 0 (Can't Compare) were dropped from the analyses. Enrolling students rated Academics (\underline{M} =2.17), Location (\underline{M} =2.22), and Service (\underline{M} =2.24) to be the three highest institutional ratings of their selected campuses. Institutions were rated relatively lower on Student Life (\underline{M} =2.41), Cost (\underline{M} =2.50), and Athletics (\underline{M} =2.62). The paired-samples t tests showed that all but one of these paired comparisons differed significantly. The effect sizes yielded in all of these paired comparisons, however, were small except the pairing of Academics and Athletics which yielded a moderate effect size. Thus, enrolling students who have committed themselves to a campus choice tend on average to rate that institution "better than most" on all college choice factors, with only small differences between their ratings.

[Place tables 5]

Correlation coefficients were computed to determine the relationships between the ratings of enrolling students on the importance of college choice factors generally and their ratings of selected institutions on these same factors. Controlling for Type I error across the six correlations, a stringent p -value of less than .001 was required for significance. The results of the correlation analyses show that all six correlations were significant. The correlation values between the six college choice factors in general and the respective institutional ratings on these same factors, however, were small (below .350). These results indicate that there are only small positive relationships between student ratings of college choice factors in general compared to their institutional ratings of their selected college.

[Place Table 6 here]

Discussion

The key results of this study include, first of all, the fact that there was little variance in the institutional ratings that enrolling students assigned to their selected campuses based on college choice factors. Secondly, the overall results of this study reflect a disconnect between what enrolling students report as important in general when they select a college campus and what factors are implicitly important based on their enrollment behavior. These findings are discussed below in the context of related decision-making theory.

Institutional Ratings

As noted above, the mean ratings that enrolling students assigned to their selected institutions on college choice factors varied only slightly (range $M=2.17$ to $M=2.62$). Although the differences in the ratings of these college choice factors were significant, the effect sizes were very small. Thus, enrolling students tended on average to rate the college they selected “better than most” on all college choice factors included in this study.

In considering these findings within the context of related decision-making research, Payne et al. (1993) note that once individuals have irrevocably committed themselves to a course of action, the need to account for the decision will often motivate a rigid, defensive, cognitive effort aimed at explaining why the decision was correct. Given that college choice decision-making takes place within a social setting, there may be any number of individuals and groups that influence or concern themselves with the decision-making process and/or the outcome of the decision. Enrolling students, having made a decision regarding their college choice, are in the position of accounting for both

the decision-making process and the actual decision. The survey instrument itself may produce a situation where students perceive a need to account for their decision-making. Thus, given that the ASQ survey requests enrolling students to rate the institution to which they have decided to enroll, we might expect students to describe that institution through “rose colored glasses.” That is, their ratings of the institution may be positively biased in an attempt to socially justify their decision.

In fact, the results of this study reveal that although students did not rate the institutions they chose to attend “best” within their choice set, nevertheless, they still rated these institutions “better than most” on all college choice factors assessed. That is, having committed themselves to a college campus and being in the position of needing to account for this decision-making by completing the ASQ survey, students may have rated that institution high in all areas based on a perceived need to justify their choice. This finding is consistent with other research on college choice which suggests that students reduce “dissonance” by considering the college they have selected as their best possible choice (Marshall & Delman, 1984).

The fact that there is very little variance between these institutional ratings on college choice factors poses an important dilemma for recruitment practitioners. The tendency of enrolling students on average to rate the institution they select high on all college choice factors leaves campuses with little empirical evidence with which to support marketing decisions that emphasize one institutional characteristic over another. One alternative is to focus equally on all institutional characteristics with the hope that prospective students will focus on those that are most important in their individual decision-making. A more proactive option would be to disaggregate the data to

determine whether specific market segments better distinguish between those institutional features which drive college decision-making and those that do not. More research at a disaggregate level is clearly needed to clarify institutional features that matter most in college decision-making among various groups of prospective students.

Disconnect Between Importance and Institutional Ratings

The disconnect between student espoused values in college choice decision-making and their subsequent enrollment behavior is reflected in the results of two sets of analyses. First, the mean ratings of enrolling students on college choice factors in general suggest that on average, they consider issues related to Academics, Service and Cost to be the most important in their college decision-making. The paired-sample *t*-tests of these ratings reveal that the differences between these importance ratings are significant and the effect sizes are mostly moderate to large. The institutional ratings of enrolling students on these same college choice factors, however, although reflecting only small effect sizes between them, suggest a different ranking of priorities. These ratings suggest that on average enrolling students rate institutions they elect to attend highest on Academics, Location and Service. Second, and more telling of this disconnect, the correlation coefficients between the importance ratings and the institutional ratings on these factors are low (range $r = .189$ to $r .350$). In other words, the importance ratings that students assign to college choice factors generally do not match the institutional ratings they assign to their selected college campuses on these same factors.

Complex Decision-Making

Researchers exploring complex decision-making have noted several problems that are likely applicable to college choice decision-making and may be useful in

understanding the disconnect apparent in these findings. Payne et al. (1993), for example, note that several factors lead to an increased complexity in human decision-making and the use of simplified decision heuristics. Among them is the number of alternatives available in any given decision, the number and complexity of the attributes of alternatives, the amount of processable information available to the decision-maker and the limited time available in which to make decisions (Payne et al., 1993). Each of these decision-making issues is present in the college selection process.

First of all, the complexity of the decision-making that students face when selecting a college campus is profound. A large proportion of the students in this sample (67%) submitted applications to three or more institutions, and 55.6% were admitted to three or more campuses. These findings are similar to other studies relating to the number of colleges students consider in their decision-making process. Specifically, using data gathered through the Cooperative Institutional Research Program (CIRP) over the past 30 years, Astin et al. (1997) noted that students today are applying to more colleges as a group than in the past. Based on the increased number of college options considered, the complexity of the college decision-making process has likely increased for some students.

Payne et al. (1993) note that there is ample evidence gathered over the past 15 years to support the notion that individual choice strategies are sensitive to the number of available alternatives (Biggs et al., 1985; Billings & Marcus, 1983; Klayman, 1985; Olshavsky, 1979; Onken et al., 1985; Payne, 1976; Payne & Braustein, 1978; Payne et al., 1993, Shields, 1980). According to Payne et al. (1993), as the number of available alternatives increases, decision-makers are more likely to employ simplifying decision

heuristics in order to minimize the cognitive resources needed to make the decision. Given the increase in complexity in college decision-making for many students, it is reasonable to suspect that they may have difficulty weighing and reporting the relative importance of various decision-making factors as well as other aspects of the college decision-making process. This difficulty could lead students to assign relative importance weights to college choice factors that do not match their enrollment behavior.

Payne et al. (1993) also report that the decision-making process increases in complexity as the number of attributes or dimensions of information on decisions increases (Hendrick et al., 1968; Jacoby et al., 1974; Keller & Staelin, 1987; Malhotra, 1982; Payne et al., 1993; Sundstrom, 1987). The findings of most of these studies support the notion that after a certain level of complexity, decision-makers experience an information overload, and there is a decrease in decision quality (Payne et al., 1993). This point is amplified by the related finding that not all available information is processable by consumers (i.e., college decision-makers) (Payne et al., 1993).

Based on the number of institutions that a large proportion of the students in this data set considered, it is reasonable to presume that throughout the decision-making process they were inundated with information regarding various aspects of each campus (Jorgensen, 1994). In addition, based on the college choice literature noted above, it is clear that prospective students evaluate a wide range of factors in selecting a college campus. There is little doubt that information regarding a broad set of relevant attributes of various college options was available to this group of prospective student consumers. The extent to which this information was acquired and processed, however, likely varied. Therefore, it is reasonable to conclude that many of the prospective students in this data

set experienced an information overload and were unable to effectively compare and contrast colleges within their choice set. This difficulty in processing the large amount of available information may have led to the disconnect between what factors students espoused as important in the college selection process and those that are presumed to be important based on their enrollment behavior.

Adding to these complexities in college decision-making is the reality that students enter and conclude the search and choice phase within a relatively short period of time. Hossler et al. (1989) report that the college decision-making process, although varying greatly by individual students, generally occurs between the late spring of the junior year through the early spring of the senior year of high school. Thus, for some students, the college search and decision process occurs within one calendar year. Given these circumstances, it is reasonable to presume that many of the students in this data set experienced decision error (Payne et al., 1993) and that their later reporting was a distorted account of their college decision-making process.

Various strategies have been noted in which decision-makers cope with time pressure. These include accelerated information processing and filtration or perceptual narrowing (Payne et al., 1993). Decision-makers employ accelerated information processing when they consider all available information at a faster pace. Filtration or perceptual narrowing occurs when decision-makers narrow the range of possibilities and factors considered. Thus, given that some of the prospective students in this data set likely made their college selection under some time pressure, it is reasonable to presume that they may have also employed heuristics to simplify the decision-making process. These heuristics may have led some students to simplify their decision-making in a way

that resulted in their deciding to attend a college that does not fully match their espoused values.

Decision-Making Theory

There have been various conceptual frameworks and theories proposed to explain how individuals manage complex decisions. Among them are Herbert Simon's concepts of bounded rationality and satisficing (March & Simon, 1958), as well as the concept of espoused theory versus theory in use as proposed by Argyris and Schön (1974). These frames provide a useful means of understanding human decision-making behavior in general and may also be applied to the findings of this study.

Bounded rationality. Herbert Simon's ideas relating to information processing have been very influential in decision-making theory (Scott, 1998). In general, bounded rationality relates to the notion that individuals are limited in their capacity to consider all available options in decision-making (March & Simon, 1958). The options themselves are too numerous and the information related to each so extensive that it is impossible to incorporate it all into the decision-making process. Thus, individuals enter the decision-making process bounded by a set of "givens" that help determine the constraints within which decision-making can take place (March & Simon, 1958). The emphasis in this approach is that individuals rely on decision-making heuristics and routines as a means of responding to complexity and uncertainty.

The concept of bounded rationality, as applied to these findings, would purport that this disconnect in student ratings is due to the fact that students enter the college selection process hampered by certain factors which constrain their options. That is, students enter the college choice process with the knowledge that their academic

achievement level, socioeconomic status, and other factors impose certain limitations on their final college selection. This theory would argue that very few students are in the position to seriously consider a wide range of college options and even these students enter the selection process with some set of criteria that narrow their choices at the outset. Although students may theoretically consider some college choice factors more important than others, their decision-making will ultimately occur within the context of constraints that are related to their particular circumstances. Thus, their behavior may reflect a different set of priorities than their general ranking of college choice factors.

Satisficing. One decision-making heuristic proposed by Simon is that of *satisficing* (March & Simon, 1958). Satisficing refers to the idea that in some instances rational decision-makers seek to achieve a result that is “good enough” although not necessarily the “best” within their choice set. According to this decision heuristic, decision-makers may seek to make a choice that fits within the multiple constraints in which they find themselves rather than the best possible choice.

Many of the students in this sample selected a campus within their choice set that was “better than most” with respect to location and fit within their particular set of decision constraints even though it was not the campus they considered “best.” In short, these students may have satisficed. This interpretation is supported by the mean importance ratings that enrolling students assigned to college choice factors generally. These ratings suggest that all of these factors were considered, to varying degrees, “very important,” except the factor Athletics which was rated “somewhat important.” The institutions they selected, however, were rated “better than most”, with only small differences between the ratings. Thus, consistent with this theoretical framework, many

enrolling students, while considering each of the college choice factors in general very important, settled for colleges that met their particular decision constraints.

Espoused Theories vs. Theories In Use

Another theoretical framework that seeks to explain individual behavior which is divergent from self-reported values is that of espoused theories versus theories in use (Argyris & Schön, 1974). This theory proposes that individuals communicate to others their espoused theories which are intended to explain their behavior. Their behavior, however, is actually governed by their theories in use. These individually adopted theories in use may or may not be compatible with an individual's espoused theories. Although individuals may explain their behavior based on a set of principles and theories, their behavior may imply a much different set. This theory also proposes that individuals may be completely unaware of this incompatibility. Thus, in order to explain an individual's theories in use, one must infer from observed behavior (Argyris & Schön, 1974). As applied to these findings, this theory would purport that student importance ratings reflect student espoused values regarding college choice. Their theories in use, however, may be better revealed by their ratings of selected institutions and/or those factors that distinguish whether or not they enrolled.

Conclusion

Regardless of which theory is used to explain this disconnect in ratings, the importance of these findings rests in the disconnect itself. These findings reveal that students do not necessarily select colleges they consider "best" in all categories they consider important in the college selection process. Thus, institutional leaders and college choice researchers are well advised to proceed cautiously with respect to the

findings of student self-report data. Although student self-report importance weights are useful, they may not be the most important factors driving the college choice decision. In fact, students may not be able to report with complete accuracy the relative importance of various college choice factors in their decision-making. In addition, their ratings of the institution they select are also suspect due to the tendency to socially justify decisions and view selected campuses through “rose colored glasses.” Thus, efforts should be made to triangulate data such that comparisons can be made regarding espoused values and those that predict behavior.

Implications for Research

The findings of this research have several implications for future studies. First, these data could be used to test whether students are more consistent in their importance and institutional ratings when they consider a smaller choice set. Specifically, these data could be tested to examine whether a larger number of applications submitted to college campuses results in a lower correlation between the student importance ratings of college choice factors in general and institutional ratings of selected colleges on these factors. This analysis could determine whether students experience a larger disconnect between espoused values and enrollment behavior when they consider a larger choice set. Such an analysis would shed further light on how different students navigate the college decision-making process.

Secondly, the findings of this research are reported at an aggregate level (e.g., enrolling versus nonenrolling students). More specific analyses regarding how different subsets of students weigh college choice factors and rate institutions in which they opt to enroll are warranted. There is evidence in the literature, for example, that students vary in

their college decision-making based on various factors including race, academic achievement level and socioeconomic status. Follow-up research regarding whether students vary in their ratings of importance of college choice factors in general, and their institutional ratings of colleges in which they choose to enroll would add important dimensions to the current literature base. In addition, follow-up studies exploring these issues employing qualitative methods would contribute to our understanding of this complex decision-making process.

Finally, it is important to reiterate that the college decision-making process is very complex and poses significant challenges to researchers. Individual students may, for example, consider many factors in their decision-making that are unique to their own particular circumstances. For many prospective students, the decision-making process may not be one in which they can accurately report their values and decision trade-offs. In fact, there is likely a normative dimension to college decision-making that studies utilizing a rational lens will neglect. In addition, many seemingly disparate college choice factors may in fact interact with one another, adding another element of complexity to the data. Clearly, more research using various methods of inquiry is needed to better understand this decision making process and to inform enrollment management practice.

APPENDIX**SURVEY**

The ASQ Survey is available through the College Board

The College Board
Bradley J. Quinn, Executive Director
Admissions and Enrollment Services
45 Columbus Avenue
New York, New York 10023-6992
1 (212) 713-8077

www.collegeboard.org

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Table 1
Race/Ethnic Background
(N=68,428)

Race/Ethnicity	Frequency	Percent
Am Indian/ Native	306	.4
Asian/Pacific Islander	4,045	5.9
Mexican American	1,454	2.1
Puerto Rican	509	.7
Other Hispanic	1,339	2.0
Black/African American	3,245	4.7
White	54,540	79.7
Other	1,961	2.9
Missing Information	1,029	1.5
Total	68,428	100

Table 2
Parental Income

(N=68,428)

Parental Income	Frequency	Percent
Below \$30,000	9,728	14.2
\$30,000 - \$39,999	5,311	7.8
\$40,000 - \$59,999	12,393	18.1
\$60,000 - \$79,999	9,811	14.3
\$80,000- \$99,999	6,735	9.8
\$100,000 & Over	13,918	20.3
Missing Information	10,532	15.4
Total	68,428	100

Table 3
Coefficient Alpha Values of Institutional Ratings
Based on College Choice Factors
Enrolling Students
(N=68,428)

Factor	Items	Label	Cronbach's Alpha
1	Quality of faculty, Quality of majors of interest to you, Overall academic reputation, Quality of academic facilities (library, labs, computers, etc.)	Academics	.79
2	Variety of Courses, Access to faculty, Concentration on undergraduate education	Service Expectation	.67
3	Prominent intercollegiate athletics, Athletic programs in which you would like to participate	Athletics	.74
4	Cost of attendance. How much you and your family would have to pay after financial aid (if any) is applied to total college costs	Cost	N/A
5	Availability of extracurricular activities (clubs, debate, drama, music, etc.), Availability of religious activities, Quality of social life, Quality of on campus housing, Chance to be with students from different backgrounds	Student Life	.72
6	Access to off campus cultural and recreational activities, Attractiveness of campus, surroundings (neighborhood, town or city), Part of the country in which the college is located, Ease of getting home	Location of Campus	.67

Table 4
Paired T-Tests of Importance Ratings
Enrolling Students

Pairs	Mean	Sd. Dev.	Mean Diff.	t	N	Sig.	d
Academics and Service	1.24 1.38	.27 .37	-.14	-101.61	65,979	.0000	.40
Academics and Athletics	1.24 2.21	.27 .69	-.97	-347.86	66,916	.0000	1.34
Academics and Cost	1.24 1.42	.27 .64	-.18	-71.33	66,917	.0000	.28
Academics and Student Life	1.24 1.80	.27 .39	-.56	-353.64	66,184	.0000	1.37
Academics and Location	1.24 1.67	.27 .39	-.43	-260.06	66,189	.0000	1.01
Service and Athletics	1.38 2.21	.37 .69	-.83	-285.32	66,520	.0000	1.11
Service and Cost	1.38 1.42	.37 .64	-.04	-16.37	66,467	.0000	.03
Service and Student Life	1.38 1.80	.37 .39	-.42	-250.71	65,805	.0000	.98
Service and Location	1.38 1.67	.37 .39	-.29	-162.88	65,773	.0000	.64
Athletics and Cost	2.21 1.42	.69 .64	.79	224.65	67,483	.0000	.86
Athletics and Student Life	2.21 1.80	.69 .39	.40	147.28	66,771	.0000	.57
Athletics and Location	2.21 1.67	.69 .39	.54	187.49	66,768	.0000	.73
Cost and Student Life	1.42 1.80	.64 .39	-.38	-138.08	66,734	.0000	.53
Cost and Location	1.42 1.67	.64 .39	-.25	-91.69	66,759	.0000	.35
Student Life and Location	1.80 1.67	.39 .39	.13	84.52	66,175	.0000	.33

Importance Rating Scale: (1=Very Important; 2=Somewhat Important; 3=Not Important)

Table 5
Paired T-Tests of Institutional Ratings Enrolling Students

Pairs	Mean	Sd. Dev.	Mean Diff.	t	N	Sig.	d
Academics and Service	2.17 2.23	.63 .63	-.05	-23.30	48,013	.0000	.11
Academics and Athletics	2.18 2.64	.63 .76	-.45	-111.75	40,964	.0000	.55
Academics and Cost	2.18 2.49	.63 1.08	-.30	-55.64	51,611	.0000	.24
Academics and Student Life	2.17 2.41	.63 .56	-.24	-80.08	33,722	.0000	.44
Academics and Location	2.17 2.22	.63 .63	-.05	-16.20	43,418	.0000	.08
Service and Athletics	2.24 2.64	.63 .76	-.39	-95.87	40,035	.0000	.48
Service and Cost	2.24 2.49	.63 1.08	-.24	-45.27	49,537	.0000	.20
Service and Student Life	2.23 2.41	.63 .56	-.18	-64.25	33,464	.0000	.35
Service and Location	2.23 2.22	.63 .63	.00	2.044	42,444	.0410	.01
Athletics and Cost	2.65 2.49	.77 1.07	.15	27.58	43,755	.0000	.13
Athletics and Student Life	2.62 2.42	.74 .56	.20	52.09	31,171	.0000	.29
Athletics and Location	2.64 2.24	.76 .63	.39	96.11	38,076	.0000	.49
Cost and Student Life	2.47 2.42	1.05 .55	.05	9.02	34,704	.0000	.05
Cost and Location	2.49 2.23	1.08 .63	.25	47.97	46,337	.0000	.22
Student Life and Location	2.41 2.21	.56 .63	.19	71.67	32,807	.0000	.40

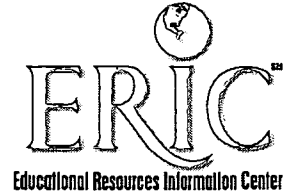
Institutional Rating Scale: (1=Best, 2=Better than Most, 3=About the Same, 4=Poorer than Most, 5=Worst; 0=Can't Compare)

Table 6
Correlations between Importance and Institutional Ratings
Enrolling Students

	Importance Academics	Importance Service	Importance Athletics	Importance Cost	Importance Student Life	Importance Location
Institution Academics N	.240 55,776					
Institution Service N		.280 51,487				
Institution Athletics N			.350 45,313			
Institution Cost N				.189 60,039		
Institution Student Life N					.335 35,547	
Institution Location N						.340 47,949



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