Student satisfaction and persistence: factors vital to student retention

Jalynn Roberts, Ph.D.
The University of Southern Mississippi

Ronald Styron, Jr., Ed.D.
The University of Southern Mississippi

Abstract

The purpose of this study was to investigate students' perceptions of services, interactions, and experiences in the College of Education and Psychology at a research-intensive university located in the southern region of the United States. Data were collected relative to participants' perceptions for university experiences and services. The constructs included academic advising, social connectedness, involvement and engagement, faculty and staff approachability, business procedures, learning experiences, and student support services. The results of the study indicated that students who did not return for the Fall 2008 semester or changed majors to another area had statistically significant lower perceptions of social connectedness and satisfaction with faculty approachability than students who returned.

Keywords: retention, persistence, student, satisfaction, involvement, experiences
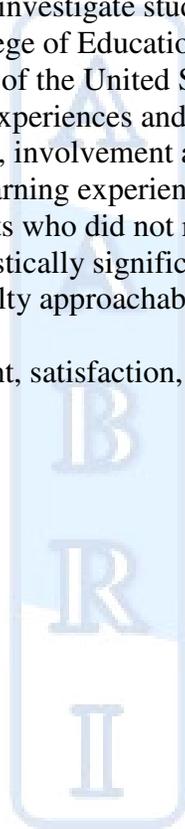
Introduction

Many students who endeavor to earn a college degree fail to persist until graduation. Although institutions have responded to student retention issues by implementing programs and services, retention rates have not improved (Seidman, 2005a). The typical six-year graduation rate for most public institutions in the United States ranges between 50 – 56% (Berkner, He & Cataldi, 2002; Crosling, Thomas, & Heagney, 2008; Mortenson, 2005). Low retention rates not only impact students and institutions that must bear the economic burden connected to premature departures, but also the ability of a nation to "compete in a global economy" (Friedman, 2005; Seidman, p. xi, 2005a). Now more than ever, higher education administrators must be cognizant of the reasons why students depart from institutions of higher learning prematurely and what can be done to help students overcome these barriers so they can achieve their academic and career goals. Additional research is required to determine strategies to address this issue (Tinto, 2005).

Related Literature

Ways of Measuring Retention

Many methods and formulas assume a dichotomous, institution-based retention—either students stay at an institution or they do not. However, retention can be viewed from multiple perspectives and is not always measured by whether or not a student remains at a particular institution. Hagedorn (2005) has delineated four types of retention: institutional, system, academic discipline, and by course. Institutional retention is the most widely used method employed by colleges and universities. It is a calculation of the percentage of students who return to the same institution year after year. System retention consists of tracking students and not the institution in which the student is enrolled. This means a student who leaves one college but enrolls at another and completes his studies there is considered retained in the "system" of higher education. This method of retention is very difficult to measure because it requires students to be tracked and is also costly. Retention within an academic major is focused on in retention within a specific academic discipline. Under this method, a student who begins college as an English major and changes his major to mathematics would not be considered retained. While this type of retention is not uncommon among institutions or colleges within those institutions, these measures are not nationally tracked. Retention may also be measured at the individual course level. Measuring retention for individual courses informs college officials of those classes with low levels of student retention even though students who had left the course may still be enrolled at the institution. This method of measuring retention is more complicated than one would assume because one must decide the number of class sessions necessary to constitute retention.

Simply put, it is difficult to define all student enrollment actions as either retained or not retained. Current retention formulas usually exclude part-time students, transfer students, and returning students. Furthermore, universities can be somewhat flexible in determining which students can be counted in current retention measures and results can be somewhat inflated (Hagedorn, 2005).

Academic Advising

Perhaps the most crucial aspect of a student's interaction and engagement with an institution of higher learning is the relationship with his/her advisor. Academic advising should be a process in which faculty and staff interact with students as they develop, allowing and helping them realize what decisions should be made and subsequent actions taken to achieve their educational and career goals. Pascarella and Terenzini (2005) purport that academic advising plays a role in students' decisions to persist and also affects their chances of graduating. Many students who depart prematurely from college often state a poor academic advising experience, and one of the main components of any retention program is an excellent advising program (Tuttle, 2000). Academic advising is much more than just scheduling courses and registering students for classes. Consequently, students take their relationships with their academic advisors very seriously, as they should. Furthermore, academic advising might possibly be, as Hunter and White (2004) suggest, the only organized and structured attempts in which university faculty or staff have sustained interactions with students.

When one considers the mentoring and counseling aspect of academic advising, it becomes obvious that helping students realize their purpose in higher education and why they are pursuing their current educational goals do not simply occur in one or two visits; hence, academic advising is a process that occurs over time with students building relationships with their advisors. Williams, Glenn, and Wider (2008) elaborate on the benefits of these types of relationships stating "This relationship can improve the student matriculation processes and provides students with a sense of security. The relationship also provides a sense of connectedness where students feel that they belong to the school and that the school belongs to them" (p.1).

Social Connectedness

One important factor which affects college students' persistence is that of being socially integrated and connected with others, especially other students. College, for most students, is not only a time of academic pursuits but also an opportunity to explore or enhance themselves as social beings. Colleges should not present a barrier to this process. In fact, while some students desire to finish college, they do not consider themselves to be ultra-academic beings and instead want to partake in endeavors that develop them socially (Moxley, Najor-Durack, & Dumbrigue, 2001). While there is no doubt that the degree of social integration varies from student to student, Bean (2005) states, "Few would deny that the social lives of students in college and their exchanges with others inside and outside the institution are important in retention decisions" (p. 227). Indeed, like most other challenges in life, a person is more likely to accomplish difficult tasks when he/she is in the company of others who are like-minded and facing similar challenges. Since a major part of the college experience is how well the student adapts to unfamiliar surroundings and new people, the same holds true when a student attends college. In fact, Kuh and Love (2000) claim that social integration consists of students' social and psychological comfort with their institutions' surroundings, associations with common groups of students, and a sense of belonging to the institution. These factors provide security which is needed to help students bond with other students to achieve common goals, one of the most important being to persist until graduation.

Involvement and Engagement

Students feel marginalized when they believe they do not fit it in, which leads to negative outcomes such as "self-consciousness, irritability, and depression" (Evans, Forney & Guido-DiBrito, 1998, p. 27). This feeling of marginalization causes students to wonder if they matter. Addressing this issue is important to student retention as it is an antecedent to student involvement in college activities and programs (Schlossberg, 1989).

The most important step to becoming engaged and involved is for students to interact with their peers. According to Schlossberg, students interacting with their peers is a requirement that must occur in order to make participation in campus activities and student organizations meaningful. However, the most important interactions with peers seem to reinforce the academic learning that takes place in the classrooms, and then the benefits of those interactions permeate into other areas of college life (Pascarella & Terenzini, 2005).

Whereas students must experience academic success to remain in college, it is also vital that they become involved and engaged in other areas of college life. Students who do not become socially integrated may or may not suffer from persistence issues, as it largely depends on the individual. Therefore, failing to become involved in campus activities, organizations, and extracurricular activities, which promote involvement and integration of college life, can lead to higher chances of attrition for some students. Consequently, it is imperative for higher education administrators to work diligently to provide students with opportunities to get involved with campus organizations and activities (Tinto, 1993).

Faculty and Staff Approachability

Most scholars agree that the relationships between students and faculty are vital to student success in college (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005) and one of the principal aspects of facilitating these relationships includes faculty approachability. Approachability involves faculty making themselves available and accessible both inside and outside class, especially at key junctures when students need them (Kuh et al., 2005). Many schools and their faculty members attain adequate levels of approachability by keeping regular office hours and promptly answering students' e-mails. However, approachability also means that faculty are easily reached outside of class by doing things such as giving students their home phone and cell numbers, personal email addresses, etc. Furthermore, Kuh et al. contend that faculty approachability and interaction can consist of many facets, including working with a faculty member on a research project, working with a faculty member on activities other than coursework (committees, program activities, etc.), discussing assignments and grades, and receiving prompt academic feedback on performance. In short, the more contact a student has with a faculty member, the better chance he/she has in persisting until graduation (Pascarella and Terenzini, 2005).

Business Procedures

Another factor that impacts persistence is what is known as business procedures or bureaucratic factors. It can best be defined as the interaction that occurs between the student and the service providers at the institution (Bean, 2005). For instance, common patterns of exchanges occur between the student and various offices such as the business office, residence life, financial

aid, departmental offices that define major requirements, social/athletic events, parking management, etc. Usually, students bring the appropriate forms and/or money and exchange them for access to resources and services. However, many students become discouraged when they perceive bureaucracy as more important to college staff than student service. As Bean (2005) asserts, "The bureaucratic aspects of the academy are soulless, deadening students whose spirits should be lifted by their academic experiences" (p. 230). Students can become equally disenfranchised with an institution when they feel they have been given the run-around or misled. All of these types of unhelpful experiences cause students to develop negative attitudes toward their institutions and, thus, less likely to graduate from those institutions (Bean, 2005).

Learning Experiences

One of the most important missions for institutions of higher learning is to provide meaningful learning experiences for their students. These learning experiences are determined by the collective effort of faculty, staff and students. At the same time, students enter higher education with their own expectations of learning experiences. These expectations impact how students respond to their environments and also act as precursors as students make academic decisions, such as choice of major (Pike, 2006). Expectations can also influence how students respond to their academic surroundings and impact their decisions of whether or not to remain in certain fields of study, or college in general (Bosch, Hester, MacEntee, MacKenzie, Morey & Nichols, 2008; Kuh, Gonyea & Williams, 2005; Pike, 2006).

Meaningful learning experiences are an essential key to student retention, and it is imperative for institutions of higher learning to create valuable and enriching learning experiences within their academic programs. Enriching learning experiences are also necessary to produce an economically independent enlightened citizenry who possesses civic responsibility. When meaningful learning experiences are missing from the curriculum, students often become disengaged and dissatisfied because they see no relevance in what they are learning. Moreover, students with few chances to participate in meaningful learning experiences are denied the opportunity to integrate and apply the knowledge they have obtained in their classes (Kuh, G. D., Schuh, J., Whitt, E., Andreas, R., Lyons, J., Strange, C., et al. (1991); Kuh et al., 2005; Moxley et al, 2001).

Student Support Services

A number of colleges and universities offer students a wide variety of services and resources intended to promote persistence by providing academic assistance (Pascarella & Terenzini, 2005). Both Miller (2005) and Seidman (2005b) contend that if students are admitted to a college, then they should have expectations for that college to provide services that will help them succeed. It is important for institutions of higher learning to implement and maintain various academic resources that promote student success and increase student persistence because these resources are needed by a significant number of students who are not adequately prepared for the academic challenges they will face at the university.

Schools that truly desire to increase student persistence should implement and advocate the usage of "responsive, learner-centered support services, such as peer tutoring and special labs for writing and mathematics" (Kuh et al., 2005). Most of the academic support services are tutoring centers which offer academic assistance in a variety of areas, such as speaking, writing,

and mathematics. Usually, students are able to schedule appointments with the centers, discuss the academic challenges they experience, and the staff at theses centers are able to provide assistance to them. Adelman (1999) and Pascarella and Terenzini (2005) reported that academic resources such as these produced statistically significant positive impacts on student persistence.

Methodology

Based on the four previous types of retention defined by Hagedorn (2005), this study focused on one of those areas—investigating the persistence of students within certain academic disciplines. Of specific concern were disciplines within the university's College of Education and Psychology (hereafter referred to as "CoEP"). During the latter half of the spring 2008 semester, students were asked to complete a survey instrument which quantified data measuring their perceptions of academic advising, social connectedness with other students, involvement/engagement, departmental business procedures, faculty approachability, and learning experiences. Then, approximately one month into the fall 2008 semester, enrollment status data on students who completed the questionnaire in spring 2008 were collected. Scores from both groups (those students who did return and those who did not return or changed majors to another major outside of the university's CoEP) were compared to determine if statistically significant differences existed between the two groups for the six constructs measured by the questionnaire.

Participants

Participants included students who had declared majors in a program of study within the university's CoEP. These students were enrolled in courses that were required for all programs of study in the university's CoEP, which allowed for a large sampling of students from various academic majors within the college. All of the courses were offered in traditional face-to-face format and met three times a week for fifty minutes or twice a week for seventy-five minutes. Participants were selected for this study through convenience sampling, and students' participation was voluntary. The sample obtained for this study was similar to the overall student population for the university.

Respondents ranged in age from 18 to 52 years, with a mean age of 23.4 years. The majority of the respondents were females, while the two most reported ethnicities were Caucasian and African American. Students represented all levels of academic classifications, but the majority reported themselves as Juniors. Table 1 contains detailed information regarding the Gender, Ethnicity, and classification of participants.

Participants were sorted into two groups. One group consisted of the of the 93 students who did not enroll for classes during the Fall 2008 semester or changed academic majors to another area outside of CoEP. The other group consisted of the 172 students who enrolled for classes during the Fall 2008 semester for the same academic major they declared during the Spring 2008 semester. It should also be noted that 27 students surveyed graduated at the conclusion of the Spring 2008 semester and those students were not included in this analysis.

Instrumentation

The instrument used in this study consisted of 51 items, 13 of which pertained to demographic and status, and 32 of which pertained to the measurement of attitudes and perceptions of academic advising, social connectedness with other students, on-campus involvement/engagement, university business procedures, faculty approachability, and learning experiences. Six items were used to determine students' utilization of various campus resources. A five-point Likert scale ranging from Strongly Agree to Strongly Disagree was utilized. Respondents had to answer at least three items for each of the constructs measured to be included in the analysis.

In addition to reviewing relevant literature, the researchers worked with the university's CoEP retention committee to decide which variables to measure in this study and how to design the questionnaire to ensure the survey questions were accurately measuring the variables of interest. This committee consisted of professors from each department within the College, the accreditation officer, and the Associate Dean, and was charged with identifying and implementing strategies to improve student retention.

A group of 40 students, all who were enrolled in a tests and measurement or teacher foundations course in the Teacher Education program in the university's CoEP, participated in a pilot study prior to the commencement of this project to test the reliability of the survey instrument. The data collected from the pilot study were entered into a SPSS data file to calculate the reliability of the survey instrument. The reliability statistics for Cronbach's alpha was .73 for students' perceptions of their social connectedness with other students, .80 for students' perceptions of their on-campus involvement/engagement, .87 for students' perceptions of faculty approachability, .78 for students' perceptions of academic advising, .83 for students' perceptions of university business procedures, and .80 for students' perceptions of their learning experiences. The internal consistency statistic for the entire survey instrument was .932.

Analysis

The results indicated that the Learning Experiences construct had the highest overall mean while Social Connectedness and Involvement and Engagement had the lowest. The means and standard deviations are reported in Table 2. Frequencies were calculated indicating whether or not a student had used a particular service or resource. The frequencies for these items are presented in Table 3.

Multivariate analysis of variance (MANOVA) was used to determine if statistically significant differences existed between any of the dependent variables (Social Connectedness, Involvement/Engagement, Faculty Approachability, Academic Advising, Business Procedures, and Learning Experiences) based on the two groups—students who returned to school during the Fall 2008 semester and those who did not. During the analysis, Box's and Bartlett's tests indicated no issues regarding the homogeneity of variances for the two groups.

A discriminant function analysis was conducted to confirm the findings of the MANOVA test and predict group membership (those who returned in Fall 2008 semester in the same academic discipline and those who did not return or changed majors to another area outside of the university's CoEP) by how the respondents answered the questions for each construct (Academic Advising, Social Connectedness, Involvement/Engagement, Business Procedures,

Faculty Approachability, and Learning Experiences). All assumptions for homogeneity of variances were acceptable.

Findings

The results of the MANOVA indicated that there was a statistically significant difference between the two groups, *Hotelling's Trace* = .07, F = 3.03, p = .007. Pairwise comparisons revealed that two of the dependent variables were significantly different for the two groups, which were Social Connectedness and Faculty Approachability. Pairwise comparisons are given in Table 4. Of the six variables measured, two were statistically significant and four were not. The constructs for which the two groups significantly differed were Social Connectedness, $F(1, 263) = 4.19$, p = .042 and Faculty Approachability, $F(1, 263) = 4.10$, p = .044. The other constructs of Involvement and Engagement, Academic Advising, Business Procedures, and Learning Experiences failed to show any statistically significant differences between the two groups.

The discriminant function analysis yielded statistically significant results, *Wilk's Lambda* = .934, $\chi^2(6) = 17.682$, p = .007. Using these variables as predictors, 58.9% of students were correctly classified as to whether or not they returned to the university during the Fall 2008 semester. As indicated in the structure matrix, Social Connectedness had the highest loading (.476) and was the best predictor of group membership, while Faculty Approachability had the second highest loading (.471) and was the second best predictor. These two variables had much higher loadings than the other variables, confirming the results of the MANOVA. The rest of the variables had the following loadings: Involvement and Engagement (-.344), Academic Advising (.236), Learning Experiences (.218), and Business Procedures (.198).

Discussion

Based upon the findings of this study, the researchers have developed specific recommendations appropriate for those who are currently involved in student retention projects or plan to be in the near future. Although not statistically significant, one of the interesting findings in this study was the strong negative loading for involvement and engagement. According to Evans et al. (1998), college students must be actively involved and engaged in their surroundings if they are expected to learn and grow while attending college. While it is important for students to be academically involved and engaged, Tinto (1993) contends that is also important for students to become involved and engaged in other areas of college life, such as campus organizations, activities, athletic events, etc. However, the results of this study do not support the literature. As a matter of fact, students who did not return during the Fall 2008 semester reported higher levels of involvement and engagement than students who did return. These findings do concur with Tinto (1993), who asserts that students can sometimes become too involved and engaged with events on campus, which can sometimes counterbalance their academic efforts. However, when considering these results, it should be kept in mind that the reliability of this construct was found to be questionable for this study and one item measuring this construct was discarded from analysis.

Since students who did not persist to the Fall 2008 semester had statistically significant lower perceptions of social connectedness than students who did, students in the university's CoEP should be grouped together into cohorts so they take their classes together as a learning

community. Learning communities may be established in many areas of study to effectively address the learning needs for a wide variety of students while providing both faculty and students with an academic structure that promotes collaboration. Learning communities also help to develop a strong sense of student identity as they traditionally have smaller enrollment numbers. Grouping students into cohorts should not only be done for students who initially declare majors, but also for students transferring in from other universities (Tinto, 2005).

However, planning and implementing cohort models not only requires an investment of faculty time for collaboration and planning, but may also contribute to substantial budget shortfalls (The National Center for Public Policy and Higher Education, 2008). Financial considerations have become crucial decision-making factors in determining programming as state and federal funding have been progressively decreasing in recent years, especially for institutions of higher learning in the South (Bradley, 2002; Caruthers & Marks, 1988). It is also likely that this trend will only worsen relative to the nation's current economic conditions. During these difficult economic times, it might be more financially feasible to schedule the same group of students in one or two courses each semester, called clusters, instead of locking students into traditional cohort models, commonly referred to as blocks. Creating clusters around fewer courses may still facilitate the process of student connection and 'friend-making' while requiring fewer financial resources, as clustering does not typically result in class size reductions as is typical found with block scheduling formats (Bean, 2005; Kuh et al., 2005).

CoEP administrators should also explore the use of existing technologies that are readily available for creating and managing student cohorts. Professors often manage cohorts and communities in traditional classroom settings, but they should be more concerned with "how to use technology to leverage resources and group dynamics in new ways to make fundamental changes in every part of the learning process" (Kimball, 2001, p. 38). In other words, faculty can use existing technologies to create learning communities while also providing quality academic and social experiences for their students.

According to Towner and VanHorn (2007), there are many technologies readily available to students and faculty, such as social networking tools such as Facebook and MySpace. Tools such as these are communal necessities for college students today. Moreover, Facebook has become a mainstay for helping students to connect with one another. With Facebook's popularity among college students, "it is a potentially valuable resource for college professors to build a classroom network among their students by tapping into the existing social framework already established by Facebook" (p. 4). Professors using Facebook to create cohorts and conduct lessons within online courses is certainly feasible because network infrastructure is already successfully functioning, and most college students already use this technology on a daily basis.

In some educational settings, professors use online networking tools to obtain ideas and feedback regarding their classes (Humphries, 2005). This is particularly useful for online classes because traditional methods for gathering this type of data is impossible. These networking tools can also be used by professors to create student groups, which helps to foster the student learning communities as previously discussed in this study. When professors are able to effectively create cohorts using these existing technologies, it helps to "stimulate and nurture the complex network of interpersonal relationships and interactions that are part of an effective communications and decision-making process" in the world of virtual learning environments (Kimball, 2001, p.38).

Students who did not persist to the Fall 2008 semester also had statistically significant lower perceptions of faculty/staff approachability than those students who did persist. As a result, the university's CoEP should improve efforts to promote student-faculty contact. For

example, CoEP could designate days where faculty eat free at campus dining facilities when accompanied by a student, or paying for food and materials when faculty hold class meetings (Kuh et al., 2005). Practices such as this would not create any financial burdens upon faculty or students and in the case of lunch meetings, would invert the normal power relationship between professors and students since the professor has to be invited by the student. These types of initiatives would also help increase student interaction with faculty members. Other ideas to stimulate faculty-student interactions, as suggested by Kuh et al. (2005), include situating spaces for students near faculty offices and implementing programs where a small number of students (usually between two and five) are assigned to a professor who helps those students become acclimated with campus culture. When initiatives such as these are consistently employed, a culture where student and faculty interaction (both inside and outside the classroom) will become commonplace. More importantly, effective faculty-student interaction will help establish an environment where students feel that faculty members truly care about them as individuals, which will facilitate the attainment of academic success.

Adelman (1999), along with Pascarella and Terenzini (2005) reported that students in their studies who regularly utilized support services had statistically significant persistence results. In this study, over 90% of students indicated they had utilized the university's library and computing resources, but only approximately half of the respondents indicated they used CoEP support services and associated resources such as the speaking and writing center, the Math Zone (math tutoring) and the student support center. While there was no conclusive data regarding student support services from this study, Ardaiolo, Bender, & Roberts, G. (2005) found it important to monitor the utilization of student support services and resources because of the connection between their usage and persistence. Additionally, Jones (2001) suggested constant collaborative activities between professors and student support services, such as the incorporation of support services or other supportive resources into class curriculum, class visits to support centers, or simply encouragement to take advantage of support services, promoted student involvement and subsequent connectivity.

Limitations

This study was conducted at only one college within a university, so results may not be generalizable to broader university populations. Some would consider this a limitation. However, retention is a campus-based phenomenon, and different types of campuses tend to attract different types of students (Berger & Lyon, 2005). According to Astin (1990), retention rates vary by campus and due to the differences in the types of students attracted and recruited by certain schools, and it is imperative that institutions provide an environment and climate that fit well with their particular student populations. Therefore, it is not only the responsibility of institutions, but also individual colleges to help students persist who are enrolled in their programs. Furthermore, "each institution must tailor retention to fit the specific needs of its students and the context of that particular institutional environment" (Berger & Lyon, 2005, p. 3).

A second limitation found was that students who did not return for Fall 2008 semester were considered a dropout although they may have merely 'stopped out' for a while and will return at a future date to conclude their studies. Also, the findings of this study could have been found confusing to the reader as students who changed academic majors to another area were considered retained at the university level, but not at the college (CoEP) level.

Recommendations for Future Research

Recommendations for future research include follow-up studies with students who did not enroll for classes during the Fall 2008 semester or changed majors to another college within the university. Additionally, future research should include retention factors beyond the six included in this research and the scope be broadened beyond traditional, face-to-face classes.

REFERENCES

Adelman, C. (1999). *Answers in the toolbox: Academic intensity, attendance patterns, and bachelor's degree attainment*. Document No. PLLI 1999-8021. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Ardaiolo, F. P., Bender, B. E., & Roberts, G. (2005). Campus services: What do students expect? In T. Miller, B. Bender, J. Schuh, and Associates (Eds.), *Promoting reasonable expectations: Aligning student and institutional views of the college experience* (pp. 84-101). San Francisco: Jossey-Bass.

Astin, A. W. (1990). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education.* New York: Macmillan.

Bean, J. P. (2005). Nine themes of college student retention. In A. Seidman (Ed.), *College student retention* (pp. 215-243). Westport: Praeger Publishers.

Berger, J. B., & Lyon, S. C. (2005). Past to present: A historical look at retention. In A. Seidman (Ed.), *College student retention* (pp. 1-29). Westport: Praeger Publishers.

Berkner, L., He, S., & Cataldi, E. F. (2002). *Descriptive summary of 1995-96 beginning post-secondary students: Six years later* (NCES 2003151). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Bosch, W. C., Hester, J. L., MacEntee, V. M., MacKenzie, J. A., Morey, T. M., Nichols, J. T. (2008). Beyond lip service: An operational definition of "learning-centered college." *Innovative Higher Education, 33(2)*, 83-98.

Bradley, G. (2002, May). Higher education funding cuts prompt public outcry. *Academe, 87*(3), 8. Retrieved September 19, 2008, from Academic Search Premier database.

Caruthers, J.K., & Marks, J.L. (1988). A summary of state funding of higher education for quality improvement: SREB-state trends and actions. Atlanta: Southern Regional Education Board.

Crosling, G., Thomas, L., & Heagney, M. (2008). Conclusions and curriculum-based retention approaches: Some suggestions for future action. In G. Crosling, L. Thomas, & M. Heagney (Eds.), *Improving student retention in higher education: The role of teaching and learning* (pp. 166-182). London: Routledge.

Evans, N.J., Forney, D.S., & Guido-DiBrito, F. (1998). *Student development in college: Theory, research, and practice*. San Francisco: John Wiley & Sons, Inc.

Friedman, T.H. (2005). *The world is flat*. New York: Farrar, Straus and Giroux.

Hagedorn, L. S. (2005). How to define retention: A new look at an old problem. In A. Seidman (Ed.), *College student retention* (pp. 89-105). Westport: Praeger Publishers.

Humphries, K. (2005, October 27). Facebook for faculty, too: Professors use site to get to know classes. *Towson University Newspaper.* Retrieved January 7, 2009, from: http://media.www.tcudailyskiff.com/media/storage/paper792/news/2005/10 /27/News/Facebook.For.Faculty.Too-1035383.shtml

Hunter, M. S., & White, E. R. (2004). Could fixing academic advising fix higher education? *About Campus, 9*(1), 20–25.

Jones, C. (2001). The relationship between writing centers and improvement in writing ability: An assessment of the literature. *Education, 122*(1), 3-20.

Kimball, L. (2001). Managing distance learning: New challenges for faculty. In R. Hazemi, S. Hailes, & S. Wilbur (Eds.), *The Digital University: Reinventing the Academy*(pp. 25 – 38). Berlin, Germany: Springer Verlag.

Kuh, G. D., Schuh, J., Whitt, E., Andreas, R., Lyons, J., Strange, C., et al. (1991). *Involving colleges: Successful approaches to fostering student learning and personal development outside the classroom*. San Francisco: Jossey-Bass.

Kuh, G. D., & Love, P. G. (2000). A cultural perspective on student departure. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 196-212). Nashville: Vanderbilt University Press.

Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J., & Associates. (2005). *Student success in college: Creating conditions that matter.* San Francisco: Jossey-Bass.

Kuh, G. D., Gonyea, R. M., & Williams, J. M. (2005). What students expect from college and what they get. In T. Miller, B. Bender, J. Schuh, and Associates (Eds.), *Promoting reasonable expectations: Aligning student and institutional views of the college experience* (pp. 34-64). San Francisco: Jossey-Bass.

Miller, T. E. (2005). Student persistence and degree attainment. In T. Miller, B. Bender, J. Schuh, and Associates (Eds.), *Promoting reasonable expectations: Aligning student and institutional views of the college experience* (pp. 122-139). San Francisco: Jossey-Bass.

Mortenson, T. G. (2005). Measurements of persistence. In A. Seidman (Ed.), *College student retention* (pp. 31-60). Westport: Praeger Publishers.

Moxley, D., Najor-Durack, A., & Dumbrigue, C. (2001). *Keeping students in higher education: Successful practices and strategies for retention*. London: Kogan Page Limited.

Pascarella, E.T., & Terenzini, P.T. (2005). *How college affects students: Vol. 2 A decade of research*. San Francisco: John Wiley & Sons, Inc.

Pike, G. R. (2006). Students' personality types, intended majors, and college expectations: Further evidence concerning psychological and sociological interpretations of Holland's theory. *Research in Higher Education, 47*(7), 801-822.

Schlossberg, N. K. (1989). Marginality and mattering: Key issues in building community. *New Directions for Student Services*, *48*, 5-15.

Seidman, A. (2005a). Introduction. In A. Seidman (Ed.), *College student retention* (pp. *xi-xiv*). Westport: Praeger Publishers.

Seidman, A. (2005b). Where we go from here: A retention formula for student success. In A. Seidman (Ed.), *College student retention* (pp. 295-316). Westport: Praeger Publishers.

The National Center for Public Policy and Higher Education. (2008). *Measuring up 2008: The national report card on higher education.* San Jose, California: The National Center for Public Policy and Higher Education.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.

Tinto, V. (2005). Moving from theory to action. In A. Seidman (Ed.), *College student retention* (pp. 317-333). Westport: Praeger Publishers.

Towner, T. L., & VanHorn, A. M. (2007, April 12). Facebook: Classroom Tool for a Classroom Community. *Paper presented at the annual meeting of the Midwest Political Science Association, Palmer House Hotel, Chicago,IL.* Retrieved January 7, 2009, from http://www.allacademic.com/meta/p197133_index.html

Tuttle, K. N. (2000). Academic advising. *New Directions for Higher Education,* 111, 15-24.

Williams, I. L., Glenn, P. W., & Wider, F. (2008). Nurtured advising: An essential approach to advising students at historically black colleges and universities. *Academic Advising Today, 31*(1). Retrieved August 20, 2008, from http://www.nacada.ksu.edu/AAT/NW31_1.htm

Tables

Table 1

Gender, Ethnicity, and Classification

_____

	n	*Percentage*
Gender		
Male	70	24.0%
Female	222	76.0%
Ethnicity		
Asian American/ Pacific Islander	3	1.0%
Caucasian	182	62.3%
African American	93	31.8%
Native American	1	0.3%
Hispanic/Latino	7	2.4%
Other	6	2.1%
Classification		
Freshman	24	8.2%
Sophomore	54	18.5%
Junior	127	43.5%
Senior	82	28.1%
Did not report	5	1.7%

_____
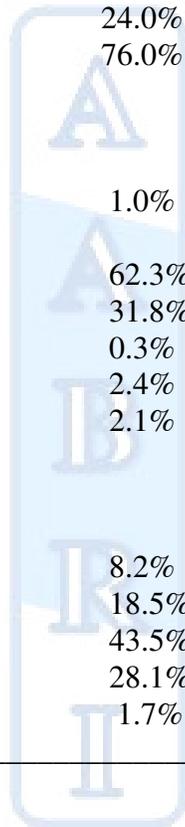
Table 2

Descriptive Statistics for Returning and Non-Returning Students

_____

Dependent Variable	Returned	n	Mean	SD
Academic Advising	Yes	172	3.71	0.82
	No	93	3.60	0.79
Social Connectedness	Yes	172	3.60	0.75
	No	93	3.39	0.82
Involvement/Engagement	Yes	172	3.55	0.79
	No	93	3.70	0.72
Business Procedures	Yes	172	3.75	0.65
	No	93	3.68	0.73
Faculty Approachability	Yes	172	3.86	0.68
	No	93	3.68	0.74
Learning Experiences	Yes	172	4.17	0.57
	No	93	4.10	0.60

_____

Scale: 1 = Strongly Disagree…5 = Strongly Agree

Table 3

Item Frequencies for Student Support Services

Item	Yes	No	Percentage Yes
Library Services	282	10	96.6%
Computing Resources	274	18	93.8%
Speaking Center	139	153	47.6%
Writing Center	159	133	54.5%
Math Zone	130	162	44.5%
Student Support Services	176	116	60.3%

Table 4

Pairwise Comparisons

_____

Dependent Variable	Returned	Means	Mean Diff.	Sig.
Academic Advising	Yes	3.71	0.11	.312
	No	3.60		
Social Connectedness	Yes	3.60	0.21	.042*
	No	3.39		
Involvement/Engagement	Yes	3.55	-0.15	.140
	No	3.70		
Business Procedures	Yes	3.75	0.07	.396
	No	3.68		
Faculty Approachability	Yes	3.86	0.18	.044*
	No	3.68		
Learning Experiences	Yes	4.17	0.07	.349
	No	4.10		

_____

Note: * indicates a statistically significant difference at the .05 level.