Business Student Satisfaction, Intentions and Retention in Higher Education: An Empirical Investigation

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ABSTRACT

This paper focuses on the relationship between business student satisfaction and their intentions to stay in a college or university. Using empirical data and a conceptual model, the results of this study indicate that students’ college experience is positively related to their satisfaction and intentions to stay at college or university. It is accepted that educational institutions have many customers: students, staff, faculty, alumni, donors, and others. Furthermore, the increased turmoil in the higher education marketplace may encourage higher educational institutions to utilize a more consumer-oriented philosophy in delivering their services. Although this study did not specifically investigate the link between consumer-oriented educational institutions and their student retention, developing satisfied customers is consistent with this principle. One of the implications of this study is that those educational institutions that understand consumer-oriented principles may have a better chance of satisfying the wants and needs of their students more effectively. Additional implications for higher educational institutions are discussed.
INTRODUCTION

Recruiting students has been always an important activity for the higher educational institutions. However, the rapid expansion of colleges and universities, significant increases in college education costs combined with demographic shifts in the population may force colleges to think differently about the role of student satisfaction for their survival (Kotler and Fox, 1995). Even though the successful completion and enhancement of students’ education are the reasons for the existence of higher educational institutions, college administrators tend to focus disproportionately more time on programs for attracting and admitting students rather than enrollment management. Similar to the importance of satisfying customers to retain them for profit-making institutions, satisfying the admitted students is also important for retention. It might be argued that dissatisfied students may cut back on the number of courses or drop out of college completely. Hence, the satisfaction→ intention→ retention link for students in higher education should be studied and carefully managed. Statistics indicate that more than 40% of all college entrants leave higher education without earning a degree, 75% of these students drop out in the first two years of college, and institutions can expect that 56% of a typical entering class cohort will not graduate from that college (Tinto, 1975 & 1993). More recent statistics indicate that 26.4 % of the freshmen do not return for the following fall semester and 46.2 % of the students do not graduate from college (Reisberg, 1999). Also, higher educational institutions that are heavily populated by commuter students have higher dropout rates while institutions with strong residential dormitory programs have lower drop out rates (Baldrige, Kemerer, and Green, 1982).

This paper focuses on the student satisfaction and intentions to stay or leave the college or university by analyzing a number of factors that are assumed to impact these areas. Early studies focused on academic ability as a predictor of retention and typically found that academic performance explained no more than half of the variance. Some studies have investigated student commitment as involving a firm resolve to complete a college degree and strong attachment to a particular institution.
Other studies concentrated on the social adjustment of students to academic life and their inner turmoil of self-worth. To the best of our knowledge, studies that have examined student retention in higher educational institutions from a more customer-oriented perspective are scarce.

Therefore, the objective of this study is two fold. First, the role of student satisfaction is investigated in higher educational institutions. Based on the changing marketplace for these institutions, college administrators and researchers need to focus their attentions on student satisfaction strategies to accomplish organizational objectives. Second, using empirical data and a conceptual model, we test several hypothesized relationships. In this part of the study, we focus on testing a modified version of the Student Satisfaction and Retention Model (Keaveney and Young, 1997). This modified model incorporates a comprehensive set of independent variables and self-reported experiential assessments to predict experience, which in return is related to student satisfaction, intentions and retention.

**LITERATURE REVIEW**

*Student Retention and Satisfaction in Higher Education Institutions*

The environment that higher educational institutions have operated in has changed dramatically over the last several decades. Tuition-free state colleges and universities are rapidly raising tuition charges as the federal and state student aid has dropped significantly. Technology has improved the range of teaching and learning tools while further raising the cost of higher education. All these issues, coupled with the huge and diverse American higher educational system, which includes institutions striving to maintain or increase enrollments, improve program quality and increase donations and grants, place higher education institutions into a marketplace where significant challenges lie ahead. Even though satisfying the wants and needs of customers is not a new organizational concept for these institutions (Cutlip, 1971), customer orientation has been underemphasized in college and universities compared to the profit-oriented organizations. However, the increased turmoil in the higher education marketplace may force the colleges and universities to
utilize a more customer-oriented philosophy in delivering their services, and those who understand these principles will have a better chance of achieving their objectives more effectively (Kotler and Fox, 1995).

It is accepted that educational institutions have many customers: students, staff, faculty, alumni, donors, and others. A drop in student retention without a compensating enrollment increase impacts all the above customers. Hence, the need to manage the college retention process from student entrance to graduation has become increasingly important (Seymour, 1993). Research consistently demonstrates that it costs more to attract a new customer that it does to retain one (Gemme, 1997), which makes customer retention a crucial factor for the success of every business. Due to the economics of retention (Reichheld, 1996) and to insulate the organization from competition (Anderson and Sullivan, 1993), colleges, universities and businesses need to emphasize extending the duration of the relationship with the end users. Specifically, small increases in retention rates can have a dramatic effect on the profits of a company because of the cost of retaining an existing customer is much less than the cost of acquiring a new customer. Also, there are efficiencies in dealing with existing customers. For example, a major symphony orchestra discovered that it costs 67 cents on the dollar to attract a new subscriber, but only 7 cents on the dollar to entice an existing two-year subscriber to buy a third-year concert season subscription (Zemke, 2000).

Although we are not aware of a similar study for higher educational institutions, we anticipate that the results of this study will reflect the importance of retaining students. Similar to the efficiencies in firms, increased student retention not only would increase the lifetime tuition revenues from the students but also would provide some synergy for recruitment through low-cost word of mouth recommendation promotion activities. In addition, the probability of retaining a student at a particular college or university increases if the student stays longer at that institution, because of the higher student transaction cost to switch to a competing institution. Specifically, the length of
duration increases the probability of losing more credit hours upon transfer to a different higher educational institution (Wetzel, O’Toole, and Peterson, 1999).

**BACKGROUND OF THE MODEL**

The majority of the existing customer management research has not focused on methodologies for modeling the customer life cycle. A recent study by Bolton (1998), explores the relationships between customer retention, intentions and satisfaction. This study concludes that changes in customer satisfaction can have important financial implications for the organization because lifetime revenues from an individual customer depend on the duration of his/her relationship, as well as the dollar amount spent across billing cycles. Also, according to Seymour (1972), developing many happy satisfied customers, whether they are students, parents of students, alumni, or industry employer, should be a primary goal of higher education. Thus, focusing on enhancing the customer satisfaction at colleges and universities is crucial in developing customer value.

Earlier student retention studies in higher educational institutions have focused on academic ability as the predictor of retention and typically found that academic performance explained no more than half of the variance in dropout rates (Pantages and Creedon, 1978). Also, a growing body of research suggests that the social adjustment of students may be an important factor in predicting persistence (Gerdes and Mallinckrodt, 1994; Mallinckrodt, 1988). These studies argue that integration into the social environment is a crucial element in commitment to a particular academic institution (Spady, 1970; Tinto, 1975). In addition to actual adjustment, researchers found that expectations formed before enrollment about anticipated adjustment were also important predictors of attrition (Baker, McNeil and Sirky, 1985). Tinto (1982) formulates a student integration theory of persistence or retention based on the relationships between students and institutions. He argues that retention involve two commitments on the part of the student. The first commitment is the goal commitment to obtain a college degree, and the second one is the decision to obtain that degree at a particular institution (institutional commitment). Overall, the combination of the student’s goal and institutional
commitments affected retention at a particular institution. Under this perspective, it is important to match the student’s motivation and academic ability and the institution’s ability to meet the student expectations.

**Student Satisfaction and Retention Model**

According to Ajzen and Fishbein (1980) attitudes predict behavior intentions, which in turn predict actual behavior. Using this theoretical support, the student satisfaction and retention model assumes that student satisfaction leads to intentions to stay which in turn leads to student retention (Keaveney and Young, 1997). Different from the previous research studies, this model incorporates a comprehensive set of independent variables that are hypothesized to predict student satisfaction and retention. It also incorporates a set of self-reported outcome assessment variables, which provide information about students’ evaluations of the programs offered by a university beyond satisfaction and retention. Therefore, it is argued that the student satisfaction and retention model is a more comprehensive retention model which considers the impact of a unique set of variables to explain student retention for higher educational institutions (see Figure 1).

Insert Figure 1 here

**RESEARCH HYPOTHESES**

In this study, we attempt to test a part of the model and focus on the links between Faculty, Advising Staff, and Classes. We consider these factors critical in influencing students’ experience with college, which in turn impacts student satisfaction and intentions to stay or leave the higher educational institution. Therefore, a modified model is shown in Figure 2.

Insert Figure 2 Here

Attracting students, processing their applications, and encouraging admitted students to enroll are extremely important activities, but it is crucial to optimize students’ experience at the school by treating them as partners from enrollment to graduation (Kotler and Fox, 1995). Thus, we argue that faculty performance, advising staff performance and classes are three of the most important variables
that influence students’ college experience and overall satisfaction. It is also argued that satisfaction influences the student’s intentions to stay or leave the institution. It is known that satisfaction level is determined by the difference between the service performance as perceived by the customer and what the customer expects (Parasuraman, Zeithaml, and Berry, 1986). Although there are a significant number of variables that could influence students’ perceived performance and hence satisfaction/dissatisfaction, since the core services provided by the institution are usually instruction, advisement and career planning, we argue that faculty performance, classes, and advising staff performance are the major factors that could influence students’ satisfaction/dissatisfaction, which could lead to the intent to drop a class or to leave the school. The first three hypotheses test the relationship between faculty, classes, advising staff, and students’ partial college experience. Therefore, the following three hypotheses are formulated:

H1: Faculty performance (i.e., understanding, accessibility, professionalism, reliability and feedback) will be positively related to the student’s college experience.

H2: Advising Staff performance (i.e., accessibility, reliability, willingness to help, and understanding) will be positively related to the student’s college experience.

H3: Classes (i.e., cognitive development, career programs, and business skills) will be positively related to the student’s college experience.

Next, we hypothesize the relationships between “part of the student’s college experience” (influenced by the faculty, advising staff, and classes) and student’s satisfaction with the college or university. Also, it is argued that the students who have positive college experiences will be more satisfied than those students who did not have a positive college experience. Thus, satisfaction will influence the student’s intentions to stay or leave the institution. Hence, three hypotheses are given below.

H4: Student experience with college will be positively related to student satisfaction.

H5: Satisfaction will be positively related to intentions to stay.
H6: Students who have a positive college experience will have higher intentions to stay in college than students with a negative college experience.

**METHODOLOGY**

*Data collection*

A modified version of the questionnaire developed by Keaveney and Young (1997) was administered to approximately 160 undergraduate business students at a state university in south central Pennsylvania. Questionnaires were distributed in classes and students were encouraged to participate by rewarding them with extra credit points for participation. A total of 143 usable questionnaires were obtained. The sample consisted of 95 males and 48 females. Seventy percent of the students were less than 25 years old, six percent were between the ages of 25 to 30 years old and 24 percent of the students were more than 30 years old.

*Measures*

The dimensions of the student satisfaction and retention model were measured with assessments using a 5-point Likert scale. For example, questions that focused on faculty understanding included: 1) Faculty rarely respond promptly to students’ needs, 2) Faculty seldom understand what student needs are, 3) The behavior of faculty usually instills confidence in me, 4) Faculty seldom act as though they understand my specific needs. Similar to the Keaveney and Young (1997) study, the following constructs were used to measure the hypothesized effects in the study.

*Dependent variables*

*Satisfaction*—overall satisfaction and intentions to stay variables were obtained from the satisfaction literature (Oliver, 1997).

*Student Partial College Experience*—three constructs were adopted from the education literature on student retention. Cognitive development is a measure of students’ personal learning such as improved problem solving ability. Career progress measures the degree to which students believe
that programs help them to get ahead in their life career plans. Business skills development measures
the degree to which students believe they are learning the skills they need to succeed in business.

**Intentions**—overall satisfaction and intentions to stay variables were obtained from the
satisfaction literature (Oliver, 1997).

**Independent variables**

The student satisfaction and intentions model incorporates the 18 independent variables, which
were derived from the education, service quality and satisfaction literature. These variables represent
six higher order dimensions (faculty, staff advising, classes, student partial college experience,
satisfaction and intentions). Table 1 provides correlation matrix and means.

**Insert Table 1 Here**

**ANALYSIS AND RESULTS**

**Cronbach alpha**

Although not as strong as one might prefer, the Cronbach alpha reliabilities for the five student
satisfaction model scales were adequate for this sample: faculty scale (understanding, \( \alpha=0.70 \); access,
\( \alpha=0.79 \); professional, \( \alpha=0.81 \); reliability, \( \alpha=0.76 \); feedback, \( \alpha=0.71 \)); advising staff scale (accessible,
\( \alpha=0.83 \); reliable, \( \alpha=0.88 \); willing to help, \( \alpha=0.83 \); responsive, \( \alpha=0.68 \); understanding, \( \alpha=0.77 \)); classes
scale (real-world relevance, \( \alpha=0.86 \); course scheduling, \( \alpha=0.84 \); project/cases, \( \alpha=0.75 \)); student partial
college experience (SPCE) scale (cognitive development, \( \alpha=0.86 \); career progress, \( \alpha=0.83 \); business
skills, 0.83); satisfaction scale (\( \alpha=0.83 \)); and the intentions scale (\( \alpha=0.73 \)). Due to the size of the
sample and number of variables in the model, a path diagram based on observable factor scores was
used to conduct the analysis for the study.

**Factor Scores**

Factor scores were created for each of the six dimensions and used as input for the path
diagram. That is, a factor score was created for Faculty by developing a factor score for each of the
factor components of the Faculty construct (i.e., understanding, accessible, professional, reliability, and providing feedback). These factor scores were then used to create one factor for Faculty. Similarly, one factor score was created for Advising Staff by developing a factor score for each of the factor components of the Advising Staff construct (i.e., accessible, reliable, willing to help, responsive, and understanding). These factor scores were then used to create one factor for Advising Staff. Also, one factor score was created for Classes by developing a factor score for each of the factor components of the Classes construct (i.e., real-world relevance, course scheduling, and project/cases). These factor scores were then used to create one factor for Classes. In addition, one factor score was created for “Student Partial College Experience” by developing a factor scores for each of the factor components of “Student Experience Construct” (i.e., cognitive development, career program, and business skills). These factor scores were then used to create one factor for student partial college experience. Also, one factor score was created for “Satisfaction” by developing a factor score for each of the components of the satisfaction construct. Similarly, one factor score was created for Intentions by developing a factor score for each of the components of the Intentions construct.

Table 2 reports the univariate statistics and correlations for the items included in the analyses. Before analyzing the hypothesized relationships among the constructs, a second-order confirmatory factor analysis was made of the multi-indicator model used in the investigation. In order to reduce the number of items and factors to six observable variables to conduct the analysis with the sample size of 143 observations, factor scores were developed to measure the Faculty, Advising Staff, Classes, Student Partial College Experience, Satisfaction, and Intention constructs. Also, invariant confirmatory factor analysis was conducted for the model for “high” and “low” student Satisfaction individual grouping. Invariant confirmatory factor analysis was necessary to ensure that when individuals are assigned to the two group “conditions,” the measurement of the construct was invariant between groups. The individuals were placed into one of the two group “conditions,” high Satisfaction group and low Satisfaction group, on the basis of a mean split of the Satisfaction-to-group scores.
Insert Table 2 Here

The results of the path analysis indicate that the model had a good fit with the data ($\chi^2 = 7.00$, $df = 7.0$; $p > 0.43$, RMSEA = 0.001). Invariant path analysis was conducted for the two groups to test whether the model was viewed in the same way (i.e., statistically insignificant) across the two groups—high and low satisfaction. Statistical insignificance would indicate that each group of respondents was viewing the constructs identically. The results of the path analysis indicated that the model was strongly invariant across the two groups ($\chi^2 = 34.19$, $df = 28.0$; $p > 0.19$; GFI = 0.92; CFI = 0.88; RMSEA = 0.067). Strongly invariant means that the $\beta$, $\Gamma$, $\phi$, and $\psi$ matrixes are invariant across groups.

Tests of Hypotheses

Hypothesis 1 predicts that the faculty performance will be positively related to the student partial college experience. As Figure 3 illustrates, the gamma coefficient for the relationship between Faculty and Student Experience is positive and significant ($\gamma_{11} = 0.24$, $t = 3.10$, $p < 0.01$), supporting Hypothesis 1.

Insert Figure 3 Here

Hypothesis 2 predicts that the advising staff will be positively related to the Student Partial College Experience. As Figure 3 illustrates, the gamma coefficient for the relationship between Advising Staff and College Experience is positive but not significant, which does not support Hypothesis 2. The results of this analysis are addressed in the discussion section of this article.

Hypothesis 3 predicts that Classes will be positively related to the student partial college experience. As Figure 3 illustrates, the gamma coefficient for the relationship between Classes and college experience is positive and significant ($\gamma_{13} = 0.26$, $t = 3.05$, $p < 0.01$), supporting Hypothesis 3.

Hypothesis 4 predicts that student partial college experience will be positively related to student Satisfaction. As Figure 3 illustrates, the beta coefficient for the relationship between Student
College Experience and Satisfaction is positive and significant ($\beta_{21} = 0.37$, $t = 4.75$, $p < 0.001$), supporting Hypothesis 4. The direction of this relationship is consistent with the Ajzen and Fishbein (1980) Theory of Reasoned Actions.

Hypothesis 5 predicts that Satisfaction will be positively related to Intentions. As Figure 3 illustrates, the beta coefficient for the relationship between Student Satisfaction and Intentions is positive and significant ($\beta_{23} = 0.35$, $t = 4.51$, $p < 0.001$), supporting Hypothesis 4.

Hypothesis 6 predicts that positive student partial college experience will result in higher satisfaction than will negative college experience. This hypothesis was tested using mean invariant analysis of intentions between the high and the low satisfaction groups with LISREL8.51. An analysis of the means indicated that there was a significant difference between the means of high and low satisfied students for their intentions (means 0.41 high intentions versus –0.12 low intentions, $p<0.001$), which supports this hypothesis.

**CONCLUSIONS AND DISCUSSIONS**

One of the objectives of this study was to investigate the role of satisfaction and intentions on retention by incorporating a number of factors that are assumed to have impact on satisfaction, which, in turn, would influence intentions. Using an analogy from the consumer behavior literature on the importance of customer satisfaction on profit making organizations, it was hypothesized that faculty performance, advising staff performance, and classes would influence students’ academic experience and which in turn would influence their satisfaction. Satisfaction was hypothesized to influence student intentions to stay or leave the higher educational institution. Using a path analysis, the hypothesized effects were tested empirically. We have focused on testing a modified version of the Student Satisfaction and Retention Model (Keaveney and Young, 1997), which incorporated a comprehensive set of independent variables and self-reported experiential assessments to predict experience, which in turn related to the Student Satisfaction and Intentions.
The results indicate that the path coefficients from faculty and classes to students’ partial college experience are consistent with the assumption that these are key factors that influence student partial college experience. Also, the path coefficient from student partial college experience to satisfaction was consistent with Ajzen and Fishbein’s behavioral theory. Similarly, the path coefficient from satisfaction to intentions was consistent with Ajzen and Fishbein’s behavioral theory. In addition, students who have a positive college experience are more likely to be satisfied with the college or university than students who do not have a positive college experience. The results of the analysis indicate that the satisfaction and intentions part of the student retention model supports the Ajzen and Fishbein (1980) Theory of Reasoned Actions. The theory states that attitudes predict behavioral intentions that in turn predict actual behavior. The model posits that student satisfaction or dissatisfaction leads to intentions to stay or quit which in turn leads to student retention or attrition. This theory is consistent with an organization taking the steps to become market oriented to satisfy to wants and needs of its customers. This approach appears to be an appropriate strategy for colleges and universities to implement to address the turmoil in the higher education marketplace. By focusing on antecedents to student retention to increase graduation rates, colleges and universities can align their organizational structure, processes and procedures to address these issues.

This study provided empirical findings to understand student satisfaction and intentions in higher education institutions. Also, using a literature review from education and marketing, this study emphasized the role of satisfaction and customer orientation as envisioned in these institutions. It is recommended in this study that the changing nature of the higher education marketplace encourage college administrators to apply the customer-oriented principles that are used in profit making institutions. We also hope that we have raised enough attention to increase the research efforts in this area. Our overall hypothesis is that satisfied students are necessary to accomplish the goals of higher education institutions.
Philosophically, the student satisfaction concept should not be misinterpreted. Similar to the suggestions made for the non-profit theater industry (Voss and Voss, 2000), given the distinguishing features of the higher education institutions, the value should be based on the long-term interests of students and society and the institutional goals and commitments. It is the quality of the experience and relationship that benefits both a higher education institution and its society. Thus, there is a symbiotic relation between the student, college or university, and society. The society benefits from a strong educational system.

The Advising Staff has been highly promoted as an essential service to provide information and counseling for students, enabling them to proceed through the college or university in an efficient manner. Kotler and Fox (1995) reported that students, who complain and are responded to immediately, even if the response does not come out in their favor, can actually become more loyal than students who pronounce themselves satisfied. One possibility for explaining reason for the non-significant path coefficient from the advising staff performance to student partial college experience in this study comes from Herzberg’s Two Factor Theory (Herzberg, Mausner, and Snyderman, 1967). The theory states that there are two distinct sets of factors for job satisfaction and job performance in organizations. One set, labeled satisfiers or motivators, results in satisfaction when adequately fulfilled. The other set, labeled dissatisfiers or hygiene factors, causes dissatisfaction when deficient. The motivators are typically intrinsic factors; they are part of job content and are largely administered by the employee or (in this case) the student. The hygiene factors are extrinsic factors and are under the control of the supervisor or someone other than the employee or student. The important point here is that Herzberg’s Theory did not define satisfaction and dissatisfaction as being at opposite ends of the same continuum. The opposite of satisfaction is not dissatisfaction but no satisfaction. The opposite of dissatisfaction is not satisfaction but no dissatisfaction.

Based on Herzberg’s Theory, faculty performance and classes are directly related to the outcome from a College Experience and may be considered motivators or satisfiers (e.g., growth and
achievement). On the other hand, Advising Staff performance may be considered similar to hygiene factors or dissatisfiers that may cause dissatisfaction but not satisfaction (i.e., an environmental factor). While, the absence of good Advising Staff performance may lead to dissatisfaction, its presence does not lead to satisfaction, since students may not see it as directly related to the expected outcomes from a college experience. For example, fair and equable rules and polices are expected at a higher educational institution. It is only in the absence of fairness that the student experience dissatisfaction. Consequently, an insignificant path coefficient from Advising Staff performance to College Experience may be interpreted as that students are not dissatisfied with the advising staff’s performance. More studies are needed to examine this issue in greater detail.

This study is only part of an ongoing effort to model student satisfaction and retention. The initial results are encouraging. Our next phase will focus on the retention part of the model. The retention component will take the longest time, since it will require tracking students’ progress through higher education intentions to graduation. Thus, we anticipate periodic reporting of our findings over a five to six year period.

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Figure 1

The Student Satisfaction and Retention Model (SSRM)

Source: Keaveney and Young (1997)
Figure 2

The Conceptual Model—Modified SSRM

FACULTY
- Understanding
- Accessible
- Professional
- Helpful
- Provide Feedback

H1

ADVISING STAFF
- Accessible
- Reliable
- Helpful
- Responsive
- Understanding

H2

STUDENT PARTIAL COLLEGE EXPERIENCE

H3

CLASSES
- Real-World relevance
- Course scheduling
- Projects/cases (skills)

H4

SATISFACTION

H5

INTENTIONS

H6: Comparison of the means of student intentions to stay or level the college or university in a positive versus negative satisfaction group.
Figure 3

Results of LISREL

Path estimates and t-values (the t-values are in brackets)

H6: (MEANS) HSI 0.41 > LSI –0.12, p < 0.0001
Table 1: Pearson Correlation Matrix and Means

| VARS | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | Mean | Std. |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| FUND | 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .023| 1.00|
| FACC | .276| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| FPRO | .209| .400| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .050| .999|
| FREL | .305| .374| .406| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| FFEED| .268| .971| .384| .372| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| FACT | .281| .993| .403| .390| .985| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| ACC  | -128| .101| .030| .055| .093| .098| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| AREL | .260| .692| .291| .369| .744| .718| .055| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| AHELP| -068| .063| .062| .027| .051| .059| .720| .068| 1.00|     |     |     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| ARES | .058| .131| .100| .147| .117| .128| .019| .145| .169| 1.00|     |     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| AUND | .317| .075| .228| .167| .054| .071| .043| .014| .049| .139| 1.00|     |     |     |     |     |     |     |     |     |     | .030| 1.004|
| ADVISE| -073| .057| .026| .056| .052| .056| .706| .078| .972| .169| .050| 1.00|     |     |     |     |     |     |     |     |     | .030| 1.004|
| CREA | -043| .042| .123| -088| .074| .054| .372| .132| .377| .007| -161| .360| 1.00|     |     |     |     |     |     |     |     | .030| 1.004|
| CCOU | -016| .106| .022| -117| .137| .117| .235| .083| .199| .059| .039| .200| .235| 1.00|     |     |     |     |     |     |     | .030| 1.004|
| CPRO | .078| .211| -014| -064| .190| .203| .241| .189| .136| .137| -036| .094| .333| .084| 1.00|     |     |     |     |     |     | .030| 1.004|
| CLASS| -039| .051| .111| -082| .085| .064| .376| .143| .375| .000| -158| .377| .999| .258| .358| 1.00|     |     |     |     |     | .030| 1.004|
| SCOG | .331| .215| .190| .179| .222| .221| .072| .279| .052| .000| .116| .055| .224| .118| .095| .227| 1.00|     |     |     |     | .030| 1.004|
| SBUS | .102| .149| .138| .134| .164| .156| .151| .123| .147| .094| .086| .138| .154| .151| .350| .164| .264| .178| 1.00|     |     | .030| 1.004|
| SPEC | .229| .255| .193| .196| .266| .262| .188| .269| .154| .066| .103| .119| .280| .238| .323| .282| .691| .543| .772| 1.00|     | .030| 1.004|
| SAT  | .156| .185| .041| .140| .197| .191| .229| .148| .129| .061| .044| .120| .165| .143| .271| .174| .115| .189| .448| .368| 1.00| .030| 1.004|
| INTENT| .013| .062| .193| .130| .052| .061| .213| .022| .166| .174| .107| .168| .147| .134| .026| .151| .056| .243| .133| .193| .017| .030| 1.004|

Variable Names: FUND=Faculty Understanding, FACC=Faculty Accessibility, FPRO=Faculty Professionalism, FREL=Faculty Reliability, FFEED=Faculty Feedback, FACT=Faculty, ACC=Advising Staff Accessibility, AREL=Advising Staff Reliability, AHELP=Advising Staff Help, ARES=Advising Staff Responsiveness, AUND=Advising Staff Understanding, ADVISE=Advising Staff, CREA=Real World Relevance, CCOU=Course scheduling, CPRO=Class Projects, CLASS=Classes, SCOG=Cognitive Development, SCAR=Career Development, SBUS=Business Skills, SPEC=Student Partial College Experience, SAT=Satisfaction, INTENT=Intentions to Stay/Leave

Note. Correlations greater than |0.281| significant at p<0.000; correlations greater than |0.260| significant at p<0.001; correlations greater than |0.211| significant at p<0.01; and correlations greater than |0.164| were significant at p<0.05.
Table 2: Pearson Correlation Matrix and Means for High/Low Satisfaction Groups

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<th>FACULTY</th>
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<th>CLASSES</th>
<th>SPCE</th>
<th>SATISFACTION</th>
<th>MEAN</th>
<th>STD.</th>
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Note. Correlations greater than |0.362| significant at p<0.001; and correlations greater than |0.191| were significant at p<0.05.